Water Resources Data
Texas
Water Year 2004

Volume 5. Guadalupe River Basin, Nueces River Basin, Rio Grande Basin, and Intervening Coastal Basins

By Susan C. Aragon Long, Brian D. Reece, and Deanna R. Eames

Water-Data Report TX-04-5

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

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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 2004 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 5 contains records for water discharge at 86 gaging stations; stage only at 5 gaging stations; elevation at 3 lakes and reservoirs; content at 4 lakes and reservoirs;and water quality at 24 gaging stations. Also included are data for 16 partial-record stations comprised of 1 flood-hydrograph, 11 low-flow, and 4 crest-stage stations. Also included are lists of discontinued surface-water discharge or stage-only stations and discontinued surface-water-quality stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating Federal, State, and local agencies in Texas. Records for a few pertinent stations in the bordering States also are included.

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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; (p) precipitation.]

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

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Texas have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as partial-record stations. A pound sign (#) after a station indicates a temporary discontinuance to redefine ratings. 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	1.60	1965-74
Canadian River at Tascosa (d)	07227470	18,536	1969-77
Tecovas Creek Tributary near Bushland (e)	07227480	1.27	1966-74
Dixon Creek near Borger (d)	07227920	134	1974-89
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
Prairie Dog Town Fork Red River near Canyon (d)	07297500	3,369	1924-26, 1938-49
Palo Duro Creek near Canyon (e)	07297000	982	1942-54
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
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	65.5	1974-82
Jonah Creek below Weir near Estelline (d)	07299514	66.6	1974-76
Jonah Creek at mouth near Estelline (d)	07299516	76	1974-76
Salt Creek near Estelline (d)	07299530	142	1974-79
Red River near Quanah (d)	07299570	8,321	1960-82
North Groesbeck Creek Tributary near Kirkland (d)	07299575	0.16	1966-74
Wanderers 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	86.0	1951-70
Salt Fork Red River near Hedley (e)	07299930	744	1951, 1956-62
Oklahoma Draw Tributary near Hedley (e)	07299940	1.15	1965-74
Sweetwater Creek near Wheeler (e)	07301400	164	1951-64
Doodlebug Creek near Wheeler (e)	07301405	0.19	1967-73
Quitaque Creek near Quitaque (d)	07307500	293	1945-59
North Pease River near Childress (d)	07307600	1,434	1973-79
North Pease River near Kirkland (e)	07307660	1,554	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 at Highways 62 and 83 near Paducah (d)	07307750	1,086	1973-79
Middle Pease River near Paducah (d)	07307760	1,123	1980-82
Middle Pease River near Kirkland (e)	07307780	1,250	1973-79
Canal Creek near Crowell (e)	07307950	49.0	1968-70, 1978-79
Pease River near Crowell (d)	07308000	3,037	1924-47
Plum Creek near Vernon (e)	07308220	4.99	1967-74
North Fork Wichita River near Crowell (d)	07311622	591	1971-76

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
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
Wichita River at State Highway 25 near Kamay (d)	07312130	2,182	1996-2000
Beaver Creek Tributary near Crowell (e)	07312140	3.43	1966-74
Wolf Creek near Iowa Park (e)	07312300	8.13	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	26.0	1968-77
Sandy Creek near Sadler (e)	07316230	24.0	1968-74
Bois D'Arc Creek near Randolph (d)	07332600	72.0	1963-85
Cooper Creek near Bonham (e)	07332602	6.21	1966-74
Sanders Creek near Chicota (d)	07335400	175	1968-86
Little Pine Creek near Kanawha (d)	07336750	75.4	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	37.0	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	72.0	1943-77
Ellison Creek Reservoir near Lone Star (e)	07345500	37.0	1943-62, 1974-89
Cypress Creek Tributary near Jefferson (e)	07346010	0.21	1966-74
Taylor Branch near Smithland (e)	07346072	0.73	1966-74
Big Cypress Creek near Karnack (e)	07346085	2,157	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	33.1	1979-89
Dry Creek near Quitman (e)	08018950	63.6	1968-75
Lake Winnsboro near Winnsboro (e)	08019300	27.1	1962-86
Big Sandy Creek near Hawkins (e)	08019430	196	1980-82
Prairie Creek near Gladewater (d)	08020200	48.9	1968-77
Sabine River near Longview (d)	08020500	2,947	1904-07, 1924-33
Rabbit Creek at Kilgore (d)	08020700	75.8	1964-77
Grace Creek Tributary at Longview (e)	08020800	5.05	1967-74
Mill Creek near Henderson (d)	08020960	20.3	1979-81
Mill Creek near Longview (d)	08020980	47.9	1979-81
Tiawichi Creek near Longview (d)	08020990	62.7	1978-81
Cherokee Bayou near Elderville (d)	08021000	120	1940-49
Sabine River near Tatum (d)	08022000	3,493	1939-78,
" " " " (e)			1979-82
Redmon Branch near Hallesville (e)	08022010	0.46	1966-74

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Eight Mile Creek near Tatum (e)	08022050	106	1962-71
Martin Creek near 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	82.6	1962-73
Tenaha Creek near Shelbyville (d)	08023200	97.8	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	18.0	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	69.2	1952-83
Adams Bayou Tributary near Deweyville (e)	08030700	12.4	1966-74
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 .0	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 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	75.3	1938-40
Angelina River near Zavalla (d)	08038500	2,892	1952-65
Ayish Bayou at San Augustine (d)	08039000	15.8	1924-25
Angelina River at Ebenezer (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
West Fork Double Bayou near Anahuac (e)	08042550	6.25	1967-74
North Creek SWS No. 28-A near Jermyn (e)	08042650	6.82	1972-80
North Creek near Jacksboro (d)	08042700	21.6	1956-80
Beans Creek at Wizard Wells (e)	08042900	29.6	1993-95
West Fork Trinity River at US Highway 380 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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
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	16.8	1950-58
Sycamore Creek at I.H. 35W, Fort Worth (d)	08048520	17.7	1970-76
Sycamore Creek Trib. above Seminary Street Shopping Center, 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	12.3	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 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 .0	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	46.7	1966-76
Hickory Creek at Denton (d)	08052780	129	1985-87
Indian Creek at Hebron Parkway at Carrollton (d)	08053010	14.7	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
Joe's Creek at Royal Lane, Dallas (e)	08055580	1.94	1973-78
Joes Creek near Dallas (e)	08055600	7.51	1964-79
Bachman Branch at Dallas (d)	08055700	10 .0	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
Cedar Creek at Bonnie View Road, Dallas (e)	08057050	9.42	1965-78
White Rock Creek at Keller Springs Road, Dallas (d)	08057100	29.4	1961-79
McKamey Creek at Preston Road, 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 US Highway 77 West, Dallas (e)	08057420	14.3	1965-78
Woody Branch at US Highway 77 West, Dallas (e)	08057425	10.3	1965-78
Fivemile Creek at Lancaster Road, Dallas (e)	08057430	37.9	1965-78
Newton Creek at Interstate Highway 635, Dallas (e)	08057435	5.91	1974-78
Whites Branch at Interstate Highway 635, Dallas (e)	08057440	2.53	1974-78

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Trinity River near Wilmer (d)	08057448*	6,387	1998-2002
Tenmile Creek at State Highway 342 at Lancaster (d)	08057450	52.8	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	13.4	1969-76
South Mesquite Creek at Mercury Road, North Mesquite (d)	08061950	23 .0	1969-79
Cedar Creek Reservoir Spillway Outflow near Trinidad (d)	08062650	1,007	1966-82
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	27.4	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	17.6	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 at Trilady Park near Trinity (e)	08066130	228	1966-74
Tantaboque Creek near Trinity (e)	08066140	61.3	1966-73
Caney Creek near Groveton (e)	08066145	41.4	1966-73
Brushy Creek near Onalaska (d)	08066150	29.1	1966-70
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	38.8	1966-89
Gaylor Creek near Moss Hill (e)	08066800	32.3	1966-73
Devers Canal near Liberty (d)	08067080	N/A	1972-82
Goose Creek near McNair (e)	08067520	6.70	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	40.4	1963-65
Landrum Creek Tributary near Montgomery (e)	08067750	0.13	1965-74

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
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
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 near Clodine (e)	08072400	84.2	1974-85
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
Buffalo Bayou at Main St., Houston (d)	08074600	339	1962-94
Buffalo Bayou at McKee Street, Houston (d)	08074610	454	1992-2000
Buffalo Bayou at 69th Street, Houston (e)	08074700	463	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*	8.63	1964-71
Keegans Bayou at Roark Road near Houston (d)	08074800*	12.7	1964-85
Bintliff Ditch at Bissonnet Street, Houston (e)	08074850	4.29	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
Sims Bayou at Carlsbad Street, Houston (e)	08075300	3.81	1964-72
Sims Bayou at MLK Blvd., Houston (e)	08075470	48.4	1978-89
Sims Bayou at Houston (d)	08075500*	63.0	1953-95
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 Galveston Road, Houston (e)	08075700	4.86	1965-72
Hunting Bayou Tributary at Cavalcade Street, Houston (e)	08075750	1.20	1965-72
Hunting 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 near Channelview (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	18.0	1965-74
Clear Creek near Friendswood (e)	08077600*	122	1966-94
Armand Bayou near Genoa (e)	08077620	18.2	1968, 1971-73
Highland Bayou at Hitchcock (e)	08077700	15.6	1963-82
Flores Bayou near Danbury (e)	08078700	23.3	1967-72

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
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	5,578	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	5,790	1984-93
Rattlesnake Creek near Post (e)	08079580	2.77	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
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	2,683	1951-64
Salt Fork Brazos River at Farm Road 1081 near Clairemont (e)	08080916	3,617	1968-77
Red Mud Creek near Spur (e)	08080918	2,547	1967-74
Salt Fork Brazos River at State Highway 208 near Clairemont (e)	08080940	3,839	1968-77
Duck Creek near Girard (d)	08080950	431	1965-89
Salt Fork Brazos River at U.S. Highway 380 near Jayton (e)	08080959	4,431	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	64.3	1957-77
Stinking Creek near Aspermont (d)	08082100	88.8	1966-83
North Croton Creek near Knox City (d)	08082180	251	1965-86
North Elm Creek near Throckmorton (e)	08082900	3.58	1965-77
Elm Creek near Profitt (e)	08082950	275	1969-85
Brazos River near Graham (d)	08083000	16,830	1916-20
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	39.1	1964-79
Elm Creek at Abilene (d)	08083430	422	1980-83
Cedar Creek at Abilene (d)	08083470	119	1971-84
Paint Creek near Haskell (d)	08085000	914	1950-51
Humphries Draw near Haskell (e)	08085300	3.51	1965-77
Clear Fork Brazos River at Crystall Falls (d)	08086000	4,323	1922-29
Hubbard Creek near Sedwick (d)	08086015	128	1964-66
Hubbard Creek at Highway 380 near Moran (e)	08086020	152	1963-76
Deep Creek near Putnam (e)	08086030	33.8	1963-66
Brushy Creek near Putnam (e)	08086040	27.6	1963-66
Mexia Creek near Putnam (e)	08086045	67.0	1963-66
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	65.2	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	22.9	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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Pecan Creek near Eolian (d)	08086260	26.4	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	11.8	1958-77
Salt Creek near Newcastle (d)	08088200	120	1958-60
Briar Creek near Graham (d)	08088300	24.2	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	23,596	1990-94
Elm Creek Tributary near Graford (e)	08089100	1.10	1965-74
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
Panter Branch near Tolar (e)	08091700	7.82	1966-74
Nolan River at Blum (d)	08092000*	282	1924-87
Brazos River near Whitney (d)	08093000	27,214	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
Cobb Creek near Abbott (d)	08093400	12.40	1967-79
Aquilla Creek near Aquilla (d)	08093500#	308	1939-2001
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 1858 near Ross (e)	08093560	392	1976-85
Aquilla Creek at Farm Road 933 near Ross (e)	08093580	397	1976-85
North Bosque River at Stephenville (d)	08093700	95.9	1958-79
Green Creek SWS #1 near Dublin (d)	08094000	4.19	1955-77
Green Creek near Alexander (d)	08094500	45.4	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	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	83.5	1958-75
Brazos River near Marlin (d)	08097500	30,211	1939-51
Deer Creek at Chilton (d)	08098000	84.5	1934-36
Leon River near De Leon (d)	08099100*	479	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
Salado Creek above Salado (e)	08104290	134	1985-88
Salado Creek below Salado Springs at Salado (d)	08104310	136	1985-87
N. Fork San Gabriel River upstream from State Highway 418 at Georgetown (e)	08104795*	271	1985-88

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
North Fork San Gabriel River at Georgetown (d)	08104800	271	1964-68
South Fork San Gabriel River near Bertram (e)	08104850	8.4	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	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	74.7	1934-36
Big Elm Creek near Buckholts (d)	08107500	171	1934-36
North Elm Creek near Ben Arnold (d)	08108000	32.2	1935-36
North Elm Creek near Cameron (d)	08108200	44.8	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	39,599	1899-1902, 1918-25
Yegua Creek near Somerville (d)	08110000	1,009	1924-92
Brazos River at Washington (e)	08110200	41,192	1966-95
Plummers Creek at Mexia (e)	08110350	4.42	1965-73
Navasota River near Groesbeck (d)	08110400	311	1965-79
Navasota River near Bryan (d)	08111000	1,454	1951-94, 1994-97
Navasota River near College Station (d)	08111010	1,809	1977-85
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
Brazos River near San Felipe (d)	08112000	44,666	1939-57
Brazos River near Wallis (e)	08112200	44,684	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	45,189	1949-69
Seabourne Creek near Rosenberg (e)	08114900	5.78	1968-74
Fairchild Creek near Needville (d)	08115500	26.2	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	12.2	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	10.3	1970-77
Bull Creek near Ira (d)	08118500	26.3	1948-54, 1959-62
Colorado River below Bull Creek near Ira (e)	08118600	3,604	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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Colorado River near Cuthburt (d)	08120700*	3,912	1965-2002
Morgan Creek near Westbrook (d)	08121500	273	1954-63
Graze Creek near Westbrook (d)	08122000	21.7	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	41.8	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	0.40	1966-74
Colorado River near Silver (d)	08123900	14,997	1957-70
Bitter Creek near Silver (e)	08123920	4.30	1967-74
Salt Creek Tributary near Hylton (e)	08125450	0.25	1966-74
Fish Creek Tributary near Hylton (e)	08126300	0.25	1966-71
Colorado River at Ballinger (d)	08126500	16,413	1907-79
Dry Creek near Christoval (e)	08127100	0.79	1965-73
South Concho Irrigation Co. Canal at Christoval (d)	08127500	N/A	1940-83
Middle Concho River near Tankersley (d)	08128500	2,653	1930-61
Spring Creek above Tankersley (d)	08129300*	425	1961-95
Dove Creek Springs near Knickerbocker (d)	08129500*	N/A	1944-58
Dove Creek at Knickerbocker (d)	08130500*	226	1961-95
Spring Creek near Tankersley (d)	08131000	699	1930-60
South Concho River above Pecan Creek near San Angelo (e)	08131300	470	1963-84
Tom Green Co. WCID No. 1 Canal near San Angelo (d)	08131600	N/A	1963-81
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	1939-87
Broome Creek near Broome (e)	08133800	0.29	1965-73
Nolke Station Creek near San Angelo (e)	08134300	0.59	1965-73
Gravel Pit Creek near San Angelo (e)	08134400	0.19	1965-74
North Concho River at San Angelo (d)	08135000	1,525	1916-31, 1947-90
Concho River near Veribest (e)	08136150	5,541	1970-74, 1998-2000
Puddle Creek near Veribest (e)	08136200	12.0	1966-73
Frog Pond Creek near Eden (e)	08136300	1.96	1967-73
Mukewater Creek SWS No. 10A near Trickham (e)	08136900	21.8	1965-72
Mukewater Creek SWS No. 9 near Trickham (e)	08137000	4.02	1961-72
Mukewater Creek at Trickham (d)	08137500	70.0	1951-73
Deep Creek SWS No. 3 near Placid (e)	08139000	3.42	1954-60
Deep Creek near Mercury (d)	08139500	43.9	1954-73
Deep Creek SWS No. 8 near Mercury (e)	08140000	5.41	1952-71
Dry Prong Deep Creek near Mercury (d)	08140500	8.31	1951-71
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	54.2	1947-91
Hords Creek at Coleman (d)	08142000	107	1941-70
Brown County WID No. 1 Canal near Brownwood (d)	08142500	N/A	1950-83
Pecan Bayou at Brownwood (d)	08143500	1,660	1917-18, 1924-83
Brown Creek Tributary near Goldthwaite (e)	08143700	2.48	1966-73
Noyes Canal at Menard (d)	08144000	N/A	1924-83
Brady Creek near Eden (d)	08144800	101	1962-85
Brady Creek Tributary near Brady (e)	08145100	4.05	1967-73
Lake Buchanan near Burnet (e)	08148000	31,910	1937-90
Llano River Tributary near London (e)	08150200	0.58	1966-73
Stone Creek Tributary near Art (e)	08150900	0.40	1966-73
Llano River near Castell (d)	08151000	3,747	1924-39
Johnson Creek near Valley Spring (e)	08151300	5.66	1967-73

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Little Flatrock Creek near Marble Falls (e)	08152700	3.20	1966-74
Spring Creek near Fredericksburg (e)	08152800	15.2	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
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)	08155370	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	6.97	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
East Bouldin Creek at South 1st Street, Austin (d)	08157600	2.40	1997-2001
Blunn Creek near Little Stacey Park, Austin	08157700	1.20	1997-2001
Boggy Creek at US Highway 183, Austin	08158050	13.1	1977-86, 1994-2001
Walnut Creek at Farm-Market 1325 near Austin (e)	08158100	12.6	1975-88
Walnut Creek at Dessau Road, Austin (e)	08158200	26.2	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	27.6	1975-85
Onion Creek below Del Valle (e)	08159100	339	1962-75
Wilbarger Creek near Pflugerville (d)	08159150	4.61	1963-80
Big Sandy Creek near McDade (d)	08159165	38.7	1979-85
Big Sandy Creek near Elgin (d)	08159170	63.8	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	5.30	1969
Cashs Creek near Blessing (e)	08162650	14.8	1969-77
East Carancahua Creek near Blessing (e)	08162700	81.2	1968, 1970-83
West Carancahua Creek near Laward (e)	08162800	57.1	1970-76
Navidad River near Speaks (d)	08164350	437	1982-89, 1995-2000
Navidad River at Morales (d)	08164370	549	1995-2000
Navidad River near Ganado (d)	08164500	1,062	1939-80
Guadalupe River above Kerrville (e)	08166150	498	1976-79
Turtle Creek Tributary near Kerrville (e)	08166300	0.46	1966-74

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Guadalupe River near Comfort (d)	08166500	762	1918-32
Rebecca Creek near Spring Branch (d)	08167600	10.9	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
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
San Marcos River at Ottine (d)	08173500	1,249	1915-43
Guadalupe River below Cuero (d)	08176000	4,923	1903-07, 1916-19, 1921-36
Irish Creek near Cuero (e)	08176200	15.5	1967-74
Three Mile Creek near Cuero (e)	08176600	0.48	1966-74
Coleto Creek Reservoir inflow (Guadalupe diversion) near Schroeder (d)	08176990	357	1980-94
Coleto Creek near Schroeder (d)	08177000	369	1930-34, 1953-79
Olmos Creek Tributary at FM 1535 at Savano Park (e)	08177600	0.33	1969-81
Olmos Reservoir at San Antonio (e)	08177800	32.4	1968-71, 1976-89. 1992-95
San Antonio River at Woodlawn Avenue, San Antonio (e)	08177860	36.4	1989-95
San Antonio River at Dolorosa, San Antonio (d)	08177920	38.9	1980-86
Alazan Creek at St. Cloud Street, San Antonio (e)	08178300	3.26	1969-79
San Pedro Creek at Furnish St., San Antonio (d)	08178500*	2.64	1916-29
Harlandale Creek at W. Harding Street, San Antonio (e)	08178555	2.45	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	1968-81
Salado Creek Tributary at Bee Street, San Antonio (e)	08178736	0.45	1970-77
Salado Creek at E. Houston Street, San Antonio (e)	08178740	181	1968-81
Salado Creek at U.S. Highway 87, San Antonio (e)	08178760	186	1968-81
Salado Creek at Southcross Blvd., San Antonio (e)	08178780	188	1968-81
Bandera Creek Tributary near Bandera (e)	08178900	0.27	1966-74
Medina River near Pipe Creek (d)	08179000	474	1923-35, 1953-82
Red Bluff Creek near Pipe Creek (d)	08179100	56.30	1956-81
Medina River Tributary near Pipe Creek (e)	08179200	0.30	1966-74
Medina River at La Coste (d)	08180640	805	1987-2000
Medio Creek at Pearsall Road, San Antonio (e)	08180750	47.9	1987-95
Leon Creek Tributary at FM 1604, San Antonio (e)	08181000	5.57	1968-80
French Creek Tributary near Helotes (e)	08181200	1.08	1966-74
Ranch Creek near Helotes (d)	08181410	0.39	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	77.2	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
Escondido Creek SWS No. 1 (inflow) near Kenedy (e)	08187000	3.29	1955-73
Escondido Creek at Kenedy (d)	08187500	72.4	1954-73
Escondido Creek SWS No. 11 (inflow) near Kenedy (e)	08187900	8.43	1959-77
Dry Escondido Creek near Kenedy (d)	08188000	9.43	1954-59
Baugh Creek at Goliad (e)	08188400	3.02	1966-74

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
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
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	1,833	1928-39
Nueces River near Cinonia (d)	08192500	2,102	1915-25
Plant Creek near Tilden (e)	08194550	0.36	1965-74
Nueces River at Simmons (d)	08194600	8,561	1965-77
Frio River at Knippa (d)	08195700	N/A	1953
Dry Frio River at Knippa (d)	08196500	179	1953
East Elm Creek near Sabinal (e)	08198900	10.6	1967-74
Frio River near Frio Town (d)	08199700	1,460	1924-27
Hondo Creek near Hondo (d)	08200500	132	1953-64
Bone Creek near Hondo (e)	08200900	0.19	1965-74
Seco Creek near Utopia (d)	08202000	53.2	1952-61
Seco Creek Reservoir inflow near Utopia (d)	08202450	59.5	1991-98
Seco Creek near D'Hanis (d)	08202500	87.4	1952-64
Parkers Creek Reservoir (e)	08202800	10.0	1991-99
Leona River Tributary near Uvalde (e)	08203500	1.21	1966-74
Leona River Spring Flow near Uvalde (d)	08204000*	N/A	1939-65 1966-2002
Leona River near Divot (d)	08204500	565	1924-29
Frio River at Calliham (d)	08207000	5,491	1925-26, 1932-81
Rutledge Hollow Creek at Poteet (e)	08207200	9.33	1966-74
Rutledge Hollow at 7th Street, Poteet (d)	08207220	9.74	1979-2000
Atascoas River at U.S. Highway 281, Pleasanton (d)	08207300	394	1973-2000
Lucas Creek near Pleasanton (e)	08207700	32.8	1966-73
Ramirena Creek near George West (d)	08210300	84.4	1968-72
Nueces River below Mathis (d)	08211100	16,726	1966-67
Rincon Bayou Channel near Calallen (d)	08211503*	N/A	1996-2000
Pintas Creek Tributary near Banquete (e)	08211550	3.28	1966-74
Hamon Creek near Freer (e)	08211600	0.73	1965-73
San Diego Creek at Alice (d)	08211800	319	1964-89
Lake Alice at Alice (e)	08211850	150	1965-86
San Fernando Creek near Alice (d)	08212000	518	1962-63
North Los 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	11.9	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
Riverside Canal near Socorro (d)	08366400	N/A	1969-72
Rio Grande at Island Station near El Paso (d)	08366500	32,683	1938-60
Rio Grande at Tornillo Branch near Fabens (d)	08367000	32,914	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	33,550	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	64,285	1901-13, 1924-54
Rio Grande at Langtry (d)	08377500	81,429	1900-14, 1920, 1924-60
Rio Grande Tributary near Langtry (e)	08377600	0.32	1966-74

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Delaware River Tributary near Orla (e)	08407800	1.6	1966-74
Pecos River near Angeles (d)	08409500	20,540	1914-37
Salt Screwbean Draw near Orla (d)	08411500	464	1939-41, 1944-57
Pecos River near Mentone (d)	08414000	21,650	1922-26, 1969-73
Reeves County WID No. 2 Canal near Mentone (d)	08414500	N/A	1922-25, 1939-57, 1964-90
Ward County WID No. 3 Canal near Barstow (d)	08415000	N/A	1939-57, 1964-90
Pecos River above Barstow (d)	08416500	21,800	1916-21
Ward County Irrigation District No. 1 Canal near Barstow (d)	08418000	N/A	1922-25, 1939-57, 1964-90
Pecos River at Pecos (d)	08420500	22,100	1898-1907, 1914-15, 1922-26, 1939-55
Madera Canyon near Toyahvale (d)	08424500	53.8	1932-49
Phantom Lake Spring near Toyahvale (d)	08425500*	N/A	1932-34, 1942-66
San Solomon Springs at Toyahvale (d)	08427500*	N/A	1932-34, 1941-65
West Sandia Spring at Balmorhea (d)	08429000	N/A	1932-33
East Sandia Spring at Balmorhea (d)	08430000	N/A	1932-33
Toyah Creek near Pecos (d)	08431000	1,024	1940-41, 1944-45
Salt Draw near Pecos (d)	08431500	1,882	1939-41, 1944-45
Limpia Creek below Fort Davis (d)	08431800	227	1962-77
Limpia Creek near Fort Davis (d)	08432000	303	1925-32
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	27.9	1971-76
Alpine Creek at Alpine (d)	08435620	18.1	1971-76
Moss Creek near Alpine (d)	08435660	11.3	1971-76
Sunny Glen Canyon near Alpine (d)	08435700	29.7	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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Howards Creek Tributary near Ozona (e)	08447200	7.53	1967-73
Pecos River near Shumla (d)	08447400	35,162	1955-60
Goodenough Springs near Comstock (e)	08448500	N/A	1929-60
Sonora Field Creek at Sonora (e)	08448800	2.60	1965-71
Devils River near Juno (d)	08449000	2,730	1925-49, 1964-73
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
Rio Grande at Roma (d)	08462500	166,464	1900-13, 1923-54
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
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 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	4,211	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	65.5	SC	1974-82
Jonah Creek below Weir near Estelline	07299514	66.6	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	744	SC, T, pH, Cl	1956-61
North Pease River near Childress	07307600	1,434	SC, T	1973-79
Middle Pease River at Highway 62 and 83 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
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
South Fork Wichita River near Guthrie	07311780	219	SC	1970-76
South Fork Wichita River at Ross Ranch near Guthrie	07311790	499	SC	1971-79,
			Cl	1988-97,
			S	1978-79
Beaver Creek near Electra	07312200	652	SC,T	1969-70
				1996-2002
Wichita River at State Highway 25 near Kamay	07312130	2,246	SC, T	1996-2002
Wichita River at Wichita Falls	07312500	3,140	SC, T	1981-89,
				1996-2002
Little Wichita River near Archer City	07314500	481	SC	1953-55,
			T	1953-54
Little Wichita River above 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	30,782	SC, Cl	1944-46,
			SC, T, pH, Cl	1953-63,
			SC, T	1967-89,
Little Pine Creek near Kanawha	07336750	75.4	T	1980
Red River near De Kalb	07336820	47,348	SC, T	1968-91
Middle Sulphur River at Commerce	07342480	44.1	Cl, pH	1987-2001

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
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	370	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	91.4	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	83.3	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 near Ebenezer	08039500	3,486	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
Lake Arlington at Arlington	08049200	143	SC, pH, T, DO	1989-2002
Elm Fork Trinity River SWS # 6-0 near Muenster	08050200	0.77	S	1957-66
Elm Fork Trinity River near Muenster	08050300	46 .0	SC	1967-68,
			T	1957-58, 1966-68,
			S	1957-68
Clear Creek near Sanger	08051500	295	SC, T, S	1968-77

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Little Elm Creek near Celina	08052650	46.7	SC	1967-75,
			T, S	1966-75
Little Elm Creek near Aubrey	08052700	75.5	SC	1967-75,
			T, S	1967-75
Elm Fork Trinity River near Lewisville	08053000	1,673	SC	1982-86,
			T	1976-86
White Rock Creek at Greenville Avenue, Dallas	08057200	66.4	SC, pH, T, DO	1997-2000
Trinity River below Dallas	08057410	6,278	SC, T	1968-2000,
			S	1972-75,
				1998-2000
			Cl	1970-81,
				1998-99
Lavon Lake near Lavon	08060500	770	SC,T,CL	1969-74,
				1975,82,
				1995-99
Duck Creek near Garland	08061700	31.6	SC, pH, T, DO	1988-89
East Fork Trinity River above Seagoville	08061970	1,183	SC, T, pH, DO	1987-93
East Fork Trinity River at Seagoville	08061980	1,224	SC, pH, T, DO	1987-96
East Fork Trinity River near Crandall	08062000	1,256	SC, T	1968-1981,
				1987-2000
			pH, DO	1977,
				1986-2000
			Cl	1964-81,
				1986-2000
Trinity River at Trinidad	08062700	8,538	SC, T	1967-81
				1986-2000
			pH, DO	1967-81,
				1986-2000
			Cl	1966-94
			S	1978-94
Cedar Creek near Mabank	08063000	733	SC, T, pH, Cl	1956-57
Pin Oak Creek near Hubbard	08063200	17.6	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
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
Cedar Bayou near Crosby	08067500	64.9	SC, pH, Cl	1971-79
West Fork San Jacinto River near Conroe	08068000	828	SC, T	1962-90,
			DO	1979-81
Panther Branch near Spring	08068450	34.5	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

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Buffalo Bayou at West Belt Drive at Houston	08073600	307	SC, T	1979-81
Buffalo Bayou at Houston	08074000	336	SC, pH, T, DO	1986-2000
			Cl	1969-81
Whiteoak Bayou at Main Street, Houston	08074598	127	SC, T, DO	1992-97
Buffalo Bayou at Main Street, Houston	08074600	339	SC, T, DO	1986-92
Buffalo Bayou at McKee Street, Houston	08074610	454	SC, T, DO	1992-2000
			pH	1998-2000
Sims Bayou at Houston	08075500	63.0	SC, T, DO	1994-97
Chocolate Bayou near Alvin	08078000	87.70	SC, T	1978-81
North Fork Double Mountain Fork Brazos River near Post	08079575	438	SC, T	1984-93
Double Mountain Fork Brazos River near Rotan	08080000	8,536	SC, T	1950-51
Double Mountain Fork Brazos River near Aspermont	08080500	8,796	SC, T, S	1949-51
			SC, T	1957-95
				1996-2002
McDonald Creek near Post	08080540	103	SC, T	1964-78
Salt Fork Brazos River near Peacock	08081000	4,619	SC, T	1950-51,
				1965-86
Croton Creek near Jayton	08081200	290	SC, T	1961-80
Salt Croton Creek near Aspermont	08081500	64.3	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	88.8	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
				1996-2002
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	235	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	65.2	SC, T	1964-68
North Fork Hubbard Creek near Albany	08086150	39.3	SC, T	1964-90
Salt Prong Hubbard Creek near Albany	08086200	115	SC, T	1962-63
Snailum Creek near Albany	08086210	22.9	SC, T	1964-66
Battle Creek near Moran	08086235	108	SC, T	1967-68
Pecan Creek near Eolian	08086260	26.4	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	11.8	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	196066,
				1968-82

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Bosque River near Waco	08095600	1,656	SC, T	1998-2002
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 at Cameron	08106500	7,065	SC, T	1959-97
San Gabriel River near Weir	08105300	563	T	1977-82
San Gabriel River at Laneport	08105700	738	T	1977-82
Brazos River at State Highway 21 near Bryan	08108700	39,049	SC, T	1961-65
Brazos River near Bryan	08109000	39,515	SC, T	1966
Brazos River near College Station	08109500	39,599	SC, T	1961-84
Yegua Creek near Somerville	08110000	1,009	SC, T	1961-67
Navasota River above Groesbeck	08110325	239	SC, T	1968-89
Navasota River near Groesbeck	08110400	311	SC, T	1968-78
Navasota River near Easterly	08110500	968	SC	1942-43, 1947
Navasota River near Bryan	08111000	1,454	SC, T	1959-81,
			S	1976-81
Brazos River near Richmond	08114000	45,107	S	1966-86,
			SC	1942-95,
			T	1951-95
Brazos River near Rosharon	08116650	45,399	SC, T	1969-80
Brazos River at Harris Reservoir near Angleton	08116700	44,000	SC	1962-77,
			T	1967-77
Brazos River at Brazoria Reservoir near Brazoria	08117200	44,000	SC	1962-77,
			T	1967-77
San Bernard River near Boling	08117500	727	SC, T	1978-81
Bull Creek near Ira	08118500	26.3	SC, T, pH, Cl	1950-51
Bluff Creek near Ira	08119000	42.6	SC, T, pH, Cl	1950
Colorado River near Ira	08119500	3,483	SC, T	1950-52, 1959-70, 1975-82,
			Cl	1951-52
Deep Creek near Dunn	08120500	198	SC, T	1953-54
Colorado River near Cuthbert	08120700	3,912	SC, T	1965-99 2001-02
Morgan Creek near Westbrook	08121500	273	T	1954-55
Graze Creek near Westbrook	08122000	21.7	T	1954-55
Morgan Creek near Colorado City	08122500	313	T	1947-49
Lake Colorado City near Colorado City	08123000	345	T	1954-55
Beals Creek above Big Spring	08123650	9,319	SC, T	1973-78
Beals Creek atr Big Spring	08123700	9,341	SC, T	1956-57
Beals Creek near Coahoma	08123720	9,383	SC, T	1983-88
Colorado River near Silver	08123900	14,997	SC, T	1957-68
Colorado River at Robert Lee	08124000	15,307	SC, T, pH, Cl	1948-51,
			S	1949-51
Colorado River at Ballinger	08126500	16,413	SC, T	1961-79,
			S	1978-79
Pecan Bayou at Brownwood	08143500	1,660	SC, T	1948-49
Pecan Bayou near Mullin	08143600	2,073	SC, T	1968-91
San Saba River at San Saba	08146000	3,046	SC	1962-69,
			T	1963-70

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Colorado River near San Saba	08147000	31,217	SC, T	1947-92,
			S	1951-62
Llano River at Llano	08151500	4,197	SC, T	1979-81
Lake Austin at Austin	08154900	38,846	SC, T	1965-80
Barton Creek below Barton Springs at Austin	08155505	125	SC, T,	1965,
				1975-83,
				1989-91,
				1994-97
Waller Creek at 23rd Street at Austin	08157500	4.13	T	1955-60
East Bouldin Creek at South 1st Street, Austin	08157600	2.40	Cl	1997-2000
Blunn Creek near Little Stacey Park, Austin	08157700	1.20		1997-2001
Boggy Creek at US Highway 183, Austin	08158050	13.1	C	1977-86
			C, T	1994-2001
Colorado River at Austin	08158000	39,009	SC, T	1948-91
Colorado River above Columbus	08160700	41,403	SC, T	1983-86
Colorado River at Columbus	08161000	41,640	SC	1967-73,
			T	1957-59,
				1961-68
			S	1957-73
Colorado River at Wharton	08162000	42,003	SC	1945-92,
			T	1946-48,
Lavaca River near Edna	08164000	817	SC, T	1978-81
Navidad River near Speaks	08164350	437	SC, T, pH, Cl	1996-97
Navidad River near Ganado	08164500	1,062	SC, T	1960-80
Guadalupe River near Spring Branch	08167500	1,315	SC	1942-45
Guadalupe River at Sattler	08167800	1,436	T	1984-87
Blanco River at Wimberley	08171000	355	T	1977-78
Plum Creek near Luling	08173000	309	SC, T	1968-86
Sandies Creek near Westhoff	08175000	549	S	1966
			Cl	1962-99
Guadalupe River at Victoria	08176500	5,198	SC	1946-81,
			T	1951-81
Coleto Creek Reservoir (Condenser No. 1) near Fannin	08177360	414	T	1980-94
Coleto Creek Reservoir (outflow) near Victoria	08177410	494	T	1980-94
Olmos Creek at Dresden Drive, San Antonio	08177700	21.2	SC, pH, T, DO	1969-99
			S	1973
San Antonio River at San Antonio	08178000	41.8	SC, T	1991-92,
				1996-97
San Antonio River at Mitchell Street, San Antonio	08178050	42.4	SC, pH, T, DO	1992-99
San Antonio River at Loop 410 at San Antonio	08178565	125	SC, pH, T, DO	1987-2000
Medina River near Macdona	08180700	885	SC, pH, T, DO	1998-2000
Medina River at La Coste	08180640	805	SC, pH, T, DO	1987-95
Medio Creek at Pearsall Rd. at San Antonio	08180750	47.9	SC, pH, T, DO	1987-95
Medina river near Somerset	08180800	967	SC, T, Cl	1998-2000
Medina River at San Antonio	08181500	1,317	SC, pH, T, DO	1987-2000
			Cl	1965-2000
San Antonio River near Falls City	08183500	2,113	SC, pH, T, DO	1987-96
Cibolo Creek near Falls City	08186000	827	SC, T	1969-91
Escondido Creek SWS #1 near Kenedy	08187000	3.29	S	1955-65
Guadalupe River at Tivoli	08188800	10,128	SC, T	1966-82
Mission River at Refugio	08189500	690	SC, T	1961-81
Nueces River at Cotulla	08194000	5,171	SC	1942
Frio River at Calliham	08207000	5,491	SC, T	1968-81
Nueces River at Bluntzer	08211200	16,772	SC, T	1948-91
Los Olmos Creek near Falfurrias	08212400	480	SC, T	1975-81
Rio Grande at El Paso	08364000	32,207	SC, pH, T, DO	1930-2000
Rio Grande at Fort Quitman	08370500	34,884	SC, T	1975-78.

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
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 Screwbean Draw near Pecos	08431500	1,882	SC	1940,
				1944
Toyah Creek below Toyah Lake near Pecos	08434000	3,709	SC	1940-50,
			Cl	1940
Pecos River below Grand Falls	08441500	27,820	SC	1939-42,
				1947-56
Pecos River near Girvin	08446500	29,560	SC	1940-41,
				1947,
				1954-82
			T	1954-59,
				1964-82
Pecos River near Sheffield	08447000	31,600	SC	1940-41,
				1947
Pecos River near Langtry	08447410	35,179	SC, T	1971-76,
				1981-85
Devils River at Pafford Crossing near Comstock	08449400	3,961	SC, T	1978-85
Rio Grande at Laredo	08459000	132,578	SC	1975-86,
			T	1974-76
Rio Grande at Roma	08462500	166,464	SC	1942-43
Rio Grande at Fort Ringgold, Rio Grande City	08464700	174,362	SC, pH, T	1959-2000
Rio Grande near Los Ebanos	08466300		SC, pH, T	1977-2000
Rio Grande below Anzalduas Dam near Mission	08469200	176,112	SC, pH, T	1967-72,
				1959-2000
Rio Grande near Brownsville	08475000	176,333	SC	1943-44,
			SC, T	1967-83
			S	1966-83

WATER RESOURCES DATA—TEXAS, 2004

VOLUME 5

GUADALUPE RIVER BASIN, NUECES RIVER BASIN, RIO GRANDE 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 5 contains records for water discharge at 86 gaging stations; stage only at 5 gaging stations; elevation at 3 lakes and reservoirs; content at 4 lakes and reservoirs;and water quality at 24 gaging stations. Also included are data for 16 partial-record stations comprised of 1 flood-hydrograph, 11 low-flow, and 4 crest-stage stations. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating Federal, State, and City agencies in Texas.

This series of annual reports for Texas began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report was changed to its present format, with data on quantities and quality of surface water contained in each of three volumes, 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-03-5." 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 2004 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 (TWDB), 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; 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 Department of 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.

SUMMARY OF HYDROLOGIC CONDITIONS

Precipitation

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 2004.

Conservation storage in 77 selected reservoirs throughout the State, with a combined conservation capacity of 34,485,000 acre-feet, increased from 77 percent at the end of September 2003 to 84 percent at the end of September 2004. Records from these reservoirs indicate that storage increased in 54, decreased in 21, and remained the same in 2.

The area for which water resources data are presented in volume 5 includes the Guadalupe River Basin, Nueces River Basin, Rio Grande Basin, and Intervening Coastal Basins. The area described in volume 5 and the location of selected streamflow-gaging stations in the area are shown in figure 1.

Streamflow

Monthly mean streamflow was normal in most streams in Texas during the 2004 water year. Comparisons of monthly mean and annual mean discharges in the 2004 water year, with median values for the period 1971-2000, were made for the following four representative index stations in Texas: the Neches River near Rockland (08033500) in southeastern Texas, the North Bosque River near Clifton (08095000) in east central Texas; the North Concho River near Carlsbad (08134000) in west central Texas, and the Guadalupe River near Spring Branch (08167500) in south central Texas (fig. 2).

Annual mean streamflow for the Neches River near Rockland was 2,932 cubic feet per second (ft^3/s) for the 2004 water year, or 162 percent of 1,811 ft^3/s for the reference period 1971-2000. The 2004 water year monthly mean discharges were above the normal range (greater than 75 percent of the median monthly discharge for the reference period) during the months of February, July and September. Monthly mean discharges for the other months were within the normal range.

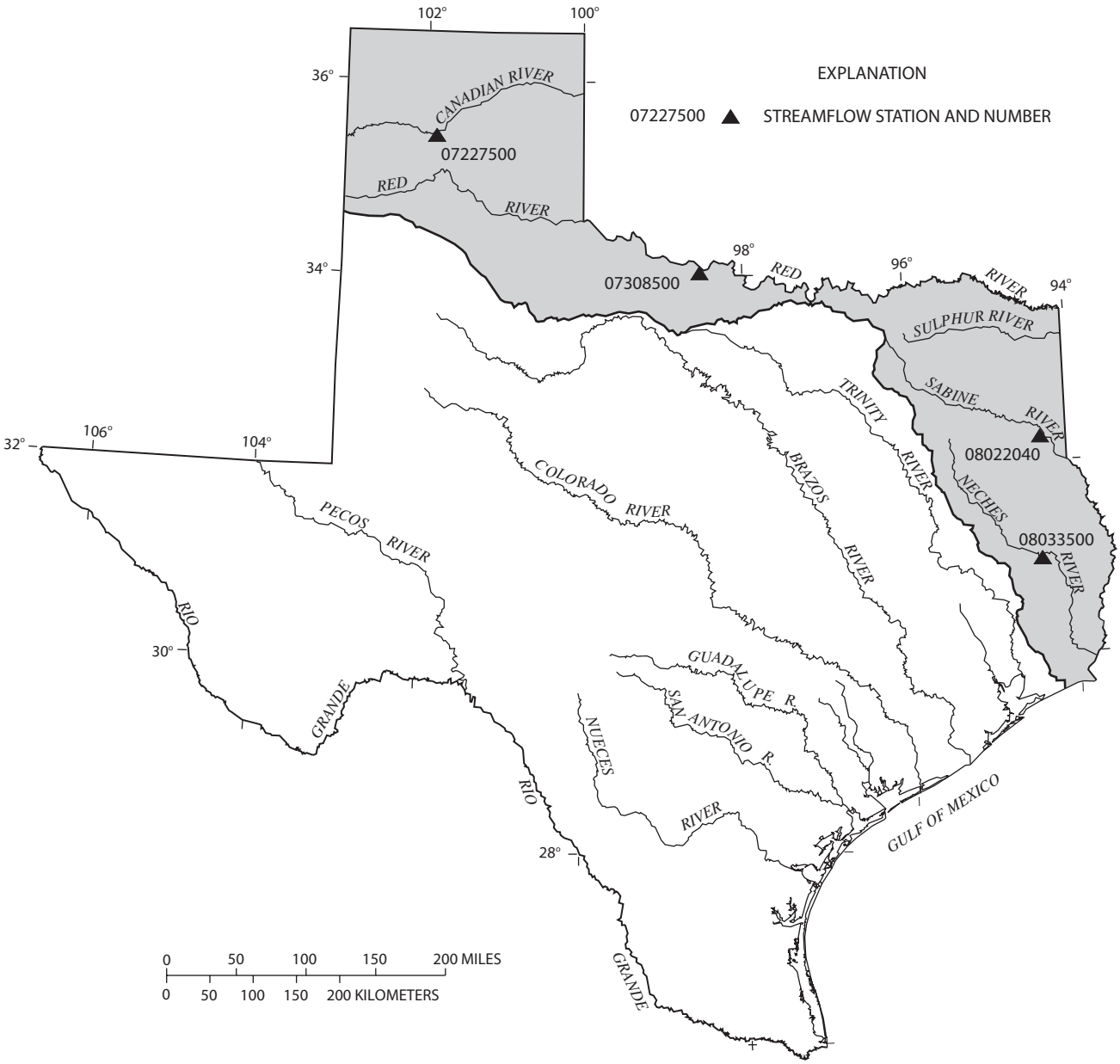


Figure 1. Area of Texas covered by volume 5 (shaded) and location of selected streamflow stations in volume 5.

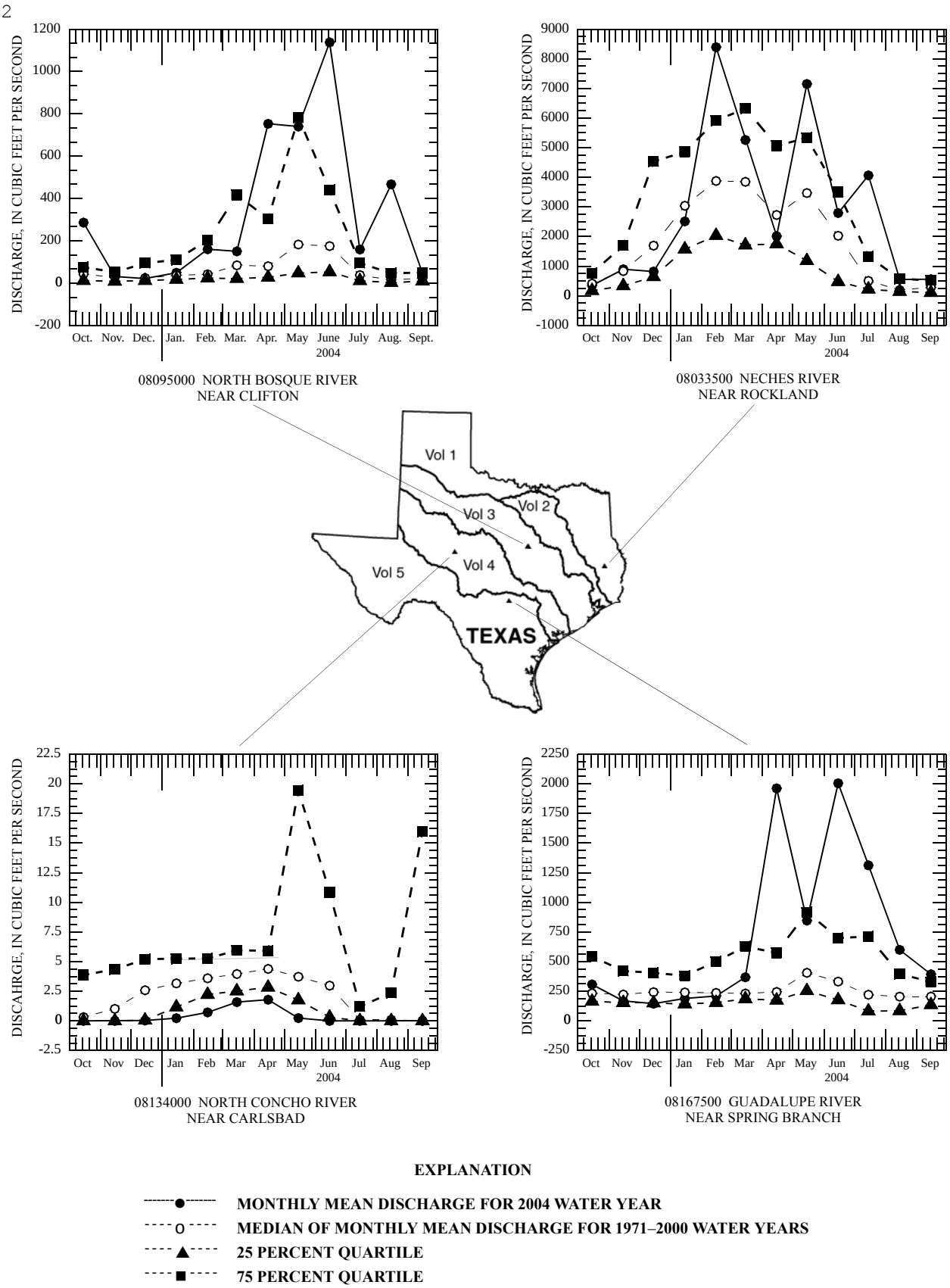


Figure 2. Monthly mean discharges at four long-term hydrologic index stations during 2004 water year and median of the monthly mean discharges for 1971-2000 water years.

Annual mean streamflow for the North Bosque River near Clifton was 333 ft^3/s for the 2004 water year, or 550 percent of 60.6 ft^3/s for the reference period 1971-2000. the 2004 water year monthly mean discharges for the North Bosque River near Clifton were above the normal range (greater than 75 percent of the median monthly discharge for the reference period) during the months of October, April, June, July and August. Monthly mean discharges for the other months were within the normal range.

Annual mean streamflow for the North Concho River near Carlsbad was 0.38 ft^3/s for the 2004 water year, or 18 percent of 2.05 ft^3/s for the reference period 1971-2000. The 2004 water year monthly mean discharges for the North Concho River near Carlsbad were below the normal range (less than 25 percent of the median monthly discharge for the reference period) during the months of December, January, February, March, April, May, and June. Monthly mean discharges for the other months were within the normal range.

Annual mean streamflow for the Guadalupe River near Spring Branch was 707 ft^3/s for the 2004 water year or 265 percent of 267 ft^3/s for the reference period 1971-2000. The 2004 water year monthly mean discharges for the Guadalupe River near Spring Branch were above the normal range (greater than 75 percent of the median monthly discharge for the reference period during the months of April, June, July, August and September, and below the normal range (less than 25 percent of the median monthly discharge for the reference period) during December. Monthly mean discharges for the other months were within the normal range.

Conservation storage in 8 selected reservoirs in this area of the State, with a total combined conservation capacity of 5,244,000 acre-feet, increased from 54 percent of capacity at the end of September 2003 to 79 percent of capacity at the end of September 2004. Records from these reservoirs indicate that storage increased in 5 and decreased in 3 during the water year.

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 four selected stations

Station no. and name		Discharge during 2004 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
Guadalupe River Basin							
08167500	Guadalupe River near Spring Branch, TX 1/	31,600	135	707	i160,000	0	371 (1922-2004)
08176500	Guadalupe River at Victoria, TX	16,100	867	2,487	i466,000	14	1,963 (1935-2004)
Nueces River Basin							
08210000	Nueces River near Three Rivers, TX	18,300	81	1,442	141,000	0	730 (1949-2004)
Rio Grande Basin							
08446500	Pecos River near Girvin, TX	100	7.7	15.8	k20,000	1.9	68.1 (1939-2004)

1/ Hydrologic index station.
i From indirect measurement of peak flow.
k From supplementary gage.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, hydrologic-station records in USGS reports have been listed in order of downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indention in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, 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 composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number "09" plus the 6-digit (or 8-digit) downstream order number "004100." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from *http://water.usgs.gov/hbn/*.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program may be accessed from *http://water.usgs.gov/nasqan/*.

The National Atmospheric Deposition Program/ National Trends Network (NADP/NTN) is a network of monitoring sites that provide continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from *http://bqs.usgs.gov/acidrain/*.

The USGS National Water-Quality Assessment (NAWQA) Program 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; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 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 is 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 water-resources managers to use in making decisions 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. Additional information about the NAWQA Program may be accessed from *http://water.usgs.gov/nawqa/*.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from *http://water.usgs.gov/nsip/*.

EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

Data Collection and Computation

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2, which may be accessed from *http://water.usgs.gov/pubs/twri/*. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standardization (ISO).

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, 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.

At some stream-gaging stations in the northern United States, the stage-discharge relation is affected by ice in the winter; therefore, computation of the discharge in the usual manner is impossible. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter-discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge from other stations in the same or nearby basins.

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

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

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are

plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) 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; and (5) a hydrograph of discharge.

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 follow that clarify information presented under the various headings of the station description.

LOCATION.—Location information is obtained from the most accurate maps available. The location of the gaging station 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 term indicates the time period for which records have been published 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 its flow reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, 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 either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.—Information here documents 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 USGS.

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (*http://water.usgs.gov/nwis/nwis*). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations 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 District Office (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. Any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the

REMARKS and in the inclusion of a stage-capacity table when daily volumes are given.

Peak Discharge Greater than Base Discharge

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

Data Table of Daily Mean Values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed TOTAL gives the sum of the daily figures for each month; the line headed MEAN gives the arithmetic average flow in cubic feet per second for the month; and the lines headed MAX and MIN give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month is 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). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect or if the drainage area includes large noncontributing areas. At some stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir volumes are given. These values are identified by a symbol and a corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (MIN) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those values. The designated period will be expressed as FOR WATER YEARS __-__, BY WATER YEAR (WY), and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript. 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 heading. When the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data are provided with each continuous record of discharge. Comments that 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.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

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.

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, 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 equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.
>
> Cubic feet per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.
>
> Inches (INCHES) indicate 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 table lists annual maximum stage and discharge at crest-stage stations, and the second table lists discharge measurements at low-flow 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 often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a 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. This identification is shown either by flagging individual daily values with the letter “e” and noting in a table footnote, “e–Estimated,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of Field Data and Computed Results

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

The degree of accuracy of the records is stated in the REMARKS in the station description. “Excellent” indicates that about 95 percent of the daily discharges are within 5 percent of the true value; “good” within 10 percent; and “fair,” within 15 percent. “Poor” indicates that daily discharges have less than “fair” accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to the nearest tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 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 discharge values listed for partial-record stations.

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, values 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 Data Records Available

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

Information on the availability of unpublished data or statistical analyses may be obtained from the District office (see address that is shown on the back of the title page of this report).

EXPLANATION OF PRECIPITATION RECORDS

Data Collection and Computation

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol "---" in the table.

Data Presentation

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Surface-water samples for analysis usually are collected at or near stream-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, sediment discharge, and so forth); extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from *http://water.usgs.gov/pubs/twri/*.

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 at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each

constituent measured, and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

SURFACE-WATER-QUALITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data is useful in the interpretation of surface-water quality. Records of surface-water quality in this report 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 *continuous-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 continuous- or partial-record station, where 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 *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. 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.

Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

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 is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from *http://water.usgs.gov/pubs/twri/*. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS District office (see address that is shown on the back of title page in this report).

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the 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 section.

During periods of rapidly changing flow or rapidly changing concentration, samples may be 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 are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, 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

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRIs, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. The TWRI publications may be accessed from *http://water.usgs.gov/pubs/twri/*. These methods are consistent with ASTM standards and generally follow ISO standards.

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, radiochemical 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 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 information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—This indicates the time periods for which published water-quality records for the station are available. The 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 USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (*http://waterdata.usgs.gov/nwis*). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

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

Remark Codes

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

Printed Output	Remark
E	Value is estimated.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.
S	Most probable value.

Water-Quality Control Data

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

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

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

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 office 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. These data are not presented in this report but are available from the District office.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in 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. Many types of blank samples are possible; each is 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 a 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 sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be 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. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

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

Sequential samples—A type of replicate sample in which the samples are 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, each subsample 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 the 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 from *http://water.usgs.gov*.

Water-quality data and data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Discipline District Office (See address that is shown on the back of the title page of this report.)

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from *http://water.usgs.gov/glossaries.html*.

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

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

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

Adjusted discharge is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

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. (See also “Biomass” and “Dry weight”)

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

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

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

summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

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

Artificial substrate is a device that purposely is 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 collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also "Substrate")

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

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas 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.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

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

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

Bed material is the sediment mixture of which a stream-bed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

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

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

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

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

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

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

Blue-green algae (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu m^3/mL$). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter ($cells/cm^2$) or biovolume per square centimeter ($\mu m^3/cm^2$). (See also "Phytoplankton"and "Periphyton")

Bottom material (See "Bed material")

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume

surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada's first order level network in 1928.

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

sphere $4/3\ \pi r^3$ cone $1/3\ \pi r^2 h$ cylinder $\pi r^2 h$.

pi (π) is the ratio of the circumference to the diameter of a circle; pi = 3.14159….

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

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

Cfs-day (See "Cubic foot per second-day")

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

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

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

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

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

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

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

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

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

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

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

Cubic foot per second-day (CFS-DAY, Cfs-day, [$(ft^3/s)/d$]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

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

Daily mean suspended-sediment concentration is the time-weighted mean concentration of suspended sediment pass-

ing a stream cross section during a 24-hour day. (See also "Sediment" and "Suspended-sediment concentration")

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

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

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

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

Diatoms *(Bacillariophyta)* are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter (μm^3/mL). The abundance of diatoms in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu m^3/cm^2$). (See also "Phytoplankton" and "Periphyton")

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

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

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

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

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4917 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

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

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

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

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

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

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also "Ash mass," "Biomass," and "Wet mass")

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

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also "Substrate embeddedness class")

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

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

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

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

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

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

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

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Filtered pertains to constituents in a water sample passed through a filter of specified pore diameter, most commonly 0.45 micrometer or less for inorganic analytes and 0.7 micrometer for organic analytes.

Filtered, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that has passed through a filter has been extracted. Complete recovery is not achieved by the extraction procedure and thus the analytical determination represents something less than 95 percent of the total constituent concentration in the sample. To achieve comparability of analytical data, equivalent extraction procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

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

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

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the

maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

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

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

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

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

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae *(Chlorophyta)* are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating "moss" in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter (μm^3/mL). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu m^3/cm^2$). (See also "Phytoplankton" and "Periphyton")

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

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

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

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

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

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

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

Horizontal datum (See "Datum")

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

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

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

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

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) generally is equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a "less than" (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term 'non-detection value' (NDV).

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

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

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

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

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

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

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

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

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

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

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

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

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

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

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

Megahertz is a unit of frequency. One megahertz equals one million cycles per second.

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

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

Method code is a one-character code that identifies the analytical or field method used to determine a value stored in the National Water Information System (NWIS).

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-

percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Method of Cubatures is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

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

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

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

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

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

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

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

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

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

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

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

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations**,** it does not necessarily represent local mean sea level at any particular place. *See NOAA Web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88* (See "North American Vertical Datum of 1988")

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

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

Nonfilterable refers to the portion of the total residue retained by a filter.

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian**,** Mexican, and United States first-order terrestrial leveling networks.

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

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

Organic mass or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also "Ash mass," "Biomass," and "Dry mass")

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

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

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

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

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

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

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

Classification	Size (mm)	Method of analysis
Clay	>0.00024 - 0.004	Sedimentation
Silt	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

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

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

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

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

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

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi,

protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

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

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed "acidic," and solutions with a pH greater than 7.0 are termed "basic." Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They usually are 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 commonly are known as algae. (See also "Plankton")

Picocurie (PC, pCi) is one-trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

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

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

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

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

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

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

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

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

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable is the amount of a given constituent that is in solution after a representative water sample has been extracted or digested. Complete recovery is not achieved by the extraction or digestion and thus the determination represents something less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also "Bed material")

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occur-

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

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

Return period (See "Recurrence interval")

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

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

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

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

Salinity is the total quantity of dissolved salts, measured by weight in parts per thousand. Values in this report are calculated from specific conductance and temperature. Seawater has an average salinity of about 35 parts per thousand (for additional information, refer to: Miller, R.L., Bradford, W.L., and Peters, N.E., 1988, Specific conductance: theoretical considerations and application to analytical quality control: U.S. Geological Survey Water-Supply Paper 2311, 16 p.)

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

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as "fluvial sediment." Sediment includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

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

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an elec-

trical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

Stage (See "Gage height")

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

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

Substrate is the physical surface upon which an organism lives.

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

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

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

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

Surrogate is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

Suspended is the amount (concentration) of undissolved material in a water-sediment mixture. Most commonly refers to that 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-micrometer filter has been extracted or digested. Complete recovery is not achieved by the extraction or digestion procedures and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also "Suspended")

Suspended sediment is sediment carried in suspension by the turbulent components of the fluid or by the Brownian movement (a law of physics). (See also "Sediment")

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also "Sediment" and "Suspended sediment")

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027. (See also "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

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

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

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of

the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total." Determinations of "suspended, total" constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also "Suspended")

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

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial 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:	Arthropeda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	*Hexagenia*
Species:	*Hexagenia limbata*

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

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

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also "Bacteria")

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

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

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

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

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

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

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

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

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889–00 Standard test method for turbidity of water, *in* ASTM International, Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400-680 nanometers (nm), but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780-900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

NTU (Nephelometric Turbidity Units): white or broadband [400-680 nm] light source, 90 degree detection angle, one detector.

NTRU (Nephelometric Turbidity Ratio Units): white or broadband [400-680 nm] light source, 90 degree detection angle, multiple detectors with ratio compensation.

BU (Backscatter Units): white or broadband [400-680 nm] light source, 30 ± 15 degree detection angle (backscatter).

AU (Attenuation Units): white or broadband [400-680 nm] light source, 180 degree detection angle (attenuation).

NTMU (Nephelometric Turbidity Multibeam Units): white or broadband [400-680 nm] light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

FNU (Formazin Nephelometric Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, one detector.

FNRU (Formazin Nephelometric Ratio Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, multiple detectors, ratio compensation.

FBU (Formazin Backscatter Units): near infrared [780-900 nm] or monochrome light source, 30±15 degree detection angle.

FAU (Formazin Attenuation Units): near infrared [780-900 nm] light source, 180 degree detection angle.

FNMU (Formazin Nephelometric Multibeam Units): near infrared [780-900 nm] or monochrome light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

For more information please see http://water.usgs.gov/owq/FieldManual/Chapter6/6.7_contents.html.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic sub-

stances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of path length of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See "Water-table aquifer")

Unfiltered pertains to the constituents in an unfiltered, representative water-suspended sediment sample.

Unfiltered, recoverable is the amount of a given constituent in a representative water-suspended sediment sample that has been extracted or digested. Complete recovery is not achieved by the extraction or digestion treatment and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Vertical datum (See "Datum")

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

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

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

Water year in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2002, is called the "2002 water year."

Watershed (See "Drainage basin")

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

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

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

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

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

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

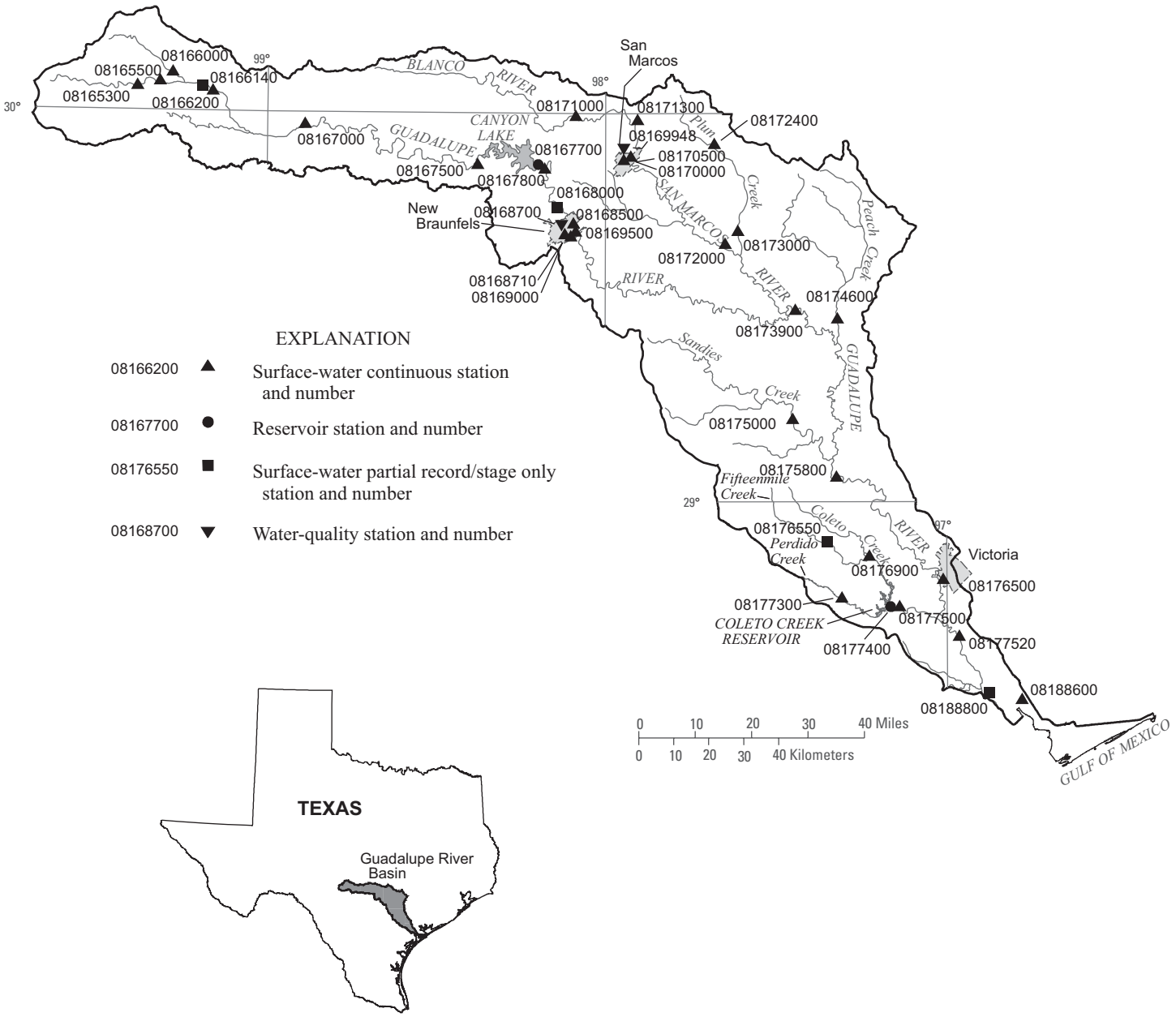


Figure 3.--Map showing location of gaging stations in the Guadalupe River Basin

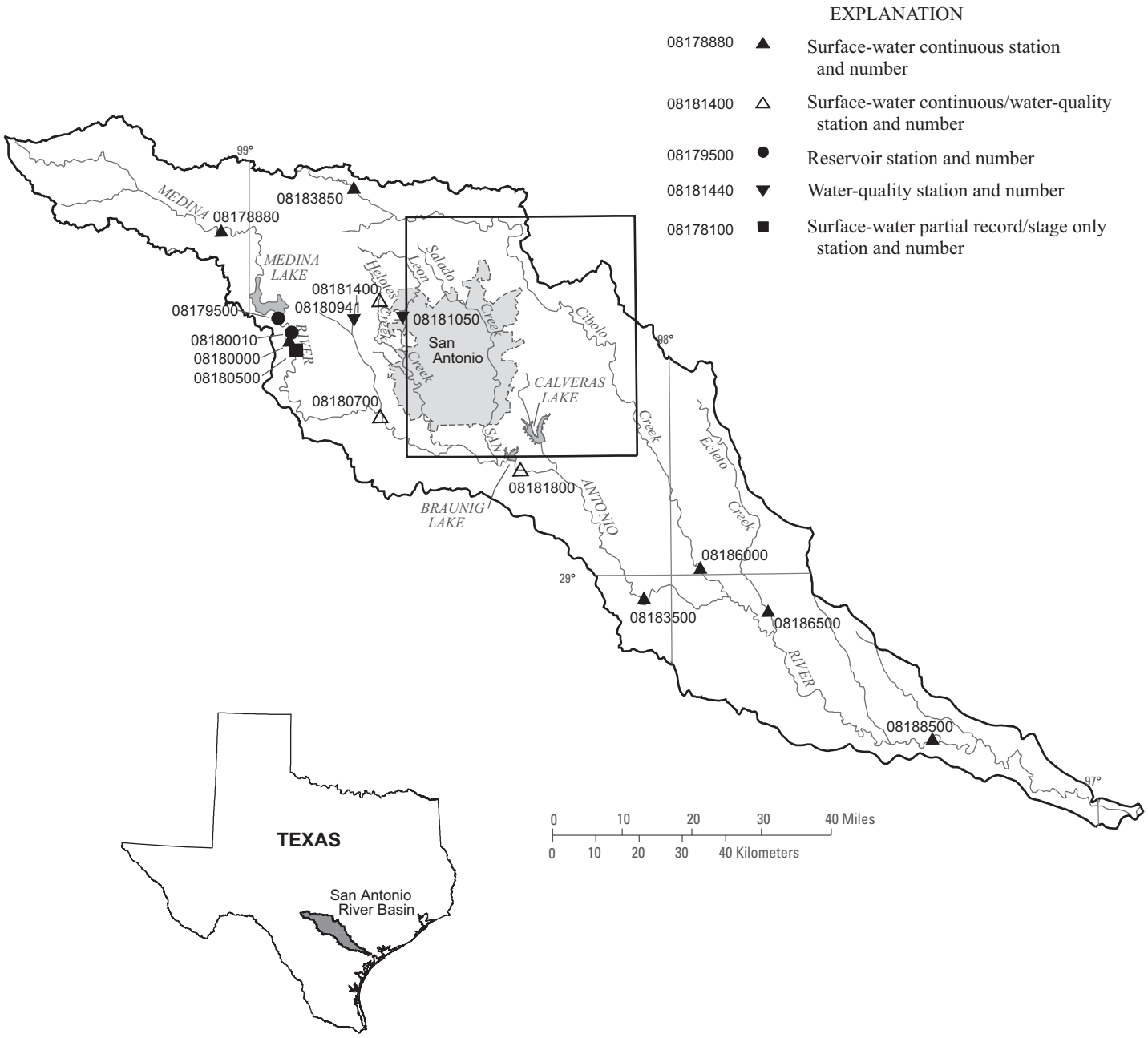
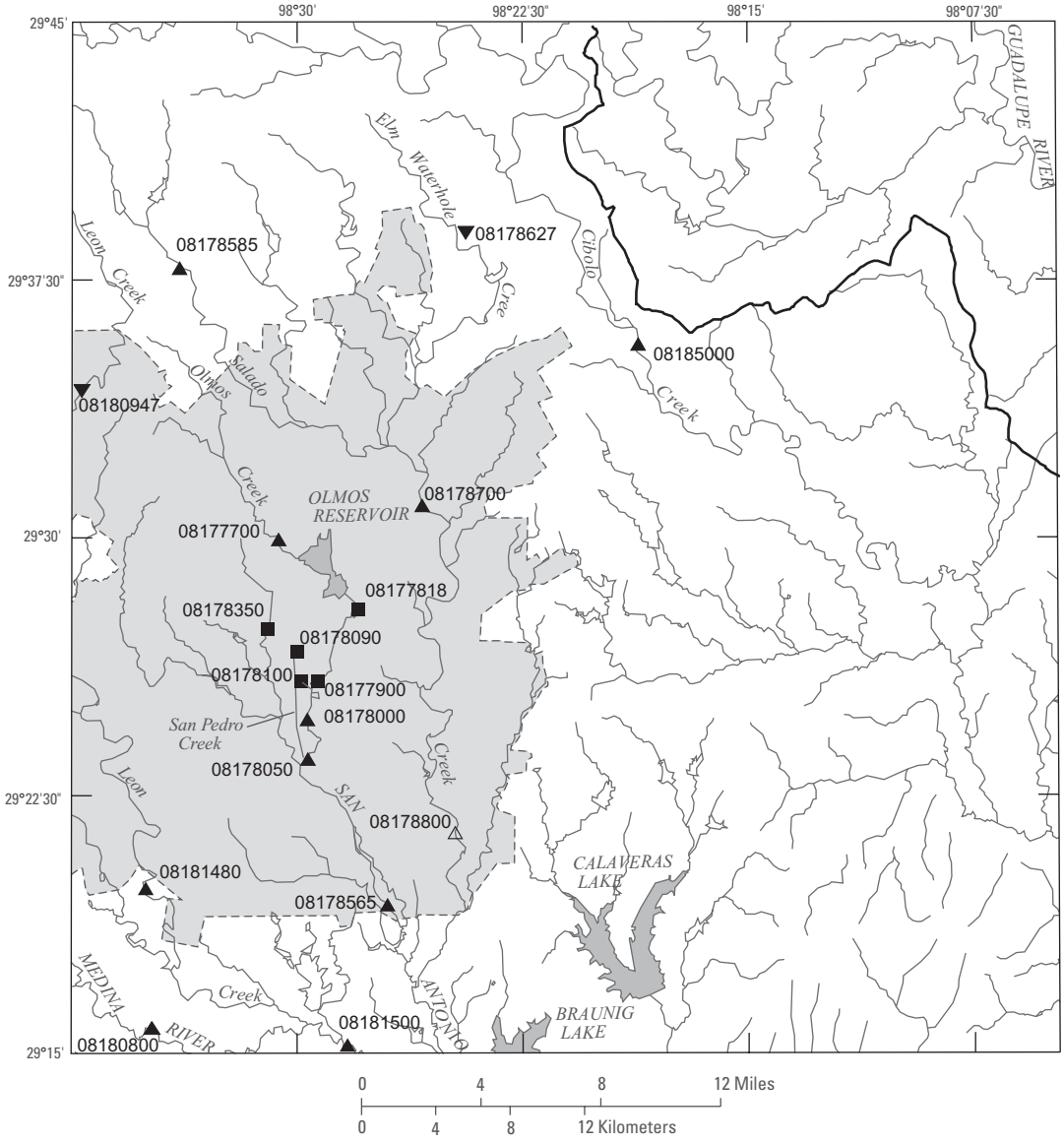


Figure 4.--Map showing location of gaging stations in the San Antonio River Basin



EXPLANATION

08178050	▲	Surface-water continuous station and number
08180800	△	Surface-water continuous/water-quality station and number
08178100	■	Surface-water partial record/stage only station and number
08180947	▼	Water-quality station and number

Figure 5.--Map showing location of gaging stations in the San Antonio inset of the San Antonio River Basin

08165300 North Fork Guadalupe River near Hunt, TX

LOCATION.--Lat 30°03'50", long 99°23'12", Kerr County, Hydrologic Unit 12100201, on right bank, 1,000 ft upstream from Ranch Road 1340, 1.9 mi downstream from Bear Creek, 3.1 mi west of Hunt, and 3.5 mi upstream from Honey Creek.

DRAINAGE AREA.--169 mi^2.

PERIOD OF RECORD.--Aug. 1967 to current year. Low-flow records not equivalent prior to June 7, 1989 because of undetermined channel flow loss between present and former site 0.58 mi upstream.

REVISED RECORDS.--WRD TX-74-1: 1971(P).

GAGE.--Water-stage recorder. Datum of gage is 1,800.10 ft above NGVD of 1929. Prior to June 7, 1989, at site 0.58 mi upstream at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation or diversions.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1900 occurred July 1, 1932 (gage height, 37.3 ft, at site 0.58 mi upstream), discharge, 140,000 ft^3/s, by slope-area measurements, combined flow of North Fork Guadalupe River 5.0 mi upstream and Bear Creek 2.0 mi upstream from mouth, and adjusted for difference in drainage area.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	27	25	23	23	22	30	57	41	58	50	36
2	19	27	25	23	22	21	31	55	41	57	49	36
3	19	27	24	24	23	22	31	55	42	56	49	36
4	19	27	25	23	23	23	31	54	42	55	44	36
5	19	28	25	23	24	23	32	54	44	55	41	35
6	84	27	24	23	23	23	3,710	53	42	54	40	37
7	33	28	24	23	22	22	113	54	42	54	44	37
8	34	25	24	23	21	21	79	54	45	54	42	36
9	40	25	24	22	22	21	73	53	119	54	41	34
10	36	27	23	23	22	21	80	52	72	53	41	34
11	889	27	23	23	23	21	77	51	54	53	40	35
12	142	26	24	23	24	24	72	51	51	53	39	35
13	45	26	23	23	23	36	68	51	54	52	38	35
14	41	26	23	23	23	36	66	54	50	51	38	36
15	39	25	24	24	22	44	65	51	48	51	39	35
16	38	23	24	25	22	46	64	50	47	51	38	34
17	36	35	23	28	22	42	63	50	46	50	38	34
18	35	29	24	25	22	40	61	48	45	50	38	35
19	33	27	24	24	22	39	60	45	46	50	40	34
20	32	26	24	23	21	39	60	46	43	49	39	34
21	32	26	23	24	21	37	59	47	42	49	38	33
22	31	26	22	24	21	35	59	47	108	49	39	33
23	31	26	23	24	22	34	58	47	63	48	42	33
24	29	25	24	24	22	34	59	45	61	48	39	34
25	29	25	23	23	24	33	57	46	59	53	39	34
26	28	24	23	22	24	33	57	46	57	53	38	33
27	29	25	23	23	22	32	56	45	56	51	37	33
28	29	25	23	24	22	32	55	50	55	50	37	33
29	27	24	23	23	22	31	59	45	61	52	40	33
30	28	24	23	23	---	30	56	44	60	53	38	33
31	28	---	23	23	---	30	---	44	---	52	36	---
TOTAL	1,973	788	732	728	649	947	5,441	1,544	1,636	1,618	1,251	1,036
MEAN	63.6	26.3	23.6	23.5	22.4	30.5	181	49.8	54.5	52.2	40.4	34.5
MAX	889	35	25	28	24	46	3,710	57	119	58	50	37
MIN	19	23	22	22	21	21	30	44	41	48	36	33
AC-FT	3,910	1,560	1,450	1,440	1,290	1,880	10,790	3,060	3,250	3,210	2,480	2,050
CFSM	0.38	0.16	0.14	0.14	0.13	0.18	1.07	0.29	0.32	0.31	0.24	0.20
IN.	0.43	0.17	0.16	0.16	0.14	0.21	1.20	0.34	0.36	0.36	0.28	0.23

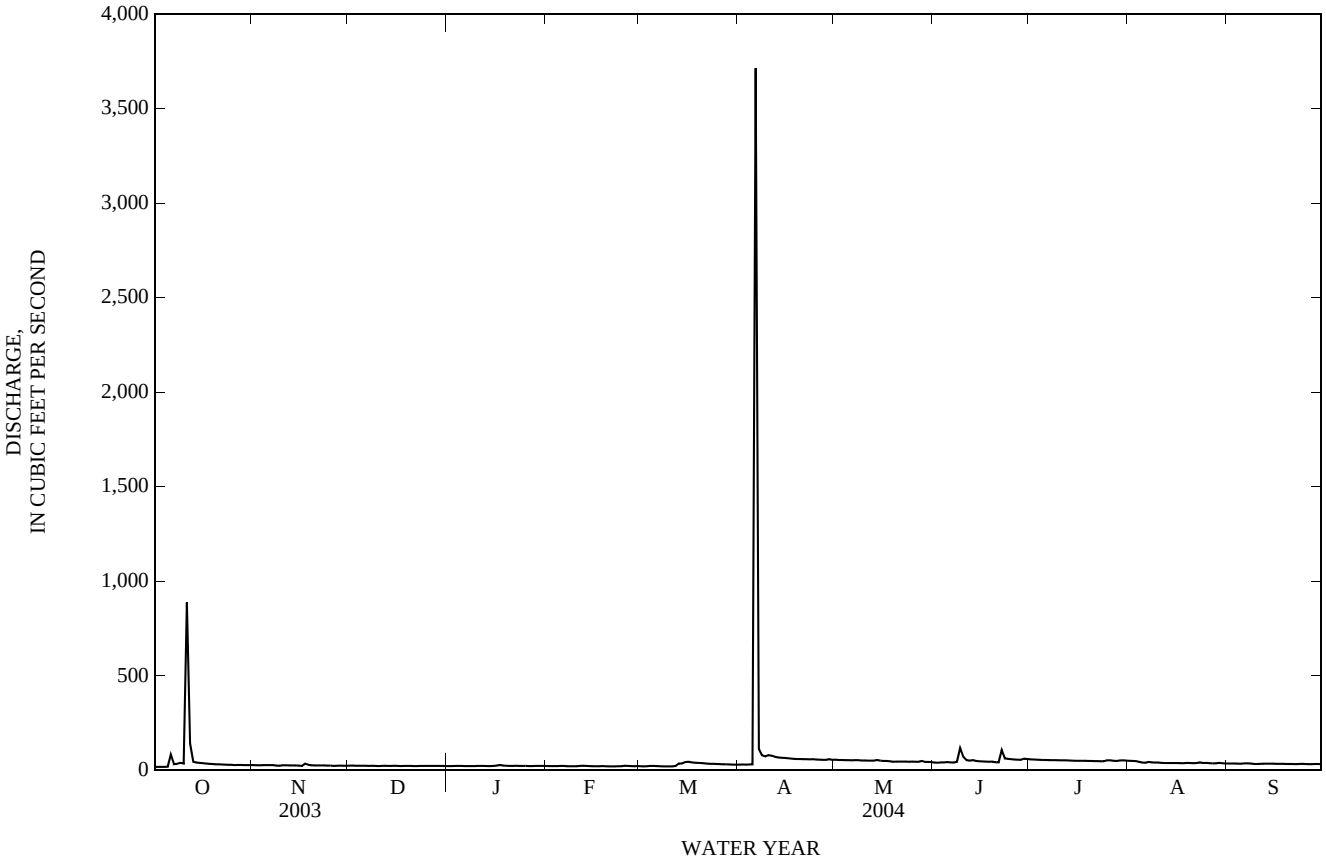
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004, BY WATER YEAR (WY)

MEAN	68.4	41.8	42.1	31.7	30.4	29.9	42.9	41.3	42.6	40.3	50.4	37.7
MAX	529	289	296	113	108	144	351	149	278	465	452	198
(WY)	(1986)	(2002)	(1985)	(1968)	(1992)	(1992)	(1977)	(1990)	(1981)	(1987)	(1978)	(1986)
MIN	12.5	14.8	16.2	15.2	13.3	13.6	13.6	11.8	10.7	11.0	10.6	10.8
(WY)	(1984)	(1984)	(1990)	(1990)	(1984)	(1971)	(1971)	(1971)	(1971)	(1971)	(1984)	(1984)

08165300 North Fork Guadalupe River near Hunt, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004	
ANNUAL TOTAL	10,438		18,343			
ANNUAL MEAN	28.6		50.1		41.9	
HIGHEST ANNUAL MEAN					103	1987
LOWEST ANNUAL MEAN					13.4	1984
HIGHEST DAILY MEAN	889	Oct 11	3,710	Apr 6	14,900	Oct 19, 1985
LOWEST DAILY MEAN	16	Aug 20	19	Oct 1	6.6	May 30, 1969
ANNUAL SEVEN-DAY MINIMUM	17	Aug 17	22	Feb 16	8.3	Jun 7, 1971
MAXIMUM PEAK FLOW			10,800	Apr 6	57,000	Oct 19, 1985
MAXIMUM PEAK STAGE			9.86	Apr 6	a29.81	Oct 19, 1985
ANNUAL RUNOFF (AC-FT)	20,700		36,380		30,330	
ANNUAL RUNOFF (CFSM)	0.169		0.297		0.248	
ANNUAL RUNOFF (INCHES)	2.30		4.04		3.37	
10 PERCENT EXCEEDS	31		57		49	
50 PERCENT EXCEEDS	26		35		25	
90 PERCENT EXCEEDS	19		23		15	

a From floodmark.



08165500 Guadalupe River at Hunt, TX

LOCATION.--Lat 30°04'11", long 99°19'17", Kerr County, Hydrologic Unit 12100201, on left bank, 56 ft upstream and 252 ft to left of left end of bridge on State Highway 39, 0.6 mi downstream from confluence of North and South Forks, 0.8 mi east of Hunt, and at mile 430.9.

DRAINAGE AREA.--288 mi^2.

PERIOD OF RECORD.--Oct. 1941 to Sept. 1949 (daily mean discharge below base), Aug. 1951 to Sept. 1964 (periodic discharge measurements only), Apr. 1965 to current year.

REVISED RECORDS.--WSP 2123: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,722.70 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. There are numerous diversions for irrigation above station, amounts unknown.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1900, 36.6 ft, July 2, 1932, from information by local resident (discharge, 206,000 ft^3/s, determined by slope-area measurement 4.5 mi downstream from gage).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

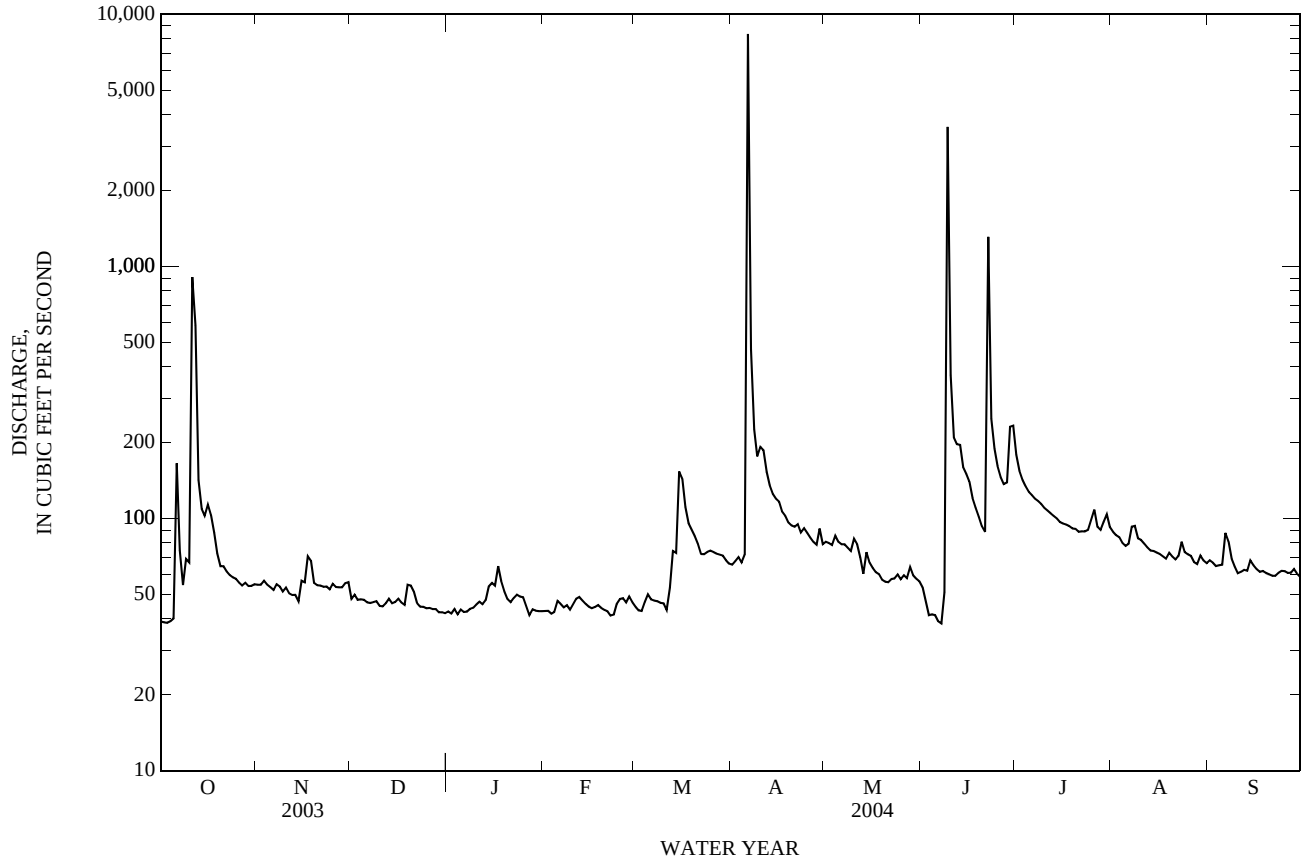
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	55	48	43	43	45	66	81	53	179	89	68
2	39	55	50	42	43	43	68	80	47	154	86	67
3	39	57	48	44	42	43	70	78	41	142	84	65
4	39	55	48	42	43	47	67	85	42	134	80	65
5	40	53	48	44	47	50	72	81	41	128	78	66
6	166	52	47	43	46	48	8,360	79	39	124	79	88
7	75	55	46	43	44	47	469	79	38	120	93	81
8	54	54	47	44	45	47	226	77	51	117	94	69
9	69	51	47	44	43	46	176	74	3,570	114	83	64
10	67	53	45	46	46	46	192	83	371	110	82	61
11	908	51	45	47	48	43	187	79	210	108	79	62
12	583	50	46	46	49	53	153	70	197	105	77	63
13	142	50	48	47	47	74	136	60	196	102	75	62
14	109	47	46	54	46	73	125	74	160	100	74	68
15	103	57	47	55	45	154	120	67	150	97	73	65
16	114	56	48	54	44	144	117	64	140	95	72	63
17	103	71	46	65	45	111	107	61	121	95	71	62
18	88	68	45	57	45	96	102	60	110	93	69	62
19	73	56	55	51	44	91	96	57	102	91	73	61
20	65	54	54	48	43	85	94	56	93	91	71	60
21	65	54	51	47	43	80	93	56	89	89	69	59
22	62	54	46	48	41	72	95	58	1,310	89	71	59
23	60	54	45	50	42	72	88	58	249	89	81	61
24	58	52	45	49	46	74	91	60	189	90	74	62
25	58	55	44	49	48	75	88	57	161	99	72	62
26	56	54	44	45	48	74	84	60	146	108	71	61
27	54	53	44	41	46	73	81	58	137	93	67	61
28	56	53	44	44	49	72	79	64	139	90	66	63
29	54	55	42	43	47	71	91	60	231	97	71	60
30	54	56	43	43	---	68	79	58	234	104	68	59
31	55	---	42	43	---	66	---	56	---	93	67	---
TOTAL	3,547	1,640	1,444	1,461	1,308	2,183	11,872	2,090	8,657	3,340	2,359	1,929
MEAN	114	54.7	46.6	47.1	45.1	70.4	396	67.4	289	108	76.1	64.3
MAX	908	71	55	65	49	154	8,360	85	3,570	179	94	88
MIN	39	47	42	41	41	43	66	56	38	89	66	59
AC-FT	7,040	3,250	2,860	2,900	2,590	4,330	23,550	4,150	17,170	6,620	4,680	3,830

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	113	82.3	72.3	61.0	61.7	63.2	82.1	82.6	85.4	84.7	102	68.9
MAX	677	538	322	151	213	257	570	286	551	956	992	312
(WY)	(1986)	(2002)	(1985)	(1968)	(1992)	(1992)	(1977)	(1994)	(1987)	(1987)	(1978)	(1980)
MIN	33.4	34.0	35.3	31.1	30.4	28.8	28.6	21.1	17.0	14.9	14.6	17.1
(WY)	(1966)	(1966)	(1966)	(1966)	(1966)	(1966)	(1984)	(1984)	(1984)	(1984)	(1984)	(1984)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	19,657		41,830			
ANNUAL MEAN	53.9		114		80.4	
HIGHEST ANNUAL MEAN					223	1987
LOWEST ANNUAL MEAN					27.6	1984
HIGHEST DAILY MEAN	908	Oct 11	8,360	Apr 6	22,200	Jul 17, 1987
LOWEST DAILY MEAN	29	Aug 8	38	Jun 7	8.2	Jul 17, 1984
ANNUAL SEVEN-DAY MINIMUM	32	Aug 3	43	Dec 29	9.4	Jul 12, 1984
MAXIMUM PEAK FLOW			27,800	Apr 6	108,000	Jul 17, 1987
MAXIMUM PEAK STAGE			18.28	Apr 6	28.38	Jul 17, 1987
ANNUAL RUNOFF (AC-FT)	38,990		82,970		58,260	
10 PERCENT EXCEEDS	61		126		97	
50 PERCENT EXCEEDS	49		62		49	
90 PERCENT EXCEEDS	37		44		29	

08165500 Guadalupe River at Hunt, TX—Continued



08166000 Johnson Creek near Ingram, TX

LOCATION.--Lat 30°06'00", long 99°16'58", Kerr County, Hydrologic Unit 12100201, on right bank 1.6 mi upstream from Henderson Branch, 3.4 mi northwest of Ingram, 3.8 mi upstream from mouth, and 9.2 mi northwest of Kerrville.

DRAINAGE AREA.--114 mi^2.

PERIOD OF RECORD.--Oct. 1941 to Nov. 1959, Oct. 1961 to Sept. 1993, Apr. 1999 to current year. Water quality records: Chemical data: June 1952 to July 1966.

REVISED RECORDS.--WSP 1058: 1942-45. WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,721.30 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation. There are numerous small diversions above station for irrigation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1852, 35 ft, July 2, 1932, from information by local resident: discharge 138,000 ft^3/s, by slope-area measurement at point 0.5 mi downstream from the Heart of the Hills State Fish Hatchery and 6 or 7 mi upstream from gage. Flood of June 14, 1935 reached a stage of 31 or 32 ft, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	22	23	20	20	20	29	47	36	86	67	44
2	15	22	24	19	19	21	77	47	29	65	67	41
3	15	22	24	19	19	22	59	45	28	61	66	42
4	14	20	23	18	19	28	16	45	27	59	63	43
5	15	22	22	16	25	25	16	46	26	55	62	42
6	77	20	22	15	19	19	1,220	46	30	54	62	58
7	e18	20	23	17	18	18	272	46	30	53	69	37
8	e15	21	24	17	18	19	158	45	87	52	64	36
9	e20	22	22	17	18	19	125	44	2,760	45	62	36
10	e15	23	20	16	20	21	150	45	242	41	63	34
11	e424	22	22	15	23	19	124	38	142	42	61	32
12	327	22	23	17	21	36	101	45	101	41	83	31
13	118	20	22	21	18	49	92	44	77	36	59	31
14	71	20	22	21	19	40	87	61	51	36	59	35
15	24	22	23	30	18	67	83	48	28	37	56	32
16	e30	24	21	34	18	48	80	44	23	39	56	27
17	e34	38	20	52	16	38	77	42	11	42	52	26
18	e31	27	21	28	14	35	73	50	9.0	43	54	24
19	e27	20	22	25	16	33	70	48	6.5	45	73	21
20	e28	22	21	24	15	32	67	42	5.0	48	53	22
21	e26	22	21	22	14	30	65	39	3.7	49	55	24
22	e23	22	21	21	15	29	62	42	456	51	58	21
23	e22	22	20	21	16	29	57	42	136	54	71	20
24	e21	20	20	22	23	33	59	38	107	55	57	22
25	e18	18	19	21	25	34	55	38	94	83	53	17
26	e18	21	20	18	19	33	51	38	89	97	54	24
27	e18	22	20	18	19	32	48	35	79	67	54	38
28	e21	21	20	15	19	31	45	34	112	65	49	55
29	22	22	18	17	22	30	48	32	190	94	50	44
30	24	23	19	18	---	30	46	32	166	121	47	38
31	23	---	19	19	---	29	---	32	---	70	46	---
TOTAL	1,570	664	661	653	545	949	3,512	1,320	5,181.2	1,786	1,845	997
MEAN	50.6	22.1	21.3	21.1	18.8	30.6	117	42.6	173	57.6	59.5	33.2
MAX	424	38	24	52	25	67	1,220	61	2,760	121	83	58
MIN	14	18	18	15	14	18	16	32	3.7	36	46	17
AC-FT	3,110	1,320	1,310	1,300	1,080	1,880	6,970	2,620	10,280	3,540	3,660	1,980

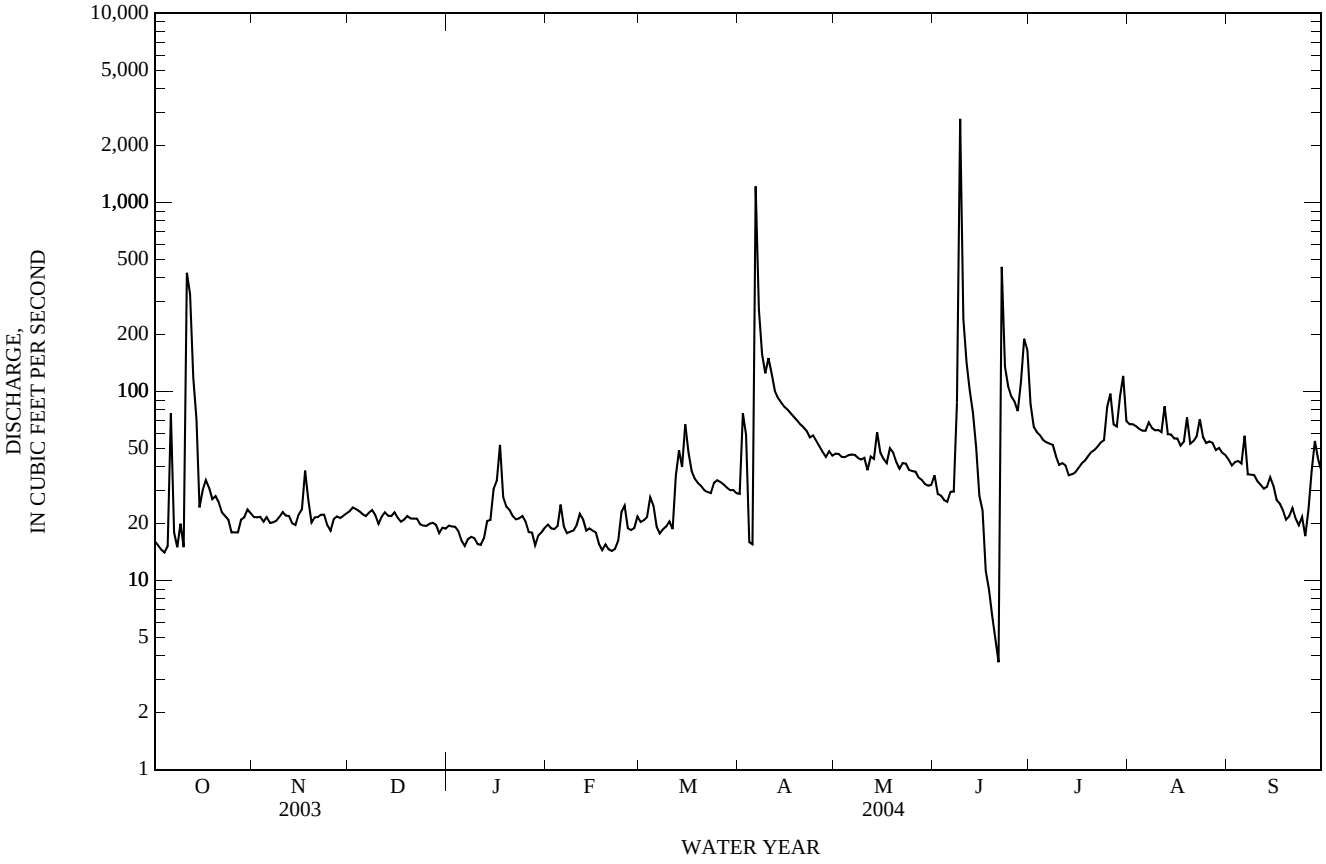
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004h, BY WATER YEAR (WY)

MEAN	36.4	26.3	22.9	21.2	21.2	20.3	25.8	25.7	29.0	22.0	35.2	21.3
MAX	361	245	178	97.8	114	108	195	101	173	188	726	71.0
(WY)	(1986)	(2001)	(1985)	(1968)	(1992)	(1992)	(1977)	(1977)	(2004)	(1987)	(1978)	(1974)
MIN	4.80	5.17	5.44	5.31	6.05	5.27	4.20	5.54	2.84	1.16	1.13	3.02
(WY)	(1952)	(1957)	(1955)	(1956)	(1952)	(1956)	(1954)	(1953)	(1956)	(1954)	(1954)	(1954)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004h	
ANNUAL TOTAL	8,110.8		19,683.2			
ANNUAL MEAN	22.2		53.8		25.2	
HIGHEST ANNUAL MEAN					79.0	1978
LOWEST ANNUAL MEAN					4.78	1954
HIGHEST DAILY MEAN	424	Oct 11	2,760	Jun 9	17,200	Aug 3, 1978
LOWEST DAILY MEAN	7.9	Jul 23	3.7	Jun 21	0.40	Jul 26, 1956
ANNUAL SEVEN-DAY MINIMUM	8.9	Jul 23	12	Jun 15	0.59	Jul 23, 1956
MAXIMUM PEAK FLOW			16,200	Jun 9	95,900	Oct 4, 1959
MAXIMUM PEAK STAGE			11.82	Jun 9	a24.25	Oct 4, 1959
ANNUAL RUNOFF (AC-FT)	16,090		39,040		18,240	
10 PERCENT EXCEEDS	28		77		39	
50 PERCENT EXCEEDS	20		30		15	
90 PERCENT EXCEEDS	12		18		6.0	

h See Period of Record paragraph.
a From floodmark.
e Estimated

08166000 Johnson Creek near Ingram, TX—Continued



08166140 Guadalupe River above Bear Creek at Kerrville, TX

LOCATION.--Lat 30°04'10", long 99°11'42", Kerr County, Hydrologic Unit 12100201, on left bank 600 ft downstream from Goat Creek, 900 ft upstream from Bear Creek and Bear Creek Crossing, and 2.4 mi east of intersection of State Highways 27 and 39 in Ingram.

DRAINAGE AREA.--494 mi^2.

PERIOD OF RECORD.--Apr. 1978 to June 1986, Oct. 1, 2003 to Sept. 30, 2004 (daily mean discharges less than 400 ft 3/s), Dec. 1994 to Mar. 1999 (periodic discharge measurements only), Apr. 1999 to Sept. 30, 2003 (daily mean discharge). Oct. 1, 2004 to Sept. 30, 2004 (daily mean discharges less than 400 ft 3/s).

GAGE.--Water-stage recorder. Datum of gage is 1,623.20 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good. No known regulation. Numerous diversions for irrigation above station, amounts unknown.

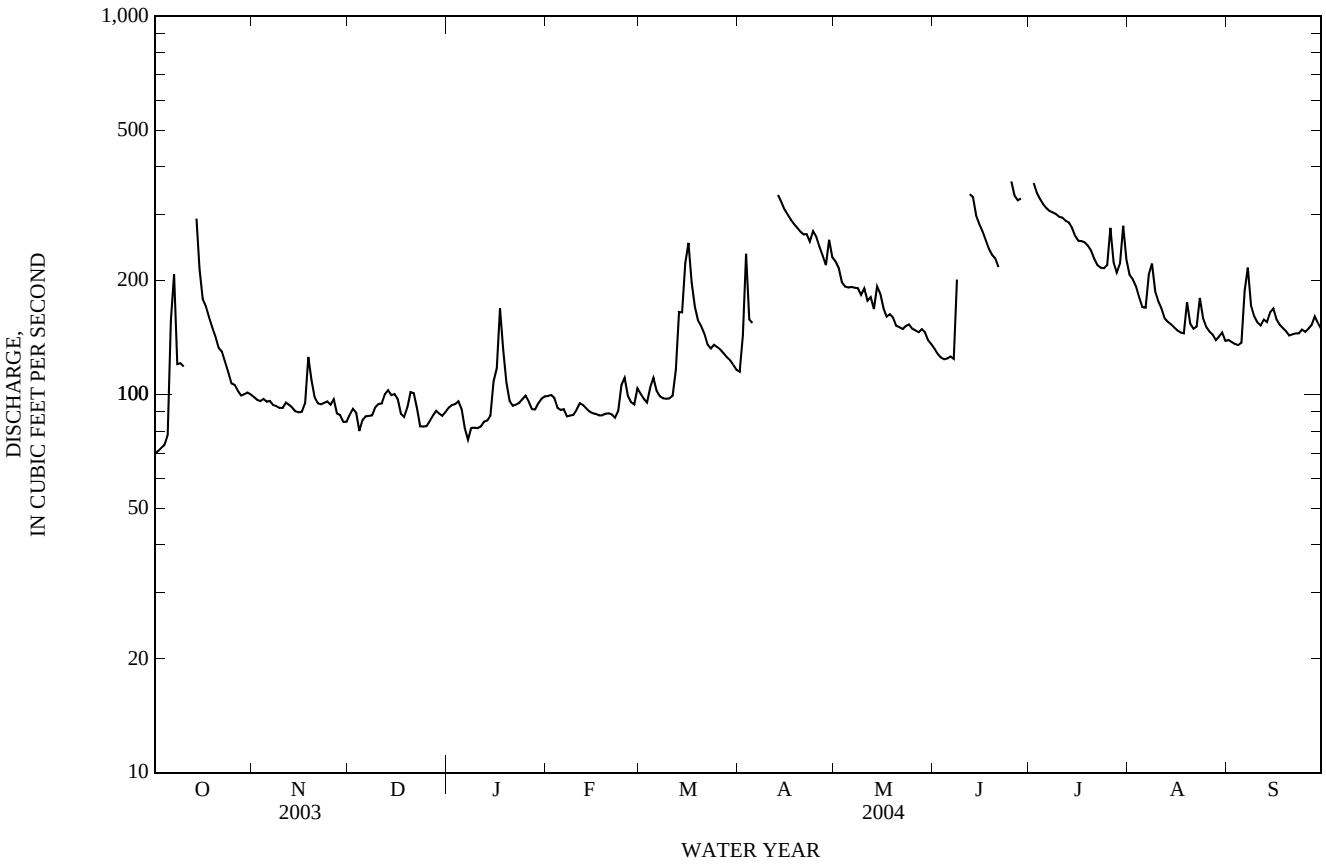
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1900, 34.1 ft, July 2, 1932, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	99	88	92	99	100	115	225	132	---	207	139
2	71	97	92	94	100	97	144	216	128	362	202	138
3	72	96	89	94	98	95	236	198	125	341	193	136
4	73	97	80	96	92	104	158	193	124	329	181	135
5	78	96	86	92	91	111	155	192	125	319	170	137
6	157	96	88	81	91	102	---	193	126	311	170	188
7	208	94	88	76	88	99	---	192	124	306	207	216
8	120	93	88	82	88	98	---	191	201	303	222	172
9	121	92	93	82	88	97	---	183	---	300	188	161
10	119	92	94	81	91	98	---	191	---	295	176	155
11	---	95	95	82	95	99	---	177	---	293	169	152
12	---	94	100	85	94	116	---	181	338	288	159	158
13	---	92	103	85	92	165	337	168	333	285	156	155
14	e292	90	100	88	90	165	324	193	298	276	153	165
15	e215	90	100	108	89	222	309	185	282	263	150	169
16	e179	90	97	117	89	252	299	169	270	255	148	158
17	171	95	89	169	88	198	290	161	256	254	146	153
18	160	126	87	131	88	171	282	163	243	253	145	150
19	151	109	92	108	89	157	276	160	234	247	176	147
20	142	98	101	96	89	151	270	152	229	240	154	143
21	133	95	101	93	89	145	265	151	217	228	149	144
22	130	94	92	94	87	136	266	149	---	220	151	145
23	122	95	82	95	90	132	254	152	---	216	180	145
24	115	96	82	97	106	135	270	153	---	216	159	148
25	107	94	83	99	111	133	261	149	366	220	151	146
26	106	97	85	96	99	131	246	148	336	276	147	149
27	102	89	88	91	96	129	233	146	326	224	144	153
28	99	88	91	91	94	125	220	149	330	210	139	161
29	100	85	89	95	104	123	256	146	---	222	142	154
30	101	85	88	98	---	120	231	139	---	279	146	149
31	100	---	90	99	---	116	---	136	---	227	139	---
TOTAL	---	2,849	2,821	2,987	2,705	4,122	---	5,301	---	---	5,119	4,621
MEAN	---	95.0	91.0	96.4	93.3	133	---	171	---	---	165	154
MAX	126	103	169	111	252	225	222	216				
MIN	85	80	76	87	95	136	139	135				
AC-FT	---	5,650	5,600	5,920	5,370	8,180	---	10,510	---	---	10,150	9,170

e Estimated

08166140 Guadalupe River above Bear Creek at Kerrville, TX—Continued



08166200 Guadalupe River at Kerrville, TX

LOCATION.--Lat 30°03'11", long 99°09'47", Kerr County, Hydrologic Unit 12100201, on left bank, 300 ft downstream from left end of Kerrville Dam, 1.0 mi upstream from mouth of Town Creek, and 1.4 mi upstream from State Highway 16 on Guadalupe Street at Guadalupe Park in Kerrville.

DRAINAGE AREA.--510 mi^2.

PERIOD OF RECORD.--July 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,601.00 ft above NGVD of 1929. Prior to Apr. 4, 1989, at site 300 ft upstream, and on opposite bank at datum 1.0 ft lower. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since installation of gage in 1986, at least 10% of contributing drainage area has been regulated. Numerous diversions for irrigation above station, amounts unknown.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum estimated discharge, 196,000 ft^3/s, July 2, 1932 (estimated gage height, 39 ft).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	104	83	77	87	104	117	214	108	488	200	143
2	66	105	88	77	86	99	148	203	105	410	195	139
3	66	105	88	77	84	98	268	191	99	375	192	136
4	64	105	87	80	87	115	173	187	98	349	181	134
5	67	102	83	75	89	121	166	188	97	324	172	135
6	144	101	83	73	90	107	9,600	187	98	308	170	192
7	237	100	81	72	85	100	1,260	186	96	295	207	197
8	128	102	79	75	84	95	588	185	174	286	232	153
9	147	102	80	77	87	92	461	179	14,000	280	189	144
10	139	102	74	75	90	94	451	183	2,170	268	181	135
11	882	102	77	75	98	97	524	173	554	267	174	127
12	1,650	99	80	78	98	127	396	176	412	258	165	131
13	352	95	86	77	98	187	344	166	402	248	157	128
14	247	94	81	78	93	186	316	181	333	238	160	136
15	203	94	80	110	93	232	301	177	309	232	159	141
16	184	94	77	129	88	278	291	160	283	225	156	131
17	172	99	79	173	86	213	278	150	267	222	153	126
18	160	126	77	134	83	187	263	150	247	218	153	124
19	151	108	78	113	83	172	254	148	231	212	182	123
20	143	101	90	104	83	162	243	140	223	204	159	119
21	133	96	89	102	80	156	238	133	209	201	154	118
22	131	92	86	102	79	145	236	133	2,380	197	155	119
23	124	92	77	102	83	138	230	136	660	194	187	121
24	118	88	77	103	111	143	252	136	480	197	169	124
25	112	91	79	103	112	141	235	132	415	196	155	121
26	109	90	79	96	107	138	213	127	367	269	149	122
27	107	85	80	85	102	135	203	128	343	206	146	122
28	105	82	81	85	98	131	201	128	345	194	142	130
29	106	83	77	85	112	122	238	128	688	205	143	122
30	108	82	75	87	---	120	218	120	797	281	161	115
31	105	---	76	90	---	118	---	116	---	216	144	---
TOTAL	6,525	2,921	2,507	2,869	2,656	4,353	18,706	4,941	26,990	8,063	5,242	4,008
MEAN	210	97.4	80.9	92.5	91.6	140	624	159	900	260	169	134
MAX	1,650	126	90	173	112	278	9,600	214	14,000	488	232	197
MIN	64	82	74	72	79	92	117	116	96	194	142	115
AC-FT	12,940	5,790	4,970	5,690	5,270	8,630	37,100	9,800	53,530	15,990	10,400	7,950

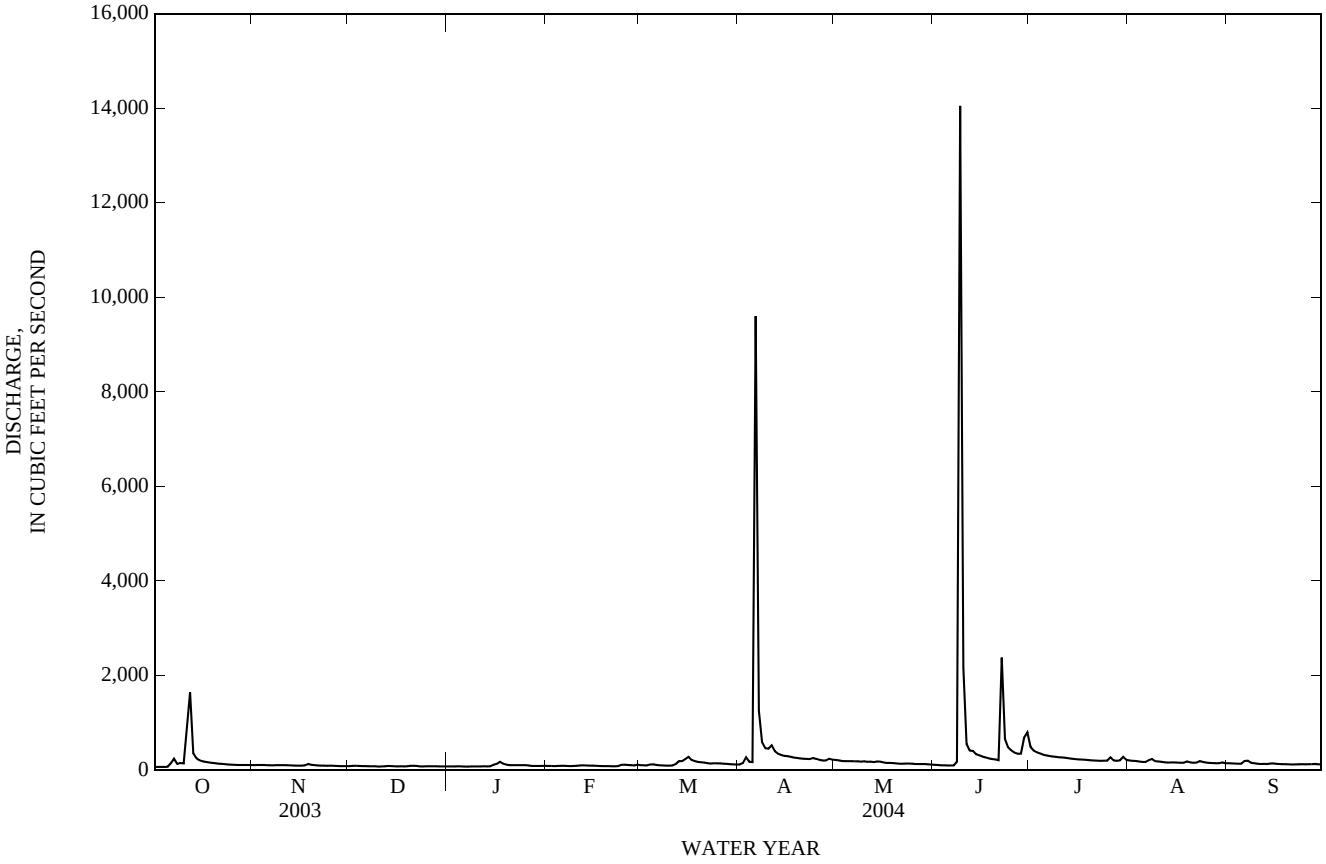
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

MEAN	166	175	145	123	145	154	151	156	237	230	108	114
MAX	676	718	572	282	555	547	624	313	1,088	1,572	281	256
(WY)	(2001)	(2002)	(1992)	(1992)	(1992)	(1992)	(2004)	(1994)	(1987)	(1987)	(1987)	(1986)
MIN	59.7	63.7	64.1	56.6	59.4	57.1	46.9	55.6	40.1	27.3	30.0	34.9
(WY)	(2000)	(2000)	(1990)	(1996)	(1996)	(2000)	(2000)	(1996)	(1996)	(1996)	(2000)	(2000)

08166200 Guadalupe River at Kerrville, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 2004	
ANNUAL TOTAL	37,646		89,781			
ANNUAL MEAN	103		245		159	
HIGHEST ANNUAL MEAN					399	1987
LOWEST ANNUAL MEAN					55.8	2000
HIGHEST DAILY MEAN	1,650	Oct 12	14,000	Jun 9	36,100	Jul 17, 1987
LOWEST DAILY MEAN	41	Aug 23	64	Oct 4	17	Aug 7, 1996
ANNUAL SEVEN-DAY MINIMUM	47	Aug 18	75	Jan 5	19	Aug 4, 1996
MAXIMUM PEAK FLOW			72,700	Jun 9	i141,000	Jul 17, 1987
MAXIMUM PEAK STAGE			20.53	Jun 9	a37.72	Jul 17, 1987
ANNUAL RUNOFF (AC-FT)	74,670		178,100		115,200	
10 PERCENT EXCEEDS	129		292		225	
50 PERCENT EXCEEDS	92		132		98	
90 PERCENT EXCEEDS	64		80		51	

i From indirect measurement of peak flow.
a From floodmark.



08167000 Guadalupe River at Comfort, TX

LOCATION.--Lat 29°58'10", long 98°53'33", Kendall County, Hydrologic Unit 12100201, at downstream side near center of southbound bridge on Interstate Highway 10 at Comfort, 0.5 mi downstream from Cypress Creek, and at mile 396.2.

DRAINAGE AREA.--839 mi^2.

PERIOD OF RECORD.--May 1939 to current year.

REVISED RECORDS.--WSP 1632: 1958. WSP 1732: 1939(M). WSP 2123: Drainage area, 1944(M), 1952(M), 1957(M), 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 1,369.83 ft above NGVD of 1929. Prior to Nov. 27, 1939, nonrecording gage. Nov. 27, 1939, to June 2, 1980, water-stage recorder at site 0.4 mi upstream at datum 2.22 ft higher. June 2, 1980, to Sept. 30, 1986, at present site at datum 2.00 ft higher. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since 1956, at least 10% of contributing drainage area has been regulated. There are many small diversions above station for irrigation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1869 reached a stage of 42.3 ft, present datum, from report by U.S. Army Corps of Engineers. Flood of July 1, 1932, reached a stage of 38.4 ft, from floodmark, and from information by Texas Department of Transportation. Flood of July 16, 1900, reached about the same stage as that of July 1, 1932, from information by local residents. Maximum stage since at least 1848, that of Aug. 2, 1978.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	128	108	97	132	166	189	672	227	1,550	399	271
2	72	127	115	101	129	141	203	606	212	1,180	374	265
3	71	130	120	102	124	133	586	548	199	1,040	363	257
4	71	130	115	102	121	147	405	516	193	962	336	252
5	72	125	112	102	142	226	444	506	187	897	313	258
6	76	124	109	91	137	175	16,500	496	182	848	337	365
7	274	122	110	88	130	152	3,000	499	178	814	545	501
8	225	126	110	90	121	139	1,280	504	205	788	623	337
9	243	128	107	94	122	129	1,010	479	12,600	750	458	282
10	218	128	108	93	130	128	932	455	2,580	713	373	259
11	250	128	102	92	179	120	1,230	456	1,070	690	352	241
12	2,370	127	102	94	169	144	1,000	451	813	688	328	237
13	776	121	107	96	152	323	867	451	764	641	297	240
14	523	114	110	97	147	367	788	521	667	606	291	238
15	393	116	105	139	141	483	741	459	588	575	281	245
16	322	118	104	296	133	567	703	419	522	543	272	236
17	281	119	100	529	122	483	679	389	478	519	262	232
18	255	133	101	341	117	397	647	369	432	503	255	215
19	225	155	98	234	114	353	625	362	395	482	271	209
20	205	133	104	191	112	328	607	346	367	460	273	204
21	185	123	118	173	106	310	583	324	344	440	250	197
22	170	118	116	160	102	281	557	316	2,800	422	254	196
23	161	119	108	158	108	258	547	311	1,270	408	726	198
24	154	117	97	163	137	263	1,030	311	1,670	438	409	206
25	144	114	95	184	234	263	735	305	1,190	423	342	204
26	138	117	97	162	174	256	652	290	998	475	312	202
27	133	120	101	146	152	243	594	284	855	446	293	221
28	130	111	105	128	140	232	558	275	854	392	280	217
29	128	104	102	126	144	224	768	267	1,210	375	274	216
30	129	105	95	131	---	206	645	257	2,730	490	275	205
31	132	---	91	133	---	198	---	247	---	471	290	---
TOTAL	8,602	3,680	3,272	4,733	3,971	7,835	39,105	12,691	36,780	20,029	10,708	7,406
MEAN	277	123	106	153	137	253	1,304	409	1,226	646	345	247
MAX	2,370	155	120	529	234	567	16,500	672	12,600	1,550	726	501
MIN	71	104	91	88	102	120	189	247	178	375	250	196
AC-FT	17,060	7,300	6,490	9,390	7,880	15,540	77,560	25,170	72,950	39,730	21,240	14,690

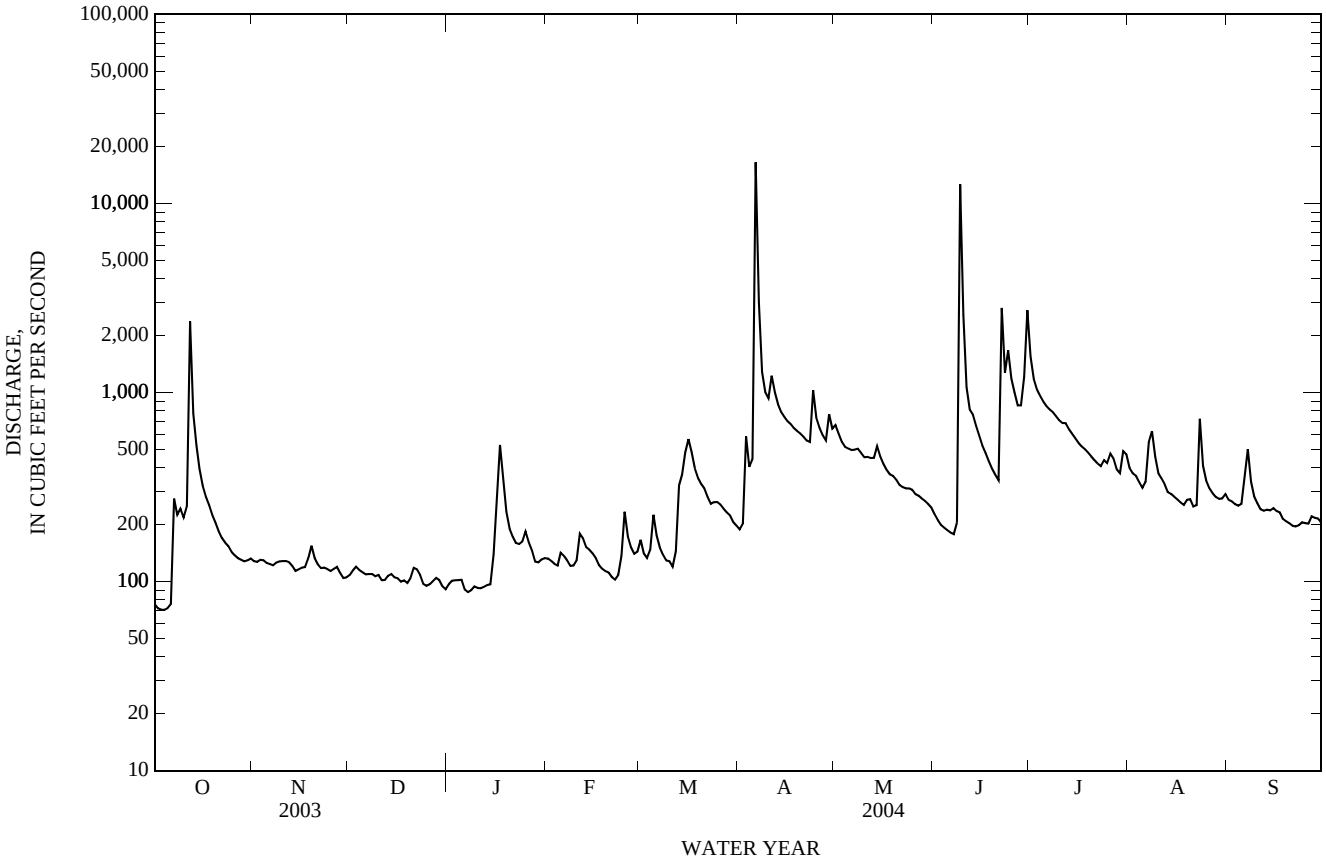
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	278	192	206	180	220	217	252	286	296	255	219	153
MAX	2,417	1,277	2,700	987	1,728	1,559	1,598	1,122	2,820	5,809	4,782	575
(WY)	(1986)	(2001)	(1992)	(1992)	(1992)	(1992)	(1977)	(1975)	(1987)	(2002)	(1978)	(1978)
MIN	0.00	3.63	10.5	16.8	24.4	16.6	13.2	14.9	0.10	0.00	0.00	0.00
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(1955)	(1956)	(1956)	(1956)	(1954)	(1954)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	71,144		158,812			
ANNUAL MEAN	195		434		230	
HIGHEST ANNUAL MEAN					894	1992
LOWEST ANNUAL MEAN					14.5	1956
HIGHEST DAILY MEAN	2,370	Oct 12	16,500	Apr 6	74,200	Aug 2, 1978
LOWEST DAILY MEAN	70	Aug 23	71	Oct 3	0.00	Aug 31, 1952
ANNUAL SEVEN-DAY MINIMUM	74	Aug 19	92	Jan 6	0.00	Aug 31, 1952
MAXIMUM PEAK FLOW			55,600	Jun 9	240,000	Aug 2, 1978
MAXIMUM PEAK STAGE			23.54	Jun 9	a40.90	Aug 2, 1978
ANNUAL RUNOFF (AC-FT)	141,100		315,000		166,900	
10 PERCENT EXCEEDS	332		744		387	
50 PERCENT EXCEEDS	147		240		115	
90 PERCENT EXCEEDS	92		105		28	

a From floodmark.

08167000 Guadalupe River at Comfort, TX—Continued



08167500 Guadalupe River near Spring Branch, TX

LOCATION.--Lat 29°51'37", long 98°23'00", Comal County, Hydrologic Unit 12100201, on left bank, 15 ft downstream from bridge on Ranch Road 311, 1.9 mi southeast of Spring Branch Post Office, 7.5 mi downstream from Curry Creek, and at mile 334.4.

DRAINAGE AREA.--1,315 mi^2.

PERIOD OF RECORD.--June 1922 to current year. Water-quality records: Chemical data: Oct. 1942 to Sept. 1945, Oct. 1980 to Sept. 1982, Oct. 1989 to Aug. 1995, Apr. 1996 to Apr. 1998. Biochemical data: Oct. 1980 to Sept. 1982, Oct. 1989 to Aug. 1995, Apr. 1996 to Apr. 1998. Sediment data: Apr. 1996 to Apr. 1998.

REVISED RECORDS.--WSP 1562: 1923-24, 1926, 1927-28(M), 1929, 1930(M). WSP 2123: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 948.10 ft above NGVD of 1929. Prior to Jan. 14, 1981, at site 220 ft downstream at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since 1956, at least 10% of contributing drainage area has been regulated. Several small diversions above station for irrigation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1859, about 53 ft in 1869; flood in July 1900 reached a stage of about 49 ft, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	179	147	139	176	235	461	1,280	527	4,760	796	449
2	153	177	149	140	176	251	473	1,270	502	3,120	649	432
3	149	176	151	145	172	240	519	1,100	484	2,560	609	426
4	149	177	152	146	174	241	789	1,010	464	2,210	589	432
5	150	178	153	144	195	253	757	942	498	1,980	560	493
6	153	177	147	141	221	289	1,520	918	449	1,800	536	455
7	154	173	149	137	194	269	17,300	907	439	1,680	765	520
8	218	173	149	135	187	249	3,250	922	470	1,580	751	592
9	280	175	151	135	184	239	2,090	921	4,360	1,490	1,150	484
10	257	177	146	135	189	232	1,770	858	13,300	1,380	687	434
11	284	177	143	138	227	230	2,360	829	3,040	1,310	606	410
12	716	177	144	138	262	233	2,540	844	1,930	1,240	568	393
13	1,970	174	145	139	246	257	1,900	864	1,560	1,180	533	383
14	661	170	143	142	231	371	1,660	1,440	1,430	1,090	510	393
15	454	169	148	155	224	410	1,510	1,060	1,240	1,030	508	392
16	363	169	143	179	216	481	1,390	922	1,130	977	492	385
17	317	174	139	400	209	538	1,300	860	1,030	934	482	374
18	285	172	140	448	200	499	1,230	811	960	891	471	365
19	266	168	138	321	196	467	1,140	779	889	857	472	350
20	249	182	139	257	195	452	1,090	754	825	818	477	341
21	236	174	141	224	191	446	1,060	721	782	782	469	333
22	224	169	150	210	189	440	1,000	692	899	749	454	326
23	213	164	152	200	188	432	957	678	3,490	720	947	343
24	205	155	146	203	207	433	1,980	665	1,900	710	e978	336
25	199	156	143	204	238	445	1,860	657	2,010	706	e601	331
26	191	154	141	207	275	455	1,380	636	2,140	700	e542	327
27	186	156	142	197	257	460	1,210	613	1,750	722	e495	324
28	181	153	144	188	242	461	1,100	598	4,200	686	479	337
29	180	153	143	177	240	463	1,790	576	2,560	649	517	332
30	178	148	141	174	---	463	1,490	566	4,930	648	462	327
31	178	---	139	174	---	460	---	552	---	733	449	---
TOTAL	9,558	5,076	4,498	5,872	6,101	11,394	58,876	26,245	60,188	40,692	18,604	11,819
MEAN	308	169	145	189	210	368	1,963	847	2,006	1,313	600	394
MAX	1,970	182	153	448	275	538	17,300	1,440	13,300	4,760	1,150	592
MIN	149	148	138	135	172	230	461	552	439	648	449	324
AC-FT	18,960	10,070	8,920	11,650	12,100	22,600	116,800	52,060	119,400	80,710	36,900	23,440

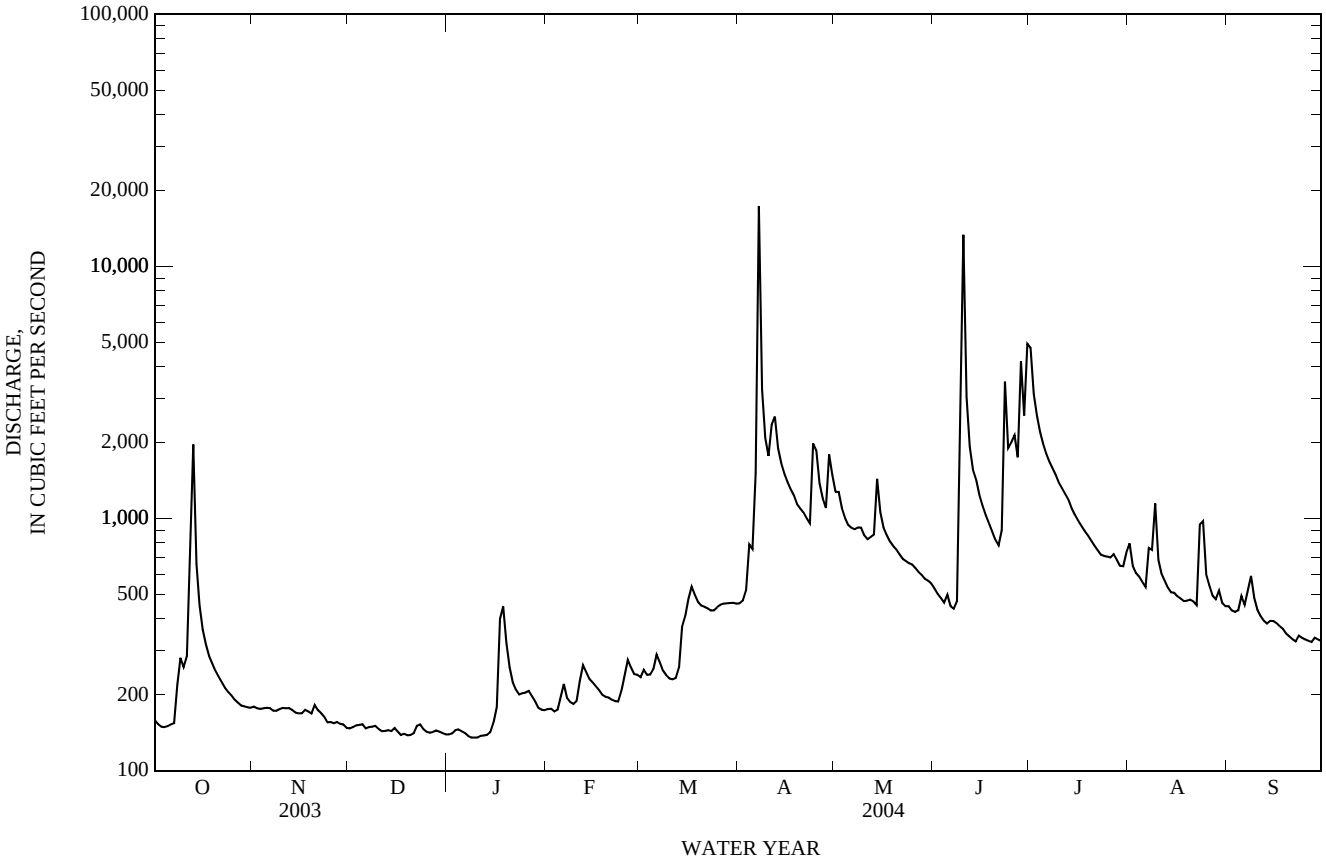
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

MEAN	355	278	316	296	366	366	405	504	578	446	243	296
MAX	1,584	2,053	4,927	1,903	4,164	3,306	2,417	2,216	6,329	10,530	4,980	4,055
(WY)	(1982)	(2001)	(1992)	(1992)	(1992)	(1992)	(1977)	(1992)	(1987)	(2002)	(1978)	(1936)
MIN	5.91	11.1	6.48	10.9	29.3	16.8	6.11	19.3	0.00	0.00	0.25	0.29
(WY)	(1952)	(1957)	(1957)	(1957)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1954)	(1954)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	122,499		258,923			
ANNUAL MEAN	336		707		371	
HIGHEST ANNUAL MEAN					1,819	1992
LOWEST ANNUAL MEAN					13.3	1956
HIGHEST DAILY MEAN	1,970	Oct 13	17,300	Apr 7	76,500	Aug 3, 1978
LOWEST DAILY MEAN	119	Aug 23	135	Jan 8	0.00	Aug 19, 1951
ANNUAL SEVEN-DAY MINIMUM	123	Aug 21	137	Jan 7	0.00	Aug 31, 1951
MAXIMUM PEAK FLOW			31,600	Apr 7	i160,000	Aug 3, 1978
MAXIMUM PEAK STAGE			23.51	Apr 7	a45.25	Aug 3, 1978
ANNUAL RUNOFF (AC-FT)	243,000		513,600		269,000	
10 PERCENT EXCEEDS	628		1,490		675	
50 PERCENT EXCEEDS	248		429		159	
90 PERCENT EXCEEDS	146		148		35	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated

08167500 Guadalupe River near Spring Branch, TX—Continued



08167700 Canyon Lake near New Braunfels, TX

LOCATION.--Lat 29°52'07", long 98°11'55", Comal County, Hydrologic Unit 12100201, in intake structure of Canyon Dam on Guadalupe River, 12 mi northwest of New Braunfels, and at mile 303.0.

DRAINAGE AREA.--1,432 mi^2.

PERIOD OF RECORD.--July 1962 to Sept. 2000 (U.S. Army Corps of Engineers furnished contents), Oct. 2000 to Sept. 2002 (contents), Oct. 2002 to current year. Prior to Oct. 1970, published as "Canyon Reservoir". Water-quality records: Chemical data: Oct. 1980 to Sept. 1982, Oct. 1989 to Aug. 1995. Biochemical data: Oct. 1980 to Sept. 1982, Oct. 1989 to Aug. 1995.

REVISED RECORDS.--WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Sept. 24, 1964, nonrecording gage at present site and datum. Satellite telemeter at station.

REMARKS.--Records good. The lake is formed by a rolled earthfill dam 6,830 ft long, consisting of the main dam 4,410 ft long, an earthen dike 210 ft long, a 1,260-foot-long uncontrolled broad-crested-type spillway, and a 950-foot concrete and earthen nonoverflow section. Deliberate impoundment began June 16, 1964, and main part of dam was completed in Aug. 1964. The flood-control outlet works consist of a 10.0-foot-diameter conduit controlled by two 5.7 by 10.0-foot hydraulically operated slide gates. The dam is owned by the U.S. Army Corps of Engineers. The lake was built for water conservation and flood control. Small diversions above the lake for irrigation. Conservation pool storage is 378,852 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	974.0
Crest of spillway	943.0
Top of conservation pool	908.6
Lowest gated outlet (invert)	775.0

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 831,800 acre-ft, July 6, 2002, elevation, 950.28 ft; minimum observed since conservation pool first reached in Apr. 1968, 311,200 acre-ft, Nov. 24, 1984, elevation, 899.85 ft.

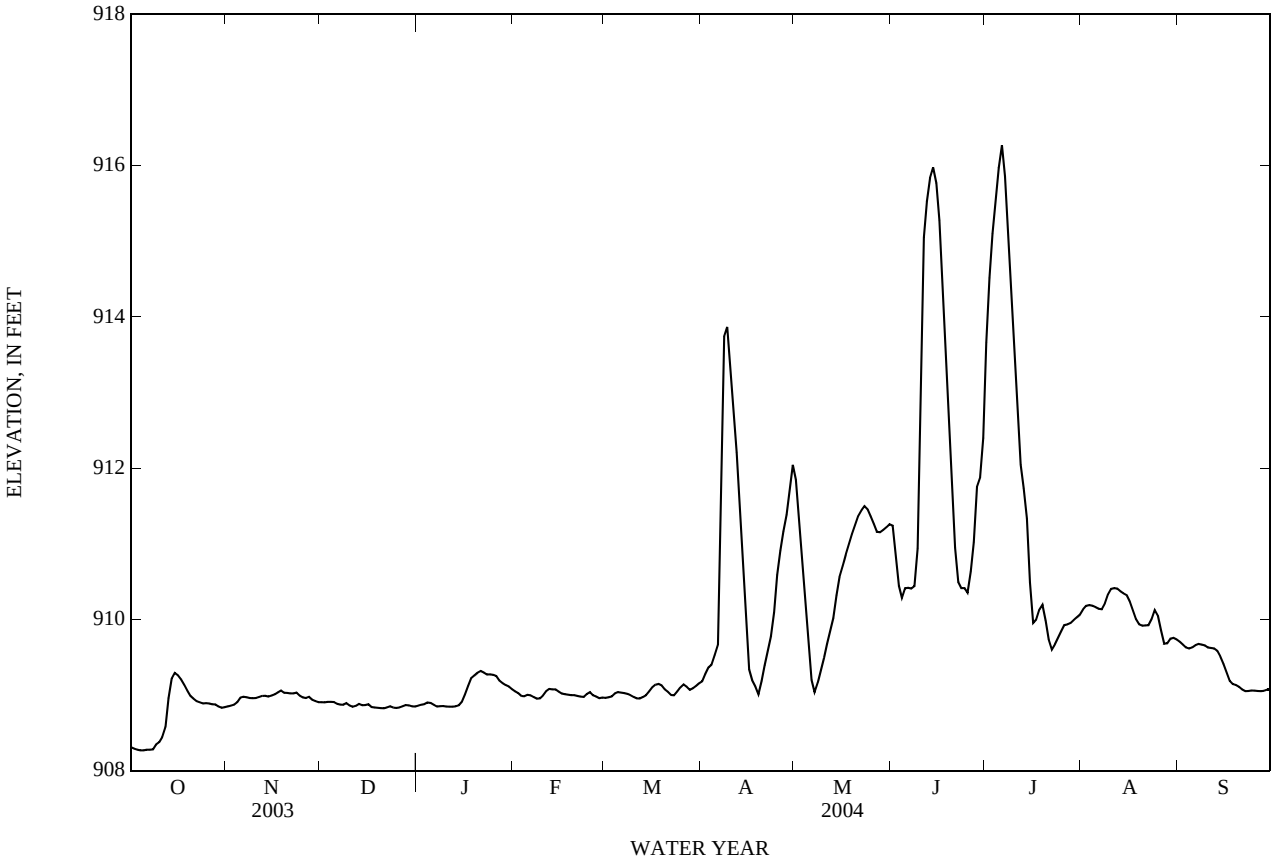
EXTREMES FOR CURRENT YEAR.--Maximum elevation, 916.34 ft, Jul. 6; minimum elevation, 908.27 ft, Oct. 3, 4, 5, 6, and 8.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	908.31	908.85	908.90	908.86	909.05	908.96	909.18	911.85	911.24	913.66	910.13	909.70
2	908.29	908.86	908.90	908.87	909.03	908.97	909.28	911.36	910.85	914.52	910.18	909.67
3	908.28	908.87	908.91	908.88	908.99	908.98	909.37	910.85	910.44	915.10	910.19	909.63
4	908.27	908.90	908.91	908.90	908.98	909.02	909.40	910.31	910.28	915.57	910.18	909.61
5	908.27	908.96	908.91	908.90	909.00	909.04	909.53	909.81	910.41	915.97	910.16	909.63
6	908.28	908.98	908.88	908.87	909.00	909.03	909.66	909.20	910.42	916.27	910.14	909.66
7	908.28	908.97	908.87	908.85	908.97	909.03	911.82	909.04	910.41	915.86	910.13	909.68
8	908.28	908.96	908.87	908.85	908.95	909.02	913.74	909.16	910.44	915.14	910.21	909.67
9	908.34	908.96	908.89	908.85	908.96	909.00	913.87	909.32	910.94	914.40	910.33	909.66
10	908.38	908.96	908.86	908.85	908.99	908.98	913.29	909.49	913.27	913.64	910.40	909.63
11	908.44	908.97	908.84	908.85	909.05	908.96	912.71	909.68	915.05	912.85	910.41	909.62
12	908.58	908.99	908.86	908.85	909.08	908.95	912.21	909.85	915.53	912.04	910.41	909.62
13	908.96	908.99	908.88	908.85	909.07	908.97	911.56	910.02	915.84	911.73	910.37	909.59
14	909.22	908.98	908.87	908.86	909.08	909.00	910.82	910.32	915.98	911.33	910.34	909.51
15	909.29	908.99	908.87	908.91	909.04	909.05	910.03	910.56	915.77	910.49	910.32	909.41
16	909.26	909.01	908.88	909.01	909.02	909.10	909.34	910.71	915.28	909.95	910.24	909.30
17	909.21	909.04	908.84	909.12	909.01	909.14	909.20	910.86	914.48	910.00	910.12	909.19
18	909.14	909.06	908.83	909.22	909.00	909.15	909.11	911.00	913.61	910.13	910.00	909.14
19	909.06	909.03	908.83	909.26	909.00	909.13	909.01	911.13	912.72	910.19	909.93	909.13
20	908.99	909.03	908.83	909.29	909.00	909.07	909.19	911.25	911.81	909.98	909.92	909.11
21	908.95	909.02	908.82	909.32	908.99	909.04	909.39	911.37	910.95	909.74	909.92	909.07
22	908.92	909.02	908.84	909.30	908.98	909.00	909.59	911.44	910.50	909.60	909.92	909.05
23	908.90	909.03	908.85	909.27	908.98	909.00	909.78	911.50	910.41	909.67	910.01	909.05
24	908.89	908.99	908.83	909.27	909.01	909.05	910.09	911.46	910.41	909.76	910.12	909.06
25	908.89	908.97	908.83	909.27	909.04	909.10	910.58	911.36	910.35	909.84	910.05	909.06
26	908.89	908.96	908.84	909.25	909.00	909.14	910.91	911.26	910.63	909.93	909.86	909.05
27	908.88	908.97	908.85	909.19	908.98	909.11	911.16	911.16	911.02	909.93	909.68	909.05
28	908.88	908.94	908.87	909.16	908.96	909.07	911.38	911.15	911.75	909.95	909.68	909.06
29	908.85	908.92	908.86	909.13	908.97	909.09	911.71	911.18	911.87	909.99	909.74	909.07
30	908.83	908.91	908.85	909.11	---	909.12	912.04	911.22	912.40	910.03	909.76	909.07
31	908.84	---	908.85	909.08	---	909.15	---	911.26	---	910.06	909.74	---
MEAN	908.74	908.97	908.86	909.04	909.01	909.05	910.63	910.65	912.17	911.85	910.08	909.36
MAX	909.29	909.06	908.91	909.32	909.08	909.15	913.87	911.85	915.98	916.27	910.41	909.70
MIN	908.27	908.85	908.82	908.85	908.95	908.95	909.01	909.04	910.28	909.60	909.68	909.05

WTR YR 2004 MEAN 909.87 MAX 916.27 MIN 908.27

08167700 Canyon Lake near New Braunfels, TX—Continued



08167800 Guadalupe River at Sattler, TX

LOCATION.--Lat 29°51'32", long 98°10'47", Comal County, Hydrologic Unit 12100202, on right bank 200 ft upstream from Horseshoe Falls, 0.8 mi north of Sattler, 1.8 mi downstream from Canyon Dam, 2.3 mi upstream from Heiser Hollow, 11.2 mi north of New Braunfels, and at mile 301.2.

DRAINAGE AREA.--1,436 mi^2.

PERIOD OF RECORD.--Mar. 1960 to current year. Water-quality records: Chemical data: Oct. 1980 to Sept. 1982, Oct. 1989 to Aug. 1995. Biochemical data: Oct. 1980 to Sept. 1982, Oct. 1989 to Aug. 1995. Water temperature: June 1984 to Sept. 1987.

REVISED RECORDS.--WSP 2123: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 742.24 ft above NGVD of 1929 (U.S. Army Corps of Engineers bench mark). Satellite telemeter at station.

REMARKS.--Records good. Since 1964, at least 10% of contributing drainage area has been regulated. Small diversions above station for irrigation. No flow July 31 to Aug. 6, 1964 (result of closure of Canyon Dam). No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--3 years (water years 1961-63) 288 ft^3/s (208,500 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1869 (stage unknown) has not been exceeded since that date; flood in July 1900 (stage unknown) exceeded 39 ft; maximum stage since at least 1904, 39 ft in July 1932 and June 1935, from information by local residents.

EXTREMES FOR PERIOD PRIOR TO REGULATION.-- WATER YEARS 1960-1963: Maximum discharge , 20,800 ft^3/s Oct. 29, 1960 (gage height, 12.20 ft); no flow July 31 to Aug. 6, 1962.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	199	134	134	111	313	282	186	3,090	1,280	398	483	480
2	162	135	132	115	276	262	251	3,440	2,750	425	499	478
3	161	140	133	116	246	267	335	3,390	1,680	420	577	466
4	161	139	132	116	247	301	312	3,310	946	422	580	377
5	161	137	132	116	245	326	201	3,270	439	423	580	378
6	168	137	128	114	236	325	194	2,520	427	e1,630	575	376
7	191	130	120	110	231	324	193	844	459	6,240	491	411
8	187	129	120	110	231	328	676	360	521	6,250	491	471
9	169	129	116	110	232	331	4,970	344	554	6,230	503	463
10	122	129	111	110	238	332	9,100	199	427	6,230	570	454
11	127	128	112	110	241	331	9,200	222	329	6,210	570	360
12	121	127	113	109	282	334	9,210	254	323	e5,300	570	372
13	119	128	113	105	327	337	9,120	254	363	e1,080	568	515
14	118	125	112	105	328	336	9,080	287	1,600	5,970	489	746
15	345	126	112	105	327	337	8,980	415	3,310	5,480	532	746
16	577	126	109	117	327	325	4,980	384	4,540	2,310	867	737
17	602	127	109	113	221	474	1,680	252	5,360	415	853	687
18	625	127	109	108	237	560	1,940	251	5,340	412	801	229
19	626	125	109	107	237	652	1,150	246	5,320	1,230	543	346
20	525	140	110	108	237	657	172	249	5,300	2,000	382	345
21	435	156	110	187	237	564	171	270	3,950	1,840	383	341
22	368	154	110	342	237	452	172	407	2,740	730	383	298
23	317	154	108	336	240	327	226	496	2,730	369	440	212
24	238	151	108	339	246	146	332	994	2,720	391	756	209
25	174	153	108	338	268	143	281	1,030	1,680	387	1,140	210
26	172	150	108	337	322	261	157	1,030	319	451	1,280	207
27	163	135	109	325	322	509	149	947	339	696	755	211
28	143	135	110	290	323	417	142	398	1,740	499	386	212
29	133	134	108	312	324	139	137	398	3,880	487	384	182
30	134	133	107	313	---	134	1,080	398	1,960	486	420	204
31	134	---	107	313	---	127	---	394	---	485	481	---
TOTAL	7,877	4,073	3,559	5,647	7,778	10,640	74,777	30,343	63,326	65,896	18,332	11,723
MEAN	254	136	115	182	268	343	2,493	979	2,111	2,126	591	391
MAX	626	156	134	342	328	657	9,210	3,440	5,360	6,250	1,280	746
MIN	118	125	107	105	221	127	137	199	319	369	382	182
AC-FT	15,620	8,080	7,060	11,200	15,430	21,100	148,300	60,190	125,600	130,700	36,360	23,250

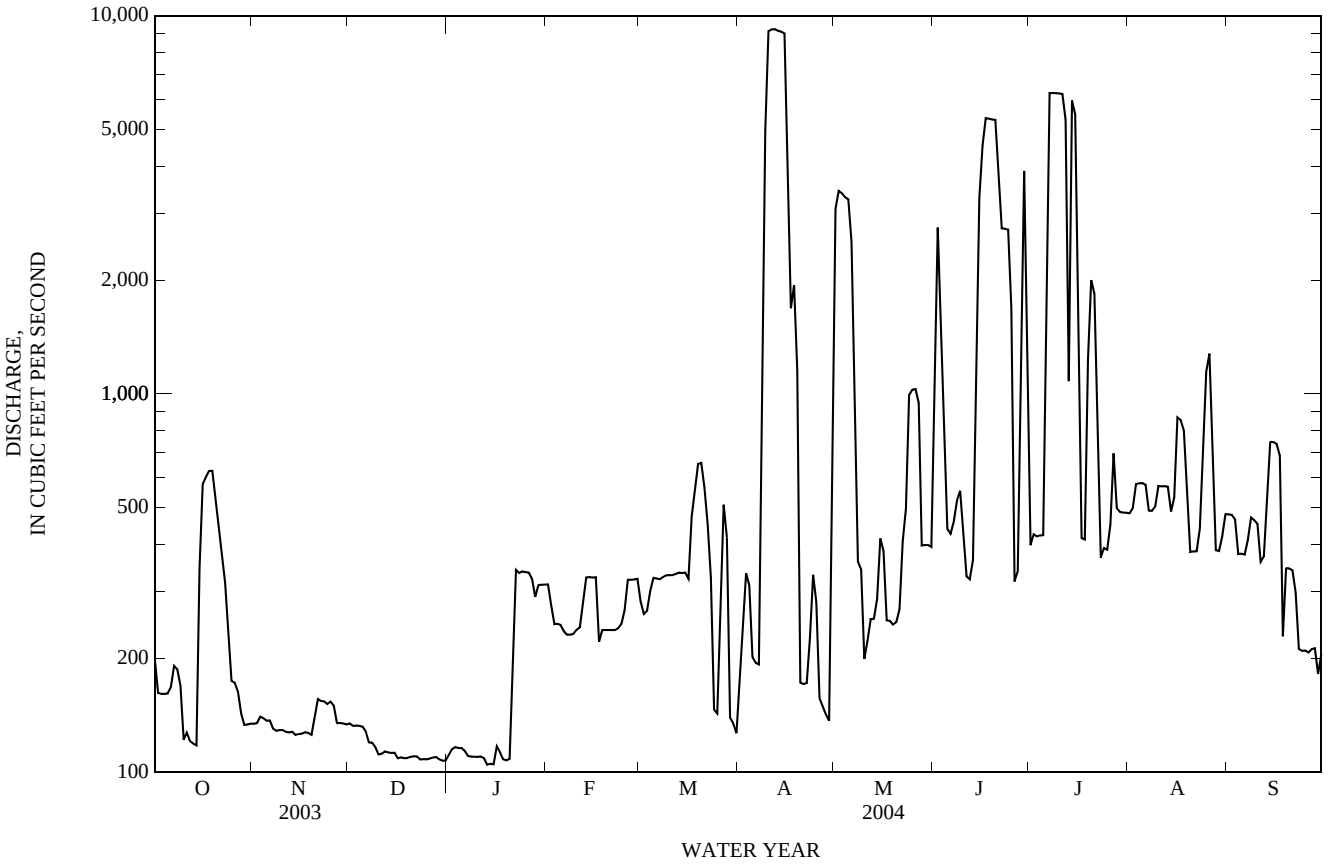
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004z, BY WATER YEAR (WY)

MEAN	314	458	379	444	435	527	564	509	663	809	530	372
MAX	1,317	2,151	2,121	4,437	2,089	3,949	3,705	2,318	2,783	6,577	3,854	2,844
(WY)	(1987)	(2001)	(1999)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(2002)	(1978)	(2002)
MIN	43.1	66.2	41.4	60.4	13.5	71.7	45.6	47.1	40.6	22.3	35.1	28.9
(WY)	(1964)	(1976)	(1966)	(1964)	(1965)	(1988)	(1971)	(1971)	(1984)	(1984)	(1984)	(1984)

08167800 Guadalupe River at Sattler, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004z	
ANNUAL TOTAL	154,883		303,971			
ANNUAL MEAN	424		831		501	
HIGHEST ANNUAL MEAN					1,900	1992
LOWEST ANNUAL MEAN					72.9	1984
HIGHEST DAILY MEAN	5,370	Mar 4	9,210	Apr 12	49,700	Jul 6, 2002
LOWEST DAILY MEAN	66	Apr 8	105	Jan 13	0.80	Jan 29, 1965
ANNUAL SEVEN-DAY MINIMUM	108	Dec 25	108	Jan 9	1.2	Sep 24, 1984
MAXIMUM PEAK FLOW			9,300	Apr 11	i70,000	Jul 6, 2002
MAXIMUM PEAK STAGE			9.10	Apr 11	a36.36	Jul 6, 2002
ANNUAL RUNOFF (AC-FT)	307,200		602,900		362,600	
10 PERCENT EXCEEDS	622		1,970		830	
50 PERCENT EXCEEDS	211		325		228	
90 PERCENT EXCEEDS	127		114		79	

z Period of regulated streamflow.
i From indirect measurement of peak flow.
a From floodmark.
e Estimated



08168000 Hueco Springs near New Braunfels, TX

LOCATION.--Lat 29°45'33", long 98°08'23", Comal County, Hydrologic Unit 12100202, on left bank near source of westernmost of two springs located on both sides of River Road, 400 ft and 500 ft west of Guadalupe River, 600 ft upstream from the mouth of Elm Creek, and 4.2 miles north of New Braunfels.

DRAINAGE AREA.--Not applicable. This is a springflow station.

PERIOD OF RECORD.--Nov. 2002 to current year. Periodic discharge measurements made Aug. 1944 to Sept. 2003 were published as miscellaneous measurements.

GAGE.--Water stage recorder. Datum of gage is approximately 644.80 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records poor. Springflow is computed based on gage height record of only the westernmost of the two springs and monthly measurements of both springs. The westernmost spring is located west of River Road and flows west in one channel to Elm Creek. The second spring is located east of River Road and flows east directly into Guadalupe River, usually in several channels. The westernmost spring emerges at a lower elevation and will continue to flow after flow has stopped at the second spring.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 155 ft^3/s Feb. 21, 2003 (gage height, 7.46 ft); minimum daily, 17 ft^3/s Feb. 3, 2004; maximum gage height, 7.84 ft part of each day July 18-26, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 125 ft^3/s June 10 (gage height, 7.83 ft), minimum daily, 17 ft^3/s Feb. 3; maximum gage height, 7.84 ft part of each day July 18-26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	95	122	109	93	94	78	72	72	66	55
2	---	---	93	115	110	94	95	78	72	72	62	55
3	---	---	90	113	100	91	93	78	72	72	60	55
4	---	---	90	114	92	93	94	78	72	73	60	55
5	---	---	88	114	96	93	92	78	72	79	60	55
6	---	---	91	114	98	92	92	85	72	101	60	55
7	---	---	93	113	94	94	90	84	72	103	60	54
8	---	---	93	113	94	92	85	85	72	101	60	49
9	---	---	111	117	91	94	85	79	72	114	60	49
10	---	---	130	121	87	94	85	78	72	116	60	49
11	---	---	124	122	88	91	85	78	72	115	60	50
12	---	---	134	123	87	93	85	78	72	104	60	50
13	---	---	130	128	86	93	82	78	72	93	60	50
14	---	---	124	128	88	92	78	78	94	87	60	50
15	---	---	124	129	89	89	78	78	86	82	60	50
16	---	---	115	128	86	92	79	80	82	79	60	50
17	---	---	118	124	87	93	78	80	78	80	60	50
18	---	---	119	122	85	96	78	78	78	78	60	50
19	---	---	115	121	85	95	78	78	78	73	60	50
20	---	---	107	124	96	94	78	78	76	72	60	49
21	---	---	106	122	138	92	78	75	72	72	59	46
22	---	---	105	114	132	90	78	73	72	72	55	46
23	---	---	110	109	121	94	78	72	72	72	55	46
24	---	---	121	108	116	94	78	72	72	72	54	46
25	---	---	108	108	110	95	79	72	72	71	54	46
26	---	100	109	108	105	98	79	72	72	66	54	46
27	---	100	110	108	102	93	78	72	72	66	54	46
28	---	96	111	110	93	91	78	72	72	66	53	46
29	---	91	114	110	---	89	78	72	72	66	53	42
30	---	94	113	106	---	90	78	72	72	66	53	41
31	---	---	121	106	---	91	---	74	---	66	54	---
TOTAL	---	---	3,412	3,614	2,765	2,875	2,486	2,383	2,228	2,521	1,806	1,481
MEAN	---	---	110	117	98.8	92.7	82.9	76.9	74.3	81.3	58.3	49.4
MAX	---	134	129	138	98	95	85	94	116	66	55	
MIN	---	88	106	85	89	78	72	72	66	53	41	
AC-FT	---	---	6,770	7,170	5,480	5,700	4,930	4,730	4,420	5,000	3,580	2,940

08168000 Hueco Springs near New Braunfels, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	37	24	22	19	37	39	84	69	108	86	79
2	41	37	24	22	18	37	38	85	67	102	85	78
3	41	37	24	21	17	36	38	85	65	98	85	78
4	41	38	23	22	18	36	38	84	64	96	83	77
5	41	37	23	22	19	43	48	84	65	94	82	76
6	41	37	24	22	19	45	55	84	65	93	82	77
7	41	37	24	20	19	44	61	84	64	93	82	79
8	41	37	24	20	19	42	66	84	63	93	80	78
9	41	37	24	20	19	40	69	84	81	93	81	77
10	41	34	23	19	21	39	70	83	120	92	80	76
11	41	34	22	20	29	38	77	83	110	92	80	75
12	42	34	22	19	36	37	86	82	102	91	79	75
13	42	34	24	19	35	37	85	81	96	91	79	73
14	42	34	24	20	34	39	84	84	92	90	77	72
15	41	34	24	20	33	54	83	83	90	90	76	74
16	41	34	23	22	33	59	82	83	89	90	75	78
17	41	34	22	36	31	59	80	82	88	89	75	74
18	41	27	22	33	30	58	79	81	87	91	75	72
19	39	27	22	27	30	56	76	81	86	91	75	71
20	37	27	24	24	30	54	75	77	85	91	75	71
21	37	27	24	22	29	53	75	75	84	91	74	71
22	37	27	23	21	29	51	74	75	85	90	75	70
23	37	27	22	20	28	49	73	75	84	90	75	69
24	37	27	22	21	34	47	77	74	84	90	81	68
25	37	27	22	22	45	46	82	73	84	90	82	68
26	37	27	22	22	44	43	82	73	84	90	82	67
27	37	24	23	20	41	43	85	72	84	89	82	67
28	37	24	23	19	40	42	85	72	90	89	82	66
29	37	24	22	20	38	41	84	71	92	89	82	66
30	37	24	22	20	---	40	85	71	105	88	81	65
31	37	---	22	19	---	39	---	70	---	87	80	---
TOTAL	1,224	945	713	676	837	1,384	2,131	2,459	2,524	2,851	2,468	2,187
MEAN	39.5	31.5	23.0	21.8	28.9	44.6	71.0	79.3	84.1	92.0	79.6	72.9
MAX	42	38	24	36	45	59	86	85	120	108	86	79
MIN	37	24	22	19	17	36	38	70	63	87	74	65
AC-FT	2,430	1,870	1,410	1,340	1,660	2,750	4,230	4,880	5,010	5,650	4,900	4,340

08168500 Guadalupe River above Comal River at New Braunfels, TX

LOCATION.--Lat 29°42'53", long 98°06'35", Comal County, Hydrologic Unit 12100202, on right bank at New Braunfels, 1.1 mi upstream from Comal River, 21.9 mi downstream from Canyon Lake, and at mile 281.1.

DRAINAGE AREA.--1,518 mi^2.

PERIOD OF RECORD.--Dec. 1927 to current year.

REVISED RECORDS.--WSP 898: 1935. WSP 1562: 1932. WSP 2123: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 586.65 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good. Since 1964, at least 10% of contributing drainage area has been regulated. Small diversions for irrigation above this station. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--36 years (water years 1928-63), 364 ft^3/s (263,400 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1845, 38 ft July 8, 1869, and in Dec. 1913, from information by local residents.

EXTREMES FOR PERIOD PRIOR TO REGULATION.-- WATER YEARS 1928-1963: Maximum discharge, 101,000 ft^3/s June 15, 1935 (gage height, 32.95 ft); minimum, no flow July 8-9, July 17 to Aug. 20, 1956.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266	233	169	155	320	350	247	3,410	821	858	644	602
2	216	222	169	155	320	331	235	3,900	2,690	776	638	611
3	204	213	169	155	309	324	334	3,860	2,070	721	747	628
4	201	208	169	155	301	320	353	3,870	1,200	682	772	526
5	201	201	169	155	293	362	324	3,850	642	649	772	489
6	201	195	169	155	287	358	289	3,360	482	980	767	523
7	201	187	169	155	282	349	268	1,640	483	5,320	681	507
8	201	180	168	155	278	349	348	566	649	5,410	644	614
9	201	177	165	155	276	349	2,180	537	2,830	5,400	637	612
10	199	174	165	155	272	349	4,240	370	1,480	5,390	736	602
11	206	e172	163	155	270	341	4,260	313	791	5,380	757	518
12	254	e171	161	155	279	345	4,260	350	685	5,360	750	481
13	241	e169	161	155	356	352	4,250	356	618	1,560	748	588
14	214	e168	161	155	356	350	4,230	410	1,480	4,680	664	1,010
15	256	e166	161	155	356	355	4,220	522	3,200	5,040	628	1,030
16	659	e165	161	155	354	353	3,520	543	4,340	3,000	1,030	1,030
17	655	e164	161	155	336	478	1,760	405	5,420	589	1,080	1,030
18	655	e162	161	155	306	605	1,840	370	5,400	553	1,080	493
19	655	e162	159	155	292	700	1,630	355	5,380	1,000	790	436
20	603	161	158	155	288	795	333	349	5,360	2,170	511	471
21	454	161	158	155	282	665	317	349	4,570	2,050	480	471
22	425	161	158	349	277	602	298	470	3,070	1,340	494	468
23	344	165	158	363	272	465	281	506	3,030	511	492	346
24	340	165	158	363	270	334	456	1,140	2,980	516	808	335
25	321	169	158	358	270	309	446	1,210	2,550	534	1,360	329
26	301	177	158	350	338	302	340	1,240	610	517	1,550	326
27	290	178	158	341	349	640	304	1,240	591	878	1,230	320
28	279	173	158	325	353	645	294	608	1,380	728	501	318
29	267	169	158	320	356	345	281	488	4,080	646	508	313
30	254	169	156	320	---	296	738	489	3,060	643	497	308
31	244	---	155	320	---	270	---	488	---	640	602	---
TOTAL	10,008	5,337	5,021	6,664	8,898	12,988	42,876	37,564	71,942	64,521	23,598	16,335
MEAN	323	178	162	215	307	419	1,429	1,212	2,398	2,081	761	544
MAX	659	233	169	363	356	795	4,260	3,900	5,420	5,410	1,550	1,030
MIN	199	161	155	155	270	270	235	313	482	511	480	308
AC-FT	19,850	10,590	9,960	13,220	17,650	25,760	85,040	74,510	142,700	128,000	46,810	32,400

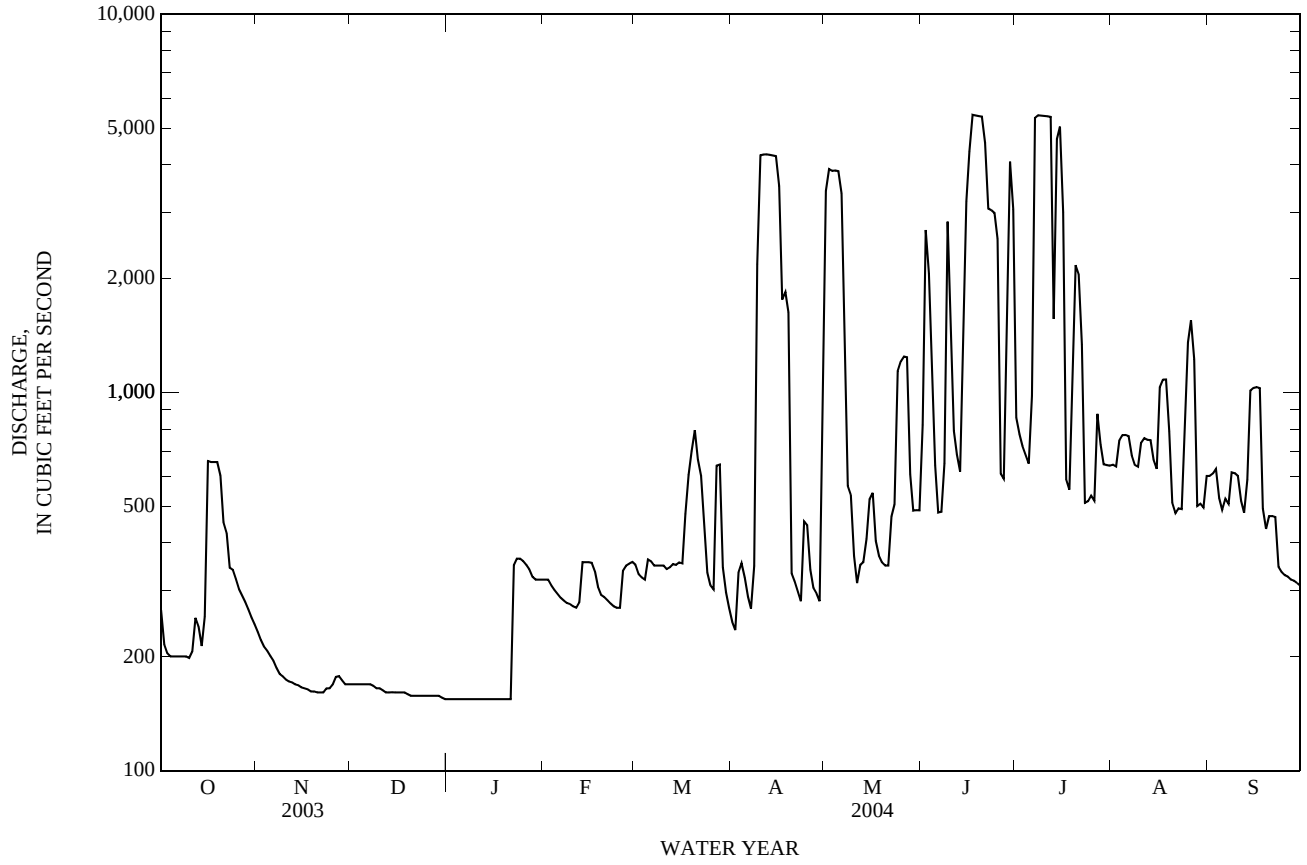
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004z, BY WATER YEAR (WY)

MEAN	425	533	462	533	533	618	620	631	785	920	611	454
MAX	2,033	2,410	2,233	4,704	2,379	4,254	3,826	2,450	2,948	8,372	3,866	3,674
(WY)	(1999)	(2001)	(1999)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(2002)	(1978)	(2002)
MIN	39.0	85.4	67.9	71.2	106	98.0	57.5	59.3	47.4	24.8	36.9	38.5
(WY)	(1964)	(1964)	(1964)	(1964)	(1990)	(1971)	(1971)	(1971)	(1984)	(1984)	(1996)	(1984)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004z	
ANNUAL TOTAL	193,642		305,752			
ANNUAL MEAN	531		835		594	
HIGHEST ANNUAL MEAN					2,057	1992
LOWEST ANNUAL MEAN					84.9	1984
HIGHEST DAILY MEAN	5,530	Mar 4	5,420	Jun 17	62,600	Jul 6, 2002
LOWEST DAILY MEAN	155	Dec 31	155	Dec 31	2.6	Sep 28, 1984
ANNUAL SEVEN-DAY MINIMUM	157	Dec 25	155	Dec 31	2.7	Sep 25, 1984
MAXIMUM PEAK FLOW			11,900	Jun 9	i142,000	Oct 17, 1998
MAXIMUM PEAK STAGE			10.99	Jun 9	a35.57	Oct 17, 1998
ANNUAL RUNOFF (AC-FT)	384,100		606,500		430,500	
10 PERCENT EXCEEDS	746		2,590		1,020	
50 PERCENT EXCEEDS	363		353		308	
90 PERCENT EXCEEDS	169		161		105	

z Period of regulated streamflow.
i From indirect measurement of peak flow.
a From floodmark.
e Estimated

08168500 Guadalupe River above Comal River at New Braunfels, TX—Continued



08168700 Panther Canyon at New Braunfels, TX

LOCATION.--Lat 29°42'47", long 98°08'14", Comal County, Hydrologic Unit 12100202, on right bank, 5 ft above Comal Springs, 50 ft upstream of Comal River, in Landa Park, 0.8 mi south of Loop 337.

DRAINAGE AREA.--0.73 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: July 2002 to current year.
BIOCHEMICAL DATA: July 2002 to current year.
PESTICIDE DATA: July 2002 to current year.

INSTRUMENTATION.--Water stage recorder. Discharge-activated automatic sampler. Tipping bucket raingage. Telephone telemeter at station.

REMARKS.--Water-quality samples and associated discharge and precipition data were collected for selected storm events.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Discharge duration, min (81381)	Elapsed time of storm, hours (00135)	Precipitation total, inches/storm (82381)	Precipitation duration of storm event, min (00117)	Sampling method, code (82398)	Storm water discharge, Mgal/d (81395)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)
JUL													
25-25	1926	150	2.5	1.9	99.0	90	6.0	7.7	95	24.5	31d	.33	.56
25...	2130	--	--	--	--	70	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal streptococci KF MF, col/100 mL (31673)
JUL													
25-25	.08	.065	.74	.27	.50	.10	.14	1.1	1.3	7.0	30	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	13,000	56,000

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Cyanide water unfltrd mg/L (00720)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)
JUL													
25-25	6	E.10n	6	<.06	<.04	<.8	.131	1.7	<.01	.12	<1.0	3.2	<.4
25...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nickel, water, fltrd, ug/L (01065)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	Aldrin, water, unfltrd ug/L (39330)	alpha-Endosulfan, water, unfltrd ug/L (39388)	Chlordane, technical, water, unfltrd ug/L (39350)	Dieldrin, water, unfltrd ug/L (39380)	Endrin, water, unfltrd ug/L (39390)	Heptachlor epoxide water unfltrd ug/L (39420)	Heptachlor, water, unfltrd ug/L (39410)	Lindane water, unfltrd ug/L (39340)	Mirex, water, unfltrd ug/L (39755)
JUL													
25-25	.55	<.2	1.8	<7	--r	--r	--r	--r	--r	--r	--r	--r	--r
25...	--	--	--	--	--	--	--	--	--	--	--	--	--

08168700 Panther Canyon at New Braunfels, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	p,p-' DDD, water, unfltrd ug/L (39360)	p,p-' DDE, water, unfltrd ug/L (39365)	p,p-' DDT, water, unfltrd ug/L (39370)	p,p-' Meth-oxy-chlor, water, unfltrd ug/L (39480)	PCBs, water, unfltrd ug/L (39516)	Petrol-eum hydro-carbons wat unf frn ext mg/L (45501)	Phen-olic com-pounds, water, unfltrd ug/L (32730)	Toxa-phene, water, unfltrd ug/L (39400)	Uranium natural water, fltrd, ug/L (22703)
JUL									
25-25	--r	--r	--r	--r	--r	E5	<16	--r	E.02n
25...	--	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
r -- Sample ruined in preparation

08168710 Comal Springs at New Braunfels, TX

LOCATION.--Lat 29°42'21", long 98°07'20", Comal County, Hydrologic Unit 12100202, on right bank 200 ft upstream from San Antonio Street viaduct in New Braunfels, and 1.1 mi upstream from mouth.

DRAINAGE AREA.--Not applicable. This is a spring flow station.

PERIOD OF RECORD.--Dec. 1927 to Sept. 1932 (fragmentary daily springflow discharges), Oct. 1932 to current year. Records of daily springflow discharges prior to Oct. 1995, obtained by applying modified Institute of Hydrology base-flow separation program BFI 4.02 to entire period of record of Comal River at New Braunfels (station 08169000), are available in files of the U.S. Geological Survey. Periodic discharge measurements made in 1882, 1896-1906, 1910-11, 1915, 1921, and 1924-30 were published as miscellaneous measurements (some years published as "Comal River").

GAGE.--Water-stage recorder. Prior to Jan. 7, 1928, nonrecording gage at same site. Concrete control since Oct. 3, 1955. Datum of gage is 582.80 ft above NGVD of 1929. Datum originally 0.19 ft lower was revised to current level effective Oct. 1, 1936.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Springflow is equal to flow at Comal River at New Braunfels (station 08169000) except during periods of local runoff. During periods of local runoff, springflow is separated from river flow using modified Institute of Hydrology base-flow separation program BFI 4.02. All days with springflow separations, and all days in which river flow were estimated are flagged as estimated springflow days. Comal Springs emerge from the Edwards and associated limestones in the Balcones Fault Zone about 1.0 mi upstream. Flow is affected at times by cleanup operations by the city of New Braunfels at Landa Park Lake. No flow June 13 to Nov. 3, 1956.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	368	364	363	357	358	345	353	347	e395	388	364
2	379	369	361	362	356	357	e351	349	347	400	383	357
3	385	368	361	356	357	355	357	356	348	397	382	357
4	384	364	367	354	359	e357	e358	352	347	394	382	363
5	384	361	365	351	357	e358	e358	355	e352	389	378	366
6	385	359	365	349	357	360	e359	353	357	384	378	365
7	387	357	365	350	356	358	360	349	356	394	382	365
8	390	363	365	350	357	356	356	352	e369	398	378	361
9	391	361	365	349	356	354	360	356	e378	393	377	359
10	390	361	365	349	357	353	e366	357	e388	394	377	359
11	e390	360	365	349	e358	353	e372	356	e397	389	380	357
12	e391	365	367	347	359	349	e379	355	e407	384	376	358
13	e392	365	366	348	358	e355	385	358	e419	380	375	e360
14	392	366	365	349	360	362	382	e358	430	381	376	e361
15	389	370	365	355	359	359	380	e357	431	376	376	e363
16	383	368	364	e357	357	359	376	e356	432	382	374	365
17	378	374	364	360	355	358	370	356	e422	375	373	363
18	379	368	364	359	354	357	365	350	413	371	374	360
19	378	368	364	355	356	357	364	349	406	371	373	361
20	371	368	364	353	356	357	361	349	399	371	370	358
21	373	368	365	352	355	357	363	345	389	368	367	357
22	368	367	365	352	355	353	361	346	e380	366	e371	357
23	367	363	359	352	356	347	366	347	372	365	376	357
24	367	362	362	e356	e356	350	e369	345	371	e373	374	356
25	367	360	364	360	357	348	372	340	367	e381	374	357
26	367	362	366	358	356	352	e366	339	367	e381	373	358
27	372	361	364	353	356	353	360	338	e376	e386	372	356
28	370	362	364	352	358	352	355	335	e381	392	e369	356
29	369	362	362	353	359	350	355	338	e386	390	e367	354
30	368	362	359	354	---	351	355	344	e390	386	364	355
31	367	---	362	355	---	350	---	e346	---	393	365	---
TOTAL	11,753	10,932	11,283	10,962	10,349	10,995	10,926	10,839	11,524	11,899	11,624	10,785
MEAN	379	364	364	354	357	355	364	350	384	384	375	360
MAX	392	374	367	363	360	362	385	358	432	400	388	366
MIN	367	357	359	347	354	347	345	335	347	365	364	354
AC-FT	23,310	21,680	22,380	21,740	20,530	21,810	21,670	21,500	22,860	23,600	23,060	21,390

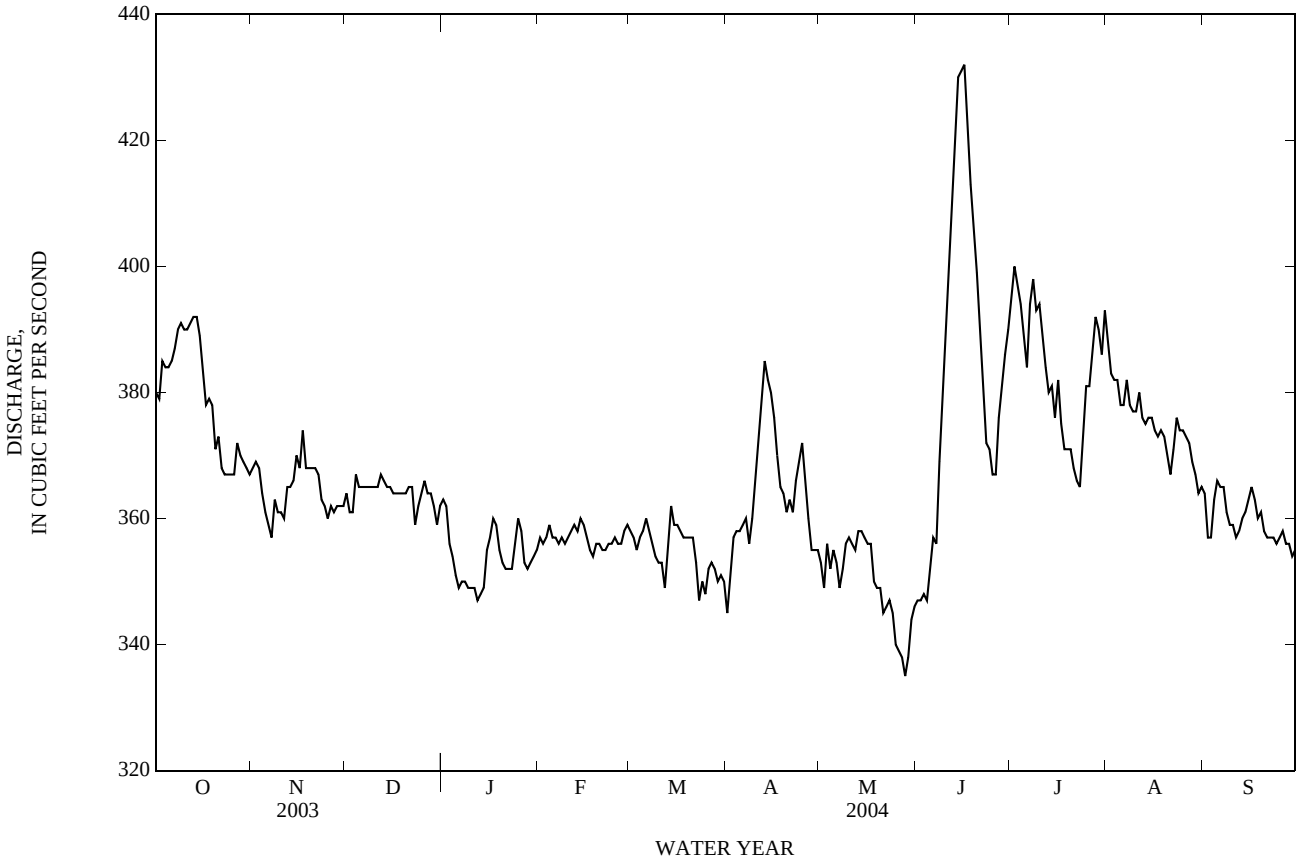
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2004, BY WATER YEAR (WY)

MEAN	277	290	300	305	306	304	299	296	287	273	258	264
MAX	465	450	452	448	446	477	474	456	481	465	465	427
(WY)	(1974)	(1974)	(2003)	(2003)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)
MIN	0.00	21.5	35.6	51.1	49.5	65.4	41.5	27.8	3.67	0.00	0.00	0.00
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1933 - 2004	
ANNUAL TOTAL	142,535		133,871			
ANNUAL MEAN	391		366		288	
HIGHEST ANNUAL MEAN					406	2003
LOWEST ANNUAL MEAN					45.5	1956
HIGHEST DAILY MEAN	460	Jan 1	432	Jun 16	534	Oct 14, 1973
LOWEST DAILY MEAN	351	Aug 28	335	May 28	0.00	Jun 13, 1956
ANNUAL SEVEN-DAY MINIMUM	354	Aug 27	340	May 24	0.00	Jun 13, 1956
ANNUAL RUNOFF (AC-FT)	282,700		265,500		208,700	
10 PERCENT EXCEEDS	440		386		387	
50 PERCENT EXCEEDS	380		362		304	
90 PERCENT EXCEEDS	361		351		171	

e Estimated

08168710 Comal Springs at New Braunfels, TX—Continued



08169000 Comal River at New Braunfels, TX

LOCATION.--Lat 29°42'21", long 98°07'20", Comal County, Hydrologic Unit 12100202, on right bank 200 ft upstream from San Antonio Street viaduct in New Braunfels and 1.1 mi upstream from mouth.

DRAINAGE AREA.--130 mi^2.of contributing surface drainage, however, most of the time flow is solely from Comal Springs.

PERIOD OF RECORD.--Dec. 1927 to Sept. 1932 (daily mean discharges below base, and stage-discharge relation is not affected by backwater from Guadalupe River), Oct. 1932 to current year. Water-quality records: Chemical data: Apr. 1996 to Apr. 1998. Biochemical data: Apr. 1996 to Apr. 1998. Sediment data: Apr. 1996 to Apr. 1998.

REVISED RECORDS.--WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Prior to Jan. 7, 1928, nonrecording gage at same site. Concrete control since Oct. 3, 1955. Datum of gage is 582.80 ft above NGVD of 1929. Datum originally 0.19 ft lower was revised to current level effective Oct. 1, 1936. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Entire flow of river is from Comal Springs except during periods of local runoff. Comal Springs emerge from the Edwards and associated limestones in the Balcones Fault Zone about 1.0 mi upstream. Flow is affected at times by cleanup operations by the city of New Braunfels at Landa Park Lake and at times by discharge from the flood-detention pools of five floodwater-retarding structures. These structures control runoff from 74.6 mi^2 above station. Stage-discharge relation is affected at times by backwater from the Guadalupe River.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood information begins with flood of July 8, 1869, which reached a stage of 36.91 ft, from painted and dated marks in old Remmert Brewery 0.5 mi downstream; the flood of Oct. 17, 1870, reached a stage of 37.65 ft at same site (probably some backwater from Guadalupe River).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	368	364	363	357	358	345	353	347	441	388	364
2	379	369	361	362	356	357	364	349	347	400	383	357
3	385	368	361	356	357	355	357	356	348	397	382	357
4	384	364	367	354	359	374	366	352	347	394	382	363
5	384	361	365	351	357	377	406	355	408	389	378	366
6	385	359	365	349	357	360	369	353	357	384	378	365
7	387	357	365	350	356	358	360	349	356	394	382	365
8	390	363	365	350	357	356	356	352	389	398	378	361
9	391	361	365	349	356	354	360	356	3,150	393	377	359
10	390	361	365	349	357	353	384	357	1,360	394	377	359
11	470	360	365	349	369	353	433	356	521	389	380	357
12	503	365	367	347	359	349	411	355	453	384	376	358
13	401	365	366	348	358	360	385	358	439	380	375	374
14	392	366	365	349	360	362	382	444	430	381	376	407
15	389	370	365	355	359	359	380	379	431	376	376	373
16	383	368	364	374	357	359	376	365	432	382	374	365
17	378	374	364	360	355	358	370	356	437	375	373	363
18	379	368	364	359	354	357	365	350	413	371	374	360
19	378	368	364	355	356	357	364	349	406	371	373	361
20	371	368	364	353	356	357	361	349	399	371	370	358
21	373	368	365	352	355	357	363	345	389	368	367	357
22	368	367	365	352	355	353	361	346	381	366	379	357
23	367	363	359	352	356	347	366	347	372	365	376	357
24	367	362	362	363	364	350	420	345	371	378	374	356
25	367	360	364	360	357	348	372	340	367	541	374	357
26	367	362	366	358	356	352	378	339	367	509	373	358
27	372	361	364	353	356	353	360	338	701	398	372	356
28	370	362	364	352	358	352	355	335	549	392	397	356
29	369	362	362	353	359	350	355	338	768	390	378	354
30	368	362	359	354	---	351	355	344	913	386	364	355
31	367	---	362	355	---	350	---	355	---	393	365	---
TOTAL	11,954	10,932	11,283	10,986	10,368	11,036	11,179	10,965	16,948	12,250	11,671	10,855
MEAN	386	364	364	354	358	356	373	354	565	395	376	362
MAX	503	374	367	374	369	377	433	444	3,150	541	397	407
MIN	367	357	359	347	354	347	345	335	347	365	364	354
AC-FT	23,710	21,680	22,380	21,790	20,560	21,890	22,170	21,750	33,620	24,300	23,150	21,530

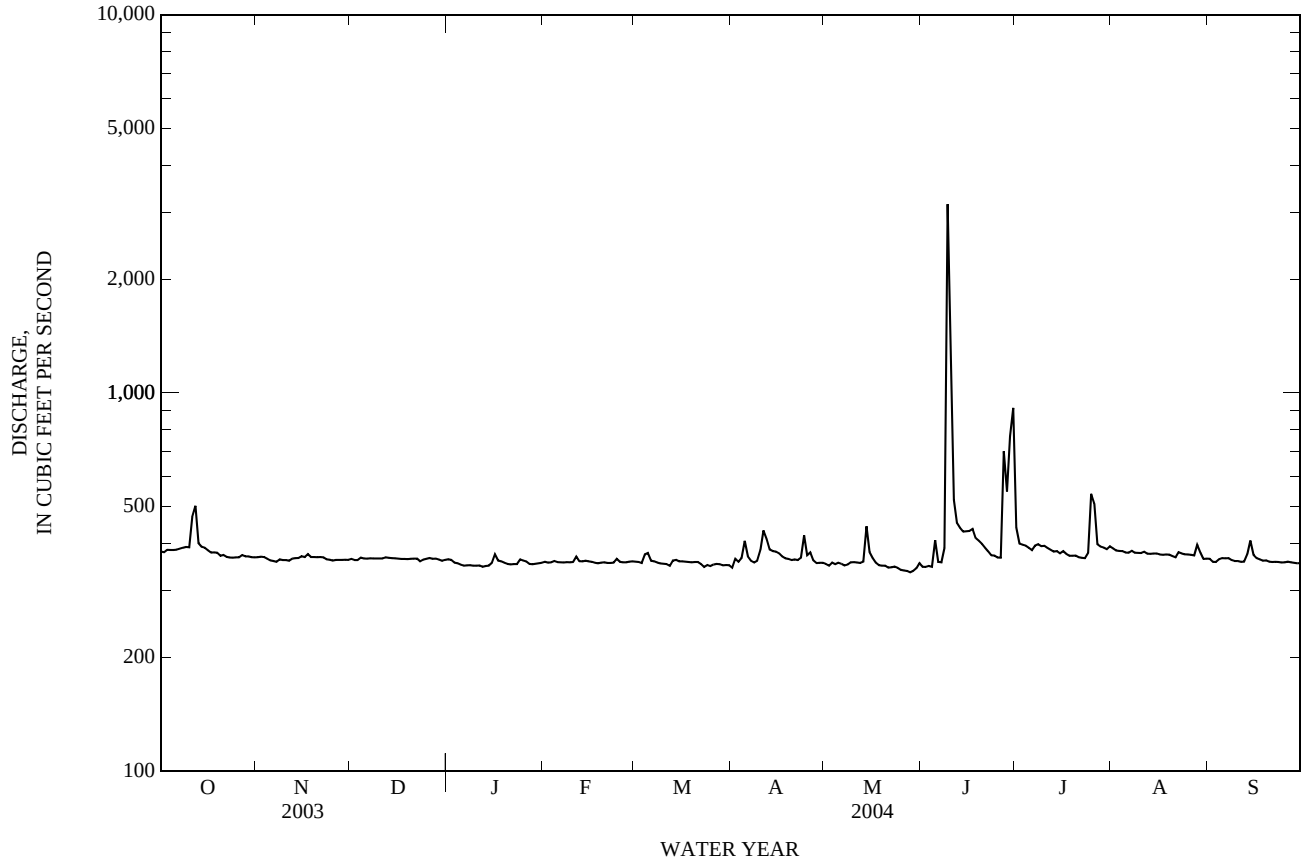
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2004, BY WATER YEAR (WY)

MEAN	305	298	307	311	312	307	311	324	304	291	260	280
MAX	1,662	486	467	499	527	536	531	939	565	1,336	466	663
(WY)	(1999)	(1975)	(2003)	(1968)	(1992)	(1992)	(1977)	(1972)	(2004)	(2002)	(1992)	(1952)
MIN	12.5	23.7	40.9	51.5	52.5	70.6	45.2	31.7	11.5	12.0	15.4	15.0
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)

08169000 Comal River at New Braunfels, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1933 - 2004	
ANNUAL TOTAL	143,650		140,427			
ANNUAL MEAN	394		384		301	
HIGHEST ANNUAL MEAN					482	1999
LOWEST ANNUAL MEAN					50.9	1956
HIGHEST DAILY MEAN	557	Feb 20	3,150	Jun 9	22,000	Oct 17, 1998
LOWEST DAILY MEAN	351	Aug 28	335	May 28	5.5	Jun 7, 1956
ANNUAL SEVEN-DAY MINIMUM	354	Aug 27	340	May 24	8.5	Jun 2, 1956
MAXIMUM PEAK FLOW			14,800	Jun 9	73,500	Oct 17, 1998
MAXIMUM PEAK STAGE			a20.80	Jun 9	a39.28	Oct 17, 1998
ANNUAL RUNOFF (AC-FT)	284,900		278,500		217,900	
10 PERCENT EXCEEDS	443		394		396	
50 PERCENT EXCEEDS	382		364		308	
90 PERCENT EXCEEDS	361		351		173	

a From floodmark.



08169500 Guadalupe River at New Braunfels, TX

LOCATION.--Lat 29°41'52", long 98°06'23", Comal County, Hydrologic Unit 12100202, in second floor of abandoned turbine building at Comal Mills, 300 ft downstream from Missouri Pacific Railroad, 0.4 miles upstream from IH-35, 0.7 mile downstream from mouth of Comal River, 23.7 mi downstream from Canyon Lake, and at mile 279.3.

DRAINAGE AREA.--1,652 mi^2.

PERIOD OF RECORD.--Jan. 1915 to Dec. 1927 (daily mean discharge), Apr. 1974 to Sept. 1999 (annual peak discharge), Oct. 1999 to current year (daily mean stage). Water-quality records: Chemical data: Oct. 1982 to Feb. 1998.

GAGE.--Water-stage recorder. Datum of gage is 572.55 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records poor. Interruptions in the record were due to malfunction of the instrument. Since reactivation of gage in 1974, at least 10% of the contributing drainage area has been regulated. Small diversions for irrigation above this station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--12 years (water years 1916-27), 751 ft^3/s (544,100 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 222,000 ft^3/s, Oct. 17, 1998, gage height, 38.54 ft, from indirect measurement of peak flow.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1845, 39.5 ft, Aug. 1869 and in Dec. 1913, from information by local residents. Maximum discharge, 101,000 ft^3/s, June 15, 1935 (gage height unknown).

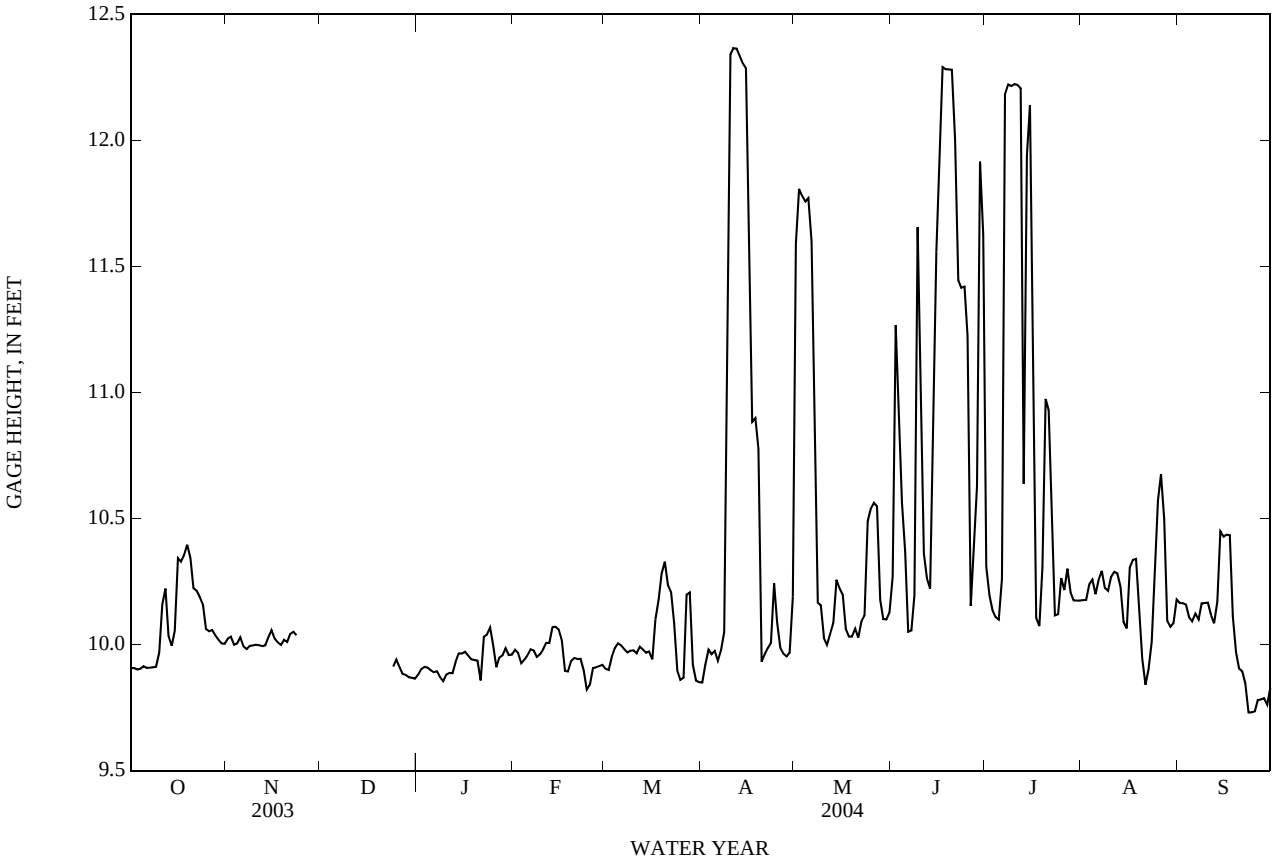
EXTREMES FOR PERIOD PRIOR TO REGULATION.-- WATER YEARS 1915-1928: Maximum discharge, 56,600 ft^3/s, Sept. 10, 1921, gage height, 28.60 ft; minimum discharge 270 ft^3/s, July 20, 1918.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 17.23 ft, June 9; minimum gage height, 9.65 ft, Jan. 10.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.91	10.02	---	9.88	9.98	9.90	9.85	11.59	10.27	10.31	10.18	10.17
2	9.91	10.03	---	9.90	9.97	9.90	9.92	11.81	11.27	10.20	10.18	10.16
3	9.90	10.0	---	9.91	9.93	9.95	9.98	11.78	10.92	10.14	10.24	10.16
4	9.90	10.00	---	9.91	9.94	9.99	9.96	11.76	10.56	10.11	10.26	10.11
5	9.91	10.03	---	9.90	9.96	10.01	9.98	11.77	10.37	10.10	10.20	10.09
6	9.91	9.99	---	9.89	9.98	10.0	9.94	11.60	10.05	10.26	10.26	10.12
7	9.91	9.98	---	9.89	9.98	9.98	9.98	10.80	10.06	12.18	10.29	10.10
8	9.91	10.0	---	9.87	9.95	9.97	10.05	10.17	10.20	12.22	10.23	10.16
9	9.91	10.0	---	9.85	9.96	9.98	11.31	10.16	11.66	12.22	10.21	10.16
10	9.97	10.0	---	9.88	9.98	9.98	12.34	10.02	11.06	12.22	10.27	10.17
11	10.16	10.0	---	9.89	10.01	9.97	12.37	10.0	10.36	12.22	10.29	10.12
12	10.22	9.99	---	9.89	10.01	9.99	12.36	10.04	10.26	12.21	10.28	10.08
13	10.04	10.0	---	9.93	10.07	9.98	12.34	10.08	10.22	10.64	10.23	10.17
14	10.0	10.03	---	9.96	10.07	9.97	12.31	10.26	10.71	11.94	10.09	10.45
15	10.05	10.06	---	9.96	10.06	9.97	12.29	10.22	11.56	12.14	10.06	10.43
16	10.34	10.02	---	9.97	10.02	9.94	11.84	10.20	11.91	11.34	10.31	10.44
17	10.33	10.01	---	9.96	9.90	10.10	10.88	10.06	12.29	10.11	10.34	10.43
18	10.36	10.0	---	9.94	9.89	10.18	10.90	10.03	12.28	10.07	10.34	10.11
19	10.40	10.02	---	9.94	9.94	10.28	10.78	10.03	12.28	10.31	10.16	9.97
20	10.34	10.01	---	9.94	9.95	10.33	9.93	10.06	12.28	10.97	9.94	9.91
21	10.22	10.04	---	9.86	9.94	10.24	9.96	10.03	12.00	10.93	9.84	9.89
22	10.21	10.05	---	10.03	9.94	10.21	9.99	10.09	11.45	10.59	9.90	9.85
23	10.19	10.04	---	10.04	9.90	10.09	10.01	10.12	11.42	10.12	10.01	9.73
24	10.16	---	9.91	10.07	9.82	9.90	10.24	10.49	11.42	10.12	10.25	9.73
25	10.06	---	9.94	10.0	9.84	9.86	10.09	10.54	11.22	10.26	10.57	9.73
26	10.05	---	9.91	9.91	9.91	9.87	9.99	10.56	10.15	10.22	10.68	9.78
27	10.06	---	9.88	9.95	9.91	10.20	9.96	10.55	10.39	10.30	10.50	9.78
28	10.04	---	9.88	9.96	9.91	10.21	9.95	10.18	10.63	10.21	10.09	9.79
29	10.02	---	9.87	9.99	9.92	9.92	9.97	10.10	11.92	10.18	10.07	9.76
30	10.00	---	9.87	9.96	---	9.86	10.19	10.10	11.62	10.17	10.08	9.83
31	10.00	---	9.86	9.96	---	9.85	---	10.13	---	10.17	10.18	---
MEAN	10.08	---	---	9.94	9.95	10.02	10.66	10.49	11.09	10.81	10.21	10.05
MAX	10.40	---	---	10.07	10.07	10.33	12.37	11.81	12.29	12.22	10.68	10.45
MIN	9.90	---	---	9.85	9.82	9.85	9.85	10.00	10.05	10.07	9.84	9.73

08169500 Guadalupe River at New Braunfels, TX—Continued



08169948 San Marcos River Tributary at Sessoms Rd, San Marcos, TX

LOCATION.--Lat 29°53'24.7", long 97°56'11.4", Hays County, Hydrologic Unit 12100203, on right bank, 20 ft to the right of the Woods St. bridge, at the intersection of Sessoms Rd. and Woods St. in San Marcos.

DRAINAGE AREA.--0.47 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Jan. 2002 to current year.
BIOCHEMICAL DATA: Jan. 2002 to current year.
PESTICIDE DATA: Jan. 2002 to current year.

INSTRUMENTATION.--Water stage recorder. Discharge-activated automatic sampler. Tipping bucket raingage. Telephone telemeter at station.

REMARKS.--Water-quality samples and associated discharge and precipitation data were collected for selected storm events.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Discharge duration, min (81381)	Elapsed time of storm, hours (00135)	Precipitation total, inches/storm (82381)	Precipitation duration of storm event, min (00117)	Sampling method, code (82398)	Storm water discharge, Mgal/d (81395)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)
MAR													
04-04	0732	454	3.1	.18	452	90	1.4	7.9	178	20.0	114d	.41	.96
04...	1002	--	--	--	--	70	--	--	--	--	--	--	--
MAY													
01...	0409	--	--	--	--	70	--	--	--	--	--	--	--
MAY													
01-01	0445	879	2.2	.89	290	90	1.7	7.9	123	--e	340d	.48	2.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
MAR													
04-04	.16	.124	.52	.29	.83	E.02n	.17	.93	1.5	12.6	<2.0f	30	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	3,000
MAY													
01...	--	--	--	--	--	--	--	--	--	--	--	--	28,000
MAY													
01-01	.24	.188	.48	.30	1.9	.09	.75	.96	2.6	28.4	--q	60	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Cyanide water unfltrd mg/L (00720)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)
MAR													
04-04	--	14	.70	22	<.06	E.02n	2.9	.448	4.9	<.01	.21	11.5	14.2
04...	11,000	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
01...	91,000	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
01-01	--	7	.21	10	<.06	<.04	1.6	.273	1.7	<.01	.28	35.8d	6.8

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	Aldrin, water, unfltrd ug/L (39330)	alpha-Endosulfan, water, unfltrd ug/L (39388)	Chlordane, technical, water, unfltrd ug/L (39350)	Dieldrin, water, unfltrd ug/L (39380)	Endrin, water, unfltrd ug/L (39390)	Heptachlor epoxide water unfltrd ug/L (39420)	Heptachlor, water, unfltrd ug/L (39410)	Lindane water, unfltrd ug/L (39340)
MAR													
04-04	1.5	19.4	<.2	25.9	<7	<.001	<.002	<.1	E.001n	<.002	<.001	<.001	<.0020
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
01-01	1.6	7.02	<.2	2.5	<7	.003	.003	<.1	<.002	.003	.003	.003	.0029

08169948 San Marcos River Tributary at Sessoms Rd, San Marcos, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Mirex, water, unfltrd ug/L (39755)	p,p-' DDD, water, unfltrd ug/L (39360)	p,p-' DDE, water, unfltrd ug/L (39365)	p,p-' DDT, water, unfltrd ug/L (39370)	p,p-' Meth-oxy-chlor, water, unfltrd ug/L (39480)	PCBs, water, unfltrd ug/L (39516)	Petrol-eum hydro-carbons wat unf frn ext mg/L (45501)	Phen-olic com-pounds, water, unfltrd ug/L (32730)	Toxa-phene, water, unfltrd ug/L (39400)	Uranium natural water, fltrd, ug/L (22703)
MAR										
04-04	<.001	<.002	<.002	E.001n	<.003	<.1	<2	<16	<1	.17
04...	--	--	--	--	--	--	--	--	--	--
MAY										
01...	--	--	--	--	--	--	--	--	--	--
MAY										
01-01	.003	.003	.003	E.004	E.004	<.1	3	<16	<1	.10

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
f -- Sample field preparation problem
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail
q -- Sample discarded: holding time exceeded

08170000 San Marcos Springs at San Marcos, TX

LOCATION.--Lat 29°53'20", long 97°56'02", Hays County, Hydrologic Unit 12100203, on left bank at downstream side of bridge on Aquarena Springs Drive (Loop 82), 500 ft downstream from Spring Lake, and 4.2 mi upstream from Blanco River.

DRAINAGE AREA.--Not applicable. This is a springflow station.

PERIOD OF RECORD.--May 1956 to current year. Records prior to Oct. 1997 published as "San Marcos River Springflow at San Marcos".

GAGE.--Water-stage recorder. Datum of gage is 557.67 ft above NGVD of 1929. May 1956 to Sept. 1988, water-stage recorder 0.7 mi downstream from Interstate Highway 35 and 2.1 mi upstream from Blanco River, datum 536.82 ft above NGVD of 1929. Oct. 1988 to Sept. 1994, water-stage recorder at ground-water well No. LR-67-09-110, 0.2 mi southwest of intersection of FM 2439 and McCarty Lane and 3.7 mi south of San Marcos, datum 678.50 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Springflow is equal to flow at San Marcos River at San Marcos (station 08170500) except during periods of local runoff. Springflow is separated from runoff using modified Institute of Hydrology base-flow separation program BFI 4.02. Selected springflow values computed using the program are revised on the basis of further examination of the base-flow records. The springflow for all days with springflow separations and all days in which the river flow was estimated, are shown as estimated. San Marcos Springs emerge from the Edwards and associated limestones about 1.1 mi upstream from Interstate Highway 35, in the Balcones Fault Zone.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	177	166	156	157	153	150	e168	180	e267	250	210
2	193	176	166	155	156	154	152	171	178	272	247	209
3	192	176	166	154	e158	152	149	170	e179	273	245	209
4	191	175	166	152	160	e153	151	171	180	274	244	209
5	186	174	165	e154	158	154	150	173	e178	273	244	207
6	e188	172	163	157	155	152	151	172	177	272	240	208
7	191	175	165	157	155	150	151	172	e181	272	238	204
8	189	176	e165	160	154	146	150	171	186	270	236	204
9	189	174	166	158	e156	148	151	171	e209	270	234	207
10	e192	175	159	157	158	150	154	172	e220	268	232	203
11	e190	e177	162	156	e156	147	153	175	e229	267	232	201
12	189	179	e163	156	155	147	153	174	246	266	230	200
13	189	178	165	156	156	150	154	e176	241	265	232	199
14	192	173	165	157	158	149	155	e178	242	264	229	e199
15	191	174	164	161	156	150	156	180	e239	265	225	199
16	190	173	161	e160	155	149	156	180	236	262	222	197
17	193	e175	163	159	154	149	158	179	235	260	221	196
18	190	177	161	155	153	148	158	180	233	258	219	196
19	189	175	160	155	153	148	159	181	233	256	218	194
20	190	171	161	157	154	149	160	182	232	257	219	192
21	187	173	161	158	153	148	161	182	229	254	221	191
22	186	173	161	157	152	151	161	183	230	255	222	190
23	186	170	159	158	152	152	163	182	230	255	222	189
24	185	167	159	160	e151	152	164	181	231	254	221	187
25	184	e168	158	158	150	153	164	182	e232	257	218	187
26	181	170	158	159	149	149	164	178	233	253	215	187
27	183	169	158	160	150	151	163	181	234	251	213	188
28	181	168	157	158	153	151	165	180	232	251	e213	186
29	180	167	156	158	154	150	166	178	e239	251	213	185
30	179	165	156	157	---	151	166	176	e246	251	213	185
31	176	---	156	157	---	150	---	178	---	253	211	---
TOTAL	5,814	5,192	5,011	4,872	4,481	4,656	4,708	5,477	6,570	8,116	7,039	5,918
MEAN	188	173	162	157	155	150	157	177	219	262	227	197
MAX	193	179	166	161	160	154	166	183	246	274	250	210
MIN	176	165	156	152	149	146	149	168	177	251	211	185
AC-FT	11,530	10,300	9,940	9,660	8,890	9,240	9,340	10,860	13,030	16,100	13,960	11,740

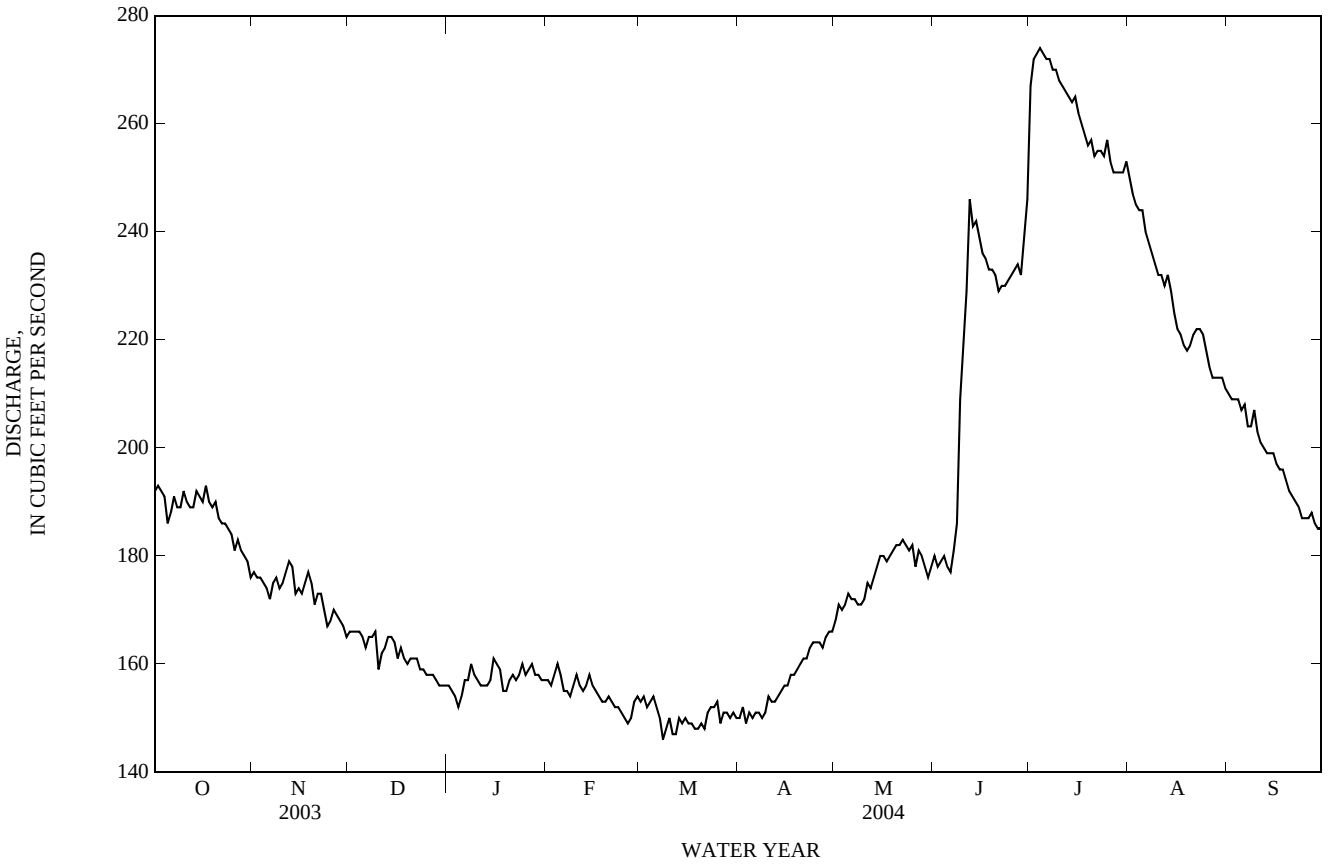
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2004, BY WATER YEAR (WY)

MEAN	158	166	171	172	175	176	174	182	190	184	168	159
MAX	275	372	355	382	418	445	427	407	415	381	315	292
(WY)	(1999)	(1999)	(1999)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(2002)
MIN	64.6	70.3	72.0	74.3	72.4	89.3	98.1	99.3	63.6	54.5	53.5	59.1
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1964)	(1964)	(1984)	(1956)	(1956)	(1956)	(1956)

08170000 San Marcos Springs at San Marcos, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1956 - 2004	
ANNUAL TOTAL	85,238		67,854			
ANNUAL MEAN	234		185		174	
HIGHEST ANNUAL MEAN					331	1992
LOWEST ANNUAL MEAN					92.0	1964
HIGHEST DAILY MEAN	322	Jan 15	274	Jul 4	451	Mar 12, 1992
LOWEST DAILY MEAN	156	Dec 29	146	Mar 8	46	Aug 15, 1956
ANNUAL SEVEN-DAY MINIMUM	157	Dec 25	148	Mar 8	50	Aug 10, 1956
ANNUAL RUNOFF (AC-FT)	169,100		134,600		125,900	
10 PERCENT EXCEEDS	312		244		255	
50 PERCENT EXCEEDS	227		175		162	
90 PERCENT EXCEEDS	169		152		105	

e Estimated



08170500 San Marcos River at San Marcos, TX

LOCATION.--Lat 29°53'20", long 97°56'02", Hays County, Hydrologic Unit 12100203, on left bank at downstream side of bridge on Aquarena Springs Drive (Loop 82), 500 ft downstream from Spring Lake, and 4.2 mi upstream from Blanco River.

DRAINAGE AREA.--48.9 mi^2., revised, of contributing surface drainage, however, most of the time flow is solely from San Marcos Springs.

PERIOD OF RECORD.--July 1915 to Sept. 1921 (daily mean discharges below base discharge), May to Sept. 1956, Oct. 1994 to current year. Discharge measurements were made outside period of record since Nov. 14, 1894, and were published as miscellaneous measurements.

REVISED RECORDS.--WSP 1923: Drainage area. WDR 1998: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 557.67 ft above NGVD of 1929. July 1915 to Jan. 1916, nonrecording gage at site 0.5 mi upstream from Interstate Highway 35, and Mar. 1916 to Sept. 1921, water-stage recorder about 0.7 mi downstream from Interstate Highway 35; datum relations unknown. May to Sept. 1956, water-stage recorder 0.7 mi downstream from Interstate Highway 35 and 2.1 mi upstream from Blanco River, at datum 536.82 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. Entire flow of river is from San Marcos Springs except during periods of local runoff. San Marcos Springs emerge from the Edwards and associated limestones about 1.1 mi upstream from Interstate Highway 35, in the Balcones Fault Zone.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	177	166	156	157	153	150	180	180	273	250	210
2	193	176	166	155	156	154	152	171	178	272	247	209
3	192	176	166	154	160	152	149	170	183	273	245	209
4	191	175	166	152	160	157	151	171	180	274	244	209
5	186	174	165	156	158	154	150	173	187	273	244	207
6	193	172	163	157	155	152	151	172	177	272	240	208
7	191	175	165	157	155	150	151	172	183	272	238	204
8	189	176	168	160	154	146	150	171	186	270	236	204
9	189	174	166	158	159	148	151	171	253	270	234	207
10	193	175	159	157	158	150	154	172	439	268	232	203
11	197	182	162	156	160	147	153	175	273	267	232	201
12	189	179	167	156	155	147	153	174	246	266	230	200
13	189	178	165	156	156	150	154	179	241	265	232	199
14	192	173	165	157	158	149	155	191	242	264	229	215
15	191	174	164	161	156	150	156	180	242	265	225	199
16	190	173	161	167	155	149	156	180	236	262	222	197
17	193	182	163	159	154	149	158	179	235	260	221	196
18	190	177	161	155	153	148	158	180	233	258	219	196
19	189	175	160	155	153	148	159	181	233	256	218	194
20	190	171	161	157	154	149	160	182	232	257	219	192
21	187	173	161	158	153	148	161	182	229	254	221	191
22	186	173	161	157	152	151	161	183	230	255	222	190
23	186	170	159	158	152	152	163	182	230	255	222	189
24	185	167	159	160	154	152	164	181	231	254	221	187
25	184	171	158	158	150	153	164	182	236	257	218	187
26	181	170	158	159	149	149	164	178	233	253	215	187
27	183	169	158	160	150	151	163	181	234	251	213	188
28	181	168	157	158	153	151	165	180	232	251	222	186
29	180	167	156	158	154	150	166	178	243	251	213	185
30	179	165	156	157	---	151	166	176	273	251	213	185
31	176	---	156	157	---	150	---	178	---	253	211	---
TOTAL	5,827	5,207	5,018	4,881	4,493	4,660	4,708	5,505	6,930	8,122	7,048	5,934
MEAN	188	174	162	157	155	150	157	178	231	262	227	198
MAX	197	182	168	167	160	157	166	191	439	274	250	215
MIN	176	165	156	152	149	146	149	170	177	251	211	185
AC-FT	11,560	10,330	9,950	9,680	8,910	9,240	9,340	10,920	13,750	16,110	13,980	11,770

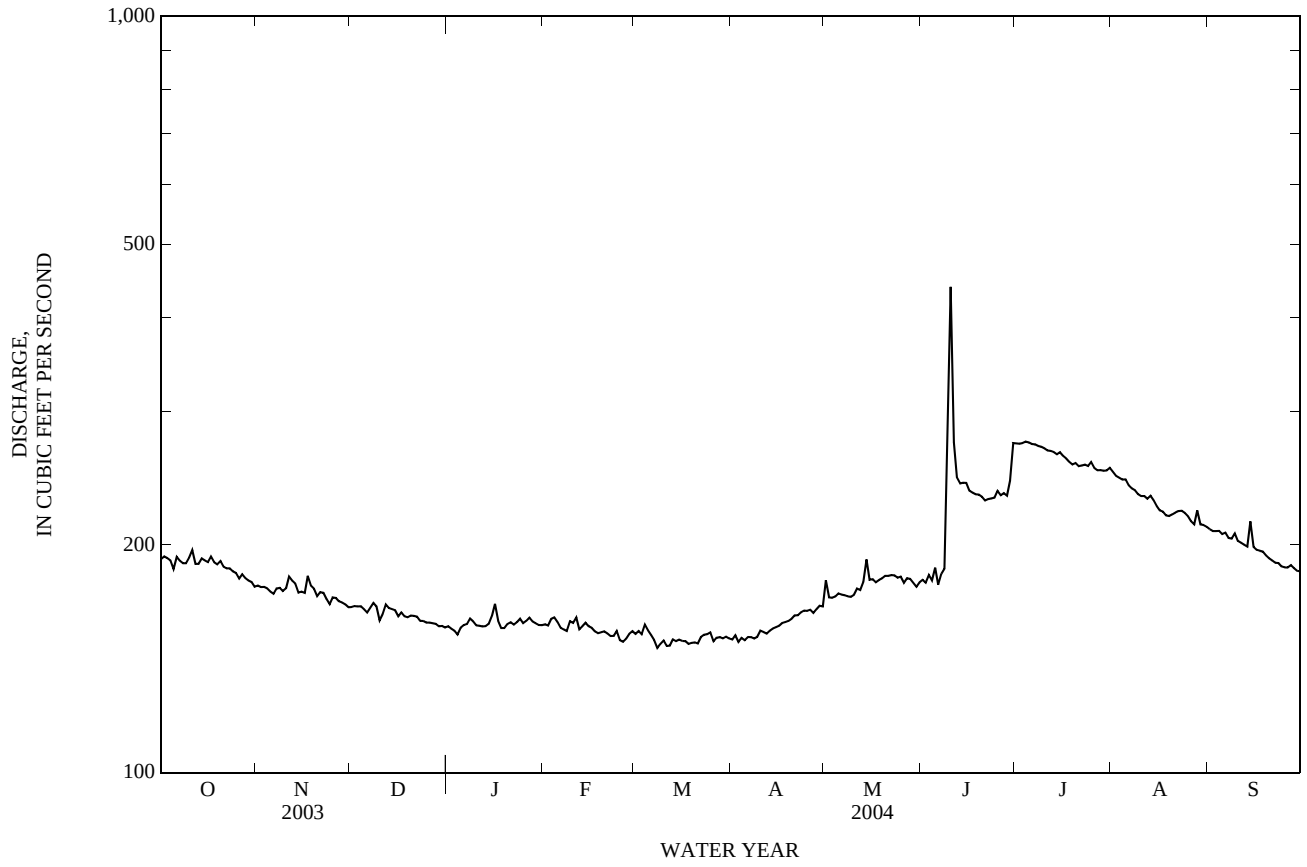
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	220	209	203	199	193	190	183	177	197	207	186	183
MAX	729	373	355	317	311	299	279	246	308	332	310	293
(WY)	(1999)	(1999)	(1999)	(2003)	(2003)	(2003)	(2003)	(2003)	(1997)	(2002)	(2002)	(2002)
MIN	107	93.1	91.5	99.0	98.2	108	101	99.6	94.4	84.4	84.2	109
(WY)	(1997)	(1997)	(1997)	(1997)	(1997)	(1996)	(1996)	(1996)	(1996)	(1996)	(1996)	(1996)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	85,465		68,333			
ANNUAL MEAN	234		187		196	
HIGHEST ANNUAL MEAN					274	1999
LOWEST ANNUAL MEAN					110	1996
HIGHEST DAILY MEAN	332	Feb 20	439	Jun 10	6,200	Oct 17, 1998
LOWEST DAILY MEAN	156	Dec 29	146	Mar 8	76	Aug 15, 1996
ANNUAL SEVEN-DAY MINIMUM	157	Dec 25	148	Mar 8	77	Aug 15, 1996
MAXIMUM PEAK FLOW			540	Jun 9	i21,500	Oct 17, 1998
MAXIMUM PEAK STAGE			6.86	Jun 9	a21.29	Oct 17, 1998
INSTANTANEOUS LOW FLOW			132	Mar 26	71	Nov 18, 1996
ANNUAL RUNOFF (AC-FT)	169,500		135,500		141,700	
10 PERCENT EXCEEDS	312		248		304	
50 PERCENT EXCEEDS	228		175		179	
90 PERCENT EXCEEDS	170		152		108	

i From indirect measurement of peak flow.
a From floodmark.

08170500 San Marcos River at San Marcos, TX—Continued



08171000 Blanco River at Wimberley, TX

LOCATION.--Lat 29°59'39", long 98°05'19", Hays County, Hydrologic Unit 12100203, on left bank at downstream side of highway, near left end of bridge on Ranch Road 12, 0.3 mi southeast of Wimberley, 2,200 ft downstream from Cypress Creek, and at mile 29.0.

DRAINAGE AREA.--355 mi^2.

PERIOD OF RECORD.--Aug. 1924 to Sept. 1926, June 1928 to current year. Water-quality records: Chemical data: Apr. 1962 to Sept. 1979, Feb. 1988 to Sept. 1993, Apr. 1996 to Apr. 1998. Biochemical data: Jan. 1974 to Sept. 1979, Feb. 1988 to Sept. 1993, Apr. 1996 to Apr. 1998. Pesticide data: Jan. 1974 to Sept. 1979, Feb. 1988 to Sept. 1993, Apr. 1996 to Apr. 1998. Sediment data: Nov. 1965 to Apr. 1966, Apr. 1996 to Apr. 1998. Water temperature: Dec. 1976 to Sept. 1978.

REVISED RECORDS.--WSP 1562: 1929, 1930-31(M), 1935-36(M), 1938(M), 1941-42(M), 1947(M), 1949(M). WSP 2123: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 797.23 ft above NGVD of 1929. Aug. 6, 1924 to Sept. 30, 1926, nonrecording gage at site 1,030 ft upstream at datum 5.00 ft higher. Recording gage from June 6, 1928 to June 12, 1975, at site 1,000 ft upstream at datum 5.00 ft higher. Satellite telemeter at station.

REMARKS.--Records good. No known regulation. There are many small diversions above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1869 reached a stage of 25 ft, from information by local residents. Maximum stage since at least 1869, that of May 28, 1929.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	53	46	39	46	63	67	317	140	1,750	175	92
2	58	54	46	39	45	66	75	315	135	1,230	168	93
3	58	51	44	39	40	66	75	284	132	980	162	92
4	59	50	45	39	40	69	76	265	127	807	155	92
5	58	51	44	38	43	69	83	250	165	676	149	90
6	59	50	43	36	40	69	117	238	130	595	143	88
7	57	50	43	36	40	69	372	228	134	539	138	87
8	56	50	43	37	42	65	209	230	196	500	134	87
9	60	49	45	38	42	65	163	225	2,490	460	132	88
10	56	48	43	37	49	65	153	209	2,720	430	133	86
11	61	48	43	36	72	64	289	200	1,120	406	132	84
12	64	48	46	42	84	66	456	194	798	384	126	83
13	60	48	47	43	72	71	316	195	630	358	122	85
14	59	46	43	45	67	72	274	759	541	333	119	87
15	58	48	42	52	62	74	251	379	496	312	116	84
16	58	49	48	72	59	77	233	285	459	293	111	82
17	58	53	41	82	57	74	216	256	411	278	109	81
18	56	51	40	89	56	74	204	237	377	262	107	80
19	54	46	40	85	56	74	193	224	345	250	106	79
20	54	50	40	78	56	74	186	213	318	239	103	77
21	53	55	40	71	54	74	181	e199	298	221	104	77
22	53	49	41	66	54	71	175	e191	293	209	108	77
23	53	50	40	57	54	72	167	e183	332	215	114	77
24	52	48	39	58	63	72	408	e175	290	205	108	76
25	51	47	39	55	61	71	463	e167	274	214	107	75
26	52	48	39	51	60	71	295	159	550	405	105	75
27	53	48	40	49	61	72	250	162	530	265	103	74
28	53	46	41	47	60	71	230	160	1,620	213	100	73
29	52	45	39	46	62	70	428	154	1,080	195	99	72
30	50	46	38	48	---	69	385	149	3,710	190	96	72
31	56	---	38	47	---	67	---	146	---	187	94	---
TOTAL	1,740	1,475	1,306	1,597	1,597	2,166	6,990	7,348	20,841	13,601	3,778	2,465
MEAN	56.1	49.2	42.1	51.5	55.1	69.9	233	237	695	439	122	82.2
MAX	64	55	48	89	84	77	463	759	3,710	1,750	175	93
MIN	50	45	38	36	40	63	67	146	127	187	94	72
AC-FT	3,450	2,930	2,590	3,170	3,170	4,300	13,860	14,570	41,340	26,980	7,490	4,890

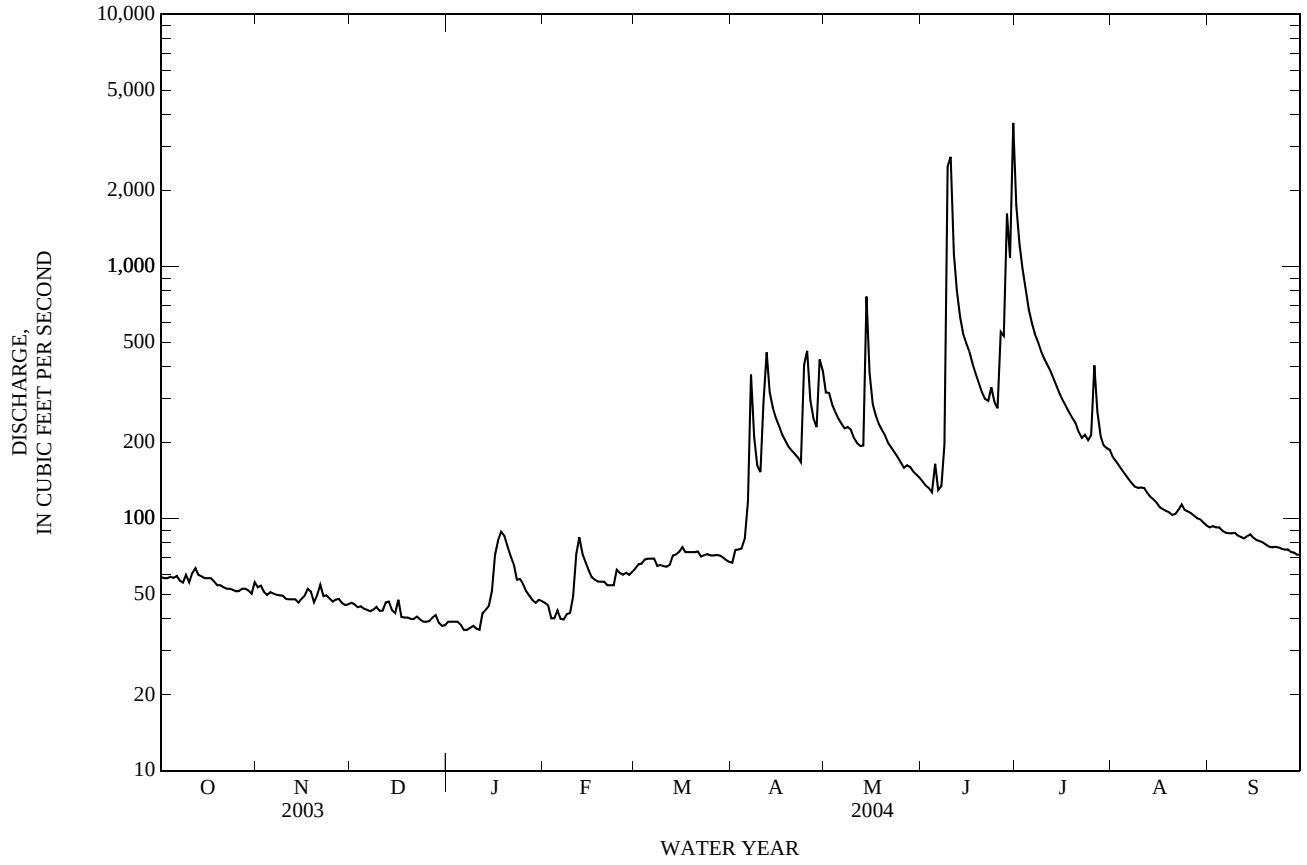
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004h, BY WATER YEAR (WY)

MEAN	116	115	126	126	164	155	178	212	233	144	52.7	88.2
MAX	1,322	1,236	1,364	1,134	1,401	977	953	1,470	2,308	3,130	201	1,413
(WY)	(1999)	(2002)	(1992)	(1968)	(1992)	(1992)	(1957)	(1929)	(1997)	(2002)	(1973)	(1952)
MIN	6.24	7.41	7.87	6.66	8.13	5.93	5.19	12.5	3.44	1.70	2.89	6.93
(WY)	(1941)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1928)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004h	
ANNUAL TOTAL	54,858		64,904			
ANNUAL MEAN	150		177		142	
HIGHEST ANNUAL MEAN					566	1992
LOWEST ANNUAL MEAN					6.45	1956
HIGHEST DAILY MEAN	1,840	Feb 20	3,710	Jun 30	36,900	Sep 11, 1952
LOWEST DAILY MEAN	38	Dec 30	36	Jan 6	0.70	Jul 17, 1956
ANNUAL SEVEN-DAY MINIMUM	39	Dec 25	37	Jan 5	0.79	Aug 12, 1956
MAXIMUM PEAK FLOW			8,550	Jun 9	i113,000	May 28, 1929
MAXIMUM PEAK STAGE			11.27	Jun 9	a33.30	May 28, 1929
ANNUAL RUNOFF (AC-FT)	108,800		128,700		102,800	
10 PERCENT EXCEEDS	300		362		287	
50 PERCENT EXCEEDS	100		75		55	
90 PERCENT EXCEEDS	48		43		13	

h See Period of Record paragraph.
i From indirect measurement of peak flow.
a From floodmark.
e Estimated

08171000 Blanco River at Wimberley, TX—Continued



08171300 Blanco River near Kyle, TX

LOCATION.--Lat 29°58'45", long 97°54'35", Hays County, Hydrologic Unit 12100203, on left bank 800 ft downstream from Tarbutton Ranch House (Hatchett Ranch), 2.2 mi southwest of Kyle, 4.2 mi downstream from Halifax Creek, and 6.3 mi upstream from bridge on U.S. Highway 81.

DRAINAGE AREA.--412 mi^2.

PERIOD OF RECORD.--May 1956 to current year.

REVISED RECORDS.--WSP 1923: 1957-58, 1960(M). WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 620.12 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. Small diversions above station for irrigation. Most of the low flow of the Blanco River enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin upstream from this station and below Blanco River at Wimberley (station 08171000). No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1882, about 40 ft in May 1929, from information by local residents (discharge, 139,000 ft^3/s). Flood of Sept. 11, 1952, reached a stage of 38.0 ft (discharge, 115,000 ft^3/s).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	18	16	14	24	39	38	320	159	2,390	157	60
2	19	18	16	14	25	41	43	305	155	1,640	146	60
3	19	18	16	14	24	43	48	278	154	1,350	140	59
4	19	17	15	13	24	44	43	249	151	1,170	132	57
5	19	16	15	12	26	44	54	229	188	1,030	125	57
6	19	16	15	12	28	43	59	216	155	922	125	55
7	19	16	15	12	29	43	301	212	153	838	121	52
8	19	16	15	13	29	42	221	211	208	772	111	50
9	21	17	16	14	31	39	147	213	837	703	107	50
10	21	17	15	13	36	38	128	203	1,370	643	108	51
11	20	17	14	13	48	38	223	202	760	593	109	50
12	25	16	16	13	66	38	471	196	633	555	108	49
13	21	16	17	15	55	44	343	199	568	511	96	48
14	20	15	16	16	50	43	278	363	530	469	93	66
15	19	15	16	18	46	43	247	320	502	432	89	56
16	19	16	15	23	43	47	225	254	496	398	79	51
17	19	17	16	31	40	44	206	235	453	369	76	49
18	19	18	15	27	39	43	191	223	427	343	74	48
19	18	15	15	27	37	43	178	216	385	321	74	47
20	18	15	15	27	37	43	170	210	352	301	71	46
21	18	15	15	26	35	47	162	204	326	278	72	45
22	17	18	15	25	35	43	155	198	319	256	71	46
23	17	16	14	25	35	41	146	194	340	237	89	46
24	17	16	14	25	43	43	191	190	320	250	76	45
25	17	16	14	25	40	43	579	187	300	231	75	44
26	17	16	14	23	39	43	317	183	508	409	73	45
27	18	17	14	22	39	42	246	177	498	315	70	44
28	18	16	14	22	39	41	214	175	1,170	223	71	44
29	17	16	14	23	40	41	289	171	1,190	191	69	43
30	17	16	13	23	---	39	450	165	3,340	182	65	42
31	18	---	13	24	---	39	---	162	---	170	63	---
TOTAL	582	491	463	604	1,082	1,304	6,363	6,860	16,947	18,492	2,935	1,505
MEAN	18.8	16.4	14.9	19.5	37.3	42.1	212	221	565	597	94.7	50.2
MAX	25	18	17	31	66	47	579	363	3,340	2,390	157	66
MIN	17	15	13	12	24	38	38	162	151	170	63	42
AC-FT	1,150	974	918	1,200	2,150	2,590	12,620	13,610	33,610	36,680	5,820	2,990
CFSM	0.05	0.04	0.04	0.05	0.09	0.10	0.51	0.54	1.37	1.45	0.23	0.12
IN.	0.05	0.04	0.04	0.05	0.10	0.12	0.57	0.62	1.53	1.67	0.27	0.14

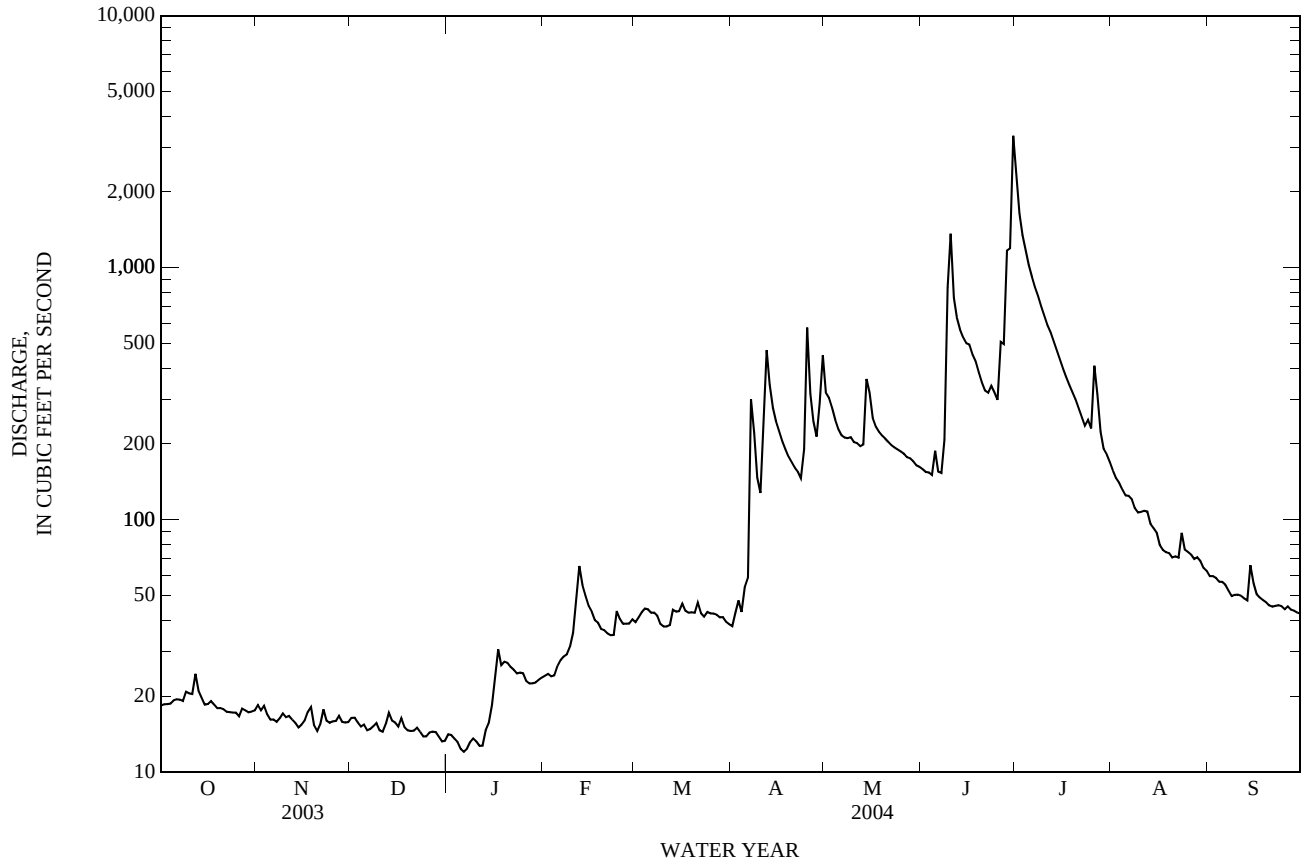
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2004, BY WATER YEAR (WY)

MEAN	151	151	164	155	199	175	183	229	306	172	46.1	55.0
MAX	1,646	1,179	1,775	1,319	1,511	1,078	906	1,148	2,459	3,068	196	348
(WY)	(1999)	(2002)	(1992)	(1968)	(1992)	(1992)	(1977)	(1958)	(1997)	(2002)	(1973)	(1986)
MIN	0.00	0.00	0.00	0.00	0.00	0.14	0.00	1.96	0.00	0.00	0.00	0.00
(WY)	(1964)	(1964)	(1964)	(1957)	(1990)	(2000)	(2000)	(1964)	(1956)	(1956)	(1956)	(1956)

08171300 Blanco River near Kyle, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1956 - 2004	
ANNUAL TOTAL	46,748		57,628			
ANNUAL MEAN	128		157		166	
HIGHEST ANNUAL MEAN					625	1992
LOWEST ANNUAL MEAN					3.44	2000
HIGHEST DAILY MEAN	1,850	Feb 21	3,340	Jun 30	26,000	Oct 17, 1998
LOWEST DAILY MEAN	13	Dec 30	12	Jan 5	0.00	Jun 1, 1956
ANNUAL SEVEN-DAY MINIMUM	14	Dec 25	13	Jan 4	0.00	Jun 1, 1956
MAXIMUM PEAK FLOW			6,960	Jun 30	i105,000	Oct 17, 1998
MAXIMUM PEAK STAGE			14.94	Jun 30	a36.30	May 2, 1958
ANNUAL RUNOFF (AC-FT)	92,720		114,300		120,300	
ANNUAL RUNOFF (CFSM)	0.311		0.382		0.403	
ANNUAL RUNOFF (INCHES)	4.22		5.20		5.48	
10 PERCENT EXCEEDS	315		374		343	
50 PERCENT EXCEEDS	47		44		54	
90 PERCENT EXCEEDS	16		15		2.5	

i From indirect measurement of peak flow.
a From floodmark.



08172000 San Marcos River at Luling, TX

LOCATION.--Lat 29°39'58", long 97°39'02", Caldwell County, Hydrologic Unit 12100203, at downstream side of bridge on State Highway 80, 0.9 mi south of U.S. Post Office at Luling, and 9.5 mi upstream from Plum Creek.

DRAINAGE AREA.--838 mi^2.

PERIOD OF RECORD.--Apr. 1939 to current year. Water-quality records: Chemical data: Feb. 1944 to Feb. 1959, Sept. 1961 to Apr. 1966, Nov. 1968 to Aug. 1999. Pesticide data: June 1986 to May 1999. Sediment data: Oct. 1960 to Apr. 1966.

REVISED RECORDS.--WSP 958: 1940. WSP 1312: 1940(M), 1945(M), 1947(M). WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 322.05 ft above NGVD of 1929. Prior to Oct. 21, 1988, at site 390 ft downstream at same datum. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow is affected at times by discharge from the flood-detention pools of 18 floodwater-retarding structures. These structures control runoff from 105 mi^2 in the Town, Sink, and York Creeks drainage basins.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1859, 40.4 ft in 1869 or 1870, from information by Texas Department of Transportation. Flood of May 29, 1929, reached a stage of 37.1 ft and is the second highest known.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	206	167	e196	e208	e217	e245	201	677	e181	8,570	519	338
2	201	168	e197	e200	e220	e243	222	617	e181	2,860	501	329
3	196	184	e196	e199	e218	e245	291	e492	e179	2,060	489	326
4	194	209	e192	e200	e220	e244	261	e427	e250	1,720	473	334
5	194	204	e187	e195	e251	e254	578	e372	e727	1,460	463	332
6	192	200	e186	e193	e257	e282	318	e333	e463	1,270	454	331
7	193	192	e186	e190	e248	e288	278	e301	e420	1,140	447	471
8	195	196	e197	e194	e251	e261	383	e287	e1,460	1,050	448	362
9	198	200	e196	e197	e239	e245	441	e278	e2,510	963	434	338
10	196	208	e192	e197	e420	e245	e314	e271	e4,590	899	430	325
11	290	195	e193	e194	e601	e235	e636	e267	e3,980	852	423	310
12	908	175	e188	e194	e1,220	e230	e535	e333	e2,100	812	415	304
13	532	e165	e197	e198	e605	233	e485	e388	e1,520	781	412	301
14	365	e160	e203	e201	e427	238	e376	e1,320	e1,370	754	405	321
15	287	e163	e202	e210	e374	233	538	e1,060	e1,250	720	400	445
16	246	e175	e191	e269	e332	230	494	e627	1,250	693	394	353
17	218	e199	e188	e529	e303	222	471	e485	1,110	671	389	323
18	206	e232	e188	e432	e280	222	452	e417	955	654	384	309
19	203	e221	e188	e328	e263	219	436	e381	849	637	379	297
20	200	e210	e190	e269	e254	216	423	e354	777	615	372	291
21	194	e210	e190	e247	e241	216	409	e335	726	596	373	281
22	192	e198	e191	e235	e236	e212	397	e323	716	577	371	274
23	187	e195	e190	e229	e230	e214	394	e265	738	564	383	271
24	179	e192	e188	e234	e248	221	400	e249	706	551	380	274
25	179	e190	e192	e257	e280	215	473	e235	676	554	375	271
26	175	e192	e195	e255	e286	e210	734	e220	667	603	360	264
27	177	e196	e198	e232	e271	206	576	e211	1,080	713	346	263
28	175	e196	e205	e231	e253	203	505	e202	1,260	657	340	261
29	174	e190	e224	e226	e243	230	473	e193	2,340	585	419	254
30	171	e190	e226	e221	---	210	493	e186	6,400	583	391	249
31	172	---	e211	e219	---	203	---	e182	---	547	348	---
TOTAL	7,395	5,772	6,063	7,383	9,488	7,170	12,987	12,288	41,431	35,711	12,717	9,402
MEAN	239	192	196	238	327	231	433	396	1,381	1,152	410	313
MAX	908	232	226	529	1,220	288	734	1,320	6,400	8,570	519	471
MIN	171	160	186	190	217	203	201	182	179	547	340	249
AC-FT	14,670	11,450	12,030	14,640	18,820	14,220	25,760	24,370	82,180	70,830	25,220	18,650

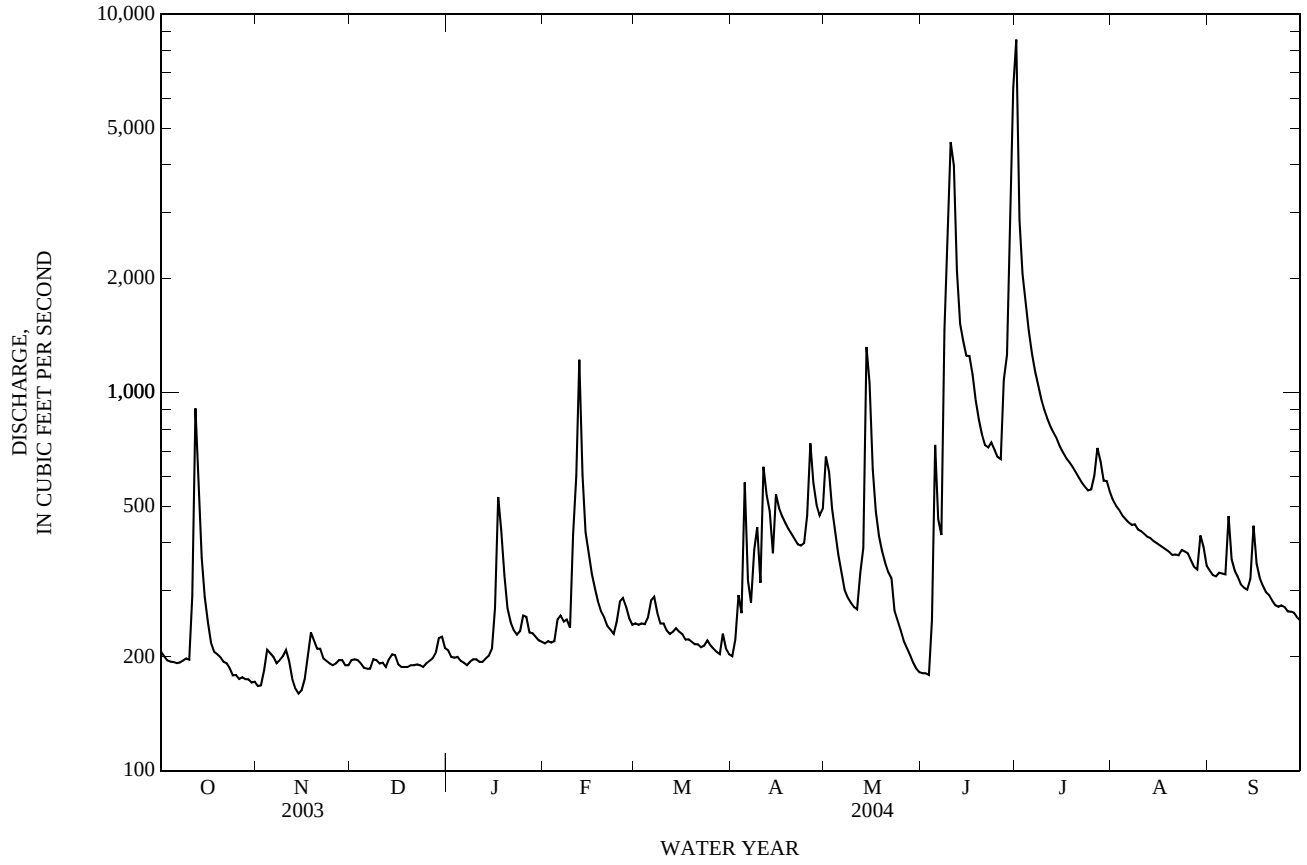
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	412	377	401	383	457	400	469	527	612	367	213	283
MAX	5,485	1,682	3,520	2,286	3,358	2,438	1,853	2,054	4,850	4,486	699	1,577
(WY)	(1999)	(1999)	(1992)	(1968)	(1992)	(1992)	(1977)	(1975)	(1987)	(2002)	(2002)	(1952)
MIN	59.7	63.1	82.1	77.5	81.0	73.8	78.5	84.5	58.5	58.9	63.7	64.4
(WY)	(1956)	(1956)	(1955)	(1957)	(1952)	(1956)	(1956)	(1996)	(1956)	(1956)	(1984)	(1984)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	170,967		167,807			
ANNUAL MEAN	468		458		410	
HIGHEST ANNUAL MEAN					1,482	1992
LOWEST ANNUAL MEAN					75.3	1956
HIGHEST DAILY MEAN	7,840	Feb 21	8,570	Jul 1	90,500	Oct 18, 1998
LOWEST DAILY MEAN	160	Nov 14	160	Nov 14	43	Aug 12, 1951
ANNUAL SEVEN-DAY MINIMUM	172	Oct 27	172	Oct 27	53	Jun 2, 1956
MAXIMUM PEAK FLOW			12,700	Jun 30	i206,000	Oct 18, 1998
MAXIMUM PEAK STAGE			28.26	Jun 30	a41.85	Oct 18, 1998
ANNUAL RUNOFF (AC-FT)	339,100		332,800		296,700	
10 PERCENT EXCEEDS	846		735		723	
50 PERCENT EXCEEDS	305		270		213	
90 PERCENT EXCEEDS	192		190		93	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated

08172000 San Marcos River at Luling, TX—Continued



08172400 Plum Creek at Lockhart, TX

LOCATION.--Lat 29°55'22", long 97°40'44", Caldwell County, Hydrologic Unit 12100203, on right bank 548 ft upstream from bridge on U.S. Highway 183, 2.7 mi north of Lockhart, 3.7 mi upstream from Town Creek, 5.0 mi downstream from Brushy Creek, and 30.4 mi upstream from mouth.

DRAINAGE AREA.--112 mi^2.

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

REVISED RECORDS.--WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 431.19 ft above NGVD of 1929. Apr. 30, 1959, to July 25, 1968, at site 548 ft downstream at present datum. Satellite telemeter at station.

REMARKS.--Records good. No known diversions above station. Flow is affected at times by discharge from the flood-detention pools of 17 floodwater-retarding structures. These structures control runoff from 67.8 mi^2 above this station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1905, 22 ft in June 1936 at present site; flood in 1951 reached a stage of 20 ft at present site, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.41	0.07	0.39	0.66	1.1	5.3	3.1	11	1.9	1,930	6.1	0.58
2	0.43	0.01	0.66	0.79	1.1	5.4	2.7	78	2.1	469	4.3	0.46
3	0.43	0.00	0.78	0.88	1.1	4.6	8.8	45	3.2	322	3.2	0.46
4	0.35	0.18	0.70	0.94	1.2	5.5	8.5	26	3.2	246	2.3	0.45
5	0.33	0.67	0.56	0.77	2.2	14	6.5	17	20	202	1.6	0.47
6	0.27	0.64	0.31	0.75	5.4	13	13	11	39	170	1.1	0.43
7	0.23	0.48	0.23	0.67	3.9	7.8	17	8.2	19	139	0.82	0.57
8	0.18	0.41	0.27	0.62	2.8	5.8	14	6.9	278	110	0.89	0.59
9	0.20	0.40	0.42	0.70	2.4	4.6	9.0	6.0	1,070	77	0.88	0.63
10	0.55	0.46	0.89	0.78	23	3.4	6.6	5.2	2,910	48	0.86	0.55
11	0.81	0.38	0.79	0.61	138	2.9	39	12	570	30	0.95	0.42
12	1.7	0.41	0.90	0.51	136	2.6	92	25	404	20	0.85	0.30
13	2.2	0.87	1.9	0.56	41	3.2	44	17	354	14	0.81	0.24
14	1.7	0.66	0.96	0.77	24	7.7	26	215	309	9.9	0.90	0.35
15	0.71	0.55	0.93	1.1	17	9.5	18	108	270	7.5	0.74	8.0
16	0.36	0.58	0.90	4.6	11	7.0	14	51	237	5.8	0.71	6.0
17	0.29	1.5	0.77	30	8.2	6.3	11	28	207	4.8	0.94	2.9
18	0.27	2.5	0.65	14	6.2	5.3	9.0	17	179	4.0	0.79	1.9
19	0.31	3.0	0.56	6.0	5.4	4.2	7.6	12	139	3.3	0.65	1.4
20	0.32	1.0	0.41	3.8	4.6	3.7	6.6	8.7	100	3.0	0.63	1.3
21	0.30	0.69	0.31	2.7	3.8	3.5	5.8	6.8	65	2.6	1.00	1.3
22	0.24	0.47	0.27	2.0	3.4	3.1	5.2	5.7	41	2.1	1.1	1.3
23	0.23	0.31	0.75	1.6	3.5	3.0	4.7	5.0	30	1.9	1.5	1.2
24	0.24	0.22	0.63	1.6	4.4	2.5	5.1	4.5	60	1.7	2.1	1.2
25	0.63	0.18	0.55	1.8	16	2.4	5.4	4.3	41	1.7	1.4	1.2
26	0.40	0.43	0.37	3.0	11	2.5	5.1	3.7	33	38	0.80	1.2
27	0.27	0.45	0.49	2.5	6.9	2.4	4.1	3.2	55	13	0.59	1.2
28	0.21	0.40	0.63	1.6	5.5	2.3	4.2	2.3	72	6.0	0.49	1.3
29	0.16	0.30	0.72	1.4	5.1	2.2	3.9	1.8	140	4.0	0.49	1.7
30	0.14	0.26	0.67	1.3	---	6.2	3.9	2.0	2,000	6.9	0.38	1.8
31	0.11	---	0.62	1.2	---	4.7	---	2.1	---	7.6	0.40	---
TOTAL	14.98	18.48	19.99	90.21	495.2	156.6	403.8	749.4	9,652.4	3,900.8	40.27	41.40
MEAN	0.48	0.62	0.64	2.91	17.1	5.05	13.5	24.2	322	126	1.30	1.38
MAX	2.2	3.0	1.9	30	138	14	92	215	2,910	1,930	6.1	8.0
MIN	0.11	0.00	0.23	0.51	1.1	2.2	2.7	1.8	1.9	1.7	0.38	0.24
AC-FT	30	37	40	179	982	311	801	1,490	19,150	7,740	80	82

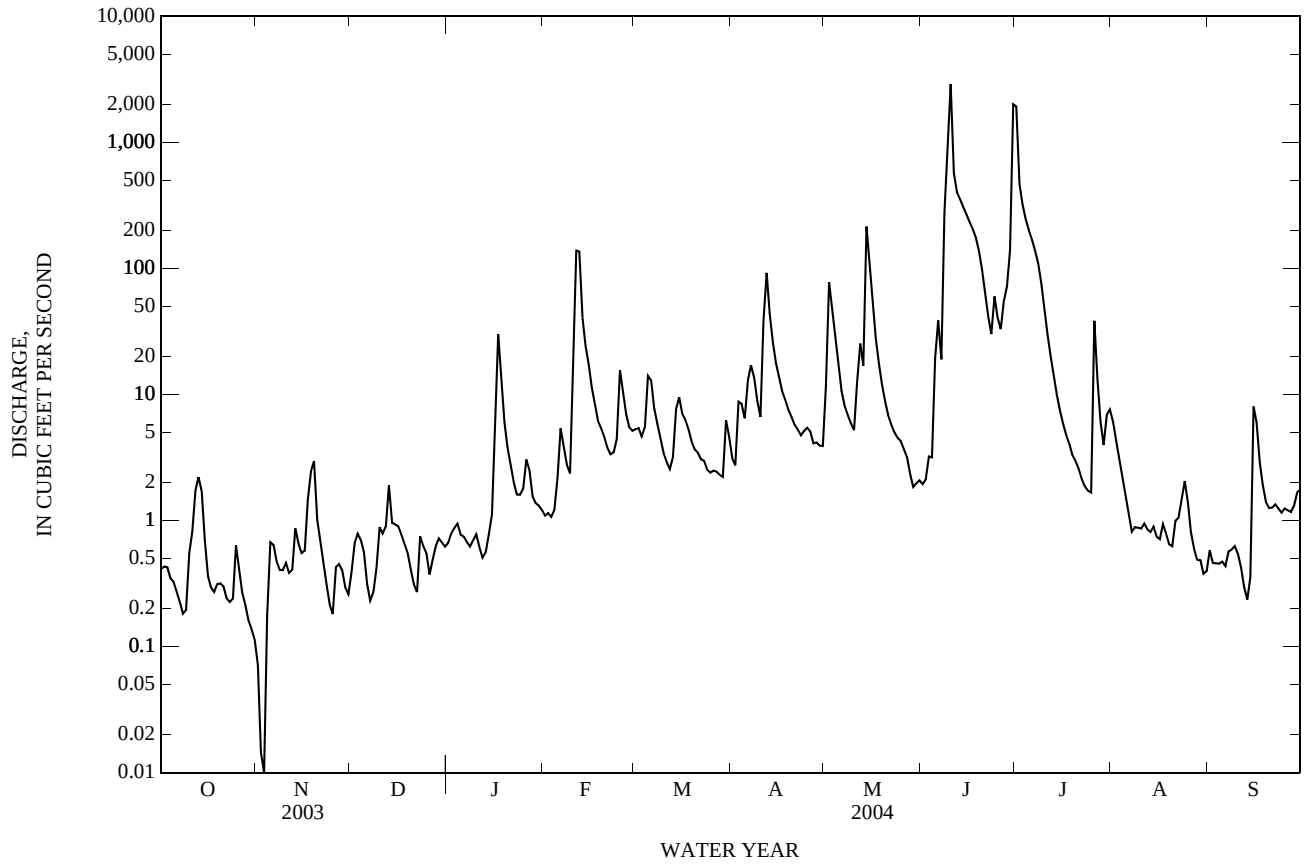
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2004, BY WATER YEAR (WY)

MEAN	71.9	56.8	57.8	44.0	64.5	34.7	40.3	90.5	102	16.6	3.63	9.29
MAX	1,526	590	605	416	815	332	343	595	905	183	118	142
(WY)	(1999)	(1986)	(1992)	(1968)	(1992)	(1992)	(1976)	(1975)	(1981)	(2002)	(1974)	(1974)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1964)	(1964)	(1964)	(1964)	(1989)	(1964)	(1967)	(1971)	(1963)	(1963)	(1962)	(1959)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1959 - 2004	
ANNUAL TOTAL	9,286.50		15,583.53			
ANNUAL MEAN	25.4		42.6		49.5	
HIGHEST ANNUAL MEAN					238	1992
LOWEST ANNUAL MEAN					0.10	1978
HIGHEST DAILY MEAN	1,360	Feb 21	2,910	Jun 10	19,400	Oct 18, 1998
LOWEST DAILY MEAN	0.00	May 21	0.00	Nov 3	0.00	Jun 23, 1959
ANNUAL SEVEN-DAY MINIMUM	0.00	May 21	0.10	Oct 29	0.00	Jul 9, 1959
MAXIMUM PEAK FLOW			5,290	Jun 10	47,200	Oct 18, 1998
MAXIMUM PEAK STAGE			16.72	Jun 10	a23.09	Oct 18, 1998
ANNUAL RUNOFF (AC-FT)	18,420		30,910		35,870	
10 PERCENT EXCEEDS	43		46		62	
50 PERCENT EXCEEDS	0.79		2.3		0.76	
90 PERCENT EXCEEDS	0.00		0.36		0.00	

a From floodmark.

08172400 Plum Creek at Lockhart, TX—Continued



08173000 Plum Creek near Luling, TX

LOCATION.--Lat 29°41'58", long 97°36'12", Caldwell County, Hydrologic Unit 12100203, on left bank at downstream side of bridge on county road, 1.2 mi upstream from West Fork, 1.9 mi upstream from Southern Pacific Railroad Co. bridge, 2.2 mi upstream from McNeil Creek, 2.9 mi northeast of Luling, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--309 mi^2.

PERIOD OF RECORD.--Mar. 1930 to Sept. 1993, July 2001 to current year. Water-quality records: Chemical data: Feb. 1944, Apr. 1961 to Sept. 1986. Sediment data: Nov. 1965 to June 1966. Specific conductance: Oct. 1967 to Sept. 1986. Water temperature: Oct. 1967 to Sept. 1986.

REVISED RECORDS.--WSP 1923: 1933. WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 321.57 ft above NGVD of 1929. Prior to Aug. 18, 1976, at datum 5.0 ft higher. Satellite telemeter at station.

REMARKS.--Records fair. No known diversions above station. Flow is affected at times by discharge from the flood-detention pools of 27 floodwater-retarding structures. These structures control runoff from 119 mi^2 above this station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1868, that of Oct. 18, 1998; flood in 1913 reached about same stage as that of July 1, 1936, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	7.9	10	11	12	13	12	18	8.4	5,750	27	8.2
2	7.4	8.2	10	10	13	12	12	38	8.4	3,500	24	7.7
3	7.3	8.6	9.9	10	12	13	24	72	8.2	689	21	8.2
4	7.5	8.9	9.6	10	13	13	29	53	8.5	470	18	8.8
5	7.5	8.6	9.0	9.9	17	15	161	39	168	356	16	8.5
6	8.0	8.0	8.9	9.7	18	20	30	32	64	288	14	8.2
7	7.9	7.8	8.9	9.4	17	21	29	26	52	234	12	11
8	8.0	8.4	10	9.8	17	17	26	23	745	196	12	9.5
9	8.4	9.0	10	10	15	14	23	22	2,410	161	11	7.8
10	9.0	9.8	9.6	10	53	15	33	21	8,560	126	10	7.3
11	29	9.9	9.7	9.8	114	14	145	20	6,410	98	11	7.0
12	102	9.8	9.2	9.8	497	13	100	32	1,650	82	9.4	6.7
13	22	9.7	10	10	107	15	81	45	807	68	9.8	6.7
14	12	8.9	11	10	45	19	46	586	644	60	10	7.7
15	9.8	8.7	11	12	31	15	34	377	521	53	9.2	15
16	9.0	9.1	9.5	20	23	15	27	128	396	48	8.6	13
17	8.5	10	9.1	87	18	13	23	72	283	44	8.3	16
18	8.1	14	9.1	57	15	12	21	52	222	41	7.9	11
19	7.6	13	9.1	31	13	11	19	43	190	38	8.4	8.6
20	7.5	12	9.3	20	11	10	18	37	148	35	8.1	7.7
21	7.6	12	9.4	17	10	10	17	33	112	32	7.8	7.2
22	7.4	10	9.5	15	9.9	9.7	16	30	80	31	9.2	6.3
23	7.3	10	9.3	15	9.5	9.6	16	20	70	28	11	6.6
24	7.3	9.6	9.1	15	12	9.5	16	17	124	27	11	6.8
25	7.8	9.3	9.5	18	16	9.4	23	15	148	26	11	7.0
26	7.4	9.6	9.9	18	18	9.1	32	13	408	30	9.2	6.7
27	7.8	10	10	14	15	9.5	24	12	770	56	8.6	6.8
28	8.5	10	11	14	13	9.6	19	11	1,860	36	8.7	6.7
29	8.0	9.4	13	14	12	10	20	9.8	436	28	46	6.5
30	7.7	9.3	14	13	---	12	19	9.3	2,430	26	17	6.2
31	7.8	---	12	13	---	11	---	8.9	---	26	9.9	---
TOTAL	379.0	289.5	309.6	532.4	1,176.4	399.4	1,095	1,915.0	29,741.5	12,683	405.1	251.4
MEAN	12.2	9.65	9.99	17.2	40.6	12.9	36.5	61.8	991	409	13.1	8.38
MAX	102	14	14	87	497	21	161	586	8,560	5,750	46	16
MIN	7.3	7.8	8.9	9.4	9.5	9.1	12	8.9	8.2	26	7.8	6.2
AC-FT	752	574	614	1,060	2,330	792	2,170	3,800	58,990	25,160	804	499

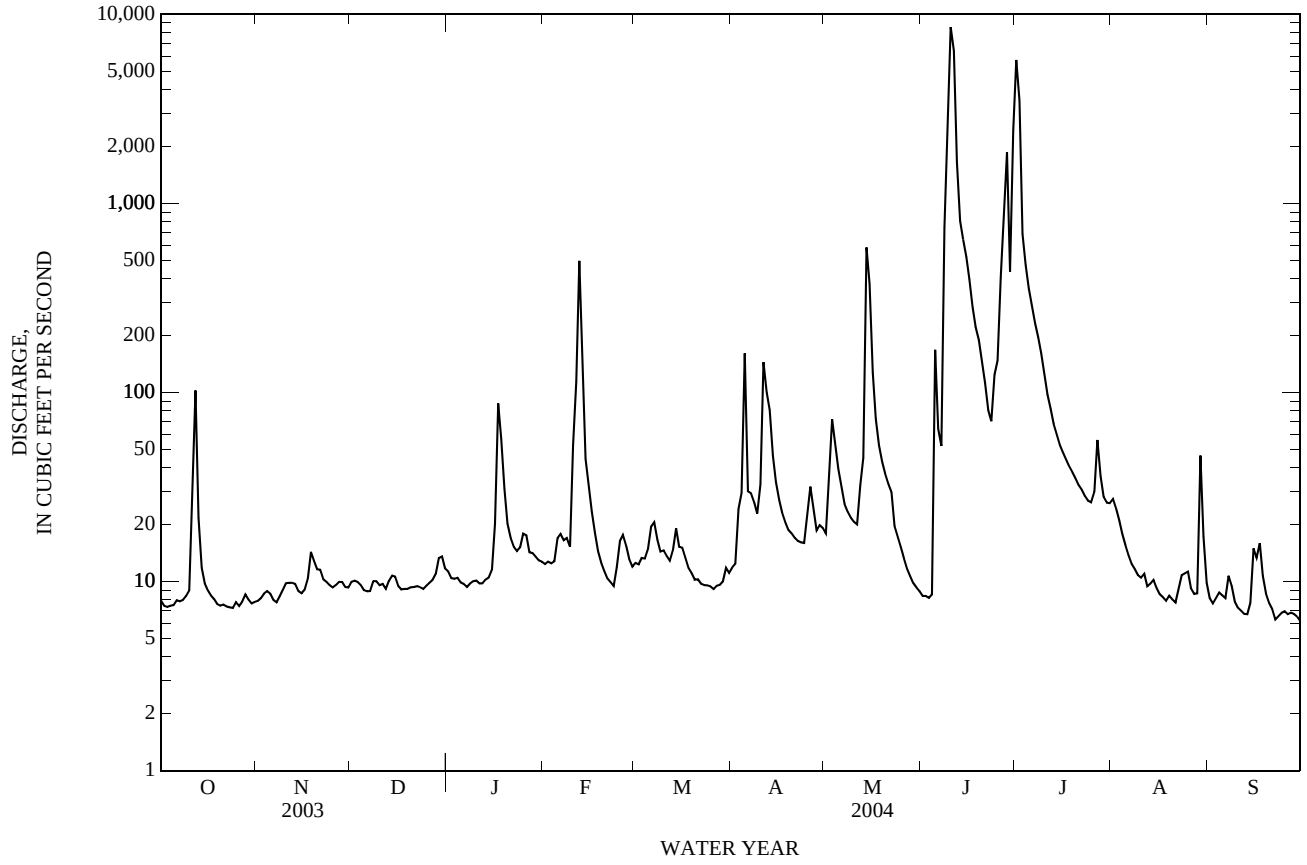
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004h, BY WATER YEAR (WY)

MEAN	97.4	104	120	116	155	87.1	159	193	193	80.6	22.7	49.2
MAX	1,280	1,040	1,969	987	2,083	828	1,110	1,922	2,389	1,962	538	485
(WY)	(1961)	(1986)	(1992)	(1991)	(1992)	(1992)	(1976)	(1975)	(1987)	(1936)	(1947)	(1957)
MIN	0.00	0.00	0.60	0.80	3.61	1.04	2.55	2.21	0.29	0.00	0.00	0.00
(WY)	(1957)	(1957)	(1955)	(1957)	(1951)	(1956)	(1972)	(1964)	(1956)	(1956)	(1956)	(1956)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004h	
ANNUAL TOTAL	40,345.7		49,177.3			
ANNUAL MEAN	111		134		115	
HIGHEST ANNUAL MEAN					578	1992
LOWEST ANNUAL MEAN					7.27	1956
HIGHEST DAILY MEAN	9,340	Feb 21	8,560	Jun 10	43,800	Jul 1, 1936
LOWEST DAILY MEAN	3.8	Aug 30	6.2	Sep 30	0.00	Aug 8, 1951
ANNUAL SEVEN-DAY MINIMUM	4.1	Aug 25	6.7	Sep 24	0.00	Aug 8, 1951
MAXIMUM PEAK FLOW			10,700	Jun 10	78,500	Jul 1, 1936
MAXIMUM PEAK STAGE			23.00	Jun 10	a30.70	Jul 1, 1936
ANNUAL RUNOFF (AC-FT)	80,030		97,540		83,070	
10 PERCENT EXCEEDS	131		125		127	
50 PERCENT EXCEEDS	20		12		9.7	
90 PERCENT EXCEEDS	5.3		7.9		1.7	

h See PERIOD OF RECORD paragraph.
a From floodmark.

08173000 Plum Creek near Luling, TX—Continued



08173900 Guadalupe River at Gonzales, TX

LOCATION.--Lat 29°29'03", long 97°27'00", Gonzales County, Hydrologic Unit 12100202, on right bank on downstream side of U.S. Highway 183 bridge, 4.6 mi downstream from San Marcos River, and at mile 191.1.

DRAINAGE AREA.--3,490 mi^2.

PERIOD OF RECORD.--July 1915 to Sept. 1922, Oct. 1951 to Sept. 1952 (discharge measurements only), Mar. 1977 to Sept. 1996 (peak stage only), Oct. 1996 to current year. Records for July 1915 to Sept. 1922, published in WSP 408, 438, 458, and 528, are unreliable and should not be used. Water-quality records: Chemical data: Apr. 1996 to Apr. 1998. Biochemical data: Apr. 1996 to Apr. 1998. Sediment data: Apr. 1996 to Apr. 1998.

GAGE.--Water-stage recorder. Datum of gage is 231.80 ft above NGVD of 1929. July 1915 to Sept. 1922, and Oct. 1951 to Sept. 1952, 0.2 mi downstream, datum not known. Mar. 1977 to Sept. 1996, 1.2 mi upstream at Gonzales hydroelectric plant at National Weather Service datum. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since water year 1928, at least 10% of contributing drainage area has been regulated. Some water is diverted for irrigation and municipal use (amounts unknown).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 29, 1929, reached a stage of 38.3 ft, National Weather Service datum.

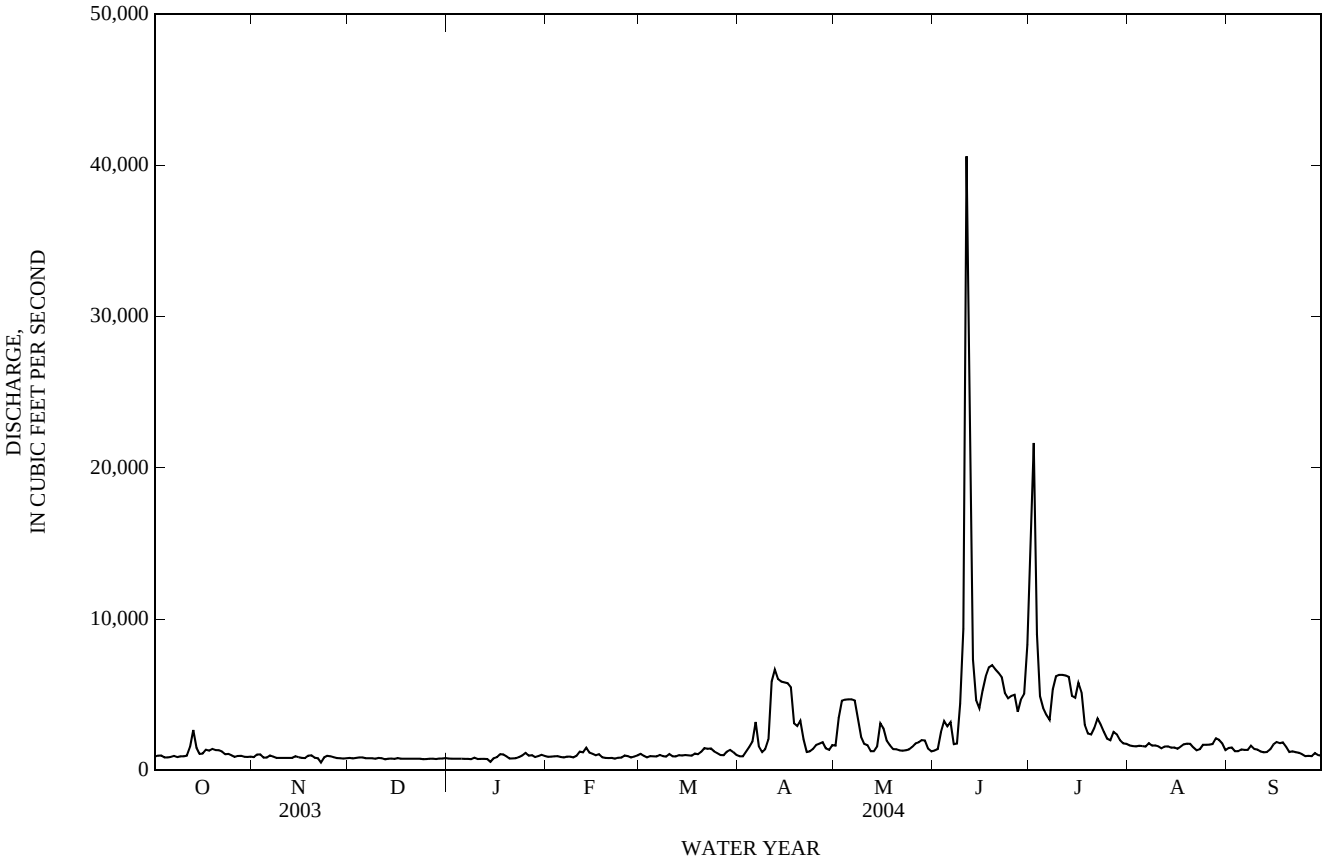
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	911	877	823	776	900	1,080	927	1,640	1,300	16,000	e1,650	1,470
2	972	1,040	786	770	911	962	932	3,470	1,400	21,600	1,600	1,510
3	984	1,050	822	771	929	856	1,250	4,600	2,510	9,000	1,580	1,270
4	851	843	852	767	943	939	1,550	4,680	3,250	4,910	1,630	1,270
5	857	840	855	768	885	933	1,910	4,690	2,900	4,120	1,610	1,380
6	890	977	802	760	859	918	3,200	4,690	3,190	3,670	1,580	1,350
7	948	904	806	757	908	1,020	1,570	4,620	1,730	3,340	1,800	1,350
8	874	819	800	733	906	943	1,200	3,410	1,770	5,360	1,630	1,630
9	933	818	767	831	854	904	1,400	2,220	4,410	6,210	1,640	1,420
10	933	823	827	749	962	1,080	2,050	1,750	9,350	6,310	1,590	1,370
11	974	822	803	755	1,240	928	5,880	1,660	40,600	6,310	1,460	1,250
12	1,550	825	730	754	1,200	914	6,670	1,270	17,600	6,270	1,570	1,190
13	2,660	824	774	753	1,500	1,010	6,040	1,270	7,340	6,180	1,590	1,220
14	1,500	924	775	556	1,170	984	5,870	1,580	4,650	4,930	1,500	1,380
15	1,090	865	763	793	1,080	1,010	5,810	3,100	4,110	4,800	1,510	1,720
16	1,110	827	815	868	992	989	5,760	2,760	5,260	5,790	1,420	1,870
17	1,360	811	772	1,060	1,060	966	5,500	1,970	6,200	5,150	1,560	1,790
18	1,300	972	767	1,050	863	1,110	3,110	1,660	6,810	3,020	1,720	1,850
19	1,410	993	766	923	820	1,070	2,920	1,400	6,960	2,430	1,770	1,560
20	1,340	833	767	775	808	1,220	3,280	1,390	6,680	2,370	1,750	1,210
21	1,330	804	768	795	826	1,470	2,050	1,320	6,440	2,800	1,510	1,260
22	1,250	516	771	802	774	1,420	1,220	1,300	6,160	3,430	1,320	1,200
23	1,070	855	772	879	834	1,440	1,250	1,330	5,110	3,020	1,390	1,160
24	1,080	e960	738	986	845	1,250	1,410	1,380	4,760	2,530	1,690	1,060
25	997	e930	746	1,150	984	1,140	1,680	1,550	4,920	2,090	1,690	937
26	890	e860	771	974	938	1,010	1,760	1,770	4,990	1,990	1,700	962
27	945	e810	770	998	844	1,000	1,860	1,840	3,870	2,540	1,740	941
28	959	e800	746	879	903	1,230	1,440	2,000	4,680	2,380	2,110	1,140
29	898	e780	776	943	978	1,350	1,350	1,970	5,050	2,000	2,020	1,010
30	883	e800	776	1,020	---	1,210	1,670	1,440	8,300	1,790	1,780	968
31	905	---	808	954	---	1,010	---	1,250	---	e1,750	1,340	---
TOTAL	34,654	25,802	24,314	26,349	27,716	33,366	82,519	70,980	192,300	154,090	50,450	39,698
MEAN	1,118	860	784	850	956	1,076	2,751	2,290	6,410	4,971	1,627	1,323
MAX	2,660	1,050	855	1,150	1,500	1,470	6,670	4,690	40,600	21,600	2,110	1,870
MIN	851	516	730	556	774	856	927	1,250	1,300	1,750	1,320	937
AC-FT	68,740	51,180	48,230	52,260	54,970	66,180	163,700	140,800	381,400	305,600	100,100	78,740
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2004, BY WATER YEAR (WY)												
MEAN	3,691	2,894	2,265	1,535	1,743	1,819	1,812	1,335	2,207	3,598	1,510	1,643
MAX	18,950	6,914	4,540	2,866	4,230	3,156	3,269	2,290	6,410	13,920	4,834	5,101
(WY)	(1999)	(2003)	(2002)	(2003)	(2003)	(2003)	(1997)	(2004)	(2004)	(2002)	(2002)	(2002)
MIN	352	430	508	520	563	585	493	553	667	330	242	224
(WY)	(1997)	(1997)	(1997)	(1997)	(2000)	(2000)	(2000)	(2000)	(1998)	(2000)	(2000)	(2000)

08173900 Guadalupe River at Gonzales, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1997 - 2004	
ANNUAL TOTAL	613,665		762,238			
ANNUAL MEAN	1,681		2,083		2,174	
HIGHEST ANNUAL MEAN					3,471	2002
LOWEST ANNUAL MEAN					501	2000
HIGHEST DAILY MEAN	21,200	Feb 22	40,600	Jun 11	188,000	Oct 19, 1998
LOWEST DAILY MEAN	516	Nov 22	516	Nov 22	111	Aug 12, 2000
ANNUAL SEVEN-DAY MINIMUM	759	Dec 22	733	Jan 8	185	Sep 4, 2000
MAXIMUM PEAK FLOW			54,800	Jun 11	i340,000	Oct 19, 1998
MAXIMUM PEAK STAGE			40.36	Jun 11	a50.44	Oct 19, 1998
ANNUAL RUNOFF (AC-FT)	1,217,000		1,512,000		1,575,000	
10 PERCENT EXCEEDS	3,130		4,830		4,870	
50 PERCENT EXCEEDS	1,140		1,240		1,140	
90 PERCENT EXCEEDS	821		784		465	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated



08174600 Peach Creek below Dilworth, TX

LOCATION.--Lat 29°28'26", long 97°18'59", Gonzales County, Hydrologic Unit 12100202, on right bank at downstream side of bridge on U.S. Highway 90-A, 1.3 mi downstream from Mitchell Creek, 3.1 mi southwest of Dilworth, 6.4 mi upstream from mouth, and 8.5 mi southeast of Gonzales.

DRAINAGE AREA.--460 mi^2.

PERIOD OF RECORD.--Apr. 1959 to Sept. 1979, Oct. 2000 to current year. Water quality records: Chemical data: Apr. 1962 to Sept. 1979.

REVISED RECORDS.--WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 213.53 ft above NGVD of 1929. Prior to Feb. 11, 1960 nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions above station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1840, 35.3 ft in June 1940; flood of June 30, 1936 reached a stage of 32.8 ft, but may have been affected by backwater from the Guadalupe River, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	0.82	0.90	7.8	15	19	7.2	715	8.7	983	22	7.2
2	1.3	0.82	0.98	5.6	12	167	12	694	7.9	853	12	4.8
3	1.2	0.81	1.0	5.3	11	139	117	389	7.7	566	8.2	3.8
4	1.2	0.85	1.0	4.2	9.9	65	58	100	6.8	121	6.3	3.3
5	1.2	0.79	1.0	3.8	17	38	25	34	121	61	5.3	3.1
6	1.2	0.77	1.0	3.6	21	26	33	17	286	42	4.7	3.1
7	1.3	0.76	1.00	3.5	15	19	31	14	43	33	4.7	4.9
8	1.2	0.80	1.0	3.8	11	15	29	12	27	26	4.1	3.5
9	14	0.84	1.1	4.1	9.9	13	15	11	279	22	3.7	2.6
10	221	0.88	1.0	4.1	77	11	12	15	1,030	20	4.1	2.3
11	4.2	0.89	1.1	4.1	341	9.9	759	35	1,530	19	3.7	2.6
12	15	0.89	1.3	4.5	477	9.3	1,620	48	2,200	19	3.4	2.4
13	36	0.91	1.6	4.8	341	9.8	993	45	1,300	16	5.2	2.4
14	11	0.86	1.5	5.2	133	154	248	781	219	15	6.2	3.1
15	3.0	0.89	1.4	6.5	100	231	74	2,040	101	13	5.1	2.9
16	1.7	0.89	1.4	72	76	249	41	2,730	146	12	4.2	2.6
17	1.3	0.96	1.4	777	44	83	28	839	314	12	3.5	2.2
18	1.1	1.0	1.7	489	28	38	21	128	228	11	3.1	2.0
19	0.93	0.96	1.9	228	19	23	17	55	126	10	2.9	2.4
20	0.83	0.97	1.8	61	15	18	15	36	47	9.9	2.6	2.1
21	0.77	1.0	1.8	30	13	14	14	27	29	9.6	2.8	2.0
22	0.74	1.4	1.8	18	11	12	12	21	23	9.4	3.3	1.9
23	0.71	1.2	1.8	13	10	11	12	18	94	10	3.4	2.1
24	0.67	1.1	2.0	49	39	9.6	17	15	516	12	2.9	2.1
25	0.70	0.99	1.8	1,260	296	9.1	93	14	2,170	11	2.7	1.9
26	0.76	0.97	2.1	1,120	220	8.8	256	12	2,660	9.1	3.2	1.8
27	0.70	0.96	2.1	514	76	8.4	171	11	2,020	11	3.0	1.9
28	0.65	0.91	2.7	95	36	8.1	61	11	1,440	12	3.6	1.9
29	0.72	0.87	4.4	40	22	7.8	88	10	1,200	11	11	1.9
30	0.69	0.86	8.1	26	---	7.2	86	9.5	1,110	75	27	1.8
31	0.72	---	12	19	---	7.3	---	9.3	---	46	13	---
TOTAL	327.99	27.62	65.68	4,881.9	2,495.8	1,440.3	4,965.2	8,895.8	19,290.1	3,080.0	190.9	82.6
MEAN	10.6	0.92	2.12	157	86.1	46.5	166	287	643	99.4	6.16	2.75
MAX	221	1.4	12	1,260	477	249	1,620	2,730	2,660	983	27	7.2
MIN	0.65	0.76	0.90	3.5	9.9	7.2	7.2	9.3	6.8	9.1	2.6	1.8
AC-FT	651	55	130	9,680	4,950	2,860	9,850	17,640	38,260	6,110	379	164

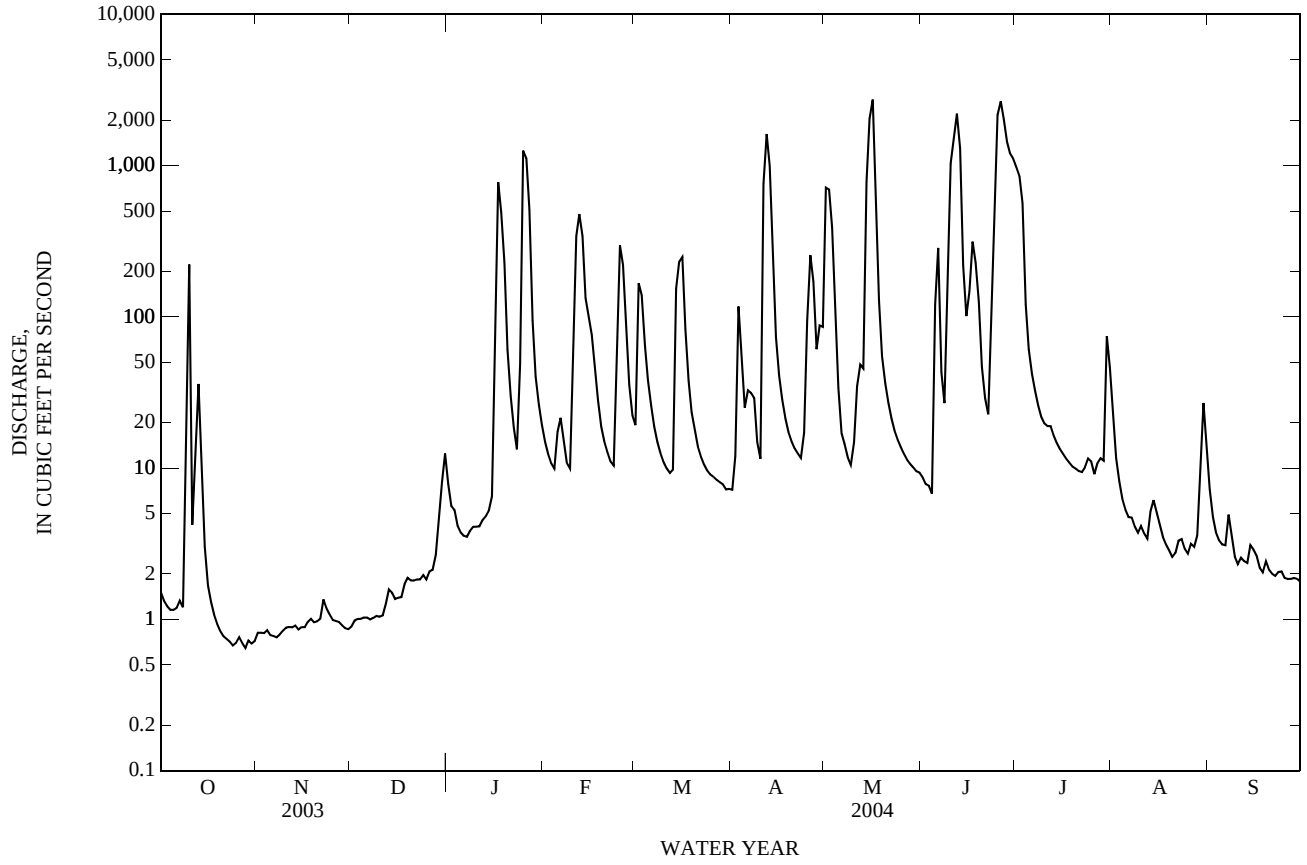
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2004h, BY WATER YEAR (WY)

MEAN	201	187	147	160	172	102	300	287	313	55.6	11.1	134
MAX	1,720	1,322	1,114	1,149	727	584	3,062	1,690	1,867	613	121	742
(WY)	(1961)	(2003)	(1977)	(1974)	(1969)	(1969)	(1977)	(1972)	(1968)	(2002)	(2001)	(1961)
MIN	0.00	0.00	0.00	0.00	0.22	0.02	0.40	0.00	0.00	0.00	0.00	0.00
(WY)	(1964)	(1965)	(1965)	(1967)	(1967)	(1967)	(1963)	(1963)	(1963)	(1963)	(1962)	(1960)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1959 - 2004h	
ANNUAL TOTAL	35,396.09		45,743.89			
ANNUAL MEAN	97.0		125		172	
HIGHEST ANNUAL MEAN					503	1977
LOWEST ANNUAL MEAN					7.83	1963
HIGHEST DAILY MEAN	7,080	Feb 22	2,730	May 16	28,700	Apr 20, 1977
LOWEST DAILY MEAN	0.65	Oct 28	0.65	Oct 28	0.00	Aug 1, 1959
ANNUAL SEVEN-DAY MINIMUM	0.70	Oct 24	0.70	Oct 24	0.00	Aug 1, 1959
MAXIMUM PEAK FLOW			3,090	May 16	76,800	Apr 20, 1977
MAXIMUM PEAK STAGE			24.91	Jun 26	a33.11	Apr 20, 1977
ANNUAL RUNOFF (AC-FT)	70,210		90,730		124,900	
10 PERCENT EXCEEDS	98		263		179	
50 PERCENT EXCEEDS	5.6		10		6.0	
90 PERCENT EXCEEDS	0.97		0.97		0.00	

h See PERIOD OF RECORD paragraph.
a From floodmark.

08174600 Peach Creek below Dilworth, TX—Continued



08175000 Sandies Creek near Westhoff, TX

LOCATION.--Lat 29°12'54", long 97°26'57", Dewitt County, Hydrologic Unit 12100202, on left bank 100 ft downstream from bridge on CR 148, 1.9 mi upstream from Birds Creek, 2.0 mi northeast of Westhoff, and 20.4 mi upstream from mouth.

DRAINAGE AREA.--549 mi^2.

PERIOD OF RECORD.--Mar. 1930 to Nov. 1934, Aug. 1959 to current year. Water-quality records: Chemical data: Apr. 1962 to Sept. 1999. Sediment data: Nov. 1965 to May 1966. Pesticide data: Oct. 1992 to July 1999.

REVISED RECORDS.--WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 178.27 ft above NGVD of 1929. Prior to Nov. 9, 1934, water-stage recorder at site 150 ft upstream at datum 0.86 ft higher. Aug. 10, 1959 to Feb. 2, 1960, nonrecording gage at present site and datum. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1864, 92,700 ft^3/s, July 2, 1936 (gage height, 33.1 ft, from floodmarks), on basis of computation of peak flow, at present site and datum. Flood in Oct. 1913 reached a stage of 26.0 ft, present site and datum, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	6.3	11	13	16	26	7.5	268	5.8	887	54	1.6
2	5.8	5.2	11	14	15	23	8.4	494	5.2	761	29	1.6
3	5.1	5.7	12	15	15	24	14	554	5.0	571	18	1.8
4	5.1	5.9	12	15	14	22	69	380	4.3	271	14	1.8
5	5.2	5.3	12	14	14	20	66	230	87	109	10	1.8
6	17	5.2	11	14	14	18	121	111	111	62	6.3	2.0
7	7.6	5.1	10	13	18	18	149	56	41	42	4.4	2.1
8	6.5	5.3	10	13	20	15	146	35	167	29	3.6	60
9	12	5.6	11	11	19	14	90	24	219	22	3.1	28
10	18	5.6	9.6	9.6	28	13	61	19	364	18	2.8	8.6
11	11	5.7	10	9.4	202	10	100	54	710	16	2.9	3.2
12	16	6.0	12	9.4	215	10	69	33	931	14	3.4	2.0
13	e15	6.5	13	9.3	86	15	99	61	576	14	2.8	1.6
14	e14	7.0	11	9.0	53	35	103	640	301	15	1.3	2.6
15	e13	7.1	13	9.6	37	59	75	1,010	117	13	0.74	2.7
16	12	6.8	15	35	28	24	42	1,020	165	12	0.64	5.1
17	9.2	7.1	14	99	23	18	25	580	114	9.7	0.60	3.9
18	7.4	8.5	14	101	19	19	18	247	49	7.8	1.7	2.6
19	6.6	9.4	13	53	16	17	14	116	28	7.0	1.8	2.6
20	6.1	11	13	31	14	14	11	64	21	5.9	1.6	2.3
21	5.7	9.1	13	21	13	13	8.5	41	17	5.5	1.9	2.0
22	5.3	8.9	13	17	12	11	7.3	28	16	5.4	2.6	1.8
23	5.2	8.7	12	14	11	10	6.3	21	235	4.9	2.3	1.7
24	5.0	8.8	12	30	19	9.6	12	17	264	5.1	e2.3	1.7
25	5.2	9.7	11	130	99	9.7	135	14	310	4.9	2.2	1.7
26	15	10	11	170	144	9.5	283	12	440	5.0	2.0	2.8
27	102	11	10	72	93	10	192	10	246	5.5	1.9	3.8
28	37	9.6	13	44	58	9.4	76	8.9	355	5.5	1.8	3.5
29	20	10	15	28	37	8.5	272	7.6	505	5.3	1.6	2.9
30	13	10	15	22	---	7.5	376	6.8	617	9.1	1.7	2.8
31	8.2	---	14	18	---	7.2	---	6.5	---	80	1.7	---
TOTAL	421.0	226.1	376.6	1,063.3	1,352	519.4	2,656.0	6,168.8	7,026.3	3,022.6	184.68	162.6
MEAN	13.6	7.54	12.1	34.3	46.6	16.8	88.5	199	234	97.5	5.96	5.42
MAX	102	11	15	170	215	59	376	1,020	931	887	54	60
MIN	5.0	5.1	9.6	9.0	11	7.2	6.3	6.5	4.3	4.9	0.60	1.6
AC-FT	835	448	747	2,110	2,680	1,030	5,270	12,240	13,940	6,000	366	323
CFSM	0.02	0.01	0.02	0.06	0.08	0.03	0.16	0.36	0.43	0.18	0.01	0.01
IN.	0.03	0.02	0.03	0.07	0.09	0.04	0.18	0.42	0.48	0.20	0.01	0.01

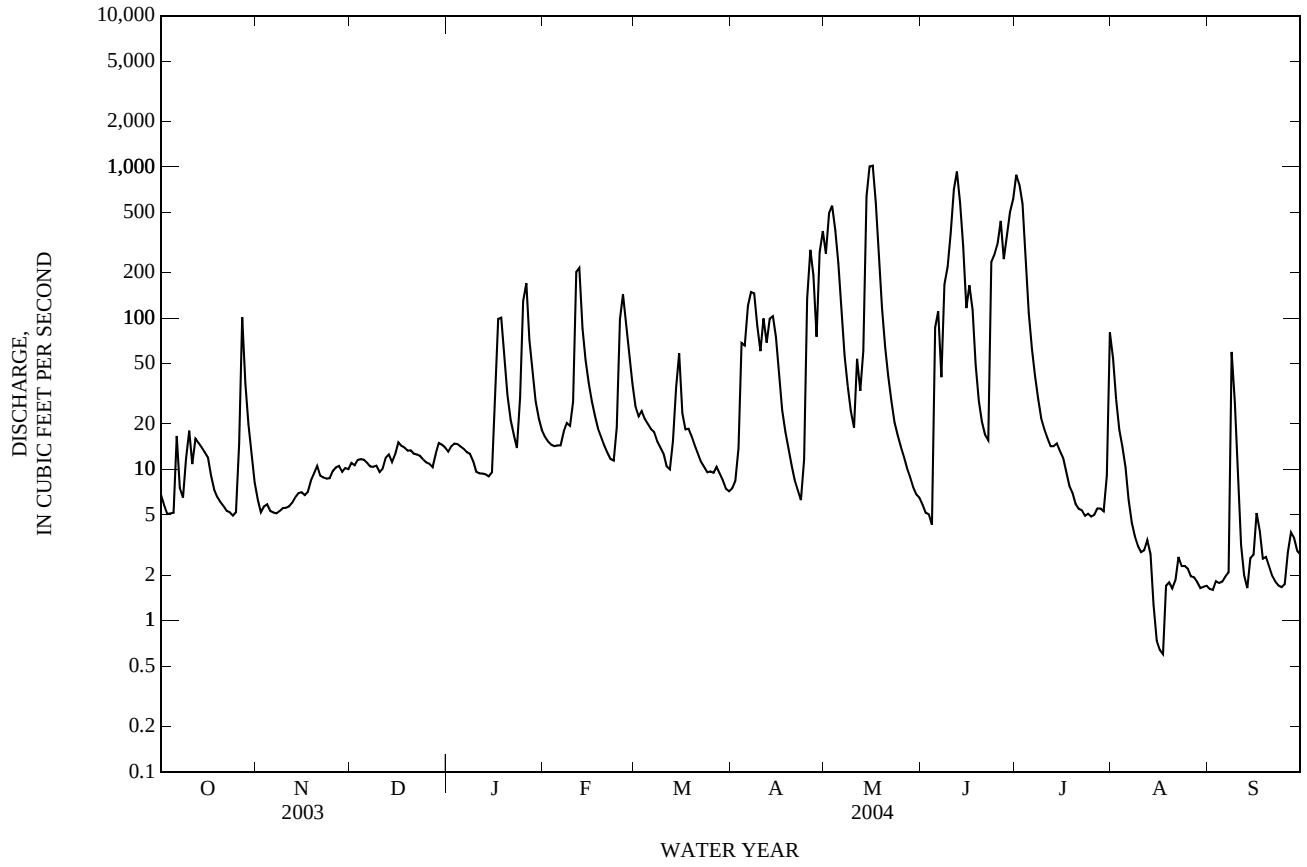
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004h, BY WATER YEAR (WY)

MEAN	152	107	73.4	117	140	74.5	150	233	266	43.7	30.4	222
MAX	2,698	1,068	969	778	1,485	418	1,361	2,062	2,820	726	282	4,060
(WY)	(1999)	(2003)	(1977)	(1974)	(1992)	(1969)	(1977)	(1972)	(1987)	(2002)	(2001)	(1967)
MIN	0.26	1.19	1.85	4.08	4.05	2.66	3.26	0.88	0.32	0.23	0.07	0.26
(WY)	(1964)	(1932)	(1989)	(1967)	(1967)	(1967)	(1963)	(1963)	(1934)	(1964)	(1962)	(1959)

08175000 Sandies Creek near Westhoff, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004h	
ANNUAL TOTAL	28,389.2		23,179.38			
ANNUAL MEAN	77.8		63.3		136	
HIGHEST ANNUAL MEAN					532	1992
LOWEST ANNUAL MEAN					8.71	1988
HIGHEST DAILY MEAN	2,650	Feb 23	1,020	May 16	67,900	Sep 22, 1967
LOWEST DAILY MEAN	1.3	Aug 31	0.60	Aug 17	0.00	Aug 11, 1932
ANNUAL SEVEN-DAY MINIMUM	1.6	Aug 15	1.2	Aug 14	0.00	Aug 18, 1959
MAXIMUM PEAK FLOW			1,130	May 16	79,700	Sep 22, 1967
MAXIMUM PEAK STAGE			15.20	May 16	32.34	Sep 22, 1967
ANNUAL RUNOFF (AC-FT)	56,310		45,980		98,240	
ANNUAL RUNOFF (CFSM)	0.142		0.115		0.247	
ANNUAL RUNOFF (INCHES)	1.92		1.57		3.36	
10 PERCENT EXCEEDS	112		166		135	
50 PERCENT EXCEEDS	17		13		9.5	
90 PERCENT EXCEEDS	5.1		2.7		1.6	

h See PERIOD OF RECORD paragraph.
e Estimated



08175800 Guadalupe River at Cuero, TX

LOCATION.--Lat 29°03'57", long 97°19'16", Dewitt County, Hydrologic Unit 12100204, on left bank at downstream side of bridge on U.S. Highways 77A, 87, and 183, 2.1 mi upstream from Gohlke Creek, 2.4 mi southwest of Cuero, 4.2 mi downstream from mouth of Sandies Creek, and at river mile 120.9.

DRAINAGE AREA.--4,934 mi^2.

PERIOD OF RECORD.--Jan. 1964 to current year. Water-quality records: Chemical data: Mar. 1968 to Sept. 1985.

REVISED RECORDS.--WRD TX-68-1, TX-69-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 128.64 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good. Since installation of gage in 1964, at least 10% of contributing drainage area has been regulated, Flow is affected at times by discharge from the flood-detention pools of 53 floodwater-retarding structures. These structures control runoff from 302 mi^2 in the Comal, San Marcos, and Plum Creek drainage basins. Many small diversions above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1900 probably occurred July 2, 1936, 44.33 ft, present site and datum, from information by Texas Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	977	889	909	818	1,130	1,190	1,100	2,420	1,190	9,830	1,960	1,370
2	991	888	907	953	1,080	1,240	1,040	3,810	1,240	11,600	1,790	1,400
3	972	891	888	991	1,050	1,330	1,220	4,360	1,270	12,700	1,700	1,410
4	997	1,000	896	950	1,070	1,190	1,200	4,790	1,840	12,700	1,610	1,320
5	962	886	911	913	1,090	1,170	1,510	4,520	2,840	6,280	1,600	1,300
6	922	859	941	919	1,060	1,180	1,580	4,300	3,230	4,110	1,600	1,330
7	924	869	898	920	1,050	1,150	2,580	4,180	2,960	3,520	1,570	1,350
8	957	915	906	918	1,050	1,160	1,690	4,050	1,970	3,180	1,660	1,340
9	959	887	906	912	1,050	1,140	1,380	3,130	2,070	4,660	1,590	1,510
10	1,130	840	909	914	1,060	1,110	1,390	2,050	4,530	5,710	1,580	1,390
11	1,160	813	892	920	1,760	1,160	3,700	1,660	8,540	5,800	1,580	1,390
12	980	816	930	917	1,870	1,150	6,030	1,600	11,400	5,770	1,450	1,330
13	1,240	771	886	915	1,740	1,110	7,020	1,410	13,600	5,730	1,540	1,260
14	2,110	834	903	916	1,710	1,450	6,240	3,840	9,960	5,670	1,510	1,310
15	1,480	843	907	896	1,470	1,610	5,430	4,590	e6,000	4,580	1,510	1,370
16	1,080	868	957	1,020	1,340	1,460	5,170	5,380	e4,500	3,980	1,470	1,560
17	1,110	1,540	971	2,460	1,290	1,390	5,060	5,280	e5,000	5,180	1,420	1,660
18	1,190	1,340	953	2,090	1,260	1,250	4,750	3,030	e6,000	4,660	1,470	1,640
19	1,150	1,060	914	1,630	1,160	1,230	2,880	1,840	e6,300	2,890	1,570	1,670
20	1,240	1,080	906	1,320	1,090	1,230	2,400	1,480	e6,200	2,170	1,600	1,580
21	1,140	944	906	1,070	1,070	1,290	2,620	1,370	e6,100	2,090	1,590	1,350
22	1,150	907	888	997	1,070	1,380	1,950	1,330	e6,000	2,360	1,500	1,350
23	1,090	753	881	997	1,040	1,340	1,250	1,280	5,650	2,910	1,350	1,310
24	1,010	811	905	1,020	1,080	1,360	1,330	1,250	5,310	2,720	1,330	1,300
25	1,000	958	919	1,680	1,200	1,230	1,510	1,300	6,070	2,240	1,490	1,270
26	1,020	995	899	2,480	1,470	1,190	2,680	1,380	9,000	1,910	1,530	1,210
27	975	864	890	2,060	1,390	1,090	2,130	1,490	6,980	1,780	1,510	1,190
28	958	880	899	1,530	1,220	1,010	1,890	1,560	5,610	2,130	1,560	1,190
29	919	924	960	1,190	1,160	1,180	1,590	1,640	5,710	2,140	1,740	1,290
30	919	926	975	1,120	---	1,290	1,890	1,650	6,610	2,050	1,760	1,250
31	894	---	981	1,130	---	1,250	---	1,410	---	1,980	1,620	---
TOTAL	33,606	27,851	28,393	37,566	36,080	38,510	82,210	83,380	163,680	145,030	48,760	41,200
MEAN	1,084	928	916	1,212	1,244	1,242	2,740	2,690	5,456	4,678	1,573	1,373
MAX	2,110	1,540	981	2,480	1,870	1,610	7,020	5,380	13,600	12,700	1,960	1,670
MIN	894	753	881	818	1,040	1,010	1,040	1,250	1,190	1,780	1,330	1,190
AC-FT	66,660	55,240	56,320	74,510	71,560	76,380	163,100	165,400	324,700	287,700	96,720	81,720

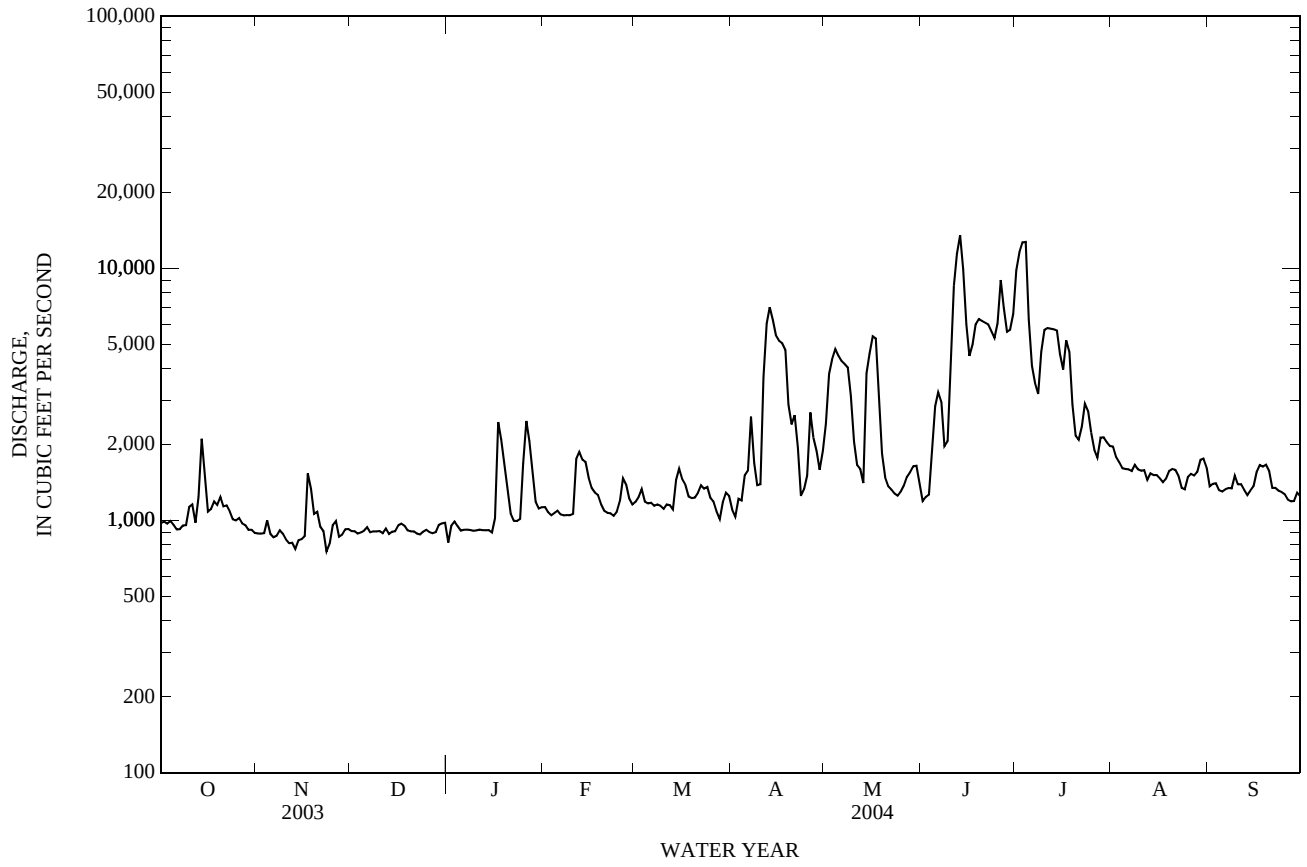
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	2,245	2,015	1,942	1,905	2,174	1,873	2,225	2,874	3,185	1,905	1,239	1,870
MAX	30,990	9,434	10,500	10,830	16,740	10,370	11,100	12,270	21,470	15,860	4,645	11,210
(WY)	(1999)	(2003)	(1992)	(1992)	(1992)	(1992)	(1977)	(1972)	(1987)	(2002)	(2002)	(1981)
MIN	242	411	432	397	403	504	381	309	242	95.7	112	124
(WY)	(1990)	(1990)	(1990)	(1990)	(1990)	(1967)	(1971)	(1984)	(1984)	(1984)	(1984)	(1984)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	704,617		766,266			
ANNUAL MEAN	1,930		2,094		2,147	
HIGHEST ANNUAL MEAN					6,885	1992
LOWEST ANNUAL MEAN					435	1984
HIGHEST DAILY MEAN	22,400	Feb 24	13,600	Jun 13	338,000	Oct 20, 1998
LOWEST DAILY MEAN	753	Nov 23	753	Nov 23	28	Jul 22, 1984
ANNUAL SEVEN-DAY MINIMUM	826	Nov 10	826	Nov 10	45	Jul 18, 1984
MAXIMUM PEAK FLOW			15,300	Jun 14	i473,000	Oct 20, 1998
MAXIMUM PEAK STAGE			20.84	Jun 14	a50.35	Oct 20, 1998
ANNUAL RUNOFF (AC-FT)	1,398,000		1,520,000		1,556,000	
10 PERCENT EXCEEDS	3,200		5,090		4,170	
50 PERCENT EXCEEDS	1,380		1,330		1,120	
90 PERCENT EXCEEDS	907		906		485	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated

08175800 Guadalupe River at Cuero, TX—Continued



08176500 Guadalupe River at Victoria, TX

LOCATION.--Lat 28°47'34", long 97°00'46", Victoria County, Hydrologic Unit 12100204, on left bank near left downstream corner of downstream bridge of two bridges on U.S. Highway 59 in Victoria, 1,200 ft upstream from Southern Pacific Railroad Co. bridge, 15 mi upstream from Coleto Creek, and at mile 50.7.

DRAINAGE AREA.--5,198 mi^2.

PERIOD OF RECORD.--Nov. 1934 to current year. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service. Water-quality records: Chemical data: Aug. 1945 to Aug. 1994. Biochemical data: Jan. 1968 to Aug. 1994. Pesticide data: Feb. 1974 to Aug. 1981. Sediment data: Apr. 1959, Aug. 1973 to Aug. 1994. Specific conductance: Oct. 1945 to Sept. 1981. Water temperature: Nov. 1950 to Sept. 1981.

REVISED RECORDS.--WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 29.15 ft above NGVD of 1929. Nov. 1, 1934, to July 27, 1992, at site just upstream from pier on left bank of upstream bridge at same datum. Satellite telemeter at station.

REMARKS.--Records good. Since installation of gage in 1934, at least 10% of contributing drainage area has been regulated. There are many diversions above station. The city of Victoria releases wastewater effluent into the river below this station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1929, reached a stage of 30.2 ft, present site and datum, maximum stage since at least 1833, that of July 3, 1936.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,070	1,130	1,030	1,060	1,260	1,280	1,350	2,800	1,630	8,320	2,300	1,800
2	1,020	1,120	1,020	877	1,230	1,290	1,260	4,250	1,500	11,000	2,200	1,570
3	1,050	1,120	1,020	1,040	1,170	1,360	1,310	4,700	1,530	12,600	2,000	1,620
4	1,040	1,160	992	1,040	1,160	1,380	1,380	5,170	1,630	14,100	1,890	1,670
5	1,060	1,220	1,010	995	1,190	1,270	1,520	5,180	2,520	12,600	1,820	1,540
6	1,030	1,110	1,020	976	1,190	1,250	1,810	4,850	3,460	6,370	1,840	1,520
7	989	1,050	1,040	989	1,160	1,230	2,320	4,680	3,510	4,700	1,820	1,570
8	994	1,090	981	1,020	1,140	1,220	2,660	4,660	3,670	4,050	1,810	1,540
9	1,060	1,120	989	1,000	1,130	1,260	1,810	4,770	2,520	4,080	1,890	1,580
10	3,870	1,090	984	994	1,170	1,220	1,520	4,010	3,040	5,920	1,840	1,670
11	2,030	1,010	976	995	1,390	1,200	2,710	2,790	6,400	6,500	1,910	1,590
12	1,520	996	999	997	2,220	1,270	6,030	3,040	9,810	6,530	1,820	1,550
13	1,300	977	1,100	997	2,130	1,310	7,460	2,530	12,300	6,510	1,750	1,450
14	1,630	970	1,000	981	2,000	1,730	7,630	8,310	14,500	6,470	1,750	1,490
15	2,120	1,020	1,020	986	1,880	3,400	6,780	7,120	14,700	6,300	1,780	1,510
16	1,590	1,060	1,010	989	1,570	2,190	6,240	5,820	7,510	4,620	1,690	1,630
17	1,320	1,620	1,070	2,340	1,470	1,740	6,040	6,360	5,730	5,310	1,670	1,810
18	1,280	4,360	1,060	3,120	1,390	1,590	5,940	5,370	6,460	5,930	1,640	1,880
19	1,400	1,900	1,040	2,240	1,330	1,440	4,980	3,110	6,760	4,810	1,740	1,860
20	1,420	1,310	1,000	1,740	1,220	1,460	3,110	2,190	6,900	3,050	1,820	1,850
21	1,440	1,250	983	1,370	1,170	1,430	2,910	1,840	6,830	2,570	1,840	1,660
22	1,440	1,080	982	1,160	1,150	1,530	2,970	1,750	6,670	2,480	1,840	1,470
23	1,420	1,030	962	1,100	1,170	1,590	2,070	1,670	6,630	2,990	1,710	1,470
24	1,340	867	952	1,200	1,260	1,530	1,760	1,610	6,810	3,260	1,570	1,450
25	1,250	955	979	1,490	1,370	1,500	2,100	1,640	6,700	2,950	1,620	1,430
26	1,580	1,080	1,000	2,610	1,470	1,400	2,690	1,670	8,200	2,440	1,790	1,410
27	1,390	1,080	980	2,750	1,650	1,340	3,080	1,770	9,240	2,120	1,780	1,300
28	1,240	954	1,010	2,160	1,480	1,250	2,540	1,890	7,490	2,140	1,790	1,290
29	1,200	1,000	1,030	1,560	1,310	1,180	2,200	1,950	6,270	2,540	1,900	1,270
30	1,170	1,040	1,050	1,340	---	1,390	2,110	2,020	6,820	2,470	2,130	1,370
31	1,160	---	1,060	1,240	---	1,440	---	1,980	---	2,300	1,970	---
TOTAL	43,423	36,769	31,349	43,356	40,430	45,670	98,290	111,500	187,740	168,030	56,920	46,820
MEAN	1,401	1,226	1,011	1,399	1,394	1,473	3,276	3,597	6,258	5,420	1,836	1,561
MAX	3,870	4,360	1,100	3,120	2,220	3,400	7,630	8,310	14,700	14,100	2,300	1,880
MIN	989	867	952	877	1,130	1,180	1,260	1,610	1,500	2,120	1,570	1,270
AC-FT	86,130	72,930	62,180	86,000	80,190	90,590	195,000	221,200	372,400	333,300	112,900	92,870

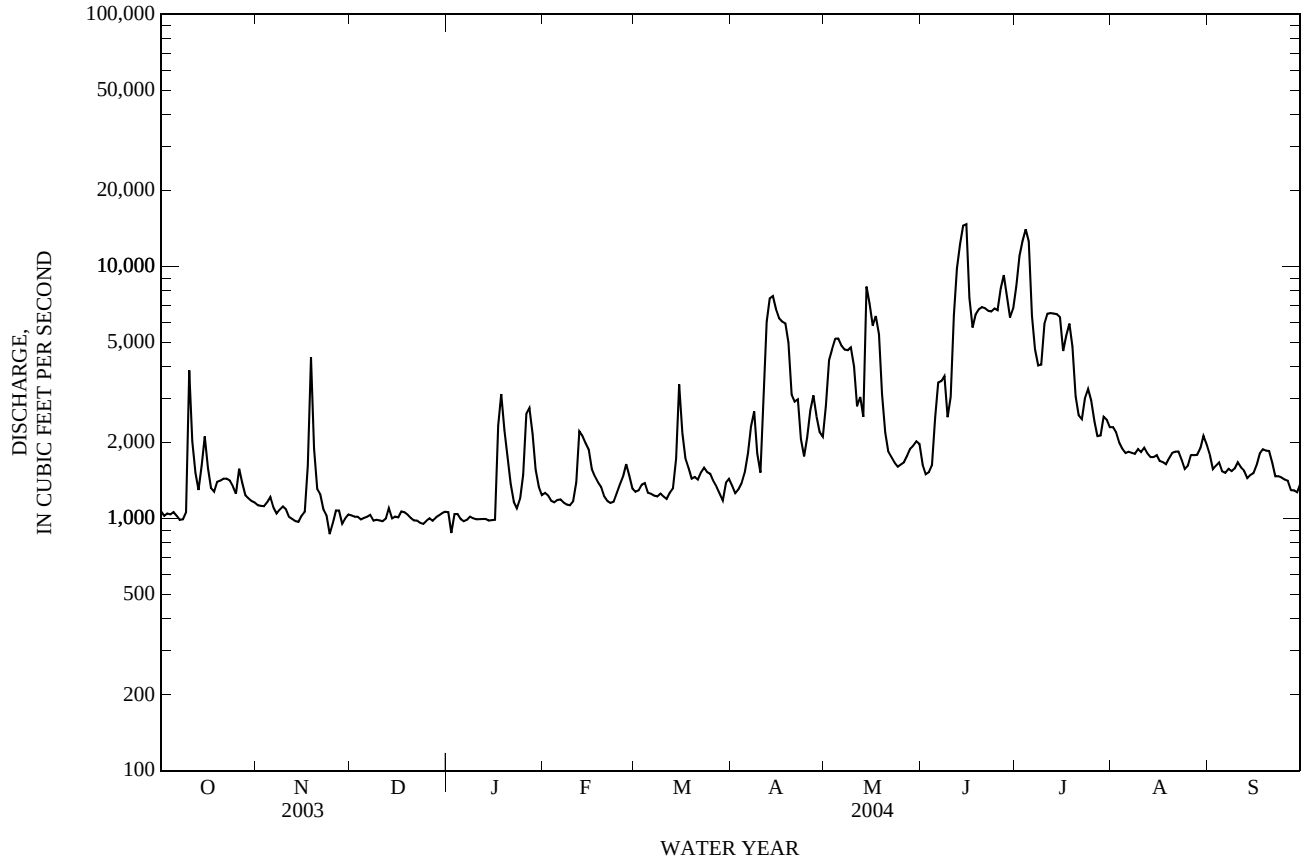
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2004, BY WATER YEAR (WY)

MEAN	2,105	1,848	1,699	1,730	1,989	1,761	2,121	2,814	2,849	2,009	1,035	1,783
MAX	30,420	9,964	9,753	10,650	17,250	10,600	10,320	12,990	23,750	18,430	4,741	11,340
(WY)	(1999)	(2003)	(1992)	(1992)	(1992)	(1992)	(1977)	(1941)	(1987)	(1936)	(2002)	(1981)
MIN	100	59.6	183	118	255	158	157	224	59.7	53.9	37.6	51.6
(WY)	(1956)	(1957)	(1956)	(1957)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1935 - 2004	
ANNUAL TOTAL	745,868		910,297			
ANNUAL MEAN	2,043		2,487		1,963	
HIGHEST ANNUAL MEAN					6,993	1992
LOWEST ANNUAL MEAN					132	1956
HIGHEST DAILY MEAN	20,300	Feb 25	14,700	Jun 15	307,000	Oct 20, 1998
LOWEST DAILY MEAN	867	Nov 24	867	Nov 24	14	Aug 20, 1956
ANNUAL SEVEN-DAY MINIMUM	977	Dec 21	977	Dec 21	22	Sep 29, 1956
MAXIMUM PEAK FLOW			16,100	Jun 15	i466,000	Oct 20, 1998
MAXIMUM PEAK STAGE			27.48	Jun 15	a34.04	Oct 20, 1998
ANNUAL RUNOFF (AC-FT)	1,479,000		1,806,000		1,422,000	
10 PERCENT EXCEEDS	3,660		6,250		3,700	
50 PERCENT EXCEEDS	1,440		1,580		1,020	
90 PERCENT EXCEEDS	1,010		1,010		375	

i From indirect measurement of peak flow.
a From floodmark.

08176500 Guadalupe River at Victoria, TX—Continued



08176550 Fifteenmile Creek near Weser, TX

LOCATION.--Lat 28°53'51", long 97°21'17", Dewitt County, Hydrologic Unit 12100204, at DeWitt-Goliad County line, on right downstream end of bridge on U.S. Highway 183, and 2.4 mi northeast of Weser.

DRAINAGE AREA.--167 mi^2.

PERIOD OF RECORD.--Oct. 1984 to Sept. 1989 (daily mean discharge), Oct. 1989 to current year (peak discharges greater than base discharge of 1,000 ft 3/s).

GAGE.--Water-stage recorder. Datum of gage is 158.40 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions.

AVERAGE DISCHARGE.--5 years (water years 1985-89), 18.7 ft^3/s (13,550 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft^3/s June 22, 1997 (gage height, 26.68 ft), from rating curve extended above 2,840 ft^3/s; minimum discharge, no flow for several days in 1989.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 10	1845	1,570	13.57	May 14	1945	1,960	14.38
Nov 17	1400	*2,760	*15.77	Jun 26	1645	1,780	14.02
Apr 12	0445	2,240	14.91				

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08176900 Coleto Creek at Arnold Road Crossing near Schroeder, TX

LOCATION.--Lat 28°51'41", long 97°13'34", Goliad County, Hydrologic Unit 12100204, on right bank at downstream side of Arnold Road Crossing, 0.7 mi downstream from confluence of Twelvemile and Fifteenmile Creeks, 3.2 mi north of Schroeder, 12.8 mi upstream from Coleto Creek Reservoir, and 26.0 mi upstream from mouth.

DRAINAGE AREA.--357 mi^2.

PERIOD OF RECORD.--Oct. 1978 to current year. Records equivalent for Jan. 1930 to Dec. 1933 and Oct. 1952 to Sept. 1979, published as "near Schroeder" (discontinued station 08177000).

GAGE.--Water-stage recorder. Datum of gage is 100.43 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharges since at least 1872 at site 3.5 mi downstream, 122,000 ft^3/s Sept. 21, 1967 (slope-area measurement of peak flow), 63,700 ft^3/s Oct. 16, 1946, and 46,700 ft^3/s in Oct. 1925, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	29	23	15	37	28	31	1,130	49	310	22	13
2	24	29	22	14	33	27	34	1,960	46	540	20	12
3	24	28	21	14	30	27	180	656	45	251	19	13
4	25	28	21	13	29	27	253	259	42	144	18	13
5	26	27	19	13	31	26	160	154	41	108	17	13
6	26	26	18	12	29	24	163	118	39	87	17	12
7	28	25	18	12	27	23	317	100	39	75	18	12
8	29	25	17	13	26	22	313	111	49	67	17	11
9	30	25	17	12	26	21	128	109	52	61	16	11
10	429	25	16	12	29	20	84	176	52	57	15	11
11	1,830	24	16	11	56	20	383	124	63	54	15	10
12	e424	24	16	11	73	19	2,780	258	242	52	14	9.6
13	e311	23	18	11	53	126	983	421	99	52	13	11
14	e138	22	17	11	43	377	324	4,480	62	47	13	18
15	e112	22	16	12	38	1,470	183	2,290	49	43	13	14
16	80	21	16	55	35	507	129	615	46	39	13	13
17	71	555	15	1,630	31	204	104	275	121	35	12	12
18	63	2,810	14	478	29	125	88	180	137	31	13	11
19	56	582	13	150	27	95	78	138	77	29	14	10
20	51	169	13	82	26	78	70	116	54	27	13	9.8
21	47	93	13	59	24	68	65	101	44	26	12	9.5
22	44	66	13	49	24	64	61	90	45	26	14	9.4
23	41	53	13	42	23	59	57	82	49	25	15	9.4
24	39	43	12	46	32	52	83	76	63	27	14	9.0
25	38	38	12	71	63	44	777	70	74	27	13	9.3
26	40	34	12	90	56	42	1,100	66	1,390	25	13	11
27	38	31	12	96	47	39	e380	63	1,240	23	12	10
28	35	28	14	59	36	38	e118	59	349	22	12	9.7
29	33	26	15	48	31	36	e75	56	189	21	15	9.3
30	31	24	17	62	---	34	248	53	226	21	18	9.0
31	30	---	17	44	---	32	---	52	---	22	15	---
TOTAL	4,219	4,955	496	3,247	1,044	3,774	9,749	14,438	5,073	2,374	465	335.0
MEAN	136	165	16.0	105	36.0	122	325	466	169	76.6	15.0	11.2
MAX	1,830	2,810	23	1,630	73	1,470	2,780	4,480	1,390	540	22	18
MIN	24	21	12	11	23	19	31	52	39	21	12	9.0
AC-FT	8,370	9,830	984	6,440	2,070	7,490	19,340	28,640	10,060	4,710	922	664

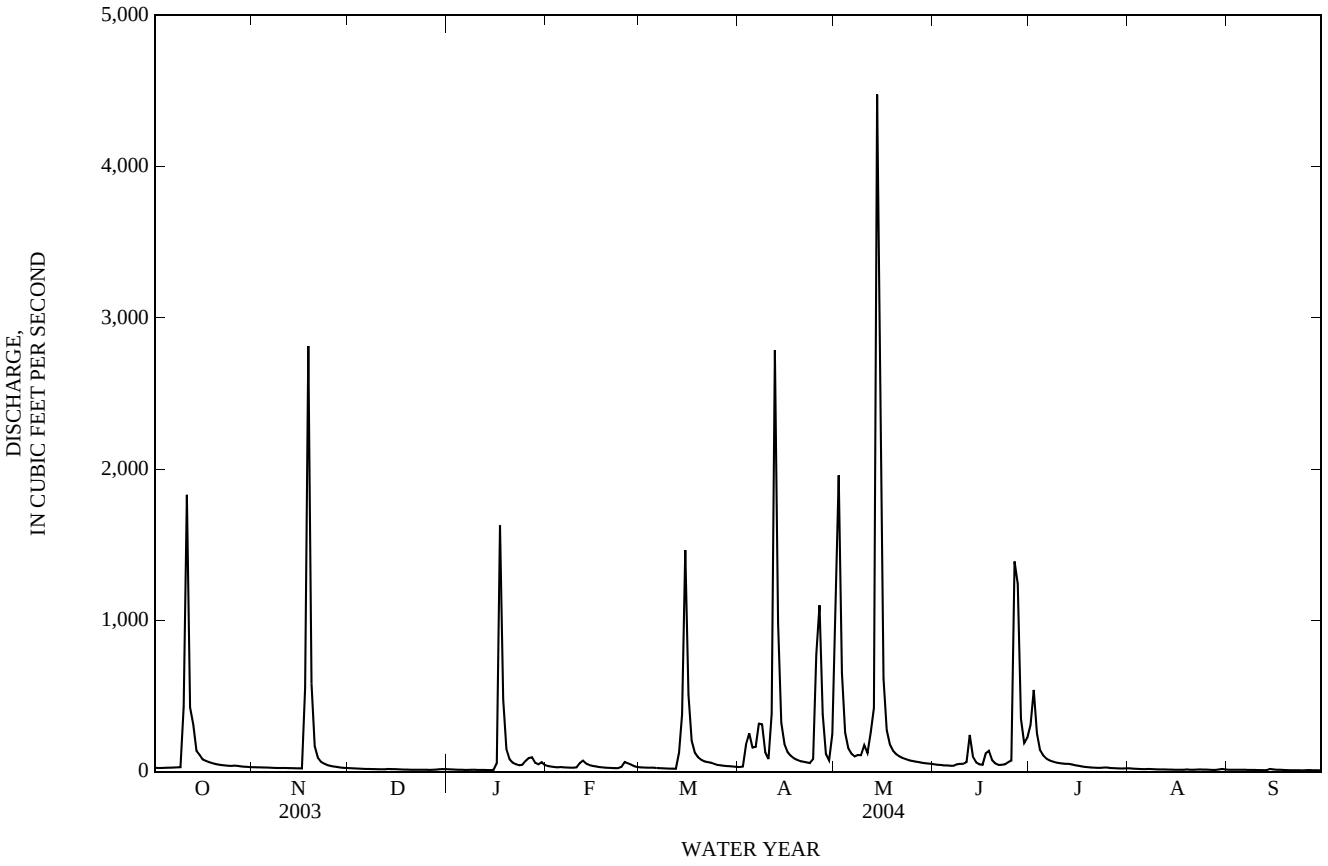
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2004, BY WATER YEAR (WY)

MEAN	116	87.1	45.8	55.5	63.3	55.5	125	119	156	37.7	44.0	99.2
MAX	895	651	301	400	486	265	1,021	608	1,191	264	602	920
(WY)	(1999)	(1999)	(1987)	(1979)	(1992)	(1997)	(1997)	(1979)	(1997)	(2002)	(2001)	(1998)
MIN	0.00	0.05	0.94	2.62	2.71	2.78	1.56	0.29	0.48	0.05	0.00	0.00
(WY)	(2001)	(1990)	(1990)	(1990)	(1996)	(1996)	(1996)	(1996)	(2001)	(2001)	(1996)	(1989)

08176900 Coleto Creek at Arnold Road Crossing near Schroeder, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1979 - 2004	
ANNUAL TOTAL	28,843.8		50,169.0			
ANNUAL MEAN	79.0		137		83.5	
HIGHEST ANNUAL MEAN					222	1997
LOWEST ANNUAL MEAN					2.47	1989
HIGHEST DAILY MEAN	2,810	Nov 18	4,480	May 14	24,600	Jun 22, 1997
LOWEST DAILY MEAN	5.4	Aug 30	9.0	Sep 24	0.00	Aug 20, 1989
ANNUAL SEVEN-DAY MINIMUM	6.0	Aug 27	9.5	Sep 19	0.00	Aug 20, 1989
MAXIMUM PEAK FLOW			5,750	May 14	44,500	Jun 22, 1997
MAXIMUM PEAK STAGE			15.31	May 14	31.17	Jun 22, 1997
ANNUAL RUNOFF (AC-FT)	57,210		99,510		60,460	
10 PERCENT EXCEEDS	108		254		74	
50 PERCENT EXCEEDS	29		32		12	
90 PERCENT EXCEEDS	14		12		0.89	

e Estimated



08177300 Perdido Creek at Farm to Market Road 622 near Fannin, TX

LOCATION.--Lat 28°45'05", long 97°19'01", Goliad County, Hydrologic Unit 12100204, at right downstream end of bridge on Farm Road 622, 1.2 mi downstream from Farmer Creek, 3.1 mi upstream from Kilgore Creek, and 6.1 mi northwest of Fannin.

DRAINAGE AREA.--28.0 mi^2.

PERIOD OF RECORD.--June 1978 to Sept. 1991 (daily mean discharge), Oct. 1991 to Dec. 2001 (peak discharges greater than base discharge), Jan. 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 134.66 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 20, 1976, reached a stage of 26.28 ft, and flood of Sept. 15, 16, 1967, reached a stage of 26.08 ft, from information by the Texas Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.44	0.39	0.48	0.50	1.00	0.62	0.47	266	1.9	160	4.2	0.23
2	0.44	0.42	0.47	0.47	0.80	0.59	104	90	1.6	35	0.43	0.23
3	0.43	0.42	0.47	0.47	0.63	0.54	112	14	2.7	13	0.40	0.24
4	0.44	0.41	0.50	0.47	0.76	0.58	20	3.6	1.6	5.3	0.38	0.27
5	0.44	0.40	0.47	0.44	0.75	0.51	63	1.2	2.2	2.8	0.36	0.28
6	4.6	0.40	0.46	0.41	0.60	0.44	63	0.90	1.3	2.1	0.35	0.23
7	1.8	0.40	0.49	0.43	0.54	0.44	30	0.60	1.6	1.8	0.33	0.21
8	0.52	0.41	0.51	0.67	0.58	0.42	7.7	36	6.8	1.5	0.32	0.19
9	0.81	0.43	0.50	0.47	0.66	0.43	2.9	3.3	3.1	1.4	0.29	0.18
10	0.95	0.42	0.45	0.44	1.1	0.42	2.1	1.3	1.8	1.3	0.29	0.18
11	0.59	0.42	0.45	0.44	1.4	0.41	15	111	25	3.9	0.82	0.19
12	1.8	0.41	0.54	0.45	0.92	0.41	28	90	4.2	1.7	2.4	0.18
13	0.77	0.41	0.81	0.44	0.68	17	7.5	46	1.0	1.0	0.31	0.20
14	0.51	0.41	0.46	0.45	1.00	37	2.5	934	0.85	0.88	0.29	0.25
15	0.40	0.42	0.46	0.48	0.68	46	1.6	76	0.80	0.78	0.28	0.25
16	0.40	0.42	0.42	145	0.60	6.6	1.4	26	1.2	0.74	0.28	0.23
17	0.39	29	0.42	108	0.54	1.7	1.2	14	0.92	0.71	0.27	0.19
18	0.37	18	0.42	14	0.50	1.1	1.0	9.4	0.69	0.67	0.27	0.17
19	0.37	1.3	0.44	2.2	0.55	1.1	0.94	6.7	0.61	0.64	0.27	0.16
20	0.37	0.67	0.46	0.96	0.54	0.92	0.91	5.4	0.61	0.60	0.25	0.15
21	0.37	0.57	0.46	0.68	0.47	0.79	0.90	4.6	0.56	0.65	0.26	0.15
22	0.39	0.56	0.46	0.59	0.50	0.66	0.88	4.0	4.0	0.64	0.29	0.15
23	0.38	0.54	0.44	0.58	0.54	0.60	0.90	3.5	13	1.1	0.30	0.15
24	0.39	0.51	0.43	7.6	1.5	0.60	55	3.2	2.5	0.89	0.26	0.14
25	0.40	0.55	0.45	34	1.1	0.62	191	2.9	463	0.54	0.24	0.16
26	0.52	0.57	0.46	6.5	0.56	0.60	71	2.7	295	0.47	0.23	0.18
27	0.46	0.53	0.46	1.3	0.52	0.53	15	2.5	48	0.46	0.22	0.14
28	0.40	0.46	1.8	0.79	0.54	0.51	4.6	2.4	18	0.43	0.83	0.14
29	0.39	0.47	0.92	1.6	0.56	0.51	2.2	2.3	9.9	0.43	2.1	0.13
30	0.39	0.49	0.49	5.1	---	0.50	1.3	2.4	85	0.43	0.66	0.13
31	0.39	---	0.48	1.4	---	0.48	---	2.4	---	3.6	0.26	---
TOTAL	21.32	60.81	16.53	337.33	21.12	123.63	808.00	1,768.30	999.44	245.46	18.44	5.68
MEAN	0.69	2.03	0.53	10.9	0.73	3.99	26.9	57.0	33.3	7.92	0.59	0.19
MAX	4.6	29	1.8	145	1.5	46	191	934	463	160	4.2	0.28
MIN	0.37	0.39	0.42	0.41	0.47	0.41	0.47	0.60	0.56	0.43	0.22	0.13
AC-FT	42	121	33	669	42	245	1,600	3,510	1,980	487	37	11

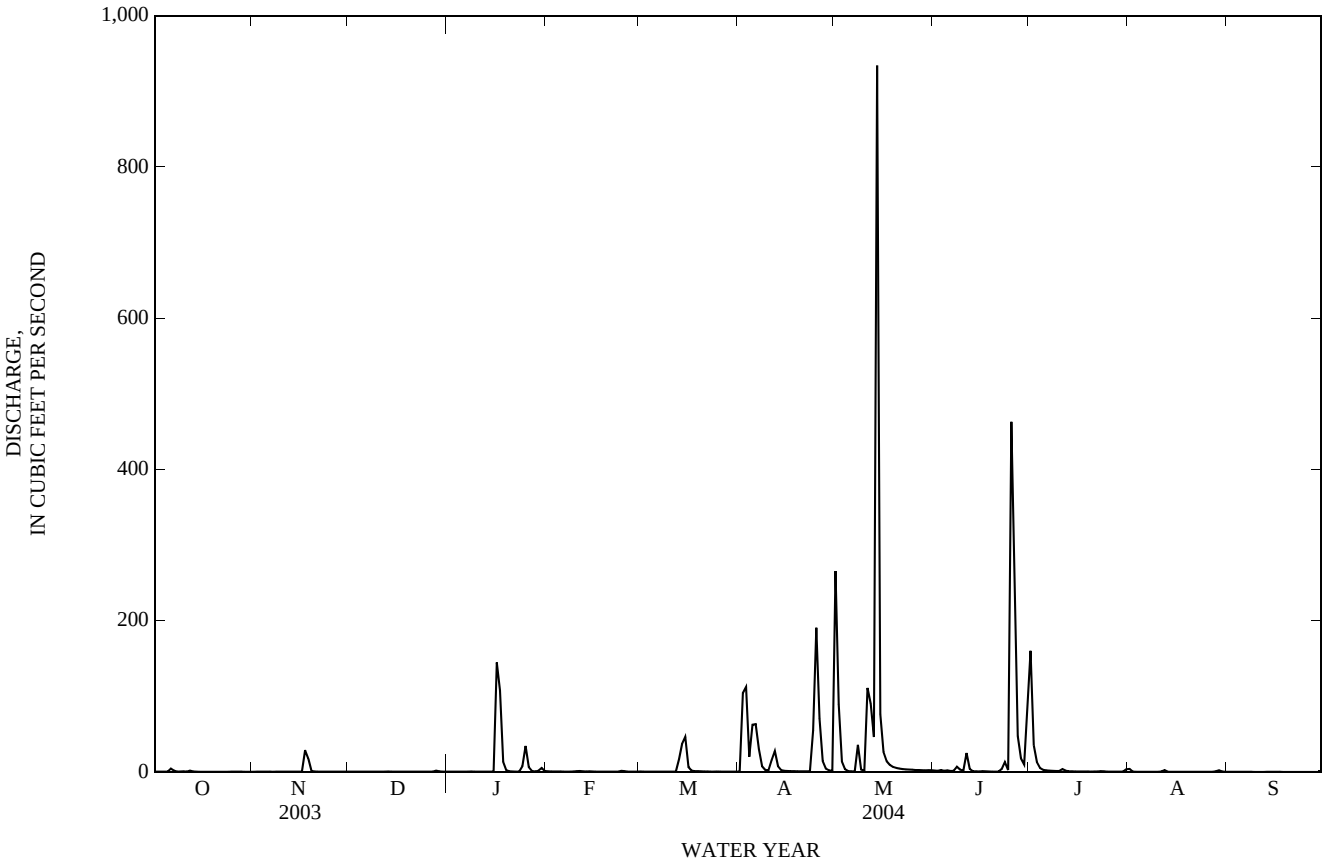
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2004h, BY WATER YEAR (WY)

MEAN	9.54	4.09	3.15	3.87	4.36	2.05	5.48	11.9	9.19	8.13	0.38	6.79
MAX	72.0	17.6	36.5	31.6	32.2	12.7	41.8	84.5	55.4	45.7	1.16	47.4
(WY)	(1982)	(1979)	(1987)	(1979)	(1982)	(1985)	(1991)	(1981)	(1987)	(1990)	(1989)	(2003)
MIN	0.00	0.00	0.00	0.04	0.04	0.19	0.20	0.11	0.00	0.00	0.03	0.00
(WY)	(1990)	(1990)	(1990)	(1990)	(2002)	(2002)	(2003)	(1989)	(1990)	(1989)	(1988)	(1988)

08177300 Perdido Creek at Farm to Market Road 622 near Fannin, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1978 - 2004h	
ANNUAL TOTAL	1,854.29		4,426.06			
ANNUAL MEAN	5.08		12.1		5.81	
HIGHEST ANNUAL MEAN					12.7	1981
LOWEST ANNUAL MEAN					0.22	1988
HIGHEST DAILY MEAN	819	Sep 18	934	May 14	1,890	Oct 31, 1981
LOWEST DAILY MEAN	0.04	May 31	0.13	Sep 29	0.00	Jul 17, 1986
ANNUAL SEVEN-DAY MINIMUM	0.05	Jun 20	0.15	Sep 24	0.00	Jul 17, 1986
MAXIMUM PEAK FLOW			3,780	May 14	17,900	Oct 18, 1994
MAXIMUM PEAK STAGE			10.14	May 14	a17.89	Apr 4, 1997
ANNUAL RUNOFF (AC-FT)	3,680		8,780		4,210	
10 PERCENT EXCEEDS	0.86		15		1.7	
50 PERCENT EXCEEDS	0.38		0.58		0.36	
90 PERCENT EXCEEDS	0.11		0.27		0.00	

h See Period of Record paragraph.
a From floodmark.



08177400 Coleto Creek Reservoir near Victoria, TX

LOCATION.--Lat 28°43'51", long 97°09'53", Victoria County, Hydrologic Unit 12100204, on right upstream end of spillway of dam on Coleto Creek, 1.6 mi upstream from U.S. Highway 59, 11.6 mi west of Victoria, and 12.8 mi upstream from mouth.

DRAINAGE AREA.--494 mi^2.

PERIOD OF RECORD.--Feb. 1980 to Sept. 2002 (contents), Oct. 2002 to current year.

REVISED RECORDS.--TX-01-5, contents

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. The reservoir system consists of the main reservoir, Turkey Creek Arm, and Sulphur Creek Arm. Figures shown below are the elevations of the main reservoir only. As of July 1999, the Turkey Creek Arm and Sulphur Creek Arm stations are operated by the Guadalupe-Blanco River Authority. Cooling water is diverted from the main reservoir through the Central Power and Light coal-fired generating plant, through a canal to the Sulphur Creek Arm, and then through a canal to Turkey Creek Arm, where it is released back into the main reservoir. The system was built for the Guadalupe-Blanco River Authority, and storage began in Feb. 1980.

From Feb. 1980 to Sept. 2000, total daily contents of the main reservoir, the Turkey Creek Arm, and the Sulphur Creek Arm were published as station 08177400. Revised daily contents for Turkey Creek Arm are stored as station 08177240 Turkey Creek Arm of Coleto Creek Reservoir near Schroeder and revised daily contents for Sulphur Creek Arm are stored as station 08177380 Sulphur Creek Arm of Coleto Creek Reservoir near Fannin.

The main reservoir is formed by a compacted earthfill dam 20,800 ft long, including a 2,000-foot uncontrolled spillway and a 403-foot wide concrete outlet structure with seven 40- x 28-foot spillway gates. Low-flow releases are made through the dam by a controlled 8-inch pipe. Turkey Creek Arm is formed by a compacted earthfill dam 2,250 ft long, including a 186-ft wide concrete outlet structure with two 40- x 11-foot spillway gates. Sulphur Creek Arm is formed by a compacted earthfill dam 1,030 ft long, including a 186-foot wide concrete outlet structure with two 40- by 11-foot spillway gates. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	119.0
Emergency spillway	107.3
Top of spillway gates	99.4
Crest of spillway	71.0

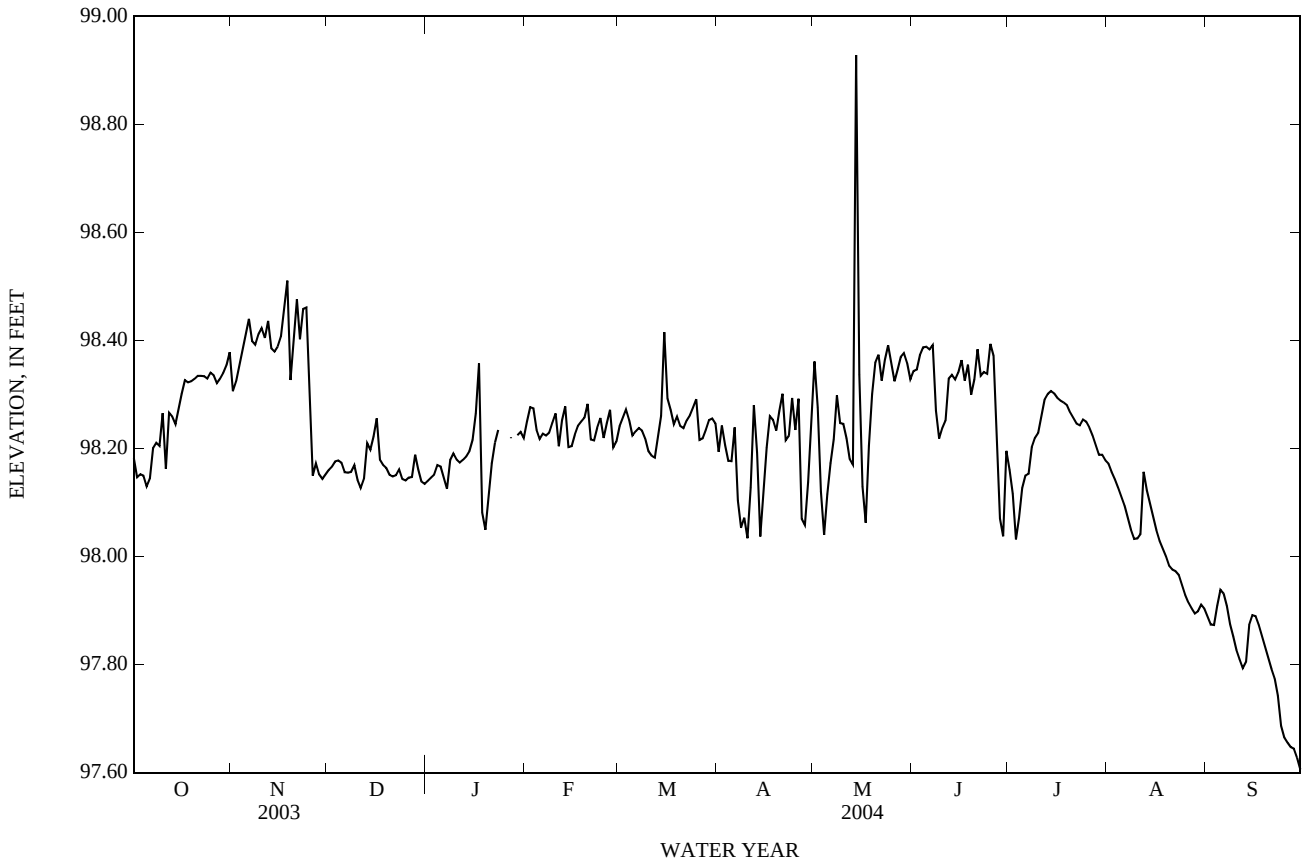
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 36,680 acre-ft, Aug. 31, 2001, elevation, 99.94 ft; minimum since reservoir was first filled in May 1980, 20,330 acre-ft, Aug. 20, 21, 1996, elevation, 93.27 ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 99.18 ft, May. 14; minimum elevation, 97.59 ft, Sept. 30.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98.18	98.31	98.16	98.14	98.25	98.24	98.19	98.36	98.34	98.16	98.17	97.89
2	98.15	98.32	98.17	98.15	98.28	98.26	98.24	98.28	98.35	98.12	98.16	97.87
3	98.15	98.36	98.18	98.15	98.27	98.27	98.21	98.12	98.37	98.03	98.14	97.87
4	98.15	98.39	98.18	98.17	98.23	98.25	98.18	98.04	98.39	98.07	98.13	97.91
5	98.13	98.41	98.17	98.17	98.22	98.22	98.18	98.12	98.39	98.13	98.11	97.94
6	98.14	98.44	98.16	98.15	98.23	98.23	98.24	98.17	98.38	98.15	98.09	97.93
7	98.20	98.40	98.16	98.13	98.22	98.24	98.10	98.22	98.39	98.15	98.07	97.91
8	98.21	98.39	98.16	98.18	98.23	98.23	98.05	98.30	98.27	98.20	98.05	97.88
9	98.20	98.41	98.17	98.19	98.25	98.22	98.07	98.25	98.22	98.22	98.03	97.85
10	98.27	98.42	98.14	98.18	98.27	98.19	98.03	98.25	98.24	98.23	98.03	97.83
11	98.16	98.40	98.13	98.17	98.20	98.19	98.13	98.22	98.25	98.26	98.04	97.81
12	98.27	98.44	98.14	98.18	98.25	98.18	98.28	98.18	98.33	98.29	98.16	97.79
13	98.26	98.39	98.21	98.19	98.28	98.22	98.19	98.17	98.34	98.30	98.12	97.80
14	98.25	98.38	98.20	98.20	98.20	98.26	98.04	98.93	98.33	98.31	98.10	97.87
15	98.27	98.39	98.22	98.22	98.20	98.42	98.12	98.34	98.34	98.30	98.07	97.89
16	98.30	98.41	98.26	98.27	98.23	98.29	98.20	98.13	98.36	98.29	98.05	97.89
17	98.33	98.46	98.18	98.36	98.24	98.27	98.26	98.06	98.33	98.29	98.03	97.87
18	98.32	98.51	98.17	98.08	98.25	98.24	98.25	98.20	98.36	98.29	98.01	97.85
19	98.32	98.33	98.16	98.05	98.26	98.26	98.23	98.30	98.30	98.28	98.00	97.83
20	98.33	98.39	98.15	98.11	98.28	98.24	98.27	98.36	98.33	98.27	97.98	97.81
21	98.33	98.48	98.15	98.17	98.22	98.24	98.30	98.37	98.38	98.26	97.98	97.79
22	98.33	98.40	98.15	98.21	98.21	98.25	98.22	98.33	98.33	98.25	97.97	97.77
23	98.33	98.46	98.16	98.23	98.24	98.26	98.22	98.36	98.34	98.24	97.97	97.74
24	98.33	98.46	98.14	---	98.26	98.28	98.29	98.39	98.34	98.25	97.95	97.69
25	98.34	98.29	98.14	---	98.22	98.29	98.23	98.36	98.39	98.25	97.93	97.67
26	98.34	98.15	98.15	---	98.25	98.22	98.29	98.32	98.37	98.24	97.91	97.66
27	98.32	98.17	98.15	98.22	98.27	98.22	98.07	98.35	98.23	98.22	97.90	97.65
28	98.33	98.15	98.19	---	98.20	98.23	98.06	98.37	98.07	98.21	97.89	97.64
29	98.34	98.14	98.16	98.22	98.21	98.25	98.14	98.38	98.04	98.19	97.90	97.63
30	98.35	98.15	98.14	98.23	---	98.26	98.24	98.36	98.20	98.19	97.91	97.61
31	98.38	---	98.13	98.22	---	98.25	---	98.33	---	98.18	97.90	---
MEAN	98.27	98.36	98.17	---	98.24	98.25	98.18	98.29	98.31	98.22	98.02	97.80
MAX	98.38	98.51	98.26	---	98.28	98.42	98.30	98.93	98.39	98.31	98.17	97.94
MIN	98.13	98.14	98.13	---	98.20	98.18	98.03	98.04	98.04	98.03	97.89	97.61

08177400 Coleto Creek Reservoir near Victoria, TX—Continued



08177500 Coleto Creek near Victoria, TX

LOCATION.--Lat 28°43'51", long 97°08'18", Victoria County, Hydrologic Unit 12100204, on left bank at downstream side of westbound bridge on U.S. Highway 59, 1.6 mi downstream from Coleto Creek dam, 9.0 mi southwest of Victoria, and 11.2 mi upstream from mouth.

DRAINAGE AREA.--514 mi^2.

PERIOD OF RECORD.--June 1939 to Sept. 1954, June 1978 to current year.

REVISED RECORDS.--WSP 1562: 1939-40. WSP 1732: 1941.

GAGE.--Water-stage recorder. Datum of gage is 44.18 ft above NGVD of 1929. Prior to Jan. 17, 1955, at datum 5.0 ft higher. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Since water year 1981, at least 10% of contributing drainage area has been regulated. Beginning on Mar. 6, 1980, water diverted from the Guadalupe River basin to the Coleto Creek basin upstream from Coleto Creek Reservoir for industrial use. There are no other large diversions above station. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--16 years (water years 1940-54, 1979-80), 92.7 ft^3/s (67,160 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1875, 236,000 ft^3/s Sept. 22, 1967 (gage height, 42.0 ft, from floodmark), present site and datum, on basis of slope-area measurement of peak flow. Flood of Apr. 20, 1976, reached a stage of 37.85 ft, at site 0.2 mi upstream at present datum. Flood of July 1, 1936, reached a stage of 32.2 ft, present site and datum, from information by railroad company.

EXTREMES FOR PERIOD PRIOR TO REGULATION.-- WATER YEARS 1939-54, 1979-1980: Maximum discharge, 89,000 ft^3/s Oct. 16, 1946 (gage height, 36.64 ft, present datum, from floodmark), on basis of slope-area measurement of peak flow; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	117	4.3	3.6	4.1	13	5.2	841	10	1,160	5.8	5.2
2	3.4	4.6	4.3	3.5	3.9	6.3	4.2	2,320	13	454	8.4	5.3
3	3.4	5.5	4.3	3.5	3.7	5.6	e700	679	10	309	5.9	5.4
4	3.4	3.8	4.3	3.5	120	120	e350	246	9.5	13	5.5	5.7
5	3.3	3.0	4.2	3.9	11	12	311	12	9.6	9.4	5.5	5.4
6	3.3	2.9	4.0	3.8	4.8	5.6	1,820	9.7	9.3	11	5.5	5.3
7	6.1	66	3.8	3.6	4.2	5.6	657	8.9	97	8.6	5.5	8.2
8	3.7	4.3	6.7	4.0	3.9	5.7	373	569	372	8.0	5.3	5.5
9	3.8	3.1	4.1	3.6	4.0	6.0	145	186	15	7.7	5.2	5.2
10	189	40	3.5	3.5	107	6.1	94	414	10	7.7	5.3	5.2
11	1,440	26	3.5	3.5	42	5.9	918	778	9.6	8.2	5.8	5.3
12	267	3.6	3.7	3.5	4.8	5.9	2,280	1,510	9.3	7.5	6.7	5.2
13	262	84	4.2	3.5	7.2	6.4	1,320	918	151	7.2	5.3	6.1
14	32	3.9	3.5	3.5	161	327	346	9,390	12	6.8	5.2	6.2
15	5.0	3.0	3.4	3.5	5.4	1,180	14	3,020	10	6.6	5.2	5.5
16	3.9	2.8	3.3	77	4.2	680	9.0	786	140	6.5	5.2	5.2
17	3.6	231	3.2	2,220	4.1	49	7.9	238	52	6.2	5.2	5.1
18	3.3	2,870	3.2	626	4.1	188	139	14	129	6.1	5.2	5.1
19	3.2	600	3.2	38	4.3	7.6	14	12	23	6.1	5.2	5.0
20	3.0	20	3.3	5.5	4.5	120	8.2	11	9.9	5.8	5.2	5.0
21	3.0	87	3.2	4.4	88	7.7	8.1	138	9.3	5.9	5.2	5.0
22	2.9	111	3.3	4.0	5.6	4.9	161	30	180	6.0	5.4	5.0
23	2.9	7.1	3.2	3.8	4.9	4.5	9.5	11	53	6.1	5.2	5.0
24	2.9	5.4	3.2	623	160	4.4	352	10	423	6.1	5.0	4.9
25	2.9	5.1	3.2	235	34	4.6	538	144	560	5.9	5.0	5.0
26	121	4.9	3.2	7.1	5.6	129	1,520	15	3,290	5.7	5.0	5.0
27	5.7	4.9	3.3	4.4	5.0	6.0	553	11	1,180	5.7	5.0	4.9
28	3.4	4.7	92	5.4	138	5.0	32	10	592	5.7	5.2	4.9
29	3.0	4.7	81	113	7.4	4.9	9.9	10	335	5.7	5.2	4.9
30	2.9	4.5	4.6	112	---	5.1	8.9	121	634	5.8	5.2	4.9
31	3.7	---	3.7	7.3	---	5.3	---	16	---	5.8	5.1	---
TOTAL	2,400.2	4,333.8	281.9	4,139.9	956.7	2,937.1	12,707.9	22,478.6	8,357.5	2,119.8	168.6	159.6
MEAN	77.4	144	9.09	134	33.0	94.7	424	725	279	68.4	5.44	5.32
MAX	1,440	2,870	92	2,220	161	1,180	2,280	9,390	3,290	1,160	8.4	8.2
MIN	2.9	2.8	3.2	3.5	3.7	4.4	4.2	8.9	9.3	5.7	5.0	4.9
AC-FT	4,760	8,600	559	8,210	1,900	5,830	25,210	44,590	16,580	4,200	334	317

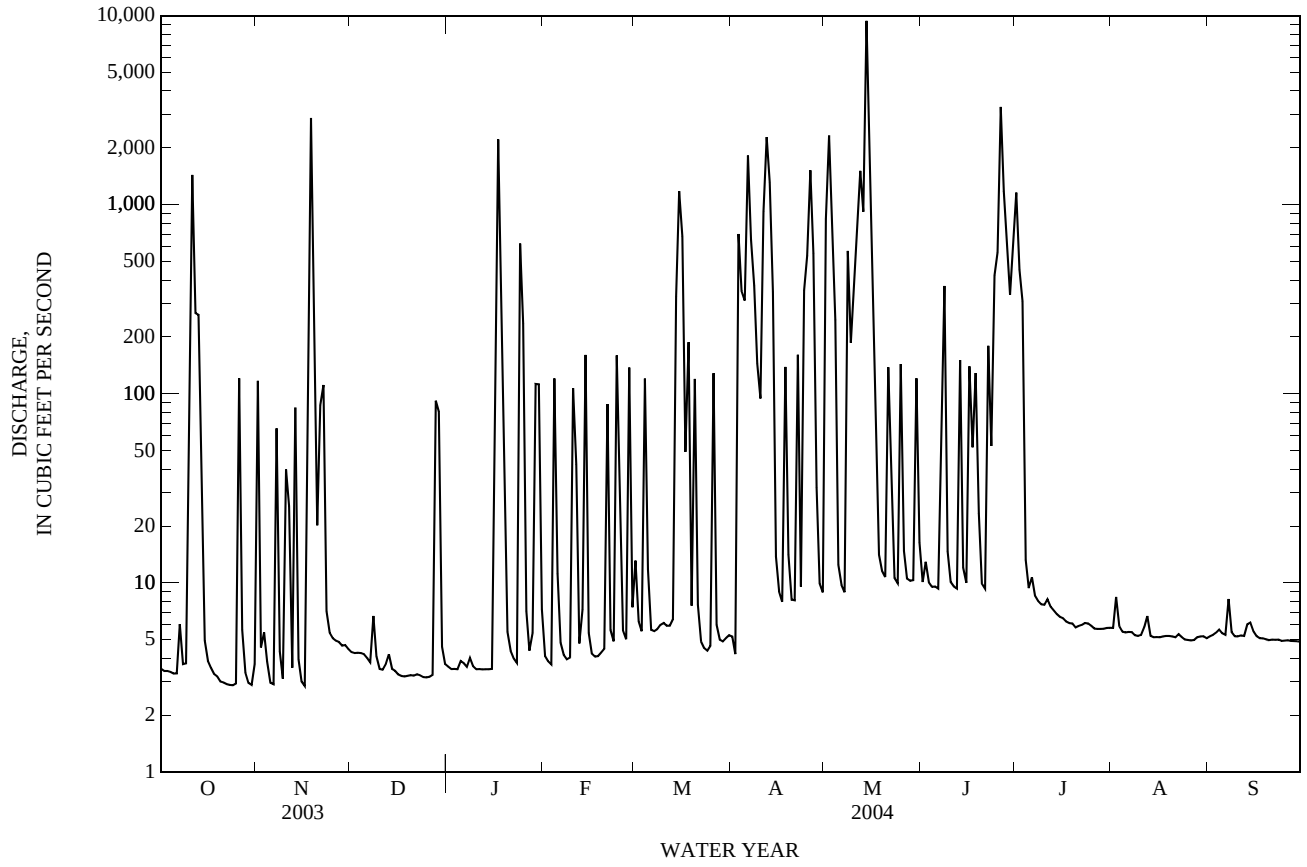
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2004z, BY WATER YEAR (WY)

MEAN	195	114	59.3	43.1	96.6	85.5	187	154	230	66.2	23.5	126
MAX	1,313	949	434	347	961	545	1,817	940	1,426	397	370	1,202
(WY)	(1999)	(1999)	(1992)	(1992)	(1992)	(1997)	(1997)	(1993)	(1993)	(1990)	(2001)	(2001)
MIN	1.61	1.90	2.01	1.93	1.98	2.05	2.07	2.09	0.04	0.01	0.93	1.56
(WY)	(1996)	(1997)	(1997)	(1996)	(1996)	(1996)	(1996)	(1996)	(2001)	(2001)	(2002)	(1989)

08177500 Coleto Creek near Victoria, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1981 - 2004z	
ANNUAL TOTAL	26,381.10		61,041.6			
ANNUAL MEAN	72.3		167		115	
HIGHEST ANNUAL MEAN					302	1997
LOWEST ANNUAL MEAN					1.98	1996
HIGHEST DAILY MEAN	2,870	Nov 18	9,390	May 14	27,500	Apr 4, 1997
LOWEST DAILY MEAN	0.16	Jan 30	2.8	Nov 16	0.00	May 6, 1981
ANNUAL SEVEN-DAY MINIMUM	0.18	Jan 25	3.0	Oct 19	0.00	Jul 5, 2001
MAXIMUM PEAK FLOW			13,200	May 14	50,100	Apr 4, 1997
MAXIMUM PEAK STAGE			18.52	May 14	a32.05	Apr 4, 1997
INSTANTANEOUS LOW FLOW			0.00	Apr 2		
ANNUAL RUNOFF (AC-FT)	52,330		121,100		82,950	
10 PERCENT EXCEEDS	116		385		48	
50 PERCENT EXCEEDS	3.0		5.8		4.9	
90 PERCENT EXCEEDS	2.0		3.5		2.0	

z Period of regulated streamflow.
a From floodmark.
e Estimated



08177520 Guadalupe River near Bloomington, TX

LOCATION.--Lat 28°39'43", long 96°57'55", Victoria County, Hydrologic Unit 12100204, on left bank at Dupont pump station, 1.8 mi upstream from Dalton Bridge, about 10.5 mi west of Bloomington, and at mile 28.2.

DRAINAGE AREA.--5,816 mi^2.

PERIOD OF RECORD.--Feb. 1999 to current year (daily mean gage height).

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. Since installation of gage in Jan. 1999, at least 10% of contributing drainage area has been regulated. There are many diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 27.67 ft, July 10, 2002; minimum gage height, 8.52 ft, Aug. 3-5, 7-9, 11, 2000.

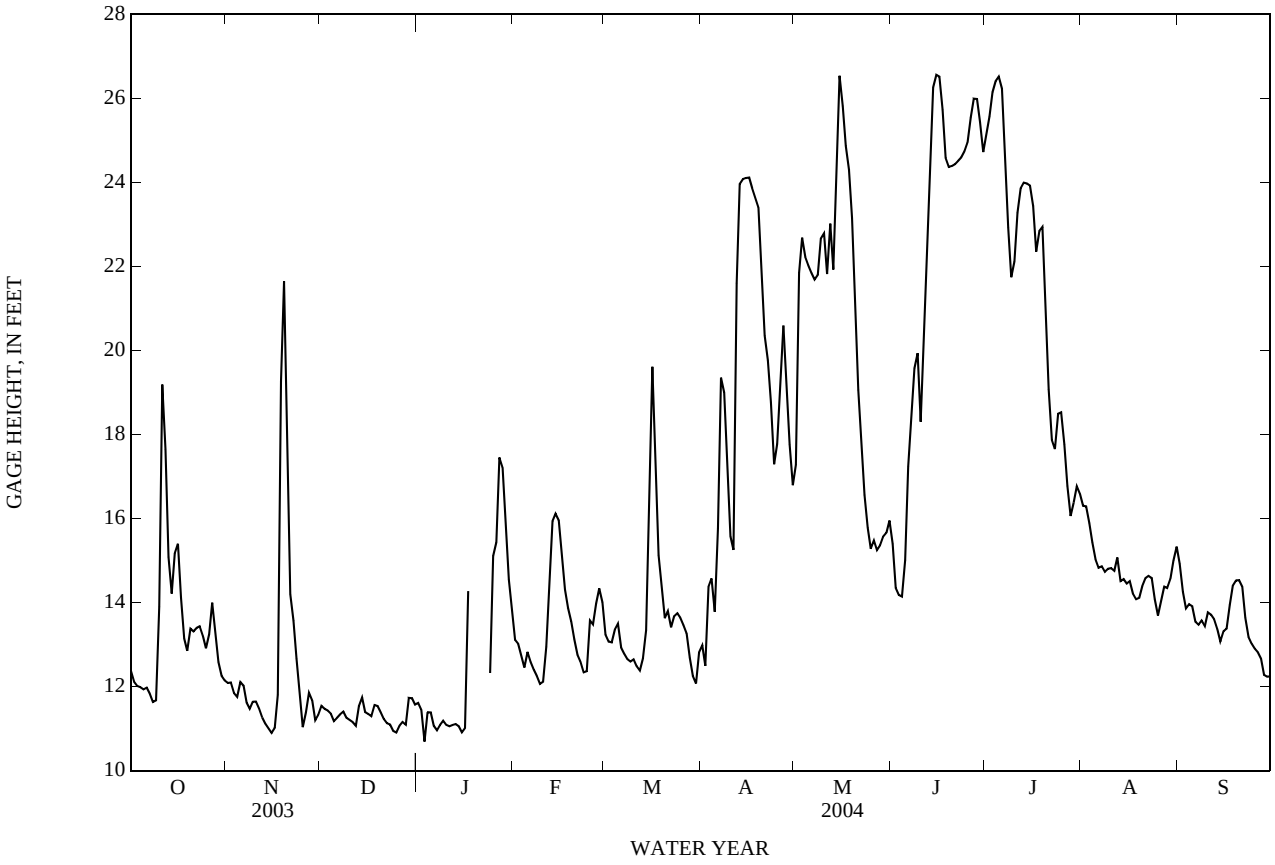
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 20, 1998, reached a gage height of 33.92 ft, from National Weather Service floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 26.66 ft, May 15 and June 15; minimum gage height, 10.48 ft, Jan 3.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.37	12.09	11.54	11.61	13.12	13.24	12.98	17.28	15.39	25.12	16.30	14.92
2	12.11	12.10	11.47	11.45	13.02	13.07	12.49	21.85	14.35	25.57	16.29	14.25
3	12.01	11.84	11.43	10.69	12.74	13.05	14.37	22.69	14.18	26.15	15.89	13.86
4	11.98	11.76	11.35	11.39	12.46	13.36	14.57	22.22	14.14	26.41	15.43	13.96
5	11.93	12.11	11.18	11.39	12.83	13.50	13.78	22.03	15.01	26.52	15.03	13.91
6	11.98	12.03	11.26	11.07	12.59	12.93	15.76	21.84	17.24	26.23	14.83	13.55
7	11.83	11.62	11.34	10.96	12.41	12.78	19.35	21.69	18.60	24.71	14.86	13.47
8	11.63	11.47	11.40	11.09	12.26	12.65	19.00	21.80	19.58	22.93	14.73	13.57
9	11.67	11.64	11.26	11.19	12.07	12.60	17.35	22.67	19.93	21.74	14.81	13.44
10	13.90	11.65	11.21	11.09	12.12	12.65	15.58	22.79	18.31	22.12	14.82	13.77
11	19.19	11.48	11.16	11.05	12.95	12.49	15.25	21.82	20.15	23.27	14.75	13.71
12	17.65	11.26	11.07	11.08	14.45	12.38	21.60	23.02	23.11	23.86	15.07	13.61
13	15.08	11.12	11.53	11.11	15.94	12.67	23.96	21.93	24.95	23.99	14.51	13.37
14	14.21	11.01	11.74	11.06	16.12	13.34	24.08	24.63	26.26	23.98	14.56	13.07
15	15.17	10.90	11.39	10.91	15.96	17.38	24.11	26.54	26.56	23.92	14.45	13.32
16	15.40	11.02	11.35	11.01	15.19	19.61	24.12	25.82	26.52	23.43	14.51	13.38
17	14.12	11.81	11.30	14.27	14.31	17.05	23.86	24.87	25.73	22.35	14.21	13.94
18	13.15	19.26	11.56	---	13.87	15.12	23.62	24.30	24.59	22.84	14.08	14.40
19	12.85	21.65	11.54	---	13.55	14.43	23.40	23.15	24.37	22.94	14.11	14.53
20	13.38	16.85	11.39	---	13.13	13.63	22.04	21.15	24.39	21.33	14.39	14.53
21	13.31	14.20	11.23	---	12.76	13.80	20.35	19.06	24.44	19.07	14.58	14.38
22	13.40	13.57	11.13	---	12.59	13.41	19.76	17.70	24.51	17.87	14.63	13.64
23	13.43	12.67	11.10	---	12.34	13.68	18.77	16.56	24.60	17.65	14.59	13.18
24	13.21	11.89	10.94	12.32	12.36	13.75	17.29	15.78	24.74	18.49	14.08	13.03
25	12.91	11.03	10.91	15.11	13.58	13.64	17.77	15.28	24.95	18.52	13.69	12.91
26	13.25	11.39	11.07	15.44	13.48	13.46	19.25	15.48	25.55	17.77	14.03	12.82
27	14.00	11.86	11.16	17.45	13.99	13.27	20.59	15.25	25.99	16.78	14.38	12.67
28	13.26	11.67	11.09	17.21	14.34	12.68	19.17	15.37	25.99	16.06	14.35	12.28
29	12.59	11.20	11.73	16.02	14.01	12.26	17.76	15.57	25.43	16.38	14.57	12.24
30	12.26	11.34	11.72	14.55	---	12.07	16.79	15.66	24.72	16.77	15.00	12.25
31	12.15	---	11.57	13.82	---	12.81	---	15.95	---	16.60	15.33	---
MEAN	13.40	12.52	11.33	---	13.47	13.64	18.96	20.38	22.14	21.66	14.74	13.53
MAX	19.19	21.65	11.74	---	16.12	19.61	24.12	26.54	26.56	26.52	16.30	14.92
MIN	11.63	10.90	10.91	---	12.07	12.07	12.49	15.25	14.14	16.06	13.69	12.24

08177520 Guadalupe River near Bloomington, TX—Continued



08177700 Olmos Creek at Dresden Drive, San Antonio, TX

LOCATION.--Lat 29°29'56", long 98°30'36", Bexar County, Hydrologic Unit 12100301, on right bank 30 ft downstream from low-water bridge on Dresden Drive at San Antonio, 0.15 mi west of intersection of Blanco Road and Dresden Drive, and 4.0 mi upstream from Olmos Dam.

DRAINAGE AREA.--21.2 mi^2.

PERIOD OF RECORD.--June 1968 to Sept. 1981 (daily mean discharge), Oct. 1982 to July 2001 (peak discharges greater than base discharge), Aug. 2001 to current year. Water-quality records: Chemical data: Nov. 1968 to Apr. 1995, Oct. 1997 to June 1999. Biochemical data: Nov. 1968 to Apr. 1995, Oct. 1997 to June 1999. Pesticide data: Nov. 1968 to Apr. 1995, Oct. 1997 to June 1999. Sediment data: Oct. 1972 to Sept. 1973.

GAGE.--Water-stage recorder. Datum of gage is 720.00 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records poor. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in Sept. and Nov. 1947 reached a stage of 8.5 ft, from information by local resident. Maximum stage since 1935, that of Sept. 13, 1978.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.06	0.00	0.00	0.00	0.00	0.00	0.00	112	0.00	5.7	0.00	0.00
2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.9	0.00	0.00	0.00
4	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
5	0.47	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00
6	2.0	0.00	0.00	0.00	0.00	0.00	7.0	0.00	0.00	0.00	0.32	0.00
7	0.03	0.00	0.00	0.00	0.00	0.00	e2.5	34	0.30	0.00	3.8	0.00
8	0.97	0.00	0.00	0.00	0.00	0.00	e1.7	0.56	79	0.00	0.00	0.00
9	2.2	0.00	0.00	0.00	0.00	0.00	e1.2	0.00	570	0.00	0.00	0.00
10	0.20	0.03	0.00	0.00	0.00	0.00	e1.0	0.00	20	0.00	0.00	0.00
11	0.00	0.02	0.00	0.00	0.00	0.00	e0.98	5.9	2.2	3.9	0.00	0.00
12	0.04	e0.01	0.00	0.00	0.00	0.00	e0.97	0.00	0.00	1.2	0.00	0.00
13	0.08	0.01	0.00	0.00	0.00	0.00	e0.96	30	0.57	0.00	0.00	0.99
14	0.02	0.45	0.00	0.00	0.00	0.00	e0.95	21	0.00	0.00	0.00	9.3
15	0.40	0.16	0.00	0.00	0.00	0.00	e0.91	0.00	0.00	0.00	0.00	0.26
16	0.49	0.05	0.00	30	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00
17	0.08	0.00	0.00	2.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.43	0.00	0.00	0.00	0.00	0.00	1.3	0.00	0.00	0.00	0.00	0.00
21	0.48	0.00	0.00	0.00	0.00	0.00	4.1	0.00	0.00	0.00	0.00	0.00
22	0.06	0.00	0.00	0.00	0.00	0.00	4.9	0.00	37	0.00	9.6	182
23	0.12	0.00	0.00	0.00	0.00	0.00	5.5	0.00	0.00	0.00	71	7.9
24	0.39	0.00	0.00	15	0.00	0.00	384	0.00	7.4	0.00	0.00	0.00
25	0.00	0.00	0.00	3.5	0.00	0.00	6.2	0.00	314	0.00	0.00	0.00
26	0.84	0.00	0.00	0.00	0.00	0.00	1.4	0.00	3.6	0.00	0.00	0.00
27	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.4	0.00	0.00	0.00
28	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.04	0.00	0.00	0.00	0.00	0.00	9.8	0.00	685	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	139	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.03	---	0.00	0.00	---
TOTAL	11.17	0.73	0.00	51.20	0.00	0.00	436.83	203.73	1,868.37	10.80	84.72	200.52
MEAN	0.36	0.02	0.00	1.65	0.00	0.00	14.6	6.57	62.3	0.35	2.73	6.68
MAX	2.2	0.45	0.00	30	0.00	0.00	384	112	685	5.7	71	182
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	22	1.4	0.00	102	0.00	0.00	866	404	3,710	21	168	398

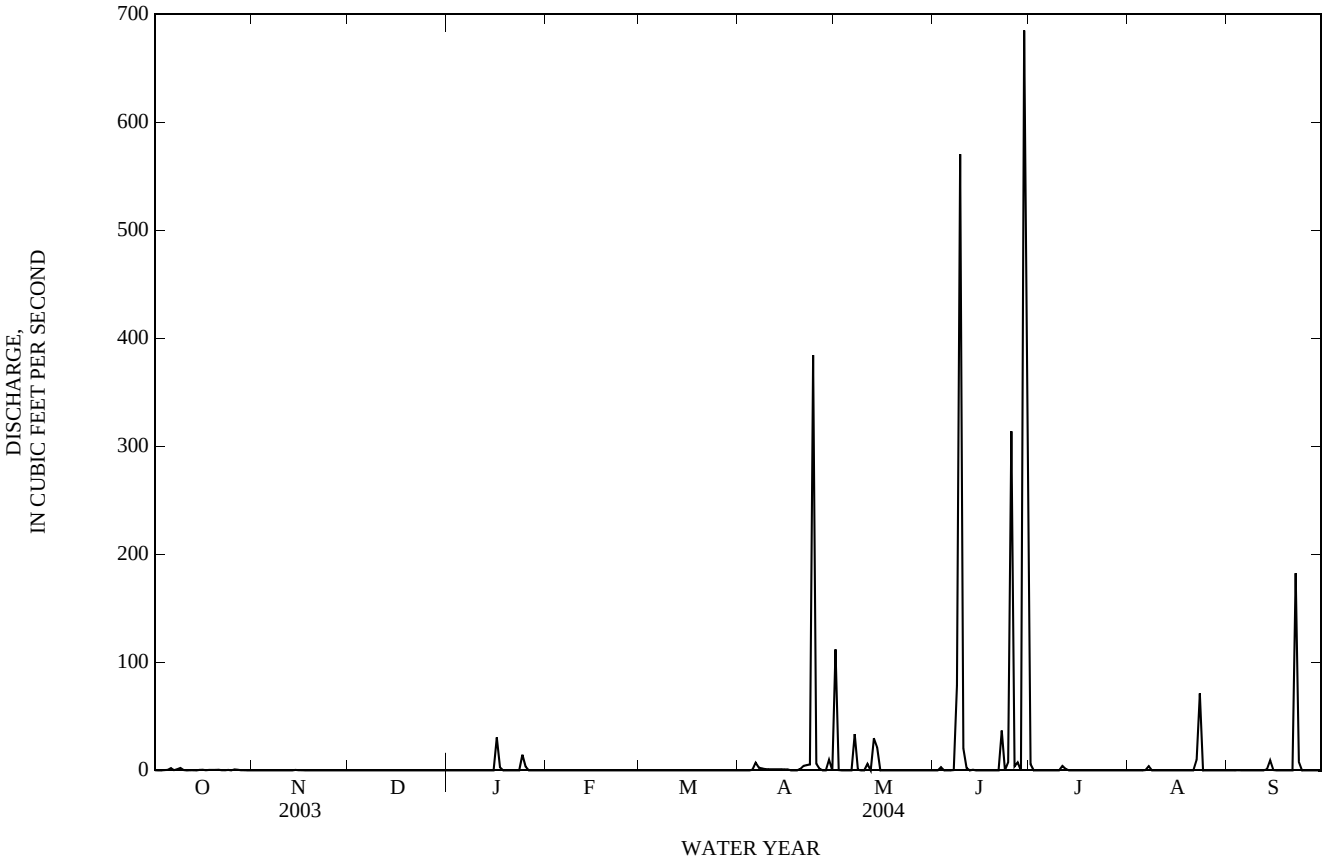
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004h, BY WATER YEAR (WY)

MEAN	7.57	5.39	1.95	1.75	2.00	1.67	6.45	9.71	10.1	13.8	3.07	11.2
MAX	45.4	33.1	10.1	6.80	8.96	9.12	17.1	52.8	62.3	194	23.5	56.8
(WY)	(2003)	(2002)	(2003)	(2003)	(1975)	(2002)	(1973)	(1972)	(2004)	(2002)	(1974)	(1973)
MIN	0.06	0.02	0.00	0.03	0.00	0.00	0.22	0.08	0.04	0.02	0.02	0.08
(WY)	(1969)	(2004)	(2004)	(1971)	(2004)	(2004)	(2003)	(2003)	(1980)	(1974)	(1977)	(1975)

08177700 Olmos Creek at Dresden Drive, San Antonio, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004h	
ANNUAL TOTAL	2,226.97		2,868.07			
ANNUAL MEAN	6.10		7.84		6.36	
HIGHEST ANNUAL MEAN					26.3	2002
LOWEST ANNUAL MEAN					1.03	1971
HIGHEST DAILY MEAN	542	Sep 12	685	Jun 29	4,000	Jul 1, 2002
LOWEST DAILY MEAN	0.00	Mar 16	0.00	Oct 3	0.00	Jun 14, 1968
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 10	0.00	Oct 30	0.00	Oct 17, 1968
MAXIMUM PEAK FLOW			3,900	Jun 25	20,100	Jul 1, 2002
MAXIMUM PEAK STAGE			7.65	Jun 25	a14.54	Jul 1, 2002
ANNUAL RUNOFF (AC-FT)	4,420		5,690		4,610	
10 PERCENT EXCEEDS	5.0		2.3		4.2	
50 PERCENT EXCEEDS	0.04		0.00		0.22	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

h See Period of Record paragraph.
a From floodmark.
e Estimated



08178000 San Antonio River at San Antonio, TX

LOCATION.--Lat 29°24'34", long 98°29'41", Bexar County, Hydrologic Unit 12100301, on right bank, 50 ft downstream from South Alamo Street Bridge in San Antonio, 2.1 mi upstream from San Pedro Creek, and at mile 232.0.

DRAINAGE AREA.--41.8 mi^2. Flow of river comes from intermittent spring flow and from artesian wells; drainage area of streams not applicable.

PERIOD OF RECORD.--Dec. 1895 to June 1906 (periodic discharge measurements), Jan. 1915 to Nov. 1929, Feb. 1939 to Sept. 1997 (daily mean discharge), Oct. 1997 to Sept. 1999 (annual peak discharge), Oct. 1999 to current year (daily mean stage). Water-quality records: Chemical data: Dec. 1991 to Aug. 1992, Jan. 1996 to Aug. 1996. Biochemical data: Dec. 1991 to Aug. 1992, Jan. 1996 to Aug. 1996. Pesticide data: Dec. 1991 to Aug. 1992, Jan. 1996 to Aug. 1996.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 605.26 ft above NGVD of 1929. Jan. 26, 1915, to Feb. 27, 1916, nonrecording gage at site 1.3 mi upstream at different datum. Feb. 28, 1916, to Apr. 7, 1920, nonrecording gage at site 1.1 mi upstream at different datum. Apr. 8, 1920, to Nov. 16, 1929, Feb. 15, 1939, to Apr. 25, 1967, water-stage recorder in vicinity of South Alamo Street Bridge at datum 7.00 ft higher. Apr. 25, 1967, to May 13, 1969, water-stage recorder at site 307 ft downstream at same datum. May 14, 1969, to Apr. 26, 2000, at site on left bank, 193 ft downstream from South Alamo Street bridge.

REMARKS.--Records good. Since 1926, at least 10% of contributing drainage area has been regulated. Springs emerge intermittently from the Edwards and associated limestones along the Balcones Fault Zone upstream from station. Ground-water discharge into river is discussed by Petit and George, Texas Board of Water Engineers Bulletin 5608, vol. 1 (1956, p. 45).

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--12 years (water years 1915-1926) prior to regulation by Olmos Dam, 90.5 ft^3/s (65,570 acre-ft/yr).

AVERAGE DISCHARGE.--WATER YEARS 1927-1997: 50.8 ft^3/s, (36,810 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height 20.14 ft, Sept. 10, 1921 (from floodmark at former site and datum); no flow at times.

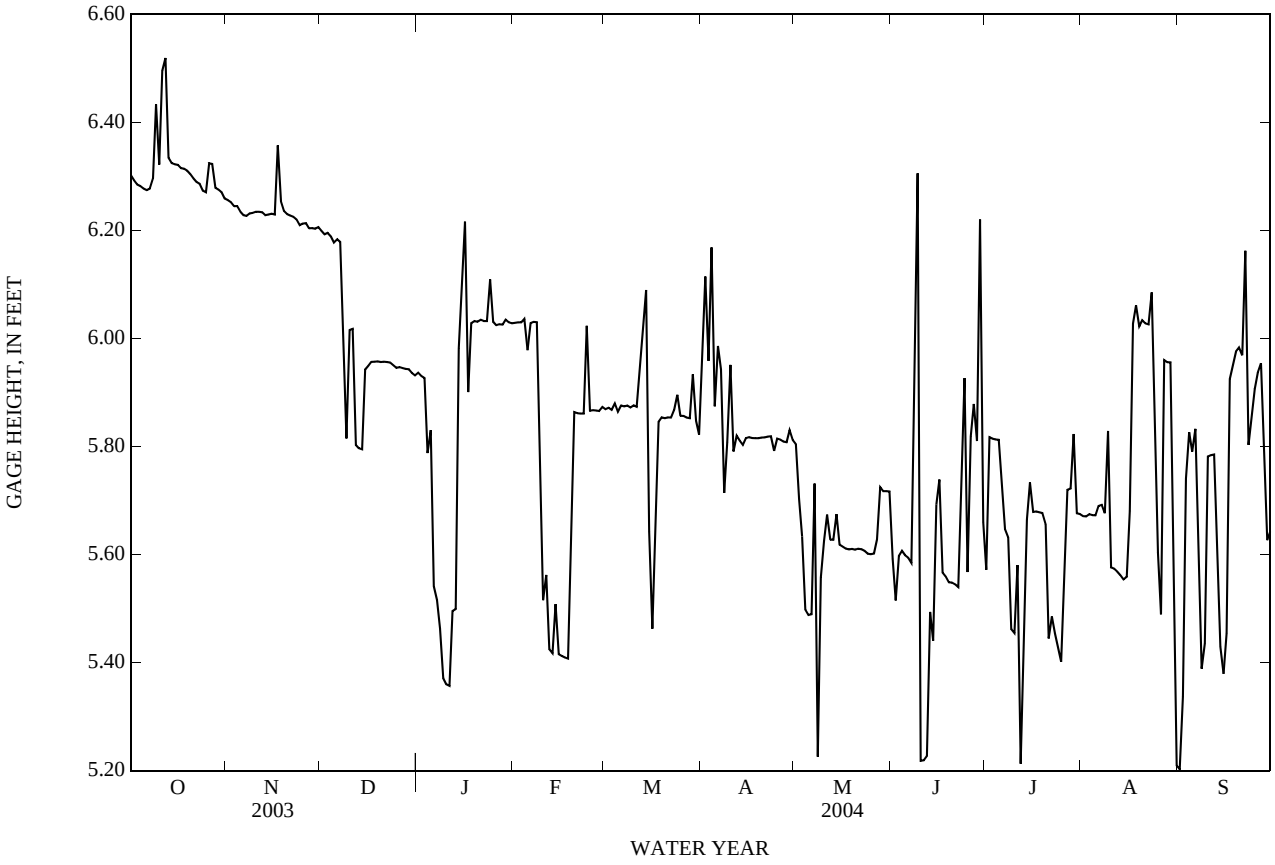
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 5, 1819, equaled or exceeded that of Sept. 10, 1921, from San Fernando Cathedral archives and old spanish records.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.49 ft, April 24; minimum gage height, 5.18 ft, August 31.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.30	6.26	6.20	5.94	6.03	5.87	5.96	5.80	5.59	5.57	5.67	5.20
2	6.29	6.25	6.19	5.93	6.03	5.87	6.11	5.70	5.51	5.82	5.67	5.34
3	6.28	6.24	6.20	5.93	6.03	5.87	5.96	5.63	5.60	5.81	5.67	5.74
4	6.28	6.25	6.19	5.79	6.04	5.88	6.17	5.50	5.61	5.81	5.67	5.83
5	6.28	6.23	6.18	5.83	5.98	5.86	5.87	5.49	5.60	5.81	5.67	5.79
6	6.27	6.23	6.18	5.54	6.03	5.88	5.99	5.49	5.59	5.73	5.69	5.83
7	6.28	6.23	6.18	5.52	6.03	5.87	5.94	5.73	5.58	5.65	5.69	5.61
8	6.30	6.23	5.98	5.46	6.03	5.88	5.71	5.23	5.97	5.63	5.68	5.39
9	6.43	6.23	5.81	5.37	5.81	5.87	5.81	5.56	6.31	5.46	5.83	5.44
10	6.32	6.23	6.02	5.36	5.52	5.88	5.95	5.63	5.22	5.45	5.58	5.78
11	6.50	6.23	6.02	5.36	5.56	5.87	5.79	5.67	5.22	5.58	5.57	5.78
12	6.52	6.23	5.80	5.50	5.42	5.94	5.82	5.63	5.23	5.21	5.57	5.79
13	6.33	6.23	5.80	5.50	5.42	6.00	5.81	5.63	5.49	5.40	5.56	5.65
14	6.32	6.23	5.79	5.98	5.51	6.09	5.80	5.67	5.44	5.67	5.55	5.43
15	6.32	6.23	5.94	6.09	5.42	5.64	5.82	5.62	5.69	5.73	5.56	5.38
16	6.32	6.23	5.95	6.22	5.41	5.46	5.82	5.61	5.74	5.68	5.68	5.45
17	6.32	6.36	5.96	5.90	5.41	5.68	5.82	5.61	5.57	5.68	6.03	5.93
18	6.31	6.25	5.96	6.03	5.41	5.85	5.82	5.61	5.56	5.68	6.06	5.95
19	6.31	6.24	5.96	6.03	5.65	5.85	5.82	5.61	5.55	5.68	6.02	5.98
20	6.30	6.23	5.96	6.03	5.86	5.85	5.82	5.61	5.55	5.66	6.03	5.98
21	6.30	6.23	5.96	6.03	5.86	5.85	5.82	5.61	5.55	5.44	6.03	5.97
22	6.29	6.23	5.96	6.03	5.86	5.85	5.82	5.61	5.54	5.49	6.03	6.16
23	6.29	6.22	5.96	6.03	5.86	5.87	5.82	5.61	5.72	5.45	6.09	5.80
24	6.27	6.21	5.95	6.11	6.02	5.90	5.79	5.60	5.93	5.43	5.81	5.86
25	6.27	6.21	5.95	6.03	5.87	5.86	5.81	5.60	5.57	5.40	5.60	5.91
26	6.32	6.21	5.95	6.02	5.87	5.86	5.81	5.60	5.82	5.54	5.49	5.94
27	6.32	6.20	5.95	6.03	5.87	5.85	5.81	5.63	5.88	5.72	5.96	5.95
28	6.28	6.20	5.94	6.03	5.87	5.85	5.81	5.72	5.81	5.72	5.96	5.80
29	6.28	6.20	5.94	6.03	5.87	5.93	5.83	5.72	6.22	5.82	5.96	5.63
30	6.27	6.21	5.94	6.03	---	5.85	5.81	5.72	5.66	5.68	5.57	5.64
31	6.26	---	5.93	6.03	---	5.82	---	5.72	---	5.68	5.21	---
MEAN	6.31	6.23	5.99	5.86	5.78	5.85	5.86	5.62	5.64	5.62	5.75	5.73
MAX	6.52	6.36	6.20	6.22	6.04	6.09	6.17	5.80	6.31	5.82	6.09	6.16
MIN	6.26	6.20	5.79	5.36	5.41	5.46	5.71	5.23	5.22	5.21	5.21	5.20

08178000 San Antonio River at San Antonio, TX—Continued



08178050 San Antonio River at Mitchell Street, San Antonio, TX

LOCATION.--Lat 29°23'34", long 98°29'40", Bexar County, Hydrologic Unit 12100301, on left bank 15 ft upstream from Mitchell Street Bridge in San Antonio, 0.2 mi upstream from San Pedro Creek, and 228.7 mi upstream from mouth.

DRAINAGE AREA.--42.4 mi^2. At low-flow, flow of river comes from intermittent spring flow and from artesian wells.

PERIOD OF RECORD.--Oct. 1992 to current year. Water-quality records: Chemical data: Dec. 1991 to June 1999. Biochemical data: Dec. 1991 to June 1999. Pesticide data: Dec. 1991 to June 1999.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 585.07 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Since installation of gage in Oct. 1992, at least 10% of contributing drainage area has been regulated. Springs emerge intermittently from the Edwards and associated limestones along the Balcones Fault Zone upstream from station. Ground-water discharge into river is discussed by Petit and George, Texas Board of Water Engineers Bulletin 5608, vol. 1 (1956, p. 45).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 5, 1819, equaled or exceeded that of Sept. 10, 1921, from San Fernando Cathedral archives and old spanish records.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	79	71	62	76	81	76	532	68	465	125	89
2	89	78	70	62	75	83	326	142	56	211	122	87
3	86	77	70	62	71	84	120	148	114	211	120	95
4	86	77	69	66	78	318	405	141	54	211	116	163
5	84	75	66	135	88	103	360	140	51	211	111	104
6	83	73	67	61	72	79	131	136	50	212	130	153
7	84	72	67	61	71	78	108	345	54	205	121	114
8	93	75	33	61	71	75	102	154	506	205	114	105
9	137	76	51	40	85	74	104	146	1,520	199	115	96
10	95	77	65	52	99	72	290	151	663	195	110	100
11	189	78	66	55	132	72	350	174	125	305	109	100
12	277	76	67	50	77	126	132	157	117	226	106	98
13	117	74	69	42	75	246	119	173	140	179	103	109
14	119	75	69	56	96	234	117	244	127	184	102	151
15	116	76	69	131	76	178	117	156	118	177	99	127
16	107	76	66	308	73	89	118	155	130	171	89	96
17	94	116	65	166	74	81	116	151	122	166	92	100
18	92	81	64	75	69	85	114	148	118	162	123	95
19	92	75	63	73	66	84	111	143	113	155	91	94
20	90	75	63	72	70	83	109	137	110	151	89	91
21	90	75	64	72	69	82	107	130	106	143	86	89
22	96	75	64	72	69	81	105	125	354	140	89	295
23	98	73	61	72	69	85	105	119	115	138	252	292
24	81	71	62	163	309	97	992	111	508	139	105	95
25	81	71	64	92	81	82	142	105	656	138	103	93
26	100	72	66	76	75	79	139	98	471	135	93	95
27	110	70	66	73	74	79	129	89	407	135	97	92
28	95	70	65	72	76	79	135	87	154	133	97	104
29	92	70	63	82	83	188	167	81	883	147	96	91
30	82	70	61	78	---	84	134	77	1,190	129	117	84
31	79	---	60	76	---	75	---	72	---	131	90	---
TOTAL	3,226	2,278	1,986	2,618	2,499	3,336	5,580	4,767	9,200	5,709	3,412	3,497
MEAN	104	75.9	64.1	84.5	86.2	108	186	154	307	184	110	117
MAX	277	116	71	308	309	318	992	532	1,520	465	252	295
MIN	79	70	33	40	66	72	76	72	50	129	86	84
AC-FT	6,400	4,520	3,940	5,190	4,960	6,620	11,070	9,460	18,250	11,320	6,770	6,940

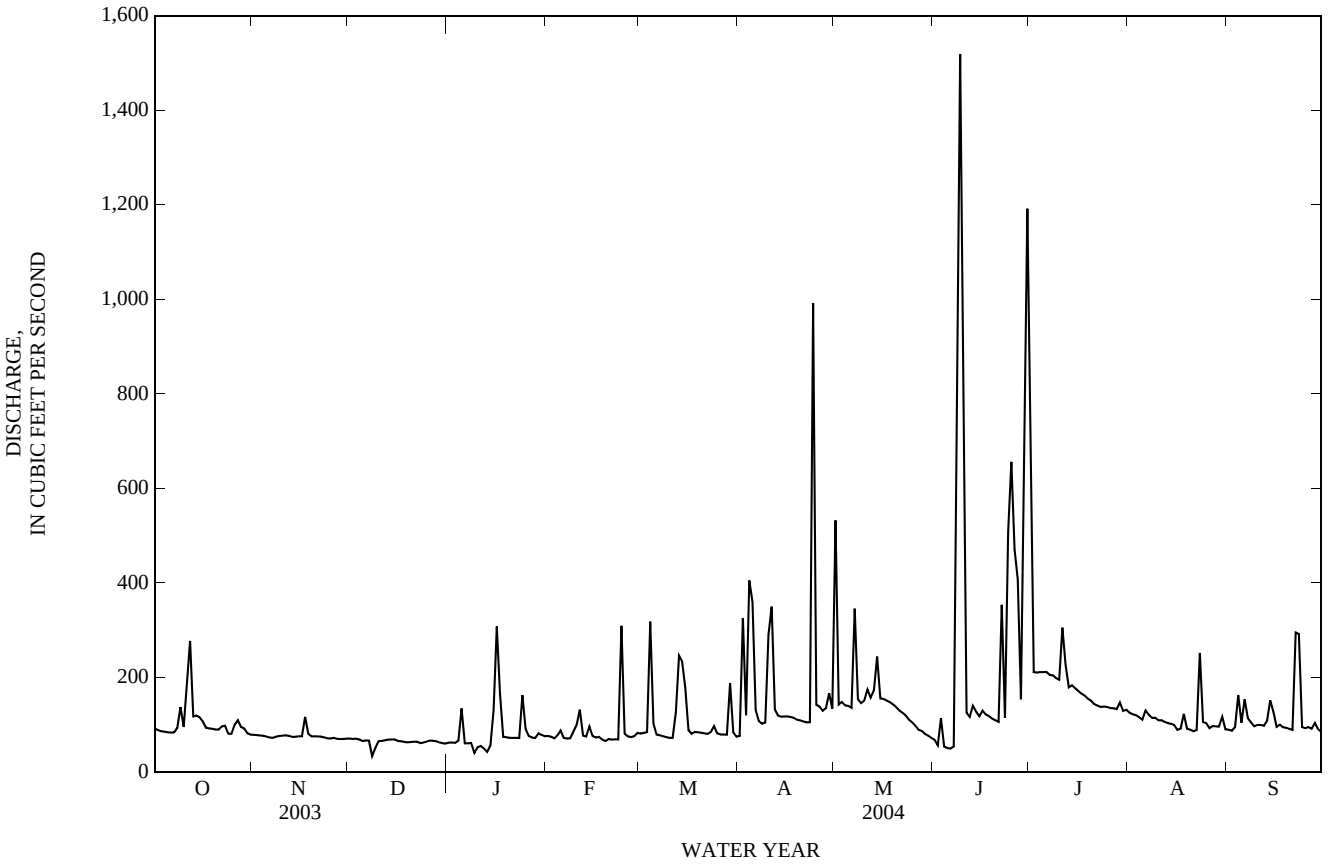
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2004, BY WATER YEAR (WY)

MEAN	102	103	85.0	78.4	78.5	83.5	77.1	89.8	95.7	94.8	53.6	75.3
MAX	302	241	224	191	209	189	186	369	307	510	119	229
(WY)	(2003)	(2003)	(2003)	(2003)	(1993)	(2003)	(2004)	(1993)	(2004)	(2002)	(2001)	(2002)
MIN	4.96	10.9	13.5	6.41	19.0	12.8	14.0	8.96	12.0	9.04	5.82	12.5
(WY)	(1997)	(2000)	(1997)	(1997)	(1996)	(1996)	(1996)	(1998)	(1998)	(1998)	(1997)	(1999)

08178050 San Antonio River at Mitchell Street, San Antonio, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1993 - 2004	
ANNUAL TOTAL	46,852		48,108			
ANNUAL MEAN	128		131		84.8	
HIGHEST ANNUAL MEAN					172	2003
LOWEST ANNUAL MEAN					16.4	1996
HIGHEST DAILY MEAN	1,120	Sep 12	1,520	Jun 9	2,750	Oct 17, 1998
LOWEST DAILY MEAN	15	May 30	33	Dec 8	0.61	Nov 8, 1997
ANNUAL SEVEN-DAY MINIMUM	17	May 26	51	Jan 8	3.0	Jan 1, 1997
MAXIMUM PEAK FLOW			5,900	Jun 9	i14,300	Oct 17, 1998
MAXIMUM PEAK STAGE			8.35	Jun 9	a12.94	Oct 17, 1998
ANNUAL RUNOFF (AC-FT)	92,930		95,420		61,410	
10 PERCENT EXCEEDS	190		207		182	
50 PERCENT EXCEEDS	99		95		40	
90 PERCENT EXCEEDS	57		66		8.2	

i From indirect measurement of peak flow.
a From floodmark.



08178565 San Antonio River at Loop 410 at San Antonio, TX

LOCATION.--Lat 29°19'19", long 98°27'00", Bexar County, Hydrologic Unit 12100301, on right bank between westbound bridges on Interstate Highway 410 in San Antonio, 4.5 mi upstream from Salado Creek, and 222.3 mi upstream from mouth.

DRAINAGE AREA.--125 mi^2.At low-flow, flow of river comes from intermittent springflow and from artesian wells.

PERIOD OF RECORD.--Oct. 1986 to current year. Water-quality records: Chemical data: Dec. 1986 to Sept. 2000. Biochemical data: Mar. 1987 to Sept. 1998. Pesticide data: Dec. 1992 to Sept. 1998. Specific conductance: Dec. 1986 to Aug. 1988, Mar. 1993 to Sept. 2000.
pH: Dec. 1986 to Aug. 1988, Mar. 1993 to Sept. 2000. Water temperature: Dec. 1986 to Aug. 1988, Mar. 1993 to Sept. 2000. Dissolved oxygen: Dec. 1986 to Aug. 1988, Mar. 1993 to Sept. 2000.

GAGE.--Water-stage recorder. Datum of gage is 488.11 ft above NGVD of 1929. Dec. 20, 1986, to Aug. 15, 1989, at site 0.2 mi downstream at Camino Coahuilteca crossing at same datum. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Since installation of gage in water year 1987, at least 10% of contributing drainage area has been regulated.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	101	83	75	88	104	94	877	109	427	141	104
2	109	100	82	76	87	103	539	208	101	229	138	104
3	106	100	82	76	85	104	203	183	135	220	136	108
4	103	99	80	78	91	340	724	186	101	218	132	146
5	104	98	78	111	102	161	639	177	97	217	128	118
6	105	94	78	72	89	104	279	175	97	217	138	139
7	107	93	79	72	88	101	215	455	99	212	147	125
8	112	92	66	73	88	98	200	222	584	210	137	116
9	176	93	53	58	99	97	191	163	2,810	206	134	113
10	130	93	78	68	137	95	386	164	563	308	131	112
11	e235	94	78	70	174	95	560	197	176	392	129	114
12	378	86	80	66	102	172	205	178	159	274	127	113
13	136	77	80	67	93	362	173	180	190	175	125	118
14	129	89	80	67	131	235	169	241	161	178	124	172
15	124	88	79	187	98	390	167	164	153	173	119	138
16	123	89	77	356	92	111	166	160	159	170	111	117
17	117	171	77	274	92	102	165	158	158	166	113	114
18	114	115	75	92	87	103	160	156	155	164	131	115
19	113	94	76	86	85	102	157	153	151	162	122	116
20	111	92	76	85	88	102	156	150	148	161	112	115
21	110	91	76	84	88	101	154	145	146	159	109	113
22	109	91	77	84	88	102	152	145	487	157	110	559
23	113	90	73	84	84	102	152	142	136	201	344	371
24	109	87	74	203	460	113	1,210	136	711	188	127	131
25	105	87	77	135	113	102	224	132	795	164	120	126
26	e133	87	79	107	99	100	190	127	369	161	118	128
27	145	85	79	87	97	97	176	123	335	160	114	127
28	121	82	78	85	98	97	172	121	167	161	152	133
29	113	83	75	94	103	e278	219	118	1,600	182	139	126
30	110	84	73	97	---	112	178	115	1,260	157	122	124
31	105	---	73	89	---	94	---	112	---	145	105	---
TOTAL	4,015	2,825	2,371	3,258	3,226	4,379	8,375	5,963	12,312	6,314	4,135	4,355
MEAN	130	94.2	76.5	105	111	141	279	192	410	204	133	145
MAX	378	171	83	356	460	390	1,210	877	2,810	427	344	559
MIN	103	77	53	58	84	94	94	112	97	145	105	104
AC-FT	7,960	5,600	4,700	6,460	6,400	8,690	16,610	11,830	24,420	12,520	8,200	8,640

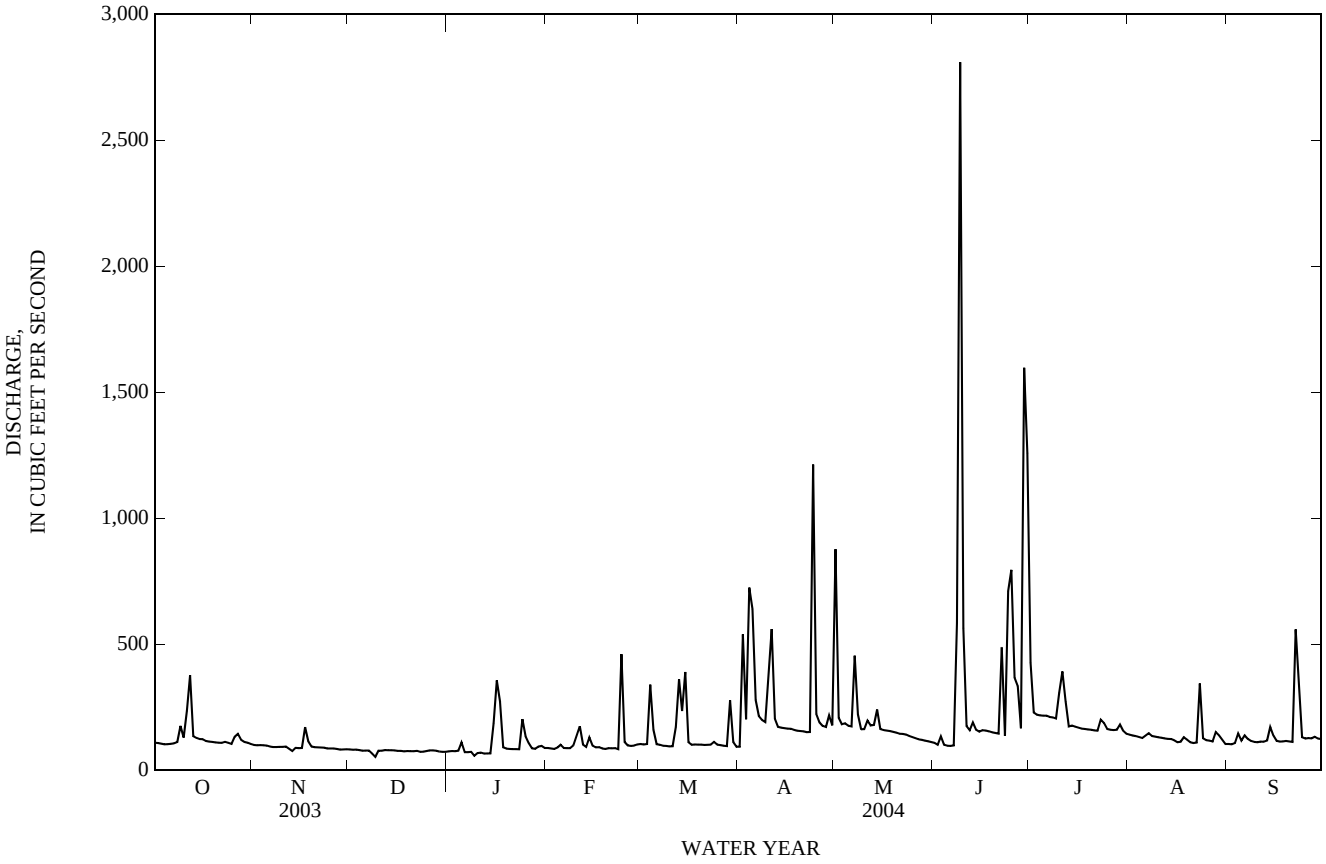
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

MEAN	167	118	129	105	127	125	116	133	182	192	91.1	123
MAX	1,041	355	479	226	483	420	279	588	622	696	263	350
(WY)	(1999)	(2001)	(1992)	(2003)	(1992)	(1992)	(2004)	(1987)	(1987)	(2002)	(1992)	(2002)
MIN	10.5	15.2	19.6	12.2	29.3	18.2	25.8	27.6	15.6	20.0	15.1	25.6
(WY)	(1997)	(2000)	(1991)	(1997)	(1996)	(1996)	(1996)	(1989)	(1998)	(1996)	(2000)	(1989)

08178565 San Antonio River at Loop 410 at San Antonio, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	68,661		61,528			
ANNUAL MEAN	188		168		126	
HIGHEST ANNUAL MEAN					321	1987
LOWEST ANNUAL MEAN					30.6	1996
HIGHEST DAILY MEAN	3,050	Jul 5	2,810	Jun 9	16,900	Oct 17, 1998
LOWEST DAILY MEAN	53	Dec 9	53	Dec 9	1.8	Jul 19, 2000
ANNUAL SEVEN-DAY MINIMUM	73	Dec 5	67	Jan 8	4.8	Jul 16, 1996
MAXIMUM PEAK FLOW			15,800	Jun 9	i79,400	Oct 17, 1998
MAXIMUM PEAK STAGE			21.55	Jun 9	a32.57	Oct 17, 1998
ANNUAL RUNOFF (AC-FT)	136,200		122,000		91,030	
10 PERCENT EXCEEDS	241		235		232	
50 PERCENT EXCEEDS	158		116		45	
90 PERCENT EXCEEDS	80		79		13	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated



08178627 Elm Waterhole Tributary at Evans Rd near San Antonio, TX

LOCATION.--Lat 29°38'48", long 98°24'23", Bexar County, Hydrologic Unit 12100301, on right bank upstream side of Evans Road, 0.4 mi upstream of Elm Waterhole Creek, 5.21 mi upstream of State Highway 1604.

DRAINAGE AREA.--2.38 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Apr. 2001 to current year.
BIOCHEMICAL DATA: Apr. 2001 to current year.
PESTICIDE DATA: Apr. 2001 to current year.

INSTRUMENTATION.--Water-stage recorder. Discharge-activated automatic sampler. Tipping bucket raingage at site. Satellite telemeter at station.

REMARKS.--Water-quality samples and associated discharge and precipitation data were collected for selected storm events.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Discharge duration, min (81381)	Elapsed time of storm, hours (00135)	Precipitation total, inches/storm (82381)	Precipitation duration of storm event, min (00117)	Sampling method, code (82398)	Storm water discharge, Mgal/d (81395)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
JUN 29...	1711	--	--	--	--	70	--	--	--	--	--	--	--
JUN 29-29	1715	615	3.8	1.0	405	90	1.9	7.8	243	120	45.3	1.68	4.92

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)
JUN 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 29-29	2.56	4	3.10	<.2	17.2	4.3	186	26	.79	1.1	<.04	1.14	.26

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)
JUN 29...	--	--	--	--	--	--	--	--	--	>27000k	28000kl	--	--
JUN 29-29	.30	.131	.040	<.02	.029	.110	1.1	1.4	30	--	--	4	<.20

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Mercury water, unfltrd recoverable, ug/L (71900)
JUN 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 29-29	19	<.06	E.02n	.08	E.4n	.275	1.7	2.4	E4n	.09	3.28	1.1	E.01n

08178627 Elm Waterhole Tributary at Evans Rd near San Antonio, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recoverable, ug/L (01067)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)	Oil and grease, water, unfltrd freon extract mg/L (00556)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)
JUN 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 29-29	E.2n	1.71	2.12	<.2	38.0	235	<7	<.006	E.033	<.006	<.005	<.005	.056

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)
JUN 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 29-29	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	.032	<.009	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)
JUN 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 29-29	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)
JUN 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 29-29	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02

08178627 Elm Waterhole Tributary at Evans Rd near San Antonio, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Uranium natural water, fltrd, ug/L (22703)
JUN 29...	--	--	--	--	--	--	--	--
JUN 29-29	<.005	<.02	<.034	<.02	<.010	<.002	<.009	.09

Remark codes used in this table:
< -- Less than
> -- Greater than
E -- Estimated value

Value qualifier codes used in this table:
k -- Counts outside acceptable range
l -- Sample lab preparation problem
n -- Below the LRL and above the LT-MDL

08178627 Elm Waterhole Tributary at Evans Rd near San Antonio, TX—Continued

08178700 Salado Creek at Loop 410 at San Antonio, TX

LOCATION.--Lat 29°30'57", long 98°25'51", Bexar County, Hydrologic Unit 12100301, on right bank at downstream side of eastbound bridge on Interstate Highway 410 in San Antonio, 1.0 mi west of Northeast School, 1.1 mi upstream from Perrin-Beitel Creek, and 2.7 mi east of San Antonio International Airport.

DRAINAGE AREA.--137 mi^2.

PERIOD OF RECORD.--Sept. 1960 to current year. Prior to Oct. 2000, published as "(Upper Station) at San Antonio". Water-quality records: Chemical data: Nov. 1968 to May 1999. Biochemical data: Nov. 1968 to May 1999. Pesticide data: Nov. 1971 to Sept. 1973.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 684.60 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good. Some diversions for irrigation upstream from gage. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1853, 23 to 24 ft in Oct. 1913. Flood in Sept. 1921 reached a stage of 18 ft, and flood of Sept. 27, 1946, reached a stage of 18.2 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	0.01	0.00	0.00	0.00	0.00	0.07	19	0.08	52	0.04	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	3.9	7.2	0.04	12	0.04	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	3.1	1.2	0.07	4.1	0.04	0.00
4	0.00	0.00	0.00	0.00	0.02	19	20	0.39	0.03	1.6	0.03	0.00
5	0.00	0.00	0.00	0.00	0.00	5.9	41	0.21	0.05	0.94	0.01	0.00
6	0.00	0.00	0.00	0.00	0.00	0.44	4.0	0.17	0.04	0.71	0.56	10
7	0.00	0.00	0.00	0.00	0.00	0.13	1.3	0.26	0.03	0.62	1.1	0.80
8	0.21	0.00	0.00	0.00	0.00	0.06	0.27	0.49	11	0.48	0.13	0.08
9	0.86	0.00	0.00	0.00	0.04	0.04	0.14	0.24	1,230	0.40	0.11	0.05
10	0.12	0.00	0.00	0.00	0.02	0.04	1.7	0.16	200	0.37	0.09	0.03
11	6.1	0.00	0.00	0.00	2.1	0.02	26	0.19	34	5.0	0.08	0.02
12	20	0.00	0.00	0.00	0.42	0.57	14	0.27	21	3.6	0.09	0.02
13	4.4	0.00	0.00	0.00	0.14	9.2	1.5	0.23	23	0.59	0.08	0.02
14	0.72	0.00	0.00	0.00	0.45	2.8	0.40	52	16	0.26	0.07	0.01
15	0.21	0.00	0.00	0.13	0.17	4.1	0.20	2.8	1.4	0.17	0.06	0.00
16	0.13	0.00	0.00	9.5	0.09	0.67	0.16	0.79	0.93	0.16	0.05	0.00
17	0.10	0.24	0.00	13	0.05	0.18	0.14	0.30	0.84	0.15	0.02	0.00
18	0.08	0.13	0.00	1.2	0.00	0.13	0.13	0.17	0.94	0.14	0.73	0.00
19	0.07	0.14	0.00	0.16	0.00	0.11	0.13	0.14	1.1	0.14	1.8	0.00
20	0.07	0.08	0.00	0.06	0.00	0.10	0.13	0.14	1.1	0.13	0.11	0.00
21	0.06	0.02	0.00	0.01	0.00	0.06	0.13	0.13	1.1	0.10	0.07	0.00
22	0.06	0.00	0.00	0.00	0.00	0.03	0.14	0.13	8.4	0.13	0.15	0.00
23	0.05	0.00	0.00	0.00	0.00	0.04	0.14	0.12	1.4	0.13	4.1	0.00
24	0.04	0.00	0.00	0.53	6.9	0.03	121	0.13	1.2	0.11	0.22	0.00
25	0.02	0.00	0.00	0.36	1.0	0.02	9.3	0.13	2.7	0.08	0.21	0.00
26	0.10	0.00	0.00	0.09	0.18	0.01	2.6	0.13	4.5	0.25	0.09	0.00
27	0.03	0.00	0.00	0.04	0.10	0.00	0.60	0.12	55	0.12	0.06	0.00
28	0.09	0.00	0.00	0.00	0.05	0.00	0.28	0.11	81	0.08	0.05	0.00
29	0.07	0.00	0.00	0.01	0.05	0.09	0.98	0.09	241	0.05	0.04	0.00
30	0.04	0.00	0.00	0.00	---	0.51	0.44	0.09	140	0.04	0.00	0.00
31	0.02	---	0.00	0.00	---	0.13	---	0.09	---	0.07	0.00	---
TOTAL	33.66	0.62	0.00	25.09	11.78	44.41	253.88	87.62	2,077.95	84.72	10.23	11.03
MEAN	1.09	0.02	0.00	0.81	0.41	1.43	8.46	2.83	69.3	2.73	0.33	0.37
MAX	20	0.24	0.00	13	6.9	19	121	52	1,230	52	4.1	10
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.09	0.03	0.04	0.00	0.00
AC-FT	67	1.2	0.00	50	23	88	504	174	4,120	168	20	22

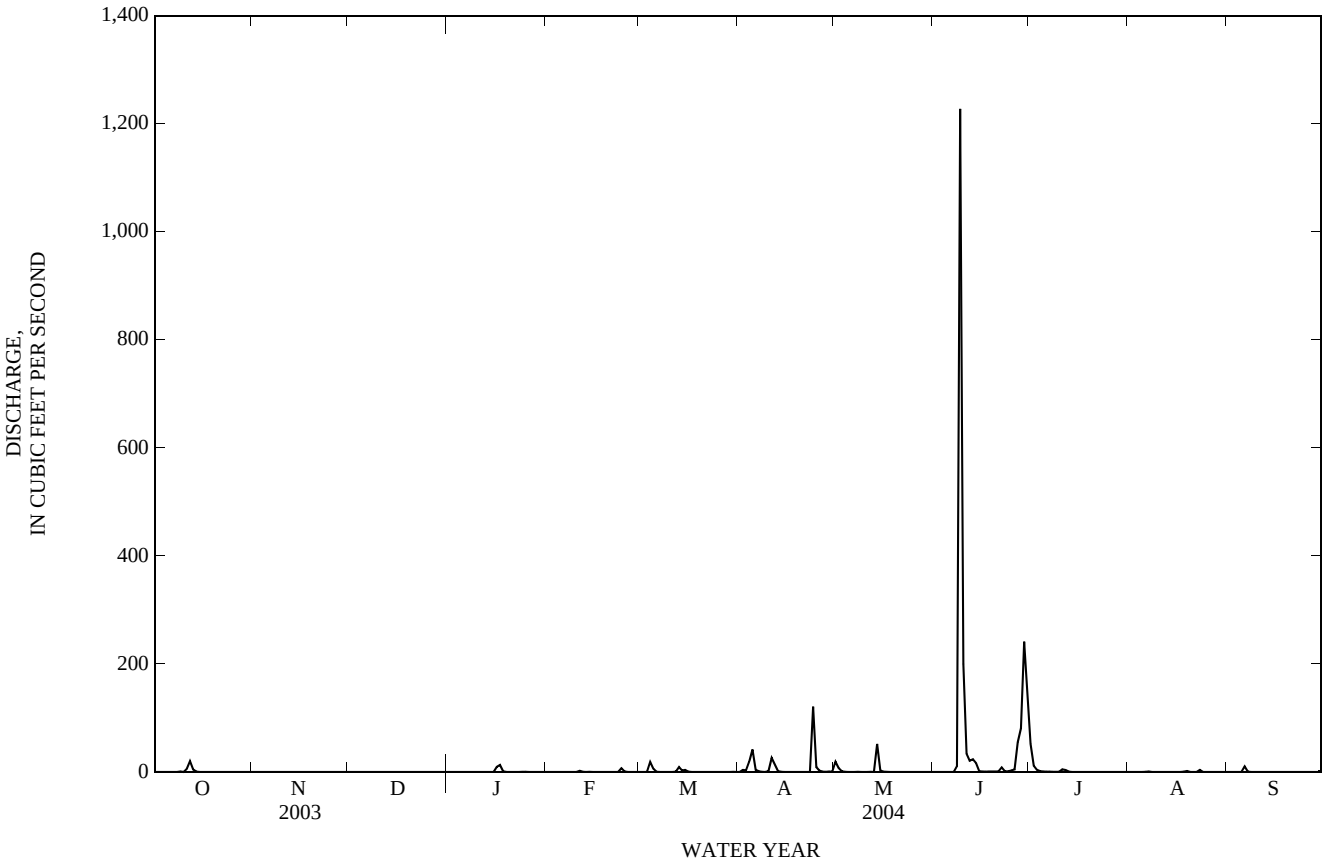
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

MEAN	25.0	8.64	7.70	7.02	4.89	4.90	8.82	33.3	21.3	23.3	3.66	12.2
MAX	771	77.0	155	173	71.0	93.7	116	576	151	679	49.5	187
(WY)	(1999)	(2001)	(1992)	(1968)	(1992)	(1992)	(1991)	(1993)	(1987)	(2002)	(2001)	(1973)
MIN	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00
(WY)	(1992)	(2000)	(1962)	(1996)	(1996)	(1962)	(1984)	(1961)	(1984)	(1984)	(1986)	(1960)

08178700 Salado Creek at Loop 410 at San Antonio, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 2004	
ANNUAL TOTAL	1,712.26		2,640.99			
ANNUAL MEAN	4.69		7.22		13.5	
HIGHEST ANNUAL MEAN					68.4	2002
LOWEST ANNUAL MEAN					0.27	1962
HIGHEST DAILY MEAN	309	Sep 12	1,230	Jun 9	11,600	Oct 17, 1998
LOWEST DAILY MEAN	0.00	Apr 12	0.00	Oct 2	0.00	Sep 1, 1960
ANNUAL SEVEN-DAY MINIMUM	0.00	May 8	0.00	Nov 2	0.00	Sep 1, 1960
MAXIMUM PEAK FLOW			3,460	Jun 9	i64,400	Oct 17, 1998
MAXIMUM PEAK STAGE			8.20	Jun 9	a22.40	Oct 17, 1998
ANNUAL RUNOFF (AC-FT)	3,400		5,240		9,770	
10 PERCENT EXCEEDS	6.2		4.1		7.9	
50 PERCENT EXCEEDS	0.07		0.07		0.60	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

i From indirect measurement of peak flow.
a From floodmark.



08178800 Salado Creek at Loop 13 at San Antonio, TX

LOCATION.--Lat 29°21'25", long 98°24'45", Bexar County, Hydrologic Unit 12100301, on right bank at upstream side of bridge on Loop 13 at San Antonio, 1.4 mi east of Brooks Air Force Base, and 3.3 mi upstream from Rosillo Creek.

DRAINAGE AREA.--189 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Sept. 1960 to current year. Prior to Oct. 2000, published as "(Lower Station) at San Antonio".

GAGE.--Water-stage recorder. Datum of gage is 526.95 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Several small diversions above station. Most of low flow comes from artesian wells and springs within the city of San Antonio.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Sept. 27, 1946, and Aug. 15, 1960, were about equal magnitude. Flood of Aug. 15, 1960, reached a stage of 26.8 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	9.3	8.8	9.7	13	9.3	431	24	224	11	7.8
2	13	9.9	9.5	9.0	9.2	12	79	104	24	77	11	9.4
3	12	10	10	8.9	8.9	12	115	33	29	49	10	9.6
4	12	10	9.7	8.8	9.0	17	131	26	27	36	9.8	10
5	12	11	9.1	8.6	11	146	659	24	25	27	8.4	11
6	14	10	8.2	7.9	11	31	81	24	25	25	8.8	34
7	35	9.9	8.3	7.7	10	17	56	26	24	23	15	164
8	19	10	8.4	8.1	10	13	27	41	63	20	13	24
9	40	10	9.0	7.7	9.8	11	18	27	309	19	11	14
10	28	9.9	8.4	8.2	15	11	16	24	286	20	10	11
11	25	9.6	8.6	8.7	24	10	129	25	88	27	8.9	10
12	181	10	9.8	8.6	44	15	118	29	61	92	8.7	8.5
13	57	9.9	11	8.3	18	88	36	26	55	34	7.2	7.6
14	26	9.6	11	9.3	19	52	19	76	54	24	8.0	11
15	17	9.7	10	21	19	160	15	48	50	19	7.0	23
16	15	11	9.9	45	13	36	14	31	43	17	7.5	13
17	13	14	9.6	166	11	19	13	28	45	17	7.6	9.3
18	12	16	10	38	11	14	13	27	43	16	7.2	9.1
19	12	14	9.8	17	10	13	12	26	45	15	21	8.7
20	12	11	9.3	12	10	13	11	25	46	15	17	8.3
21	11	10	8.7	11	9.6	12	10	26	48	14	11	7.7
22	11	10	9.0	9.9	9.7	11	11	25	94	16	8.4	8.4
23	10	10	8.7	10	10	10	10	25	67	23	15	20
24	9.9	8.8	8.7	19	103	14	660	25	107	25	25	9.8
25	9.7	9.1	8.7	40	63	12	99	25	242	19	14	7.7
26	11	9.3	8.2	18	20	12	43	25	119	15	11	8.0
27	27	9.9	8.7	12	14	10	30	25	232	16	9.0	7.5
28	14	9.2	9.2	10	12	9.2	18	23	200	16	11	7.3
29	10	9.2	8.2	9.9	12	14	20	25	413	15	13	7.4
30	10	9.5	8.3	13	---	26	22	25	741	17	9.7	6.4
31	11	---	8.0	10	---	12	---	24	---	14	7.8	---
TOTAL	701.6	311.5	283.3	580.4	535.9	845.2	2,494.3	1,374	3,629	986	343.0	493.5
MEAN	22.6	10.4	9.14	18.7	18.5	27.3	83.1	44.3	121	31.8	11.1	16.4
MAX	181	16	11	166	103	160	660	431	741	224	25	164
MIN	9.7	8.8	8.0	7.7	8.9	9.2	9.3	23	24	14	7.0	6.4
AC-FT	1,390	618	562	1,150	1,060	1,680	4,950	2,730	7,200	1,960	680	979

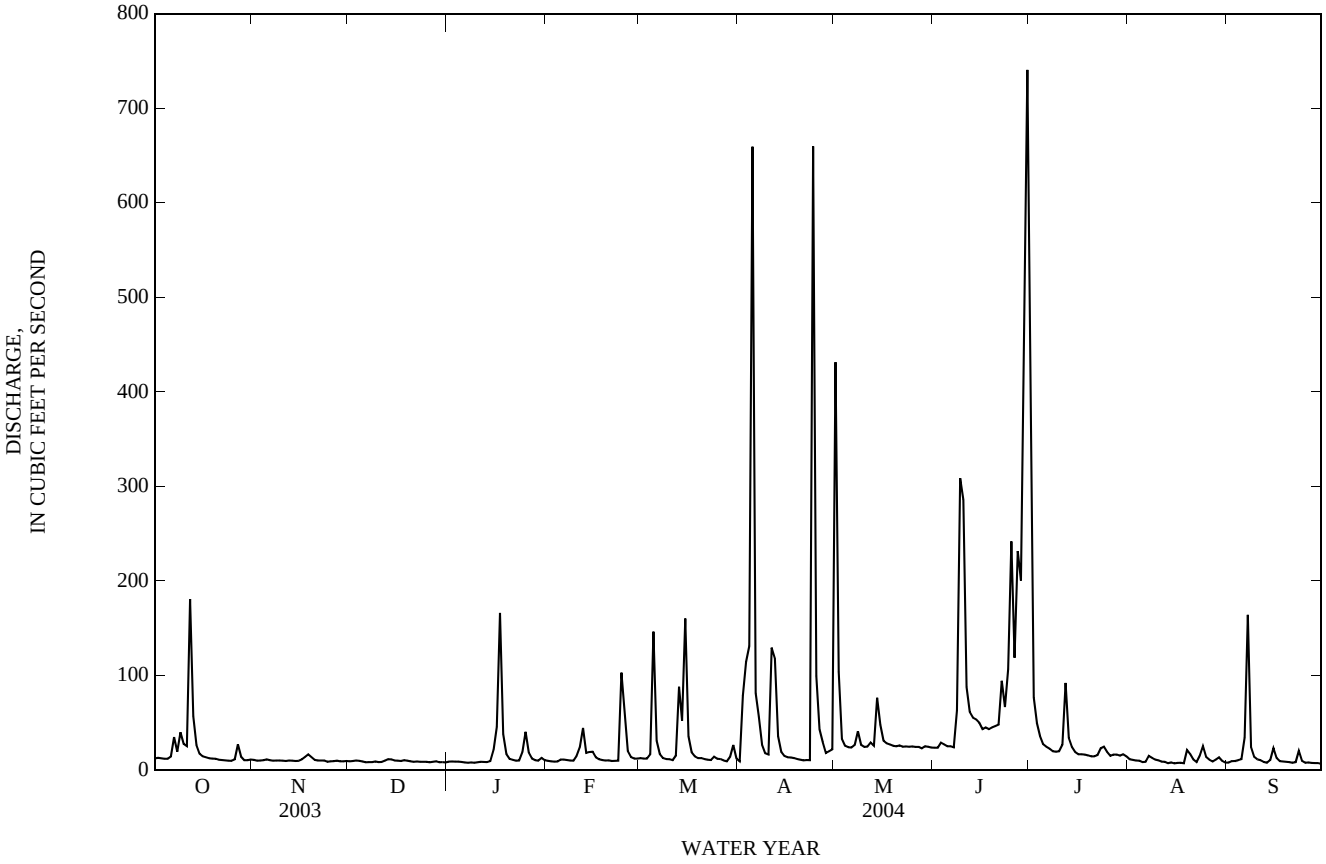
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

MEAN	66.8	41.5	39.7	39.3	39.0	33.8	41.7	73.2	67.6	48.2	26.9	46.1
MAX	1,161	147	376	379	285	206	188	358	349	651	176	400
(WY)	(1999)	(2001)	(1992)	(1968)	(1992)	(1992)	(1977)	(1972)	(1987)	(2002)	(1974)	(1973)
MIN	2.86	3.76	6.11	3.88	5.27	7.70	7.80	3.88	1.64	0.55	0.56	2.32
(WY)	(1997)	(2000)	(2000)	(1997)	(1996)	(1996)	(1984)	(1998)	(1967)	(1998)	(2000)	(1999)

08178800 Salado Creek at Loop 13 at San Antonio, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 2004	
ANNUAL TOTAL	15,898.5		12,577.7			
ANNUAL MEAN	43.6		34.4		47.1	
HIGHEST ANNUAL MEAN					149	1992
LOWEST ANNUAL MEAN					9.96	1996
HIGHEST DAILY MEAN	1,210	Sep 12	741	Jun 30	16,900	Oct 18, 1998
LOWEST DAILY MEAN	6.5	Aug 30	6.4	Sep 30	0.00	Aug 13, 1967
ANNUAL SEVEN-DAY MINIMUM	8.5	Dec 25	7.6	Aug 12	0.03	Jul 29, 1998
MAXIMUM PEAK FLOW			1,360	Apr 5	i47,800	Oct 17, 1998
MAXIMUM PEAK STAGE			12.62	Jun 30	a34.07	Oct 17, 1998
ANNUAL RUNOFF (AC-FT)	31,530		24,950		34,110	
10 PERCENT EXCEEDS	71		62		59	
50 PERCENT EXCEEDS	19		13		19	
90 PERCENT EXCEEDS	9.5		8.6		5.7	

i From indirect measurement of peak flow.
a From floodmark.



08178800 Salado Creek at Loop 13 at San Antonio, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Nov. 1968 to current year.
BIOCHEMICAL DATA: Nov. 1968 to Sept. 1998, Nov. 2000 to current year.
BIOLOGICAL DATA: May 1989 to Sept. 1995.
PESTICIDE DATA: Nov. 1968 to Sept. 1998, Nov. 2000 to current year.
SEDIMENT DATA: Oct. 1968 to Sept. 1973, Apr. 1996 to Sept. 1997, Nov. 2000 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Jan. 1987 to July 2000.
pH: Jan. 1987 to July 2000.
WATER TEMPERATURE: Jan. 1987 to July 2000.
DISSOLVED OXYGEN: Jan. 1987 to July 2000.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,290 microsiemens/cm, Aug. 23, 1994; minimum, 39 microsiemens/cm, Nov. 9, 1990.
pH: Maximum, 9.0 standard units, Apr. 26, 27, 1997; minimum, 7.0 standard units, Aug. 24, 1999.
WATER TEMPERATURE: Maximum, 31.0°C, July 17-20, 1988, July 30, 1993, July 17, 19, 1996; minimum, 0.0°C, Dec. 24, 1989.
DISSOLVED OXYGEN: Maximum, 16.7 mg/L, Jan. 27, 1988, Mar. 11, 1996; minimum, 0.6 mg/L, July 27, 1996.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L (71846)
OCT													
16...	1030	14	10	759	6.5	72	7.3	564	20.0	183	37.1	42.3	--
NOV													
18...	1110	14	10	744	6.5	74	7.9	975	20.0	330	76.0	73.8	--
DEC													
09...	1240	9.2	10	735	8.6	88	7.8	1,020	14.5	336	84.1	81.3	--
JAN													
13...	1230	8.3	10	749	10.2	99	7.9	1,010	13.0	311	87.3	88.0	--
FEB													
18...	1350	11	10	752	12.7	124	8.0	834	13.5	249	68.0	72.0	--
APR													
20...	1245	9.6	10	739	6.5	74	7.6	812	20.0	254	59.9	75.7	--
MAY													
13...	1400	25	10	743	5.7	69	7.3	771	23.5	260	53.3	66.5	--
JUN													
21...	1340	49	10	738	14.3	190	7.8	957	28.0	320	--b	--b	3.38
JUL													
15...	1220	19	10	740	5.5	73	7.7	714	28.5	231	52.7	56.0	--
AUG													
09...	1400	--	--	--	--	--	--	--	--	--	--	--	--
18...	1330	6.9	10	746	5.5	68	8.1	930	25.0	304	71.4	71.1	--
SEP													
09...	1400	13	10	740	5.4	66	7.9	444	23.5	142	27.4	30.7	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Biomass periphyton, ashfree drymass g/m2 (49954)	Biomass chlorophyll ratio, periphyton, number (70950)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)
OCT													
16...	<.04	--	--	.64	--	E.006n	.227	.074	.053	--	--	--	--
NOV													
18...	<.04	--	--	1.11	--	E.006n	.199	.065	.102	--	--	--	--
DEC													
09...	<.04	--	--	.83	--	E.005n	.031	.010	.033	--	--	<.006	<.006
JAN													
13...	<.04	--	--	.57	--	<.008	--	<.006	.015	--	--	<.006	E.009
FEB													
18...	<.04	4.64	1.05	1.07	.062	.019	--	<.006	.022	--	--	<.006	E.011
APR													
20...	<.04	2.53	.57	.59	.049	.015	.156	.051	.102	--	--	<.006	E.054
MAY													
13...	<.04	3.63	.82	.84	.056	.017	.209	.068	.118	--	--	<.006	E.019
JUN													
21...	2.63d	3.00	.68	1.21	1.75	.534	1.34	.436d	.52oc	--	--	<.006	E.012
JUL													
15...	E.02n	6.56	1.48	1.49	.030	.009	.359	.117	.155	--	--	<.006	E.011
AUG													
09...	--	--	--	--	--	--	--	--	--	12.4	424	--	--
18...	<.04	--	--	.59	--	<.008	.236	.077	.111	--	--	<.006	E.014
SEP													
09...	E.02n	4.41	1.00	1.01	.053	.016	.294	.096	.142	--	--	--	--

08178800 Salado Creek at Loop 13 at San Antonio, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyana-zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)
OCT													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
09...	<.006	<.005	<.005	.009	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
JAN													
13...	<.006	<.005	<.005	.010	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
FEB													
18...	<.006	<.005	<.005	.079	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	.006
APR													
20...	<.006	<.005	<.005	.866	<.050	<.010	<.004	E.054	<.030	<.005	<.006	<.018	<.003
MAY													
13...	<.006	<.005	<.005	.184	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
JUN													
21...	<.006	<.005	<.005	.048	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
JUL													
15...	<.006	<.005	<.005	.110	<.050	<.010	<.004	E.050	<.020	<.005	<.006	<.018	<.003
AUG													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.006	<.005	<.005	.020	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
SEP													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)
OCT													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
09...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
JAN													
13...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
FEB													
18...	E.004t	E.005n	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
APR													
20...	<.012	.012	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
MAY													
13...	<.012	.007	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
JUN													
21...	<.012	.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
JUL													
15...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
AUG													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
SEP													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

08178800 Salado Creek at Loop 13 at San Antonio, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Linuron water fltrd 0.7u GF ug/L (82666)	Mala-thion, water, fltrd, ug/L (39532)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome-ton, water, fltrd, ug/L (04037)
OCT													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
09...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.04
JAN													
13...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.05
FEB													
18...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.04
APR													
20...	<.035	<.027	<.015	E.008n	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.04
MAY													
13...	<.035	<.027	<.015	<.013	<.010	<.003	<.007	<.003	<.010	<.004	.097	<.011	.06
JUN													
21...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01
JUL													
15...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.03
AUG													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.04
SEP													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propy-zamide, water, fltrd 0.7u GF ug/L (82676)	Propa-chlor, water, fltrd, ug/L (04024)	Pro-panil, water, fltrd 0.7u GF ug/L (82679)	Propar-gite, water, fltrd 0.7u GF ug/L (82685)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment dis-charge, tons/d (80155)
OCT													
16...	--	--	--	--	--	--	--	--	--	--	--	9	.34
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	117	4.4
DEC													
09...	<.004	<.025	<.011	<.02	<.005	E.12	<.034	<.02	<.010	<.002	<.009	32	.79
JAN													
13...	<.004	<.025	<.011	<.02	.430	.23	<.034	<.02	<.010	<.002	<.009	20	.45
FEB													
18...	<.004	<.025	<.011	<.02	.026	.16	<.034	<.02	<.010	<.002	<.009	37	1.1
APR													
20...	<.004	<.025	<.011	<.02	.016	.14	<.034	<.02	<.010	<.002	<.009	108	2.8
MAY													
13...	<.004	<.025	<.011	<.02	.009	.09	<.034	<.02	<.010	<.002	<.009	59	4.0
JUN													
21...	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009	9	1.2
JUL													
15...	<.004	<.025	<.011	<.02	<.010	.06	<.034	<.02	<.010	<.002	<.009	83	4.3
AUG													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.004	<.025	<.011	<.02	.011	.12	<.034	<.02	<.010	<.002	<.009	94	1.8
SEP													
09...	--	--	--	--	--	--	--	--	--	--	--	14	.49

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
c -- See laboratory comment
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL
o -- Result determined by alternate method
t -- Below the long-term MDL

Null value qualifier codes used in this table:
b -- Sample broken/spilled in shipment

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08178880 Medina River at Bandera, TX

LOCATION.--Lat 29°43'25", long 99°04'11", Bandera County, Hydrologic Unit 12100302, on left bank, 40 ft downstream from centerline of State Highway 173 at Bandera, 1.9 mi upstream from Bandera Creek, and 5.6 mi downstream from Indian Creek.

DRAINAGE AREA.--328 mi^2.

PERIOD OF RECORD.--Oct. 1982 to current year. Water-quality records: Chemical data: Jan. 1983 to Sept. 1993. Biochemical data: Jan. 1983 to Sept. 1993. Pesticide data: Jan. 1983 to Sept. 1993.

REVISED RECORDS.--WDR TX-02-05: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,189.46 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good. No known regulation. There are several small diversions upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1880, 46.62 ft Aug. 2, 1978.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	54	56	61	63	55	107	406	115	1,560	198	114
2	48	54	56	61	63	56	175	363	111	1,170	192	116
3	48	54	56	61	62	56	225	327	107	958	197	113
4	47	54	56	61	63	60	172	307	104	834	180	115
5	48	55	56	60	63	60	227	289	101	736	171	114
6	48	55	56	59	61	61	3,470	281	95	667	164	131
7	49	55	56	59	59	58	1,450	280	92	600	174	137
8	50	55	56	59	58	56	831	330	111	555	179	129
9	56	55	56	59	e58	54	645	275	5,890	515	175	117
10	61	56	56	58	58	53	574	256	1,590	473	168	112
11	98	56	e57	57	58	52	724	253	809	437	163	110
12	99	56	e58	57	58	e57	616	250	608	429	155	108
13	111	56	e59	56	57	97	514	243	877	390	151	105
14	103	56	e60	57	56	181	463	270	683	372	146	107
15	89	56	e61	62	55	939	429	226	552	346	141	107
16	82	56	61	95	54	508	402	211	480	332	137	105
17	77	58	60	92	53	349	380	201	424	317	134	103
18	72	59	60	71	53	286	357	195	386	304	131	99
19	69	56	60	67	52	248	337	187	349	288	128	97
20	68	56	60	65	52	224	e319	175	323	274	128	94
21	65	56	61	64	51	202	307	167	309	259	126	94
22	64	56	62	64	52	180	293	160	441	248	127	95
23	62	56	60	64	52	167	283	155	409	247	191	93
24	60	56	60	64	59	162	1,300	151	491	255	160	98
25	58	56	60	65	59	155	490	147	518	243	139	97
26	56	56	61	64	58	e145	429	142	412	240	130	94
27	55	56	61	64	56	e139	383	138	393	221	124	95
28	55	56	61	63	54	e130	356	132	423	213	120	95
29	54	56	60	63	56	128	459	130	947	206	119	97
30	54	56	60	63	---	121	372	127	4,050	231	116	94
31	54	---	61	63	---	113	---	118	---	214	114	---
TOTAL	2,009	1,672	1,823	1,978	1,653	5,152	17,089	6,892	22,200	14,134	4,678	3,185
MEAN	64.8	55.7	58.8	63.8	57.0	166	570	222	740	456	151	106
MAX	111	59	62	95	63	939	3,470	406	5,890	1,560	198	137
MIN	47	54	56	56	51	52	107	118	92	206	114	93
AC-FT	3,980	3,320	3,620	3,920	3,280	10,220	33,900	13,670	44,030	28,030	9,280	6,320

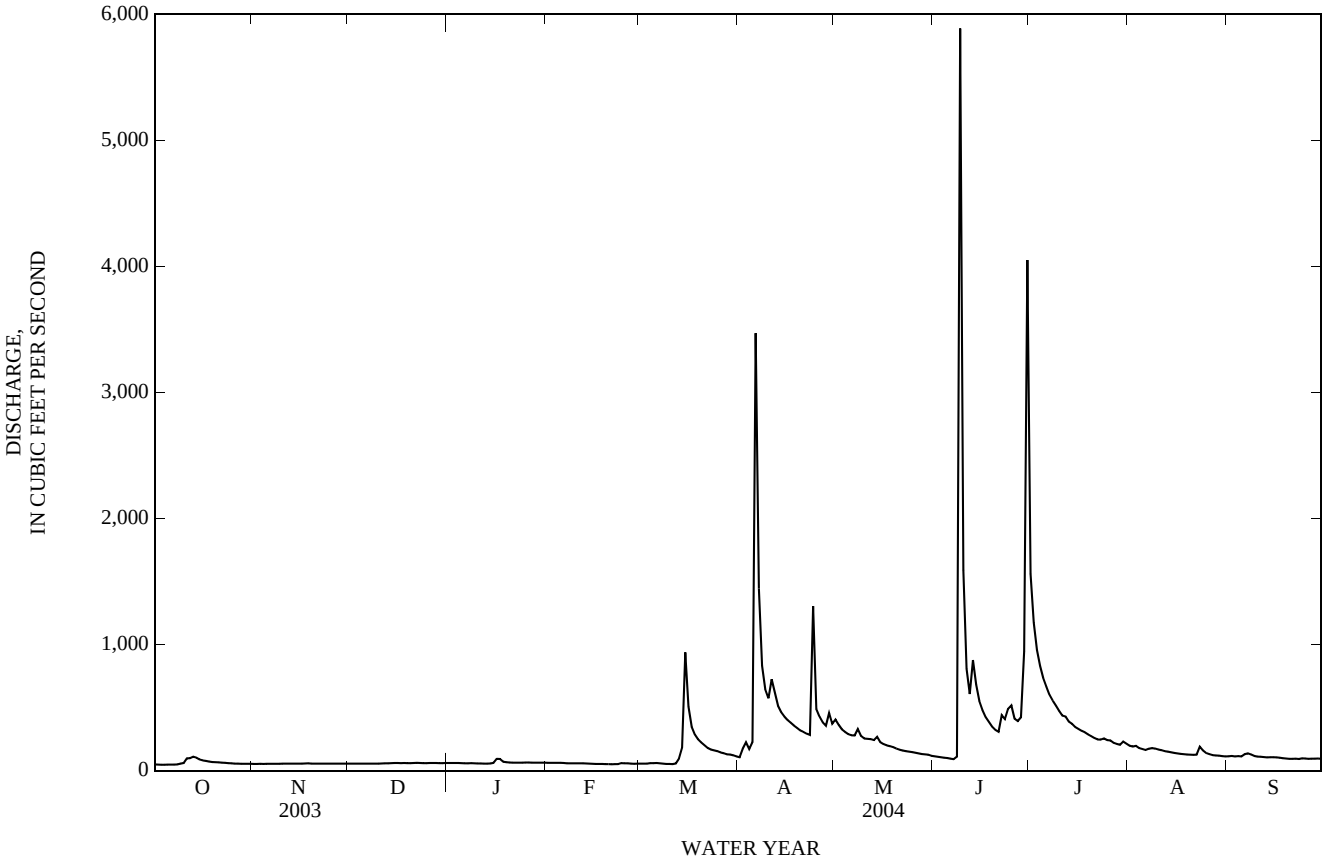
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, BY WATER YEAR (WY)

MEAN	123	138	157	128	131	159	145	158	315	487	69.3	86.4
MAX	630	723	1,277	638	922	985	570	696	2,784	7,871	248	364
(WY)	(1987)	(2001)	(1992)	(1992)	(1992)	(1992)	(2004)	(1987)	(1987)	(2002)	(2002)	(2002)
MIN	25.7	27.2	27.0	28.4	27.0	24.3	17.7	14.6	8.77	2.36	2.00	1.28
(WY)	(1985)	(2000)	(1994)	(1990)	(2000)	(2000)	(2000)	(1996)	(1996)	(1996)	(1996)	(2000)

08178880 Medina River at Bandera, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004	
ANNUAL TOTAL	32,671		82,465			
ANNUAL MEAN	89.5		225		175	
HIGHEST ANNUAL MEAN					791	2002
LOWEST ANNUAL MEAN					20.3	2000
HIGHEST DAILY MEAN	553	Jun 11	5,890	Jun 9	104,000	Jul 5, 2002
LOWEST DAILY MEAN	45	Jun 3	47	Oct 4	0.00	Aug 4, 1996
ANNUAL SEVEN-DAY MINIMUM	47	May 29	48	Oct 1	0.00	Aug 4, 1996
MAXIMUM PEAK FLOW			24,700	Jun 9	i159,000	Jul 5, 2002
MAXIMUM PEAK STAGE			20.39	Jun 9	a38.91	Jul 5, 2002
INSTANTANEOUS LOW FLOW					0.00	Aug 4, 1996
ANNUAL RUNOFF (AC-FT)	64,800		163,600		126,800	
10 PERCENT EXCEEDS	134		446		285	
50 PERCENT EXCEEDS	74		105		64	
90 PERCENT EXCEEDS	52		56		20	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated



08179500 Medina Lake near San Antonio, TX

LOCATION.--Lat 29°32'24", long 98°56'01", Medina County, Hydrologic Unit 12100302, at gate-operating platform, 576 ft from the left end of Medina Dam on Medina River, 4.2 mi upstream from Medina diversion dam, 13 mi north of Castroville, 28 mi west of San Antonio, and 70.4 mi from mouth.

DRAINAGE AREA.--634 mi^2.

PERIOD OF RECORD.--May 1913 to Sept. 1994, Aug. 1997 to current year. Prior to Oct. 1965, end of month contents only from records provided by Bexar-Medina-Atascosa Counties Water Control and Improvement District No. 1. Water-quality records: Chemical data: Oct. 1969 to Sept. 1984.

REVISED RECORDS.--WSP 1923: 1953(M), Drainage area.

GAGE.--Water-stage recorder. Datum of the gage is NGVD of 1929. Prior to Oct. 1999, datum of gage was 7.81 ft higher. Satellite telemeter at station.

REMARKS.--Records good. The lake is formed by a gravity-type concrete dam, 1,580 ft long. The dam was completed and storage began May 7, 1913. The uncontrolled spillway is a cut through natural rock 880 ft long, with a 3-foot wide cutoff wall, located near right end of dam. The dam and lake are owned and operated by Bexar-Medina-Atascosa Counties Water Control and Improvement District No. 1. Water is released downstream to Medina Diversion Lake where it is diverted into Medina Canal by the Water District. Capacity table based on survey made by the Texas Water Development Board, July 1995. Conservation pool storage is 254,843 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	1,076.2
Crest of spillways	1,064.2
Water-supply outlet pipe (invert)	958.7
Lowest gated outlet (invert)	912.2

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 322,700 acre-ft July 5, 2002, elevation, 1074.65 ft; minimum contents, 780 acre-ft, Apr. 11, 1948, elevation, 936.2 ft (present datum).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 266,000 acre-ft, June 30, elevation, 1,066.01 ft; minimum contents, 219,100 acre-ft, Jan. 14, elevation, 1,058.06 ft.

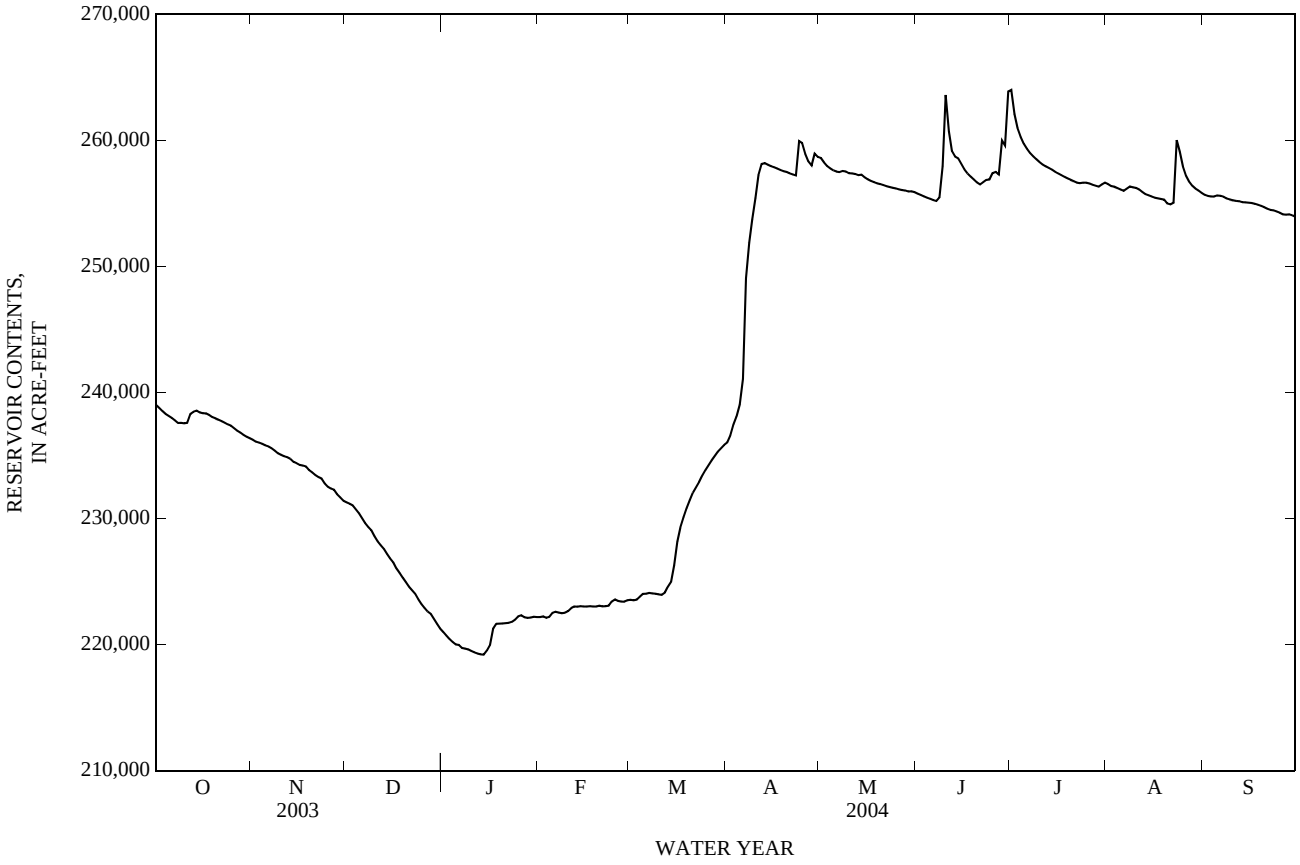
RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	239,000	236,300	231,300	221,000	222,200	223,600	236,000	258,600	255,800	264,000	256,500	255,700
2	238,800	236,100	231,200	220,700	222,200	223,500	236,600	258,300	255,700	262,100	256,400	255,600
3	238,500	236,000	231,000	220,500	222,100	223,600	237,500	258,000	255,600	261,000	256,300	255,600
4	238,300	235,900	230,700	220,200	222,200	223,800	238,100	257,800	255,500	260,300	256,200	255,500
5	238,200	235,800	230,400	220,000	222,500	224,000	239,000	257,600	255,400	259,700	256,100	255,600
6	238,000	235,700	230,000	220,000	222,600	224,000	241,100	257,500	255,300	259,300	256,000	255,600
7	237,800	235,600	229,600	219,700	222,500	224,100	249,100	257,500	255,200	259,000	256,200	255,500
8	237,600	235,400	229,300	219,700	222,500	224,100	251,900	257,600	255,500	258,700	256,300	255,400
9	237,600	235,200	229,100	219,600	222,500	224,000	253,700	257,500	258,000	258,500	256,300	255,300
10	237,600	235,100	228,600	219,500	222,700	224,000	255,400	257,400	263,600	258,300	256,200	255,300
11	237,600	234,900	228,200	219,400	222,900	224,000	257,200	257,400	260,700	258,100	256,100	255,200
12	238,300	234,900	227,900	219,300	223,000	224,100	258,100	257,300	259,200	257,900	255,900	255,200
13	238,500	234,700	227,600	219,200	223,000	224,600	258,200	257,200	258,700	257,800	255,700	255,100
14	238,600	234,500	227,200	219,200	223,000	225,000	258,100	257,300	258,600	257,700	255,600	255,100
15	238,400	234,400	226,800	219,500	223,000	226,300	258,000	257,100	258,100	257,500	255,500	255,100
16	238,400	234,300	226,500	220,000	223,000	228,200	257,900	256,900	257,700	257,400	255,500	255,000
17	238,300	234,200	226,000	221,300	223,000	229,300	257,800	256,800	257,400	257,300	255,400	255,000
18	238,200	234,100	225,700	221,600	223,000	230,100	257,600	256,700	257,100	257,100	255,400	254,900
19	238,100	233,900	225,300	221,700	223,000	230,800	257,600	256,600	256,900	257,000	e255,300	254,800
20	238,000	233,700	225,000	221,700	223,100	231,500	257,500	256,500	256,700	256,900	e255,000	254,700
21	237,800	233,500	224,600	221,700	223,000	232,000	257,400	256,500	256,500	256,800	254,900	254,600
22	237,700	233,300	224,300	221,700	223,000	232,500	257,300	256,400	256,700	256,600	255,100	254,500
23	237,600	233,200	224,000	221,800	223,100	232,900	257,200	256,300	256,900	256,600	260,000	254,400
24	237,500	232,800	223,600	222,000	223,400	233,400	259,900	256,200	e256,900	256,700	259,100	254,400
25	237,400	232,500	223,200	222,200	223,600	233,800	259,800	256,200	e257,400	256,600	257,900	254,300
26	237,200	232,400	222,900	222,300	223,500	234,200	258,900	256,100	e257,500	256,600	257,200	254,100
27	237,000	232,300	222,600	222,200	223,400	234,600	258,300	256,100	e257,300	256,500	256,700	254,100
28	236,800	231,900	222,400	222,100	223,400	235,000	258,000	256,000	e260,000	256,400	256,400	254,100
29	236,600	231,700	222,100	222,100	223,500	235,300	259,000	255,900	259,600	256,300	256,200	254,100
30	236,500	231,400	221,700	222,200	---	235,600	258,700	256,000	263,900	256,500	256,000	253,900
31	236,400	---	221,300	222,200	---	235,800	---	255,900	---	256,700	255,800	---
MEAN	237,800	234,200	226,500	220,800	222,900	228,600	253,400	256,900	257,600	258,000	256,200	254,900
MAX	239,000	236,300	231,300	222,300	223,600	235,800	259,900	258,600	263,900	264,000	260,000	255,700
MIN	236,400	231,400	221,300	219,200	222,100	223,500	236,000	255,900	255,200	256,300	254,900	253,900

CAL YR 2003 MEAN 246,200 MAX 256,500 MIN 221,300
WTR YR 2004 MEAN 242,400 MAX 264,000 MIN 219,200

e Estimated

08179500 Medina Lake near San Antonio, TX—Continued



08180000 Medina Canal near Riomedina, TX

LOCATION.--Lat 29°30'19", long 98°54'11", Medina County, Hydrologic Unit 12100302, on left bank of canal, 350 ft downstream from county road bridge, 1,900 ft downstream from head of canal and Medina Diversion Dam, 4.6 mi downstream from Medina Dam, 4.7 mi north of Riomedina, and 25.0 mi northwest of San Antonio.

PERIOD OF RECORD.--Mar. 1922 to May 1934, July 1957 to Sept. 1993, Feb. 2001 to current year.

REVISED RECORDS.--WSP 568: 1922. WSP 1712: 1922(M), 1924, 1926.

GAGE.--Water-stage recorder. Datum of gage is 910 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. Station is above all diversions from canal. Canal diverts water from right end of Medina Diversion Dam 1,900 ft upstream from gage. Water is used for irrigation downstream near LaCoste and Natalia. Prior to Nov. 1984, double-barrel flume 54 ft downstream from gage. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	19	15	0.00	0.00	34	50	16	122	0.00	26	50
2	0.00	19	0.00	0.00	0.00	34	50	16	139	0.00	39	50
3	0.00	19	0.00	0.00	0.00	34	49	16	153	0.00	57	50
4	0.00	19	0.00	0.00	0.00	34	41	16	154	0.00	80	50
5	0.00	19	12	0.00	0.00	29	0.00	16	122	0.00	90	50
6	0.00	19	32	0.00	0.00	14	0.00	16	98	14	93	49
7	18	19	32	13	0.00	15	4.7	16	98	24	76	52
8	45	19	31	34	0.00	15	13	16	52	24	53	57
9	49	19	45	42	0.00	15	13	16	9.3	24	53	57
10	40	19	50	41	0.00	26	12	16	17	24	66	56
11	41	19	42	41	0.00	40	13	16	17	24	79	57
12	41	19	42	e56	0.00	46	13	16	16	24	79	56
13	29	19	42	e70	20	48	13	16	17	25	78	57
14	17	19	41	70	36	50	13	16	16	24	78	57
15	16	19	35	57	e62	36	13	16	16	24	78	57
16	16	19	29	29	e58	22	14	16	16	52	78	68
17	16	19	29	5.3	e54	22	14	16	16	75	78	82
18	17	20	29	1.2	50	22	14	16	16	75	78	86
19	17	20	22	0.00	47	22	14	64	15	88	79	90
20	17	20	0.21	0.00	32	22	14	89	15	97	78	89
21	17	29	0.08	0.00	33	22	14	0.08	47	98	79	90
22	25	41	0.00	0.00	33	22	15	49	56	99	79	93
23	30	42	0.00	0.00	33	22	15	54	40	102	65	94
24	19	42	0.00	0.00	33	22	16	0.00	40	100	52	91
25	19	41	0.00	0.00	33	22	16	62	40	101	51	91
26	19	41	0.00	0.00	33	22	16	115	41	92	51	89
27	19	41	0.00	0.00	33	22	15	125	41	76	51	89
28	19	42	0.00	0.00	33	22	15	139	42	76	51	92
29	19	42	0.00	0.00	34	22	16	133	34	66	50	86
30	19	42	0.00	0.00	---	39	16	117	0.00	10	51	84
31	19	---	0.00	0.00	---	50	---	119	---	25	50	---
TOTAL	603.00	786	528.29	459.50	657.00	867	521.70	1,354.08	1,505.30	1,463.00	2,046	2,119
MEAN	19.5	26.2	17.0	14.8	22.7	28.0	17.4	43.7	50.2	47.2	66.0	70.6
MAX	49	42	50	70	62	50	50	139	154	102	93	94
MIN	0.00	19	0.00	0.00	0.00	14	0.00	0.00	0.00	0.00	26	49
AC-FT	1,200	1,560	1,050	911	1,300	1,720	1,030	2,690	2,990	2,900	4,060	4,200

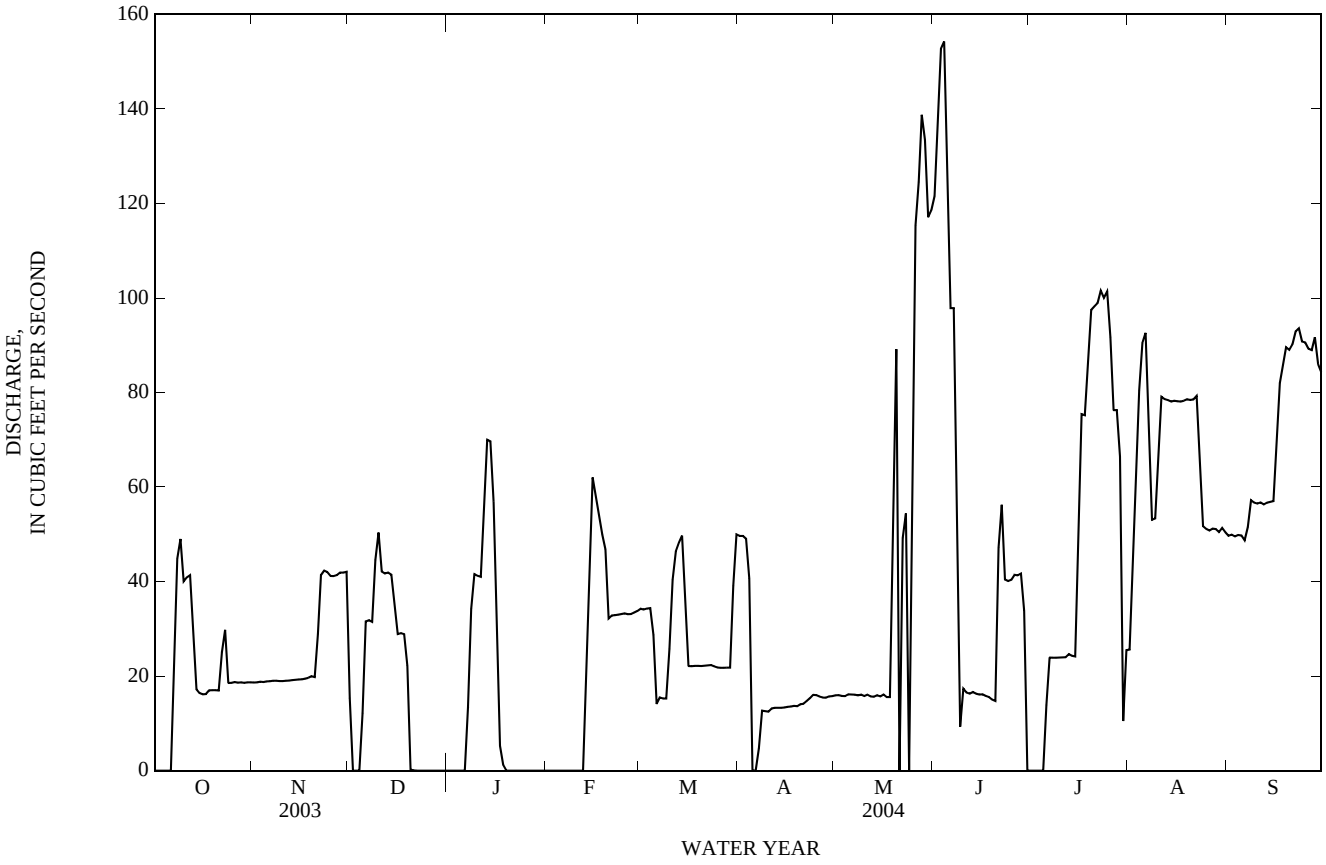
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004h, BY WATER YEAR (WY)

MEAN	37.5	23.4	18.8	17.8	20.2	34.5	43.1	54.2	82.5	77.7	76.4	47.4
MAX	105	65.3	61.5	65.6	83.0	95.4	131	157	179	179	149	132
(WY)	(1990)	(1989)	(1989)	(1971)	(1971)	(1971)	(1972)	(1971)	(2002)	(1978)	(1989)	(1989)
MIN	1.77	0.00	0.00	0.00	0.00	0.00	2.82	3.33	14.2	9.02	16.8	0.00
(WY)	(1974)	(1990)	(1985)	(1985)	(2003)	(2001)	(1992)	(1975)	(1986)	(2002)	(1971)	(1925)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004h	
ANNUAL TOTAL	12,884.85		12,909.87			
ANNUAL MEAN	35.3		35.3		44.7	
HIGHEST ANNUAL MEAN					95.2	1989
LOWEST ANNUAL MEAN					14.8	1926
HIGHEST DAILY MEAN	128	Jun 2	154	Jun 4	216	May 6, 1971
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Nov 1, 1922
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Dec 22	0.00	Nov 1, 1922
MAXIMUM PEAK FLOW			162	Jun 2	434	Jul 5, 2002
MAXIMUM PEAK STAGE			11.64	Jun 2	12.61	Jul 5, 2002
ANNUAL RUNOFF (AC-FT)	25,560		25,610		32,370	
10 PERCENT EXCEEDS	96		85		112	
50 PERCENT EXCEEDS	25		24		32	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

h See PERIOD OF RECORD paragraph.
e Estimated

08180000 Medina Canal near Riomedina, TX—Continued



08180010 Diversion Lake near Riomedina, TX

LOCATION.--Lat 29°30'36", long 98°54'04", Medina County, Hydrologic Unit 12100302, on right wing wall of dam, 0.90 mi north of county road 2615, 4.2 mi downstream of Medina dam, 6.1 mi north of Rio Medina, and 66.2 mi from mouth.

DRAINAGE AREA.--649 mi^2.

PERIOD OF RECORD.--Feb. 2001 to Sept. 30, 2004 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily contents, which are fair. The lake is formed by a gravity-type dam, 440 ft long, built on a radius of 700 ft. It is an overflow type, open spillway, with the spillway in the center of the crest. The dam was completed and impoundment began around May 1912. On the west end of the dam are headgates and control valves for the intakes to Medina Canal. The dam and lake are owned and operated by Bexar-Medina-Atascosa Counties Water Control and Improvement District No. 1. Water is diverted to Medina Canal by the Water District for downstream irrigation. Capacity table based on volumetric survey by the Texas Water Development Board, July 1995. Conservation pool storage is 2,560 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	921.6
Crest of spillway	919.0

EXTREMES FOR PERIOD OF RECORD.--Maximum contents 6,570 acre-ft, July 5, 2002, elevation 933.34 ft; minimum contents, 1,760 acre-ft, June 12, 13, 2001, elevation, 913.56 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,070 acre-ft, June 30, elevation, 921.77 ft; minimum contents, 2,460 acre-ft, Jan. 14, elevation, 918.41 ft.

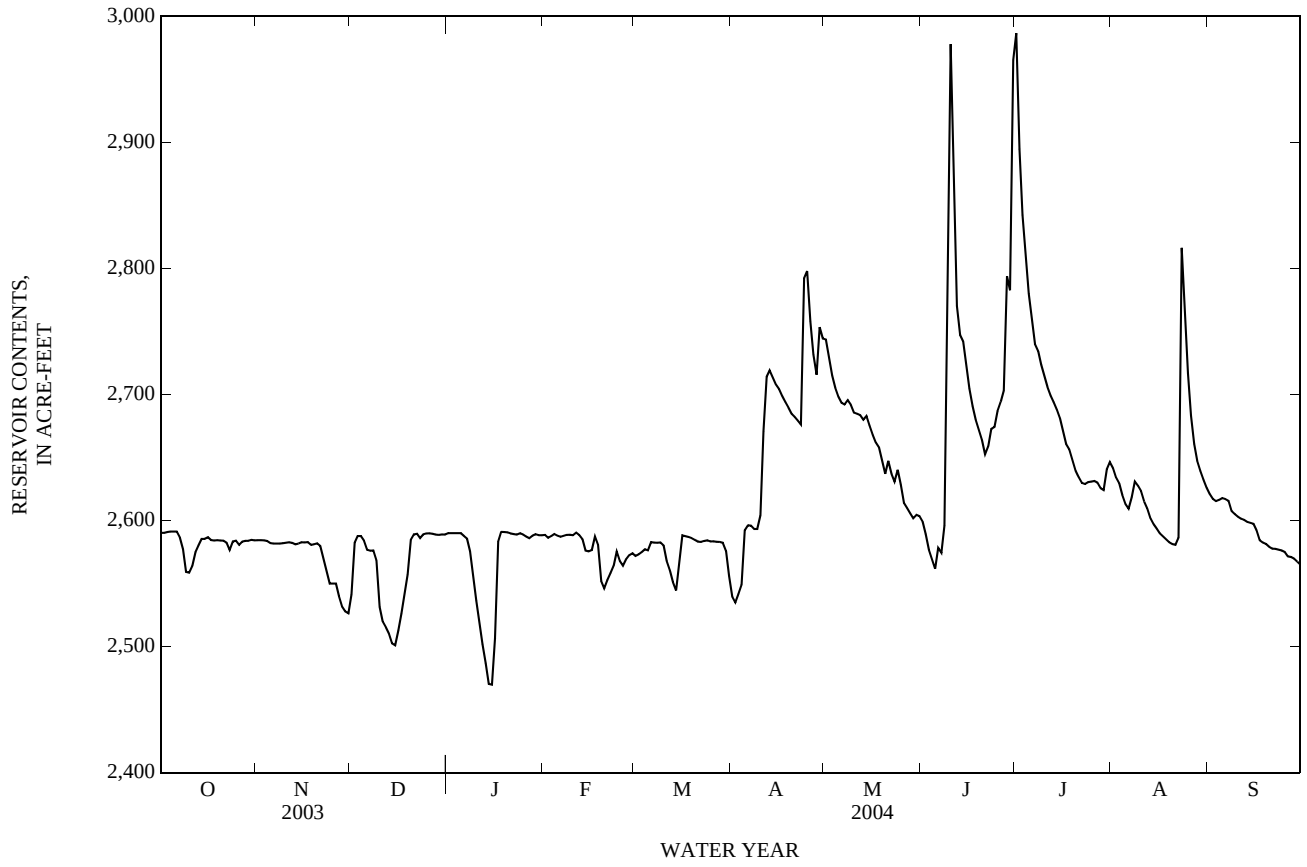
RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,590	2,580	2,540	e2,590	2,590	2,570	2,540	2,740	2,600	2,990	2,640	2,620
2	2,590	2,580	2,580	e2,590	2,590	2,570	2,530	2,730	2,590	2,890	2,630	2,620
3	2,590	2,580	2,590	e2,590	2,590	2,570	2,540	2,720	2,580	2,840	2,630	2,620
4	2,590	2,580	2,590	e2,590	2,590	2,580	2,550	2,710	2,570	2,810	2,620	2,620
5	2,590	2,580	2,580	e2,590	2,590	2,580	2,590	2,700	2,560	2,780	2,610	2,620
6	2,590	2,580	2,580	2,590	2,590	2,580	2,600	2,690	2,580	e2,760	2,610	2,620
7	2,590	2,580	2,580	2,590	2,590	2,580	2,600	2,690	2,570	e2,740	2,620	2,620
8	2,580	2,580	2,580	2,580	2,590	2,580	2,590	2,700	2,600	2,730	2,630	2,610
9	2,560	2,580	2,570	2,560	2,590	2,580	2,590	2,690	2,690	2,720	2,630	2,610
10	2,560	2,580	2,530	2,540	2,590	2,580	2,600	2,690	2,980	2,710	2,620	2,600
11	2,560	2,580	2,520	2,520	2,590	2,570	2,670	2,680	2,840	2,710	2,610	2,600
12	2,570	2,580	2,520	2,500	2,590	2,560	2,710	2,680	2,770	2,700	2,610	2,600
13	2,580	2,580	2,510	2,490	2,590	2,550	2,720	2,680	2,750	2,690	2,600	2,600
14	2,590	2,580	2,500	2,470	2,580	2,540	2,710	2,680	2,740	2,690	2,600	2,600
15	2,590	2,580	2,500	2,470	2,580	2,570	2,710	2,680	2,720	2,680	2,590	2,600
16	2,590	2,580	2,510	2,510	2,580	2,590	2,700	2,670	2,700	2,670	2,590	2,590
17	2,580	2,580	2,530	2,580	2,590	2,590	2,700	2,660	2,690	2,660	2,590	2,580
18	2,580	2,580	2,540	2,590	2,580	2,590	2,690	2,660	2,680	2,660	2,590	2,580
19	2,580	2,580	2,560	2,590	2,550	2,590	2,690	2,650	2,670	2,650	2,580	2,580
20	2,580	2,580	2,580	2,590	2,550	2,580	2,680	2,640	2,660	2,640	2,580	2,580
21	2,580	2,580	2,590	2,590	2,550	2,580	2,680	2,650	2,650	2,630	2,580	2,580
22	2,580	2,570	2,590	2,590	2,560	2,580	2,680	2,640	2,660	2,630	2,590	2,580
23	2,580	2,560	2,590	2,590	2,560	2,580	2,680	2,630	2,670	2,630	2,820	2,580
24	2,580	2,550	2,590	2,590	2,580	2,580	2,790	2,640	2,670	2,630	2,770	2,580
25	2,580	2,550	2,590	2,590	2,570	2,580	2,800	2,630	2,690	2,630	2,720	2,580
26	2,580	2,550	2,590	2,590	2,560	2,580	2,760	2,610	2,690	2,630	2,680	2,570
27	2,580	2,540	2,590	2,590	2,570	2,580	2,730	2,610	2,700	2,630	2,660	2,570
28	2,580	2,530	2,590	2,590	2,570	2,580	2,720	2,610	2,790	2,630	2,650	2,570
29	2,580	2,530	2,590	2,590	2,570	2,580	2,750	2,600	2,780	2,620	2,640	2,570
30	2,580	2,530	2,590	2,590	---	2,580	2,740	2,600	2,970	2,640	2,630	2,570
31	2,580	---	2,590	2,590	---	2,560	---	2,600	---	2,650	2,630	---
MEAN	2,580	2,570	2,560	2,570	2,580	2,580	2,670	2,660	2,690	2,700	2,630	2,590
MAX	2,590	2,580	2,590	2,590	2,590	2,590	2,800	2,740	2,980	2,990	2,820	2,620
MIN	2,560	2,530	2,500	2,470	2,550	2,540	2,530	2,600	2,560	2,620	2,580	2,570

CAL YR 2003 MEAN 2,460 MAX 2,670 MIN 1,790
WTR YR 2004 MEAN 2,620 MAX 2,990 MIN 2,470

e Estimated

08180010 Diversion Lake near Riomedina, TX—Continued



08180500 Medina River near Riomedina, TX

LOCATION.--Lat 29°29'53", long 98°54'16", Medina County, Hydrologic Unit 12100302, on left bank at bridge at Haby's Crossing, 0.9 mi downstream from Bexar-Medina-Atascosa Counties Water Control and Improvement District No. 1 Diversion Dam, 4.2 mi northwest of Riomedina, 10.0 mi north of Castroville, 10.4 mi upstream from San Geronimo Creek, and 66.4 mi upstream from mouth.

DRAINAGE AREA.--650 mi^2.of which 634 mi^2 is above dam forming Medina Lake.

PERIOD OF RECORD.--Jan. 1922 to Sept. 1934 (daily record of flow over dam and monthly or annual record of seepage under dam), Jan. 1953 to Sept. 1973, Jan. 2001 to current year (daily mean discharges less than 400 ft^3/s).

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 857.28 ft above NGVD of 1929 (river profile survey). Prior to Sept. 30, 1934, water-stage recorder at upstream side of Medina Diversion Dam 0.9 mi upstream at different datum. Jan. 1953 to July 15, 1973, water-stage recorder on left bank 233 ft upstream from bridge at Haby's Crossing at different datum. July 27, 1973 to Sept. 30, 1973, nonrecording gage on left bank 233 ft upstream from bridge at Haby's Crossing at different datum. Satellite telemeter at station.

REMARKS.--Records fair. Since installation of gage in water year 1922, at least 10% of contributing drainage area has been regulated. A large part of the streamflow is lost into the Edwards and associated limestones where the Balcones Fault crosses the basin between the upstream end of Medina Lake and about 5 mi downstream from Medina Dam, or 0.9 mi downstream from Medina Diversion Dam. There are several small diversions below Medina Diversion Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 33.88 ft, July. 5, 2002; minimum discharge, 0.00 ft^3/s, on several days.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.30 ft, June 30 (discharge not determined); minimum discharge, 27 ft^3/s, on several days, gage height, 0.77 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	58	28	103	71	37	31	---	115	---	232	187
2	85	58	55	104	69	35	32	788	87	---	234	173
3	86	59	73	104	65	36	31	674	59	---	242	167
4	87	58	72	106	74	41	33	598	50	---	194	168
5	87	56	68	e105	71	39	83	538	48	---	155	173
6	87	57	38	e104	68	55	101	499	58	---	153	167
7	72	56	37	e41	65	56	101	490	52	898	169	164
8	43	55	38	e41	66	54	90	515	98	800	207	136
9	35	56	41	e41	68	55	92	487	---	711	201	125
10	33	56	29	e41	68	49	132	447	---	639	191	119
11	33	55	29	e41	73	33	457	442	---	574	166	106
12	37	56	28	e41	66	32	800	439	---	521	152	104
13	46	54	28	e41	56	32	846	424	---	482	129	100
14	65	53	27	41	36	32	797	447	880	444	117	98
15	62	56	27	40	31	37	752	410	725	396	108	94
16	63	55	29	41	32	72	724	365	582	345	99	88
17	64	57	27	73	58	72	681	334	479	301	91	65
18	61	57	27	105	51	69	642	308	412	278	86	61
19	61	53	28	95	37	65	612	268	368	253	80	58
20	61	54	58	92	38	62	576	228	327	224	77	54
21	61	50	78	88	38	61	559	262	273	207	78	51
22	58	33	83	85	37	58	537	238	296	192	89	51
23	41	40	84	83	37	58	517	214	365	187	---	49
24	56	30	83	85	46	58	---	240	369	191	---	50
25	62	30	87	82	49	58	---	208	448	192	706	50
26	60	30	91	81	37	e58	---	161	496	196	459	48
27	58	33	93	68	37	e56	822	146	553	193	337	47
28	59	29	95	73	38	e49	680	134	---	181	315	47
29	59	29	93	75	39	e40	---	122	---	175	266	46
30	59	28	95	73	---	e36	---	132	---	221	225	47
31	59	---	99	70	---	32	---	130	---	241	206	---
TOTAL	1,886	1,451	1,768	2,263	1,521	1,527	---	---	---	---	---	2,893
MEAN	60.8	48.4	57.0	73.0	52.4	49.3	---	---	---	---	---	96.4
MAX	87	59	99	106	74	72	187					
MIN	33	28	27	40	31	32	46					
AC-FT	3,740	2,880	3,510	4,490	3,020	3,030	---	---	---	---	---	5,740

e Estimated

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08180700 Medina River near Macdona, TX

LOCATION.--Lat 29°20'05", long 98°41'22", Bexar County, Hydrologic Unit 12100302, at downstream side of Loop 1604 bridge, 0.1 mi downstream from Polecat Creek, 0.7 mi north of Macdona, 2.2 mi downstream from Potranca Creek, and 21.2 mi upstream from mouth.

DRAINAGE AREA.--885 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Jan. 1981 to Sept. 1995, May 1997 to current year.

GAGE.--Water-stage recorder. Datum of gage is 589.86 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Since installation of gage in water year 1981, at least 10% of contributing drainage area has been regulated. A large part of the streamflow is lost into the Edwards and associated limestones where the Balcones Fault crosses the basin between the upstream end of Medina Lake and about 5 mi downstream from Medina Dam, or 0.9 mi downstream from the Medina Diversion Dam. There are several small diversions below Medina Diversion Dam.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	82	56	97	96	88	105	1,210	264	2,520	385	340
2	99	82	56	100	95	90	106	1,230	243	2,620	371	318
3	98	82	55	98	96	89	196	1,060	219	1,860	352	297
4	99	82	74	98	95	90	402	945	187	1,570	337	290
5	99	81	84	97	97	96	1,100	879	166	1,410	312	331
6	100	80	88	96	98	97	298	824	151	1,300	290	284
7	100	78	84	95	93	89	195	828	144	1,200	281	276
8	104	78	71	95	92	91	167	864	166	1,130	294	268
9	99	78	67	85	92	91	156	845	301	1,080	319	251
10	111	78	66	71	93	91	151	810	685	1,040	311	243
11	80	77	68	62	95	91	196	767	1,840	998	303	236
12	78	78	63	58	95	84	468	753	1,560	928	281	229
13	77	77	59	58	96	93	699	745	1,280	845	268	226
14	74	74	58	57	96	102	797	724	1,170	782	254	223
15	78	74	57	64	85	242	792	736	1,110	728	244	219
16	86	75	55	68	74	150	776	703	967	672	234	216
17	87	79	55	83	68	120	783	660	846	603	223	213
18	88	77	58	78	69	125	755	618	758	538	215	202
19	86	76	56	92	87	122	729	589	691	505	208	190
20	84	78	55	102	77	119	701	540	634	463	201	184
21	83	77	56	101	64	115	677	473	586	413	194	178
22	83	79	78	100	61	111	655	491	559	380	191	173
23	83	75	92	98	60	107	631	481	553	362	765	171
24	79	64	95	99	75	107	1,240	440	595	357	1,440	167
25	73	64	93	101	75	107	1,380	465	607	352	1,140	165
26	80	61	95	101	85	106	1,350	425	666	347	913	164
27	86	58	97	98	89	105	1,200	355	700	345	674	159
28	81	56	97	98	85	105	1,020	327	1,030	339	534	135
29	79	56	97	96	86	127	926	302	1,560	326	458	125
30	80	56	96	97	---	127	1,120	276	1,820	323	399	122
31	80	---	96	97	---	119	---	269	---	356	364	---
TOTAL	2,713	2,212	2,277	2,740	2,469	3,396	19,771	20,634	22,058	26,692	12,755	6,595
MEAN	87.5	73.7	73.5	88.4	85.1	110	659	666	735	861	411	220
MAX	111	82	97	102	98	242	1,380	1,230	1,840	2,620	1,440	340
MIN	73	56	55	57	60	84	105	269	144	323	191	122
AC-FT	5,380	4,390	4,520	5,430	4,900	6,740	39,220	40,930	43,750	52,940	25,300	13,080

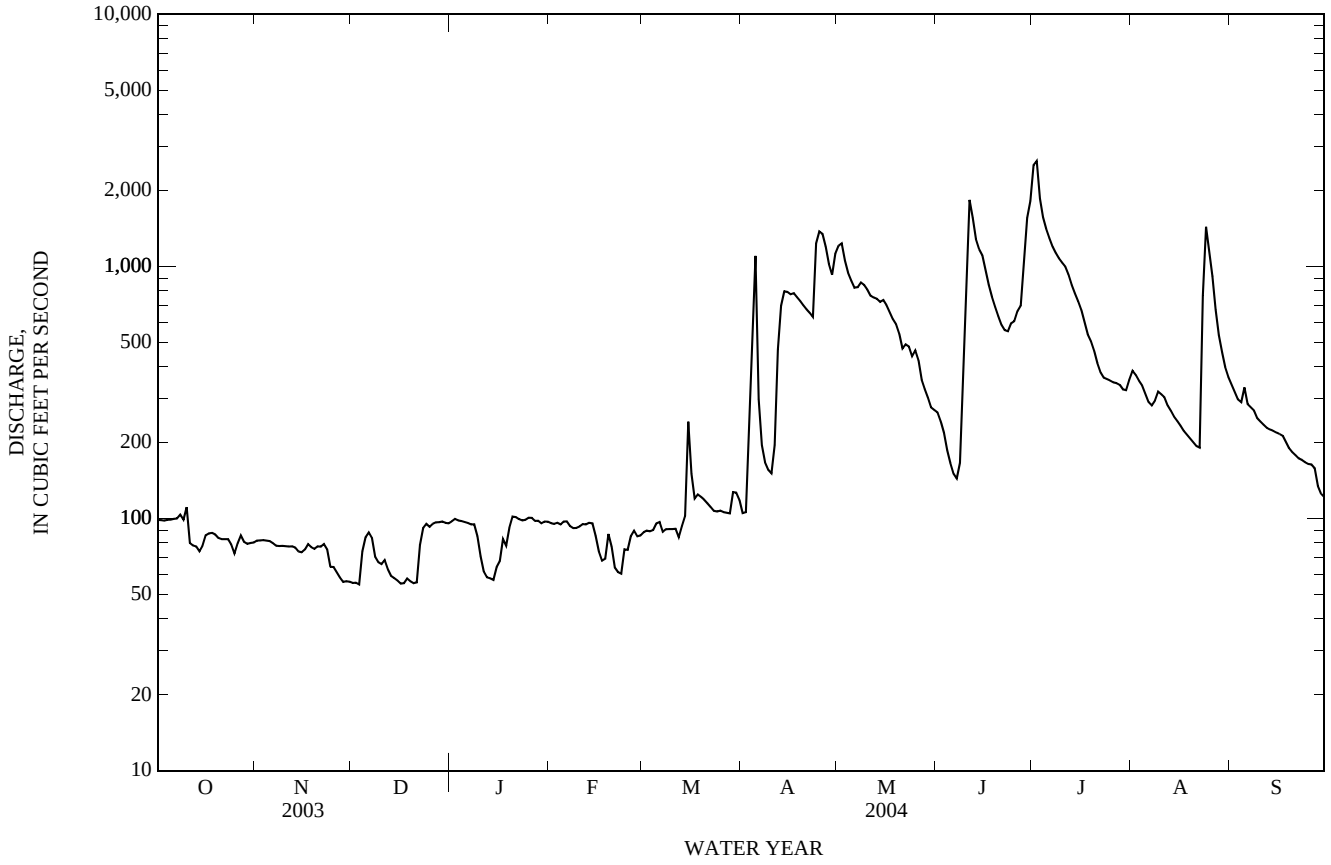
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2004h, BY WATER YEAR (WY)

MEAN	160	130	135	144	198	201	167	191	590	476	104	106
MAX	758	657	461	698	2,333	2,097	1,302	1,636	5,726	6,555	458	831
(WY)	(2003)	(2003)	(2003)	(1992)	(1992)	(1992)	(1992)	(1992)	(1987)	(2002)	(2002)	(2002)
MIN	32.3	25.7	18.0	22.1	34.2	39.0	34.1	29.6	25.1	27.4	25.1	27.8
(WY)	(1992)	(1985)	(1985)	(1985)	(1985)	(1990)	(1986)	(1989)	(1990)	(1989)	(1989)	(1989)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1981 - 2004h	
ANNUAL TOTAL	52,604		124,312			
ANNUAL MEAN	144		340		180	
HIGHEST ANNUAL MEAN					954	1992
LOWEST ANNUAL MEAN					38.1	1989
HIGHEST DAILY MEAN	439	Feb 23	2,620	Jul 2	40,500	Jul 6, 2002
LOWEST DAILY MEAN	55	Dec 3	55	Dec 3	14	Jan 11, 1985
ANNUAL SEVEN-DAY MINIMUM	56	Dec 15	56	Dec 15	16	Jan 7, 1985
MAXIMUM PEAK FLOW			3,300	Jul 1	55,400	Jul 6, 2002
MAXIMUM PEAK STAGE			10.98	Jul 1	a24.78	Jul 6, 2002
ANNUAL RUNOFF (AC-FT)	104,300		246,600		130,500	
10 PERCENT EXCEEDS	308		889		281	
50 PERCENT EXCEEDS	95		126		57	
90 PERCENT EXCEEDS	65		72		34	

h See Period of Record paragraph.
a From floodmark.

08180700 Medina River near Macdona, TX—Continued



08180700 Medina River near Macdona, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: July 1998 to Sept. 2000.
BIOCHEMICAL DATA: July 1998 to Sept. 2000.
PESTICIDE DATA: July 1998 to Sept. 2000.
SEDIMENT DATA: July 1998 to Sept. 2000.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Nov. 2001 to current year.
WATER TEMPERATURE: Nov. 2001 to current year.

INSTRUMENTATION.-- Water-quality monitor since Nov. 2001.

REMARKS.-- Records good. Interruptions in the record were caused by malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 773 microsiemens/cm, May 14, 2003; minimum, 166 microsiemens/cm, July 3, 2002.
WATER TEMPERATURE: Maximum, 29.5°C, June 26, 2003; minimum daily, 9.6°C, Jan. 4, 2002.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 721 microsiemens/cm, Dec. 21; minimum, 284 microsiemens/cm, Aug. 23.
WATER TEMPERATURE: Maximum, 28.5°C, Aug. 4; minimum, 11.4°C, Feb. 14.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

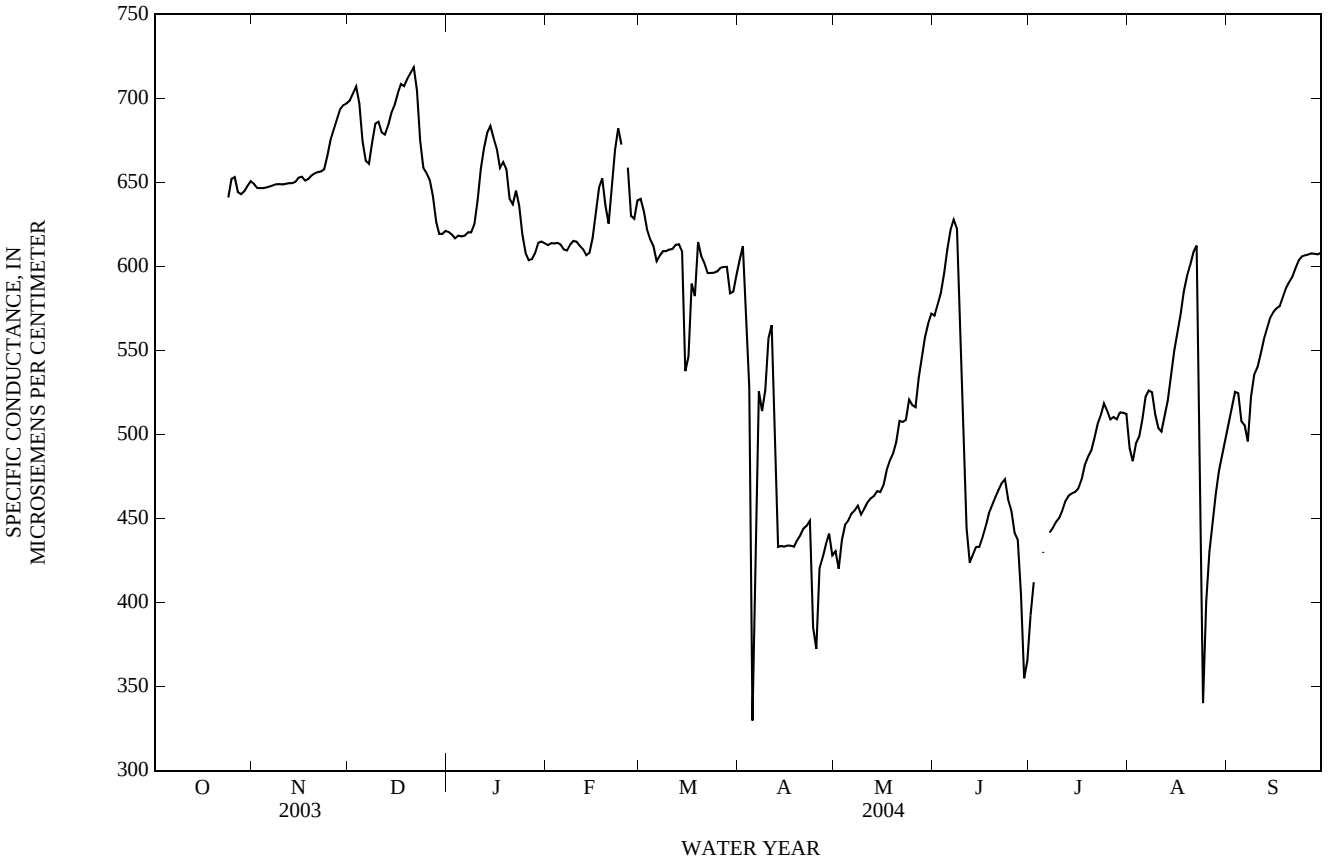
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	652	647	649	703	696	699	623	619	620
2	---	---	---	649	645	647	706	701	703	621	617	619
3	---	---	---	648	645	647	710	705	707	618	615	617
4	---	---	---	648	645	647	709	686	697	621	617	618
5	---	---	---	649	646	647	686	667	674	619	616	618
6	---	---	---	650	646	648	668	659	663	621	616	618
7	---	---	---	649	647	648	667	658	661	622	619	620
8	---	---	---	650	647	649	680	667	674	622	619	620
9	---	---	---	650	647	649	690	680	685	633	620	625
10	---	---	---	651	646	649	688	684	686	650	633	639
11	---	---	---	651	647	649	684	677	680	664	650	658
12	---	---	---	651	648	650	682	676	678	677	664	670
13	---	---	---	652	647	650	690	680	684	684	677	680
14	---	---	---	653	649	650	694	689	691	684	680	683
15	---	---	---	656	649	653	700	694	696	680	672	676
16	---	---	---	657	651	653	708	699	703	674	662	670
17	---	---	---	655	646	651	711	705	709	663	655	659
18	---	---	---	655	648	652	710	705	707	666	660	662
19	---	---	---	657	652	654	714	708	712	667	651	658
20	---	---	---	657	653	655	718	713	715	651	635	640
21	---	---	---	658	654	656	721	716	719	641	635	637
22	---	---	---	659	654	657	720	690	705	647	641	645
23	---	---	---	660	655	658	690	665	675	643	630	636
24	645	639	641	672	659	666	665	654	659	630	609	619
25	656	645	652	678	672	675	658	654	656	610	605	608
26	656	648	653	686	677	682	656	648	652	605	602	604
27	648	641	644	692	684	688	648	634	642	607	602	604
28	645	642	643	696	690	693	634	622	627	615	605	608
29	647	642	645	697	694	696	623	618	619	616	613	614
30	650	646	648	700	694	697	622	618	619	616	612	615
31	653	649	651	---	---	---	623	620	621	615	612	614
MONTH				700	645	659	721	618	678	684	602	635

08180700 Medina River near Macdona, TX—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	616	611	613	643	638	640	612	597	604	445	416	430
2	617	611	614	639	628	633	619	603	612	433	402	420
3	616	612	614	628	617	622	607	540	573	444	423	437
4	616	612	614	619	614	616	558	362	528	450	443	446
5	617	610	613	617	605	612	362	300	330	452	446	449
6	613	608	610	606	601	603	520	359	449	455	450	453
7	612	608	610	613	600	606	531	515	526	457	453	455
8	617	609	613	611	607	609	518	510	514	469	452	458
9	618	613	615	612	605	609	546	517	526	454	450	452
10	616	614	615	613	609	610	569	546	557	460	454	456
11	615	611	612	612	608	610	576	537	565	462	457	460
12	612	609	610	620	609	613	537	458	494	463	461	462
13	610	605	607	618	608	613	458	428	433	466	461	463
14	610	607	608	616	586	609	435	432	434	468	464	466
15	625	610	617	591	508	538	435	432	433	468	463	466
16	639	625	631	611	521	546	436	433	434	475	465	470
17	652	639	647	599	580	590	436	432	434	483	475	479
18	655	648	652	596	576	582	436	431	433	487	483	485
19	648	626	636	626	584	615	440	436	437	490	487	489
20	635	621	626	615	603	606	442	439	440	502	490	496
21	659	635	646	606	599	602	447	440	444	513	502	508
22	677	659	669	599	593	596	448	444	446	511	504	507
23	691	676	682	598	594	596	450	447	449	516	503	509
24	691	659	672	598	594	596	450	314	385	524	516	521
25	---	---	---	599	595	597	418	308	372	520	516	518
26	686	638	659	600	597	599	424	412	420	526	511	516
27	638	622	630	602	598	600	431	421	427	539	526	534
28	637	621	628	604	596	600	440	427	435	552	539	545
29	643	636	639	600	569	584	444	437	441	562	552	558
30	---	---	---	593	569	585	437	422	428	570	562	566
31	---	---	---	598	591	595	---	---	---	573	570	572
MONTH	691	605	629	643	508	601	619	300	467	573	402	485
		JUNE			JULY			AUGUST			SEPTEMBER	
1	574	569	571	412	369	392	502	481	492	512	501	506
2	582	574	577	416	409	412	490	480	484	522	511	516
3	589	581	585	---	---	---	498	490	495	529	521	525
4	603	589	596	---	---	---	504	496	499	531	510	525
5	615	603	610	432	427	430	517	504	509	523	499	508
6	625	615	622	---	---	---	527	517	523	515	497	506
7	632	620	628	445	439	442	530	523	526	515	483	496
8	624	620	623	446	443	444	531	517	525	530	508	523
9	623	524	583	449	446	448	517	510	512	540	530	536
10	572	394	531	452	446	450	511	499	504	543	537	540
11	481	423	444	458	448	455	507	498	502	552	542	548
12	428	418	424	463	456	461	517	507	511	560	552	556
13	433	425	428	467	461	464	530	516	520	567	560	563
14	435	428	433	468	461	465	546	527	536	573	567	569
15	436	430	433	468	464	466	558	544	550	576	571	573
16	442	434	439	471	466	468	566	557	561	577	574	575
17	450	440	445	479	469	473	580	565	572	580	575	576
18	456	450	453	485	479	482	591	579	585	588	578	582
19	461	455	458	490	485	487	596	591	594	590	586	587
20	466	461	463	494	488	490	605	595	601	593	588	591
21	470	465	467	501	493	498	611	603	608	597	589	594
22	476	466	471	510	501	506	615	608	612	602	593	599
23	476	468	473	519	507	511	614	284	428	607	599	604
24	468	456	461	520	517	519	378	293	340	607	605	606
25	457	451	455	517	512	514	418	377	401	611	604	607
26	451	437	442	513	505	509	440	418	430	609	604	607
27	441	428	437	512	508	510	458	440	449	610	607	608
28	430	309	405	511	507	509	474	457	465	609	606	607
29	487	290	355	516	511	513	485	473	479	608	605	607
30	452	342	365	520	509	513	493	482	488	610	606	608
31	---	---	---	522	502	512	503	492	497	---	---	---
MONTH	632	290	489				615	284	510	611	483	565
YEAR												

08180700 Medina River near Macdona, TX—Continued



TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

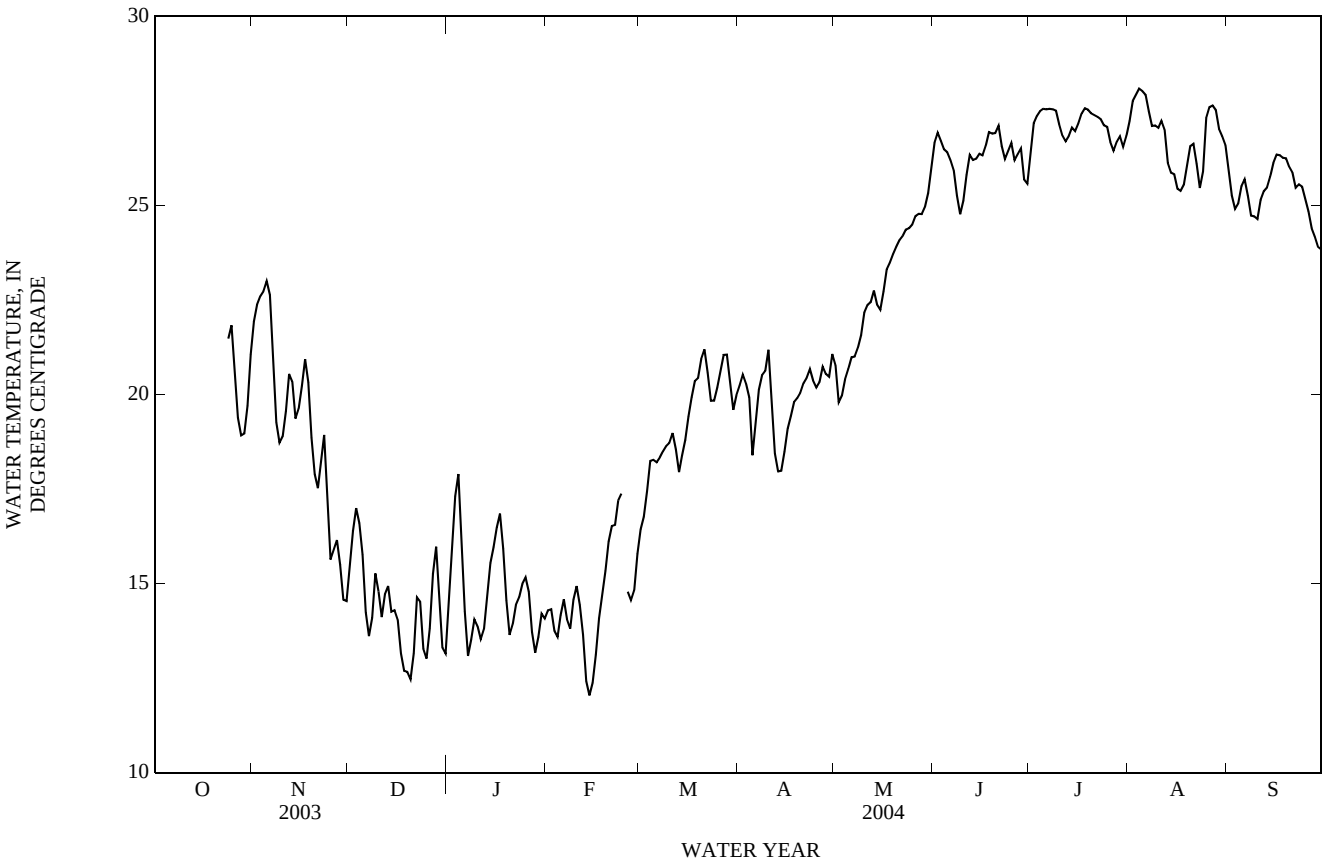
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	22.4	21.5	21.9	15.9	14.9	15.4	15.1	13.5	14.5
2	---	---	---	22.9	22.0	22.4	17.0	15.9	16.4	16.7	15.1	16.0
3	---	---	---	23.0	22.4	22.6	17.6	16.6	17.0	17.8	16.7	17.3
4	---	---	---	23.1	22.4	22.7	16.9	16.3	16.6	18.2	17.4	17.9
5	---	---	---	23.4	22.7	23.0	16.3	14.8	15.8	17.4	15.2	16.3
6	---	---	---	22.9	21.8	22.6	14.8	13.6	14.2	15.2	13.3	14.3
7	---	---	---	21.8	19.8	20.8	14.2	13.2	13.6	13.3	13.0	13.1
8	---	---	---	19.8	18.8	19.3	14.9	13.3	14.1	14.1	13.0	13.5
9	---	---	---	18.8	18.6	18.7	16.0	14.6	15.3	14.7	13.7	14.1
10	---	---	---	19.3	18.6	18.9	15.3	14.3	14.8	14.6	13.4	13.9
11	---	---	---	20.0	19.1	19.6	14.5	13.5	14.1	14.3	12.8	13.5
12	---	---	---	21.1	19.9	20.5	15.2	14.3	14.7	14.3	13.2	13.8
13	---	---	---	20.7	19.7	20.3	15.4	14.5	14.9	15.4	14.1	14.7
14	---	---	---	19.7	19.2	19.4	14.9	13.6	14.3	15.8	15.2	15.5
15	---	---	---	20.0	19.3	19.6	15.1	13.5	14.3	16.2	15.8	16.0
16	---	---	---	20.7	19.8	20.2	14.6	13.6	14.0	16.7	16.2	16.5
17	---	---	---	21.3	20.6	20.9	13.7	12.6	13.2	17.6	16.5	16.9
18	---	---	---	20.8	19.4	20.3	13.4	12.0	12.7	16.5	15.1	15.9
19	---	---	---	19.4	18.1	18.9	13.4	12.0	12.7	15.1	13.9	14.6
20	---	---	---	18.5	17.4	17.9	13.2	11.7	12.5	14.0	13.4	13.6
21	---	---	---	18.2	16.9	17.5	14.0	12.2	13.2	14.4	13.4	13.9
22	---	---	---	19.0	17.4	18.2	15.4	13.9	14.6	14.6	14.2	14.4
23	---	---	---	19.5	18.0	18.9	15.0	13.7	14.5	14.7	14.5	14.6
24	22.1	21.0	21.5	18.0	16.1	17.1	13.7	12.8	13.3	15.3	14.7	15.0
25	22.6	21.2	21.8	16.1	15.1	15.6	13.3	12.8	13.0	15.7	14.7	15.2
26	21.7	19.6	20.7	16.5	15.3	15.9	14.4	13.0	13.8	15.4	13.9	14.8
27	19.9	19.0	19.4	16.8	15.7	16.1	15.9	14.4	15.3	14.3	13.1	13.7
28	19.5	18.4	18.9	16.1	15.0	15.5	16.2	15.4	16.0	13.7	12.9	13.2
29	19.7	18.4	19.0	15.0	14.0	14.6	15.4	13.9	14.8	13.9	13.1	13.6
30	20.4	18.9	19.7	15.2	13.8	14.5	13.9	12.8	13.3	14.8	13.7	14.2
31	21.8	20.2	21.1	---	---	---	13.6	12.6	13.1	14.4	13.9	14.1
MONTH				23.4	13.8	19.1	17.6	11.7	14.4	18.2	12.8	14.8

08180700 Medina River near Macdona, TX—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.6	14.0	14.3	17.2	15.9	16.4	21.1	19.6	20.2	21.5	20.3	20.8
2	14.9	13.9	14.3	17.0	16.5	16.8	21.0	20.2	20.5	20.3	19.3	19.8
3	14.1	13.3	13.8	17.8	16.8	17.4	20.6	20.0	20.3	20.8	19.2	20.0
4	13.8	13.3	13.6	18.7	17.8	18.2	20.5	17.8	19.9	21.0	19.8	20.4
5	14.9	13.6	14.2	18.9	17.8	18.3	19.1	17.6	18.4	21.2	20.2	20.7
6	15.3	14.1	14.6	18.9	17.7	18.2	19.8	19.0	19.3	21.2	20.7	21.0
7	14.7	13.6	14.1	19.4	17.6	18.3	20.9	19.4	20.1	21.2	20.8	21.0
8	14.1	13.5	13.8	19.4	17.9	18.5	20.9	20.2	20.5	21.7	20.9	21.2
9	15.1	13.8	14.6	19.6	18.0	18.6	21.3	19.9	20.6	22.1	21.1	21.6
10	15.1	14.6	14.9	19.7	18.1	18.7	21.6	20.9	21.2	22.5	22.0	22.2
11	14.6	14.2	14.4	19.7	18.5	19.0	21.0	18.7	19.7	22.5	22.3	22.4
12	14.2	13.0	13.6	18.8	18.0	18.6	18.8	18.0	18.4	22.6	22.2	22.4
13	13.0	11.8	12.4	18.1	17.8	17.9	18.5	17.5	18.0	23.2	22.4	22.7
14	12.8	11.4	12.0	19.0	17.9	18.4	18.5	17.4	18.0	22.7	22.1	22.4
15	13.1	11.8	12.4	19.5	18.2	18.8	19.2	18.0	18.5	22.7	21.8	22.2
16	14.3	12.2	13.1	19.8	19.0	19.4	19.3	18.9	19.1	23.4	22.2	22.7
17	15.2	13.1	14.1	20.6	19.3	19.9	19.7	19.2	19.4	23.8	23.0	23.3
18	15.8	13.7	14.7	20.5	20.2	20.4	19.9	19.7	19.8	23.9	23.2	23.5
19	16.3	14.5	15.3	20.7	20.3	20.4	20.1	19.8	19.9	24.4	23.2	23.7
20	17.2	15.3	16.1	21.2	20.6	20.9	20.3	19.8	20.0	24.3	23.5	23.9
21	17.5	15.8	16.5	21.5	20.8	21.2	20.4	20.2	20.3	24.4	23.8	24.1
22	16.9	16.2	16.5	20.9	20.0	20.6	20.7	20.2	20.4	24.5	23.9	24.2
23	17.9	16.7	17.2	20.1	19.6	19.8	20.9	20.5	20.7	24.7	24.0	24.4
24	17.8	17.0	17.4	20.0	19.6	19.8	20.9	20.1	20.4	24.6	24.2	24.4
25	---	---	---	20.5	19.8	20.2	20.4	20.0	20.2	24.8	24.2	24.5
26	15.5	14.1	14.8	21.0	20.3	20.6	20.9	19.9	20.3	25.0	24.4	24.7
27	15.3	14.1	14.6	21.5	20.7	21.0	21.5	20.1	20.7	25.1	24.4	24.8
28	15.3	14.3	14.8	21.1	20.9	21.1	21.2	20.2	20.5	25.1	24.5	24.8
29	16.7	15.0	15.8	21.0	19.4	20.4	21.0	20.0	20.5	25.4	24.6	25.0
30	---	---	---	20.4	18.9	19.6	21.6	20.7	21.1	25.8	24.9	25.3
31	---	---	---	20.8	19.4	20.0	---	---	---	26.7	25.3	26.0
MONTH				21.5	15.9	19.3	21.6	17.4	19.9	26.7	19.2	22.9
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.1	26.1	26.7	27.0	25.7	26.3	27.8	26.8	27.2	26.4	25.6	26.0
2	27.2	26.5	26.9	27.8	26.7	27.2	28.3	27.3	27.8	25.6	25.1	25.3
3	27.1	26.3	26.7	27.7	27.0	27.4	28.2	27.6	27.9	25.2	24.5	24.9
4	26.8	26.1	26.5	28.1	27.0	27.5	28.5	27.7	28.1	25.4	24.7	25.1
5	26.8	25.9	26.4	28.2	27.1	27.6	28.4	27.5	28.0	26.0	25.0	25.5
6	26.5	25.8	26.2	28.2	27.0	27.5	28.4	27.4	27.9	25.9	25.5	25.7
7	26.3	25.6	25.9	28.2	27.1	27.6	28.0	27.2	27.5	25.6	24.8	25.3
8	25.7	24.9	25.3	28.2	27.0	27.5	27.4	26.7	27.1	25.2	24.2	24.7
9	24.9	24.6	24.8	28.0	27.0	27.5	27.4	26.7	27.1	25.1	24.2	24.7
10	25.7	24.8	25.1	27.8	26.8	27.1	27.4	26.7	27.1	25.1	24.0	24.6
11	26.3	25.4	25.8	27.2	26.4	26.8	27.7	26.7	27.2	25.6	24.7	25.1
12	26.8	26.0	26.3	27.1	26.3	26.7	27.5	26.6	27.0	25.7	24.9	25.4
13	26.8	25.7	26.2	27.3	26.4	26.8	26.9	25.6	26.1	25.7	25.1	25.5
14	26.9	25.7	26.2	27.6	26.6	27.1	26.3	25.3	25.9	26.2	25.3	25.8
15	27.0	25.7	26.4	27.4	26.5	27.0	26.2	25.3	25.8	26.6	25.7	26.1
16	26.9	25.8	26.3	27.6	26.9	27.2	25.8	24.9	25.4	26.8	25.9	26.3
17	27.0	26.1	26.6	28.0	27.0	27.4	25.9	24.8	25.4	26.7	25.8	26.3
18	27.3	26.7	26.9	28.2	27.0	27.6	26.0	25.0	25.5	26.5	25.8	26.3
19	27.4	26.5	26.9	28.3	26.9	27.5	26.5	25.6	26.0	26.6	25.9	26.2
20	27.3	26.6	26.9	28.0	26.8	27.4	27.1	26.0	26.6	26.3	25.6	26.0
21	27.8	26.6	27.1	27.7	26.9	27.4	27.0	26.2	26.6	26.1	25.5	25.9
22	27.2	26.3	26.6	27.6	27.0	27.3	26.5	25.8	26.1	25.7	25.2	25.5
23	26.8	25.7	26.2	27.6	27.1	27.3	26.2	24.6	25.5	26.0	25.1	25.6
24	27.2	25.8	26.4	27.6	26.8	27.1	26.9	25.0	25.9	25.8	25.2	25.5
25	27.0	26.3	26.7	27.4	26.7	27.1	28.1	26.8	27.3	25.5	24.8	25.2
26	26.6	25.9	26.2	27.0	26.4	26.7	28.1	27.1	27.6	25.1	24.6	24.8
27	26.8	26.1	26.4	26.9	26.0	26.4	27.9	27.3	27.6	24.7	24.2	24.4
28	27.0	25.8	26.5	27.1	26.3	26.7	27.8	27.2	27.5	24.5	23.9	24.2
29	26.0	25.4	25.7	27.2	26.6	26.8	27.4	26.6	27.0	24.2	23.6	23.9
30	25.8	25.4	25.6	26.9	26.4	26.5	27.3	26.3	26.8	24.1	23.6	23.8
31	---	---	---	27.4	26.3	26.8	27.0	26.3	26.6	---	---	---
MONTH	27.8	24.6	26.3	28.3	25.7	27.1	28.5	24.6	26.8	26.8	23.6	25.3
YEAR												

08180700 Medina River near Macdona, TX—Continued



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08180800 Medina River near Somerset, TX

LOCATION.--Lat 29°15'43", long 98°34'52", Bexar County, Hydrologic Unit 12100302, on left bank at downstream side of downstream bridge on State Highway 16, 2.0 mi upstream from Elm Creek, 5.0 mi downstream from Medio Creek, 5.2 mi northeast of Somerset, and 14.0 mi upstream from mouth.

DRAINAGE AREA.--967 mi^2.

PERIOD OF RECORD.--Oct. 1970 to Sept. 1995, Apr. 1997 to Sept. 30, 2004 (discontinued). Water-quality records: Chemical data: July 1998 to Aug. 2000. Biochemical data: July 1998 to Aug. 2000. Pesticide data: July 1998 to Aug. 2000. Sediment data: July 1998 to Aug. 2000.

GAGE.--Water-stage recorder. Datum of gage is 493.56 ft above NGVD of 1929. Prior to June 16, 1993, at site 300 ft upstream at same datum. Satellite telemeter at station.

REMARKS.--Records good. Since installation of gage in water year 1971, at least 10% of contributing drainage area has been regulated. A large part of the streamflow is lost into the Edwards and associated limestones where the Balcones Fault crosses the basin between the upstream end of Medina Lake and about 5 mi downstream from Medina Dam, or 0.9 mi downstream from the Medina Diversion Dam. There are several small diversions below Medina Diversion Dam.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	81	59	92	88	83	102	1,310	262	3,120	433	397
2	95	83	61	93	87	85	115	1,410	250	4,470	435	362
3	95	83	60	94	86	85	237	1,180	234	3,440	406	333
4	96	83	65	93	87	85	305	1,000	213	2,610	378	317
5	95	83	79	92	88	90	2,160	910	193	2,100	353	368
6	98	86	82	91	88	94	638	844	185	1,740	319	329
7	97	83	86	90	86	89	335	804	178	1,530	301	302
8	97	80	79	91	86	84	260	924	199	1,370	311	297
9	100	79	73	90	85	85	234	835	275	1,250	343	277
10	98	82	71	81	85	83	220	786	695	1,160	338	248
11	97	81	69	72	88	83	263	746	1,830	1,090	332	231
12	88	80	72	68	88	83	399	720	2,500	999	305	219
13	88	79	66	66	89	92	618	715	1,640	931	280	209
14	84	77	63	61	89	105	775	691	1,300	878	260	202
15	79	78	63	64	88	201	804	684	1,200	828	240	194
16	85	78	61	70	78	194	788	674	1,080	773	223	188
17	87	81	60	89	72	118	789	629	939	720	213	182
18	87	81	60	86	67	115	762	590	830	644	204	170
19	86	75	60	77	73	113	732	558	745	605	194	156
20	86	75	60	91	80	110	711	528	678	566	186	149
21	85	75	60	93	67	109	680	459	622	513	179	142
22	84	75	64	92	61	105	658	449	591	476	173	137
23	83	76	82	92	61	102	643	448	565	454	453	134
24	82	70	86	91	75	101	1,390	392	595	438	1,770	130
25	76	65	88	91	93	103	1,690	409	609	430	1,700	127
26	76	66	88	92	79	102	1,670	402	659	416	1,130	e126
27	82	63	91	89	86	101	1,380	347	683	410	843	124
28	83	61	92	89	84	100	1,150	320	874	401	669	120
29	82	59	92	88	83	131	1,000	298	2,240	386	574	115
30	81	60	93	88	---	149	1,060	280	3,470	370	511	113
31	82	---	92	88	---	111	---	266	---	380	443	---
TOTAL	2,730	2,278	2,277	2,644	2,367	3,291	22,568	20,608	26,334	35,498	14,499	6,398
MEAN	88.1	75.9	73.5	85.3	81.6	106	752	665	878	1,145	468	213
MAX	100	86	93	94	93	201	2,160	1,410	3,470	4,470	1,770	397
MIN	76	59	59	61	61	83	102	266	178	370	173	113
AC-FT	5,410	4,520	4,520	5,240	4,690	6,530	44,760	40,880	52,230	70,410	28,760	12,690

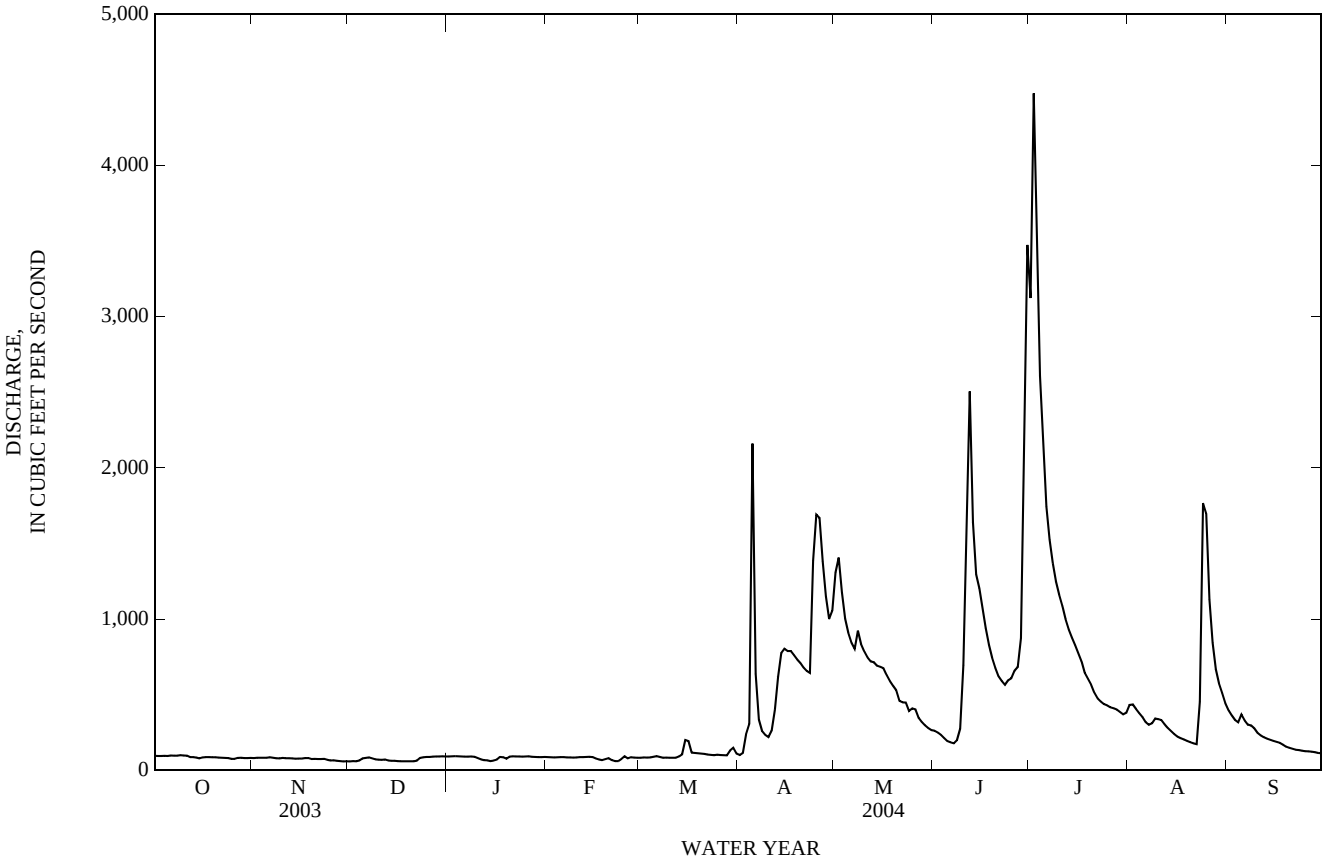
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004h, BY WATER YEAR (WY)

MEAN	237	187	159	167	237	218	214	281	523	541	179	163
MAX	1,284	782	549	751	2,449	2,326	1,480	1,663	6,432	8,643	1,222	1,148
(WY)	(1974)	(2003)	(1977)	(1992)	(1992)	(1992)	(1992)	(1992)	(1987)	(2002)	(1978)	(2002)
MIN	41.2	40.2	33.5	37.2	33.4	34.4	35.6	31.1	27.4	22.3	24.5	22.7
(WY)	(1989)	(1985)	(1985)	(1985)	(1971)	(1971)	(1971)	(1971)	(1990)	(1984)	(1984)	(1984)

08180800 Medina River near Somerset, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1971 - 2004h	
ANNUAL TOTAL	52,243		141,492			
ANNUAL MEAN	143		387		259	
HIGHEST ANNUAL MEAN					1,033	1992
LOWEST ANNUAL MEAN					40.0	1984
HIGHEST DAILY MEAN	397	Feb 24	4,470	Jul 2	47,400	Jul 6, 2002
LOWEST DAILY MEAN	51	Sep 11	59	Nov 29	16	Sep 19, 1984
ANNUAL SEVEN-DAY MINIMUM	55	Aug 27	60	Nov 27	19	Sep 17, 1984
MAXIMUM PEAK FLOW			4,810	Jul 2	56,000	Jul 6, 2002
MAXIMUM PEAK STAGE			18.02	Jul 2	a42.19	Jul 6, 2002
ANNUAL RUNOFF (AC-FT)	103,600		280,600		187,800	
10 PERCENT EXCEEDS	301		933		498	
50 PERCENT EXCEEDS	95		119		82	
90 PERCENT EXCEEDS	64		73		42	

h See Period of Record paragraph.
a From floodmark.
e Estimated



08180941 Government Canyon Creek Site 2 near Helotes, TX

LOCATION.--Lat 29°32'21", long 98°45'05", Bexar County, Hydrologic Unit 12100302, on right bank of low water crossing, 0.50 mi upstream side of entrance to Government Canyon Natural Area at Galm Road, 6.21 mi upstream of State Highway 1604.

DRAINAGE AREA.--12.4 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Dec. 1999 to current year.
BIOCHEMICAL DATA: Dec. 1999 to current year.
PESTICIDE DATA: Dec. 1999 to current year.

REMARKS.--Water-quality samples and associated discharge data were collected for selected storm events.

INSTRUMENTATION.--Water-stage recorder. Tipping bucket raingage. Satellite telemeter at station.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Discharge duration, min (81381)	Elapsed time of storm, hours (00135)	Precipitation total, inches/storm (82381)	Precipitation duration of storm event, min (00117)	Sampling method, code (82398)	Storm water discharge, Mgal/d (81395)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
JUN													
28-28	0230	135	2.2	3.1	165	90	31.2	7.9	199	110	39.3	1.88	3.35
AUG													
23-23	0500	450	7.0	3.2	600	90	81.9	7.5	134	71	25.6	1.65	3.16

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
JUN													
28-28	1.50	3	1.96	<.2	7.94	2.5	155	58	.68	1.2	<.04	.66	E.004n
AUG													
23-23	1.08	3	1.74	<.2	6.09	2.6	113	145d	.55	1.3	<.04	.38	E.007n

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	COD, high level, water, unfltrd mg/L (00340)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, fltrd, ug/L (01030)
JUN													
28-28	<.02	.020	.101	1.3	1.9	30	5	<.20	13	<.06	<.04	.04	<.8
AUG													
23-23	<.02	.015	.145	.93	1.7	50	5	<.20	9	<.06	<.04	.08	<.8

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover-able, ug/L (01067)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)
JUN													
28-28	.232	.9	1.5	E5n	<.08	1.39	.8	E.01n	<.4	.97	1.73	<.2	.7
AUG													
23-23	.174	1.0	2.7v	9	<.08	3.44	2.3	E.01n	<.4	.76	2.88	<.2	.7

08180941 Government Canyon Creek Site 2 near Helotes, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Zinc, water, unfltrd recover -able, ug/L (01092)	Oil and grease, water, unfltrd freon extract mg/L (00556)	2,6-Di-ethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)
JUN 28-28	5	E3n	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020
AUG 23-23	9	<7	<.006	E.004n	<.006	<.005	<.005	.023	<.050	<.010	<.004	<.041	<.020

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyana-zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)
JUN 28-28	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013
AUG 23-23	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala-thion, water, fltrd, ug/L (39532)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)
JUN 28-28	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010
AUG 23-23	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome-ton, water, fltrd, ug/L (04037)	Propy-zamide, water, fltrd 0.7u GF ug/L (82676)	Propa-chlor, water, fltrd, ug/L (04024)	Pro-panil, water, fltrd 0.7u GF ug/L (82679)	Propar-gite, water, fltrd 0.7u GF ug/L (82685)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)
JUN 28-28	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.20	<.005	<.02	<.034	<.02	<.010
AUG 23-23	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010

08180941 Government Canyon Creek Site 2 near Helotes, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Uranium natural water, fltrd, ug/L (22703)
JUN			
28-28	<.002	<.009	.05
AUG			
23-23	<.002	<.009	E.03n

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL
v -- Analyte detected in laboratory blank

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08181050 Leon Creek at Prue Rd, San Antonio, TX

LOCATION.--Lat 29°32'29", long 98°37'54", Bexar County, Hydrologic Unit 12100302, on left bank on upstream side of Prue Road, 5.22 mi downstream from State Highway 1604.

DRAINAGE AREA.--58.2 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Dec. 2000 to current year.
BIOCHEMICAL DATA: Dec. 2000 to current year.
PESTICIDE: Dec. 2000 to current year.

INSTRUMENTATION.--Water-stage recorder. Discharge-activated automatic sampler. Tipping bucket raingage. Satellite telemeter at station.

REMARKS.--Water-quality samples and associated discharge and precipitation data were collected for selected storm events.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Discharge duration, min (81381)	Elapsed time of storm, hours (00135)	Precipitation total, inches/storm (82381)	Precipitation duration of storm event, min (00117)	Sampling method, code (82398)	Storm water discharge, Mgal/d (81395)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
MAY													
01-01	1015	915	10.8	.99	765	70	10.3	7.7	100	49	18.5	.732	3.71
01...	1021	--	--	--	--	70	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)
MAY													
01-01	1.91	7	2.34	<.2	4.89	3.8	155	55d	.51	1.0	E.03n	1.60	.36
01...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, ug/L (01106)
MAY													
01-01	.38	.053	.016	.512	.17	.20oc	.29oc	.89	1.4	20	--	--	6
01...	--	--	--	--	--	--	--	--	--	--	130,000	126,000	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Antimony, water, fltrd, ug/L (01095)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)
MAY													
01-01	E.13n	10	<.06	<.04	.06	<.8	.160	1.9	2.7	10	E.06n	1.76	.9
01...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Mercury water, unfltrd recoverable, ug/L (71900)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recoverable, ug/L (01067)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)	Oil and grease, water, unfltrd freon extract mg/L (00556)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)
MAY													
01-01	E.02n	E.3n	.63	1.41	<.2	2.2	11	<7	<.006	E.147	<.006	<.005	<.005
01...	--	--	--	--	--	--	--	--	--	--	--	--	--

08181050 Leon Creek at Prue Rd, San Antonio, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)
MAY													
01-01	2.86	<.050	<.010	<.004	E.898	<.020	<.010	<.006	<.018	.004	<.012	.102	<.009
01...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)
MAY													
01-01	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.020	<.003	<.004	<.035	<.027	<.015
01...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)
MAY													
01-01	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011
01...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Uranium natural water, fltrd, ug/L (22703)
MAY									
01-01	<.02	<.020	<.02	<.034	<.02	<.010	<.002	<.009	E.04n
01...	--	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
c -- See laboratory comment
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL
o -- Result determined by alternate method

08181400 Helotes Creek at Helotes, TX

LOCATION.--Lat 29°34'42", long 98°41'29", Bexar County, Hydrologic Unit 12100302, 42 ft left of and 44 ft downstream from centerline of bridge on State Highway 16, 0.1 mi northwest of Helotes, and 8.6 mi upstream from mouth.

DRAINAGE AREA.--15.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1968 to current year.

REVISED RECORDS.--WRD TX-73-1: 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 1,014.82 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation. An undetermined amount of flow is diverted for domestic use above station, and some streamflow enters the Edwards and associated limestones through the Balcones Fault Zone in the vicinity of the gage. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1923, 13.7 ft in 1927, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	0.00	120	0.84	0.76
2	0.00	0.00	0.00	0.00	0.0	0.00	0.86	10	0.00	93	0.11	0.73
3	0.00	0.00	0.00	0.00	0.00	0.00	0.01	10	0.00	76	0.04	0.57
4	0.00	0.00	0.00	0.00	0.00	0.01	0.23	8.7	0.00	64	0.00	4.8
5	0.00	0.00	0.00	0.00	0.00	0.00	1.5	7.4	0.00	54	0.00	6.1
6	0.00	0.00	0.00	0.00	0.00	0.00	1.2	5.9	0.00	43	0.31	9.1
7	0.00	0.00	0.00	0.00	0.00	0.00	0.37	10	0.35	36	3.3	13
8	0.00	0.00	0.00	0.00	0.00	0.00	0.02	10	0.01	31	2.9	6.5
9	0.00	0.00	0.00	0.00	0.00	0.00	0.05	6.5	17	26	0.09	2.3
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.8	28	23	0.00	1.2
11	0.00	0.00	0.00	0.00	0.00	0.00	0.85	1.8	17	21	0.00	0.61
12	0.00	0.00	0.00	0.00	0.00	0.00	0.95	1.9	8.1	20	0.00	0.40
13	0.00	0.00	0.00	0.00	0.00	0.01	0.29	1.4	1.7	16	0.00	0.28
14	0.00	0.00	0.00	0.00	0.00	0.04	0.00	2.4	0.28	15	0.00	0.83
15	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.77	0.11	13	0.00	0.27
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.08	13	0.00	0.15
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.04	11	0.00	0.08
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.02	9.5	0.00	0.04
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	6.5	0.00	0.01
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	4.3	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.2	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.6	2.3	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	1.8	51	0.01
24	0.00	0.00	0.00	0.00	0.00	0.00	33	0.00	0.12	2.5	24	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	19	0.00	9.9	0.96	16	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	18	0.00	6.7	1.1	11	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	13	0.00	3.0	0.47	4.4	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	9.8	0.00	62	0.24	5.7	0.00
29	0.00	0.00	0.00	0.00	0.03	0.00	14	0.00	148	0.14	4.1	0.00
30	0.00	0.00	0.00	0.00	---	0.00	9.1	0.00	157	8.4	1.6	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	10	0.93	---
TOTAL	0.00	0.00	0.00	0.00	0.03	0.11	122.23	91.80	463.32	726.41	126.32	47.74
MEAN	0.00	0.00	0.00	0.00	0.00	0.00	4.07	2.96	15.4	23.4	4.07	1.59
MAX	0.00	0.00	0.00	0.00	0.03	0.05	33	11	157	120	51	13
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.06	0.2	242	182	919	1,440	251	95

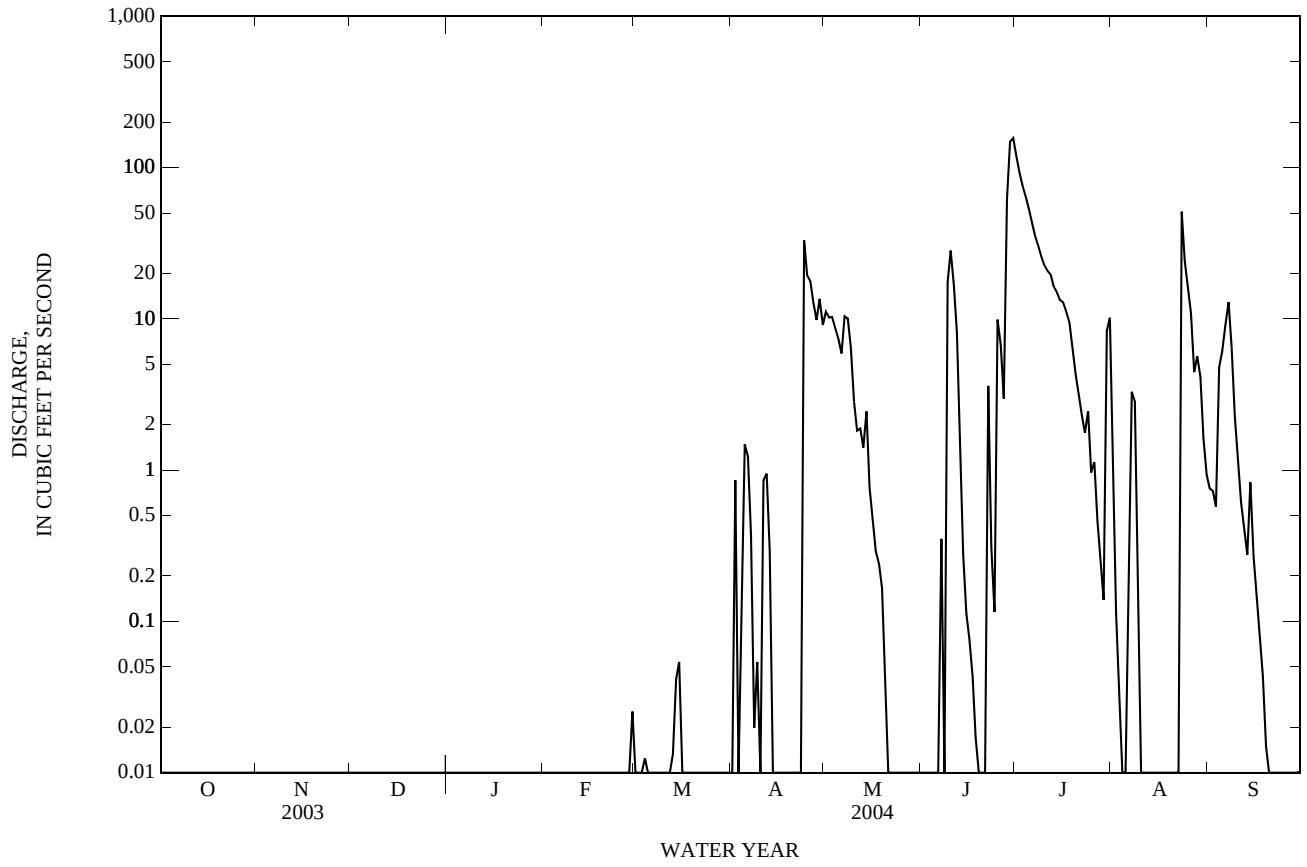
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	7.23	3.48	3.64	2.09	3.40	3.65	3.03	6.31	13.8	7.72	0.96	1.82
MAX	93.6	33.3	79.0	31.0	66.3	32.3	40.0	66.6	142	136	13.5	36.1
(WY)	(1999)	(2001)	(1992)	(1992)	(1992)	(1985)	(1973)	(1992)	(1987)	(2002)	(1971)	(1973)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1979)	(1971)	(1971)	(1969)	(1971)	(1971)	(1983)	(1989)	(1980)	(1969)	(1968)	(1969)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	401.23		1,577.96			
ANNUAL MEAN	1.10		4.31		4.82	
HIGHEST ANNUAL MEAN					28.3	1992
LOWEST ANNUAL MEAN					0.00	1984
HIGHEST DAILY MEAN	13	Jan 1	157	Jun 30	1,350	Oct 18, 1998
LOWEST DAILY MEAN	0.00	Apr 15	0.00	Oct 1	0.00	Jun 30, 1968
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 15	0.00	Oct 1	0.00	Jul 4, 1968
MAXIMUM PEAK FLOW			367	Jun 29	12,600	Oct 18, 1998
MAXIMUM PEAK STAGE			3.59	Jun 29	a15.21	Oct 18, 1998
ANNUAL RUNOFF (AC-FT)	796		3,130		3,490	
10 PERCENT EXCEEDS	3.9		10		7.5	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a From floodmark.

08181400 Helotes Creek at Helotes, TX—Continued



08181400 Helotes Creek at Helotes, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: May 1969 to current year.
BIOCHEMICAL DATA: May 1969 to current year.
PESTICIDE DATA: May 1969 to June 1981, Oct. 1984 to current year.
SEDIMENT DATA: Oct. 1968 to Sept. 1973.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
JUN													
30...	0858	--	70	--	--	--	--	--	--	--	--	--	--
30...	0900	165	70	8.2	520	280	91.3	11.8	1.15	6.74	5	9.55	<.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)
JUN													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	11.8	15.4	303	18	.20	.26	<.04	.66	<.008	<.02	E.003n	.008	.86

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Total nitrogen, water, unfltrd mg/L (00600)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal strep-tococci KF MF, col/ 100 mL (31673)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)
JUN													
30...	--	--	950	500	--	--	--	--	--	--	--	--	--
30...	.92	<10	--	--	E1n	<.20	26	<.06	<.04	<.04	<.8	.346	1.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Copper, water, unfltrd recoverable, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Mercury water, unfltrd recoverable, ug/L (71900)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recoverable, ug/L (01067)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)	Oil and grease, water, unfltrd freon extract mg/L (00556)
JUN													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	1.6	E5n	<.08	.33	1.7	<.02	.5	1.66	1.32	<.2	E.5n	E1n	<7

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)
JUN													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005	<.006

08181400 Helotes Creek at Helotes, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)
JUN													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)
JUN													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)
JUN													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Uranium natural water, fltrd, ug/L (22703)
JUN	
30...	--
30...	.61

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
n -- Below the LRL and above the LT-MDL

08181480 Leon Creek at Interstate Highway 35 at San Antonio, TX

LOCATION.--Lat 29°19'47", long 98°35'02", Bexar County, Hydrologic Unit 12100302, on left bank between bridges on Interstate Highway 35 in San Antonio, 1.7 mi northeast of the intersection of Interstate Highway 35 and Loop 410, and 11.8 mi upstream from mouth.

DRAINAGE AREA.--219 mi^2.

PERIOD OF RECORD.--Oct. 1984 to current year. Water-quality records: Chemical data: July 1984 to Sept. 2000. Biochemical data: July 1984 to Oct. 1997. Pesticide data: Aug. 1995 to Oct. 1997. Specific conductance: Sept. 1984 to Sept. 2000.
pH: Apr. 1989 to Sept. 2000. Water temperature: Sept. 1984 to Sept. 2000. Dissolved oxygen: Apr. 1989 to Sept. 2000.

GAGE.--Water-stage recorder. Datum of gage is 573.49 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	5.7	8.0	9.6	5.2	5.0	11	224	18	335	7.9	5.9
2	8.4	5.8	8.2	8.9	4.9	4.8	114	104	18	122	7.5	5.7
3	8.3	6.0	8.6	9.2	5.0	4.9	116	46	18	65	7.3	5.8
4	8.2	6.1	8.0	9.1	5.9	5.8	128	29	18	40	6.9	8.9
5	8.0	5.9	9.0	8.1	5.7	20	585	24	18	28	6.7	6.3
6	8.1	6.1	8.9	8.2	5.2	8.9	123	22	18	22	7.5	6.0
7	8.3	5.5	9.1	8.0	5.0	6.1	55	112	20	19	7.4	5.9
8	10	6.2	8.6	8.4	5.3	5.2	33	500	78	16	6.6	5.8
9	14	6.4	9.3	8.0	5.5	5.2	25	157	181	14	7.1	5.9
10	11	6.1	9.4	7.6	6.3	5.3	69	50	225	32	9.5	5.9
11	11	6.1	9.2	7.6	10	5.0	139	36	76	30	7.2	6.0
12	32	6.2	10	8.0	7.2	8.7	98	31	35	34	6.4	5.9
13	11	6.4	10	8.3	5.6	38	54	27	26	17	6.1	6.0
14	7.9	5.6	10	9.5	6.8	21	30	27	29	12	6.1	6.7
15	6.6	6.5	10	15	5.8	60	23	25	25	11	5.9	5.8
16	6.3	6.7	11	23	5.1	11	20	24	18	9.9	5.7	5.9
17	6.2	16	11	48	5.1	8.4	18	24	16	9.3	6.0	6.0
18	5.9	9.2	11	11	5.1	7.4	17	24	14	9.0	5.9	6.0
19	5.8	7.7	11	7.1	5.2	7.3	17	23	13	8.4	6.2	6.1
20	5.7	7.4	11	6.1	5.1	7.5	17	23	12	8.1	6.1	6.0
21	5.6	7.1	11	5.9	4.9	7.6	17	22	11	7.9	6.0	6.1
22	5.7	7.1	11	5.5	5.0	7.7	17	22	70	7.6	5.5	21
23	5.6	8.2	11	5.8	5.2	8.0	17	21	36	69	56	20
24	5.7	8.0	11	10	45	8.8	649	21	25	37	120	6.0
25	5.8	8.3	11	7.1	14	8.9	226	21	17	11	23	6.0
26	11	7.9	11	5.7	6.8	9.0	70	20	37	8.6	11	6.1
27	9.3	8.0	10	5.8	5.8	9.4	35	20	44	7.3	8.3	6.2
28	6.4	7.9	10	5.3	5.2	9.5	26	19	271	7.0	9.3	6.0
29	5.9	7.8	9.3	6.5	5.2	71	26	19	1,020	7.3	14	6.2
30	5.6	8.0	9.2	5.7	---	24	22	19	1,420	8.8	6.4	6.2
31	5.5	---	8.9	5.1	---	13	---	19	---	8.7	6.0	---
TOTAL	263.3	215.9	304.7	297.1	212.1	422.4	2,797	1,755	3,827	1,021.9	401.5	212.3
MEAN	8.49	7.20	9.83	9.58	7.31	13.6	93.2	56.6	128	33.0	13.0	7.08
MAX	32	16	11	48	45	71	649	500	1,420	335	120	21
MIN	5.5	5.5	8.0	5.1	4.9	4.8	11	19	11	7.0	5.5	5.7
AC-FT	522	428	604	589	421	838	5,550	3,480	7,590	2,030	796	421

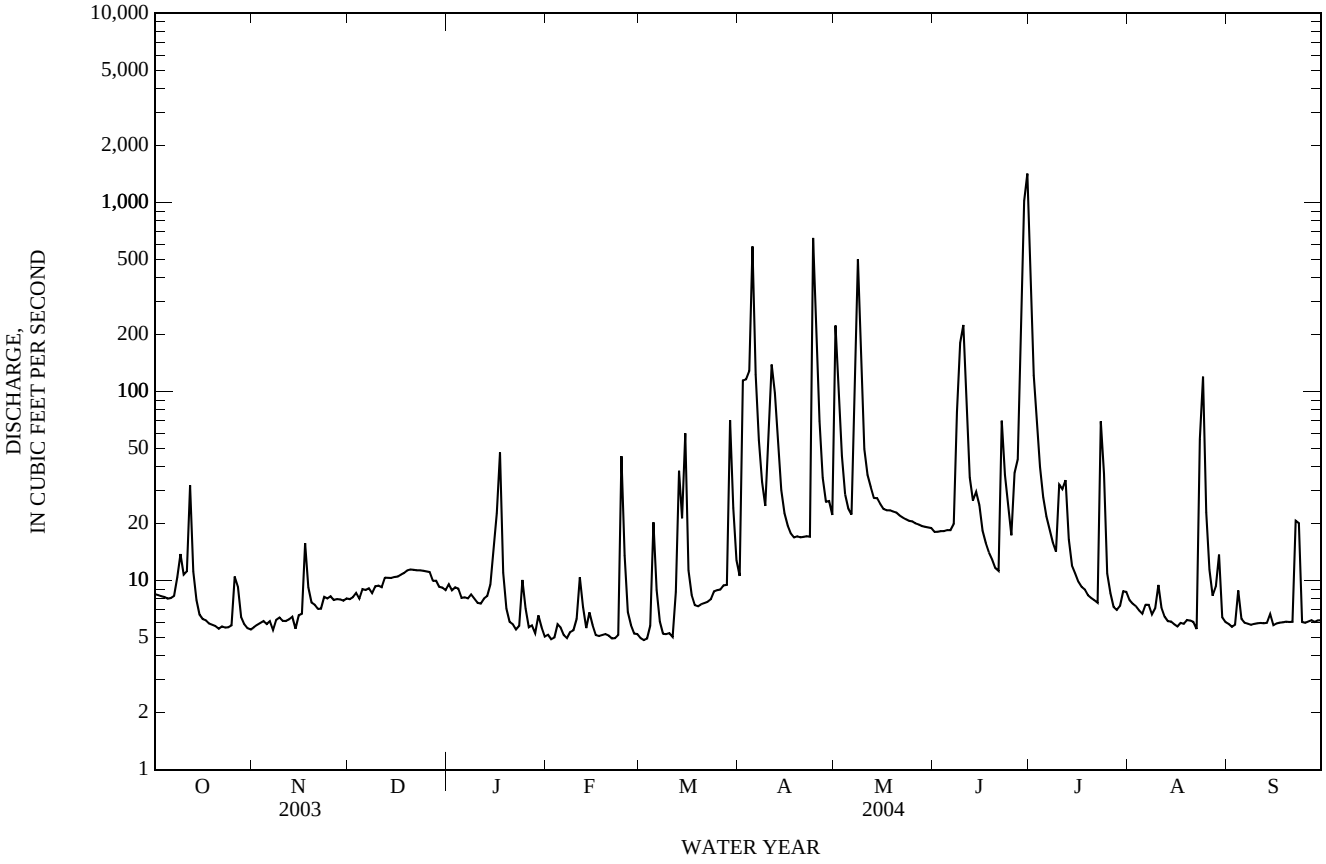
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2004, BY WATER YEAR (WY)

MEAN	83.8	29.3	40.3	17.7	31.8	25.0	24.5	54.2	118	117	14.8	26.4
MAX	942	176	575	116	355	192	93.2	356	824	1,950	87.2	195
(WY)	(1999)	(2001)	(1992)	(1992)	(1992)	(1992)	(2004)	(1992)	(1987)	(2002)	(2001)	(2002)
MIN	2.80	3.18	2.89	3.76	5.93	5.11	3.69	2.14	2.72	2.37	1.73	1.97
(WY)	(1997)	(2000)	(2000)	(1997)	(1989)	(1996)	(1995)	(1996)	(1996)	(2001)	(2003)	(1989)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1985 - 2004	
ANNUAL TOTAL	4,852.74		11,730.2			
ANNUAL MEAN	13.3		32.0		48.7	
HIGHEST ANNUAL MEAN					205	2002
LOWEST ANNUAL MEAN					6.22	1996
HIGHEST DAILY MEAN	380	Jul 5	1,420	Jun 30	20,500	Jul 2, 2002
LOWEST DAILY MEAN	0.98	Aug 7	4.8	Mar 2	0.52	Sep 15, 1997
ANNUAL SEVEN-DAY MINIMUM	1.0	Aug 4	5.1	Feb 16	0.78	Aug 1, 1996
MAXIMUM PEAK FLOW			2,600	Jun 29	i93,300	Oct 17, 1998
MAXIMUM PEAK STAGE			11.81	Jun 29	a29.31	Oct 17, 1998
ANNUAL RUNOFF (AC-FT)	9,630		23,270		35,280	
10 PERCENT EXCEEDS	16		47		36	
50 PERCENT EXCEEDS	6.2		8.9		7.8	
90 PERCENT EXCEEDS	2.5		5.7		2.7	

i From indirect measurement of peak flow.
a From floodmark.

08181480 Leon Creek at Interstate Highway 35 at San Antonio, TX—Continued



08181500 Medina River at San Antonio, TX

LOCATION.--Lat 29°15'14", long 98°28'20", Bexar County, Hydrologic Unit 12100302, on right bank at downstream side of downstream bridge on U.S. Highway 281 in San Antonio, and 6.8 mi upstream from mouth.

DRAINAGE AREA.--1,317 mi^2.

PERIOD OF RECORD.--Oct. 1929 to Dec. 1930, July 1939 to current year. Oct. 1929 to Dec. 1930, records below about 50 ft^3/s in connection with seepage investigation, published as "at Losoya". Published as "near San Antonio" July 1939 to Sept. 1970. Water-quality records: Chemical data: June 1965 to Sept. 2000. Biochemical data: June 1965 to Sept. 2000. Pesticide data: Apr. 1971 to Sept. 1981, Dec. 1992 to Mar. 1998. Specific conductance: Jan. 1987 to Sept. 2000. pH: Jan. 1987 to Sept. 2000. Water temperature: Jan. 1987 to Sept. 2000. Dissolved oxygen: Jan. 1987 to Sept. 2000.

REVISED RECORDS.--WSP 1562: 1957. WSP 1923: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 439.03 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Oct. 1929 to Dec. 1930, nonrecording gage at Losoya 1.5 mi downstream at different datum. July 27, 1939 to Sept. 30, 1987, at site near left bank at downstream side of pier of upstream bridge at same datum. Oct. 1, 1987 to Apr. 1, 2003, at site near right bank at upstream side of pier of upstream bridge at same datum. Satellite telemeter at station.

REMARKS.--Records fair. Since installation of gage in water year 1939, at least 10% of contributing drainage area has been regulated. Streamflow is lost into the Edwards and associated limestones in the Balcones Fault Zone that cross the basin between the upstream end of Medina Lake and about 5 mi downstream from Medina Dam, or 0.9 mi downstream from the Medina Diversion Dam. Several small diversions below Medina Diversion Lake. Wastewater effluent from the Mitchell Lake, Leon Creek, and Medio Creek plants was discharged into the Medina River above this station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 55 ft, prior to construction of Medina Dam in 1913, from information by Texas Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	149	136	155	169	160	191	1,670	400	3,640	577	499
2	169	153	138	161	168	159	220	1,810	388	3,890	584	456
3	171	152	134	161	163	161	600	1,500	372	3,550	552	414
4	171	153	135	167	167	164	501	1,290	342	2,700	518	386
5	169	153	138	157	167	178	2,970	1,180	304	2,220	489	431
6	174	147	145	147	160	185	1,430	1,110	288	1,920	446	437
7	179	154	154	149	156	174	661	1,070	280	1,740	417	381
8	172	143	152	162	160	163	456	1,450	336	1,580	408	353
9	184	146	143	163	162	160	374	1,230	965	1,460	472	341
10	178	151	138	153	162	159	336	1,100	1,770	1,370	469	308
11	185	150	137	144	169	158	554	1,040	1,600	1,330	455	292
12	208	150	126	142	176	162	672	1,000	2,430	1,250	425	280
13	193	149	140	141	171	203	792	987	1,920	1,180	380	267
14	179	144	136	137	175	226	952	956	1,490	1,100	357	256
15	162	143	128	148	174	434	995	935	1,350	1,050	328	251
16	162	146	e129	158	165	400	974	928	1,270	990	304	244
17	167	150	130	229	155	254	968	881	1,150	931	287	232
18	160	161	124	197	149	219	955	834	1,050	849	280	226
19	159	146	122	167	147	211	912	796	940	795	264	212
20	160	135	132	171	156	206	882	765	865	757	256	205
21	154	144	134	173	147	201	854	686	799	700	244	199
22	153	147	135	170	138	196	826	655	802	660	237	195
23	153	143	148	168	138	186	805	665	782	648	338	222
24	153	140	150	174	189	183	1,690	613	765	730	1,530	195
25	148	134	152	181	206	186	2,320	601	784	628	1,800	189
26	145	135	156	178	169	183	1,860	609	812	602	1,310	187
27	164	136	163	171	164	183	1,650	543	875	583	1,030	186
28	156	128	163	165	163	178	1,410	489	963	574	831	180
29	151	130	164	167	158	238	1,270	452	2,300	555	730	177
30	153	131	165	168	---	308	1,250	424	6,790	547	642	165
31	152	---	160	166	---	213	---	403	---	524	562	---
TOTAL	5,158	4,343	4,407	5,090	4,743	6,391	30,330	28,672	35,182	41,053	17,522	8,366
MEAN	166	145	142	164	164	206	1,011	925	1,173	1,324	565	279
MAX	208	161	165	229	206	434	2,970	1,810	6,790	3,890	1,800	499
MIN	145	128	122	137	138	158	191	403	280	524	237	165
AC-FT	10,230	8,610	8,740	10,100	9,410	12,680	60,160	56,870	69,780	81,430	34,750	16,590

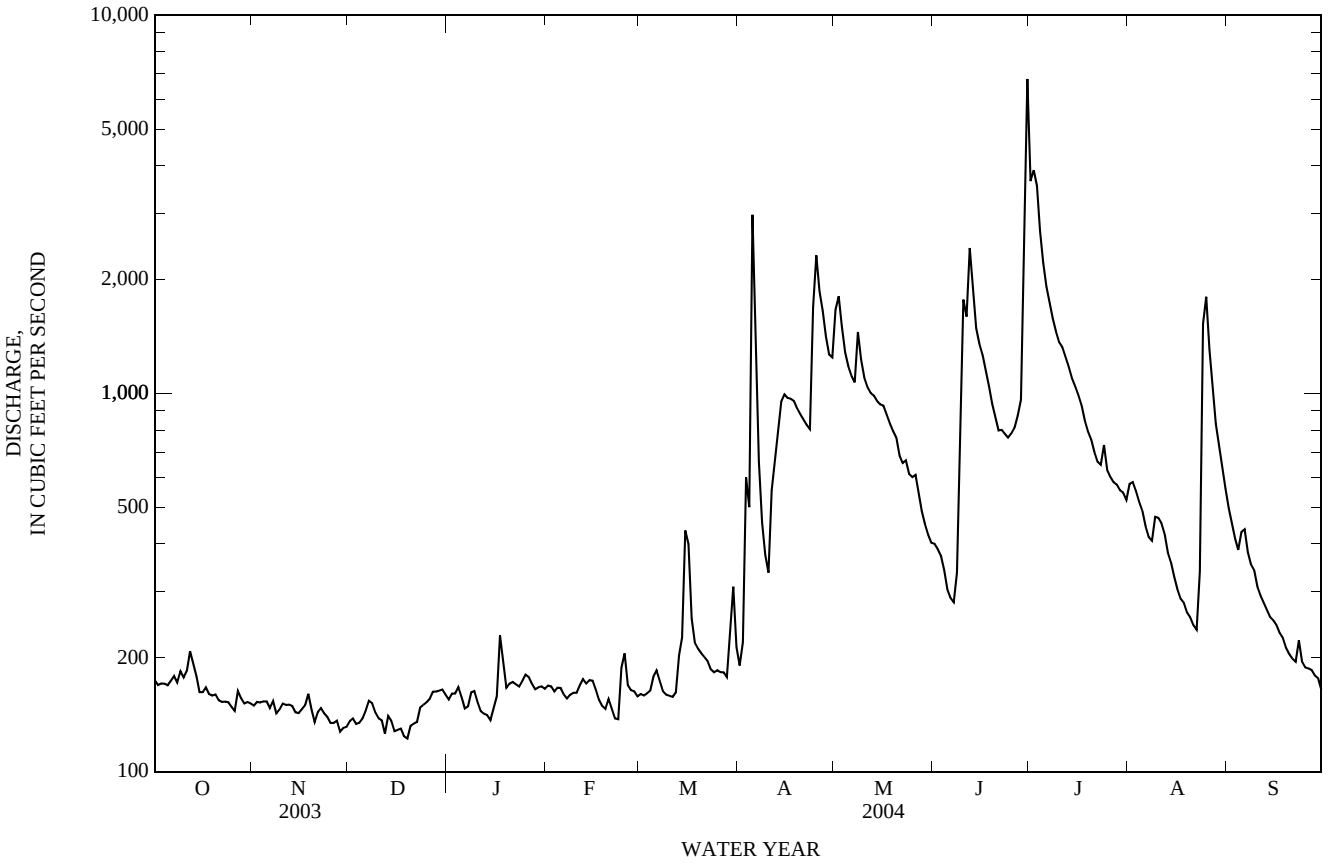
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004h, BY WATER YEAR (WY)

MEAN	254	186	167	175	224	186	206	268	400	364	164	206
MAX	2,151	1,155	961	979	2,923	2,558	1,620	2,018	7,006	9,434	1,175	1,533
(WY)	(1999)	(2003)	(1992)	(1968)	(1992)	(1992)	(1992)	(1992)	(1987)	(2002)	(1978)	(2002)
MIN	7.60	8.50	12.7	5.58	12.7	9.77	6.63	8.71	6.52	6.13	6.40	8.24
(WY)	(1956)	(1956)	(1955)	(1957)	(1953)	(1956)	(1956)	(1953)	(1956)	(1954)	(1952)	(1954)

08181500 Medina River at San Antonio, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004h	
ANNUAL TOTAL	97,677		191,257			
ANNUAL MEAN	268		523		220	
HIGHEST ANNUAL MEAN					1,218	1992
LOWEST ANNUAL MEAN					14.3	1956
HIGHEST DAILY MEAN	1,180	Jul 6	6,790	Jun 30	51,300	Jul 6, 2002
LOWEST DAILY MEAN	105	Aug 30	122	Dec 19	3.3	Apr 18, 1956
ANNUAL SEVEN-DAY MINIMUM	112	Aug 25	128	Dec 15	4.0	Jan 21, 1957
MAXIMUM PEAK FLOW			8,540	Jun 30	67,000	Jul 4, 2002
MAXIMUM PEAK STAGE			24.97	Jun 30	a56.10	Jul 4, 2002
ANNUAL RUNOFF (AC-FT)	193,700		379,400		159,500	
10 PERCENT EXCEEDS	510		1,260		381	
50 PERCENT EXCEEDS	181		207		100	
90 PERCENT EXCEEDS	132		144		20	

h See Period of Record paragraph.
a From floodmark.
e Estimated



08181800 San Antonio River near Elmendorf, TX

LOCATION.--Lat 29°13'19", long 98°21'20", Bexar County, Hydrologic Unit 12100301, at downstream side of bridge on Farm Road 1604, 2.7 mi southwest of Elmendorf, 3.3 mi downstream from Braunig Plant Lake, and 203.0 mi upstream from mouth.

DRAINAGE AREA.--1,743 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Sept. 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 380.00 ft above NGVD of 1929. Sept. 12, 1962 to Dec. 19, 1980, at site 2.5 mi upstream at different datum. Dec. 19, 1980 to Dec. 23, 1986, water-stage recorder at current site and datum. Dec. 24, 1986 to June 15, 1993, water-stage recorder at site 2.8 mi upstream at different datum. Satellite telemeter at station.

REMARKS.--Records fair. Since installation of gage in water year 1962, at least 10% of contributing drainage area has been regulated. Water is diverted above station from Medina River for irrigation in the vicinity of Devine and Lytle, with some water diverted for irrigation near San Antonio. The city of San Antonio discharges wastewater effluent into the San Antonio River above the station from their Leon Creek, Medio Creek, Salado Creek, Dos Rios, and Mitchell plants. The San Antonio City Public Service Board diverts water into and returns water from Braunig Lake and Calaveras Lake upstream from this station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1900, 61 ft in 1946. Second highest stage was 53 ft in 1913, from information by local residents at site and datum in use prior to Dec. 19, 1980.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	408	363	347	326	401	483	459	2,690	459	6,900	672	629
2	387	366	341	331	409	472	735	2,920	447	4,460	692	600
3	354	375	338	329	389	476	1,220	1,760	457	4,600	681	571
4	345	372	337	332	407	499	683	1,450	442	3,340	644	557
5	348	357	334	361	429	887	5,400	1,330	396	2,650	617	604
6	378	322	334	302	421	567	2,920	1,250	381	2,330	588	640
7	416	324	341	257	400	507	1,130	1,220	381	2,090	702	869
8	413	309	352	268	413	495	815	1,840	587	1,910	687	695
9	464	313	313	260	420	483	697	1,470	3,430	1,790	713	643
10	466	328	330	211	454	474	659	1,260	12,000	1,710	699	599
11	e438	321	334	222	483	472	1,360	1,180	2,760	1,730	636	576
12	854	325	322	274	512	495	1,230	1,200	2,620	1,950	618	571
13	591	319	331	316	456	793	978	1,140	2,450	1,550	571	571
14	465	356	329	306	469	689	1,060	1,240	1,870	1,430	554	559
15	423	346	336	370	467	1,220	1,130	1,220	1,680	e1,050	534	514
16	407	351	319	351	453	803	1,120	1,080	1,590	e990	509	e411
17	403	390	324	853	444	610	1,080	1,030	1,460	e931	488	e402
18	388	432	324	410	434	547	1,080	966	1,360	e849	476	e399
19	387	370	314	315	428	505	1,050	922	1,250	e795	475	e400
20	392	351	319	309	434	445	948	883	1,170	e757	449	e363
21	382	352	320	310	427	444	842	827	1,110	e700	426	409
22	376	351	324	326	426	449	823	758	1,500	e660	418	409
23	379	356	328	358	434	431	780	770	1,380	838	681	1,370
24	378	350	328	442	813	453	3,130	752	1,130	1,080	1,320	503
25	366	343	324	481	685	429	3,480	684	2,540	876	2,000	462
26	363	343	324	444	502	425	2,130	624	2,090	824	1,620	460
27	446	345	333	406	473	414	1,890	560	1,390	738	1,270	466
28	400	328	335	391	464	415	1,590	509	1,610	688	1,040	460
29	382	334	338	393	467	521	1,460	487	2,940	673	1,030	452
30	e397	334	337	411	---	573	1,380	469	8,350	706	896	453
31	e380	---	335	397	---	448	---	456	---	648	760	---
TOTAL	12,976	10,426	10,245	11,062	13,414	16,924	43,259	34,947	61,230	52,243	23,466	16,617
MEAN	419	348	330	357	463	546	1,442	1,127	2,041	1,685	757	554
MAX	854	432	352	853	813	1,220	5,400	2,920	12,000	6,900	2,000	1,370
MIN	345	309	313	211	389	414	459	456	381	648	418	363
AC-FT	25,740	20,680	20,320	21,940	26,610	33,570	85,800	69,320	121,400	103,600	46,540	32,960

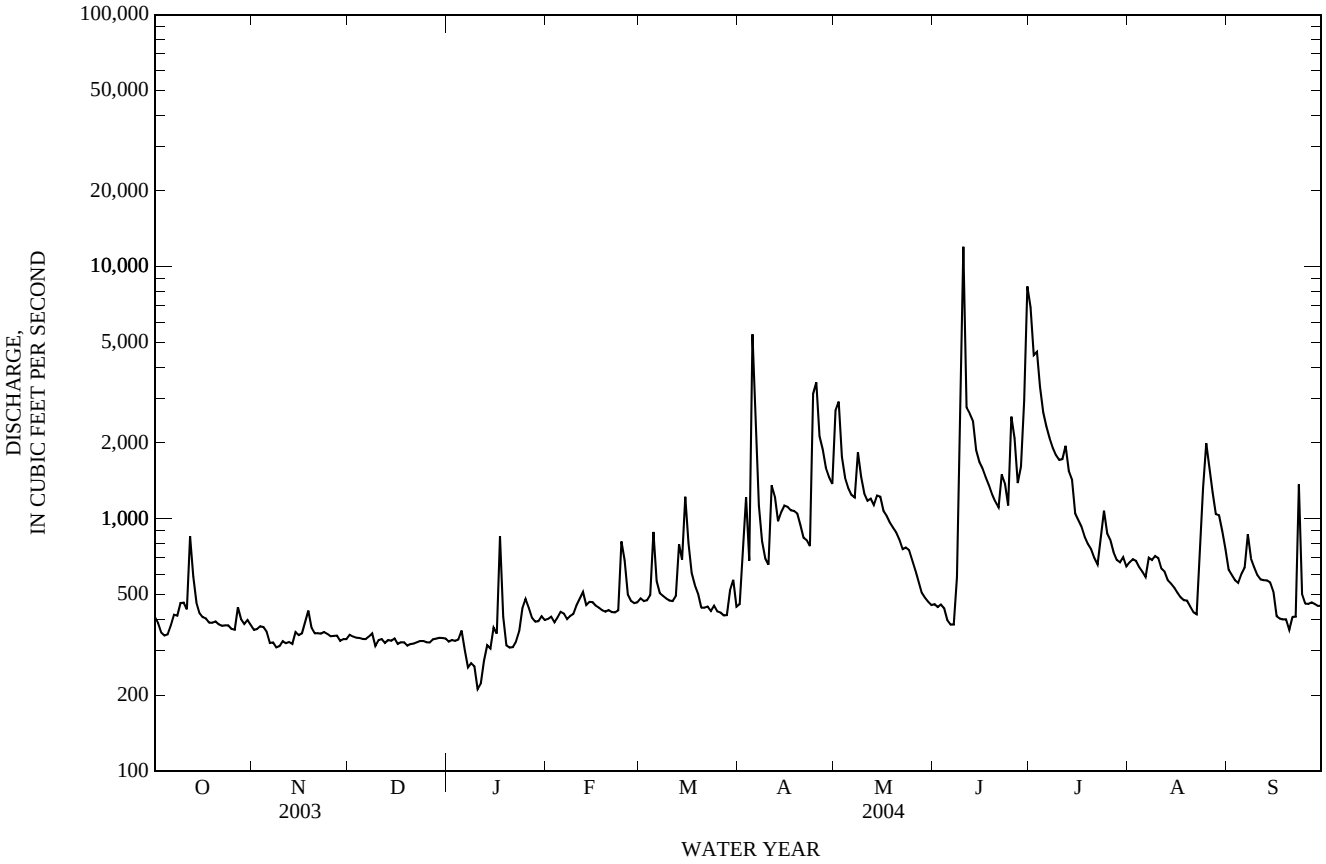
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

MEAN	632	520	473	494	554	495	539	717	946	789	415	528
MAX	4,507	2,018	2,176	2,191	3,803	3,031	1,997	3,293	8,527	12,010	1,760	2,761
(WY)	(1999)	(2001)	(1992)	(1968)	(1992)	(1992)	(1992)	(1992)	(1987)	(2002)	(1978)	(1973)
MIN	127	153	160	168	146	143	150	130	88.6	81.9	52.8	120
(WY)	(1997)	(1967)	(1971)	(1967)	(1967)	(1971)	(1967)	(1967)	(1967)	(1964)	(1963)	(1989)

08181800 San Antonio River near Elmendorf, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	204,187		306,809			
ANNUAL MEAN	559		838		592	
HIGHEST ANNUAL MEAN					1,784	1992
LOWEST ANNUAL MEAN					166	1963
HIGHEST DAILY MEAN	3,130	Sep 12	12,000	Jun 10	62,400	Jul 6, 2002
LOWEST DAILY MEAN	228	Aug 22	211	Jan 10	25	Aug 26, 1963
ANNUAL SEVEN-DAY MINIMUM	249	Aug 19	256	Jan 6	42	Aug 21, 1963
MAXIMUM PEAK FLOW			16,100	Jun 10	75,100	Oct 18, 1998
MAXIMUM PEAK STAGE			47.07	Jun 10	64.22	Oct 18, 1998
ANNUAL RUNOFF (AC-FT)	405,000		608,600		428,700	
10 PERCENT EXCEEDS	856		1,600		1,030	
50 PERCENT EXCEEDS	421		476		326	
90 PERCENT EXCEEDS	300		329		148	

e Estimated



08181800 San Antonio River near Elmendorf, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Sept. 1964 to current year.
BIOCHEMICAL DATA: Jan. 1968 to current year.
PESTICIDE DATA: Jan. 1968 to Sept. 1981, Dec. 1992 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Oct. 1966 to current year.
pH: June 1984 to current year.
WATER TEMPERATURE: Oct. 1966 to current year.
DISSOLVED OXYGEN: June 1984 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1984.

REMARKS.--Records fair except those for dissolved oxygen, which are poor. Interruptions in the record were caused by malfunctions of the instrument. 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, 1,240 microsiemens/cm, Jan. 29, 1973, Aug. 8, 1975; minimum, 102 microsiemens/cm, Oct. 17, 1999.
pH: Maximum, 9.0 standard units, June 16, 17, 1993; minimum, 7.0 standard units, Oct. 25, 28, 1988, Jan. 11, 1989, Aug. 29, 2002.
WATER TEMPERATURE: Maximum, 33.5°C, June 19, 20, Sept. 2, 1996; minimum, 5.5°C, Jan. 10, 1973.
DISSOLVED OXYGEN: Maximum, 16.5 mg/L, Mar. 4, 2002; minimum, 0.0 mg/L, Mar. 2, Apr. 14, 15, 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 961 microsiemens/cm, Jan. 15; minimum, 132 microsiemens/cm, June 10.
pH: Maximum, 8.2 standard units, on many days; minimum, 7.5 standard units, Mar. 15, 30, May 28, June 2, 11.
WATER TEMPERATURE: Maximum, 33.1°C, June 5; minimum, 14.1°C, Feb. 14.
DISSOLVED OXYGEN: Maximum, 12.5 mg/L, Feb. 21; minimum, 1.9 mg/L, June 3.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L (71846)
OCT													
21...	1030	388	10	745	7.4	89	7.5	866	23.0	210	78.8	64.6	--
NOV													
18...	0930	447	10	744	7.5	89	7.8	780	23.0	190	66.4	57.8	.14
DEC													
09...	1050	316	10	735	8.3	93	7.7	912	19.0	212	87.7	71.5	.17
JAN													
13...	1020	317	10	749	8.3	90	7.9	931	18.0	205	93.9	73.5	.29
FEB													
18...	1030	438	10	752	8.7	91	7.3	896	17.0	192	87.6	73.8	--
APR													
20...	1000	990	10	745	8.1	93	7.6	615	21.0	171	43.7	56.5	--
MAY													
13...	1100	1,130	10	745	4.4	55	8.5	644	25.0	185	44.3	54.2	--
JUN													
21...	1100	1,110	10	738	5.3	70	7.7	650	27.5	192	46.8	57.9	--
JUL													
15...	1000	1,390	10	740	6.8	88	7.6	623	27.0	190	41.8	53.7	--
AUG													
10...	1030	--	--	--	--	--	--	--	--	--	--	--	--
18...	1030	500	10	746	6.8	87	8.1	810	26.5	195	72.8	66.7	--
SEP													
09...	1130	650	10	740	7.2	91	8.1	696	25.5	182	57.2	54.2	--

08181800 San Antonio River near Elmendorf, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L (00660)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)	Biomass peri-phyton, ashfree drymass g/m2 (49954)	Biomass chloro-phyll ratio, peri-phyton, number (70950)	2,6-Di-ethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)
OCT													
21...	<.04	45.7	10.3	10.4d	.187	.057	2.66	.869d	.95oc	--	--	--	--
NOV													
18...	.10	37.6	8.50	8.57d	.217	.066d	1.63	.530d	.65oc	--	--	--	--
DEC													
09...	.13	57.2	12.9	13.0d	.108	.033	2.35	.767d	.90oc	--	--	<.006	E.004n
JAN													
13...	.23	55.5	12.5	12.6d	.214	.065	1.96	.638d	.76oc	--	--	<.006	E.012
FEB													
18...	<.04	48.4	10.9	11.2d	.871	.265	1.97	.642	.80oc	--	--	<.006	E.013
APR													
20...	<.04	18.8	4.26	4.27	.030	.009	.687	.224d	.32oc	--	--	<.006	E.013
MAY													
13...	<.04	16.8	3.81	3.82	.043	.013	.604	.197	.28oc	--	--	<.006	E.013
JUN													
21...	<.04	17.6	3.98	4.00	.062	.019	.739	.241d	.34oc	--	--	<.006	E.012
JUL													
15...	<.04	--	--	3.52	--	E.006n	.527	.172	.24oc	--	--	<.006	E.007
AUG													
10...	--	--	--	--	--	--	--	--	--	19.1	2,250	--	--
18...	E.03n	40.0	9.04	9.08d	.135	.041	1.63	.530d	.63oc	--	--	<.006	E.018
SEP													
09...	<.04	31.6	7.13	7.15d	.046	.014	.880	.287d	.34oc	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyana-zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)
OCT													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
09...	<.006	<.005	<.005	E.007n	<.050	<.010	<.004	E.005t	<.020	<.005	<.006	<.018	<.003
JAN													
13...	<.006	<.005	<.005	.011	<.050	<.010	<.004	E.012t	<.020	<.005	<.006	<.018	<.003
FEB													
18...	<.006	<.005	<.005	.026	<.050	<.010	<.004	E.009t	<.020	<.005	<.006	<.018	<.003
APR													
20...	<.006	<.005	<.005	.144	<.050	<.010	<.004	E.016t	<.100	<.005	<.006	<.018	<.003
MAY													
13...	<.006	<.005	<.005	.126	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
JUN													
21...	<.006	<.005	<.005	.046	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
JUL													
15...	<.006	<.005	<.005	.023	<.050	<.010	<.004	<.041	<.030	<.005	<.006	<.018	<.003
AUG													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.006	<.005	<.005	.022	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
SEP													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

08181800 San Antonio River near Elmendorf, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)
OCT													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
09...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
JAN													
13...	E.003t	.024	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	.010
FEB													
18...	E.005t	<.010	<.009	<.02	<.004	<.009	<.005	<.029	<.013	E.007t	E.016	<.003	.008
APR													
20...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
MAY													
13...	<.012	.006	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
JUN													
21...	E.003t	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
JUL													
15...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.005
AUG													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004
SEP													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)
OCT													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
09...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01
JAN													
13...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01
FEB													
18...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01
APR													
20...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01
MAY													
13...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01
JUN													
21...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01
JUL													
15...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01
AUG													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01
SEP													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

08181800 San Antonio River near Elmendorf, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT													
21...	--	--	--	--	--	--	--	--	--	--	--	23	24
NOV													
18...	--	--	--	--	--	--	--	--	--	--	--	36	43
DEC													
09...	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009	24	20
JAN													
13...	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009	17	15
FEB													
18...	<.004	<.025	<.011	<.02	.012	<.02	<.034	<.02	<.010	<.002	<.009	25	30
APR													
20...	<.004	<.025	<.011	<.02	<.010	<.02	<.034	<.02	<.010	<.002	<.009	118	315
MAY													
13...	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009	119	363
JUN													
21...	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009	132	396
JUL													
15...	<.004	<.025	<.011	<.02	.016	<.02	<.034	<.02	<.010	<.002	<.009	152	570
AUG													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.004	<.025	<.011	<.02	<.010	E.01n	<.034	<.02	<.010	<.002	<.009	144	194
SEP													
09...	--	--	--	--	--	--	--	--	--	--	--	41	72

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
c -- See laboratory comment
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL
o -- Result determined by alternate method
t -- Below the long-term MDL

08181800 San Antonio River near Elmendorf, TX—Continued

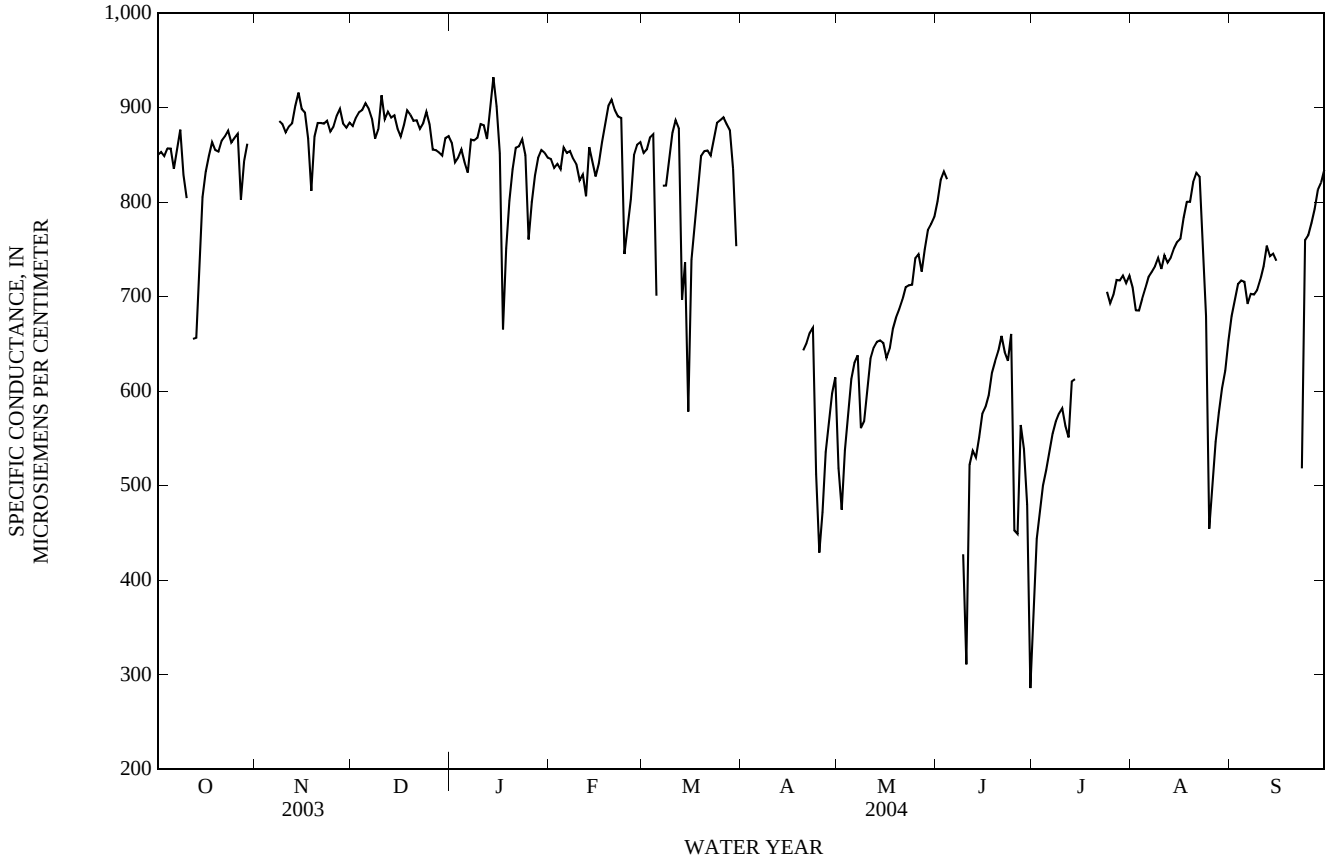
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	871	829	850	---	---	---	893	862	880	872	850	863
2	864	828	853	---	---	---	910	854	889	860	831	842
3	864	831	849	---	---	---	914	878	895	860	830	847
4	872	835	857	---	---	---	917	876	898	867	841	856
5	871	841	857	---	---	---	925	880	905	862	780	842
6	854	826	835	---	---	---	915	876	899	873	774	831
7	879	832	857	---	---	---	909	872	888	881	851	866
8	891	845	877	896	869	886	877	856	867	883	850	865
9	874	770	829	896	869	883	901	839	877	883	854	868
10	822	784	804	886	861	874	940	885	913	906	863	882
11	---	---	---	897	852	880	903	864	888	908	860	881
12	827	520	655	895	866	883	918	876	896	884	849	867
13	685	621	657	935	877	902	905	868	890	942	850	902
14	777	685	740	938	900	916	904	866	892	954	905	932
15	825	772	805	910	881	899	902	861	878	961	773	901
16	841	811	832	908	878	895	886	845	869	883	783	852
17	874	826	849	894	817	867	901	850	882	835	481	665
18	874	843	864	850	780	812	913	871	897	767	718	751
19	871	838	855	894	836	869	910	876	893	822	767	802
20	867	837	853	904	861	884	902	867	886	866	796	835
21	881	846	865	903	862	884	906	865	887	873	841	858
22	884	842	870	897	871	883	890	855	878	874	843	859
23	894	859	876	903	868	886	905	855	883	890	825	866
24	875	843	863	897	864	875	910	875	895	886	728	850
25	887	843	868	898	853	880	899	861	882	785	730	761
26	888	859	872	914	874	891	869	846	856	824	756	800
27	859	761	803	913	890	899	870	832	855	847	809	828
28	864	765	843	897	873	883	864	833	852	860	818	847
29	874	840	862	897	856	879	859	839	849	885	828	855
30	---	---	---	901	860	884	885	850	868	885	833	852
31	---	---	---	---	---	---	885	858	870	859	826	847
MONTH							940	832	882	961	481	844
		FEBRUARY			MARCH			APRIL			MAY	
1	858	836	845	867	829	852	---	---	---	608	279	519
2	845	822	836	871	831	856	---	---	---	518	419	475
3	858	821	840	886	847	868	---	---	---	546	518	538
4	854	806	835	895	848	872	---	---	---	595	539	578
5	876	843	858	848	618	701	---	---	---	626	594	613
6	869	838	852	---	---	---	---	---	---	641	614	630
7	869	843	854	829	799	817	---	---	---	643	628	638
8	861	829	846	837	783	817	---	---	---	638	505	561
9	849	829	840	872	815	846	---	---	---	578	551	568
10	866	790	823	898	838	873	---	---	---	616	575	604
11	856	799	829	911	865	887	---	---	---	644	613	634
12	849	750	806	907	821	878	---	---	---	658	629	646
13	879	832	858	821	576	696	---	---	---	668	630	652
14	864	791	842	763	654	736	---	---	---	673	629	654
15	847	789	827	740	360	578	---	---	---	700	625	651
16	853	823	841	817	620	739	---	---	---	648	618	635
17	892	832	863	795	756	778	---	---	---	661	612	645
18	903	861	883	847	772	815	---	---	---	681	636	666
19	923	880	902	860	833	849	---	---	---	693	649	678
20	936	886	908	869	839	854	656	619	643	702	667	687
21	924	879	897	869	844	855	662	624	651	715	677	697
22	913	866	891	867	835	849	671	645	662	719	693	710
23	904	867	889	887	851	866	679	649	667	722	697	712
24	925	494	745	899	872	884	672	269	512	734	687	713
25	825	680	775	901	870	887	483	406	429	768	711	741
26	839	767	803	901	880	890	509	424	472	763	728	745
27	875	809	850	895	875	883	552	509	536	740	711	727
28	880	841	861	887	861	876	577	552	569	779	734	750
29	876	835	863	883	673	835	615	574	598	780	762	771
30	---	---	---	809	675	753	623	602	615	788	761	777
31	---	---	---	---	---	---	---	---	---	796	765	784
MONTH	936	494	847							796	279	658

08181800 San Antonio River near Elmendorf, TX—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	820	783	801	420	266	363	726	691	710	704	645	680
2	847	812	824	462	420	444	698	666	685	717	667	696
3	850	808	832	487	462	475	701	665	685	730	691	713
4	852	806	824	507	487	500	717	673	698	733	678	717
5	---	---	---	522	506	517	725	693	709	727	694	716
6	---	---	---	548	522	537	737	696	721	714	673	692
7	---	---	---	559	548	555	740	694	726	764	668	703
8	---	---	---	574	556	568	748	693	732	724	684	702
9	671	134	427	583	568	576	752	728	741	724	695	707
10	434	132	311	589	573	582	745	712	729	746	687	718
11	586	433	522	583	548	563	755	725	744	745	710	732
12	559	518	537	601	476	551	748	720	736	779	722	754
13	541	520	530	623	587	610	764	717	741	762	719	743
14	562	541	551	620	599	613	770	733	751	763	727	746
15	582	562	576	---	---	---	772	731	758	759	708	738
16	588	577	583	---	---	---	785	733	761	---	---	---
17	602	587	596	---	---	---	813	761	784	---	---	---
18	626	599	620	---	---	---	823	782	801	---	---	---
19	637	620	632	---	---	---	821	775	800	---	---	---
20	651	625	643	---	---	---	843	807	821	---	---	---
21	667	636	659	---	---	---	842	823	831	---	---	---
22	680	558	641	---	---	---	842	812	827	---	---	---
23	651	592	632	---	---	---	824	648	746	824	226	518
24	671	631	661	733	675	705	792	508	680	783	672	760
25	656	295	453	705	679	693	508	435	455	782	749	765
26	524	300	449	719	678	702	523	464	500	797	738	778
27	586	514	564	730	695	718	562	514	547	812	768	793
28	555	525	539	728	696	717	590	556	577	834	793	813
29	572	237	480	737	701	722	656	589	603	844	808	821
30	325	237	286	734	698	714	642	586	622	851	822	834
31	---	---	---	734	704	722	682	628	653	---	---	---
MONTH							843	435	706			
YEAR												

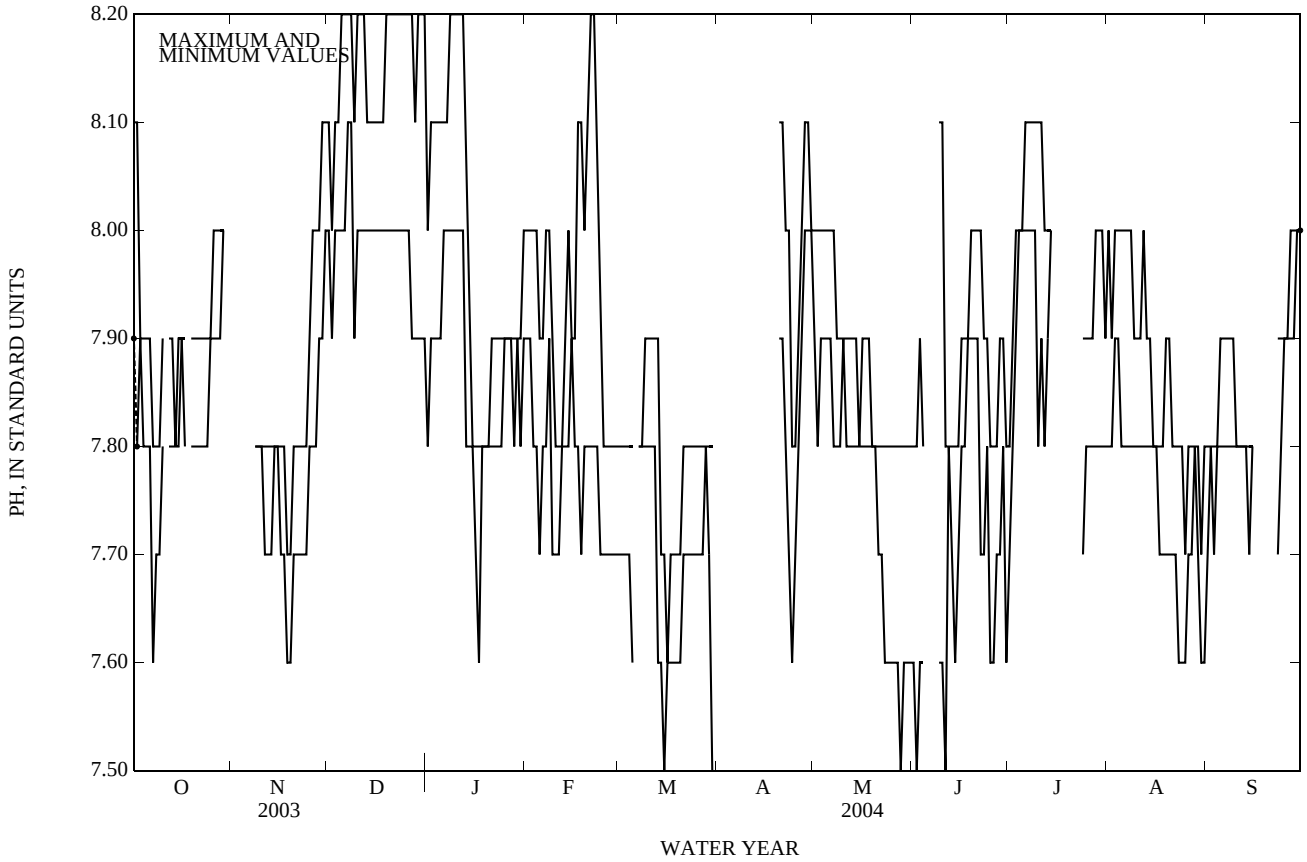


08181800 San Antonio River near Elmendorf, TX—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.1	7.9	---	---	8.1	8.0	8.0	7.8	8.0	7.9	7.8	7.7
2	8.1	7.8	---	---	8.0	7.9	8.1	7.9	8.0	7.9	7.8	7.7
3	7.9	7.9	---	---	8.1	8.0	8.1	7.9	8.0	7.8	7.8	7.7
4	7.9	7.8	---	---	8.1	8.0	8.1	7.9	8.0	7.8	7.8	7.7
5	7.9	7.8	---	---	8.2	8.0	8.1	7.9	7.9	7.7	7.8	7.6
6	7.9	7.8	---	---	8.2	8.0	8.1	8.0	7.9	7.8	---	---
7	7.8	7.6	---	---	8.2	8.1	8.1	8.0	8.0	7.8	7.8	7.8
8	7.8	7.7	7.8	7.8	8.2	8.1	8.2	8.0	8.0	7.9	7.8	7.8
9	7.8	7.7	7.8	7.8	8.1	7.9	8.2	8.0	7.9	7.7	7.9	7.8
10	7.9	7.8	7.8	7.8	8.2	8.0	8.2	8.0	7.8	7.7	7.9	7.8
11	---	---	7.8	7.7	8.2	8.0	8.2	8.0	7.8	7.7	7.9	7.8
12	7.9	7.8	7.8	7.7	8.2	8.0	8.2	8.0	7.8	7.8	7.9	7.8
13	7.9	7.8	7.8	7.7	8.1	8.0	8.1	7.8	7.9	7.8	7.9	7.6
14	7.8	7.8	7.8	7.8	8.1	8.0	7.9	7.8	8.0	7.8	7.7	7.6
15	7.9	7.8	7.8	7.8	8.1	8.0	7.8	7.8	7.9	7.9	7.7	7.5
16	7.9	7.9	7.8	7.7	8.1	8.0	7.8	7.7	7.9	7.8	7.6	7.6
17	7.9	7.8	7.8	7.7	8.1	8.0	7.8	7.6	8.1	7.8	7.7	7.6
18	---	---	7.7	7.6	8.1	8.0	7.8	7.8	8.1	7.7	7.7	7.6
19	7.9	7.8	7.7	7.6	8.2	8.0	7.8	7.8	8.0	7.8	7.7	7.6
20	7.9	7.8	7.8	7.7	8.2	8.0	7.8	7.8	8.1	7.8	7.7	7.6
21	7.9	7.8	7.8	7.7	8.2	8.0	7.9	7.8	8.2	7.8	7.8	7.7
22	7.9	7.8	7.8	7.7	8.2	8.0	7.9	7.8	8.2	7.8	7.8	7.7
23	7.9	7.8	7.8	7.7	8.2	8.0	7.9	7.8	8.0	7.8	7.8	7.7
24	7.9	7.8	7.8	7.7	8.2	8.0	7.9	7.8	7.9	7.7	7.8	7.7
25	7.9	7.9	7.9	7.8	8.2	8.0	7.9	7.9	7.8	7.7	7.8	7.7
26	8.0	7.9	8.0	7.8	8.2	8.0	7.9	7.9	7.8	7.7	7.8	7.7
27	8.0	7.9	8.0	7.8	8.2	7.9	7.9	7.9	7.8	7.7	7.8	7.7
28	8.0	7.9	8.0	7.9	8.1	7.9	7.9	7.8	7.8	7.7	7.8	7.8
29	8.0	8.0	8.1	7.9	8.2	7.9	7.9	7.9	7.8	7.7	7.8	7.7
30	---	---	8.1	8.0	8.2	7.9	7.9	7.8	---	---	7.8	7.5
31	---	---	---	---	8.2	7.9	8.0	7.9	---	---	---	---
MONTH					8.2	7.9	8.2	7.6	8.2	7.7		
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	8.0	7.9	7.8	7.6	7.8	7.7	8.0	7.8	7.8	7.7
2	---	---	8.0	7.8	7.8	7.5	7.9	7.8	7.9	7.8	7.8	7.8
3	---	---	8.0	7.9	7.9	7.6	8.0	7.9	8.0	7.9	7.8	7.7
4	---	---	8.0	7.9	7.8	7.6	8.0	8.0	8.0	7.9	7.8	7.8
5	---	---	8.0	7.9	---	---	8.0	8.0	8.0	7.8	7.9	7.8
6	---	---	8.0	7.9	---	---	8.1	8.0	8.0	7.8	7.9	7.8
7	---	---	8.0	7.8	---	---	8.1	8.0	8.0	7.8	7.9	7.8
8	---	---	7.9	7.8	---	---	8.1	8.0	8.0	7.8	7.9	7.8
9	---	---	7.9	7.8	8.1	7.6	8.1	8.0	7.9	7.8	7.9	7.8
10	---	---	7.9	7.9	8.1	7.6	8.1	7.8	7.9	7.8	7.8	7.8
11	---	---	7.9	7.8	7.8	7.5	8.1	7.9	7.9	7.8	7.8	7.8
12	---	---	7.9	7.8	7.8	7.8	8.0	7.8	8.0	7.8	7.8	7.8
13	---	---	7.9	7.8	7.8	7.7	8.0	7.9	7.9	7.8	7.8	7.8
14	---	---	7.9	7.8	7.8	7.6	8.0	8.0	7.9	7.8	7.8	7.7
15	---	---	7.8	7.8	7.8	7.7	---	---	7.8	7.8	7.8	7.8
16	---	---	7.9	7.8	7.9	7.8	---	---	7.8	7.8	---	---
17	---	---	7.9	7.8	7.9	7.8	---	---	7.8	7.7	---	---
18	---	---	7.9	7.8	7.9	7.9	---	---	7.8	7.7	---	---
19	---	---	7.8	7.8	8.0	7.9	---	---	7.9	7.7	---	---
20	8.1	7.9	7.8	7.8	8.0	7.9	---	---	7.9	7.7	---	---
21	8.1	7.9	7.8	7.7	8.0	7.9	---	---	7.8	7.7	---	---
22	8.0	7.8	7.8	7.7	8.0	7.7	---	---	7.8	7.7	---	---
23	8.0	7.7	7.8	7.6	7.9	7.7	---	---	7.8	7.6	7.9	7.7
24	7.8	7.6	7.8	7.6	7.9	7.8	7.9	7.7	7.8	7.6	7.9	7.8
25	7.8	7.7	7.8	7.6	7.8	7.6	7.9	7.8	7.7	7.6	7.9	7.9
26	7.9	7.8	7.8	7.6	7.8	7.6	7.9	7.8	7.8	7.7	7.9	7.9
27	8.0	7.9	7.8	7.6	7.8	7.7	7.9	7.8	7.8	7.7	8.0	7.9
28	8.1	8.0	7.8	7.5	7.9	7.7	8.0	7.8	7.8	7.8	8.0	7.9
29	8.1	8.0	7.8	7.6	7.9	7.8	8.0	7.8	7.8	7.7	8.0	8.0
30	8.0	8.0	7.8	7.6	7.8	7.6	8.0	7.8	7.7	7.6	8.0	8.0
31	---	---	7.8	7.6	---	---	7.9	7.8	7.8	7.6	---	---
MONTH			8.0	7.5					8.0	7.6		
YEAR												

08181800 San Antonio River near Elmendorf, TX—Continued



TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

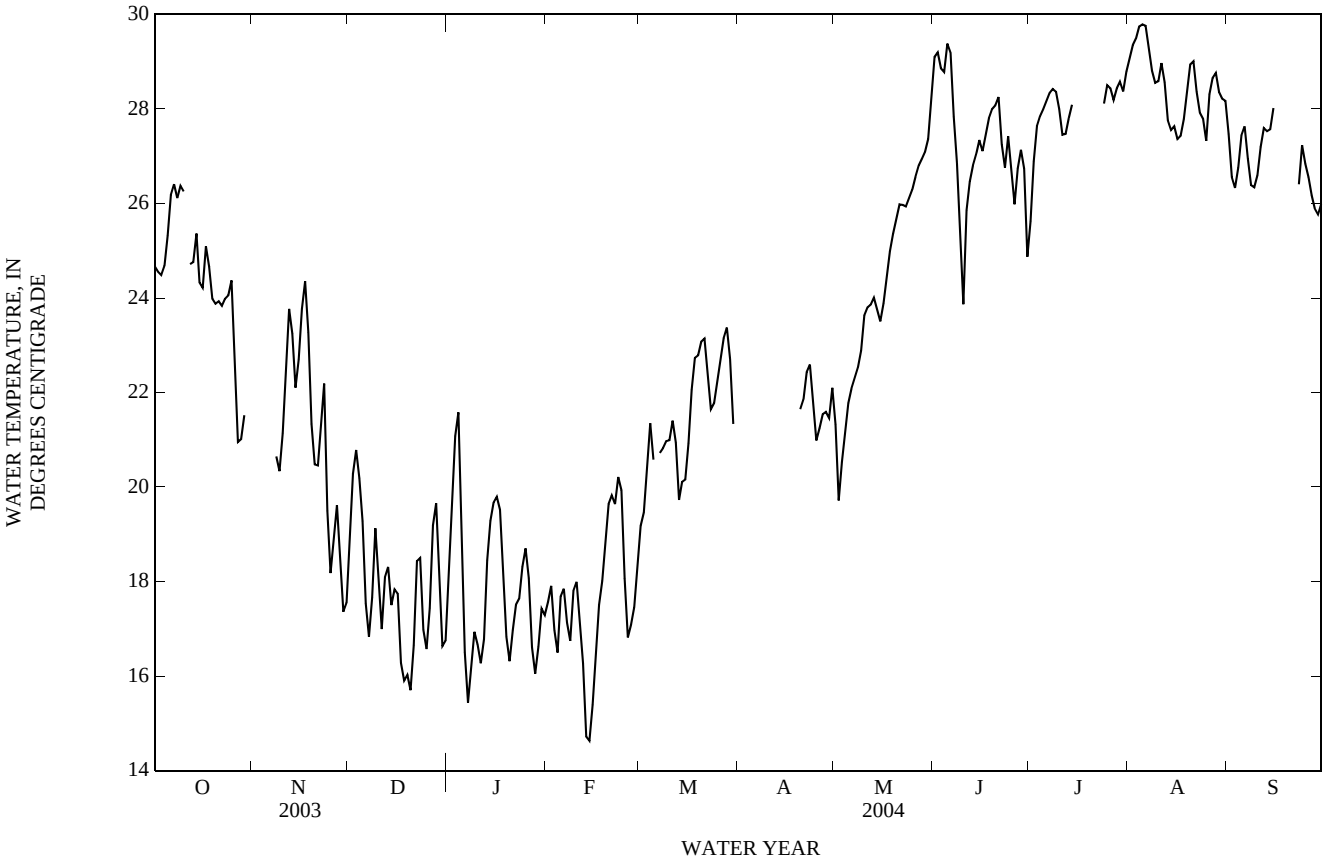
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	25.4	23.8	24.7	---	---	---	20.3	18.4	19.0	19.3	17.9	18.6
2	25.4	23.7	24.6	---	---	---	21.1	19.8	20.3	20.9	19.3	19.9
3	25.3	23.6	24.5	---	---	---	21.2	20.4	20.8	21.6	20.7	21.1
4	25.2	24.0	24.7	---	---	---	21.2	19.8	20.2	21.8	21.3	21.6
5	26.3	24.6	25.3	---	---	---	20.5	18.5	19.3	21.4	18.0	19.4
6	27.1	25.5	26.2	---	---	---	18.8	17.1	17.5	18.0	15.5	16.5
7	27.0	25.9	26.4	---	---	---	17.5	16.2	16.8	15.8	15.1	15.4
8	26.6	25.8	26.1	21.4	20.2	20.6	19.2	16.9	17.7	17.3	15.7	16.3
9	27.1	25.9	26.4	20.7	20.1	20.3	19.6	18.7	19.1	17.5	16.7	16.9
10	26.9	26.0	26.3	22.3	20.3	21.1	18.9	17.6	18.0	17.3	16.2	16.7
11	---	---	---	23.4	21.9	22.4	17.9	16.5	17.0	16.8	15.5	16.3
12	25.4	24.4	24.7	24.5	23.2	23.8	19.1	17.7	18.1	18.1	16.2	16.8
13	25.3	24.4	24.8	24.4	22.7	23.2	19.2	17.9	18.3	19.3	18.0	18.5
14	25.7	25.2	25.4	22.8	21.6	22.1	18.3	17.0	17.5	19.8	19.0	19.3
15	25.2	23.6	24.3	23.6	22.1	22.7	19.0	17.1	17.8	20.1	19.1	19.7
16	25.0	23.5	24.2	24.4	23.3	23.8	19.1	17.0	17.7	20.1	19.4	19.8
17	26.0	24.5	25.1	25.0	23.9	24.4	17.2	15.7	16.3	20.1	19.2	19.5
18	25.6	23.8	24.7	24.4	22.3	23.3	16.8	15.3	15.9	19.3	17.2	18.2
19	24.7	23.1	24.0	22.3	20.7	21.3	16.7	15.3	16.0	17.3	16.3	16.8
20	24.8	23.0	23.9	21.4	19.8	20.5	16.7	15.1	15.7	17.1	15.7	16.3
21	24.9	23.0	23.9	21.5	19.6	20.5	17.8	15.8	16.7	18.0	16.4	17.0
22	24.8	22.9	23.8	22.5	20.5	21.3	19.4	17.8	18.4	18.0	17.2	17.5
23	25.0	23.1	24.0	22.5	21.1	22.2	19.6	18.0	18.5	18.1	17.3	17.6
24	24.8	23.4	24.1	21.1	18.9	19.5	18.2	16.4	17.0	18.9	18.0	18.3
25	25.3	23.7	24.4	19.1	17.6	18.2	17.3	16.3	16.6	19.1	18.2	18.7
26	25.1	21.6	22.9	19.9	18.3	18.9	18.5	16.7	17.4	18.9	17.6	18.1
27	21.6	20.1	21.0	20.0	19.2	19.6	20.0	18.5	19.2	17.6	16.0	16.6
28	22.0	20.3	21.0	19.4	17.7	18.4	20.4	18.8	19.7	16.9	15.4	16.1
29	22.4	20.8	21.5	18.3	16.6	17.4	18.9	17.6	18.1	17.4	16.3	16.6
30	---	---	---	18.5	16.8	17.5	17.7	16.0	16.6	17.9	17.1	17.4
31	---	---	---	---	---	---	17.9	16.1	16.8	17.9	16.9	17.3
MONTH							21.2	15.1	17.9	21.8	15.1	17.9

08181800 San Antonio River near Elmendorf, TX—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	18.1	17.2	17.6	19.8	18.8	19.2	---	---	---	22.5	18.7	21.3
2	18.4	17.3	17.9	20.1	19.1	19.5	---	---	---	20.6	19.1	19.7
3	18.3	16.5	17.0	21.2	19.9	20.5	---	---	---	21.3	20.0	20.5
4	17.6	16.0	16.5	21.8	21.1	21.4	---	---	---	22.1	20.5	21.2
5	18.7	17.0	17.7	21.6	19.7	20.6	---	---	---	22.5	21.4	21.8
6	18.6	17.2	17.9	---	---	---	---	---	---	22.5	21.8	22.1
7	18.0	16.3	17.1	21.9	19.6	20.7	---	---	---	22.6	22.1	22.3
8	17.5	16.3	16.7	21.7	19.9	20.8	---	---	---	23.0	22.0	22.5
9	19.1	17.1	17.8	22.1	19.8	21.0	---	---	---	23.6	22.4	22.9
10	19.1	17.2	18.0	22.0	19.9	21.0	---	---	---	24.3	23.2	23.6
11	17.7	16.9	17.2	22.2	20.7	21.4	---	---	---	24.1	23.7	23.8
12	17.1	15.5	16.3	21.8	20.6	20.9	---	---	---	24.3	23.6	23.9
13	15.5	14.2	14.7	20.6	19.3	19.7	---	---	---	24.2	23.8	24.0
14	15.4	14.1	14.6	20.8	19.7	20.1	---	---	---	24.4	23.3	23.8
15	16.4	14.6	15.4	20.8	19.1	20.2	---	---	---	24.1	22.8	23.5
16	17.7	15.4	16.4	21.9	20.4	20.9	---	---	---	24.9	23.2	23.9
17	18.7	16.5	17.5	23.4	21.1	22.1	---	---	---	25.3	23.9	24.5
18	19.3	16.9	18.0	23.1	22.3	22.7	---	---	---	25.8	24.5	25.0
19	20.1	17.9	18.9	23.1	22.5	22.8	---	---	---	26.1	24.8	25.4
20	20.5	18.8	19.6	23.6	22.7	23.1	22.2	21.3	21.6	26.5	25.0	25.7
21	20.5	19.0	19.8	23.5	22.8	23.1	22.5	21.5	21.9	26.8	25.3	26.0
22	20.4	19.3	19.6	22.9	21.7	22.4	23.3	22.0	22.4	26.7	25.3	26.0
23	21.0	19.7	20.2	22.4	21.2	21.6	22.9	22.4	22.6	26.7	25.3	25.9
24	21.0	19.1	19.9	22.1	21.4	21.8	22.9	20.9	21.7	27.0	25.5	26.1
25	19.3	17.1	18.1	22.8	21.8	22.2	21.3	20.8	21.0	27.2	25.6	26.3
26	17.8	15.9	16.8	23.1	22.3	22.7	21.9	20.8	21.2	27.4	25.8	26.6
27	18.2	16.2	17.1	24.0	22.5	23.1	22.2	21.0	21.5	27.8	26.0	26.8
28	18.1	17.1	17.5	24.0	22.8	23.4	21.9	21.5	21.6	27.5	26.3	26.9
29	19.1	17.8	18.3	23.7	21.6	22.7	21.9	21.2	21.5	28.1	26.2	27.1
30	---	---	---	22.6	20.1	21.3	22.6	21.8	22.1	28.1	26.7	27.4
31	---	---	---	---	---	---	---	---	---	29.8	27.0	28.2
MONTH	21.0	14.1	17.6							29.8	18.7	24.3
		JUNE			JULY			AUGUST			SEPTEMBER	
1	30.4	27.8	29.1	26.5	25.2	25.6	30.1	28.2	29.1	28.3	27.2	27.5
2	30.2	28.2	29.2	27.5	26.5	26.9	30.1	28.6	29.3	27.2	26.3	26.6
3	29.8	27.6	28.9	28.0	27.4	27.6	30.6	28.6	29.5	27.3	25.6	26.3
4	29.8	27.8	28.8	28.3	27.6	27.8	30.8	28.8	29.7	27.5	26.2	26.8
5	33.1	27.2	29.4	28.5	27.7	28.0	30.8	28.8	29.8	28.6	26.7	27.4
6	32.9	26.9	29.2	28.9	27.7	28.2	30.7	28.9	29.8	28.2	27.3	27.6
7	30.8	24.7	27.8	29.0	27.8	28.3	29.9	28.9	29.3	27.5	26.3	27.0
8	27.7	25.9	26.9	29.1	27.9	28.4	29.4	28.3	28.8	27.1	25.7	26.4
9	26.0	23.2	25.2	28.9	27.9	28.4	29.4	27.8	28.6	27.3	25.6	26.3
10	25.3	23.1	23.9	28.6	27.8	28.0	29.4	27.9	28.6	27.8	25.7	26.6
11	26.5	25.3	25.9	27.8	27.0	27.5	30.1	28.1	29.0	28.4	26.3	27.2
12	26.9	26.2	26.5	28.1	27.0	27.5	29.6	27.6	28.6	28.6	26.6	27.6
13	27.2	26.5	26.8	28.6	27.2	27.8	28.6	26.9	27.8	28.3	26.8	27.5
14	27.7	26.6	27.0	29.0	27.5	28.1	28.7	26.5	27.6	28.4	26.9	27.6
15	27.8	27.0	27.3	---	---	---	28.6	26.6	27.6	29.0	27.3	28.0
16	27.6	26.7	27.1	---	---	---	28.5	26.3	27.4	---	---	---
17	28.1	27.0	27.5	---	---	---	28.6	26.3	27.4	---	---	---
18	28.6	27.3	27.8	---	---	---	28.9	26.7	27.8	---	---	---
19	28.8	27.3	28.0	---	---	---	29.3	27.5	28.4	---	---	---
20	28.9	27.3	28.1	---	---	---	30.3	27.9	28.9	---	---	---
21	29.2	27.5	28.3	---	---	---	29.9	28.6	29.0	---	---	---
22	28.8	26.2	27.3	---	---	---	29.2	27.6	28.4	---	---	---
23	27.4	26.3	26.8	---	---	---	28.8	27.2	27.9	27.6	25.1	26.4
24	28.3	26.7	27.4	29.1	27.3	28.1	28.2	27.2	27.8	28.0	26.6	27.2
25	28.0	25.8	26.6	29.5	27.7	28.5	28.1	26.8	27.3	27.6	26.4	26.8
26	26.8	25.5	26.0	29.2	27.7	28.4	29.1	27.8	28.3	27.3	25.9	26.6
27	27.5	26.3	26.7	29.2	27.4	28.2	29.4	28.1	28.7	26.9	25.7	26.2
28	27.9	26.5	27.1	29.3	27.7	28.4	29.6	28.2	28.8	26.6	25.2	25.9
29	27.7	25.2	26.7	29.2	28.1	28.6	28.9	27.8	28.4	26.8	24.7	25.8
30	25.3	24.5	24.9	29.3	27.8	28.4	29.2	27.4	28.2	26.9	25.1	26.0
31	---	---	---	29.8	28.0	28.8	28.9	27.5	28.2	---	---	---
MONTH	33.1	23.1	27.3				30.8	26.3	28.5			
YEAR												

08181800 San Antonio River near Elmendorf, TX—Continued



DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

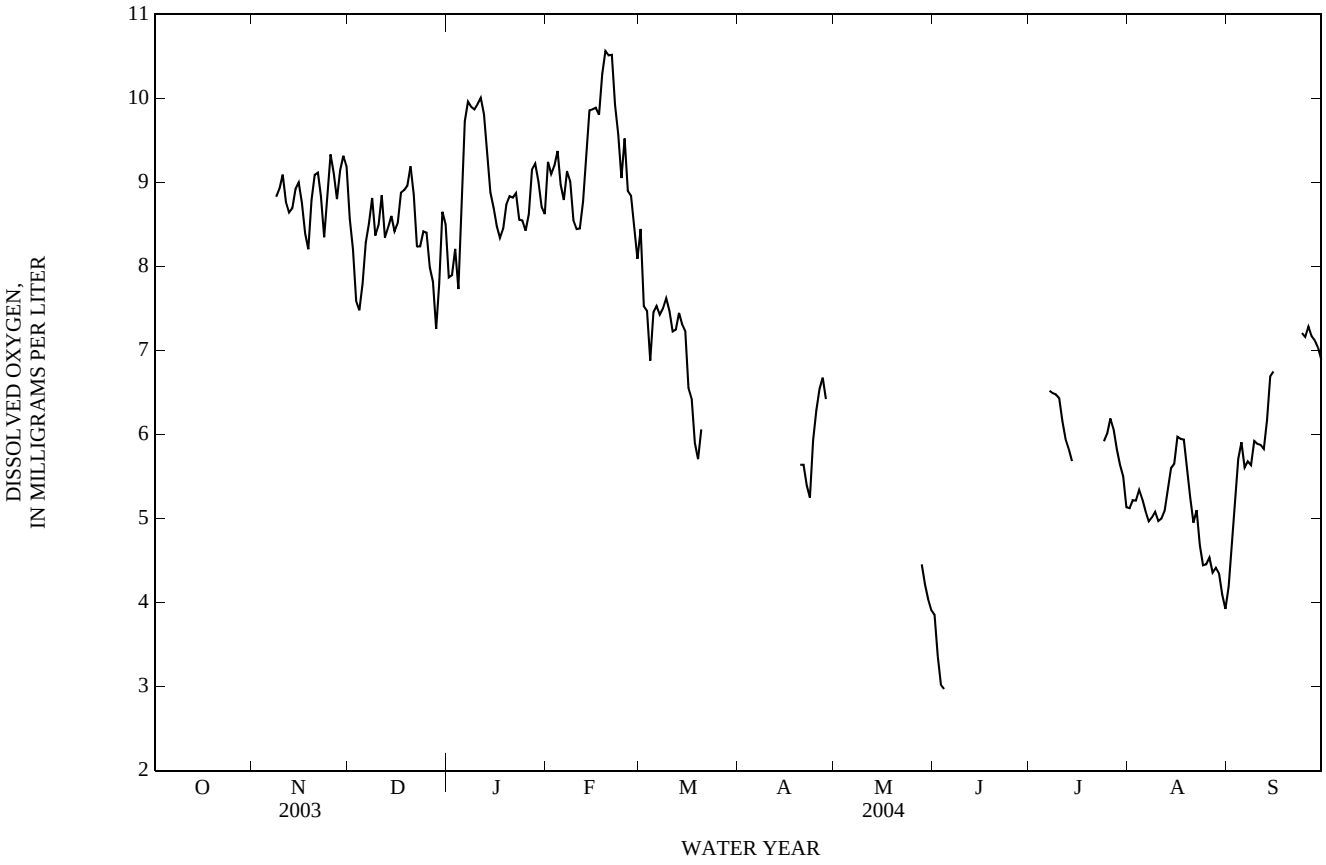
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	8.9	8.2	8.6	8.3	7.4	7.9
2	---	---	---	---	---	---	8.6	7.7	8.2	9.0	7.2	7.9
3	---	---	---	---	---	---	8.2	7.0	7.6	9.0	7.4	8.2
4	---	---	---	---	---	---	8.3	7.0	7.5	8.9	7.1	7.7
5	---	---	---	---	---	---	8.6	7.1	7.8	9.8	7.9	8.8
6	---	---	---	---	---	---	8.8	7.8	8.3	10.4	9.2	9.7
7	---	---	---	---	---	---	9.4	7.9	8.5	10.5	9.4	10
8	---	---	---	9.2	8.5	8.8	9.6	8.2	8.8	10.5	9.3	9.9
9	---	---	---	9.2	8.7	8.9	9.0	7.6	8.4	10.6	9.3	9.9
10	---	---	---	9.3	8.8	9.1	9.4	7.9	8.5	10.5	9.5	9.9
11	---	---	---	9.0	8.6	8.8	9.7	8.2	8.8	10.8	9.3	10.0
12	---	---	---	8.9	8.2	8.6	9.0	7.9	8.3	10.3	9.3	9.8
13	---	---	---	9.1	8.4	8.7	9.3	7.7	8.5	10.1	8.7	9.3
14	---	---	---	9.3	8.7	8.9	9.2	8.2	8.6	9.3	8.4	8.9
15	---	---	---	9.4	8.8	9.0	9.1	7.8	8.4	9.0	8.4	8.7
16	---	---	---	9.1	8.5	8.8	9.4	7.7	8.5	8.7	8.3	8.5
17	---	---	---	8.7	8.1	8.4	9.6	8.3	8.9	8.7	7.5	8.3
18	---	---	---	8.6	7.9	8.2	9.6	8.2	8.9	9.1	8.1	8.4
19	---	---	---	9.3	8.3	8.8	9.5	8.3	9.0	9.0	8.4	8.7
20	---	---	---	9.6	8.6	9.1	10.1	8.4	9.2	9.1	8.5	8.8
21	---	---	---	9.5	8.6	9.1	9.4	8.1	8.9	9.1	8.6	8.8
22	---	---	---	9.3	8.4	8.8	8.8	7.7	8.2	9.2	8.4	8.9
23	---	---	---	8.7	8.1	8.3	9.2	7.4	8.2	9.0	8.1	8.6
24	---	---	---	9.7	8.0	8.9	9.4	7.7	8.4	8.9	8.2	8.5
25	---	---	---	9.9	8.9	9.3	9.0	7.9	8.4	8.8	8.1	8.4
26	---	---	---	9.7	8.8	9.1	8.7	7.6	8.0	9.3	8.2	8.6
27	---	---	---	9.2	8.4	8.8	8.8	7.0	7.8	9.6	8.7	9.2
28	---	---	---	9.8	8.5	9.1	8.4	6.8	7.3	9.8	8.8	9.2
29	---	---	---	9.7	8.8	9.3	9.0	6.9	7.8	9.6	8.5	9.0
30	---	---	---	9.6	8.7	9.2	9.3	7.8	8.7	9.0	8.4	8.7
31	---	---	---	---	---	---	9.1	7.9	8.5	9.6	8.1	8.6
MONTH	---	---	---				10.1	6.8	8.4	10.8	7.1	8.9

08181800 San Antonio River near Elmendorf, TX—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	8.9	9.2	9.1	7.9	8.4	---	---	---	---	---	---
2	9.6	8.6	9.1	8.4	7.2	7.5	---	---	---	---	---	---
3	9.9	8.6	9.2	7.8	7.2	7.5	---	---	---	---	---	---
4	9.8	9.1	9.4	8.1	6.6	6.9	---	---	---	---	---	---
5	9.4	8.4	9.0	8.2	6.8	7.5	---	---	---	---	---	---
6	9.7	8.2	8.8	8.1	7.2	7.5	---	---	---	---	---	---
7	10.1	8.3	9.1	7.9	7.0	7.4	---	---	---	---	---	---
8	10.1	8.5	9.0	7.9	7.1	7.5	---	---	---	---	---	---
9	9.2	8.1	8.5	8.0	7.2	7.6	---	---	---	---	---	---
10	9.0	8.1	8.4	8.0	7.1	7.5	---	---	---	---	---	---
11	9.0	8.0	8.5	7.5	6.9	7.2	---	---	---	---	---	---
12	9.4	8.4	8.8	7.9	6.7	7.2	---	---	---	---	---	---
13	9.8	8.9	9.3	7.7	7.2	7.4	---	---	---	---	---	---
14	10.5	9.3	9.9	7.5	7.1	7.3	---	---	---	---	---	---
15	10.2	9.6	9.9	7.8	6.8	7.2	---	---	---	---	---	---
16	10.6	9.2	9.9	7.1	6.1	6.6	---	---	---	---	---	---
17	10.4	9.2	9.8	6.7	6.1	6.4	---	---	---	---	---	---
18	11.5	9.0	10.3	6.2	5.7	5.9	---	---	---	---	---	---
19	11.9	9.6	10.6	5.9	5.5	5.7	---	---	---	---	---	---
20	11.9	9.0	10.5	6.2	5.7	6.1	6.0	5.2	5.6	---	---	---
21	12.5	9.0	10.5	---	---	---	5.9	5.3	5.6	---	---	---
22	11.3	8.7	9.9	---	---	---	5.8	4.8	5.4	---	---	---
23	10.9	8.6	9.6	---	---	---	5.8	4.8	5.3	---	---	---
24	10.0	8.2	9.1	---	---	---	6.7	4.6	5.9	---	---	---
25	10.0	8.6	9.5	---	---	---	6.6	6.0	6.3	---	---	---
26	9.6	8.2	8.9	---	---	---	6.8	6.2	6.5	---	---	---
27	9.8	7.9	8.8	---	---	---	6.9	6.5	6.7	---	---	---
28	9.5	7.7	8.4	---	---	---	6.6	6.2	6.4	5.2	4.1	4.5
29	8.6	7.5	8.1	---	---	---	---	---	---	5.0	3.7	4.2
30	---	---	---	---	---	---	---	---	---	4.3	3.6	4.0
31	---	---	---	---	---	---	---	---	---	4.3	3.3	3.9
MONTH	12.5	7.5	9.3									
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4.4	3.2	3.9	---	---	---	5.5	4.5	5.1	4.6	3.9	4.2
2	3.9	2.2	3.4	---	---	---	5.4	4.6	5.2	5.2	4.3	4.7
3	4.1	1.9	3.0	---	---	---	5.7	4.7	5.2	5.6	5.0	5.3
4	3.8	2.0	3.0	---	---	---	5.7	4.9	5.3	6.0	5.5	5.7
5	---	---	---	---	---	---	5.6	4.8	5.2	6.0	5.7	5.9
6	---	---	---	---	---	---	5.4	4.7	5.1	5.8	5.3	5.6
7	---	---	---	6.6	6.4	6.5	5.4	4.5	5.0	5.8	5.5	5.7
8	---	---	---	6.6	6.3	6.5	5.3	4.4	5.0	6.0	5.3	5.6
9	---	---	---	6.6	6.3	6.5	5.3	4.6	5.1	6.0	5.7	5.9
10	---	---	---	6.6	6.3	6.4	5.3	4.7	5.0	6.1	5.7	5.9
11	---	---	---	6.6	6.0	6.2	5.3	4.8	5.0	6.0	5.6	5.9
12	---	---	---	6.2	5.7	5.9	5.5	4.8	5.1	6.0	5.5	5.8
13	---	---	---	6.0	5.7	5.8	5.9	4.9	5.3	6.5	5.5	6.2
14	---	---	---	5.8	5.6	5.7	5.9	5.4	5.6	7.2	6.2	6.7
15	---	---	---	---	---	---	6.2	5.3	5.7	7.1	6.5	6.8
16	---	---	---	---	---	---	6.5	5.7	6.0	---	---	---
17	---	---	---	---	---	---	6.5	5.6	5.9	---	---	---
18	---	---	---	---	---	---	6.4	5.5	5.9	---	---	---
19	---	---	---	---	---	---	6.0	5.3	5.6	---	---	---
20	---	---	---	---	---	---	5.7	4.8	5.2	---	---	---
21	---	---	---	---	---	---	5.3	4.6	5.0	---	---	---
22	---	---	---	---	---	---	5.7	4.8	5.1	---	---	---
23	---	---	---	---	---	---	5.4	4.2	4.7	---	---	---
24	---	---	---	6.3	4.8	5.9	4.7	4.3	4.4	7.4	7.0	7.2
25	---	---	---	6.4	5.6	6.0	4.6	4.3	4.5	7.5	7.0	7.2
26	---	---	---	6.4	5.8	6.2	4.7	4.4	4.5	7.5	7.1	7.3
27	---	---	---	6.3	5.7	6.1	4.6	4.0	4.4	7.3	7.0	7.2
28	---	---	---	6.1	5.4	5.8	4.6	4.1	4.4	7.4	6.9	7.1
29	---	---	---	5.9	5.3	5.6	4.7	3.8	4.3	7.2	6.8	7.0
30	---	---	---	5.8	5.2	5.5	4.4	3.6	4.1	7.1	6.7	6.9
31	---	---	---	5.5	4.7	5.1	4.5	3.6	3.9	---	---	---
MONTH							6.5	3.6	5.0			
YEAR												

08181800 San Antonio River near Elmendorf, TX—Continued



08183500 San Antonio River near Falls City, TX

LOCATION.--Lat 28°57'05", long 98°03'50", Karnes County, Hydrologic Unit 12100303, on left bank 23 ft downstream from bridge on Farm Road 791, 0.9 mi upstream from Scared Dog Creek, 3.6 mi southwest of Falls City, and 150.5 mi upstream from mouth.

DRAINAGE AREA.--2,113 mi^2.

PERIOD OF RECORD.--Apr. 1925 to current year. Water-quality records: Chemical data: May 1965 to Oct. 1966, Apr. 1970 to Sept. 1981, Dec. 1986 to Sept. 1994. Biochemical data: May 1965 to Oct. 1966, Jan. 1968 to Sept. 1969, Feb. 1974 to Feb. 1981, Oct. 1990 to Sept. 1994. Sediment data: Feb. 1966 to Sept. 1975. Specific conductance: Jan. 1987 to Sept. 1996. pH: Jan 1987 to Sept. 1996. Water temperature: Jan. 1987 to Sept. 1996. Dissolved oxygen: Jan. 1987 to Sept. 1996.

REVISED RECORDS.--WSP 1732: 1947(M). WSP 1923: Drainage area. WDR TX-87-3: 1983-84. WDR TX-02-5: 1999(M).

GAGE.--Water-stage recorder. Datum of gage is 285.49 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good. Since installation of gage in Apr. 1925, at least 10% of contributing drainage area has been regulated. Flow is also regulated by eleven Natural Resources Conservation Service floodwater-retarding structures. Floodwater-retarding structures were completed in 1972. Some diversions for municipal uses and irrigation above station (amount unknown).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in Oct. 1913 reached a stage of 28.4 ft, from floodmark, from information by local residents. Maximum stage since at least 1875, that of Sept. 29, 1946.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	472	369	327	367	435	399	508	1,590	486	5,680	664	775
2	470	357	321	355	420	432	423	2,470	482	7,360	669	644
3	454	357	311	296	424	416	621	2,960	495	4,960	692	599
4	387	358	285	305	418	412	1,130	1,900	474	3,880	682	593
5	359	361	271	320	409	426	1,370	1,540	472	3,050	658	570
6	352	341	267	309	439	714	3,360	1,390	414	2,340	638	613
7	362	295	268	356	441	484	3,220	1,300	384	1,970	631	633
8	426	279	293	294	413	373	1,230	1,340	396	1,720	701	837
9	436	275	287	288	416	345	823	1,860	564	1,560	711	741
10	468	268	266	302	426	323	712	1,670	3,000	1,440	722	665
11	513	273	257	266	461	324	1,010	1,330	9,580	1,380	739	624
12	503	279	284	248	481	323	1,340	1,280	8,200	1,390	671	601
13	970	274	269	244	557	337	1,250	2,520	2,940	1,500	636	597
14	770	274	265	320	493	684	1,000	3,710	2,330	1,210	591	606
15	531	301	285	337	469	732	1,000	1,510	1,880	1,100	e546	596
16	461	306	284	370	503	971	1,040	1,310	1,710	1,030	e513	560
17	434	302	278	418	472	775	1,030	1,160	1,730	960	e481	509
18	414	310	292	840	453	538	1,010	1,100	1,640	867	446	474
19	392	391	328	595	432	442	1,010	1,040	1,390	815	449	455
20	381	338	295	385	422	401	981	997	1,240	767	437	447
21	381	307	310	338	410	302	932	960	1,160	752	422	436
22	373	299	313	333	400	277	843	896	1,160	689	397	423
23	366	294	303	360	394	265	811	829	1,540	643	391	454
24	368	293	273	379	435	268	948	825	1,460	648	551	1,290
25	365	288	294	456	699	287	e2,530	811	1,480	816	1,200	673
26	350	286	341	583	734	308	e3,420	749	2,410	713	1,810	563
27	345	288	361	524	514	279	2,320	706	1,770	669	1,530	542
28	400	285	376	466	406	288	1,930	651	1,390	621	1,200	547
29	408	277	390	424	400	284	1,680	591	1,560	637	1,030	542
30	387	293	354	419	---	290	1,520	544	2,600	690	999	531
31	370	---	363	432	---	550	---	512	---	711	886	---
TOTAL	13,668	9,218	9,411	11,929	13,376	13,249	41,002	42,051	56,337	52,568	22,693	18,140
MEAN	441	307	304	385	461	427	1,367	1,356	1,878	1,696	732	605
MAX	970	391	390	840	734	971	3,420	3,710	9,580	7,360	1,810	1,290
MIN	345	268	257	244	394	265	423	512	384	621	391	423
AC-FT	27,110	18,280	18,670	23,660	26,530	26,280	81,330	83,410	111,700	104,300	45,010	35,980

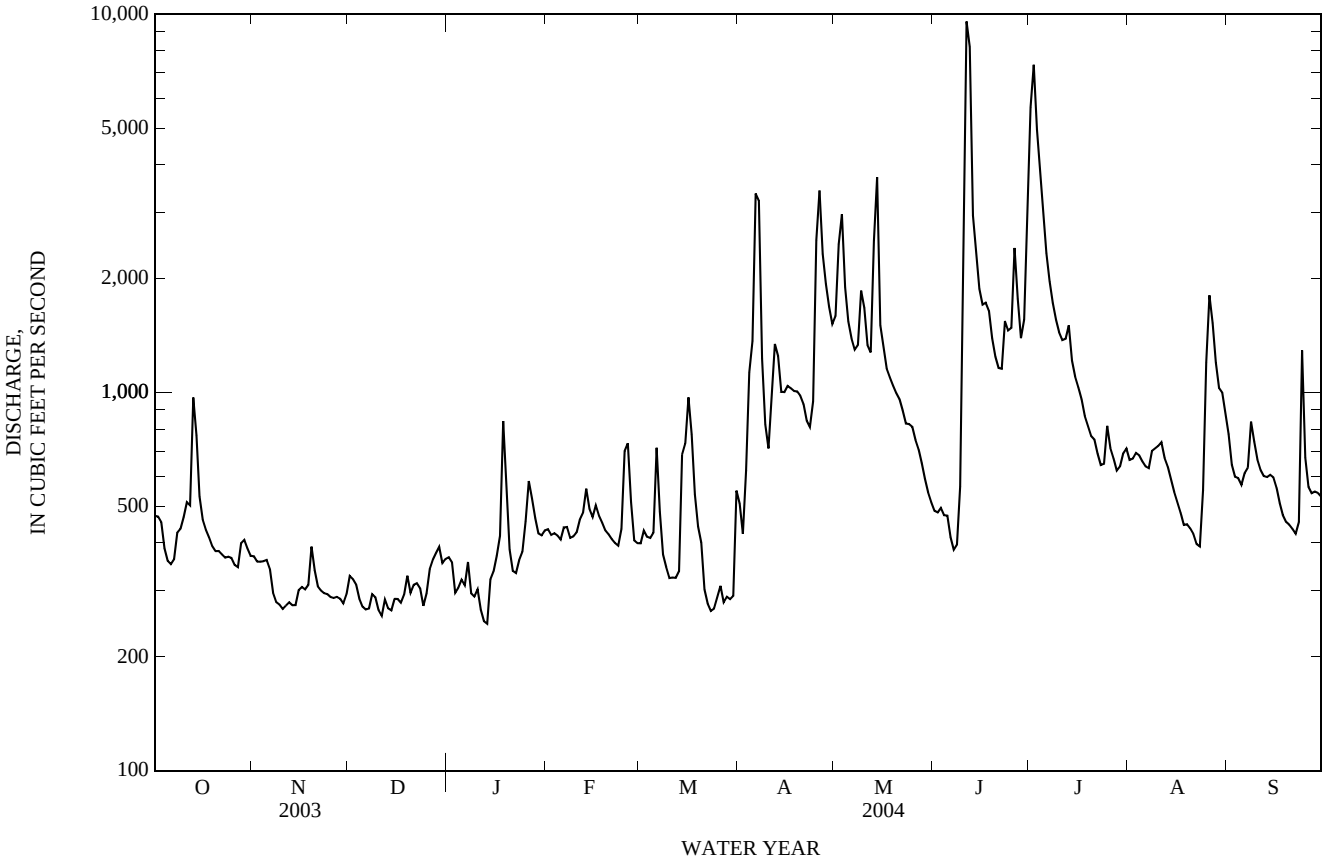
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2004, BY WATER YEAR (WY)

MEAN	514	414	390	415	466	399	474	620	750	577	307	513
MAX	4,731	1,674	2,668	2,705	4,803	3,536	2,615	4,303	10,120	12,140	1,564	4,100
(WY)	(1999)	(2003)	(1992)	(1968)	(1992)	(1992)	(1992)	(1992)	(1987)	(2002)	(1978)	(1946)
MIN	57.5	67.3	70.6	89.0	94.9	75.6	61.2	84.7	38.0	55.3	40.4	57.7
(WY)	(1956)	(1956)	(1955)	(1957)	(1956)	(1956)	(1956)	(1956)	(1956)	(1954)	(1954)	(1930)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1925 - 2004	
ANNUAL TOTAL	225,456		303,642			
ANNUAL MEAN	618		830		488	
HIGHEST ANNUAL MEAN					2,253	1992
LOWEST ANNUAL MEAN					92.0	1956
HIGHEST DAILY MEAN	4,100	Sep 19	9,580	Jun 11	53,800	Jul 7, 2002
LOWEST DAILY MEAN	252	Jun 3	244	Jan 13	19	Jun 27, 1956
ANNUAL SEVEN-DAY MINIMUM	273	Dec 5	273	Dec 5	23	Jun 8, 1956
MAXIMUM PEAK FLOW			12,100	Jun 11	54,000	Jul 7, 2002
MAXIMUM PEAK STAGE			14.79	Jun 11	a34.74	Jul 7, 2002
ANNUAL RUNOFF (AC-FT)	447,200		602,300		353,800	
10 PERCENT EXCEEDS	968		1,570		875	
50 PERCENT EXCEEDS	474		494		259	
90 PERCENT EXCEEDS	285		288		95	

a From floodmark.
e Estimated

08183500 San Antonio River near Falls City, TX—Continued



08183850 Cibolo Creek at Interstate Highway 10 above Boerne, TX

LOCATION.--Lat 29°48'52", long 98°45'12", Kendall County, Hydrologic Unit 12100304, on right bank between westbound Interstate Highway 10 bridge and frontage road bridge, 600 ft downstream from Ranger Creek, 0.7 mi downstream from Boerne Lake, and 1.9 mi northwest of Boerne.

DRAINAGE AREA.--29.0 mi^2.

PERIOD OF RECORD.--Oct. 1995 to Apr. 1996 (discharge measurements only), May 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,428.50 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since installation of gage in Oct. 1995, at least 10% of contributing drainage area has been regulated. No known diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	2.0	1.3	1.3	2.1	6.9	7.3	66	10	62	9.7	18
2	0.20	2.7	1.4	1.3	2.0	6.7	8.0	55	9.4	49	9.5	16
3	0.20	3.4	1.5	1.4	1.6	7.3	9.3	48	8.8	42	9.2	15
4	0.28	3.4	1.6	1.2	3.0	10	13	43	8.6	37	8.0	19
5	0.41	3.3	1.5	0.84	9.7	e10	20	40	8.2	34	7.2	20
6	0.28	2.9	1.5	0.78	8.6	e8.3	116	38	7.2	31	14	18
7	0.28	2.9	1.4	0.79	6.6	e7.7	83	37	7.3	29	31	15
8	0.48	2.4	1.5	0.84	5.7	6.7	51	36	16	27	27	12
9	0.66	2.4	1.5	0.73	5.3	6.4	38	34	45	26	23	11
10	0.49	2.5	1.4	0.72	6.5	6.0	58	31	50	24	17	10
11	50	2.9	1.4	0.73	9.8	5.9	106	33	35	23	15	10
12	55	3.3	1.4	0.47	7.7	8.3	88	33	26	22	11	9.8
13	33	2.9	1.3	0.43	6.7	17	64	32	22	20	8.7	9.5
14	20	2.4	1.2	0.50	6.9	17	52	59	19	19	7.5	11
15	13	2.7	1.3	1.6	5.8	17	45	34	17	17	6.7	10
16	9.7	3.2	1.2	10	5.4	16	41	29	14	16	5.8	9.6
17	8.2	4.0	1.2	24	5.0	14	36	25	13	15	5.1	9.0
18	6.5	4.5	1.3	16	4.8	13	33	23	12	14	5.7	8.4
19	5.6	2.2	1.2	10	5.1	13	30	22	11	13	6.4	8.0
20	4.9	1.7	1.3	7.5	5.1	13	28	20	10	12	5.5	7.6
21	4.5	1.5	1.4	5.8	4.6	12	26	18	9.6	11	5.5	7.0
22	3.9	1.7	1.4	4.6	4.7	10	24	17	13	10	39	7.2
23	3.1	1.9	1.2	4.0	5.2	9.6	24	16	12	10	659	7.2
24	2.9	1.4	1.0	4.5	10	11	228	16	11	12	195	7.1
25	2.8	1.2	0.93	4.6	9.2	10	120	15	15	13	76	6.6
26	2.9	1.4	1.00	4.1	7.3	9.7	79	15	18	12	41	6.5
27	2.3	1.4	1.1	2.2	6.6	9.8	61	14	25	11	29	6.4
28	1.8	1.5	1.0	1.8	6.5	8.9	53	13	29	10	25	6.7
29	1.7	1.3	0.83	1.9	7.4	9.3	125	13	60	9.3	31	6.3
30	1.7	1.3	0.88	2.1	---	9.6	69	12	83	11	25	5.8
31	1.7	---	1.1	2.0	---	8.3	---	12	---	11	20	---
TOTAL	238.66	72.3	39.24	118.73	174.9	318.4	1,735.6	899	625.1	652.3	1,378.5	313.7
MEAN	7.70	2.41	1.27	3.83	6.03	10.3	57.9	29.0	20.8	21.0	44.5	10.5
MAX	55	4.5	1.6	24	10	17	228	66	83	62	659	20
MIN	0.18	1.2	0.83	0.43	1.6	5.9	7.3	12	7.2	9.3	5.1	5.8
AC-FT	473	143	78	236	347	632	3,440	1,780	1,240	1,290	2,730	622

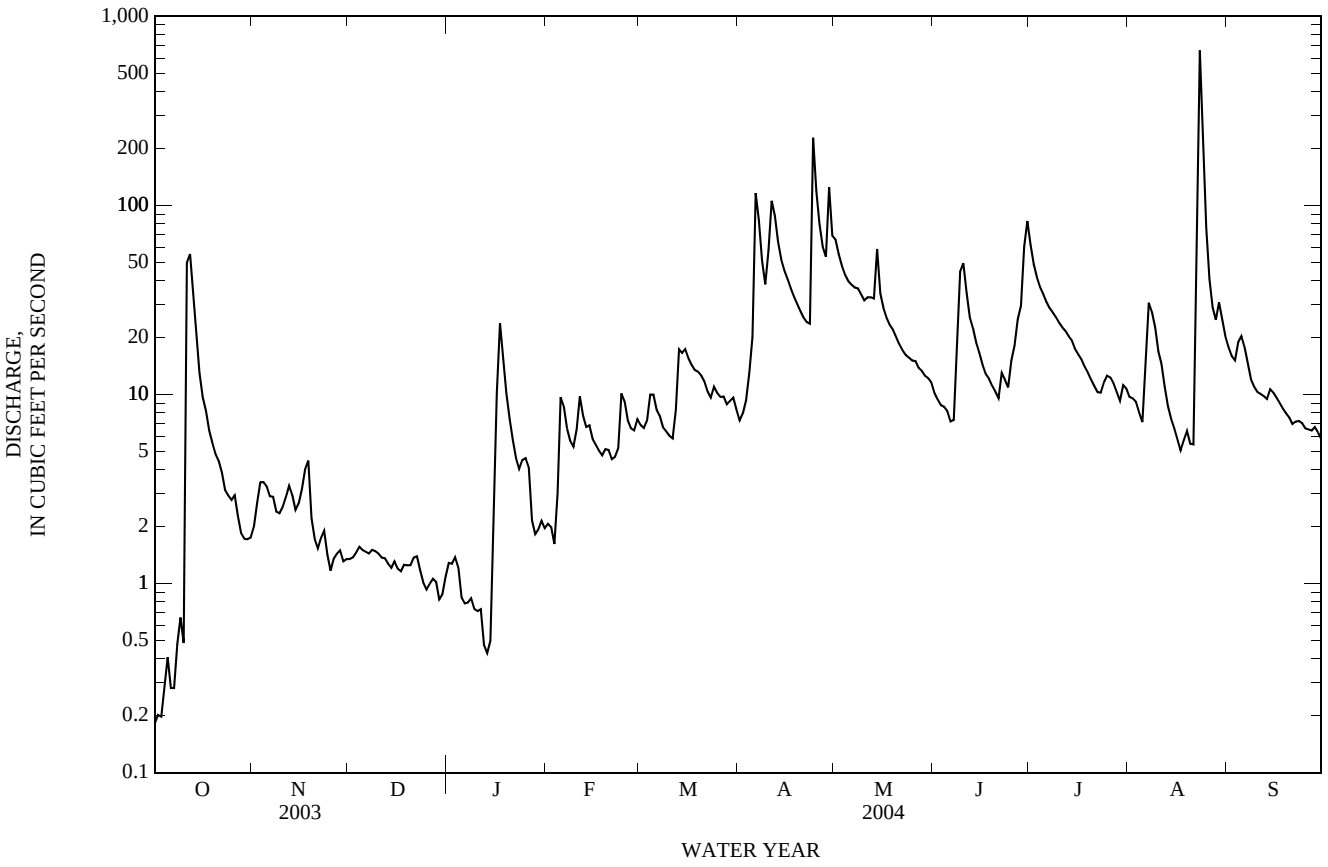
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

MEAN	11.8	20.6	10.7	8.16	10.8	18.6	20.5	10.1	40.4	77.3	11.4	8.37
MAX	26.1	49.0	26.8	17.5	22.4	73.8	57.9	29.0	313	608	44.5	29.0
(WY)	(2001)	(1999)	(2002)	(2001)	(2001)	(1998)	(2004)	(2004)	(1997)	(2002)	(2004)	(2001)
MIN	0.24	0.30	0.08	0.12	0.47	0.19	0.26	0.88	0.48	0.07	0.25	0.06
(WY)	(1997)	(1997)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(1996)	(1996)	(1996)	(2000)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1996 - 2004	
ANNUAL TOTAL	2,603.78		6,566.43			
ANNUAL MEAN	7.13		17.9		22.2	
HIGHEST ANNUAL MEAN					66.2	2002
LOWEST ANNUAL MEAN					0.45	2000
HIGHEST DAILY MEAN	73	Feb 20	659	Aug 23	4,940	Jun 22, 1997
LOWEST DAILY MEAN	0.11	Aug 30	0.18	Oct 1	0.00	Jul 23, 1996
ANNUAL SEVEN-DAY MINIMUM	0.20	Sep 5	0.26	Oct 1	0.00	Aug 3, 1996
MAXIMUM PEAK FLOW			3,710	Aug 23	i20,100	Jun 22, 1997
MAXIMUM PEAK STAGE			6.75	Aug 23	a20.82	Jun 22, 1997
ANNUAL RUNOFF (AC-FT)	5,160		13,020		16,090	
10 PERCENT EXCEEDS	17		39		32	
50 PERCENT EXCEEDS	3.4		9.2		5.8	
90 PERCENT EXCEEDS	0.36		1.3		0.25	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated

08183850 Cibolo Creek at Interstate Highway 10 above Boerne, TX—Continued



08185000 Cibolo Creek at Selma, TX

LOCATION.--Lat 29°35'38", long 98°18'39", Bexar County, Hydrologic Unit 12100304, on right bank 0.6 mi downstream from Missouri-Kansas-Texas Railroad Co. bridge and 0.9 mi upstream from bridge on Interstate Highway 35 at Selma.

DRAINAGE AREA.--274 mi^2.

PERIOD OF RECORD.--Mar. 1946 to current year.

REVISED RECORDS.--WSP 1923: Drainage area. WSP 1712: 1960 (M).

GAGE.--Water-stage recorder. Datum of gage is 728.34 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. Considerable flow of Cibolo Creek enters the Edwards and associated limestones in the Balcones Fault Zone that crosses basin between this station and the Cibolo Creek at Interstate Highway 10 above Boerne (station 08183850). One known diversion. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 26 ft occurred in 1889, from information by local residents. Maximum stage since at least 1869, that of Oct. 17, 1998.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	188	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	300	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	227	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	212	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	854.59	237.88	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.5	7.67	0.00	0.00
MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	300	188	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,700	472	0.00	0.00

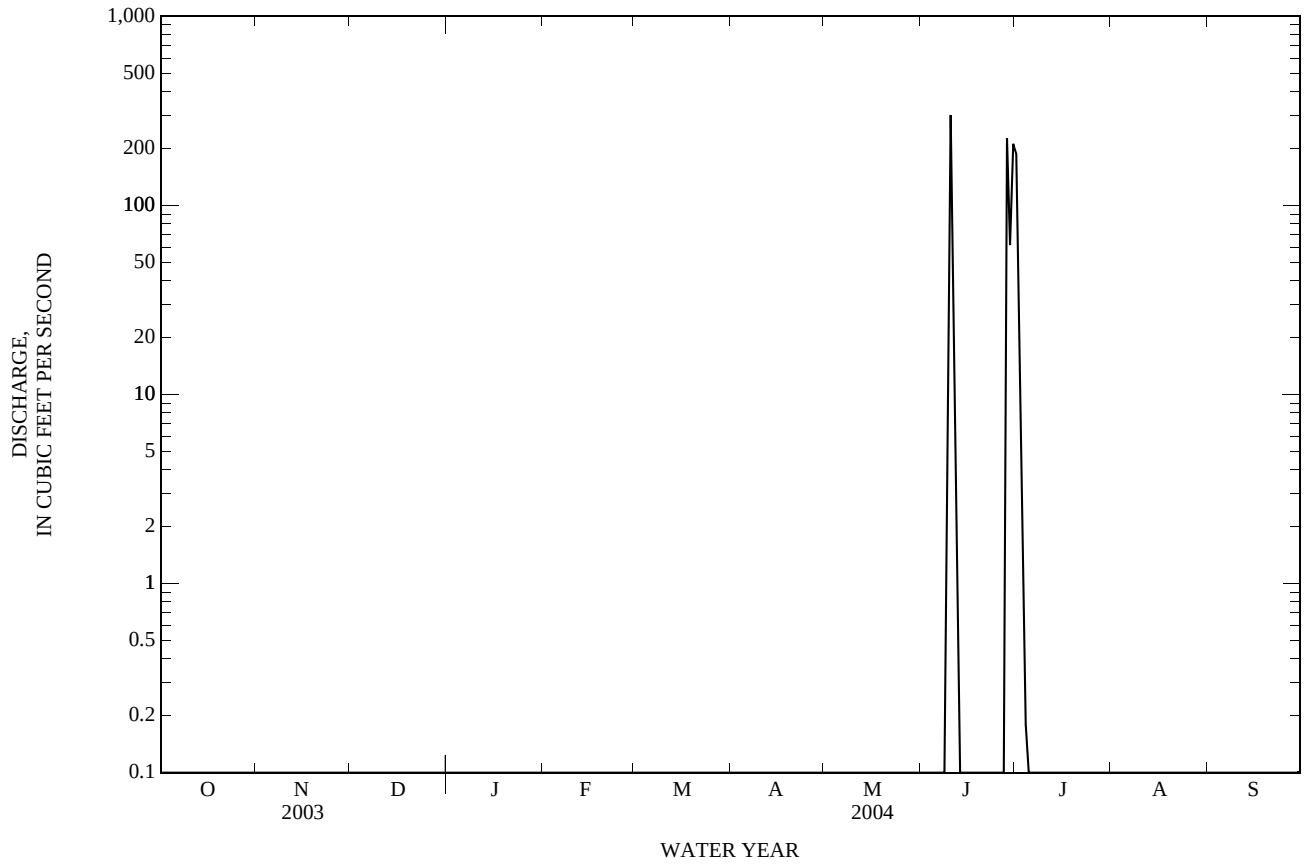
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2004, BY WATER YEAR (WY)

MEAN	41.5	8.62	23.0	7.81	14.2	14.4	9.63	41.5	68.2	60.0	4.13	15.4
MAX	1,722	226	1,143	371	646	483	217	622	1,567	2,411	80.6	370
(WY)	(1999)	(2002)	(1992)	(1968)	(1992)	(1992)	(1957)	(1972)	(1997)	(2002)	(1971)	(1952)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1948)	(1948)	(1948)	(1948)	(1947)	(1947)	(1946)	(1947)	(1947)	(1946)	(1946)	(1947)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1946 - 2004	
ANNUAL TOTAL	0.00		1,092.47			
ANNUAL MEAN	0.00		2.98		25.9	
HIGHEST ANNUAL MEAN					257	1992
LOWEST ANNUAL MEAN					0.00	1956
HIGHEST DAILY MEAN	0.00	Jan 1	300	Jun 10	32,000	Oct 17, 1998
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Apr 1, 1946
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Apr 1, 1946
MAXIMUM PEAK FLOW			967	Jun 28	98,100	Oct 17, 1998
MAXIMUM PEAK STAGE			5.58	Jun 28	a35.37	Oct 17, 1998
ANNUAL RUNOFF (AC-FT)	0.00		2,170		18,740	
10 PERCENT EXCEEDS	0.00		0.00		0.00	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a From floodmark.

08185000 Cibolo Creek at Selma, TX—Continued



08186000 Cibolo Creek near Falls City, TX

LOCATION.--Lat 29°00'50", long 97°55'48", Karnes County, Hydrologic Unit 12100304, at right downstream abutment of bridge on State Highway 123, 5.7 mi northeast of Falls City, and 10.4 mi upstream from mouth.

DRAINAGE AREA.--827 mi^2.

PERIOD OF RECORD.--Oct. 1930 to current year. Water-quality records: Chemical data: Oct. 1961 to Sept. 1996. Biochemical data: Oct. 1961 to Sept. 1996. Sediment data: Feb. 1966 to Sept. 1975. Specific conductance: Oct. 1968 to Sept. 1991. Water temperature: Oct. 1968 to Sept. 1991.

REVISED RECORDS.--WSP 733: 1931. WSP 1058: 1935. WSP 1562: 1931(M), 1933. WSP 1923: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 264.28 ft above NGVD of 1929. Nov. 4, 1930, to Aug. 4, 1940, water-stage recorder at site 1,600 ft upstream at datum 0.56 ft higher. Aug. 5 to Sept. 13, 1940, nonrecording gage at site 150 ft to the left at same datum. Sept. 14, 1940, to Mar. 15, 1990, water-stage recorder at site 150 ft to the left at same datum. Mar. 16, 1990, to July 15, 1993, water-stage recorder at site 50 ft downstream at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Flow is affected at times by discharge from the flood-detention pools of ten floodwater-retarding structures with a combined detention capacity of 16,620 acre-ft. These structures control runoff from 62.9 mi^2. There are several diversions for irrigation above station. Much of the base flow is effluent from the Carrizo Sands in the vicinity of Sutherland Springs. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 35 ft occurred in Oct. 1913 (discharge, about 35,000 ft^3/s). Maximum stage since at least 1890, that of Oct. 19, 1998.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	90	76	93	103	95	46	284	35	2,910	71	65
2	117	85	78	92	104	99	53	301	35	2,400	67	60
3	113	80	80	92	102	79	50	311	34	476	66	60
4	111	81	80	95	102	72	65	167	32	294	62	63
5	111	82	78	93	104	69	1,240	120	31	212	59	69
6	109	86	76	89	102	67	1,880	96	29	170	57	72
7	109	80	74	88	97	82	420	85	29	147	163	74
8	108	79	76	91	96	80	271	74	33	131	87	78
9	130	80	82	91	94	64	172	72	34	119	58	97
10	172	80	83	89	97	57	134	70	2,340	110	51	90
11	120	82	84	91	101	53	537	66	13,300	105	50	88
12	144	82	85	91	101	49	531	65	1,610	99	48	88
13	411	84	88	91	103	50	256	1,690	582	100	44	91
14	317	82	86	93	110	345	152	4,300	488	93	42	96
15	205	82	84	95	105	146	114	1,150	426	87	40	101
16	151	80	89	104	97	89	96	367	371	82	39	111
17	128	84	87	101	93	117	82	194	314	81	38	119
18	115	84	87	117	91	96	73	130	281	79	38	118
19	106	85	87	124	87	83	68	102	342	77	36	113
20	100	82	88	115	82	73	64	86	204	76	34	111
21	95	82	88	111	79	67	61	78	177	74	32	113
22	93	80	88	105	76	60	58	68	202	72	34	115
23	95	79	89	103	75	55	55	60	371	72	35	118
24	96	78	87	106	116	51	63	53	405	74	37	121
25	90	79	90	107	149	48	138	50	376	75	41	117
26	96	81	90	106	129	48	318	47	323	76	78	113
27	97	81	91	107	112	46	209	45	209	84	148	103
28	91	78	95	110	94	45	128	41	189	132	47	106
29	95	78	95	106	83	44	145	39	217	95	52	110
30	95	81	95	103	---	43	110	37	757	116	55	122
31	89	---	94	104	---	47	---	36	---	86	72	---
TOTAL	4,030	2,447	2,650	3,103	2,884	2,419	7,589	10,284	23,776	8,804	1,781	2,902
MEAN	130	81.6	85.5	100	99.4	78.0	253	332	793	284	57.5	96.7
MAX	411	90	95	124	149	345	1,880	4,300	13,300	2,910	163	122
MIN	89	78	74	88	75	43	46	36	29	72	32	60
AC-FT	7,990	4,850	5,260	6,150	5,720	4,800	15,050	20,400	47,160	17,460	3,530	5,760

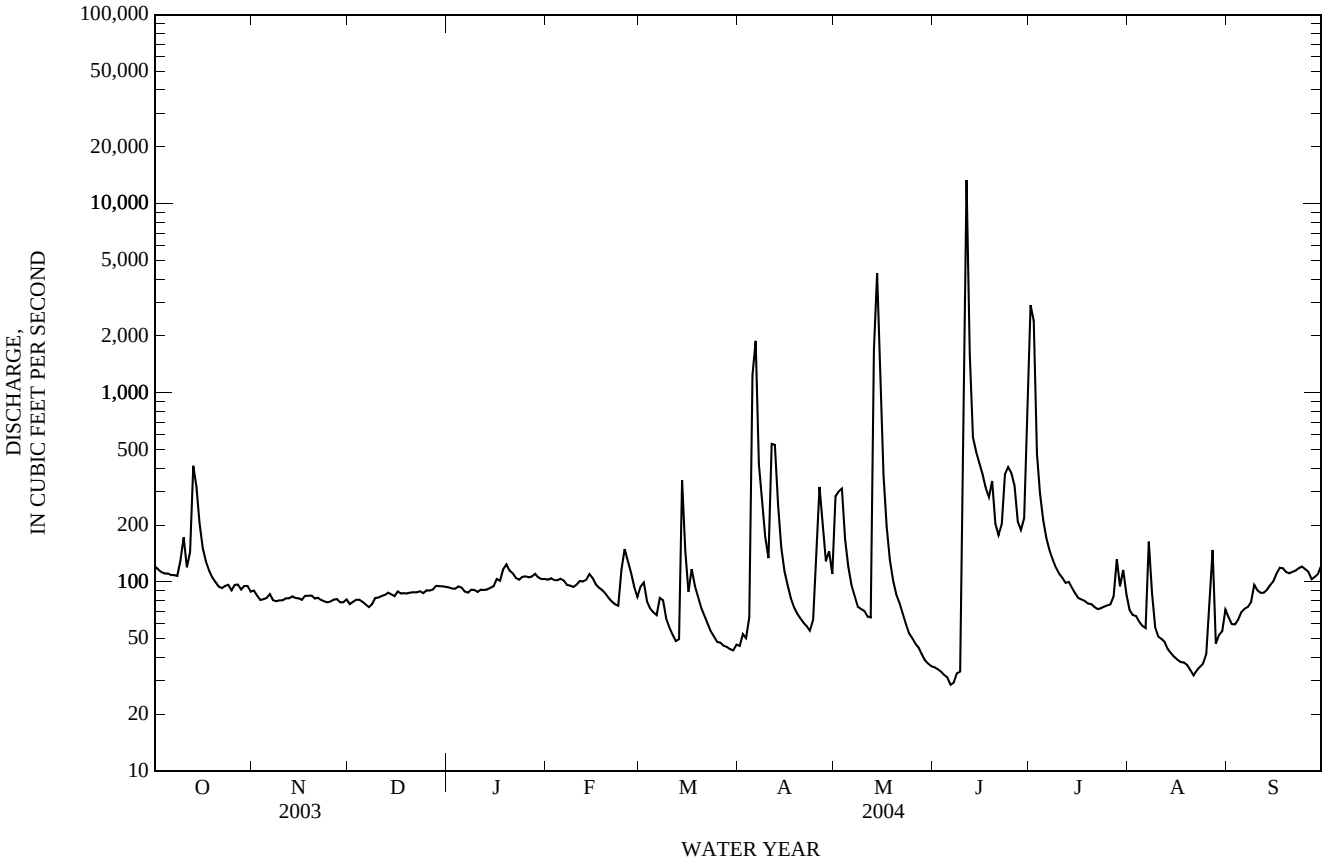
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

MEAN	157	106	105	95.1	114	71.3	160	234	259	141	57.8	163
MAX	3,246	832	2,156	1,627	1,756	860	1,492	2,230	2,821	3,302	909	1,579
(WY)	(1999)	(2003)	(1992)	(1968)	(1992)	(1992)	(1977)	(1972)	(1987)	(2002)	(1946)	(1973)
MIN	8.49	8.08	9.99	10.3	9.64	7.04	5.23	4.59	1.74	1.96	2.40	5.41
(WY)	(1932)	(1932)	(1955)	(1956)	(1956)	(1956)	(1971)	(1971)	(1967)	(1971)	(1956)	(1984)

08186000 Cibolo Creek near Falls City, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	55,070		72,669			
ANNUAL MEAN	151		199		138	
HIGHEST ANNUAL MEAN					717	1992
LOWEST ANNUAL MEAN					10.4	1956
HIGHEST DAILY MEAN	3,440	Feb 21	13,300	Jun 11	45,000	Oct 19, 1998
LOWEST DAILY MEAN	74	Aug 31	29	Jun 6	0.00	Jul 30, 1956
ANNUAL SEVEN-DAY MINIMUM	76	Aug 27	32	Jun 3	0.00	Aug 4, 1956
MAXIMUM PEAK FLOW			17,100	Jun 11	51,200	Oct 19, 1998
MAXIMUM PEAK STAGE			28.31	Jun 11	a39.84	Oct 19, 1998
ANNUAL RUNOFF (AC-FT)	109,200		144,100		100,300	
10 PERCENT EXCEEDS	187		260		138	
50 PERCENT EXCEEDS	107		90		28	
90 PERCENT EXCEEDS	81		48		9.9	

a From floodmark.



08186500 Ecleto Creek near Runge, TX

LOCATION.--Lat 28°55'12", long 97°46'19", Karnes County, Hydrologic Unit 12100303, on left bank 55 ft downstream from Farm Road 81, 215 ft to left of left end of bridge, 2.6 mi upstream from Salt Branch, 4.5 mi northwest of Runge, and 5.2 mi upstream from mouth.

DRAINAGE AREA.--239 mi^2.

PERIOD OF RECORD.--Mar. 26, 1962 to Sept. 1989. October 01, 2002 to current year. Water-quality records.--Sediment records: Feb. 1966 to Sept. 1975.

GAGE.--Water-stage recorder. Datum of gage is 215.03 ft above National Geodetic Vertical Datum of 1929, from State Department of Highways and Public Transportation datum. Satellite telemeter at station.

REMARKS.--Records good. No known diversions or regulation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,000 ft~/s Aug. 31, 1981 (gage height, 34.10ft, from floodmark), from rating curve extended above 7,300 ft~/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood information begins with the flood in June 1903, which reached a stage of 34 ft (discharge, 71,000 ft~/s). A stage of 32 ft (discharge, 39,000 ft~/s)occurred in September 1952, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.12	17	12	96	17	19	1.4	0.35	0.04	0.09	0.14	0.08
2	0.13	16	11	71	16	17	1.5	0.44	0.05	0.15	0.06	0.15
3	0.15	54	11	43	16	23	1.4	0.44	0.05	0.05	0.02	1.8
4	0.15	910	12	32	14	91	1.5	0.38	0.10	0.44	0.00	43
5	0.19	3,050	13	27	13	79	1.3	0.35	0.13	0.48	0.00	11
6	0.17	3,250	15	24	13	44	1.4	0.33	0.12	0.19	0.00	2.8
7	0.16	1,120	13	22	12	28	1.3	0.28	0.10	0.11	0.00	0.72
8	0.25	234	17	20	12	21	1.2	0.23	0.08	0.09	0.00	0.34
9	0.32	150	216	19	12	16	1.1	0.21	0.07	0.07	0.00	0.19
10	4.4	77	471	18	12	13	1.00	0.18	0.19	0.05	0.01	0.12
11	134	47	115	17	12	11	1.1	0.21	0.21	0.04	0.01	0.08
12	43	38	586	33	11	9.3	0.93	0.21	0.18	0.04	0.01	167
13	8.1	32	1,280	526	12	8.1	0.93	0.19	0.68	0.04	0.01	139
14	3.6	28	349	476	11	7.2	0.93	0.17	57	0.03	0.05	35
15	1.6	26	105	123	13	6.5	0.85	0.15	47	0.41	0.05	31
16	0.81	23	58	63	16	6.0	0.87	0.13	13	11	0.04	20
17	0.50	21	45	48	17	5.5	0.80	0.11	3.4	45	0.03	6.8
18	0.41	20	39	41	20	4.7	0.73	0.09	1.1	20	0.02	131
19	0.35	18	34	36	14	3.8	0.68	0.08	0.57	19	0.01	947
20	0.47	18	30	33	38	3.4	0.76	0.07	0.34	5.8	0.02	183
21	0.95	16	27	31	610	3.2	0.69	0.07	0.23	1.3	0.02	48
22	0.52	16	25	28	541	2.9	0.63	0.10	0.16	0.56	0.02	40
23	15	15	26	26	143	2.7	0.60	0.09	0.11	0.31	0.11	30
24	277	14	78	24	64	2.7	0.55	0.08	0.07	0.24	0.06	20
25	986	13	330	23	40	2.5	0.48	0.07	0.04	0.18	0.04	14
26	718	14	117	23	30	2.5	0.39	0.07	0.03	0.10	0.04	10
27	388	13	51	22	25	2.2	0.35	0.17	0.04	0.11	0.04	7.6
28	117	13	38	21	21	2.1	0.37	0.15	0.03	0.12	0.04	5.0
29	34	12	31	21	---	1.7	0.38	0.06	0.03	4.5	0.04	4.4
30	26	12	32	19	---	1.6	0.35	0.05	0.02	3.0	0.04	3.3
31	21	---	175	18	---	1.5	---	0.05	---	0.47	0.06	---
TOTAL	2,782.35	9,287	4,362	2,024	1,775	442.1	26.47	5.56	125.17	113.97	0.99	1,902.38
MEAN	89.8	310	141	65.3	63.4	14.3	0.88	0.18	4.17	3.68	0.03	63.4
MAX	986	3,250	1,280	526	610	91	1.5	0.44	57	45	0.14	947
MIN	0.12	12	11	17	11	1.5	0.35	0.05	0.02	0.03	0.00	0.08
AC-FT	5,520	18,420	8,650	4,010	3,520	877	53	11	248	226	2.0	3,770

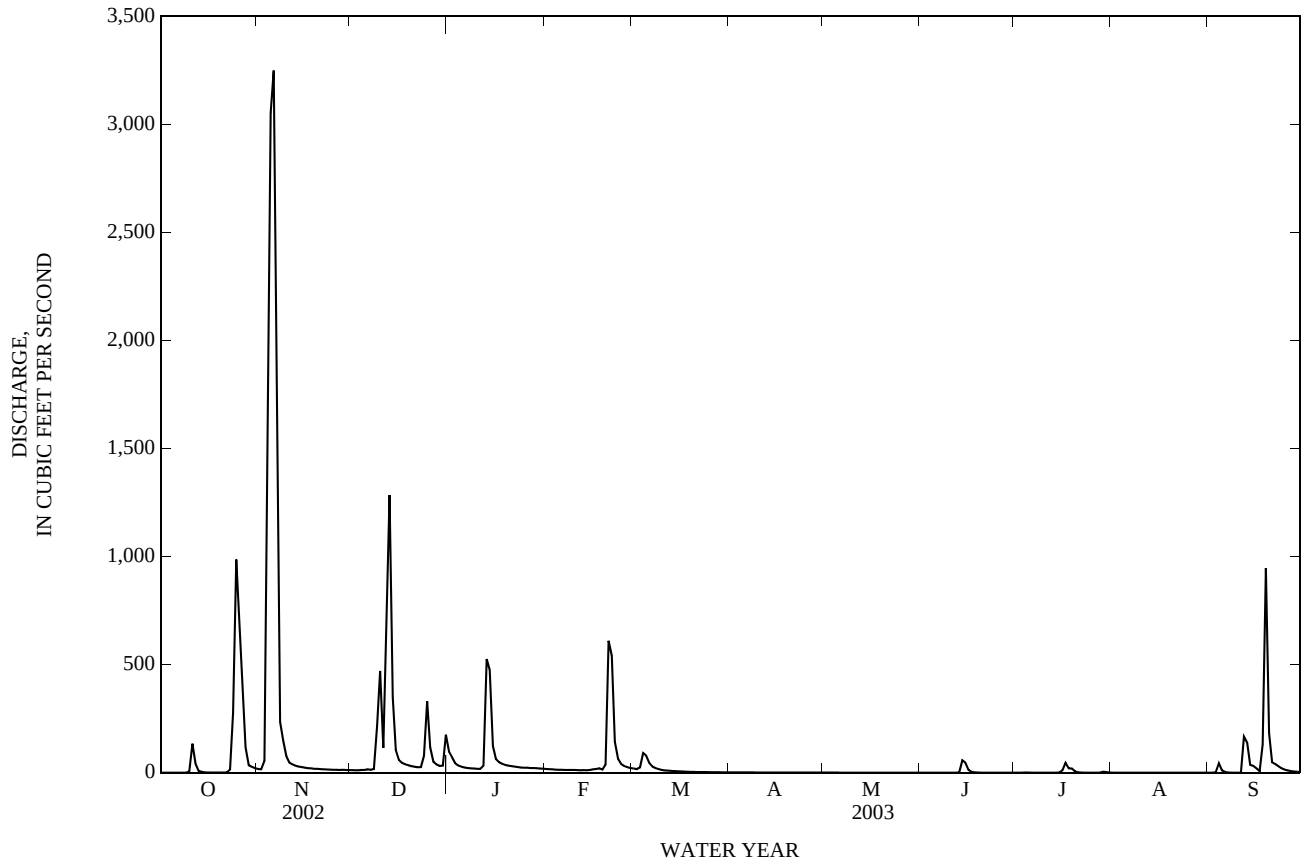
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003h, BY WATER YEAR (WY)

MEAN	27.8	33.8	20.9	27.0	27.0	13.6	44.0	59.3	72.0	5.06	31.6	82.8
MAX	151	323	187	338	210	82.0	499	264	931	61.9	825	1,674
(WY)	(1977)	(1986)	(1977)	(1968)	(1965)	(1969)	(1977)	(1979)	(1987)	(1975)	(1981)	(1967)
MIN	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1963)	(1965)	(1965)	(1967)	(1967)	(1967)	(1963)	(1971)	(1963)	(1964)	(1962)	(1965)

SUMMARY STATISTICS	FOR 2003 WATER YEAR		WATER YEARS 1962 - 2003h	
ANNUAL TOTAL	22,846.99			
ANNUAL MEAN	62.6		37.6	
HIGHEST ANNUAL MEAN			138	1967
LOWEST ANNUAL MEAN			0.81	1988
HIGHEST DAILY MEAN	3,250	Nov 6	29,600	Sep 22, 1967
LOWEST DAILY MEAN	0.00	Aug 4	0.00	May 10, 1962
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 4	0.00	May 10, 1962
MAXIMUM PEAK FLOW	3,480	Nov 5	74,000	Aug 31, 1981
MAXIMUM PEAK STAGE	17.80	Nov 5	34.10	Aug 31, 1981
ANNUAL RUNOFF (AC-FT)	45,320		27,250	
10 PERCENT EXCEEDS	78		20	
50 PERCENT EXCEEDS	3.4		0.42	
90 PERCENT EXCEEDS	0.05		0.00	

h See Period of Record Paragraph.
e Estimated

08186500 Ecleto Creek near Runge, TX—Continued



08186500 Ecleto Creek near Runge, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	0.29	0.58	2.6	1.6	3.3	1.0	375	3.7	303	7.8	0.17
2	2.5	0.27	0.63	2.4	1.4	2.7	27	502	3.3	216	7.1	0.20
3	2.4	0.25	0.66	2.1	1.2	2.2	195	138	3.6	82	3.5	0.20
4	1.6	0.24	0.64	2.0	1.1	1.7	40	59	3.0	45	2.3	0.27
5	0.91	0.29	0.59	1.8	1.4	1.3	499	37	2.6	32	1.6	0.33
6	0.54	0.37	0.73	1.6	0.01	1.0	202	28	2.2	25	1.4	0.31
7	0.53	0.52	1.1	1.4	0.84	0.95	161	22	2.4	20	1.2	0.36
8	0.68	0.49	1.00	1.5	0.77	0.93	49	19	8.1	17	111	0.37
9	0.95	0.56	1.1	1.4	0.79	0.83	28	16	15	14	61	0.25
10	474	0.45	1.1	1.2	0.97	0.77	74	13	396	11	21	0.19
11	73	0.37	1.0	1.1	1.4	0.76	1,060	12	420	13	11	0.20
12	30	0.39	1.1	1.1	1.6	0.84	608	12	273	11	9.3	0.22
13	16	0.47	1.3	1.2	1.8	5.3	128	13	56	11	3.3	0.26
14	11	0.47	1.4	1.3	1.7	31	68	1,230	25	9.5	2.0	0.41
15	5.7	0.44	1.6	1.4	1.5	240	50	1,400	19	6.9	1.3	0.34
16	2.7	0.40	1.8	1.9	2.0	38	37	419	16	5.2	0.88	0.35
17	1.3	0.62	1.7	3.1	2.1	17	26	104	13	4.1	0.69	0.26
18	1.5	0.84	1.5	3.3	1.8	8.8	19	48	11	3.5	0.66	0.26
19	1.1	1.3	1.5	2.0	1.4	5.5	14	33	8.3	3.0	0.62	0.26
20	0.96	0.98	1.5	1.3	1.2	3.7	11	26	6.5	2.7	0.41	0.25
21	0.96	0.83	1.3	1.1	1.3	3.1	8.3	22	4.8	2.4	0.37	0.23
22	0.82	0.56	1.3	1.0	1.3	2.7	7.0	19	26	2.3	0.35	0.20
23	0.74	0.47	1.6	1.1	1.3	2.2	5.8	16	307	2.3	0.45	0.19
24	0.63	0.61	1.6	2.5	10	1.9	9.5	13	97	2.4	0.38	0.18
25	0.44	0.56	1.5	5.0	11	1.9	20	11	146	2.1	0.27	0.17
26	0.54	0.56	1.5	3.1	28	1.7	48	9.4	2,080	1.8	0.25	0.21
27	0.55	0.55	1.7	3.3	19	1.5	30	7.8	495	1.4	0.21	0.90
28	0.53	0.64	3.6	2.5	8.7	1.3	14	6.6	195	1.2	0.19	0.56
29	0.48	0.69	5.5	2.8	4.9	1.3	235	5.7	140	2.6	0.19	0.28
30	0.41	0.60	4.5	2.7	---	1.2	122	5.1	136	36	0.17	0.23
31	0.26	---	3.3	2.1	---	1.1	---	4.4	---	12	0.16	---
TOTAL	636.23	16.08	49.93	62.9	112.08	386.48	3,796.6	4,626.0	4,914.5	901.4	251.05	8.61
MEAN	20.5	0.54	1.61	2.03	3.86	12.5	127	149	164	29.1	8.10	0.29
MAX	474	1.3	5.5	5.0	28	240	1,060	1,400	2,080	303	111	0.90
MIN	0.26	0.24	0.58	1.0	0.01	0.76	1.0	4.4	2.2	1.2	0.16	0.17
AC-FT	1,260	32	99	125	222	767	7,530	9,180	9,750	1,790	498	17

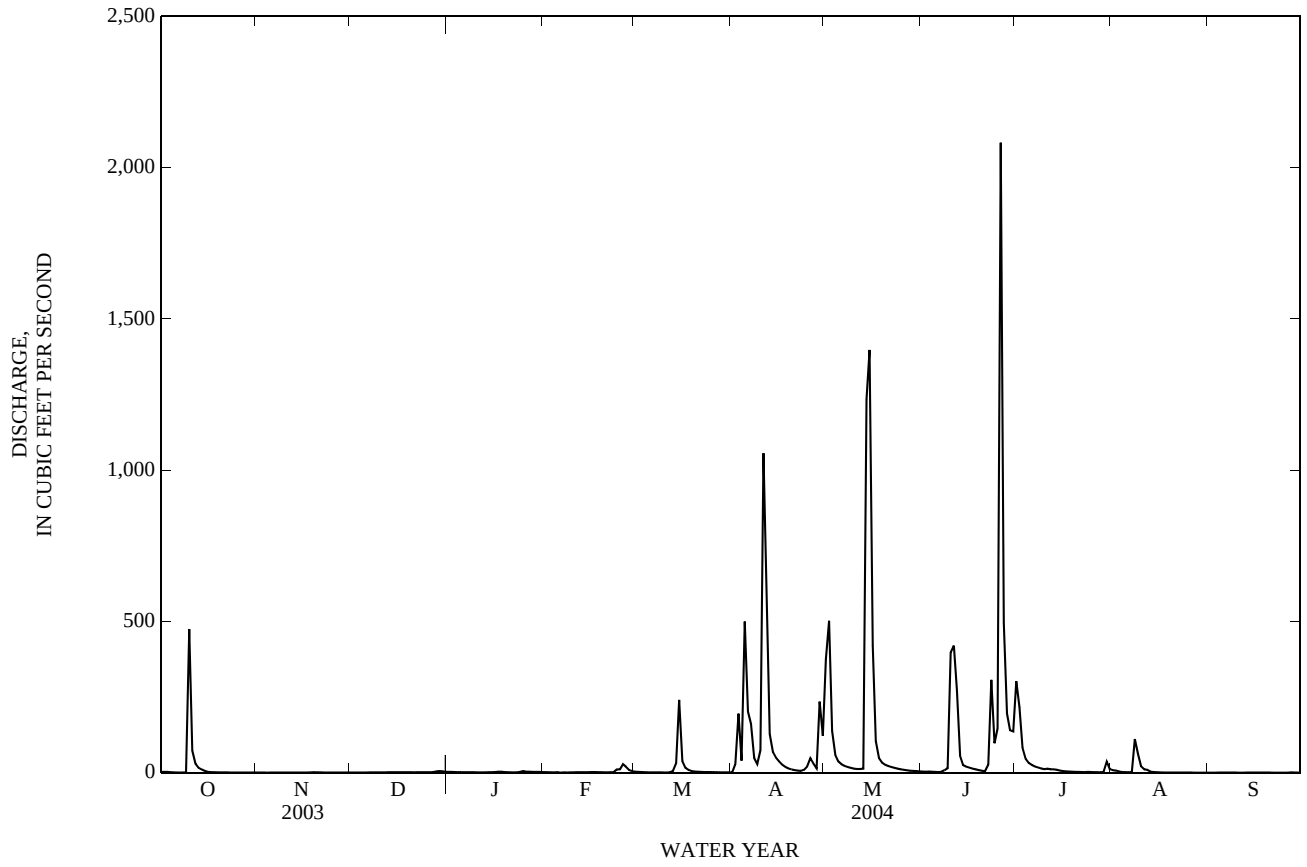
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004h, BY WATER YEAR (WY)

MEAN	27.5	32.7	20.2	26.1	26.2	13.5	46.8	62.3	75.1	5.86	30.8	80.0
MAX	151	323	187	338	210	82.0	499	264	931	61.9	825	1,674
(WY)	(1977)	(1986)	(1977)	(1968)	(1965)	(1969)	(1977)	(1979)	(1987)	(1975)	(1981)	(1967)
MIN	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1963)	(1965)	(1965)	(1967)	(1967)	(1967)	(1963)	(1971)	(1963)	(1964)	(1962)	(1965)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004h	
ANNUAL TOTAL	7,117.88		15,761.86			
ANNUAL MEAN	19.5		43.1		37.8	
HIGHEST ANNUAL MEAN					138	1967
LOWEST ANNUAL MEAN					0.81	1988
HIGHEST DAILY MEAN	947	Sep 19	2,080	Jun 26	29,600	Sep 22, 1967
LOWEST DAILY MEAN	0.00	Aug 4	0.01	Feb 6	0.00	May 10, 1962
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 4	0.18	Aug 28	0.00	May 10, 1962
MAXIMUM PEAK FLOW			2,560	Jun 26	74,000	Aug 31, 1981
MAXIMUM PEAK STAGE			15.61	Jun 26	34.10	Aug 31, 1981
ANNUAL RUNOFF (AC-FT)	14,120		31,260		27,380	
10 PERCENT EXCEEDS	31		63		21	
50 PERCENT EXCEEDS	0.93		1.8		0.46	
90 PERCENT EXCEEDS	0.05		0.32		0.00	

h See Period of Record Paragraph.

08186500 Ecleto Creek near Runge, TX—Continued



08188500 San Antonio River at Goliad, TX

LOCATION.--Lat 28°38'58", long 97°23'04", Goliad County, Hydrologic Unit 12100303, on right downstream bank 300 ft below bridge on U.S. Highway 183, 1.2 mi southeast of courthouse in Goliad, 11.7 mi upstream from Manahuilla Creek, and 66.5 mi upstream from mouth.

DRAINAGE AREA.--3,921 mi^2.

PERIOD OF RECORD.--June 1924 to Mar. 1929, Feb. 1939 to current year. Water-quality records: Chemical data: Dec. 1941 to Dec. 1942, Nov. 1944 to Sept. 1946, Sept. 1958 to Sept. 1996. Biochemical data: Jan. 1968 to Sept. 1996. Pesticide data: Jan. 1968 to May 1982. Sediment data: Apr. 1959, Oct. 1974 to Aug. 1994.

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 91.08 ft above NGVD of 1929. Prior to Mar. 31, 1929, nonrecording gage at Texas and New Orleans Railroad Co. bridge 1.1 mi upstream at same datum. Satellite telemeter at station.

REMARKS.--Records good. Since installation of gage in 1924, at least 10% of contributing drainage area has been regulated. There are many diversions above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in Oct. 1913 and June 15, 1935, reached about the same stage as flood in 1942. Maximum stage since about 1800 occurred in 1869 and was several feet higher than flood of Sept. 23, 1967. Maximum stage since 1869, that of Sept. 23, 1967. Flood of July 9, 1942, reached a stage of 44.9 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	745	677	558	569	593	678	537	2,490	724	3,410	1,050	1,150
2	717	664	553	574	606	652	681	3,070	686	6,400	992	1,070
3	696	654	558	574	596	690	882	3,600	661	8,800	937	941
4	678	637	567	570	587	688	1,270	3,750	656	9,320	942	859
5	653	633	567	558	599	650	2,420	2,840	619	6,190	940	826
6	606	635	560	558	584	630	4,030	2,040	606	4,410	913	813
7	596	635	551	552	576	725	6,010	1,730	597	3,470	887	800
8	588	619	548	573	600	934	5,940	1,610	560	2,920	896	807
9	616	576	550	578	596	753	3,240	1,550	554	2,610	1,050	880
10	712	562	557	499	577	664	1,720	1,960	575	2,390	1,020	931
11	1,700	557	565	481	584	631	1,860	2,240	2,580	2,220	929	891
12	1,150	549	553	485	594	611	3,800	1,840	7,770	2,090	966	835
13	983	551	545	448	625	611	3,760	1,600	11,300	2,070	917	797
14	1,170	546	556	427	661	1,010	2,370	3,470	12,500	2,180	853	798
15	1,580	541	548	443	705	977	1,750	8,930	5,970	1,990	819	951
16	1,180	537	548	583	654	1,680	1,480	11,300	3,020	1,780	772	835
17	942	600	553	667	643	1,140	1,450	5,050	2,600	1,650	738	779
18	842	739	552	602	648	1,300	1,420	2,080	2,320	1,560	712	733
19	789	640	544	666	618	957	1,380	1,720	2,210	1,470	681	682
20	763	621	539	1,000	602	752	1,340	1,540	2,060	1,400	655	650
21	734	692	544	725	586	665	1,320	1,420	1,720	1,330	634	627
22	716	635	539	573	573	608	1,270	1,340	1,580	1,310	624	614
23	710	602	542	528	568	511	1,180	1,270	1,940	1,260	607	604
24	696	588	544	526	581	481	1,200	1,170	2,360	1,190	588	591
25	683	582	543	554	633	477	3,190	1,110	2,530	1,140	572	963
26	680	585	547	583	808	480	3,730	1,080	3,630	1,220	915	1,110
27	669	579	554	655	1,160	490	4,210	1,030	6,440	1,260	1,770	774
28	651	570	569	725	965	484	3,450	963	3,860	1,150	1,880	704
29	647	565	568	684	750	463	2,570	893	2,660	1,130	1,550	693
30	721	568	571	641	---	453	2,870	821	2,560	1,090	1,330	692
31	706	---	571	603	---	453	---	765	---	1,120	1,210	---
TOTAL	25,319	18,139	17,164	18,204	18,872	22,298	72,330	76,272	87,848	81,530	29,349	24,400
MEAN	817	605	554	587	651	719	2,411	2,460	2,928	2,630	947	813
MAX	1,700	739	571	1,000	1,160	1,680	6,010	11,300	12,500	9,320	1,880	1,150
MIN	588	537	539	427	568	453	537	765	554	1,090	572	591
AC-FT	50,220	35,980	34,040	36,110	37,430	44,230	143,500	151,300	174,200	161,700	58,210	48,400

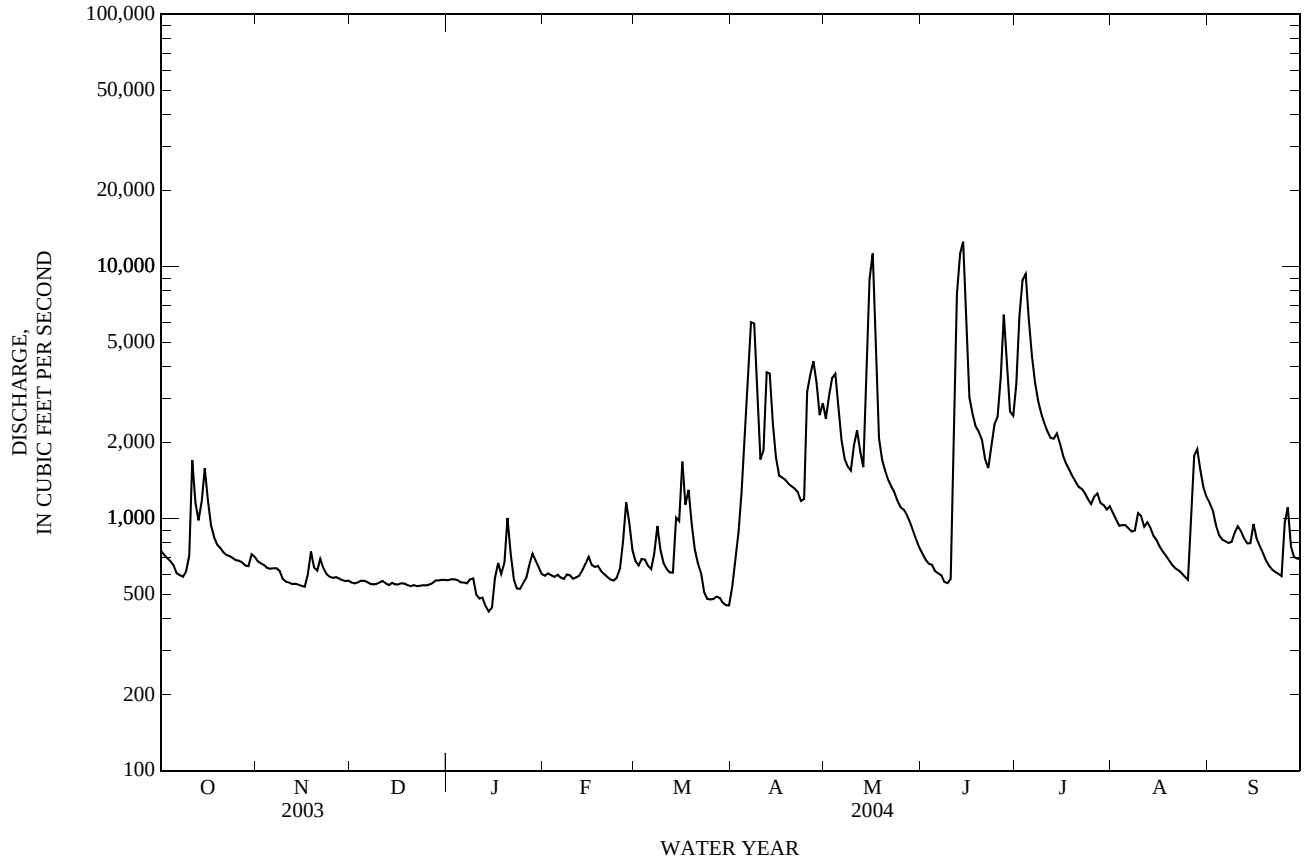
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004h, BY WATER YEAR (WY)

MEAN	897	690	571	587	694	544	781	1,049	1,167	830	417	1,003
MAX	7,543	3,805	4,628	4,309	7,682	4,379	4,488	6,169	15,370	15,330	1,736	12,050
(WY)	(1999)	(2003)	(1992)	(1968)	(1992)	(1992)	(1992)	(1992)	(1987)	(2002)	(1978)	(1967)
MIN	75.1	76.2	86.5	104	107	83.9	86.8	137	26.2	52.4	47.9	66.8
(WY)	(1956)	(1956)	(1955)	(1956)	(1956)	(1956)	(1956)	(1971)	(1956)	(1956)	(1963)	(1954)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004h	
ANNUAL TOTAL	338,750		491,725			
ANNUAL MEAN	928		1,344		777	
HIGHEST ANNUAL MEAN					3,289	1992
LOWEST ANNUAL MEAN					98.2	1956
HIGHEST DAILY MEAN	7,070	Sep 20	12,500	Jun 14	121,000	Sep 23, 1967
LOWEST DAILY MEAN	296	Aug 26	427	Jan 14	2.1	Jun 14, 1956
ANNUAL SEVEN-DAY MINIMUM	315	Aug 23	471	Mar 25	5.0	Jun 12, 1956
MAXIMUM PEAK FLOW			13,000	Jun 14	i138,000	Sep 23, 1967
MAXIMUM PEAK STAGE			31.43	Jun 14	a53.70	Sep 23, 1967
ANNUAL RUNOFF (AC-FT)	671,900		975,300		562,700	
10 PERCENT EXCEEDS	1,470		2,620		1,320	
50 PERCENT EXCEEDS	721		725		352	
90 PERCENT EXCEEDS	447		551		124	

h See PERIOD OF RECORD paragraph.
i From indirect measurement of peak flow.
a From floodmark.

08188500 San Antonio River at Goliad, TX—Continued



08188600 Guadalupe-Blanco River Authority Calhoun Canal Pump Station near Long Mott, TX

LOCATION.--Lat 28°29'35", long 96°46'43", Calhoun County, Hydrologic Unit 12100403, at raw water pump station on Goff Bayou, 0.6 mi upstream from State Highway 185, and 1.3 mi northwest of Long Mott.

PERIOD OF RECORD.--Mar. 1968 to Feb. 1970 (monthly discharge only), Mar. 1970 to current year.

GAGE.--Totalizing flow meters on rated pumps. Mar. 1968 to Mar. 1981, Parshall flume and deflection-vane recorder, Mar. 1981 to Oct. 1989, water-stage and velocity recorders with duplex water-stage recorder at present site, Oct. 1989 to June 1999 nonrecording gage at site 0.5 mi downstream. Satellite telemeter at station.

REMARKS.--Records fair. Flow is diverted from Guadalupe River 550 ft upstream from Guadalupe River near Tivoli (station 08188800), and then through a system of canals, Hog Bayou and Goff Bayou, a distance of 8.2 mi to the pumping station on Goff Bayou. No flow at times.

COOPERATION.--Log of pumping station on Goff Bayou provided by the Guadalupe-Blanco River Authority.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	e76	36	81	14	56	22	8.6	80	76	e119	88
2	47	e44	81	43	36	78	19	11	111	76	e119	94
3	47	e27	99	25	17	78	15	5.1	96	76	152	85
4	31	e34	99	17	20	69	14	13	75	77	157	80
5	37	e49	67	15	63	20	48	73	51	86	140	80
6	33	e49	27	34	69	15	33	81	78	97	154	80
7	e40	e59	28	39	4.9	11	0.00	69	79	123	150	94
8	e59	e67	27	46	20	9.2	38	26	79	140	142	88
9	e59	e67	43	41	21	15	61	12	77	146	86	65
10	e54	e67	74	16	20	64	66	20	100	120	83	50
11	e77	e67	72	17	36	79	24	59	104	124	83	47
12	e76	e42	85	56	19	42	23	81	88	134	80	47
13	e83	e27	46	80	26	11	58	81	89	134	79	63
14	e98	e27	27	85	9.4	11	9.0	22	115	139	84	78
15	e98	e27	25	61	7.7	5.1	22	0.00	110	140	96	85
16	e81	e27	26	16	13	46	17	0.00	76	141	115	124
17	e40	e27	18	21	57	33	7.8	9.0	91	140	129	104
18	e22	27	21	16	78	22	1.4	12	124	140	112	97
19	e22	27	26	16	77	12	9.8	43	123	139	103	96
20	e22	24	14	26	50	12	72	89	99	150	86	106
21	e33	23	12	28	6.5	3.3	96	95	98	163	78	124
22	e27	27	63	77	23	11	100	93	150	162	78	122
23	e34	27	83	66	19	15	54	84	148	136	112	59
24	e27	27	52	26	19	63	5.3	77	101	123	112	48
25	e27	75	14	26	14	75	0.00	86	87	130	99	48
26	e24	72	16	57	13	72	10	80	73	120	100	48
27	e22	24	12	82	5.1	62	15	84	48	128	100	83
28	e54	16	24	79	6.0	58	62	78	87	e137	100	97
29	e89	28	46	66	7.9	45	31	82	95	e114	84	102
30	e80	27	89	40	---	21	6.2	88	86	e114	80	91
31	e79	---	85	8.7	---	22	---	94	---	e114	81	---
TOTAL	1,603	1,207	1,437	1,306.7	771.5	1,135.6	939.50	1,655.70	2,818	3,839	3,293	2,473
MEAN	51.7	40.2	46.4	42.2	26.6	36.6	31.3	53.4	93.9	124	106	82.4
MAX	98	76	99	85	78	79	100	95	150	163	157	124
MIN	22	16	12	8.7	4.9	3.3	0.00	0.00	48	76	78	47
AC-FT	3,180	2,390	2,850	2,590	1,530	2,250	1,860	3,280	5,590	7,610	6,530	4,910

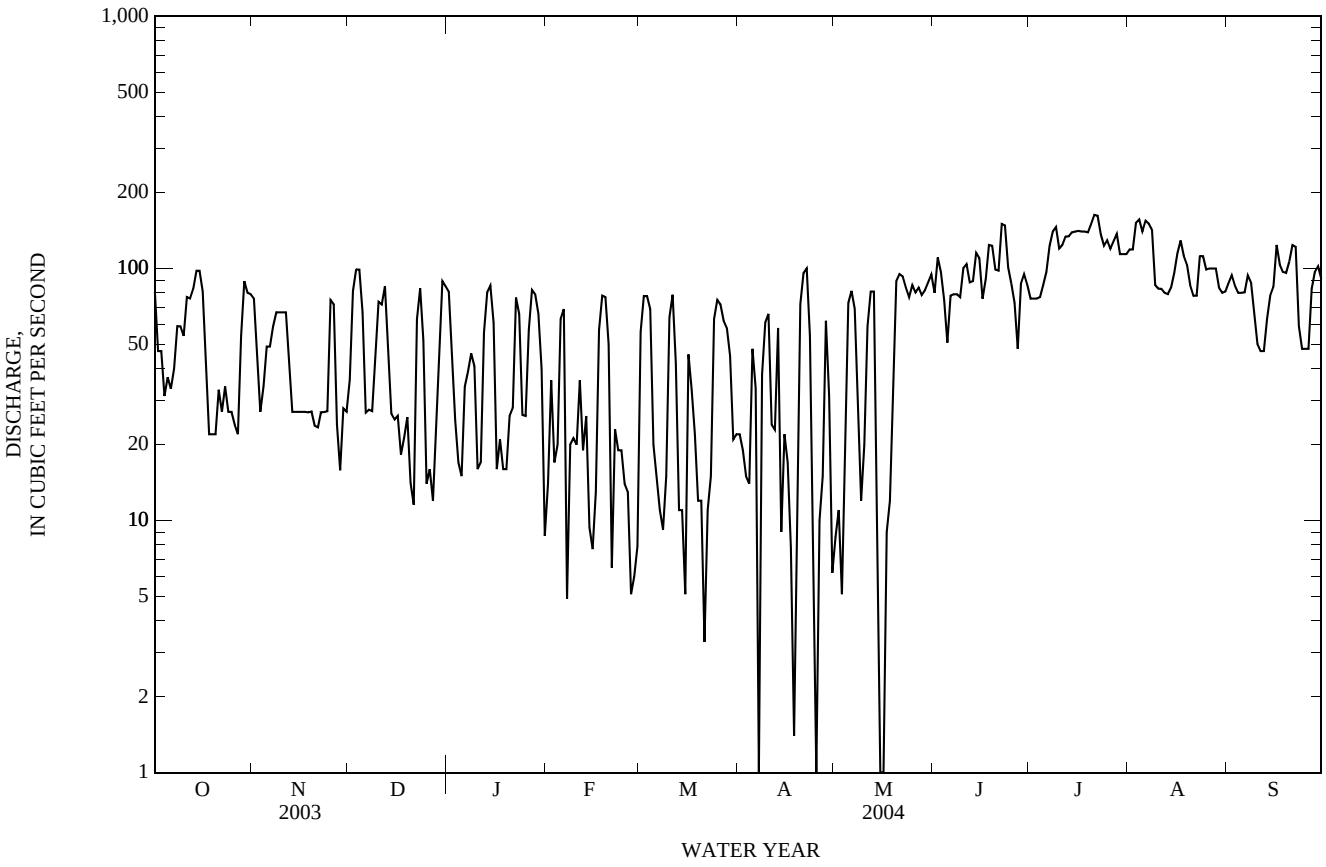
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004h, BY WATER YEAR (WY)

MEAN	72.9	32.1	31.5	31.6	29.2	42.5	84.0	120	171	158	125	121
MAX	167	83.8	55.7	58.9	61.0	96.9	169	209	268	247	193	225
(WY)	(1989)	(2000)	(1976)	(2000)	(1976)	(1975)	(1971)	(1978)	(1980)	(1973)	(1977)	(1980)
MIN	37.2	10.1	11.7	12.4	10.7	11.6	13.8	42.9	90.7	72.0	67.0	42.0
(WY)	(1998)	(1982)	(1983)	(1982)	(1992)	(1983)	(1992)	(1997)	(1997)	(2002)	(1996)	(1998)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004h	
ANNUAL TOTAL	22,647.00		22,479.00			
ANNUAL MEAN	62.0		61.4		85.3	
HIGHEST ANNUAL MEAN					126	1975
LOWEST ANNUAL MEAN					55.9	1997
HIGHEST DAILY MEAN	144	Jun 29	163	Jul 21	301	Jun 23, 1977
LOWEST DAILY MEAN	0.00	Jul 16	0.00	Apr 7	0.00	Aug 3, 1970
ANNUAL SEVEN-DAY MINIMUM	20	Dec 15	12	Feb 23	0.00	Dec 21, 1970
MAXIMUM PEAK FLOW					311	Jul 7, 1968
ANNUAL RUNOFF (AC-FT)	44,920		44,590		61,790	
10 PERCENT EXCEEDS	108		119		189	
50 PERCENT EXCEEDS	63		62		66	
90 PERCENT EXCEEDS	24		13		15	

h See Period of Record paragraph.
e Estimated

08188600 Guadalupe-Blanco River Authority Calhoun Canal Pump Station near Long Mott, TX—Continued



08188800 Guadalupe River near Tivoli, TX

LOCATION.--Lat 28°30'20", long 96°53'04", Refugio County, Hydrologic Unit 12100204, on right bank at diversion and saltwater barrier, one orifice located upstream and one downstream, 550 ft downstream from Calhoun County Irrigation Canal intake, 0.4 mi downstream from San Antonio River, 3.5 mi north of Tivoli, and at mile 10.2.

DRAINAGE AREA.--10,128 mi^2.

PERIOD OF RECORD.--Sept. 1965 to current year (daily maximum stage), Aug. 2000 to current year (daily mean discharges less than 3,250 ft 3/s). Water-quality records: Chemical data: Aug. 1965 to Aug. 1999. Biochemical data: Jan. 1968 to Sept. 1996. Pesticide data: Oct. 1970 to Aug. 1999. Specific conductance: Aug. 1965 to Oct. 1982. Water temperature: Aug. 1965 to Oct. 1982.

REVISED RECORDS.--WRD TX-68-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 0.04 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. Since installation of gage in Sept. 1965, at least 10% of contributing drainage area has been regulated. Many small diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height (upstream from barrier), 14.8 ft, Oct. 21, 1998. Maximum gage height (downstream from barrier), 14.7 ft, Oct. 21, 1998.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1936 reached a stage of 11 ft, present site and datum. Maximum stage since at least 1936, that of Oct. 21, 1998. Levees along the Navigation Canal from San Antonio Bay to Victoria were built in 1961, thus decreasing the flood plain.

EXTREMES FOR CURRENT YEAR.--Maximum gage height (upstream from barrier), 8.9 ft, June 17. Maximum gage height (downstream from barrier), 8.4 ft, several days.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.8	6.8	5.5	5.4	4.5	4.4	4.5	4.4	6.5	6.4	6.8	6.5
2	6.6	6.5	5.5	5.5	4.5	4.4	4.6	4.5	6.3	6.1	6.4	6.2
3	6.4	6.3	5.4	5.4	4.4	4.3	4.5	4.4	6.0	5.9	6.2	5.9
4	6.2	6.1	5.3	5.3	4.4	4.3	4.4	4.3	5.9	5.8	6.3	6.1
5	5.9	5.9	5.2	5.2	4.3	4.2	4.4	4.3	5.8	5.7	6.3	6.0
6	5.8	5.7	5.1	5.0	4.0	3.9	4.0	3.9	5.7	5.5	6.2	6.0
7	5.8	5.7	5.0	4.9	4.1	4.0	4.0	3.9	5.4	5.3	6.0	5.7
8	5.5	5.5	4.8	4.7	4.2	4.1	4.3	4.2	5.2	5.0	5.7	5.4
9	5.4	5.4	4.7	4.6	4.3	4.2	4.4	4.3	5.1	5.0	5.9	5.5
10	5.8	5.7	4.8	4.8	4.0	3.9	4.2	4.1	5.0	4.9	5.8	5.5
11	6.9	6.8	4.8	4.8	3.8	3.7	4.1	4.0	5.1	4.9	5.8	5.5
12	7.5	7.4	4.8	4.7	4.2	4.1	4.0	3.9	5.5	5.3	5.5	5.3
13	7.6	7.5	4.5	4.4	4.4	4.3	3.9	3.8	6.0	5.9	5.4	5.3
14	7.5	7.4	4.7	4.6	4.5	4.4	3.8	3.7	6.4	6.2	5.6	5.5
15	7.3	7.2	4.6	4.6	4.4	4.3	3.8	3.7	6.5	6.4	6.7	6.6
16	7.6	7.5	4.6	4.6	4.3	4.2	4.1	4.0	6.6	6.4	7.3	7.2
17	7.6	7.5	5.1	5.0	4.0	3.9	5.2	5.1	6.6	6.4	7.6	7.5
18	7.4	7.3	6.6	6.4	3.9	3.8	6.8	6.7	6.4	6.2	7.6	7.5
19	7.0	6.9	7.1	7.0	3.9	3.8	6.9	6.8	6.2	6.0	7.6	7.4
20	6.7	6.6	7.2	7.1	3.9	3.8	6.8	6.7	6.1	5.9	7.5	7.4
21	6.5	6.4	7.1	7.0	3.9	3.8	7.0	6.8	5.9	5.7	7.3	7.1
22	6.3	6.2	6.9	6.8	4.0	3.9	7.0	6.9	5.7	5.5	6.9	6.8
23	6.1	6.0	6.7	6.6	4.0	4.0	6.7	6.6	5.7	5.4	6.7	6.6
24	6.0	5.9	6.2	6.1	3.8	3.8	6.1	6.0	5.6	5.4	6.6	6.5
25	6.0	5.9	5.7	5.6	3.8	3.7	6.1	6.0	5.5	5.3	6.4	6.4
26	5.9	5.8	5.2	5.1	4.0	4.0	6.2	6.1	5.6	5.3	6.3	6.2
27	5.9	5.8	5.1	5.0	4.3	4.2	6.6	6.5	5.9	5.7	6.2	6.1
28	5.9	5.8	4.8	4.7	4.4	4.4	6.8	6.7	6.6	6.3	6.1	6.0
29	5.8	5.7	4.6	4.5	4.4	4.3	6.9	6.8	6.8	6.5	5.9	5.8
30	5.6	5.6	4.4	4.3	4.4	4.3	6.9	6.8	---	---	5.5	5.4
31	5.5	5.4	---	---	4.5	4.4	6.7	6.6	---	---	5.2	5.1
MONTH	7.6	5.4	7.2	4.3	4.5	3.7	7.0	3.7	6.8	4.9	7.6	5.1

08188800 Guadalupe River near Tivoli, TX—Continued

GAGE HEIGHT, FEET—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.2	5.1	8.2	8.0	7.3	7.1	8.3	7.8	7.4	7.0	7.5	7.3
2	5.2	5.1	8.2	7.9	7.2	7.0	8.2	7.8	7.4	7.2	7.4	7.1
3	6.0	5.8	8.2	7.9	7.0	6.8	8.2	7.8	7.4	7.2	7.3	7.0
4	6.4	6.3	8.2	7.9	6.9	6.7	8.3	7.8	7.3	7.1	7.3	7.0
5	6.8	6.7	8.2	8.0	6.8	6.5	8.5	8.0	7.2	7.0	7.2	6.9
6	7.8	7.6	8.2	8.0	7.0	6.7	8.7	8.2	7.0	6.8	7.0	6.8
7	8.3	8.2	8.2	8.0	7.2	6.9	8.7	8.2	6.9	6.7	6.8	6.5
8	8.4	8.2	8.2	8.0	7.5	7.2	8.6	8.2	7.0	6.7	6.5	6.2
9	8.4	8.2	8.2	8.0	7.5	7.2	8.3	7.9	6.9	6.7	6.3	6.1
10	8.4	8.3	8.2	8.0	7.5	7.2	8.1	7.6	6.9	6.7	6.6	6.3
11	8.4	8.2	8.2	8.0	7.4	7.2	8.0	7.4	7.0	6.8	6.7	6.4
12	8.2	8.1	8.2	8.0	7.7	7.4	8.0	7.3	7.0	6.8	6.6	6.4
13	8.2	8.1	8.3	8.1	8.0	7.7	7.9	7.2	7.0	6.8	6.6	6.4
14	8.3	8.2	8.6	8.4	8.2	7.9	7.8	7.2	7.0	6.7	6.6	6.3
15	8.3	8.2	8.6	8.4	8.4	8.1	8.1	7.0	7.0	6.7	6.6	6.3
16	8.2	8.1	8.7	8.4	8.7	8.4	7.9	7.0	6.9	6.6	6.6	6.4
17	8.1	8.0	8.7	8.4	8.9	8.4	7.9	7.0	6.9	6.6	6.7	6.5
18	8.0	7.9	8.7	8.4	8.8	8.4	7.9	7.0	6.7	6.5	6.8	6.5
19	8.0	7.9	8.7	8.4	8.5	8.1	7.8	6.8	6.6	6.4	6.8	6.5
20	8.0	7.9	8.6	8.3	8.2	7.8	7.8	6.8	6.6	6.4	6.7	6.4
21	8.0	7.9	8.2	8.0	8.0	7.7	7.8	6.8	6.6	6.4	6.7	6.6
22	8.0	7.8	8.0	7.9	8.0	7.6	8.0	7.2	6.5	6.3	6.7	6.5
23	7.9	7.8	8.0	7.8	8.0	7.6	7.8	7.4	6.5	6.3	6.6	6.4
24	8.0	7.8	7.8	7.7	8.0	7.6	7.6	7.3	6.5	6.3	6.4	6.2
25	7.9	7.8	7.8	7.6	8.1	7.7	7.6	7.2	6.4	6.2	6.1	6.0
26	8.0	7.8	7.7	7.5	8.1	7.7	7.6	7.2	6.2	6.1	6.1	6.0
27	8.2	8.0	7.6	7.4	8.2	7.7	7.6	7.1	6.4	6.2	6.4	6.3
28	8.2	8.0	7.5	7.3	8.3	7.8	7.5	7.1	6.8	6.6	6.4	6.3
29	8.2	8.0	7.4	7.2	8.4	7.9	7.5	7.1	7.1	6.8	5.9	5.8
30	8.2	8.0	7.4	7.2	8.4	7.9	7.5	7.1	7.4	7.2	5.5	5.3
31	---	---	7.4	7.1	---	---	7.5	7.1	7.5	7.3	---	---
MONTH	8.4	5.1	8.7	7.1	8.9	6.5	8.7	6.8	7.5	6.1	7.5	5.3
YEAR	8.9	3.7										

08188800 Guadalupe River near Tivoli, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,910	1,660	1,660	1,550	2,270	1,910	1,870	2,890	2,560	2,950	2,830	2,840
2	1,810	1,660	1,660	1,550	2,130	1,920	1,900	2,990	2,490	2,900	2,830	2,820
3	1,690	1,640	1,570	1,400	2,060	1,850	2,030	3,000	2,460	2,900	2,810	2,780
4	1,620	1,600	1,530	1,450	2,010	1,770	2,250	2,940	2,410	2,910	2,790	2,690
5	1,690	1,600	1,540	1,530	1,950	1,770	2,370	2,960	2,370	3,040	2,770	2,680
6	1,600	1,620	1,520	1,450	1,960	1,840	2,500	2,980	2,420	---	2,750	2,590
7	1,600	1,580	1,530	1,380	1,890	1,780	2,930	2,970	2,510	---	2,750	2,530
8	1,550	1,470	1,560	1,380	1,860	1,740	3,110	2,940	2,580	---	2,710	2,480
9	1,520	1,440	1,550	1,430	1,830	1,740	3,120	2,980	2,630	2,900	2,680	2,390
10	1,560	1,490	1,460	1,430	1,830	1,750	3,130	2,990	2,570	2,810	2,670	2,400
11	1,820	1,390	1,430	1,400	1,850	1,840	3,150	2,980	2,580	2,820	2,710	2,470
12	2,090	1,370	1,470	1,380	1,980	1,920	3,110	2,980	2,650	2,790	2,720	2,480
13	2,150	1,270	1,520	1,370	2,130	1,930	3,020	2,910	2,630	2,750	2,750	2,390
14	2,150	1,270	1,600	1,370	2,250	1,990	3,080	---	2,770	2,670	2,670	2,320
15	2,170	1,230	1,470	1,300	2,350	2,250	3,070	---	2,890	2,580	2,620	2,290
16	2,160	1,260	1,540	1,280	2,410	2,600	3,050	---	---	2,760	2,570	2,310
17	2,190	1,270	1,430	1,450	2,360	2,680	3,000	---	---	2,790	2,520	2,340
18	2,140	1,680	1,390	2,190	2,300	2,740	2,990	---	---	2,760	2,520	2,380
19	2,070	2,190	1,420	2,420	2,260	2,720	2,970	---	2,900	2,780	2,460	2,440
20	1,960	2,360	1,400	2,480	2,180	2,680	2,950	---	2,860	2,780	2,440	2,450
21	1,900	2,280	1,390	2,480	2,090	2,620	2,950	2,840	2,850	2,730	2,450	2,470
22	1,880	2,170	1,360	2,430	2,020	2,430	2,920	2,810	2,860	2,710	2,460	2,370
23	1,890	2,070	1,350	2,320	1,940	2,340	2,890	2,810	2,950	2,920	2,440	2,290
24	1,870	1,930	1,350	2,110	1,890	2,260	2,870	2,800	2,950	2,910	2,410	2,260
25	1,840	1,800	1,340	2,090	1,950	2,240	2,870	2,760	2,900	2,860	2,330	2,210
26	1,800	1,600	1,360	2,260	2,030	2,190	2,910	2,720	3,020	2,850	2,300	2,190
27	1,830	1,530	1,370	2,360	2,080	2,120	2,910	2,680	2,950	2,820	2,360	2,370
28	1,850	1,570	1,420	2,450	2,220	2,080	2,990	2,680	3,000	2,840	2,500	2,330
29	1,840	1,500	1,460	2,470	2,150	2,040	2,920	2,650	3,030	2,830	2,570	2,230
30	1,780	1,510	1,560	2,460	---	1,910	2,930	2,590	2,980	2,870	2,660	2,080
31	1,720	---	1,510	2,390	---	1,900	---	2,570	---	2,830	2,810	---
TOTAL	57,650	49,010	45,720	57,010	60,230	65,550	84,760	---	---	---	80,860	72,870
MEAN	1,860	1,634	1,475	1,839	2,077	2,115	2,825	---	---	---	2,608	2,429
MAX	2,190	2,360	1,660	2,480	2,410	2,740	3,150				2,830	2,840
MIN	1,520	1,230	1,340	1,280	1,830	1,740	1,870				2,300	2,080
AC-FT	114,300	97,210	90,690	113,100	119,500	130,000	168,100	---	---	---	160,400	144,500

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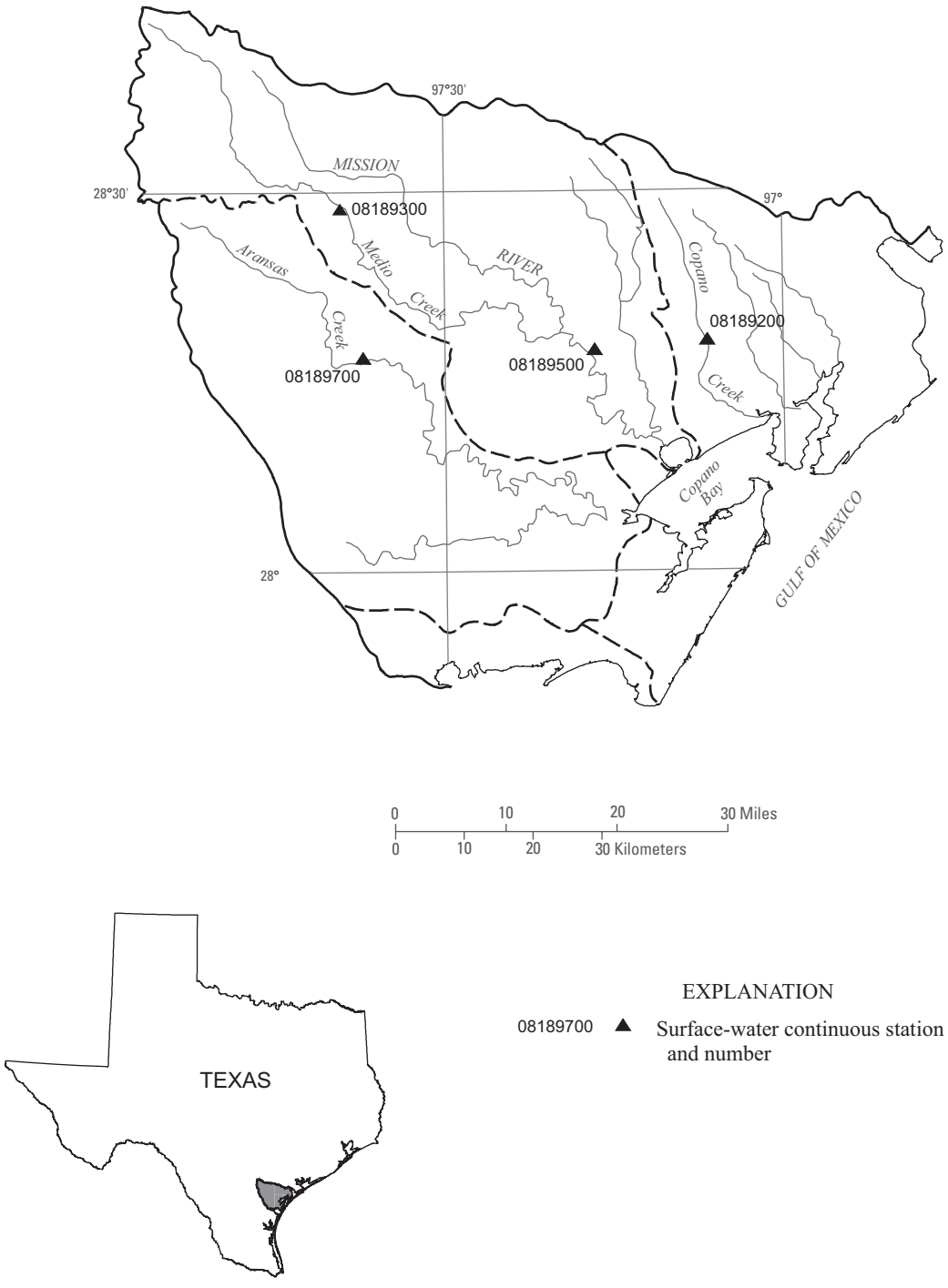


Figure 6.--Map showing location of gaging stations in the Copano, Mission and Aransas River Basins

08189200 Copano Creek near Refugio, TX

LOCATION.--Lat 28°18'12", long 97°06'44", Refugio County, Hydrologic Unit 12100405, on right bank at downstream end of bridge on Farm Road 774, 3.6 mi upstream from Alameda Creek, 8.1 mi east of Refugio, and 11.9 mi upstream from mouth.

DRAINAGE AREA.--87.8 mi^2.

PERIOD OF RECORD.--June 1970 to current year. Water-quality records: Chemical data: July 1970 to Dec. 1988. Biochemical data: July 1970 to Dec. 1988. Pesticide data: July 1970 to July 1981.

GAGE.--Water-stage recorder. Datum of gage is 17.25 ft above NGVD of 1929. Satellite telemeter at station.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1921, 22 ft in Sept. 1967, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

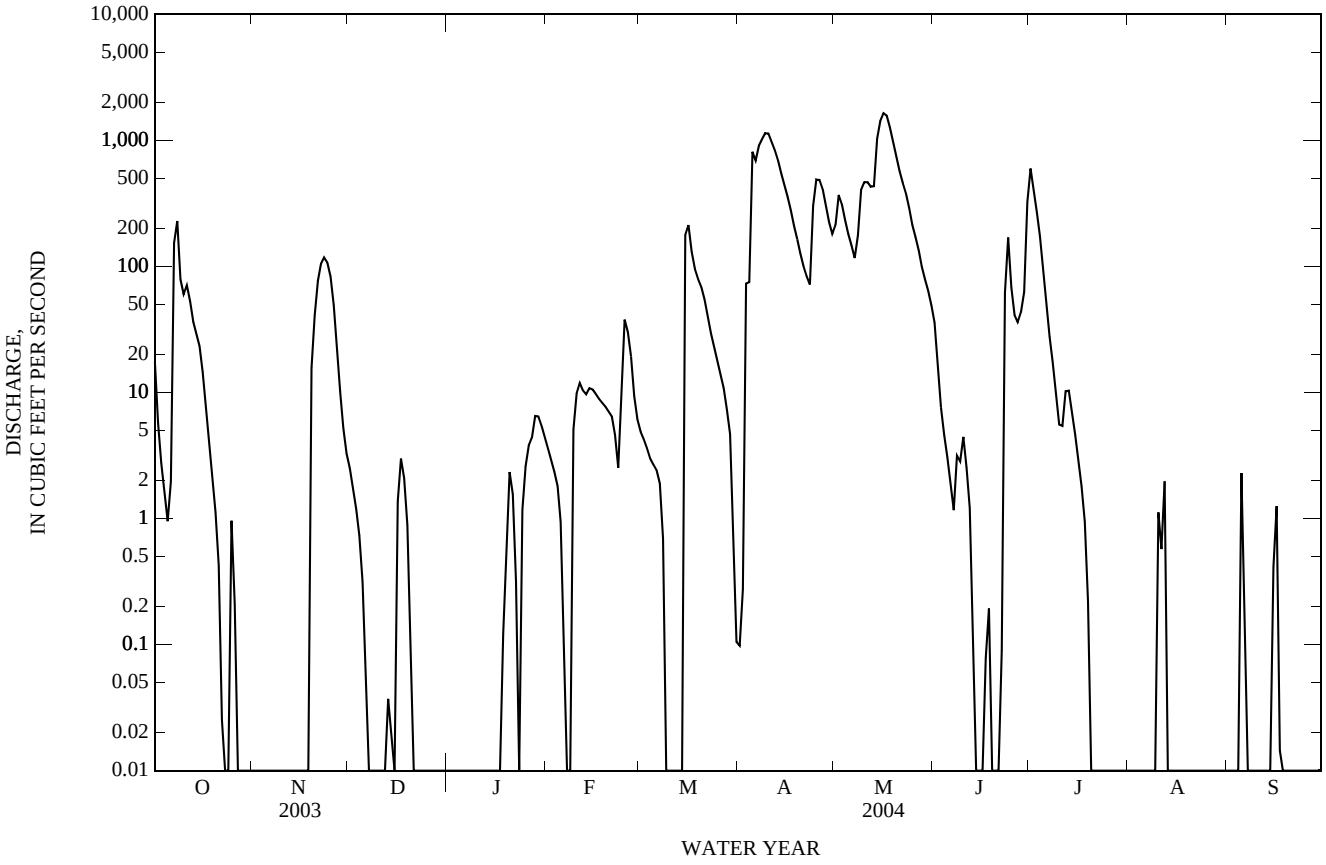
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	0.00	2.5	0.00	3.6	4.9	0.10	213	36	597	0.00	0.00
2	5.7	0.00	1.7	0.00	2.9	4.3	0.27	369	16	392	0.00	0.00
3	2.7	0.00	1.2	0.00	2.3	3.6	73	311	7.6	265	0.00	0.00
4	1.6	0.00	0.73	0.00	1.8	3.0	75	233	4.6	172	0.00	0.00
5	0.95	0.00	0.31	0.00	0.95	2.7	813	180	3.1	96	0.00	2.3
6	2.0	0.00	0.05	0.00	0.08	2.4	695	147	1.9	52	0.00	0.08
7	154	0.00	0.00	0.00	0.00	1.9	905	117	1.2	28	0.00	0.00
8	229	0.00	0.00	0.00	0.00	0.69	1,020	176	3.2	17	0.00	0.00
9	79	0.00	0.00	0.00	5.1	0.00	1,140	405	2.8	9.6	0.00	0.00
10	60	0.00	0.00	0.00	9.8	0.00	1,130	466	4.5	5.6	1.1	0.00
11	71	0.00	0.00	0.00	12	0.00	973	467	2.5	5.4	0.57	0.00
12	53	0.00	0.00	0.00	10	0.00	835	430	1.2	10	2.0	0.00
13	36	0.00	0.04	0.00	9.7	0.00	693	433	0.09	10	0.00	0.00
14	29	0.00	0.02	0.00	11	0.00	546	1,030	0.00	6.9	0.00	0.00
15	23	0.00	0.00	0.00	11	177	437	1,430	0.00	4.6	0.00	0.41
16	14	0.00	1.4	0.00	9.7	213	356	1,640	0.00	2.9	0.00	1.3
17	7.8	0.00	3.0	0.00	8.9	131	278	1,570	0.08	1.8	0.00	0.01
18	4.2	0.00	2.1	0.12	8.3	96	209	1,270	0.19	0.95	0.00	0.00
19	2.2	16	0.89	0.42	7.7	80	164	956	0.00	0.22	0.00	0.00
20	1.1	41	0.08	2.3	7.1	69	127	736	0.00	0.00	0.00	0.00
21	0.43	77	0.00	1.6	6.5	55	100	574	0.00	0.00	0.00	0.00
22	0.03	105	0.00	0.32	4.6	40	84	462	0.09	0.00	0.00	0.00
23	0.00	118	0.00	0.00	2.5	30	72	381	62	0.00	0.00	0.00
24	0.00	107	0.00	1.2	12	23	302	292	170	0.00	0.00	0.00
25	0.96	83	0.00	2.6	38	18	488	214	68	0.00	0.00	0.00
26	0.21	49	0.00	3.8	30	14	486	171	41	0.00	0.00	0.00
27	0.00	24	0.00	4.4	19	11	410	134	36	0.00	0.00	0.00
28	0.00	10	0.00	6.5	9.3	7.3	300	100	43	0.00	0.00	0.00
29	0.00	5.2	0.00	6.5	6.1	4.7	224	79	63	0.00	0.00	0.00
30	0.00	3.3	0.00	5.4	---	1.1	181	64	325	0.00	0.00	0.00
31	0.00	---	0.00	4.4	---	0.11	---	49	---	0.00	0.00	---
TOTAL	795.88	638.50	14.02	39.56	249.93	993.70	13,116.37	15,099	893.05	1,676.97	3.67	4.10
MEAN	25.7	21.3	0.45	1.28	8.62	32.1	437	487	29.8	54.1	0.12	0.14
MAX	229	118	3.0	6.5	38	213	1,140	1,640	325	597	2.0	2.3
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.10	49	0.00	0.00	0.00	0.00
AC-FT	1,580	1,270	28	78	496	1,970	26,020	29,950	1,770	3,330	7.3	8.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

MEAN	72.9	57.5	22.0	22.5	34.4	34.5	37.2	68.0	58.1	42.2	3.17	87.4
MAX	551	589	240	189	459	524	437	508	499	416	29.9	1,028
(WY)	(1984)	(1982)	(1992)	(1979)	(1992)	(1997)	(2004)	(1981)	(1981)	(1990)	(1998)	(1971)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1978)	(1989)	(1971)	(1983)	(1971)	(1971)	(1971)	(1971)	(1971)	(1971)	(1974)	(1977)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	6,554.96		33,524.75			
ANNUAL MEAN	18.0		91.6		45.0	
HIGHEST ANNUAL MEAN					138	1992
LOWEST ANNUAL MEAN					0.52	1989
HIGHEST DAILY MEAN	509	Sep 22	1,640	May 16	5,960	Sep 12, 1971
LOWEST DAILY MEAN	0.00	Jan 3	0.00	Oct 23	0.00	Aug 14, 1970
ANNUAL SEVEN-DAY MINIMUM	0.00	Mar 10	0.00	Oct 27	0.00	Aug 14, 1970
MAXIMUM PEAK FLOW			1,670	May 16	6,300	Sep 12, 1971
MAXIMUM PEAK STAGE			14.67	May 16	21.00	Sep 12, 1971
ANNUAL RUNOFF (AC-FT)	13,000		66,500		32,630	
10 PERCENT EXCEEDS	36		301		69	
50 PERCENT EXCEEDS	0.00		1.8		0.03	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

08189200 Copano Creek near Refugio, TX—Continued



08189300 Medio Creek near Beeville, TX

LOCATION.--Lat 28°28'58", long 97°39'23", Bee County, Hydrologic Unit 12100406, on left bank at downstream side of bridge on U.S. Highway 59, 8.0 mi northeast of Beeville, and 9.0 mi upstream from Parker Hollow Creek.

DRAINAGE AREA.--204 mi^2.

PERIOD OF RECORD.--Mar. 1962 to Oct. 1977, Sept. 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 163 ft above NGVD of 1929. 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1914, that of Sept. 22, 1967. A stage of about 31 ft (discharge 25,500 ft^3/s) occurred in Sept. 1919, from information from local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.25	0.09	0.02	0.13	0.11	0.68	0.12	13	3.2	2.2	0.38	0.00
2	0.23	0.10	0.03	0.12	0.09	0.43	28	24	3.1	7.3	0.36	0.00
3	0.20	0.09	0.04	0.12	0.07	0.36	23	19	3.1	3.9	0.25	0.00
4	0.18	0.07	0.04	0.11	0.08	0.32	15	4.7	3.0	2.6	0.15	0.00
5	0.17	0.07	0.03	0.07	0.09	0.24	60	2.9	2.9	2.0	0.11	0.00
6	0.17	0.05	0.00	0.03	0.04	0.17	508	2.1	2.9	1.6	0.06	0.01
7	0.15	0.02	0.00	0.01	0.01	0.12	85	1.6	2.9	1.5	0.08	0.12
8	0.15	0.03	0.01	0.09	0.01	0.10	48	2.4	2.9	1.4	0.04	0.00
9	0.15	0.06	0.03	0.09	0.04	0.08	6.9	148	3.1	1.3	0.00	0.00
10	0.18	0.06	0.00	0.06	0.06	0.08	4.1	164	3.0	1.3	0.00	0.00
11	0.19	0.08	0.00	0.04	0.07	0.11	6.2	13	3.2	1.2	0.11	0.00
12	0.23	0.08	0.02	0.04	0.08	0.12	31	58	2.9	1.1	1.1	0.00
13	0.42	0.07	0.02	0.05	0.07	0.19	17	12	3.2	1.1	1.1	0.42
14	3.2	0.03	0.01	0.08	0.10	0.26	5.3	318	3.1	1.1	0.94	1.2
15	2.8	0.06	0.01	0.12	0.06	1.4	3.3	103	2.9	1.1	0.64	1.2
16	1.8	0.06	0.00	0.28	0.05	3.1	2.5	14	5.0	1.0	0.25	0.65
17	1.2	0.11	0.00	0.60	0.03	2.5	2.0	6.6	3.9	0.98	0.12	0.50
18	0.82	0.22	0.00	0.40	0.03	1.4	1.6	5.3	2.7	0.99	0.14	0.41
19	0.53	0.06	0.00	0.24	0.04	0.96	1.4	4.7	2.6	0.97	0.18	0.32
20	0.37	0.01	0.02	0.15	0.06	0.72	1.3	4.3	2.5	0.95	0.04	0.27
21	0.29	e0.00	0.02	0.13	0.06	0.53	1.1	4.1	2.5	0.93	0.00	0.26
22	0.21	e0.00	0.04	0.14	0.06	0.44	1.0	3.9	2.5	0.92	0.03	0.29
23	0.18	e0.20	0.03	0.22	0.08	0.36	0.97	3.7	3.7	1.0	0.17	0.31
24	0.15	e0.20	0.00	0.34	0.20	0.32	1.4	3.7	3.5	0.96	0.11	0.28
25	0.17	0.15	0.01	0.31	0.23	0.28	15	3.5	8.8	0.73	0.00	0.31
26	0.13	0.13	0.04	0.20	0.27	0.26	59	3.5	10	0.67	0.03	0.32
27	0.13	0.11	0.07	0.11	0.25	0.26	10	3.4	16	0.67	0.00	0.29
28	0.10	0.03	0.13	0.09	0.87	0.23	4.1	3.4	5.1	0.75	0.06	0.31
29	0.08	0.00	0.10	0.13	1.0	0.19	2.7	3.3	3.1	0.60	0.06	0.28
30	0.09	0.00	0.07	0.13	---	0.15	24	3.2	e2.3	0.52	0.02	0.24
31	0.09	---	0.09	0.11	---	0.12	---	3.2	---	0.41	0.00	---
TOTAL	15.01	2.24	0.88	4.74	4.21	16.48	968.99	959.5	119.6	43.75	6.53	7.99
MEAN	0.48	0.07	0.03	0.15	0.15	0.53	32.3	31.0	3.99	1.41	0.21	0.27
MAX	3.2	0.22	0.13	0.60	1.0	3.1	508	318	16	7.3	1.1	1.2
MIN	0.08	0.00	0.00	0.01	0.01	0.08	0.12	1.6	2.3	0.41	0.00	0.00
AC-FT	30	4.4	1.7	9.4	8.4	33	1,920	1,900	237	87	13	16

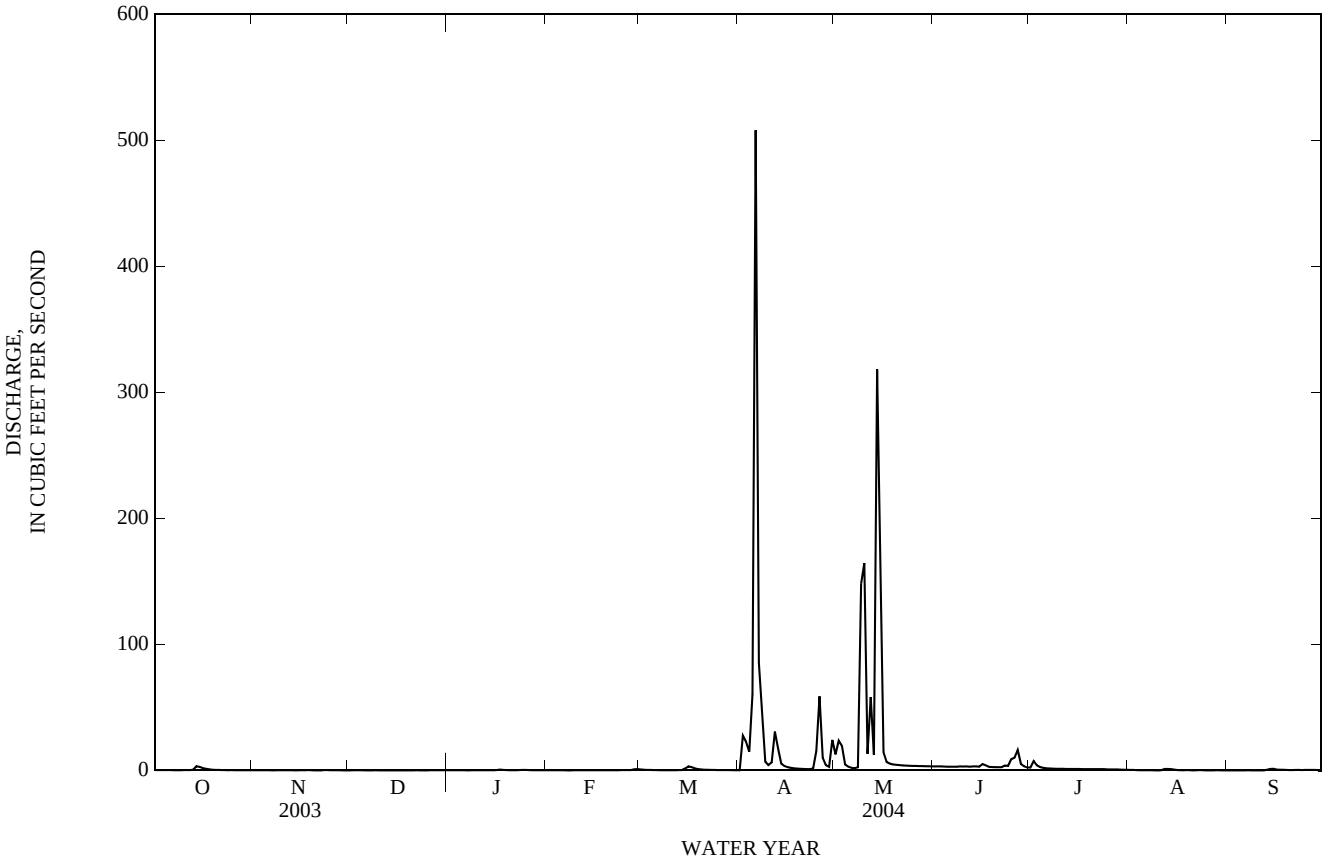
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004h, BY WATER YEAR (WY)

MEAN	11.0	22.6	3.28	2.09	6.52	1.47	16.0	17.2	13.3	2.35	3.26	127
MAX	43.2	350	32.3	9.62	86.4	15.9	110	116	63.0	28.7	37.5	2,177
(WY)	(2003)	(2002)	(2002)	(1972)	(1965)	(1970)	(1977)	(1968)	(1973)	(2002)	(1964)	(1967)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1965)	(1965)	(1965)	(1963)	(1963)	(1962)	(1962)	(1962)	(1964)	(1962)	(1962)	(1963)

08189300 Medio Creek near Beeville, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004h	
ANNUAL TOTAL	380.44		2,149.92			
ANNUAL MEAN	1.04		5.87		19.2	
HIGHEST ANNUAL MEAN					180	1967
LOWEST ANNUAL MEAN					0.62	1975
HIGHEST DAILY MEAN	37	Sep 19	508	Apr 6	46,300	Sep 22, 1967
LOWEST DAILY MEAN	0.00	Jun 22	0.00	Nov 21	0.00	Mar 1, 1962
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 22	0.00	Aug 31	0.00	Mar 1, 1962
MAXIMUM PEAK FLOW			882	Apr 6	105,000	Sep 22, 1967
MAXIMUM PEAK STAGE			11.61	Apr 6	a38.68	Sep 22, 1967
ANNUAL RUNOFF (AC-FT)	755		4,260		13,910	
10 PERCENT EXCEEDS	1.7		4.7		5.1	
50 PERCENT EXCEEDS	0.26		0.25		0.07	
90 PERCENT EXCEEDS	0.00		0.01		0.00	

h See Period of Record paragraph.
a From floodmark.
e Estimated



08189500 Mission River at Refugio, TX

LOCATION.--Lat 28°17'30", long 97°16'44", Refugio County, Hydrologic Unit 12100406, on left bank at upstream side of upstream bridge of two bridges on U.S. Highway 77, 560 ft upstream from Missouri Pacific Railroad Co. bridge, and 0.2 mi southwest of Refugio.

DRAINAGE AREA.--690 mi^2.

PERIOD OF RECORD.--July 1939 to current year. Water-quality records: Chemical data: Sept. 1961 to Aug. 1993. Biochemical data: Jan. 1968 to Aug. 1993. Pesticide data: Oct. 1970 to Apr. 1979. Sediment data: Jan. 1978 to Aug. 1993. Specific conductance: Oct. 1961 to Sept. 1981. Water temperature: Oct. 1961 to Sept. 1981.

REVISED RECORDS.--WSP 1923: Drainage area. WDR TX-71-1: 1967

GAGE.--Water-stage recorder. Datum of gage is 1.00 ft above NGVD of 1929. Prior to Nov. 25, 1958, nonrecording gage at site 59 ft downstream at same datum. Nov. 26, 1958, to Apr. 18, 1963, nonrecording gage at present site and datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. There are several small diversions above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in Aug. 1914 and May 17, 1938, reached a stage of 32.3 ft, from information by local residents. Maximum stage since about 1899, that of Sept. 12, 1971.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

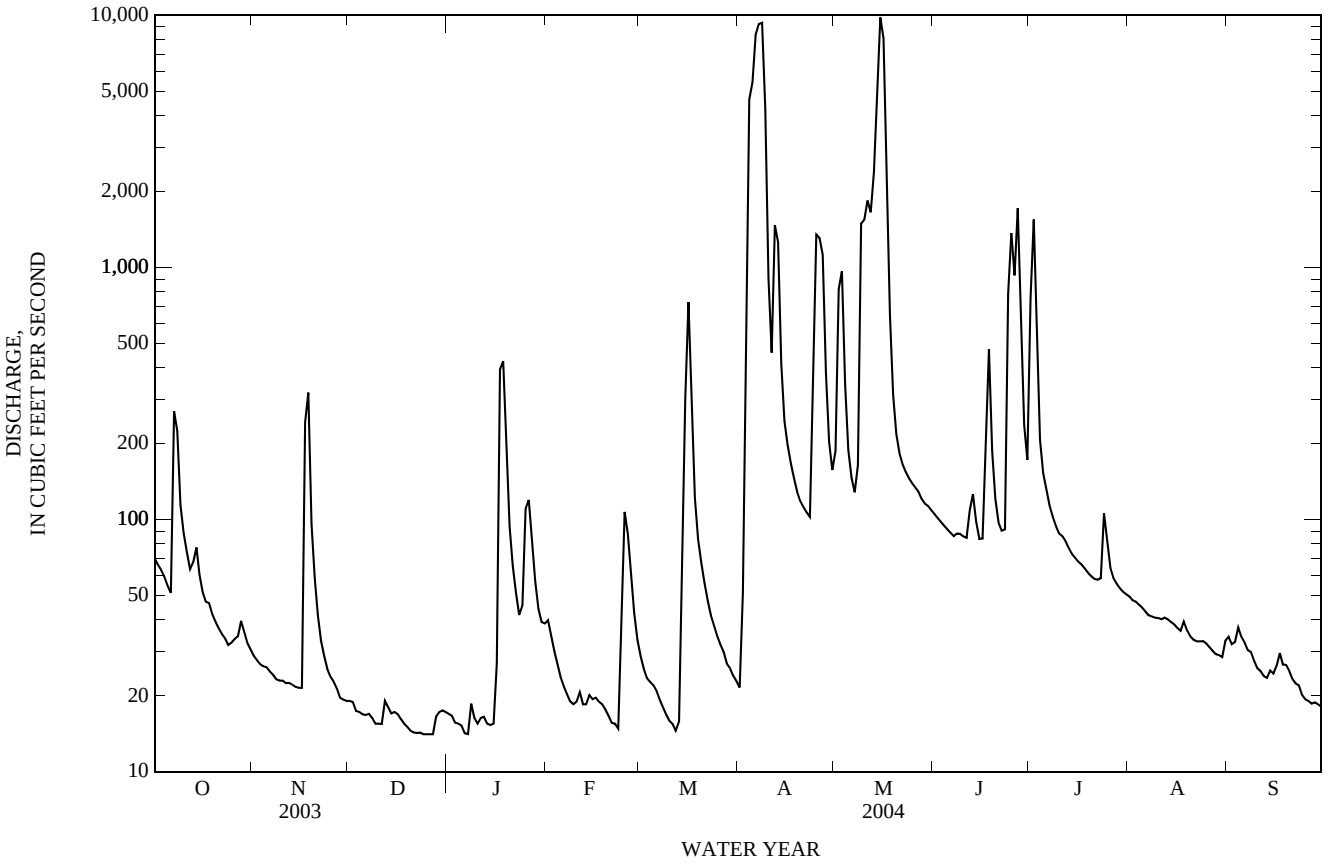
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	29	19	17	40	29	22	187	105	756	49	34
2	66	28	19	17	34	26	51	820	101	1,550	48	32
3	63	27	17	16	30	23	1,350	967	98	479	47	33
4	59	26	17	16	26	23	4,630	345	95	207	46	37
5	55	26	17	15	24	22	5,420	189	91	153	45	34
6	51	25	17	14	22	21	8,380	147	89	131	43	33
7	268	24	17	14	20	19	9,230	128	86	114	42	30
8	225	23	16	19	19	18	9,340	164	88	103	41	30
9	114	23	16	16	18	17	4,270	1,490	88	94	41	28
10	88	23	16	16	19	16	908	1,550	86	88	41	26
11	74	22	15	16	21	15	459	1,840	85	86	40	25
12	64	22	19	17	18	15	1,470	1,650	109	82	41	24
13	68	22	18	16	18	16	1,260	2,390	126	77	40	24
14	78	22	17	15	20	44	415	4,770	98	73	39	25
15	60	22	17	16	19	303	245	9,810	84	70	38	24
16	51	22	17	27	20	729	197	8,100	84	68	37	26
17	47	243	16	393	19	255	167	2,850	200	66	36	30
18	47	319	16	424	18	122	146	653	474	64	39	27
19	42	96	15	181	18	84	129	313	187	62	36	26
20	39	59	15	94	17	67	118	218	121	60	34	25
21	37	41	14	65	16	56	112	183	97	58	33	23
22	35	33	14	51	16	48	107	166	90	58	33	22
23	34	29	14	42	15	42	102	154	91	59	33	22
24	32	26	14	45	49	38	288	146	790	106	33	20
25	32	24	14	110	107	35	1,350	139	1,370	81	32	19
26	34	23	14	120	88	32	1,310	134	931	64	31	19
27	34	21	14	83	62	30	1,120	129	1,720	58	30	19
28	40	20	17	57	42	27	384	121	622	56	29	19
29	36	19	17	44	33	26	203	116	238	53	29	18
30	32	19	17	39	---	24	157	113	173	52	28	18
31	31	---	17	39	---	23	---	109	---	50	33	---
TOTAL	2,006	1,358	502	2,054	868	2,245	53,340	40,091	8,617	5,078	1,167	772
MEAN	64.7	45.3	16.2	66.3	29.9	72.4	1,778	1,293	287	164	37.6	25.7
MAX	268	319	19	424	107	729	9,340	9,810	1,720	1,550	49	37
MIN	31	19	14	14	15	15	22	109	84	50	28	18
AC-FT	3,980	2,690	996	4,070	1,720	4,450	105,800	79,520	17,090	10,070	2,310	1,530
CFSM	0.09	0.07	0.02	0.10	0.04	0.10	2.58	1.87	0.42	0.24	0.05	0.04
IN.	0.11	0.07	0.03	0.11	0.05	0.12	2.88	2.16	0.46	0.27	0.06	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	192	91.7	63.2	47.8	101	58.6	123	197	171	135	60.9	301
MAX	1,882	1,380	849	417	1,178	595	1,778	1,387	1,848	2,135	1,076	5,349
(WY)	(1974)	(1982)	(1992)	(1992)	(1958)	(1997)	(2004)	(1972)	(1973)	(1990)	(1942)	(1967)
MIN	0.05	0.64	0.62	0.66	0.66	2.20	1.90	0.46	0.65	0.40	0.10	0.03
(WY)	(1990)	(1990)	(1990)	(1990)	(1990)	(1989)	(1940)	(1989)	(1990)	(1989)	(1989)	(1989)

08189500 Mission River at Refugio, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	36,983.9		118,098			
ANNUAL MEAN	101		323		129	
HIGHEST ANNUAL MEAN					459	1967
LOWEST ANNUAL MEAN					1.74	1989
HIGHEST DAILY MEAN	3,980	Sep 20	9,810	May 15	67,200	Sep 12, 1971
LOWEST DAILY MEAN	8.3	Aug 30	14	Dec 21	0.00	Sep 1, 1989
ANNUAL SEVEN-DAY MINIMUM	8.8	Aug 25	14	Dec 21	0.00	Aug 30, 1989
MAXIMUM PEAK FLOW			11,400	May 15	79,000	Sep 12, 1971
MAXIMUM PEAK STAGE			28.51	May 15	38.25	Sep 12, 1971
ANNUAL RUNOFF (AC-FT)	73,360		234,200		93,260	
ANNUAL RUNOFF (CFSM)	0.147		0.468		0.187	
ANNUAL RUNOFF (INCHES)	1.99		6.37		2.53	
10 PERCENT EXCEEDS	128		434		103	
50 PERCENT EXCEEDS	27		41		12	
90 PERCENT EXCEEDS	12		17		2.4	



08189700 Aransas River near Skidmore, TX

LOCATION.--Lat 28°16'56", long 97°37'14", Bee County, Hydrologic Unit 12100407, on right bank 160 ft downstream from centerline of county road bridge, 3.8 mi downstream from confluence of West Aransas and Poesta Creeks, and 4.4 mi northeast of Skidmore.

DRAINAGE AREA.--247 mi^2.

PERIOD OF RECORD.--Mar. 1964 to current year. Water-quality records: Chemical data: Oct. 1965 to Sept. 1966. Sediment data: Feb. 1966 to Sept. 1975.

GAGE.--Water-stage recorder. Datum of gage is 72.37 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. The city of Beeville discharges wastewater effluent into the river via Poesta Creek 3.8 mi upstream. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 1954 reached a stage of 33 ft (discharge, 19,600 ft^3/s), from information by local resident. Maximum stage since at least 1914, that of Sept. 22, 1967.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	8.5	8.4	8.8	9.1	e9.2	7.5	181	24	85	11	12
2	8.7	8.1	8.4	8.2	8.8	e9.0	169	384	23	59	11	11
3	7.9	8.1	8.7	8.0	8.4	9.0	3,960	135	22	35	10	11
4	7.6	8.2	8.3	8.1	8.0	8.9	458	57	22	23	10	12
5	7.6	8.0	7.9	7.9	8.9	9.1	5,920	32	22	19	11	13
6	7.4	7.7	8.0	7.5	9.4	9.0	980	25	20	17	10	13
7	60	7.6	7.9	7.5	8.5	8.6	1,090	20	23	16	10	14
8	28	7.7	8.0	8.6	8.2	8.3	190	238	36	15	10	15
9	12	7.8	8.1	9.3	8.5	8.3	97	808	31	15	10	14
10	10	7.8	7.9	9.8	9.1	8.4	63	183	23	15	9.8	12
11	7.5	7.9	7.5	8.6	9.6	8.4	134	219	35	15	9.7	12
12	102	7.8	7.8	8.3	9.3	8.5	248	680	24	14	22	12
13	65	7.9	8.2	8.4	9.2	9.0	96	1,530	20	14	23	12
14	22	7.7	8.0	8.3	9.6	11	52	29,300	19	14	13	57
15	12	7.6	7.9	8.5	11	28	37	2,600	19	13	11	65
16	9.5	7.7	8.0	9.6	11	17	30	211	21	13	11	25
17	7.8	8.2	7.7	49	9.3	12	27	122	57	12	11	17
18	6.7	9.0	7.7	29	9.2	10	23	89	52	12	9.9	14
19	6.2	8.5	7.6	14	9.1	9.5	21	76	25	12	10	13
20	6.0	7.9	7.7	11	9.4	9.3	20	60	18	11	10	12
21	5.8	7.6	e8.1	e10	9.1	8.9	19	50	16	11	10	12
22	5.7	7.8	e8.5	e9.9	9.1	8.5	19	43	17	11	9.8	12
23	5.6	8.0	e8.3	e9.3	9.5	8.5	18	39	164	11	11	14
24	5.4	7.9	e8.1	11	13	8.4	392	36	153	21	11	12
25	29	7.9	8.2	15	21	8.3	1,340	35	93	16	11	11
26	192	8.2	8.6	13	19	8.5	437	33	289	12	10	11
27	58	8.5	8.9	11	13	8.6	151	31	151	11	9.9	10
28	23	8.6	9.5	9.6	e10	8.4	66	29	56	11	10	10
29	14	8.5	9.4	9.6	e9.4	8.0	37	27	33	11	11	9.8
30	11	8.4	9.9	10	---	7.7	28	27	39	11	15	9.3
31	9.2	---	8.8	9.5	---	7.5	---	26	---	11	18	---
TOTAL	761.5	241.1	256.0	356.3	296.7	301.8	16,129.5	37,326	1,547	566	360.1	477.1
MEAN	24.6	8.04	8.26	11.5	10.2	9.74	538	1,204	51.6	18.3	11.6	15.9
MAX	192	9.0	9.9	49	21	28	5,920	29,300	289	85	23	65
MIN	5.4	7.6	7.5	7.5	8.0	7.5	7.5	20	16	11	9.7	9.3
AC-FT	1,510	478	508	707	589	599	31,990	74,040	3,070	1,120	714	946

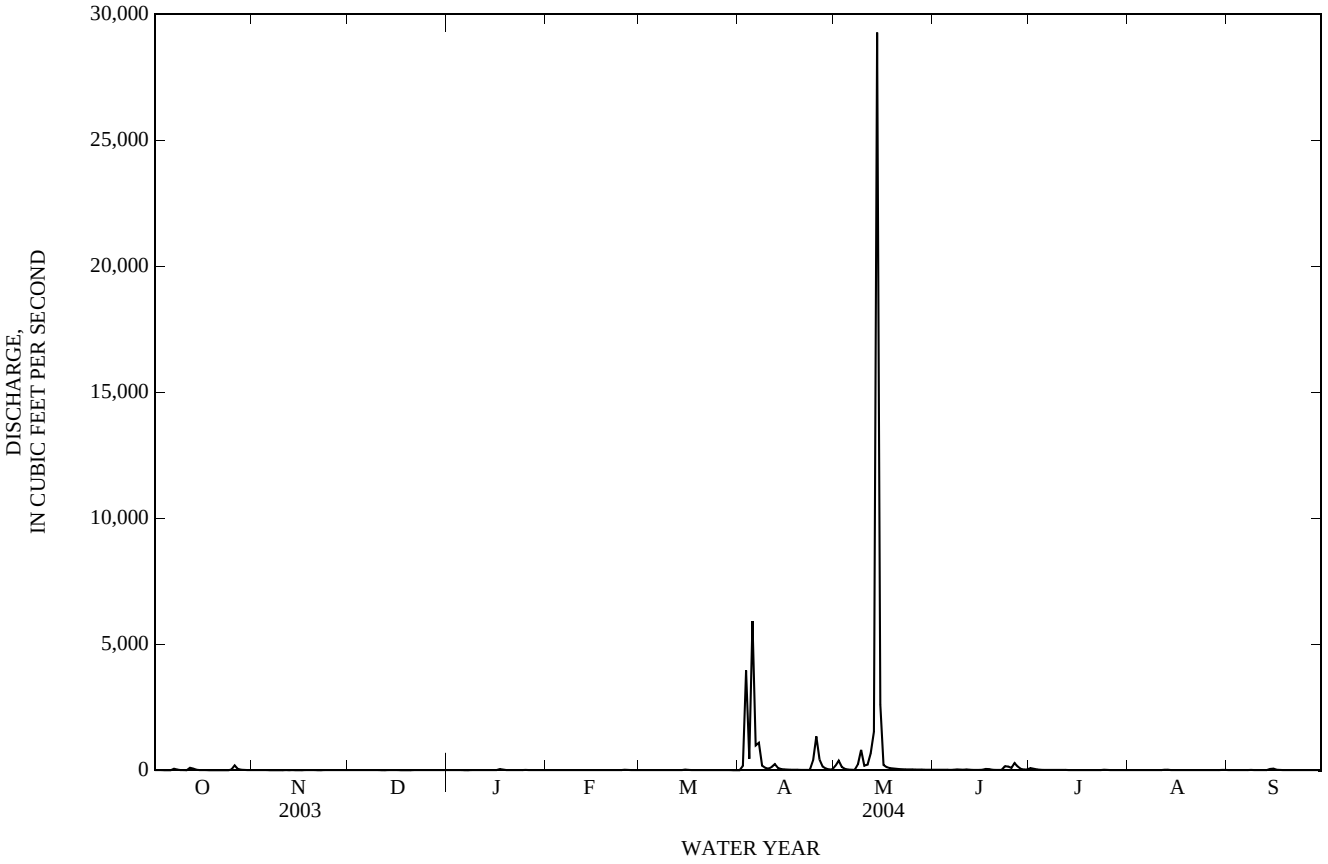
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	42.3	15.4	19.2	8.00	14.2	15.6	40.4	77.6	45.3	33.0	20.4	129
MAX	346	136	327	38.9	119	117	538	1,204	512	451	297	2,356
(WY)	(1998)	(2002)	(1992)	(1992)	(1969)	(1992)	(2004)	(2004)	(1973)	(1990)	(2001)	(1967)
MIN	0.00	0.17	0.72	1.05	1.10	0.55	0.31	1.04	0.03	0.03	0.00	0.00
(WY)	(1990)	(1965)	(1965)	(1971)	(1967)	(1966)	(1967)	(1989)	(1967)	(1986)	(1965)	(1965)

08189700 Aransas River near Skidmore, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	10,120.4		58,619.1			
ANNUAL MEAN	27.7		160		39.0	
HIGHEST ANNUAL MEAN					199	1967
LOWEST ANNUAL MEAN					3.15	1986
HIGHEST DAILY MEAN	1,030	Sep 19	29,300	May 14	49,300	Sep 22, 1967
LOWEST DAILY MEAN	4.0	Jul 1	5.4	Oct 24	0.00	Jun 24, 1964
ANNUAL SEVEN-DAY MINIMUM	4.3	Jun 21	5.9	Oct 18	0.00	Aug 16, 1964
MAXIMUM PEAK FLOW			39,500	May 14	i82,800	Sep 22, 1967
MAXIMUM PEAK STAGE			35.27	May 14	a42.22	Sep 22, 1967
ANNUAL RUNOFF (AC-FT)	20,070		116,300		28,230	
10 PERCENT EXCEEDS	36		86		18	
50 PERCENT EXCEEDS	8.1		11		4.3	
90 PERCENT EXCEEDS	4.8		7.9		0.80	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated



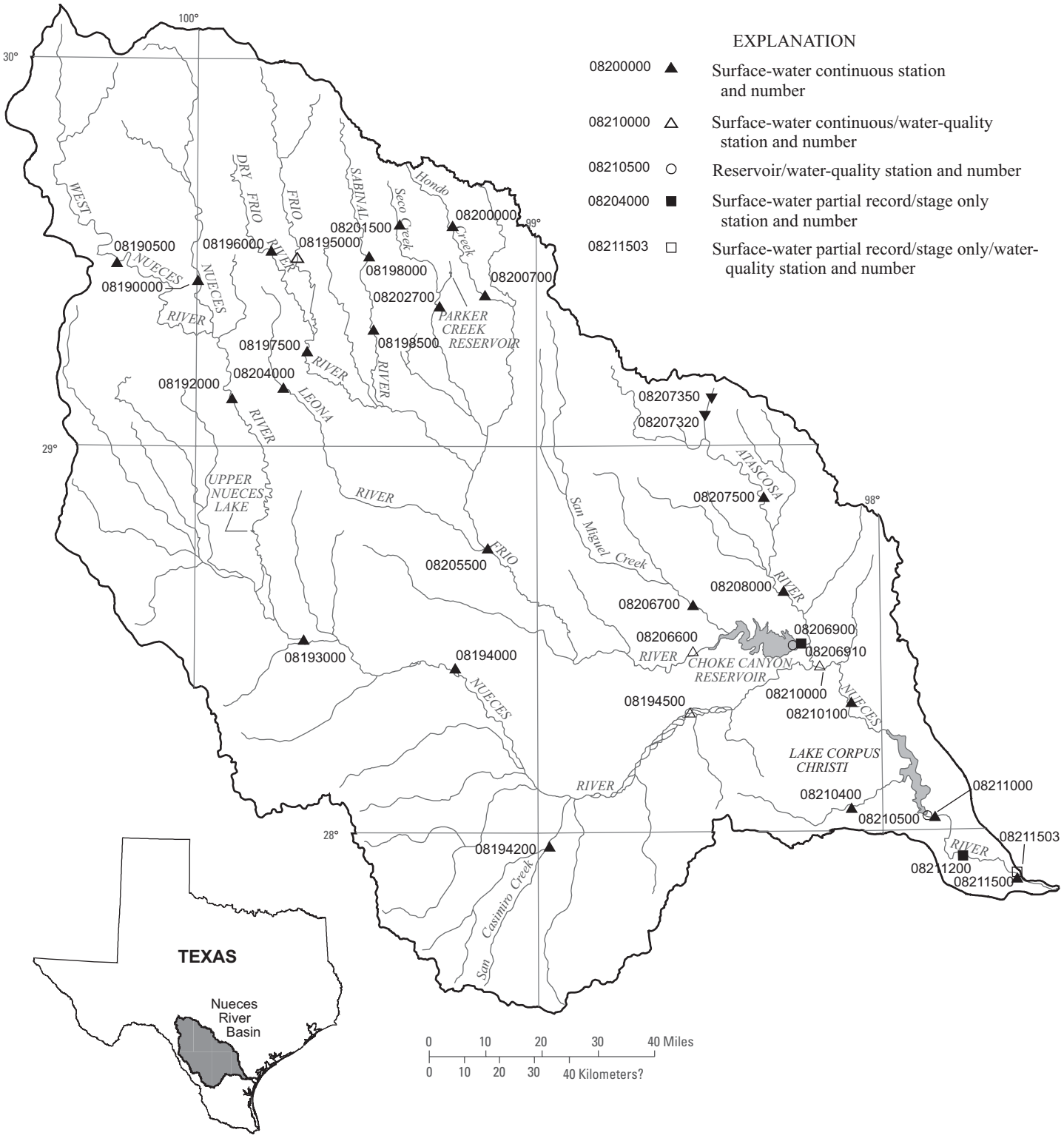


Figure 7.--Map showing location of gaging stations in the Nueces River Basin

08190000 Nueces River at Laguna, TX

LOCATION.--Lat 29°25'42", long 99°59'49", Uvalde County, Hydrologic Unit 12110101, on right bank 0.5 mi downstream from Sycamore Creek, 1.0 mi northeast of Laguna, and at mile 370.8.

DRAINAGE AREA.--737 mi^2.

PERIOD OF RECORD.--Oct. 1923 to current year. Water-quality records: Chemical data: May 1949 to June 1952, Sept. 1964 to Sept. 1993. Biochemical data: Feb. 1970 to Sept. 1993. Pesticide data: Feb. 1970 to Sept. 1993. Sediment data: Jan. 1966.

REVISED RECORDS.--WSP 1562: 1930, 1931(M), 1932, 1939. WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,119.72 ft above NGVD of 1929. Prior to Jan. 26, 1925, nonrecording gage at site 2.0 mi downstream at different datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation. There are many small diversions above station for irrigation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1913 reached a stage of about 29 ft (discharge, 210,000 ft^3/s); flood of Sept. 21, 1923, reached a stage of about 26.5 ft (discharge, 160,000 ft^3/s); from information by local residents. Maximum stage since at least 1866, that of Sept. 24, 1955.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	268	151	70	113	101	254	503	144	1,990	284	163
2	179	264	151	69	113	99	251	475	136	1,400	268	165
3	166	258	146	67	110	99	243	433	130	1,120	256	169
4	158	258	144	66	107	104	260	396	124	969	251	175
5	153	251	141	66	108	111	298	365	122	859	239	177
6	148	248	138	63	107	110	10,900	350	118	749	234	176
7	381	246	135	62	107	107	3,650	332	113	703	231	179
8	298	236	132	62	105	105	1,760	321	114	654	221	179
9	336	231	129	62	105	105	1,180	306	119	611	218	172
10	273	225	125	61	105	104	929	296	117	581	235	168
11	252	220	106	60	107	102	840	1,320	118	551	229	165
12	5,910	215	97	58	107	126	739	1,550	115	528	211	161
13	1,900	208	94	58	105	200	614	645	129	506	202	159
14	1,250	199	93	59	105	222	532	454	127	483	196	155
15	934	198	91	62	104	2,500	467	379	116	462	184	149
16	754	198	87	70	102	1,250	453	327	108	442	180	144
17	643	195	87	136	102	813	433	289	101	429	176	141
18	554	202	86	128	99	606	412	261	98	414	171	140
19	507	199	84	125	97	506	395	244	93	397	165	138
20	469	196	83	125	97	452	383	232	87	391	161	136
21	438	191	83	125	98	411	371	224	84	382	157	130
22	410	182	83	125	99	379	360	209	83	362	154	128
23	389	179	81	125	99	353	345	203	87	349	158	131
24	363	175	79	127	107	334	348	198	87	337	158	131
25	348	169	78	127	106	317	383	190	98	332	154	133
26	332	166	78	124	105	302	491	183	96	324	150	131
27	321	164	77	122	100	293	416	177	109	314	147	141
28	307	160	74	120	97	291	373	171	144	301	141	229
29	296	157	74	119	101	282	371	164	13,200	295	156	202
30	283	153	73	119	---	273	434	157	4,190	311	160	184
31	274	---	71	116	---	263	---	152	---	305	155	---
TOTAL	19,216	6,211	3,151	2,878	3,017	11,320	28,885	11,506	20,507	17,851	6,002	4,751
MEAN	620	207	102	92.8	104	365	963	371	684	576	194	158
MAX	5,910	268	151	136	113	2,500	10,900	1,550	13,200	1,990	284	229
MIN	148	153	71	58	97	99	243	152	83	295	141	128
AC-FT	38,110	12,320	6,250	5,710	5,980	22,450	57,290	22,820	40,680	35,410	11,900	9,420
CFSM	0.84	0.28	0.14	0.13	0.14	0.50	1.31	0.50	0.93	0.78	0.26	0.21
IN.	0.97	0.31	0.16	0.15	0.15	0.57	1.46	0.58	1.04	0.90	0.30	0.24

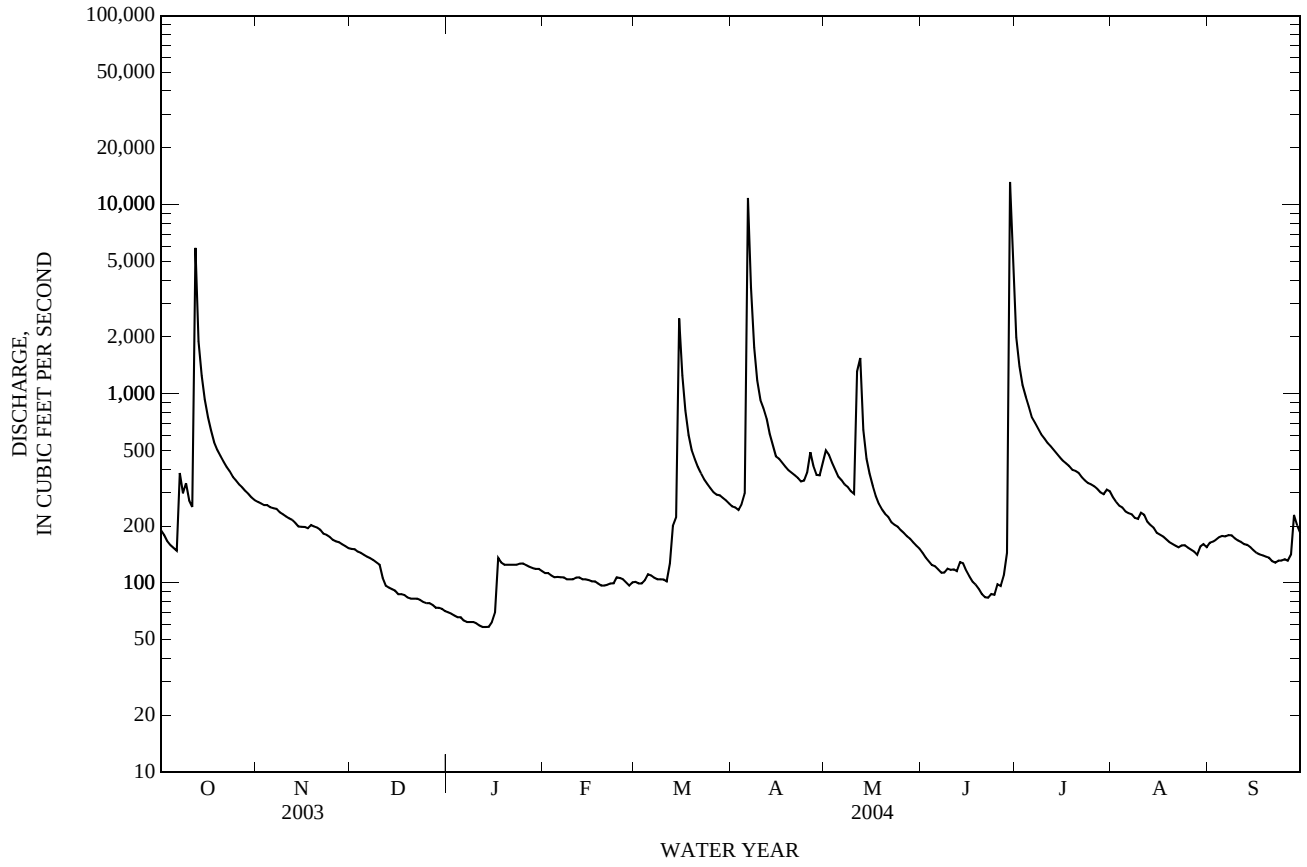
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

MEAN	238	163	126	108	116	111	122	158	265	166	157	238
MAX	2,030	1,778	894	610	1,160	867	963	868	5,407	1,580	2,500	2,668
(WY)	(1974)	(2002)	(1992)	(1992)	(1949)	(1992)	(2004)	(1935)	(1935)	(1939)	(1971)	(1955)
MIN	7.39	5.42	5.58	5.46	5.10	7.04	23.7	18.2	12.2	8.11	6.99	8.60
(WY)	(1953)	(1957)	(1957)	(1957)	(1957)	(1957)	(1935)	(1953)	(1953)	(1953)	(1953)	(1956)

08190000 Nueces River at Laguna, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004	
ANNUAL TOTAL	57,389		135,295			
ANNUAL MEAN	157		370		164	
HIGHEST ANNUAL MEAN					611	1935
LOWEST ANNUAL MEAN					23.1	1953
HIGHEST DAILY MEAN	5,910	Oct 12	13,200	Jun 29	107,000	Jun 14, 1935
LOWEST DAILY MEAN	45	Jun 4	58	Jan 12	3.0	Feb 27, 1957
ANNUAL SEVEN-DAY MINIMUM	48	Jun 2	60	Jan 8	3.2	Mar 10, 1957
MAXIMUM PEAK FLOW			55,200	Jun 29	i307,000	Sep 24, 1955
MAXIMUM PEAK STAGE			18.70	Jun 29	a32.70	Sep 24, 1955
ANNUAL RUNOFF (AC-FT)	113,800		268,400		118,900	
ANNUAL RUNOFF (CFSM)	0.213		0.502		0.223	
ANNUAL RUNOFF (INCHES)	2.90		6.83		3.03	
10 PERCENT EXCEEDS	233		529		250	
50 PERCENT EXCEEDS	107		176		78	
90 PERCENT EXCEEDS	70		87		24	

i From indirect measurement of peak flow.
a From floodmark.



08190500 West Nueces River near Brackettville, TX

LOCATION.--Lat 29°28'21", long 100°14'10", Kinney County, Hydrologic Unit 12110102, at Wilson Ranch on Farm Road 3199, 1.3 mi upstream from Miguel Canyon, 16.0 mi northeast of Brackettville, and 40.2 mi upstream from mouth.

DRAINAGE AREA.--694 mi^2.

PERIOD OF RECORD.--Sept. 1939 to Sept. 1950, Apr. 1956 to current year.

REVISED RECORDS.--WSP 1312: 1949(M). WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,326.79 ft above NGVD of 1929. Prior to Mar. 14, 1940, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. A large part of the low flow enters the Edwards and associated limestones in the Balcones Fault Zone above station. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1879, about 40 ft June 14, 1935 (discharge, 550,000 ft^3/s, based on slope-area measurements of 580,000 ft^3/s at site 33 mi upstream from gage, and 536,000 ft^3/s at site 24 mi downstream from gage, present site and datum), from gage-height relation of 1935 and 1955 flood peaks at site 0.6 mi upstream. Flood in 1900 reached a stage about 34 ft, and flood of Sept. 24, 1955, reached a stage of 27.1 ft, from floodmark at present site (discharge, 150,000 ft^3/s, by slope-area measurement).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	11	3.2	0.93	0.61	0.69	6.5	105	8.2	167	9.5	4.3
2	1.8	10	2.9	0.93	0.59	0.72	6.4	103	8.1	151	9.0	5.7
3	1.5	9.8	2.7	0.91	0.54	0.75	5.9	95	7.7	138	9.0	6.8
4	1.3	9.4	2.5	0.85	0.59	1.3	6.5	83	7.4	126	8.9	6.1
5	1.2	9.1	2.4	0.69	0.63	1.4	7.5	73	7.2	116	8.4	4.9
6	1.3	8.4	2.3	0.67	0.63	1.6	1,020	65	6.9	105	8.5	4.4
7	2.8	8.4	2.2	0.67	0.59	1.4	843	58	6.8	94	8.4	3.6
8	6.1	8.3	2.1	0.67	0.59	1.2	207	53	7.2	84	8.2	3.4
9	7.4	8.0	1.9	0.67	0.66	1.0	139	48	7.2	74	7.9	3.2
10	8.8	7.4	1.9	0.67	0.63	0.89	119	44	6.6	65	8.2	3.1
11	9.8	7.2	1.9	0.67	0.68	0.91	108	42	6.5	58	8.0	2.9
12	4,170	6.8	2.0	0.67	0.59	2.4	90	184	6.2	52	8.1	2.6
13	420	6.3	1.8	0.67	0.53	5.5	75	110	6.3	47	7.7	2.5
14	157	6.3	1.7	0.77	0.52	8.4	65	59	5.9	44	7.2	2.3
15	119	6.1	1.7	1.0	0.52	10	56	42	5.8	40	7.0	2.2
16	94	5.7	1.5	1.0	0.52	12	49	34	5.7	36	6.9	2.1
17	81	5.7	1.4	0.86	0.52	12	44	29	5.3	32	6.7	2.0
18	67	5.3	1.3	0.74	0.50	14	40	26	5.2	28	6.4	1.8
19	55	5.8	1.4	0.67	0.56	17	35	23	5.1	26	6.3	1.7
20	46	5.7	1.4	0.67	0.59	15	32	20	5.0	23	5.8	1.6
21	40	5.5	1.2	0.67	0.54	13	29	18	4.8	21	5.5	1.5
22	34	5.1	1.2	0.82	0.59	11	27	16	5.1	18	5.3	1.5
23	29	4.8	1.2	0.84	0.65	10	24	14	4.6	16	5.2	1.6
24	26	4.7	1.1	0.87	0.86	9.0	22	13	4.5	14	5.0	1.5
25	21	4.3	1.1	0.80	0.62	8.2	20	12	4.9	13	4.6	1.3
26	18	4.2	1.1	0.73	0.56	7.8	106	11	6.9	13	4.3	1.3
27	16	3.7	1.1	0.64	0.60	7.5	139	10	9.0	12	4.0	1.4
28	15	3.6	0.97	0.67	0.71	7.3	124	10	10	11	3.9	1.3
29	14	3.5	0.93	0.67	0.82	6.9	113	9.4	241	11	3.8	1.2
30	12	3.4	0.89	0.67	---	6.8	98	8.7	247	10	3.6	1.2
31	11	---	0.93	0.63	---	6.7	---	8.3	---	10	3.8	---
TOTAL	5,489.4	193.5	51.92	23.39	17.54	202.36	3,656.8	1,426.4	668.1	1,655	205.1	81.0
MEAN	177	6.45	1.67	0.75	0.60	6.53	122	46.0	22.3	53.4	6.62	2.70
MAX	4,170	11	3.2	1.0	0.86	17	1,020	184	247	167	9.5	6.8
MIN	1.2	3.4	0.89	0.63	0.50	0.69	5.9	8.3	4.5	10	3.6	1.2
AC-FT	10,890	384	103	46	35	401	7,250	2,830	1,330	3,280	407	161

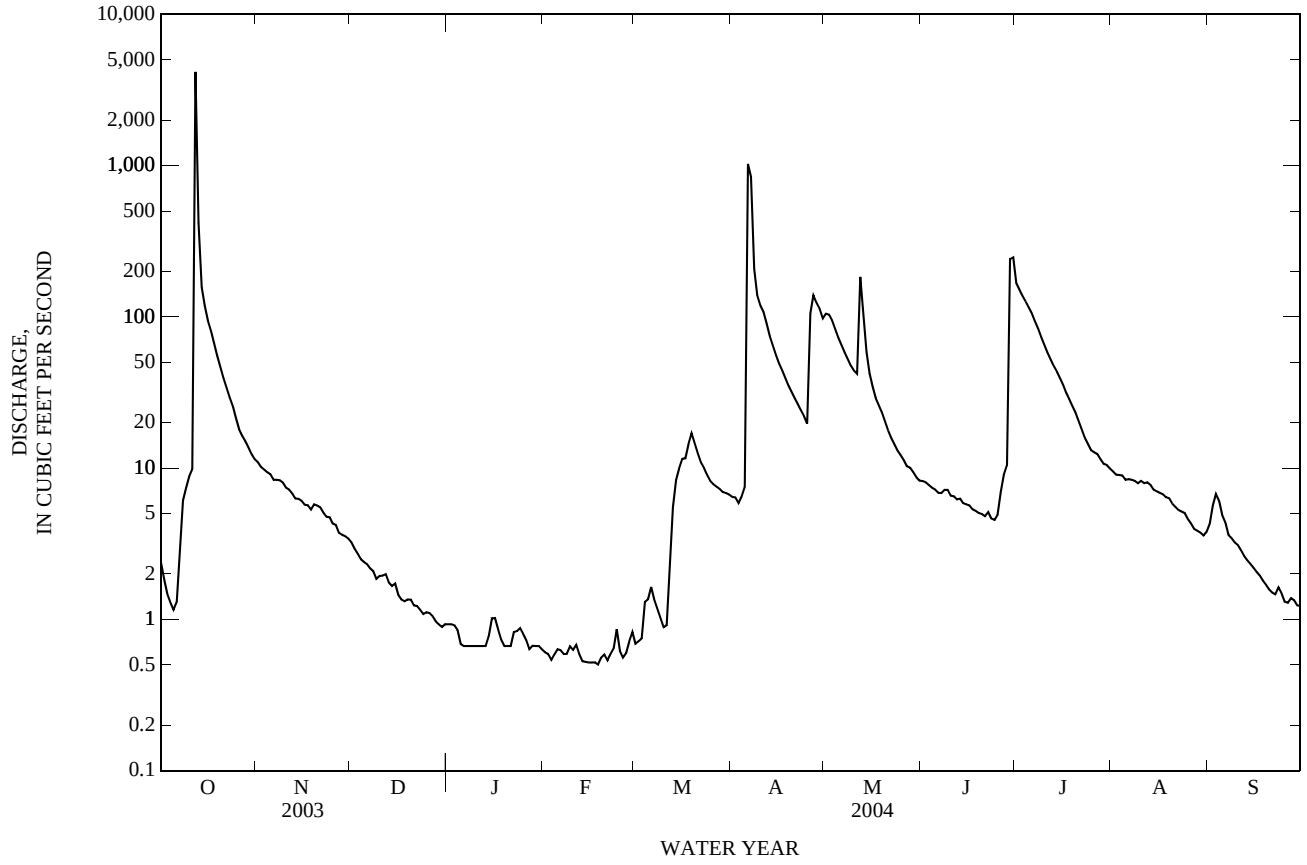
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004h, BY WATER YEAR (WY)

MEAN	79.7	15.2	4.75	2.38	19.2	3.56	10.9	13.8	97.0	43.5	58.7	65.0
MAX	1,145	398	164	68.4	978	60.2	238	266	1,880	737	1,308	2,180
(WY)	(1997)	(2002)	(1985)	(1985)	(1949)	(1979)	(1990)	(1957)	(1958)	(1976)	(1971)	(1964)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1941)	(1941)	(1940)	(1940)	(1940)	(1940)	(1942)	(1942)	(1942)	(1941)	(1940)	(1940)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004h	
ANNUAL TOTAL	5,905.65		13,670.51			
ANNUAL MEAN	16.2		37.4		34.9	
HIGHEST ANNUAL MEAN					237	1958
LOWEST ANNUAL MEAN					0.00	1962
HIGHEST DAILY MEAN	4,170	Oct 12	4,170	Oct 12	42,500	Sep 20, 1964
LOWEST DAILY MEAN	0.02	May 20	0.50	Feb 18	0.00	Sep 28, 1939
ANNUAL SEVEN-DAY MINIMUM	0.04	May 15	0.52	Feb 13	0.00	Sep 28, 1939
MAXIMUM PEAK FLOW			12,700	Oct 12	246,000	Sep 20, 1964
MAXIMUM PEAK STAGE			12.51	Oct 12	31.30	Sep 20, 1964
ANNUAL RUNOFF (AC-FT)	11,710		27,120		25,260	
10 PERCENT EXCEEDS	6.3		73		9.0	
50 PERCENT EXCEEDS	0.45		6.2		0.10	
90 PERCENT EXCEEDS	0.11		0.67		0.00	

h See PERIOD OF RECORD paragraph.

08190500 West Nueces River near Brackettville, TX—Continued



08192000 Nueces River below Uvalde, TX

LOCATION.--Lat 29°07'25", long 99°53'40", Uvalde County, Hydrologic Unit 12110103, on right bank at McDaniel Ranch, 5.7 mi upstream from bridge on U.S. Highway 83, 8.8 mi southwest of Uvalde, 18.2 mi downstream from West Nueces River, and at mile 338.7.

DRAINAGE AREA.--1,861 mi^2.

PERIOD OF RECORD.--Apr. 1939 to current year.

REVISED RECORDS.--WSP 1732: 1956(M). WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 796.12 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Part of the flow of the Nueces River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone that crosses the basin between Nueces River at Laguna (station 08190000) and this station. No known regulation. There are many small diversions above station for irrigation. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1836, 40.4 ft June 14, 1935, from floodmark (discharge 616,000 ft^3/s at Nueces River near Uvalde, discountinued station 08191500, 8.5 miles upstream, by slope-area measurement). Large floods also occurred in 1901 and 1913, stages unknown.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	206	100	62	56	36	189	435	134	1,800	234	133
2	73	201	98	59	53	36	182	450	124	1,250	216	147
3	75	210	95	58	53	36	176	413	114	1,000	202	136
4	75	200	93	58	53	35	240	379	107	864	187	134
5	76	192	91	56	52	33	241	354	101	777	177	138
6	75	187	90	56	52	33	5,860	337	96	705	167	141
7	72	181	87	56	51	33	5,170	329	90	636	162	150
8	156	180	85	56	50	33	2,000	317	90	600	155	141
9	215	174	81	56	51	32	1,220	310	94	557	153	135
10	240	171	82	55	50	32	959	299	94	530	177	128
11	219	167	81	55	49	32	890	300	95	501	176	124
12	2,190	161	80	54	47	36	796	1,300	98	475	167	120
13	2,530	154	76	54	45	38	710	831	105	450	153	114
14	1,170	147	75	55	44	35	626	580	110	429	143	110
15	860	143	74	55	44	511	568	449	113	407	136	108
16	718	142	72	55	44	1,070	520	390	103	384	128	103
17	625	141	72	53	43	682	497	346	96	364	123	99
18	541	134	70	50	43	528	468	312	88	349	116	96
19	479	135	69	52	42	435	445	283	80	334	112	93
20	435	138	68	53	41	391	426	261	74	321	107	88
21	397	135	67	54	41	362	407	243	68	311	104	86
22	368	131	66	54	40	333	392	230	66	300	107	83
23	344	127	66	55	40	310	392	218	72	284	113	83
24	322	120	66	56	44	287	382	209	77	276	112	84
25	299	116	66	56	38	274	354	199	86	264	111	86
26	282	115	65	55	38	263	416	189	96	256	111	83
27	269	110	64	56	38	247	418	179	96	244	108	84
28	255	105	64	56	37	234	389	168	129	236	104	102
29	238	103	62	56	37	230	368	166	7,370	224	107	145
30	225	101	62	56	---	215	359	156	4,820	232	103	146
31	219	---	62	56	---	197	---	147	---	244	115	---
TOTAL	14,107	4,527	2,349	1,718	1,316	7,049	26,060	10,779	14,886	15,604	4,386	3,420
MEAN	455	151	75.8	55.4	45.4	227	869	348	496	503	141	114
MAX	2,530	210	100	62	56	1,070	5,860	1,300	7,370	1,800	234	150
MIN	65	101	62	50	37	32	176	147	66	224	103	83
AC-FT	27,980	8,980	4,660	3,410	2,610	13,980	51,690	21,380	29,530	30,950	8,700	6,780

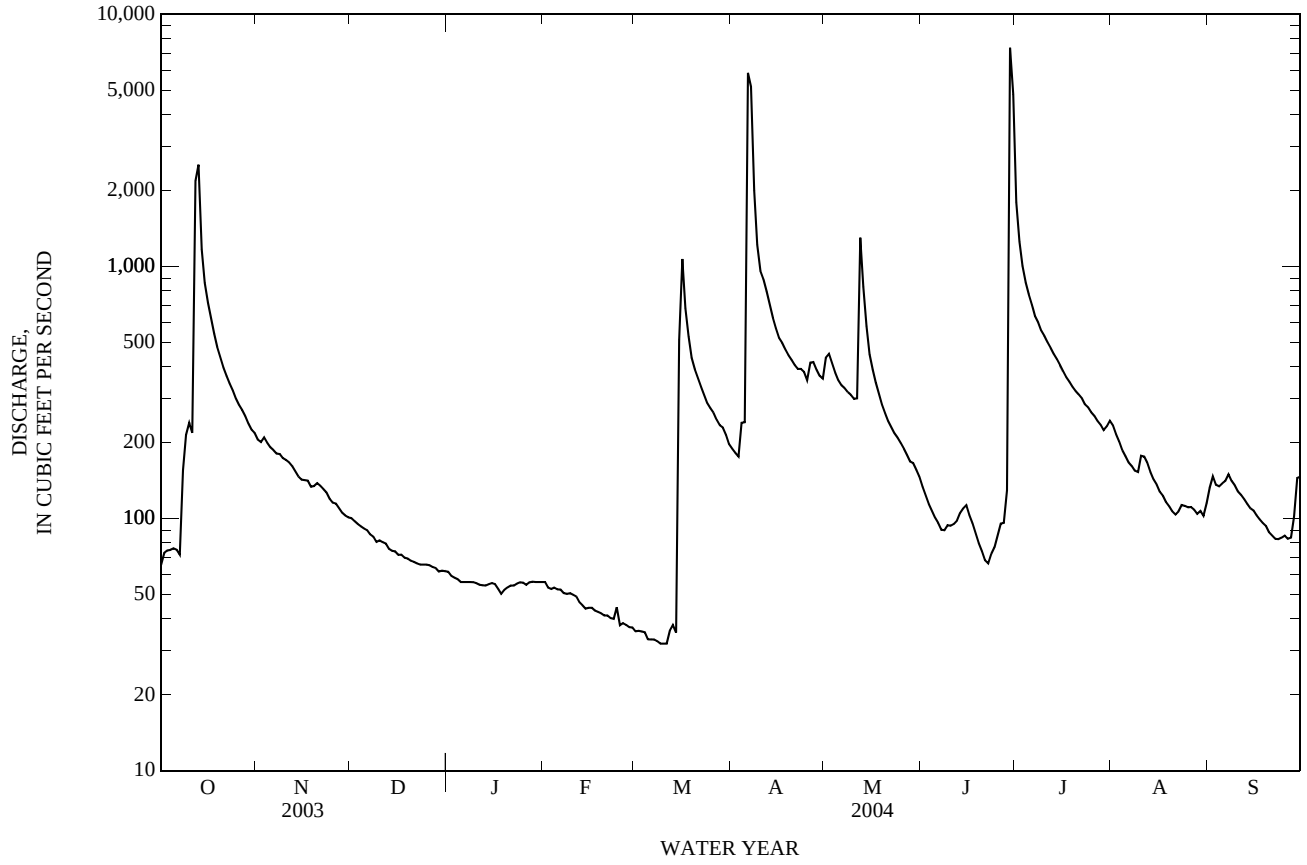
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	267	126	83.6	71.3	93.9	65.2	86.1	103	259	147	203	212
MAX	3,153	1,510	811	656	2,487	909	869	972	3,496	1,525	4,057	3,081
(WY)	(1974)	(2002)	(1992)	(1985)	(1949)	(1992)	(2004)	(1987)	(1958)	(1976)	(1998)	(1964)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1953)	(1953)	(1952)	(1952)	(1952)	(1952)	(1952)	(1953)	(1953)	(1951)	(1951)	(1951)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	34,271		106,201			
ANNUAL MEAN	93.9		290		143	
HIGHEST ANNUAL MEAN					678	1997
LOWEST ANNUAL MEAN					3.63	1956
HIGHEST DAILY MEAN	2,530	Oct 13	7,370	Jun 29	51,600	Oct 29, 1996
LOWEST DAILY MEAN	27	Jun 26	32	Mar 9	0.00	May 10, 1951
ANNUAL SEVEN-DAY MINIMUM	27	Jun 26	33	Mar 5	0.00	Jun 18, 1951
MAXIMUM PEAK FLOW			35,000	Jun 29	i201,000	Oct 28, 1996
MAXIMUM PEAK STAGE			14.22	Jun 29	a24.88	Oct 28, 1996
ANNUAL RUNOFF (AC-FT)	67,980		210,600		103,500	
10 PERCENT EXCEEDS	155		514		208	
50 PERCENT EXCEEDS	54		132		28	
90 PERCENT EXCEEDS	30		51		3.6	

i From indirect measurement of peak flow.
a From floodmark.

08192000 Nueces River below Uvalde, TX—Continued



08193000 Nueces River near Asherton, TX

LOCATION.--Lat 28°30'00", long 99°40'54", Dimmit County, Hydrologic Unit 12110103, on right bank 28 ft downstream from bridge on Farm Road 190, 0.1 mi downstream from El Moro Creek, 5.8 mi northeast of Asherton, and at mile 266.0.

DRAINAGE AREA.--4,082 mi^2.

PERIOD OF RECORD.--Oct. 1939 to current year.

REVISED RECORDS.--WSP 1118: 1944.

GAGE.--Water-stage recorder. Datum of gage is 470.92 ft above NGVD of 1929. Prior to Feb. 2, 1940, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--Records fair. Since Mar. 1948, at least 10% of contributing drainage area has been regulated. Part of the flow of the Nueces River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone that crosses the basin between Nueces River at Laguna (station 08190000) and Nueces River below Uvalde (station 08192000). Some loss of flow into various permeable formations occurs downstream from the Balcones Fault Zone. There are many small diversions above station for irrigation. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--8 years (water years 1940-48), 140 ft^3/s (101,700 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1900, 33 ft June 17, 1935; flood of June 30, 1913, reached about same stage, from information by local residents.

EXTREMES FOR PERIOD PRIOR TO REGULATION.-- WATER YEARS 1940-1948: Maximum discharge, 24,000 ft^3/s Sept. 2, 1944 (gage height 30.40 ft). No flow at times.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	217	76	40	38	38	463	565	204	4,300	194	89
2	178	208	77	42	39	38	392	702	193	4,540	192	89
3	151	202	78	e42	40	37	358	724	182	3,310	188	102
4	109	195	78	e40	41	33	424	720	166	2,170	171	113
5	79	187	75	e40	40	30	904	634	156	1,440	160	113
6	59	181	72	e40	38	26	2,140	546	145	1,050	151	114
7	45	176	74	e39	36	22	3,090	489	135	850	136	130
8	36	176	76	e33	36	19	5,090	451	126	736	123	137
9	30	176	73	e28	40	17	6,190	423	141	651	118	128
10	26	177	67	e25	41	14	5,510	403	423	592	117	123
11	23	176	63	e23	39	12	4,030	521	1,080	547	117	119
12	88	169	60	e21	37	11	2,620	1,080	1,230	515	120	112
13	147	159	60	21	36	13	1,700	1,340	852	482	128	108
14	1,660	153	62	22	35	15	1,250	1,550	533	450	128	105
15	2,080	148	64	22	34	31	1,010	1,170	353	422	124	102
16	1,230	148	61	25	34	43	861	815	243	394	123	99
17	798	144	52	34	33	202	754	633	196	368	114	95
18	637	138	44	41	32	693	680	541	167	348	106	92
19	e550	131	40	43	28	825	634	480	144	329	98	94
20	e485	124	34	43	26	714	595	432	128	308	91	90
21	424	118	32	39	24	570	559	392	119	292	93	82
22	385	116	33	36	23	464	532	360	268	276	113	78
23	348	117	38	37	24	400	509	333	405	261	122	75
24	318	111	43	40	32	363	609	315	323	249	118	72
25	300	108	45	41	36	336	971	300	288	238	109	72
26	284	105	46	42	38	313	1,190	286	229	233	102	71
27	270	98	46	41	39	297	944	268	192	223	89	68
28	255	91	46	40	40	284	753	254	179	210	84	64
29	243	82	43	41	39	322	665	238	197	202	99	58
30	233	75	42	42	---	400	606	222	534	202	104	55
31	225	---	40	40	---	501	---	215	---	197	94	---
TOTAL	11,834	4,406	1,740	1,103	1,018	7,083	46,033	17,402	9,531	26,385	3,826	2,849
MEAN	382	147	56.1	35.6	35.1	228	1,534	561	318	851	123	95.0
MAX	2,080	217	78	43	41	825	6,190	1,550	1,230	4,540	194	137
MIN	23	75	32	21	23	11	358	215	119	197	84	55
AC-FT	23,470	8,740	3,450	2,190	2,020	14,050	91,310	34,520	18,900	52,330	7,590	5,650

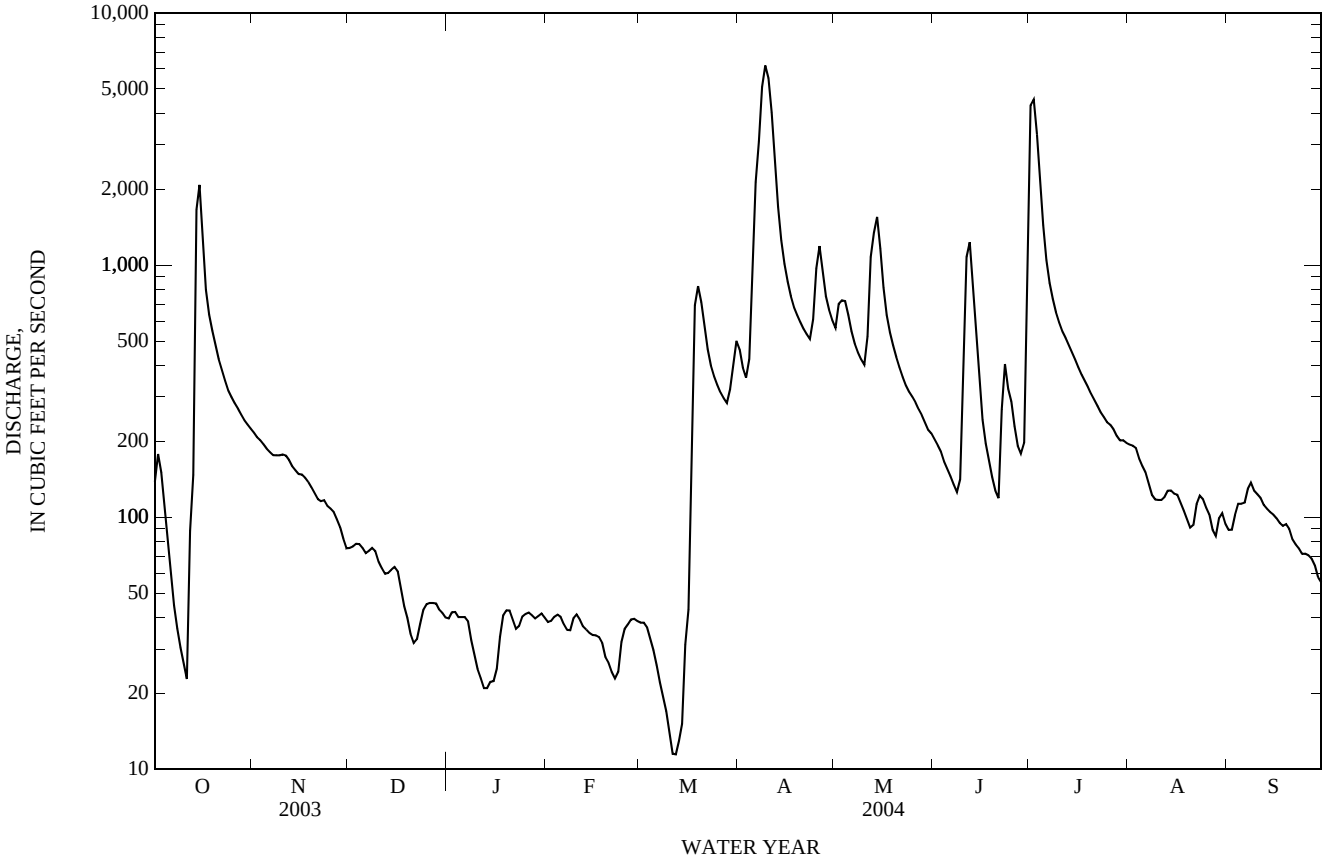
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004z, BY WATER YEAR (WY)

MEAN	371	135	66.3	66.3	78.4	79.3	117	226	422	267	230	264
MAX	3,254	955	537	724	1,498	1,347	1,534	1,738	4,349	2,437	5,246	3,674
(WY)	(1960)	(2002)	(1992)	(1985)	(1949)	(1949)	(2004)	(1957)	(1987)	(2002)	(1971)	(1964)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1953)	(1951)	(1949)	(1949)	(1950)	(1950)	(1950)	(1956)	(1953)	(1951)	(1951)	(1952)

08193000 Nueces River near Asherton, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004z	
ANNUAL TOTAL	37,349.40		133,210			
ANNUAL MEAN	102		364		194	
HIGHEST ANNUAL MEAN					700	1971
LOWEST ANNUAL MEAN					0.00	1989
HIGHEST DAILY MEAN	2,780	Jul 8	6,190	Apr 9	24,800	Oct 6, 1959
LOWEST DAILY MEAN	0.00	May 25	11	Mar 12	0.00	Oct 1, 1948
ANNUAL SEVEN-DAY MINIMUM	0.00	May 25	14	Mar 8	0.00	Oct 1, 1948
MAXIMUM PEAK FLOW			6,370	Apr 9	28,500	Oct 6, 1959
MAXIMUM PEAK STAGE			26.38	Apr 9	30.88	Oct 6, 1959
ANNUAL RUNOFF (AC-FT)	74,080		264,200		140,500	
10 PERCENT EXCEEDS	176		753		298	
50 PERCENT EXCEEDS	46		130		0.55	
90 PERCENT EXCEEDS	0.02		34		0.00	

z Period of regulated streamflow.
e Estimated



08194000 Nueces River at Cotulla, TX

LOCATION.--Lat 28°25'34", long 99°14'23", La Salle County, Hydrologic Unit 12110105, on left bank at downstream side of bridge on U.S. Highway 81, 0.4 mi upstream from Missouri Pacific Railroad Co. bridge, 0.8 mi southwest of Cotulla, 1.0 mi upstream from Lind Dam, and at mile 216.9.

DRAINAGE AREA.--5,171 mi^2.

PERIOD OF RECORD.--Nov. 1923 to Sept. 1926 (monthly discharge only), Oct. 1926 to current year. Gage-height records collected in this vicinity in 1914-17 and since 1922 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1732: 1957(M). WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 368.08 ft above NGVD of 1929. From Oct. 31, 1923, to Aug. 3, 1924, nonrecording gage at approximate site of present gage at datum 7.28 ft higher. From Aug. 4, 1924, to Nov. 19, 1934, nonrecording gage at site 5,000 ft downstream at datum 8.42 ft higher. From Nov. 20, 1934, to July 14, 1938, water-stage recorder, and July 15, 1938, to Apr. 30, 1963, nonrecording gage, at present site and datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since Mar. 1948, at least 10% of contributing drainage area has been regulated. Part of the flow of the Nueces River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone that crosses the basin between Nueces River at Laguna (station 08190000) and Nueces River below Uvalde (station 08192000). Some loss of flow into various permeable formations occurs downstream from the Balcones Fault Zone. There are many small diversions above station for irrigation. Figures of daily discharge for Oct. 31, 1923, to Sept. 30, 1926, published in WSP 588, 608, and 628, have been found to be unreliable and should not be used. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--22 years (water years 1927-48), 315 ft^3/s (228,000 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 19, 1899, reached a stage of 29.7 ft, from information by local residents. Maximum stage since at least 1879, that of June 18, 1935.

EXTREMES FOR PERIOD PRIOR TO REGULATION.-- WATER YEARS 1927-1948: Maximum discharge 82,600 ft^3/s June 18, 1935 (gage height 32.4 ft from floodmarks), by slope-area method; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	230	78	40	36	40	371	1,280	214	294	186	226
2	61	216	69	38	37	40	454	1,140	203	496	181	181
3	110	207	67	37	35	39	443	949	191	854	175	175
4	186	201	67	36	35	38	398	844	179	1,130	171	187
5	187	191	67	38	34	37	389	821	168	2,210	166	196
6	144	181	70	38	36	34	466	776	154	3,800	152	236
7	110	172	70	36	36	30	681	679	144	3,420	140	226
8	84	164	66	36	32	27	899	548	137	2,520	132	163
9	64	158	64	36	30	25	1,070	466	136	1,830	119	148
10	49	158	65	35	28	22	1,350	423	124	1,310	108	149
11	54	157	67	29	28	18	2,540	411	142	913	103	138
12	985	156	65	24	29	19	5,150	442	336	635	104	128
13	708	156	61	21	31	26	6,040	556	611	519	102	121
14	264	153	58	20	30	19	5,450	887	824	471	102	113
15	351	146	56	19	28	18	4,270	1,060	872	438	108	107
16	862	140	55	19	27	20	3,080	1,210	608	409	110	102
17	1,690	177	55	21	26	26	2,160	1,360	349	388	107	98
18	2,480	137	57	21	25	67	1,620	1,360	254	367	105	94
19	2,300	129	55	21	25	195	1,240	1,080	197	349	99	88
20	1,790	124	49	26	25	527	943	714	164	335	91	85
21	1,280	120	43	34	24	796	725	501	141	324	83	84
22	865	116	39	40	23	779	594	422	127	308	76	80
23	593	109	34	42	21	603	529	376	119	296	379	74
24	461	103	31	40	110	459	536	343	239	280	1,690	67
25	393	102	30	36	28	383	689	320	338	261	618	63
26	350	101	35	34	20	347	754	303	341	247	349	59
27	327	98	42	36	19	323	901	289	343	235	288	58
28	303	96	42	37	25	304	1,080	277	306	227	211	58
29	279	92	42	38	39	296	1,240	263	263	214	188	55
30	259	85	42	37	---	288	1,290	250	250	200	308	52
31	243	---	41	36	---	303	---	231	---	190	287	---
TOTAL	17,894	4,375	1,682	1,001	922	6,148	47,352	20,581	8,474	25,470	7,038	3,611
MEAN	577	146	54.3	32.3	31.8	198	1,578	664	282	822	227	120
MAX	2,480	230	78	42	110	796	6,040	1,360	872	3,800	1,690	236
MIN	49	85	30	19	19	18	371	231	119	190	76	52
AC-FT	35,490	8,680	3,340	1,990	1,830	12,190	93,920	40,820	16,810	50,520	13,960	7,160

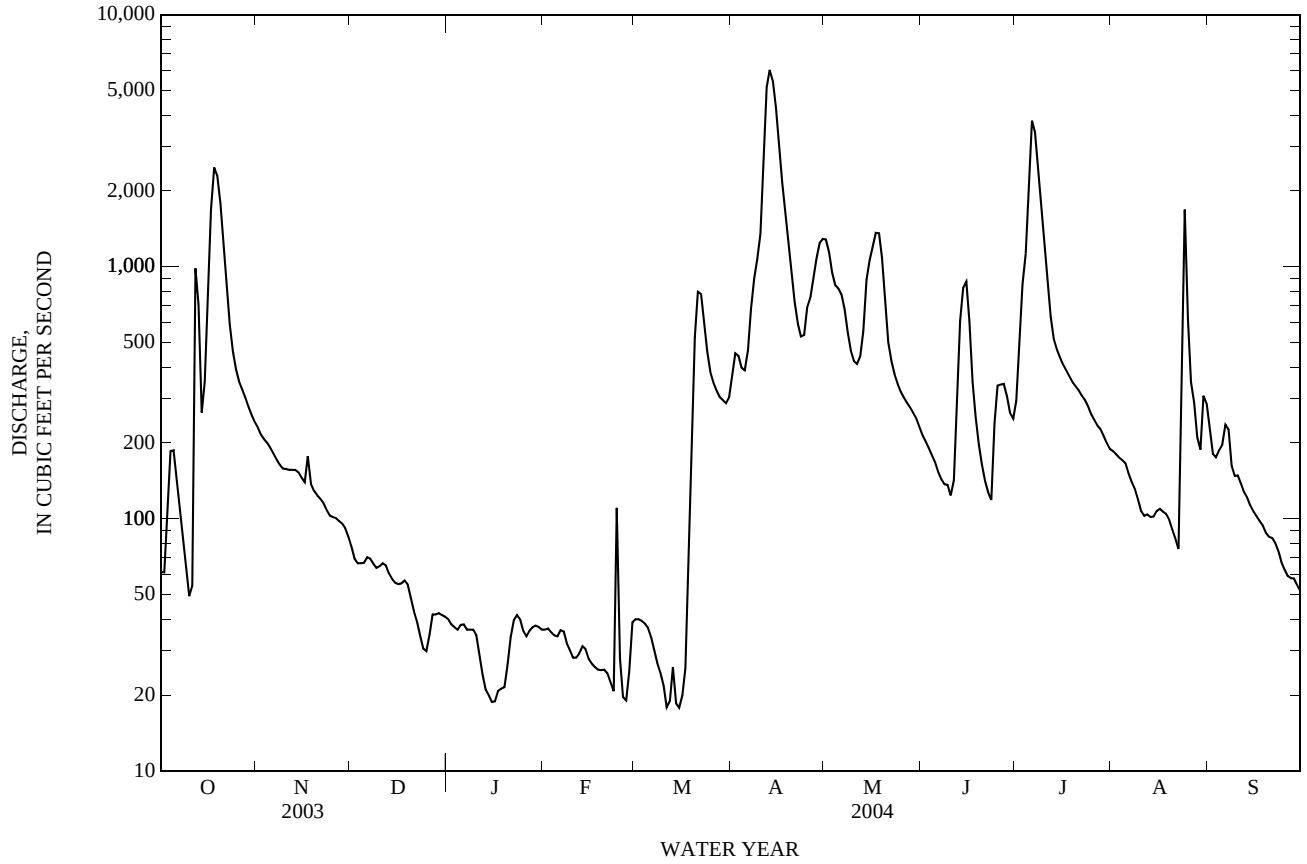
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004z, BY WATER YEAR (WY)

MEAN	476	177	70.0	71.4	54.6	97.4	131	249	500	405	272	346
MAX	3,906	1,098	414	761	619	2,351	1,578	1,873	5,280	6,370	6,412	5,417
(WY)	(1960)	(1977)	(1970)	(1985)	(1992)	(1949)	(2004)	(1957)	(1987)	(2002)	(1971)	(1964)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1953)	(1951)	(1949)	(1949)	(1951)	(1950)	(1950)	(1956)	(1953)	(1951)	(1951)	(1951)

08194000 Nueces River at Cotulla, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004z	
ANNUAL TOTAL	45,890.62		144,548			
ANNUAL MEAN	126		395		238	
HIGHEST ANNUAL MEAN					1,003	1971
LOWEST ANNUAL MEAN					2.24	1989
HIGHEST DAILY MEAN	2,480	Oct 18	6,040	Apr 13	37,400	Sep 18, 1964
LOWEST DAILY MEAN	0.00	May 20	18	Mar 11	0.00	Oct 8, 1948
ANNUAL SEVEN-DAY MINIMUM	0.00	May 20	20	Jan 13	0.00	Oct 8, 1948
MAXIMUM PEAK FLOW			6,110	Apr 13	46,000	Sep 17, 1964
MAXIMUM PEAK STAGE			15.72	Apr 13	27.75	Sep 17, 1964
ANNUAL RUNOFF (AC-FT)	91,020		286,700		172,700	
10 PERCENT EXCEEDS	235		945		380	
50 PERCENT EXCEEDS	55		156		1.3	
90 PERCENT EXCEEDS	0.00		30		0.00	

z Period of regulated streamflow.



08194200 San Casimiro Creek near Freer, TX

LOCATION.--Lat 27°57'53", long 98°58'00", Webb County, Hydrologic Unit 12110105, at downstream side of bridge on State Highway 44, 11.4 mi upstream from mouth, and 22.0 mi northwest of Freer.

DRAINAGE AREA.--469 mi^2.

PERIOD OF RECORD.--Jan. 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 298.00 ft above NGVD of 1929, from Texas Department of Transportation datum. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1946, that of Oct. 17, 1971. The next highest stage, 26 ft (discharge 65,200 ft^3/s), occurred in 1954, from information by Texas Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	8.6	0.80	0.35	0.42	6.9	3.5	15	0.51	16,600	67	12
2	17	8.2	0.81	0.37	0.45	5.7	3.6	12	0.38	9,640	93	166
3	16	7.8	0.82	0.40	0.31	4.7	4.0	9.9	0.27	3,060	61	64
4	15	7.3	0.86	0.32	0.31	4.3	83	8.4	0.25	767	30	104
5	13	7.0	0.71	0.50	0.30	3.7	942	7.1	0.22	117	17	368
6	15	6.6	0.62	0.39	0.26	3.3	592	6.0	0.20	56	12	110
7	35	6.1	0.49	0.16	0.22	2.8	82	5.2	0.19	29	9.3	275
8	11	5.6	0.41	0.13	0.20	2.3	15	4.8	e0.18	19	7.3	935
9	9.9	5.6	0.54	0.10	0.22	1.9	26	4.1	e0.13	15	9.6	1,090
10	9.7	5.6	0.37	0.09	0.22	1.7	16	3.8	e0.10	12	6.6	834
11	68	5.4	0.38	0.09	0.22	1.4	10	3.1	e0.07	9.9	8.1	716
12	468	4.9	0.54	0.07	0.22	1.9	8.8	2.9	e0.04	8.7	23	128
13	1,550	4.7	0.52	0.07	0.22	29	7.3	2.7	e0.03	7.6	9.6	86
14	6,290	4.2	0.43	0.08	0.33	148	6.2	2.5	e0.03	6.6	6.0	80
15	2,940	4.2	0.56	0.10	0.26	227	5.4	2.3	e0.02	5.8	3.4	67
16	1,190	4.0	0.48	0.25	0.26	158	4.8	2.0	e0.02	4.7	1.9	60
17	392	3.8	0.32	0.96	0.25	214	4.3	1.8	0.00	3.9	1.3	35
18	156	3.7	0.35	0.30	0.22	142	3.6	1.6	0.00	3.1	1.0	21
19	97	2.8	0.38	0.20	0.21	60	3.0	1.6	0.00	2.3	0.84	16
20	62	2.3	0.30	0.18	0.22	21	2.5	1.4	0.00	1.8	0.65	14
21	45	2.1	0.46	0.18	0.20	11	2.0	2.0	0.00	1.4	0.53	13
22	38	2.1	0.97	0.18	0.18	8.8	1.8	2.6	0.00	1.7	0.53	11
23	22	1.8	1.2	0.20	0.18	7.7	1.8	2.3	0.01	3.1	0.92	9.5
24	15	1.6	0.54	0.48	123	6.8	2.6	1.7	0.01	77	0.90	8.7
25	13	1.3	0.53	0.54	292	5.9	298	1.1	0.64	50	0.55	7.8
26	11	1.4	0.49	0.46	262	5.3	317	0.91	16	25	0.41	7.1
27	10	1.3	0.43	0.30	283	5.0	66	0.77	91	25	0.40	6.6
28	10	0.96	0.59	0.24	85	4.7	20	0.86	8.0	16	0.35	6.1
29	11	0.84	0.59	0.29	10	4.3	25	0.76	4.3	11	0.38	5.5
30	10	0.81	0.33	0.33	---	4.1	18	0.53	1,040	108	0.52	4.9
31	9.4	---	0.31	0.42	---	3.7	---	0.53	---	336	10	---
TOTAL	13,567.0	122.61	17.13	8.73	1,060.88	1,106.9	2,575.2	112.26	1,162.60	31,023.6	384.08	5,261.2
MEAN	438	4.09	0.55	0.28	36.6	35.7	85.8	3.62	38.8	1,001	12.4	175
MAX	6,290	8.6	1.2	0.96	292	227	942	15	1,040	16,600	93	1,090
MIN	9.4	0.81	0.30	0.07	0.18	1.4	1.8	0.53	0.00	1.4	0.35	4.9
AC-FT	26,910	243	34	17	2,100	2,200	5,110	223	2,310	61,540	762	10,440

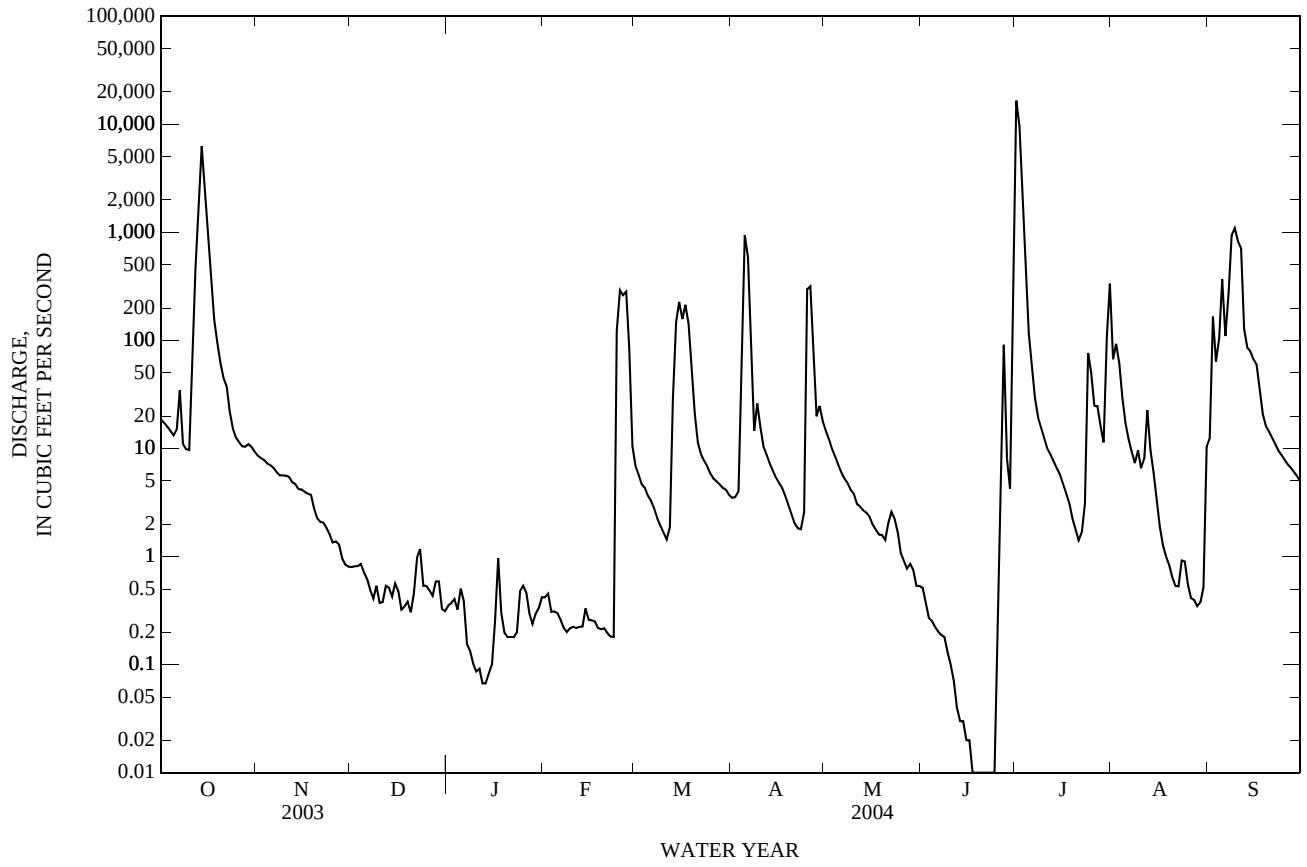
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

MEAN	122	30.2	7.19	1.84	3.05	8.51	18.6	103	71.4	57.3	31.1	159
MAX	3,021	581	247	40.2	36.6	145	297	747	606	1,001	398	2,367
(WY)	(1972)	(2002)	(1977)	(1977)	(2004)	(1985)	(1985)	(1981)	(1981)	(2004)	(1999)	(1967)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1964)	(1965)	(1965)	(1962)	(1962)	(1962)	(1965)	(1962)	(1965)	(1965)	(1963)	(1965)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	18,021.94		56,402.19			
ANNUAL MEAN	49.4		154		52.1	
HIGHEST ANNUAL MEAN					323	1972
LOWEST ANNUAL MEAN					1.54	2000
HIGHEST DAILY MEAN	6,290	Oct 14	16,600	Jul 1	36,600	Oct 17, 1971
LOWEST DAILY MEAN	0.00	Apr 12	0.00	Jun 17	0.00	Jan 1, 1962
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 12	0.00	Jun 17	0.00	Jan 1, 1962
MAXIMUM PEAK FLOW			18,800	Jul 1	82,000	Oct 17, 1971
MAXIMUM PEAK STAGE			23.55	Jul 1	26.87	Oct 17, 1971
ANNUAL RUNOFF (AC-FT)	35,750		111,900		37,710	
10 PERCENT EXCEEDS	34		109		17	
50 PERCENT EXCEEDS	0.33		3.7		0.00	
90 PERCENT EXCEEDS	0.00		0.20		0.00	

e Estimated

08194200 San Casimiro Creek near Freer, TX—Continued



08194500 Nueces River near Tilden, TX

LOCATION.--Lat 28°18'31", long 98°33'25", Mcmullen County, Hydrologic Unit 12110105, on right bank at downstream side of bridge on State Highway 16, 1.8 mi upstream from Kings Branch, 10.5 mi south of Tilden, and at mile 135.4.

DRAINAGE AREA.--8,093 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Nov. 1942 to current year.

REVISED RECORDS.--WSP 1512: 1947. WSP 1732: 1951(M). WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 183.5 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since Mar. 1948, at least 10% of contributing drainage area has been regulated. Part of the flow of the Nueces River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone that crosses the basin between Nueces River at Laguna (station 08190000) and Nueces River below Uvalde (station 08192000). Some loss of flow into various permeable formations occurs downstream from the Balcones Fault Zone. There are many small diversions above station for irrigation. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--6 years (water years 1943-48), 510 ft^3/s (369,500 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in June 1935 reached a stage of 23.7 ft and in July 1942 about 22 ft, from information by local residents. Maximum stage since about 1902, that of Sept. 24, 1967.

EXTREMES FOR PERIOD PRIOR TO REGULATION.-- WATER YEARS 1943-1948: Maximum discharge 57,500 ft^3/s, Oct. 11, 1946 (gage height 26.46 ft), from rating curve extended above 46,400 ft^3/s; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	348	97	41	39	226	330	1,220	277	1,210	350	410
2	110	309	96	43	40	109	316	1,160	255	1,690	483	497
3	99	281	92	44	39	69	323	1,150	235	2,080	311	543
4	82	262	86	44	39	65	479	1,190	218	2,290	297	654
5	69	246	81	43	39	66	704	1,230	206	3,450	249	631
6	67	232	75	41	38	57	825	1,270	191	7,030	209	531
7	112	223	71	41	38	50	918	1,300	178	6,950	183	650
8	178	213	69	40	38	45	1,090	1,310	172	5,400	169	712
9	217	200	69	40	36	43	1,290	1,260	159	4,200	152	706
10	176	191	69	41	36	40	1,680	1,110	146	3,460	137	818
11	122	181	70	42	37	36	2,560	982	144	2,920	129	929
12	287	173	68	42	38	33	3,040	841	337	2,460	157	1,020
13	883	168	65	42	37	43	2,930	710	389	2,150	122	1,090
14	1,280	165	66	42	37	70	2,630	886	286	2,020	117	1,100
15	12,500	164	67	40	35	190	2,270	820	380	2,050	103	623
16	30,500	163	68	38	33	543	1,910	847	551	2,140	97	274
17	23,300	159	64	36	33	676	1,640	997	644	2,120	92	219
18	15,800	155	60	32	34	638	1,500	1,020	704	1,790	93	185
19	10,600	150	57	29	34	580	1,550	1,060	757	875	96	152
20	6,970	214	57	28	33	419	1,880	1,180	696	480	94	130
21	4,690	207	57	26	32	208	2,670	1,330	362	420	92	115
22	3,530	151	58	25	31	222	3,410	1,480	225	383	89	105
23	2,820	134	58	26	29	437	3,670	1,560	178	357	517	97
24	2,330	126	54	29	37	587	3,620	1,540	150	361	553	94
25	2,060	119	51	32	88	661	3,250	1,420	134	348	165	90
26	1,970	113	51	40	199	696	2,790	928	142	370	379	85
27	1,940	107	42	42	489	693	2,230	469	208	340	646	80
28	1,720	101	40	44	508	590	1,680	386	362	295	750	75
29	1,110	100	37	43	420	451	1,450	348	436	272	843	72
30	496	98	34	40	---	381	1,330	322	714	247	772	69
31	392	---	37	39	---	347	---	300	---	231	350	---
TOTAL	126,494	5,453	1,966	1,175	2,566	9,271	55,965	31,626	9,836	60,389	8,796	12,756
MEAN	4,080	182	63.4	37.9	88.5	299	1,866	1,020	328	1,948	284	425
MAX	30,500	348	97	44	508	696	3,670	1,560	757	7,030	843	1,100
MIN	67	98	34	25	29	33	316	300	134	231	89	69
AC-FT	250,900	10,820	3,900	2,330	5,090	18,390	111,000	62,730	19,510	119,800	17,450	25,300

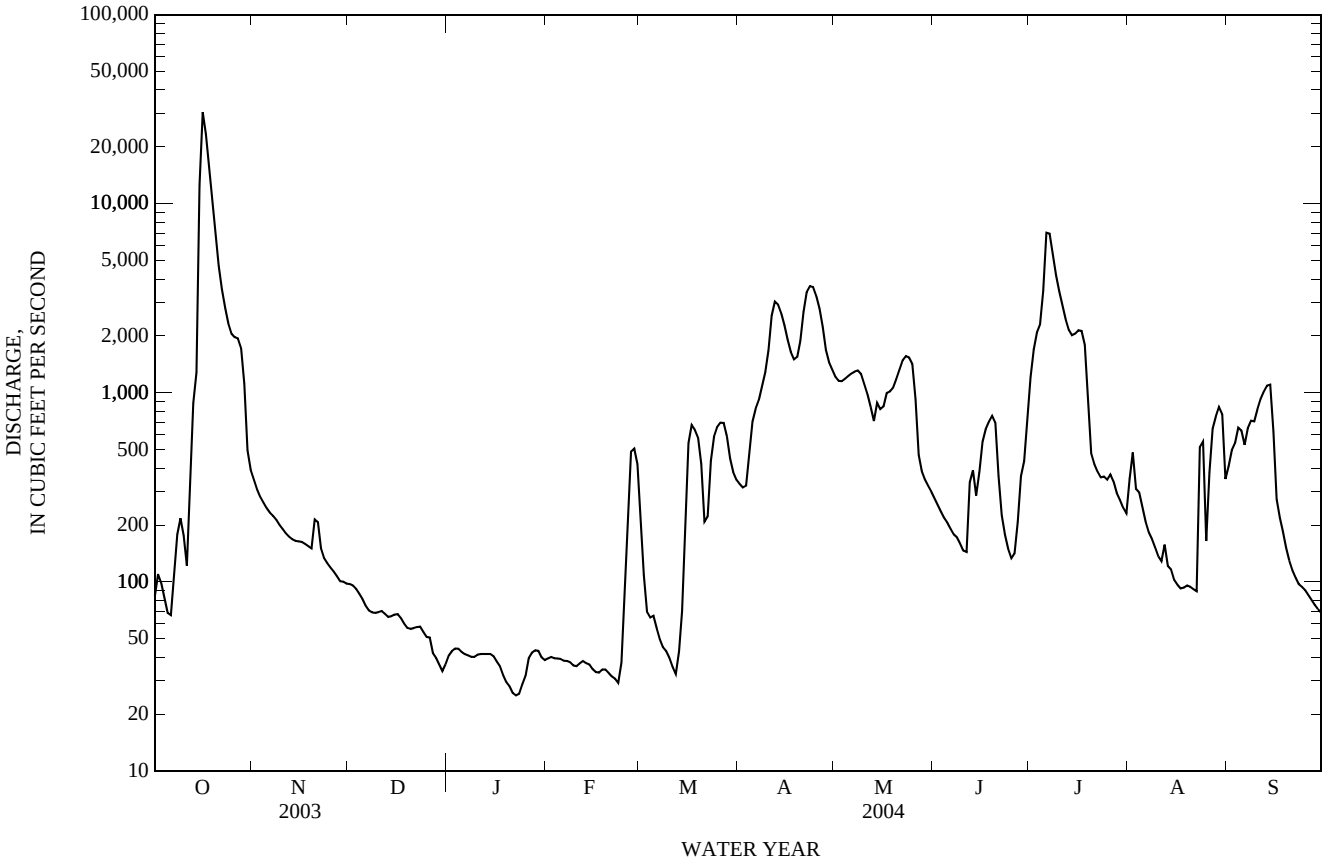
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004z, BY WATER YEAR (WY)

MEAN	837	321	104	115	143	117	185	493	644	610	322	821
MAX	11,250	3,509	1,275	1,912	4,793	2,104	2,028	4,122	5,404	10,360	7,197	10,150
(WY)	(1972)	(1977)	(1977)	(1958)	(1958)	(1949)	(1949)	(1957)	(1987)	(2002)	(1971)	(1967)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1953)	(1953)	(1951)	(1951)	(1964)	(1954)	(1955)	(1971)	(1998)	(1953)	(1951)	(1952)

08194500 Nueces River near Tilden, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004z	
ANNUAL TOTAL	159,747.80		326,293			
ANNUAL MEAN	438		892		393	
HIGHEST ANNUAL MEAN					1,736	1971
LOWEST ANNUAL MEAN					14.0	1989
HIGHEST DAILY MEAN	30,500	Oct 16	30,500	Oct 16	70,000	Sep 24, 1967
LOWEST DAILY MEAN	0.59	Aug 27	25	Jan 22	0.00	Oct 15, 1948
ANNUAL SEVEN-DAY MINIMUM	1.0	May 20	28	Jan 18	0.00	Jan 6, 1949
MAXIMUM PEAK FLOW			32,300	Oct 16	76,500	Sep 24, 1967
MAXIMUM PEAK STAGE			23.16	Oct 16	26.57	Sep 24, 1967
ANNUAL RUNOFF (AC-FT)	316,900		647,200		285,000	
10 PERCENT EXCEEDS	394		2,050		754	
50 PERCENT EXCEEDS	68		222		9.5	
90 PERCENT EXCEEDS	2.0		39		0.00	

z Period of regulated streamflow.



08194500 Nueces River near Tilden, TX—Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
MAR													
25...	1040	659	70	765	7.8	87	8.0	809	21.0	260	81.6	13.9	5.01
JUL													
08...	0850	5,650	30	759	2.6	35	7.9	459	30.0	140	49.1	3.53	10.5
AUG													
26...	0930	350	30	759	6.2	81	7.7	554	29.0	190	60.0	10.4	4.23
SEP													
23...	1040	97	40	760	6.7	84	7.9	1,060	26.5	280	90.3	12.0	5.53

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/d (70302)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)
MAR													
25...	58.8	32	172	206	1	118	<.2	9.07	47.9	439	781	.28	<.04
JUL													
08...	31.6	31	127	154	<1	53.7	<.2	26.6	11.9	264	4,030	.85	<.04
AUG													
26...	37.9	29	72	87	<1	68.7	<.2	8.65	29.4	263	249	.32	<.04
SEP													
23...	96.6	43	160	195	<1	200	.2	13.7	43.8	560	147	.37	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Total nitrogen, water, fltrd, mg/L (00602)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)
MAR													
25...	1.27	.29	.30	.026	.008	.187	.06	.06	.57	<2	E.12n	2	111
JUL													
08...	--	--	<.06	--	<.008	1.27	.41	.45	--	V5r	.22	4	80
AUG													
26...	--	--	.11	--	E.005n	.227	.07	.09	.43	Mn	E.16n	3	85
SEP													
23...	--	--	.30	--	<.008	.218	.07	.09	.67	E1n	E.18n	4	139

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recoverable, ug/L (71900)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)
MAR													
25...	<.06	<.04	<.8	.305	6.1r	E4n	<.08	12	.6	<.02	--	1.2	2.57
JUL													
08...	<.06	<.04	<.8	.305	1.7	15	E.05n	11	1.6	--	<.02	1.6	1.59
AUG													
26...	<.06	<.04	<.8	.321	2.0	<6	<.08	8	.4	<.02	--	1.2	2.48
SEP													
23...	<.06	.06	<.8	.356	1.8	<6	<.08	26	2.2	<.02	--	1.3	1.21

08194500 Nueces River near Tilden, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbofuran, wat flt 0.7u GF ug/L (49308)
MAR													
25...	<3	<.2	508	7	.7	<.009	<.02	<.02mc	<.006	<.006	<.04mc	<.008mc	<.006
JUL													
08...	<3	<.2	250	E4n	1.0	<.009	<.02	<.02mc	<.006	<.006	<.01mc	<.008mc	<.006
AUG													
26...	3	<.2	382	9	.8	<.076	<.02	<.02mc	<.006	<.006	<.01mc	<.008mc	<.006
SEP													
23...	<3	<.2	634	9	1.1	<.009	<.02	<.02mc	<.006	<.006	<.01mc	<.008mc	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	3-Ketocarbofuran, water, fltrd, ug/L (50295)	Acetochlor, water, fltrd, ug/L (49260)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	Alachlor, water, fltrd, ug/L (46342)	Aldicarb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldicarb sulfoxide, wat flt 0.7u GF ug/L (49314)	Aldicarb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Bendiocarb, water, fltrd, ug/L (50299)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)
MAR													
25...	<2mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.010	<.050	<.03	<.010	<.004
JUL													
08...	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.009	<.050	<.03	<.010	<.004
AUG													
26...	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	<.007	<.050	<.03	<.010	<.004
SEP													
23...	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	<.007	<.050	<.03	<.010	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Bensulfuron, water, fltrd, ug/L (61693)	Bentazon, water, fltrd 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Butylate, water, fltrd, ug/L (04028)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (49309)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chloramben methyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiamino-s-triazine, wat flt ug/L (04039)
MAR													
25...	<.02	<.01mc	<.03mc	<.02mc	<.004	.0197	<.03	<.041	<.006	<.020	<.02mc	<.010	<.01mc
JUL													
08...	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc	<.010	<.04mnc
AUG													
26...	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc	<.010	<.04mnc
SEP													
23...	<.02	<.01mc	<.03mc	<.02mc	<.004	.0385	<.03	<.041	<.006	<.020	<.02mc	<.010	<.04mc

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cyanazine, water, fltrd, ug/L (04041)	Cycloate, water, fltrd, ug/L (04031)	Dacthal monoacid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dieldrin, water, fltrd, ug/L (39381)
MAR													
25...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01	<.01	<.009
JUL													
08...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01	<.01	<.009
AUG													
26...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01	<.01	<.009
SEP													
23...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01	<.01	<.009

08194500 Nueces River near Tilden, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen-amid, water, fltrd, ug/L (04033)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Flumet-sulam, water, fltrd, ug/L (61694)
MAR													
25...	<.01	<.03	<.02	.09	E.002n	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc
JUL													
08...	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc
AUG													
26...	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc
SEP													
23...	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fluo-meturon water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala-thion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd 0.7u GF ug/L (38501)
MAR													
25...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc
JUL													
08...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc
AUG													
26...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc
SEP													
23...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Meth-omyl, water, fltrd 0.7u GF ug/L (49296)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Metsul-furon, water, fltrd, ug/L (61697)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chloro-phenyl) -N-' methyl-urea, ug/L (61692)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico-sul-furon, water, fltrd, ug/L (50364)	Norflur azon, water, fltrd 0.7u GF ug/L (49293)	Ory-zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)
MAR													
25...	<.004mc	<.015	E.009n	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01
JUL													
08...	<.004mc	<.015	<.013	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01
AUG													
26...	<.004mc	<.015	<.013	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01
SEP													
23...	<.004mc	<.015	<.013	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	p,p-' DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Pic-loram, water, fltrd 0.7u GF ug/L (49291)	Prome-ton, water, fltrd, ug/L (04037)	Propy-zamide, water, fltrd 0.7u GF ug/L (82676)	Propa-chlor, water, fltrd, ug/L (04024)	Pro-panil, water, fltrd 0.7u GF ug/L (82679)	Propar-gite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propi-cona-zole, water, fltrd, ug/L (50471)
MAR													
25...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02	<.010	<.02
JUL													
08...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.007	<.025	<.011	<.02	<.010	<.02
AUG													
26...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02	<.010	<.02
SEP													
23...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02	<.010	<.02

08194500 Nueces River near Tilden, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Pro-poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Sima-zine, water, fltrd, ug/L (04035)	Sulfo-met-ruron, water, fltrd, ug/L (50337)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terba-cil, water, fltrd, ug/L (04032)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-benuron water, fltrd, ug/L (61159)	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)
MAR													
25...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009
JUL													
08...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009
AUG													
26...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009
SEP													
23...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Uranium natural water, fltrd, ug/L (22703)
MAR	
25...	1.17
JUL	
08...	.14
AUG	
26...	.74
SEP	
23...	1.02

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified
V -- Contamination

Value qualifier codes used in this table:
c -- See laboratory comment
m -- Value is highly variable by this method
n -- Below the LRL and above the LT-MDL
r -- Value verified by rerun, same method

Null value qualifier codes used in this table:
u -- Unable to determine-matrix interference

08195000 Frio River at Concan, TX

LOCATION.--Lat 29°29'18", long 99°42'16", Uvalde County, Hydrologic Unit 12110106, on left bank 0.7 mi southeast of Concan Post Office, 15.0 mi upstream from Dry Frio River, and 222.8 mi upstream from mouth.

DRAINAGE AREA.--389 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Oct. 1923 to Sept. 1929, Oct. 1930 to current year.

REVISED RECORDS.--WSP 1342: Drainage area. WSP 1512: 1926, 1931-32, 1934(M), 1935-36. WSP 1712: 1958. WSP 1923: 1954(M), 1957(M). WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,203.71 ft above NGVD of 1929. Oct. 26, 1923, to July 28, 1924, nonrecording gage at site 86 ft upstream at datum 5.08 ft lower. July 29, 1924, to Oct. 3, 1930, nonrecording gage, and Oct. 4, 1930, to May 18, 1939, water-stage recorder, at site 130 ft downstream at present datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. Many small diversions for irrigation above station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, that of July 1, 1932, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	102	86	72	70	70	199	262	131	1,470	298	246
2	79	102	86	74	70	70	199	263	127	1,420	287	259
3	78	120	86	74	70	69	198	250	120	1,110	273	251
4	78	126	84	70	70	70	191	238	118	887	267	218
5	80	118	83	68	70	69	207	229	115	791	254	208
6	80	109	80	66	68	68	7,130	226	112	728	250	201
7	83	107	80	65	67	67	1,610	223	111	629	227	203
8	85	105	80	66	67	67	788	218	122	557	223	198
9	97	105	80	65	67	67	583	214	140	522	222	188
10	102	105	78	65	67	67	500	215	252	485	218	181
11	102	105	78	65	68	67	475	213	262	459	218	174
12	124	102	80	65	67	70	462	213	231	442	218	169
13	154	102	80	65	67	95	433	208	248	417	218	164
14	168	99	80	67	67	271	406	205	312	379	207	165
15	154	98	79	71	65	1,570	393	197	278	350	199	160
16	143	98	76	76	65	628	377	188	247	332	192	156
17	135	98	75	77	65	429	361	181	223	321	186	154
18	127	96	75	74	65	357	345	180	205	319	181	150
19	122	95	76	74	65	320	334	176	194	309	180	146
20	118	95	77	72	65	295	321	173	185	300	178	144
21	115	92	78	71	65	278	310	170	177	290	174	144
22	114	92	78	70	65	260	301	163	175	281	171	141
23	111	92	75	72	65	249	298	158	184	281	173	139
24	111	88	75	73	68	248	298	156	185	276	175	137
25	108	89	75	75	70	244	289	154	187	270	171	137
26	107	89	75	74	69	237	286	150	190	259	169	137
27	105	88	75	71	67	229	272	149	194	259	165	138
28	104	86	75	70	67	222	264	145	194	256	160	151
29	102	86	73	72	68	218	257	143	9,270	253	154	154
30	102	86	72	71	---	211	251	139	2,310	264	154	149
31	102	---	72	70	---	205	---	135	---	293	156	---
TOTAL	3,370	2,975	2,422	2,180	1,949	7,387	18,338	5,934	16,799	15,209	6,318	5,162
MEAN	109	99.2	78.1	70.3	67.2	238	611	191	560	491	204	172
MAX	168	126	86	77	70	1,570	7,130	263	9,270	1,470	298	259
MIN	78	86	72	65	65	67	191	135	111	253	154	137
AC-FT	6,680	5,900	4,800	4,320	3,870	14,650	36,370	11,770	33,320	30,170	12,530	10,240

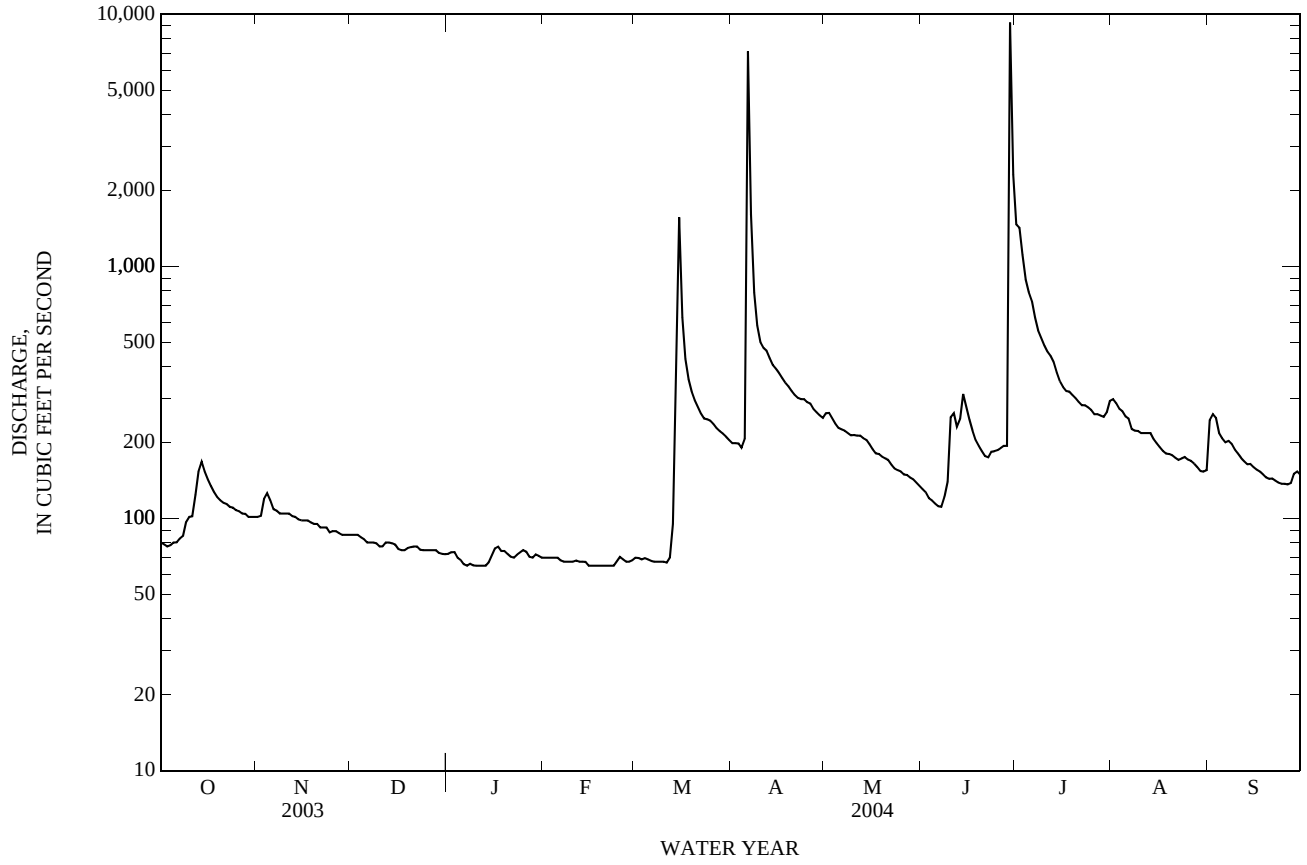
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004h, BY WATER YEAR (WY)

MEAN	149	114	102	90.8	95.9	98.5	112	133	187	190	109	137
MAX	648	565	767	525	613	762	859	1,041	2,468	2,823	1,050	1,333
(WY)	(1970)	(2001)	(1992)	(1992)	(1992)	(1992)	(1981)	(1935)	(1935)	(1932)	(1971)	(1936)
MIN	0.00	0.00	0.00	3.01	8.25	11.8	8.52	6.48	1.08	1.25	0.02	0.00
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(1956)	(1956)	(1956)	(1953)	(1956)	(1956)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004h	
ANNUAL TOTAL	32,081		88,043			
ANNUAL MEAN	87.9		241		127	
HIGHEST ANNUAL MEAN					434	1992
LOWEST ANNUAL MEAN					8.80	1956
HIGHEST DAILY MEAN	218	Jun 16	9,270	Jun 29	52,000	Jul 1, 1932
LOWEST DAILY MEAN	48	Jun 3	65	Jan 7	0.00	Aug 5, 1956
ANNUAL SEVEN-DAY MINIMUM	51	May 29	65	Feb 15	0.00	Aug 5, 1956
MAXIMUM PEAK FLOW			35,300	Apr 6	i162,000	Jul 1, 1932
MAXIMUM PEAK STAGE			18.23	Apr 6	a34.44	Jul 1, 1932
ANNUAL RUNOFF (AC-FT)	63,630		174,600		91,800	
10 PERCENT EXCEEDS	118		324		202	
50 PERCENT EXCEEDS	84		146		69	
90 PERCENT EXCEEDS	60		68		19	

h See Period of Record paragraph.
i From indirect measurement of peak flow.
a From floodmark.

08195000 Frio River at Concan, TX—Continued



08195000 Frio River at Concan, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: June 1952, Dec. 1964 to July 1965, Aug. 1968 to Sept. 1993, Apr. 1996 to Apr. 1998, Nov. 2000 to current year.
BIOCHEMICAL DATA: Aug. 1968 to Sept. 1993, Apr. 1996 to Apr. 1998, Nov. 2000 to current year.
PESTICIDE DATA: Aug. 1968 to Sept. 1993, Nov. 2000 to current year.
SEDIMENT DATA: Apr. 1996 to Apr. 1998, Nov. 2000 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)
OCT													
15...	1100	154	10	738	8.6	99	7.7	416	20.5	188	10.7	11.3	<.04
NOV													
20...	1100	95	10	744	9.6	97	7.7	426	15.0	203	10.3	14.1	<.04
DEC													
10...	1200	78	10	745	10.1	99	7.6	431	13.5	204	10.2	14.2	<.04
JAN													
14...	1200	67	10	746	9.5	96	7.7	420	15.0	191	10.6	14.3	<.04
FEB													
10...	1130	67	30	744	9.7	95	7.0	430	13.5	201	10.7	13.9	<.04
APR													
21...	1100	309	20	735	8.8	99	7.7	442	19.5	199	9.49	14.4	<.04
JUN													
08...	1130	126	10	737	--e	--	7.7	404	23.5	183	10.2	13.2	<.04
AUG													
12...	1100	--	--	--	--	--	--	--	--	--	--	--	--
17...	1130	185	10	744	7.6	93	7.8	429	24.0	183	10.1	15.2	<.04
SEP													
08...	1300	194	10	740	8.6	107	8.3	416	24.5	187	9.76	12.5	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Biomass periphyton, ashfree drymass g/m2 (49954)	Biomass chlorophyll ratio, periphyton, number (70950)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT								
15...	.61	<.008	<.006	<.004	--	--	62	26
NOV								
20...	.49	<.008	<.006	<.004	--	--	22	5.6
DEC								
10...	.47	<.008	<.006	<.004	--	--	1	.21
JAN								
14...	.49	<.008	<.006	<.004	--	--	11	2.0
FEB								
10...	.55	<.008	<.006	E.004n	--	--	12	2.2
APR								
21...	1.34	E.004n	<.006	E.004n	--	--	14	12
JUN								
08...	.76	<.008	<.006	.006	--	--	12	4.1
AUG								
12...	--	--	--	--	32.2	493	--	--
17...	.68	<.008	<.006	<.004	--	--	8	4.0
SEP								
08...	.62	<.008	<.006	<.004	--	--	5	2.6

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

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08196000 Dry Frio River near Reagan Wells, TX

LOCATION.--Lat 29°30'16", long 99°46'52", Uvalde County, Hydrologic Unit 12110106, on right bank 2.3 mi upstream from bridge on U.S. Highway 83, 3.1 mi upstream from Rocky Creek, 4.3 mi southeast of Reagan Wells, and 25.9 mi upstream from mouth.

DRAINAGE AREA.--126 mi^2.

PERIOD OF RECORD.--Sept. 1952 to current year. Water-quality records: Chemical data: Jan. 1966 to Sept. 1993. Biochemical data: Jan. 1966 to Sept. 1993. Pesticide data: Jan. 1974 to Sept. 1993. Sediment data: Jan. 1966.

REVISED RECORDS.--WSP 1712: 1953. WSP 1923: 1955(M). WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,335.2 ft above NGVD of 1929, from Texas Department of Transportation datum. Satellite telemeter at station.

REMARKS.--Record fair. No known regulation. There are several small diversions above station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875 occurred in 1880 (about 33 ft). Flood of June 14, 1935, reached a stage of 26.0 ft (discharge, 64,700 ft^3/s, determined at site 2.6 mi upstream), and flood of July 1, 1932, reached a stage of 23 ft (discharge, 30,700 ft^3/s, determined at site 2.0 mi upstream), from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	48	27	18	15	18	61	124	37	457	77	43
2	85	48	26	19	15	17	58	127	36	333	68	46
3	77	65	26	19	15	17	57	109	35	264	63	39
4	70	58	25	18	e15	18	59	101	33	215	57	37
5	65	54	25	17	e14	19	71	97	32	181	53	38
6	61	50	24	17	14	19	1,330	94	30	162	50	37
7	57	50	24	17	14	19	305	90	30	148	51	40
8	55	48	24	17	14	19	222	87	31	141	52	35
9	54	e47	24	17	14	18	179	82	33	133	47	30
10	51	e46	22	16	14	17	158	79	32	126	48	29
11	54	e45	21	16	15	16	154	82	32	118	55	29
12	86	e44	21	16	15	22	157	79	31	110	51	27
13	104	e43	21	16	15	70	152	76	32	104	44	26
14	93	e42	21	17	14	292	144	73	35	98	40	26
15	82	e41	21	19	14	696	136	67	32	93	38	25
16	79	e40	20	20	14	221	127	64	30	89	36	25
17	75	e39	20	20	13	159	119	61	29	85	35	25
18	70	e38	20	19	13	140	113	59	27	82	34	23
19	70	e37	19	18	13	107	109	58	26	79	33	23
20	66	e36	19	17	12	95	105	55	24	76	37	23
21	63	e35	19	17	13	88	102	52	23	74	35	23
22	63	34	19	17	13	83	98	50	27	71	35	22
23	60	33	19	17	13	81	95	49	29	67	35	22
24	59	32	19	17	16	79	93	48	28	66	37	22
25	58	31	19	19	18	77	96	46	29	64	36	23
26	e56	31	19	17	15	75	138	46	42	59	33	22
27	e54	30	19	16	14	72	91	44	40	56	31	26
28	e53	29	18	16	14	70	86	43	38	53	29	57
29	e52	28	18	16	18	70	85	43	3,260	51	31	40
30	51	27	17	16	---	65	83	40	801	89	31	36
31	49	---	17	16	---	63	---	39	---	96	29	---
TOTAL	2,067	1,229	653	537	416	2,822	4,783	2,164	4,944	3,840	1,331	919
MEAN	66.7	41.0	21.1	17.3	14.3	91.0	159	69.8	165	124	42.9	30.6
MAX	104	65	27	20	18	696	1,330	127	3,260	457	77	57
MIN	49	27	17	16	12	16	57	39	23	51	29	22
AC-FT	4,100	2,440	1,300	1,070	825	5,600	9,490	4,290	9,810	7,620	2,640	1,820

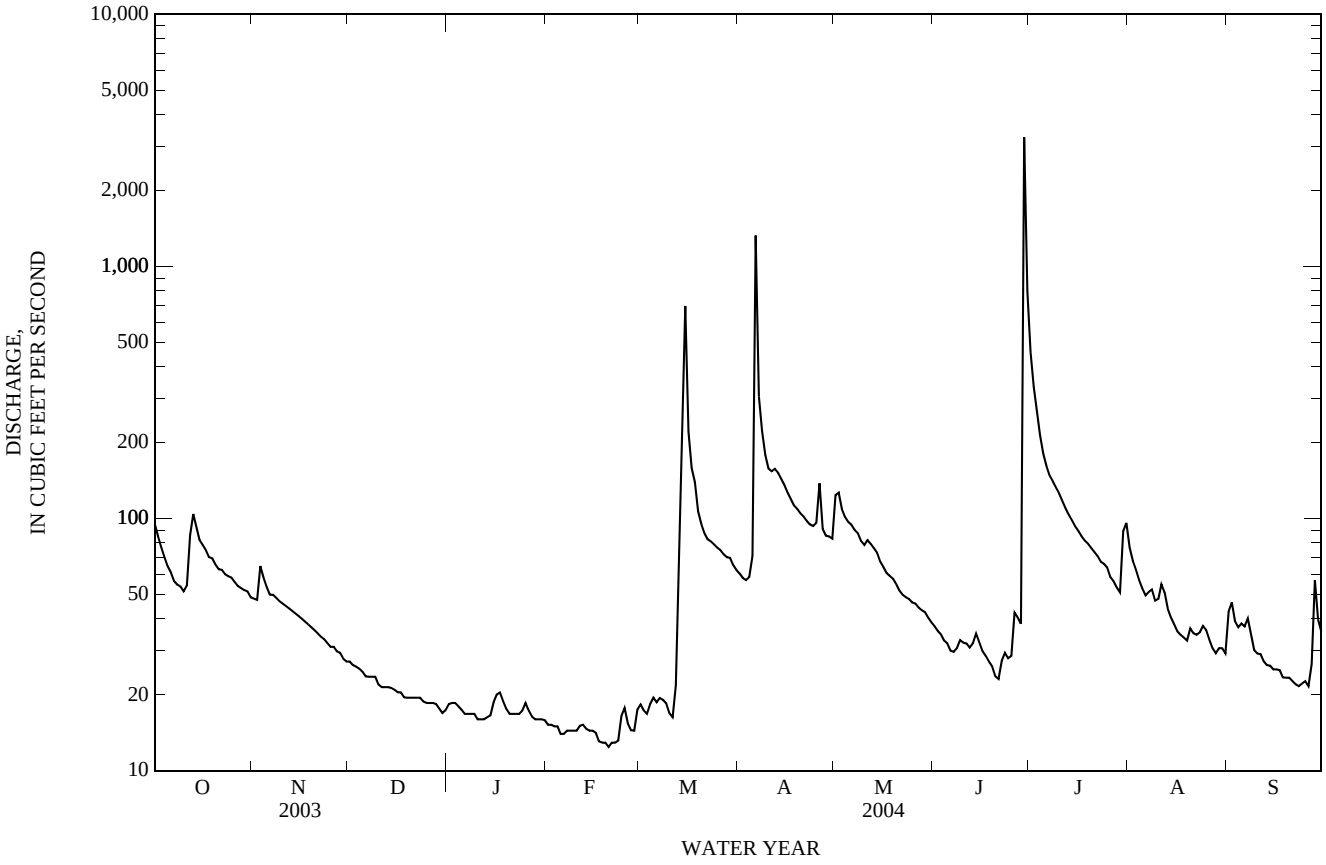
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2004, BY WATER YEAR (WY)

MEAN	57.4	34.6	27.3	21.9	23.3	28.1	30.6	37.2	62.5	46.3	36.1	37.1
MAX	258	134	185	120	131	208	257	338	483	514	365	277
(WY)	(1970)	(1968)	(1992)	(1992)	(1992)	(1992)	(1981)	(1987)	(1987)	(2002)	(1966)	(1958)
MIN	0.00	0.00	0.05	0.51	0.87	2.09	1.50	0.86	0.19	0.08	0.00	0.00
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(2002)	(1956)	(1956)	(1953)	(1953)	(1956)	(1956)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1952 - 2004	
ANNUAL TOTAL	11,596.3		25,705			
ANNUAL MEAN	31.8		70.2		37.0	
HIGHEST ANNUAL MEAN					121	1987
LOWEST ANNUAL MEAN					2.99	1956
HIGHEST DAILY MEAN	357	Sep 27	3,260	Jun 29	12,200	Jul 2, 2002
LOWEST DAILY MEAN	8.0	Jun 9	12	Feb 20	0.00	Jul 10, 1953
ANNUAL SEVEN-DAY MINIMUM	8.6	Jun 3	13	Feb 17	0.00	Jul 30, 1953
MAXIMUM PEAK FLOW			12,800	Jun 29	i123,000	Aug 13, 1966
MAXIMUM PEAK STAGE			15.07	Jun 29	a27.60	Aug 13, 1966
INSTANTANEOUS LOW FLOW			12	Feb 20		
ANNUAL RUNOFF (AC-FT)	23,000		50,990		26,790	
10 PERCENT EXCEEDS	64		109		66	
50 PERCENT EXCEEDS	22		38		15	
90 PERCENT EXCEEDS	10		16		2.3	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated

08196000 Dry Frio River near Reagan Wells, TX—Continued



08197500 Frio River below Dry Frio River near Uvalde, TX

LOCATION.--Lat 29°14'44", long 99°40'27", Uvalde County, Hydrologic Unit 12110106, on right bank 1.1 mi upstream from Farm Road 1023, 5.7 mi downstream from Dry Frio River, 6.3 mi downstream from bridge on U.S. Highway 90, 7.2 mi northeast of Uvalde, and 194.5 mi upstream from mouth.

DRAINAGE AREA.--631 mi^2.

PERIOD OF RECORD.--Oct. 1953 to current year. Sum of records published as Frio River at Knippa (discontinued station 08195700) and Dry Frio River at Knippa (discontinued station 08196500) for period Sept. 1952 to Sept. 1953 is equivalent to record for this station.

REVISED RECORDS.--WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 882.47 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation. Part of flow of Frio River enters the Edwards and associated limestones in the Balcones Fault Zone, that crosses the basin between Frio River at Concan (station 08195000) and this station. Most of the low flow enters this formation. Many diversions for irrigation above station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1887, about 35 ft in 1894. Flood of July 1, 1932, reached a stage of about 30 ft. A higher flood than that of 1894 occurred prior to 1887, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.6	0.00	1,260	e10	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.5	0.00	843	e4.8	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.3	0.00	637	2.5	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.8	0.00	502	1.9	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.3	0.00	413	1.4	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	6,140	1.1	0.00	351	1.1	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	1,720	0.93	0.00	302	0.72	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	495	0.76	0.00	261	0.54	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	286	0.56	0.00	224	0.48	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	218	0.44	0.00	192	0.28	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	210	0.30	0.00	167	0.20	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	186	0.21	0.00	141	0.20	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	144	0.16	0.00	120	0.16	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	114	0.11	0.00	102	0.16	0.00
15	0.00	0.00	0.00	0.00	0.00	1,260	98	0.06	0.00	83	0.16	0.00
16	0.00	0.00	0.00	0.00	0.00	482	85	0.03	0.00	65	0.13	0.00
17	0.00	0.00	0.00	0.00	0.00	178	73	0.01	0.00	50	0.12	0.00
18	0.00	0.00	0.00	0.00	0.00	95	60	0.00	0.00	36	0.12	0.00
19	0.00	0.00	0.00	0.00	0.00	54	49	0.00	0.00	22	0.10	0.00
20	0.00	0.00	0.00	0.00	0.00	27	36	0.00	0.00	15	0.09	0.00
21	0.00	0.00	0.00	0.00	0.00	e11	31	0.00	0.00	e11	0.08	0.00
22	0.00	0.00	0.00	0.00	0.00	e5.1	23	0.00	0.00	e8.6	0.05	0.00
23	0.00	0.00	0.00	0.00	0.00	e2.2	15	0.00	0.00	e7.3	0.05	0.00
24	0.00	0.00	0.00	0.00	0.00	0.60	17	0.00	0.00	e6.3	0.05	0.00
25	0.00	0.00	0.00	0.00	0.00	0.17	12	0.00	0.00	e5.5	0.03	0.00
26	0.00	0.00	0.00	0.00	0.00	0.01	16	0.00	0.00	e4.8	0.03	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.00	0.00	e4.2	0.03	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	3.1	0.00	0.00	e3.5	0.02	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	2.8	0.00	17,300	e3.1	0.01	0.00
30	0.00	0.00	0.00	0.00	---	0.00	2.6	0.00	3,480	e2.5	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	e11	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	2,115.08	10,041.10	15.17	20,780.00	5,853.8	25.51	0.00
MEAN	0.00	0.00	0.00	0.00	0.00	68.2	335	0.49	693	189	0.82	0.00
MAX	0.00	0.00	0.00	0.00	0.00	1,260	6,140	2.6	17,300	1,260	10	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.5	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	4,200	19,920	30	41,220	11,610	51	0.00

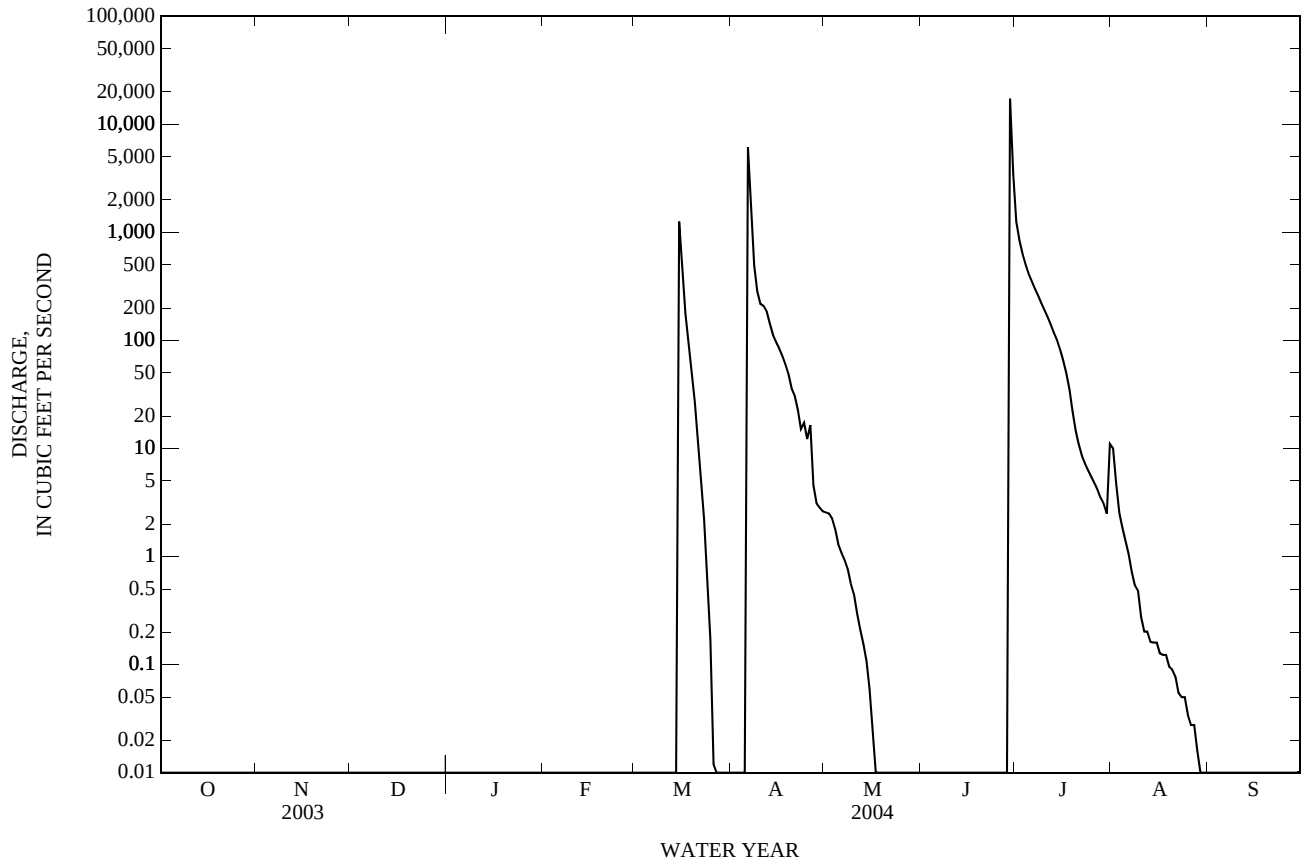
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2004, BY WATER YEAR (WY)

MEAN	76.1	17.7	25.6	9.81	6.25	11.5	31.0	34.2	123	67.7	63.4	43.0
MAX	842	471	710	241	300	455	702	865	1,584	1,621	1,224	699
(WY)	(1997)	(2002)	(1985)	(1992)	(1992)	(1992)	(1981)	(1987)	(1997)	(2002)	(1998)	(1958)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1954)	(1954)	(1954)	(1954)	(1954)	(1954)	(1954)	(1955)	(1954)	(1954)	(1954)	(1954)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1954 - 2004	
ANNUAL TOTAL	0.00		38,830.66			
ANNUAL MEAN	0.00		106		42.6	
HIGHEST ANNUAL MEAN					221	1987
LOWEST ANNUAL MEAN					0.00	1962
HIGHEST DAILY MEAN	0.00	Jan 1	17,300	Jun 29	32,300	Jun 22, 1997
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1, 1953
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1, 1953
MAXIMUM PEAK FLOW			72,300	Jun 29	i189,000	Jul 2, 2002
MAXIMUM PEAK STAGE			22.06	Jun 29	a34.82	Jul 2, 2002
ANNUAL RUNOFF (AC-FT)	0.00		77,020		30,850	
10 PERCENT EXCEEDS	0.00		51		0.16	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated

08197500 Frio River below Dry Frio River near Uvalde, TX—Continued



08198000 Sabinal River near Sabinal, TX

LOCATION.--Lat 29°29'27", long 99°29'33", Uvalde County, Hydrologic Unit 12110106, on right bank 108 ft upstream from concrete dam, 2.3 mi downstream from mouth of Onion Creek, 12.5 mi north of Sabinal, and 41.6 mi upstream from mouth.

DRAINAGE AREA.--206 mi^2.

PERIOD OF RECORD.--Oct. 1942 to current year. Water-quality records: Chemical data: Nov. 1964 to July 1965, Feb. 1970 to Sept. 1993, Apr. 1996 to Apr. 1998. Biochemical data: Feb. 1970 to Sept. 1993, Apr. 1996 to Apr. 1998. Pesticide data: Aug. 1971 to Sept. 1993. Sediment data: Nov. 1965, Apr. 1996 to Apr. 1998.

REVISED RECORDS.--WSP 1312: 1943(M), 1944(M), 1947(M).

GAGE.--Water-stage recorder. Datum of gage is 1,131.20 ft above NGVD of 1929. Prior to Apr. 9, 1971, at site 0.3 mi downstream at same datum. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation. There are several small diversions above station for irrigation. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The maximum stage since at least 1892, about 33 ft July 2, 1932, from information by local residents. A flood in the middle 1800's reached a stage of nearly 63 ft. Information indicates that a flood in 1858 covered the townsite of Sabinal. The stage would have been 70 to 80 ft, which seems unlikely. However, it is possible that a flood occurred in 1858 that covered part of the townsite and was higher than any flood since that date.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	26	24	19	18	25	82	172	83	740	138	146
2	23	26	23	19	18	25	114	160	81	616	132	96
3	23	26	23	18	17	26	120	149	79	549	129	87
4	23	25	23	18	18	26	108	142	77	500	124	85
5	23	24	23	17	19	27	124	138	76	459	118	104
6	23	25	23	17	18	29	941	137	75	428	115	111
7	23	27	23	18	17	28	409	136	75	405	115	111
8	24	28	23	18	18	27	272	134	96	381	117	97
9	31	28	22	18	18	27	239	130	329	358	e113	91
10	29	27	22	18	19	26	223	128	225	330	e110	88
11	31	27	22	17	20	27	250	128	166	308	e103	85
12	45	26	22	17	19	34	231	128	146	291	e97	84
13	57	25	22	17	19	54	213	125	232	270	96	82
14	47	25	22	17	20	73	204	122	184	256	95	82
15	40	25	22	21	20	1,090	199	119	167	241	92	83
16	38	25	22	22	21	224	192	115	156	230	90	80
17	36	26	22	25	20	162	185	112	148	218	88	78
18	34	25	21	24	20	137	179	111	140	207	87	76
19	33	24	21	22	19	124	175	108	133	200	92	75
20	32	24	20	21	19	117	171	105	128	191	97	73
21	31	25	20	20	19	109	169	103	124	183	90	72
22	31	25	20	19	19	104	165	101	138	176	91	72
23	30	25	19	19	19	101	167	99	140	170	102	72
24	29	24	19	20	27	100	212	99	133	169	97	78
25	29	24	20	21	27	98	168	97	141	160	89	74
26	29	25	20	20	26	97	162	94	135	157	85	71
27	29	24	19	19	25	92	155	93	138	155	82	80
28	29	24	19	19	24	90	153	91	179	150	80	124
29	28	24	19	19	25	90	156	89	3,820	143	79	83
30	28	24	19	19	---	85	150	88	2,060	177	77	77
31	27	---	19	19	---	83	---	85	---	153	98	---
TOTAL	958	758	658	597	588	3,357	6,288	3,638	9,804	8,971	3,118	2,617
MEAN	30.9	25.3	21.2	19.3	20.3	108	210	117	327	289	101	87.2
MAX	57	28	24	25	27	1,090	941	172	3,820	740	138	146
MIN	23	24	19	17	17	25	82	85	75	143	77	71
AC-FT	1,900	1,500	1,310	1,180	1,170	6,660	12,470	7,220	19,450	17,790	6,180	5,190
CFSM	0.15	0.12	0.10	0.09	0.10	0.53	1.02	0.57	1.59	1.40	0.49	0.42
IN.	0.17	0.14	0.12	0.11	0.11	0.61	1.14	0.66	1.77	1.62	0.56	0.47

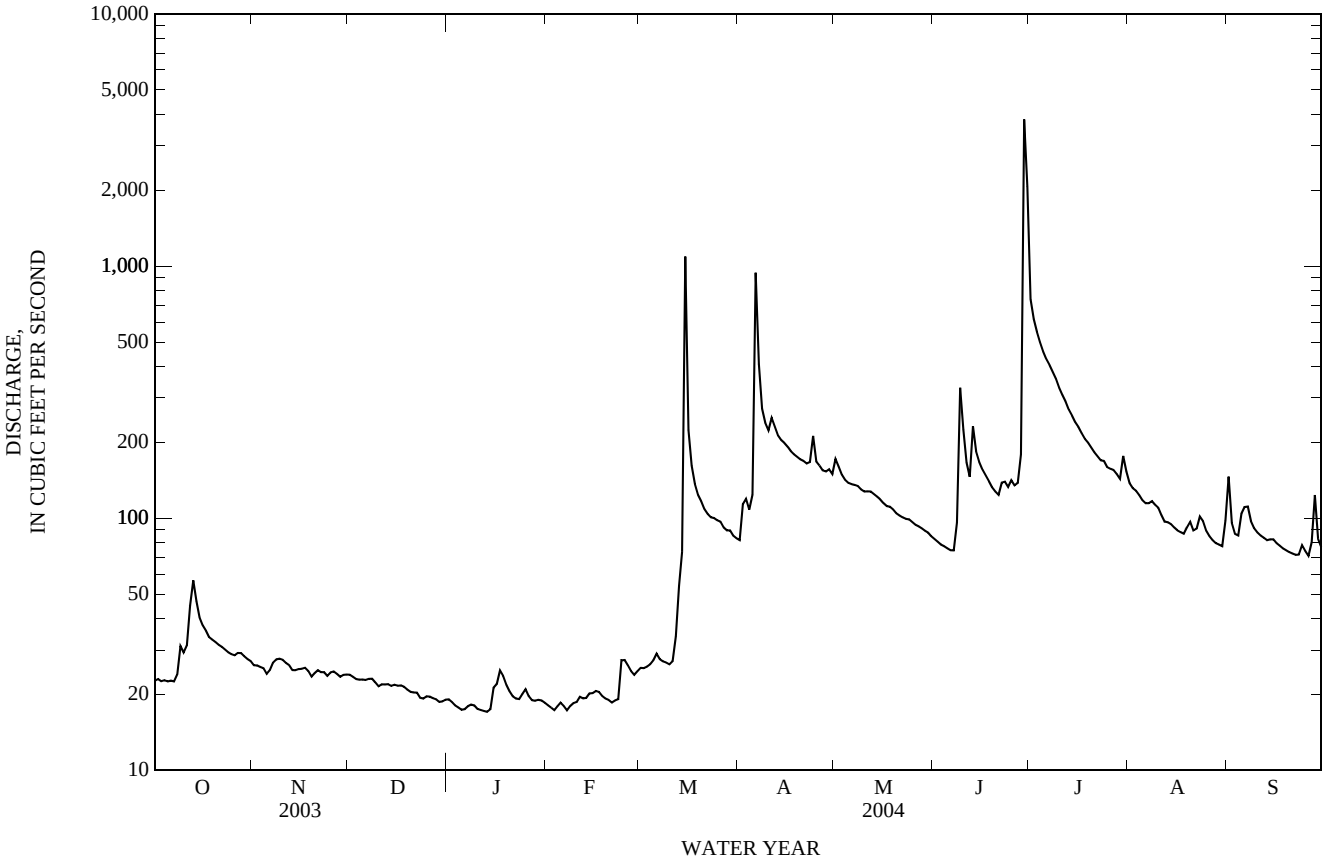
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

MEAN	67.4	58.3	51.6	47.2	52.3	59.4	59.6	68.1	123	104	56.7	50.6
MAX	318	388	612	408	584	624	392	389	1,527	1,619	669	306
(WY)	(1972)	(2001)	(1992)	(1992)	(1992)	(1992)	(1992)	(1987)	(1987)	(2002)	(1971)	(1980)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1952)	(1952)	(1952)	(1952)	(1952)	(1952)	(1954)	(1953)	(1953)	(1953)	(1948)	(1951)

08198000 Sabinal River near Sabinal, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	14,755		41,352			
ANNUAL MEAN	40.4		113		66.6	
HIGHEST ANNUAL MEAN					340	1992
LOWEST ANNUAL MEAN					0.82	1955
HIGHEST DAILY MEAN	285	Jun 5	3,820	Jun 29	17,100	Jul 5, 2002
LOWEST DAILY MEAN	18	Jun 2	17	Jan 5	0.00	Aug 10, 1946
ANNUAL SEVEN-DAY MINIMUM	19	Dec 23	17	Jan 8	0.00	Aug 10, 1946
MAXIMUM PEAK FLOW			17,800	Jun 29	i108,000	Jul 5, 2002
MAXIMUM PEAK STAGE			16.76	Jun 29	a33.74	Jul 5, 2002
ANNUAL RUNOFF (AC-FT)	29,270		82,020		48,240	
ANNUAL RUNOFF (CFSM)	0.196		0.548		0.323	
ANNUAL RUNOFF (INCHES)	2.66		7.47		4.39	
10 PERCENT EXCEEDS	66		199		125	
50 PERCENT EXCEEDS	34		79		27	
90 PERCENT EXCEEDS	22		19		0.00	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated



08198500 Sabinal River at Sabinal, TX

LOCATION.--Lat 29°18'05", long 99°28'46", Uvalde County, Hydrologic Unit 12110106, on left bank 80 ft downstream from bridge on U.S. Highway 90, 1,100 ft downstream from Southern Pacific Lines railroad bridge, 0.8 mi west of Sabinal, 5.8 mi upstream from Ranchero Creek, and 223 mi upstream from mouth.

DRAINAGE AREA.--241 mi^2.

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

REVISED RECORDS.--WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 882.17 ft above NGVD of 1929. Prior to July 29, 1958, nonrecording gage, and July 29, 1958, to Mar. 19, 1964, water-stage recorder at site 80 ft upstream at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation. Several small diversions for irrigation above station. Most of low flow of the Sabinal River enters the Edwards and associated limestones in the Balcones Fault Zone, that crosses basin upstream from this station and downstream from Sabinal River near Sabinal (station 08198000). No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1890, 40 ft Aug. 24, 1919, from information by local residents. Flood of July 2, 1932, reached a stage of 31 ft (discharge, 60,000 ft^3/s), from information by Southern Pacific Lines. Information indicates that a flood in 1858 covered the townsite of Sabinal. The stage would have been 70 to 80 ft, which seems unlikely. However, it is possible that a flood occurred in 1858 that covered part of the townsite and was higher than any flood since that date.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.4	1.3	1.1	0.97	1.1	4.0	24	3.1	935	36	6.0
2	1.6	1.4	1.4	0.96	0.95	1.3	4.0	43	2.9	698	25	5.9
3	1.6	1.4	1.4	0.89	1.0	1.2	3.9	31	2.8	580	20	5.8
4	1.6	1.4	1.5	0.83	1.0	1.4	4.9	21	2.7	501	17	6.0
5	1.6	1.4	1.4	0.84	1.2	1.5	4.7	17	2.6	443	15	5.9
6	1.5	1.4	1.5	0.82	1.1	1.5	280	14	2.6	400	14	9.4
7	1.5	1.4	1.7	0.78	1.0	1.5	428	12	2.8	360	12	5.1
8	1.6	1.4	1.7	0.74	0.97	1.5	175	10	3.9	329	11	4.9
9	1.8	1.4	1.6	0.69	0.96	1.4	123	9.1	5.7	301	10	4.7
10	1.7	1.4	1.5	0.71	0.93	1.4	105	8.1	96	274	9.6	4.6
11	1.7	1.3	1.5	0.71	0.91	1.4	116	7.6	62	248	9.0	4.6
12	2.3	1.5	1.5	0.68	0.88	1.9	125	7.2	37	226	8.3	4.5
13	1.7	1.5	1.6	0.69	0.82	3.1	95	6.2	44	204	7.9	4.3
14	1.7	1.5	1.5	0.72	0.73	5.2	79	5.4	93	184	7.6	4.3
15	1.7	1.5	1.6	0.83	0.71	607	69	4.9	54	162	7.4	4.2
16	1.7	1.7	1.4	0.81	0.74	178	62	4.5	40	144	7.2	4.1
17	1.7	1.5	1.5	0.83	0.79	70	55	4.4	31	129	6.9	4.1
18	1.6	1.4	1.6	1.7	0.85	35	49	4.6	24	114	6.8	4.0
19	1.6	1.5	1.6	1.6	0.82	19	43	4.4	19	100	6.7	3.8
20	1.5	1.6	1.6	1.3	0.82	12	39	4.2	15	89	6.5	3.8
21	1.5	1.6	1.5	1.3	0.85	8.7	36	4.1	12	77	6.4	3.6
22	1.5	1.4	1.5	1.2	0.82	6.8	33	4.0	11	68	6.5	3.6
23	1.5	1.4	1.5	1.1	0.79	5.8	30	3.9	9.0	59	6.7	3.6
24	1.5	1.3	1.3	1.1	0.95	5.4	72	3.8	8.0	54	6.0	3.9
25	1.6	1.3	1.3	1.0	0.82	5.1	52	3.6	9.9	51	5.8	3.6
26	1.7	1.3	1.2	0.93	0.81	4.8	36	3.4	11	43	5.7	3.4
27	1.8	1.3	1.2	1.0	0.78	4.6	28	3.3	15	39	5.7	3.4
28	1.7	1.3	1.1	1.1	0.78	4.4	23	3.2	31	35	5.7	3.3
29	1.7	1.3	1.0	1.1	0.80	4.3	22	3.1	2,990	31	5.8	3.2
30	1.6	1.3	1.0	1.1	---	4.2	24	3.0	4,550	58	5.7	3.2
31	1.5	---	1.1	1.1	---	4.1	---	3.0	---	67	5.6	---
TOTAL	50.9	42.5	44.1	30.26	25.55	1,004.6	2,220.5	281.0	8,191.0	7,003	309.5	134.8
MEAN	1.64	1.42	1.42	0.98	0.88	32.4	74.0	9.06	273	226	9.98	4.49
MAX	2.3	1.7	1.7	1.7	1.2	607	428	43	4,550	935	36	9.4
MIN	1.5	1.3	1.0	0.68	0.71	1.1	3.9	3.0	2.6	31	5.6	3.2
AC-FT	101	84	87	60	51	1,990	4,400	557	16,250	13,890	614	267

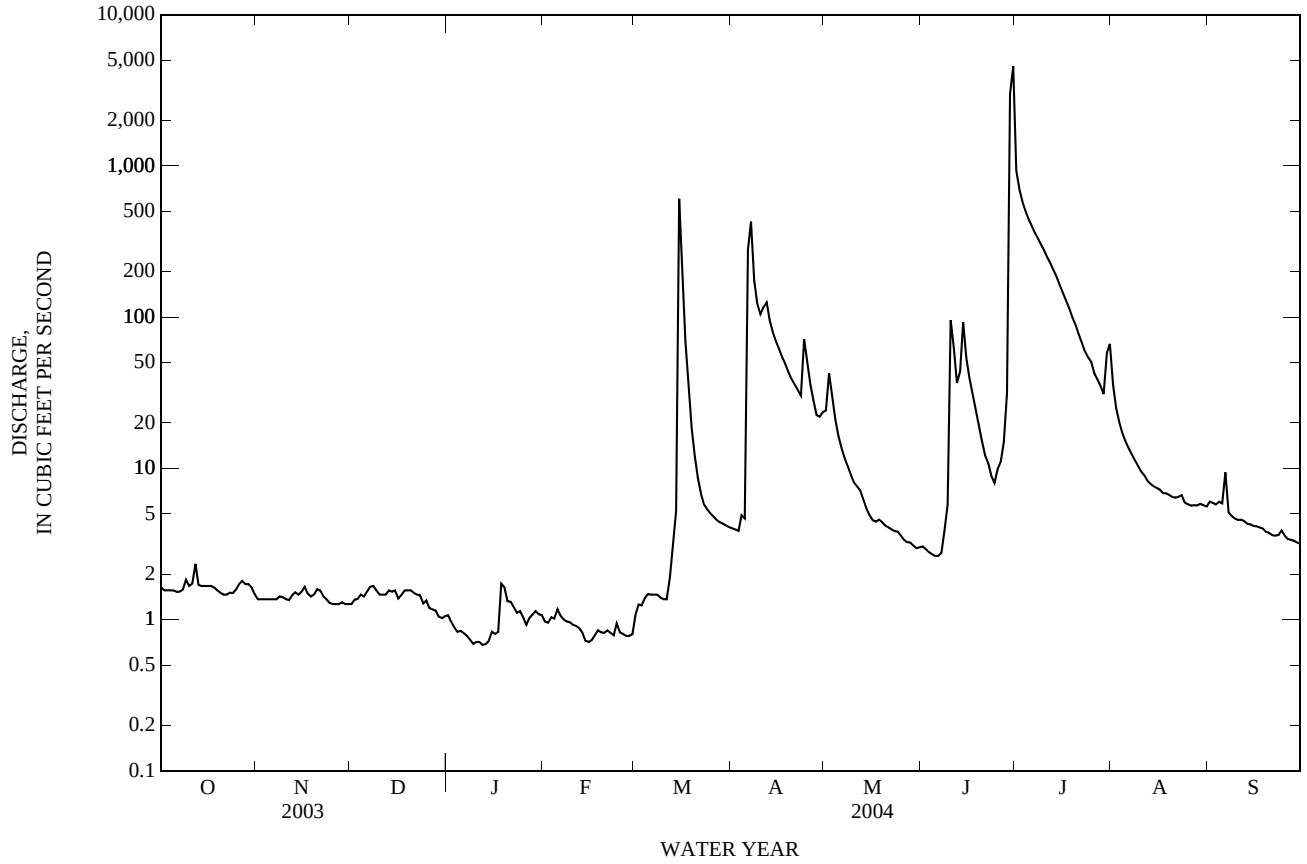
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2004, BY WATER YEAR (WY)

MEAN	35.7	21.6	18.6	14.5	19.5	23.6	26.6	31.2	110	102	34.0	20.5
MAX	261	247	498	292	510	535	349	427	1,493	2,333	709	210
(WY)	(1970)	(2001)	(1992)	(1992)	(1992)	(1992)	(1992)	(1987)	(1987)	(2002)	(1971)	(1958)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1953)	(1953)	(1953)	(1953)	(1953)	(1956)	(1956)	(1953)	(1953)	(1953)	(1962)	(1962)

08198500 Sabinal River at Sabinal, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1952 - 2004	
ANNUAL TOTAL	982.7		19,337.71			
ANNUAL MEAN	2.69		52.8		38.3	
HIGHEST ANNUAL MEAN					265	1992
LOWEST ANNUAL MEAN					0.07	1963
HIGHEST DAILY MEAN	17	Jul 5	4,550	Jun 30	22,900	Jul 5, 2002
LOWEST DAILY MEAN	1.0	Dec 29	0.68	Jan 12	0.00	Sep 5, 1952
ANNUAL SEVEN-DAY MINIMUM	1.1	Dec 25	0.71	Jan 8	0.00	Sep 19, 1952
MAXIMUM PEAK FLOW			22,800	Jun 30	119,000	Jul 2, 2002
MAXIMUM PEAK STAGE			22.31	Jun 30	a39.00	Jul 2, 2002
ANNUAL RUNOFF (AC-FT)	1,950		38,360		27,720	
10 PERCENT EXCEEDS	4.8		74		43	
50 PERCENT EXCEEDS	2.2		3.5		1.7	
90 PERCENT EXCEEDS	1.4		0.95		0.10	

a From floodmark.



08200000 Hondo Creek near Tarpley, TX

LOCATION.--Lat 29°34'10", long 99°14'47", Medina County, Hydrologic Unit 12110107, on right bank, 50 ft downstream from bridge on Ranch Road 462, 6.3 mi southeast of Tarpley, and 16.6 mi northwest of Hondo.

DRAINAGE AREA.--95.6 mi^2.

PERIOD OF RECORD.--Aug. 1952 to current year. Water-quality records: Chemical data: Nov. 1965 to Sept. 1969, Feb. 1970 to Sept. 1993. Biochemical data: Feb. 1970 to Sept. 1993. Pesticide data: Aug. 1971 to Sept. 1993. Sediment data: Nov. to Dec. 1965.

REVISED RECORDS.--WSP 1712: 1957. WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,169.1 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation. There are several small diversions for irrigation above station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1932 reached a stage of about 26 ft (discharge, 58,500 ft^3/s), from information by local resident. Maximum stage since at least 1907, that of June 22, 1997.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	9.4	e5.8	4.3	17	21	39	288	50	858	e65	41
2	7.2	9.6	e6.3	4.2	16	21	101	169	50	650	e70	41
3	7.0	9.2	e6.9	4.1	16	22	57	157	44	530	e66	40
4	7.1	9.0	e7.0	4.1	18	25	62	148	42	457	e64	40
5	7.3	9.0	e6.1	3.6	18	24	74	141	40	400	e63	39
6	7.2	8.8	5.5	3.4	16	23	547	138	39	353	e66	53
7	6.8	9.6	5.5	3.5	16	22	269	137	39	324	e70	50
8	7.3	9.2	5.5	3.8	16	21	222	139	68	298	e68	41
9	13	9.5	5.4	3.6	16	21	192	123	410	265	e66	38
10	9.9	9.4	4.6	3.4	16	21	178	121	192	240	e64	36
11	12	8.9	4.9	3.4	18	21	216	127	146	223	63	35
12	15	8.9	5.1	3.6	17	26	182	116	123	e200	63	33
13	12	7.8	5.0	3.6	17	37	158	113	181	e185	61	31
14	12	8.0	4.5	4.1	17	45	144	111	141	e170	60	34
15	11	8.6	4.8	9.3	16	170	134	100	127	156	58	29
16	11	8.4	4.6	38	16	106	124	97	110	143	57	28
17	11	8.9	4.0	36	16	92	114	93	105	132	56	27
18	11	8.3	4.3	19	15	82	108	90	96	121	55	25
19	11	7.0	4.2	17	15	76	100	87	88	113	54	25
20	11	7.1	4.2	17	15	69	95	83	81	105	53	24
21	11	6.9	4.3	16	15	64	90	80	76	99	52	23
22	11	6.8	4.4	16	18	59	85	78	162	93	51	23
23	11	7.0	4.1	16	17	57	87	75	89	92	50	25
24	11	5.8	3.9	18	23	59	706	70	96	87	49	24
25	11	6.3	4.1	17	19	53	197	68	91	83	48	22
26	10	6.6	4.3	16	19	51	174	66	133	80	47	22
27	11	6.1	4.4	16	19	49	151	64	124	87	46	22
28	10	5.4	4.6	16	20	47	144	62	158	91	45	27
29	9.4	5.4	4.0	17	22	47	253	60	219	89	45	23
30	9.6	e5.7	3.7	17	---	43	157	54	4,400	103	43	22
31	9.6	---	3.9	17	---	41	---	48	---	75	42	---
TOTAL	312.1	236.6	149.9	371.0	499	1,515	5,160	3,303	7,720	6,902	1,760	943
MEAN	10.1	7.89	4.84	12.0	17.2	48.9	172	107	257	223	56.8	31.4
MAX	15	9.6	7.0	38	23	170	706	288	4,400	858	70	53
MIN	6.8	5.4	3.7	3.4	15	21	39	48	39	75	42	22
AC-FT	619	469	297	736	990	3,010	10,230	6,550	15,310	13,690	3,490	1,870

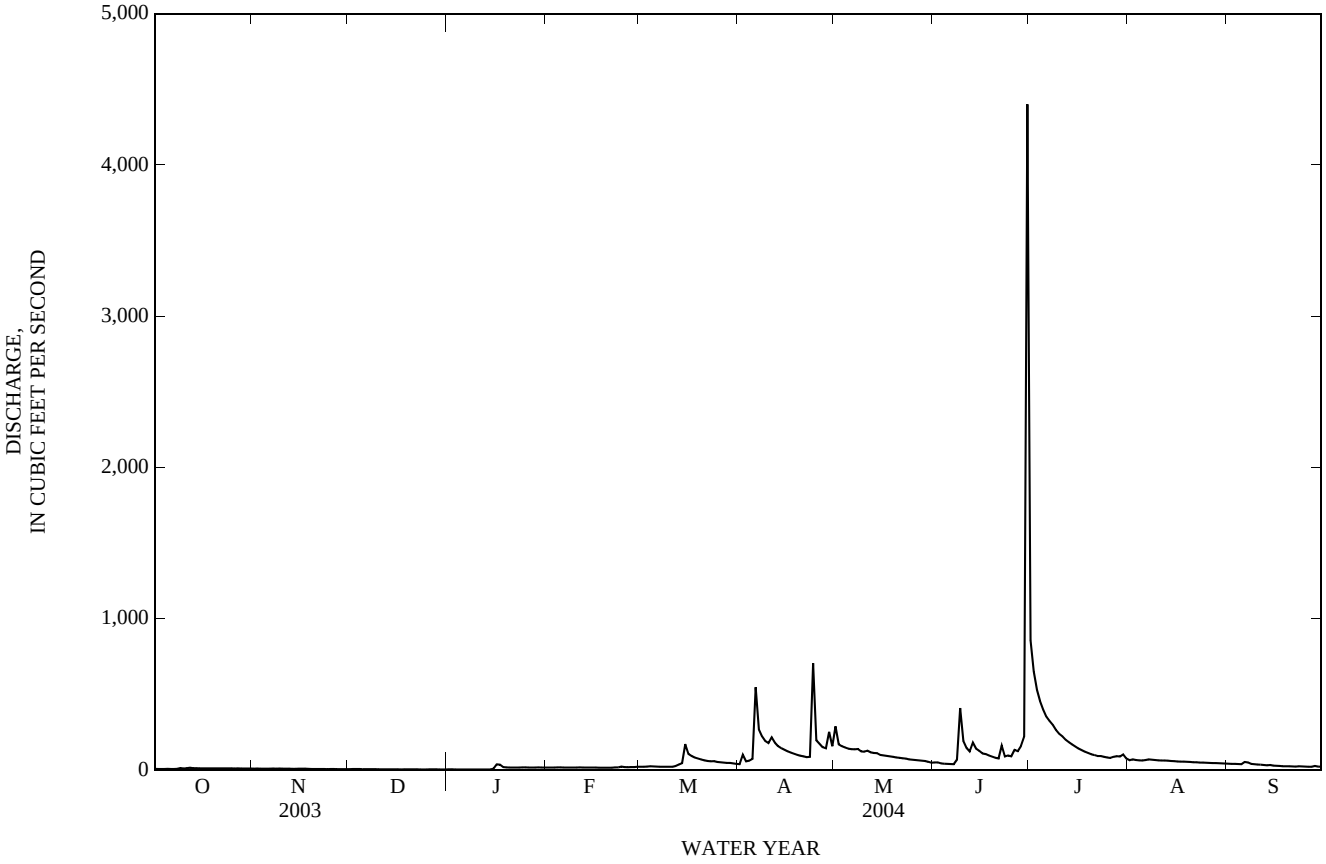
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2004, BY WATER YEAR (WY)

MEAN	39.1	30.2	33.2	26.5	32.8	36.3	38.6	62.5	95.4	77.8	36.4	28.7
MAX	254	134	541	172	342	323	178	402	1,056	1,943	654	153
(WY)	(1972)	(1999)	(1992)	(1992)	(1992)	(1992)	(1992)	(1987)	(1987)	(2002)	(1971)	(1958)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1956)	(1955)	(1955)	(1956)	(1956)	(1956)	(1956)	(1956)	(1996)	(1996)	(1984)	(1955)

08200000 Hondo Creek near Tarpley, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1952 - 2004	
ANNUAL TOTAL	6,918.6		28,871.6			
ANNUAL MEAN	19.0		78.9		44.9	
HIGHEST ANNUAL MEAN					205	1992
LOWEST ANNUAL MEAN					0.41	1956
HIGHEST DAILY MEAN	129	Jun 10	4,400	Jun 30	30,000	Jul 5, 2002
LOWEST DAILY MEAN	3.7	Dec 30	3.4	Jan 6	0.00	Sep 1, 1952
ANNUAL SEVEN-DAY MINIMUM	4.1	Dec 24	3.5	Jan 5	0.00	Sep 1, 1952
MAXIMUM PEAK FLOW			54,400	Jun 30	76,900	Jun 22, 1997
MAXIMUM PEAK STAGE			25.09	Jun 30	a29.64	Jun 22, 1997
ANNUAL RUNOFF (AC-FT)	13,720		57,270		32,520	
10 PERCENT EXCEEDS	31		157		85	
50 PERCENT EXCEEDS	16		36		13	
90 PERCENT EXCEEDS	6.7		5.3		0.20	

a From floodmark.
e Estimated



08200700 Hondo Creek at King Waterhole near Hondo, TX

LOCATION.--Lat 29°23'26", long 99°09'04", Medina County, Hydrologic Unit 12110107, on left bank 0.3 mi downstream from county road low-water crossing, 3.1 mi north of Hondo, 7.8 mi upstream from Verde Creek, and 55.4 mi upstream from mouth.

DRAINAGE AREA.--149 mi^2.

PERIOD OF RECORD.--Oct. 1960 to current year.

REVISED RECORDS.--WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 897.87 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation. Most of the low flow enters the Edwards and associated limestones in the Balcones Fault Zone, that crosses the basin between Hondo Creek near Tarpley (station 08200000) and this station. There are several small diversions above station for irrigation. No flow most days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, 21 ft in Sept. 1919, from information by local resident. Other substanial floods occurred in July 1932, stage 18 ft, and June 17, 1958, stage 17 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.00	346	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	122	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	2.0	0.00	0.00	1.1	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.12	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	178	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	352	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	3,280	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	181.04	5.21	3,632.55	542.42	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	0.00	0.00	6.03	0.17	121	17.5	0.00	0.00
MAX	0.00	0.00	0.00	0.00	0.00	0.00	178	5.2	3,280	346	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	359	10	7,210	1,080	0.00	0.00

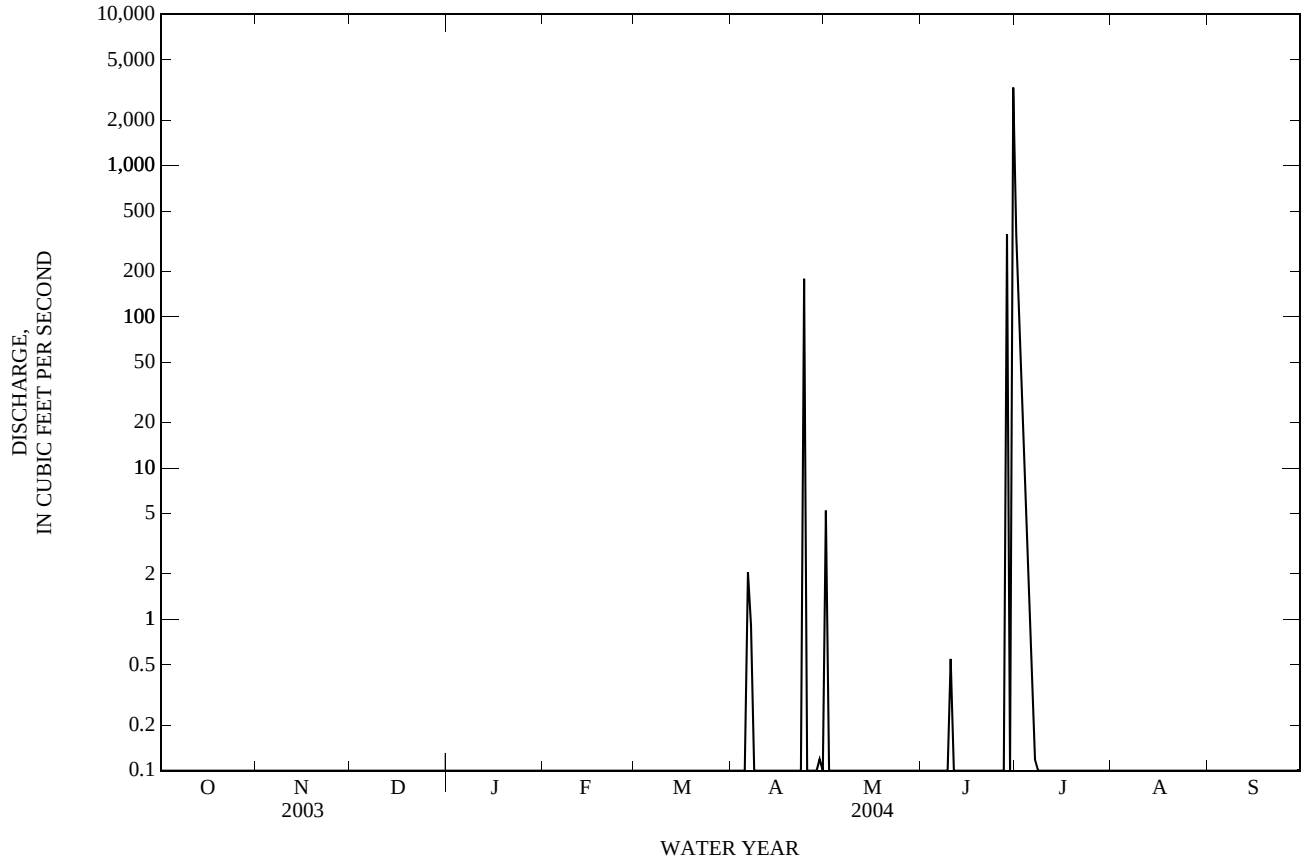
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2004, BY WATER YEAR (WY)

MEAN	12.0	0.60	9.53	2.49	6.22	8.18	6.50	26.4	59.2	40.0	30.7	6.54
MAX	160	10.8	379	56.9	187	168	89.5	468	1,060	1,187	1,015	151
(WY)	(1972)	(1972)	(1992)	(1968)	(1992)	(1992)	(1981)	(1987)	(1987)	(2002)	(1971)	(1980)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1962)	(1961)	(1962)	(1961)	(1962)	(1962)	(1961)	(1961)	(1962)	(1962)	(1961)	(1961)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1961 - 2004	
ANNUAL TOTAL	17.05		4,361.22			
ANNUAL MEAN	0.05		11.9		17.4	
HIGHEST ANNUAL MEAN					128	1987
LOWEST ANNUAL MEAN					0.00	1962
HIGHEST DAILY MEAN	17	Jul 5	3,280	Jun 30	24,000	Jul 5, 2002
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1, 1960
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1, 1960
MAXIMUM PEAK FLOW			20,600	Jun 30	i63,600	Jun 22, 1997
MAXIMUM PEAK STAGE			11.28	Jun 30	a18.96	Jun 22, 1997
ANNUAL RUNOFF (AC-FT)	34		8,650		12,630	
10 PERCENT EXCEEDS	0.00		0.00		0.20	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

i From indirect measurement of peak flow.
a From floodmark.

08200700 Hondo Creek at King Waterhole near Hondo, TX—Continued



08201500 Seco Creek at Miller Ranch near Utopia, TX

LOCATION.--Lat 29°34'23", long 99°24'10", Medina County, Hydrologic Unit 12110107, on right bank, 200 ft upstream from county road crossing, 4.5 mi downstream from Cascade Creek, 7.9 mi southeast of Utopia, and 58.0 mi upstream from mouth.

DRAINAGE AREA.--45.0 mi^2.

PERIOD OF RECORD.--May 1961 to current year. Water-quality records: Chemical data: Nov. 1965, Sept. 1969 to July 1994. Biochemical data: Mar. 1970 to July 1999. Pesticide data: Jan. 1974 to Sept. 1998. Sediment data: Nov. 1965, Aug. 1994 to Sept. 1998.

REVISED RECORDS.--WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 1,265.80 ft, from Magnolia Oil Company datum, adjustment unknown. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1901, 16.4 ft June 17, 1958, from floodmarks (discharge, 52,600 ft^3/s, by slope-area measurement of peak flow).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	6.4	5.2	4.3	4.0	6.7	19	82	18	281	42	22
2	3.9	6.5	5.1	4.1	3.9	6.8	32	60	18	249	39	14
3	3.9	6.5	4.9	3.8	3.7	6.9	25	58	17	222	37	13
4	3.9	6.2	4.9	3.4	4.1	7.3	31	55	17	199	34	15
5	4.0	5.9	4.8	3.1	4.2	7.1	37	52	16	183	31	15
6	4.2	6.3	4.7	3.1	3.8	6.8	177	51	16	169	30	16
7	3.9	6.6	4.7	3.1	3.8	6.7	108	50	16	158	30	14
8	4.3	6.2	4.8	3.3	3.8	6.6	87	49	39	147	28	13
9	7.6	6.3	4.7	3.2	4.0	6.6	77	45	992	138	25	12
10	6.1	6.3	4.4	3.1	4.1	6.7	73	45	225	131	24	12
11	6.9	6.0	4.6	3.1	4.8	6.9	87	48	181	124	23	12
12	11	6.0	4.6	3.2	4.4	10	76	46	158	117	21	11
13	11	5.6	4.6	3.2	4.2	15	68	44	249	112	19	10
14	11	5.6	4.4	3.5	4.3	16	63	41	174	106	19	11
15	10	5.9	4.5	5.5	4.0	54	60	37	161	99	18	10
16	9.8	6.0	4.4	5.2	4.3	42	57	35	148	93	17	9.8
17	9.3	6.1	4.2	5.6	4.3	36	54	34	139	88	15	9.4
18	8.9	5.6	4.3	4.6	4.1	32	52	32	129	82	13	9.1
19	8.5	5.3	4.2	4.3	4.1	30	48	31	121	77	17	8.9
20	8.1	5.4	4.2	4.3	4.1	29	46	29	115	72	16	8.6
21	7.9	5.3	4.3	4.3	4.3	27	45	27	110	69	15	8.4
22	7.6	5.3	4.3	4.3	4.6	25	43	26	134	63	16	8.3
23	7.2	5.2	4.1	4.4	4.8	24	53	25	112	61	20	8.9
24	7.1	4.8	4.0	4.9	7.6	25	130	24	111	59	17	8.8
25	7.2	5.0	4.1	5.1	6.4	24	64	24	106	56	15	7.8
26	7.2	5.2	4.3	4.2	5.9	23	60	23	153	53	11	7.7
27	7.2	5.2	4.2	3.9	5.9	21	56	22	127	50	13	7.8
28	6.9	4.9	4.5	3.9	6.0	21	57	21	145	47	13	12
29	6.8	5.0	4.0	4.2	6.9	21	67	20	171	43	13	7.9
30	6.7	5.1	3.8	4.1	---	20	55	20	1,830	66	13	7.5
31	6.6	---	4.0	4.0	---	19	---	19	---	51	36	---
TOTAL	218.8	171.7	137.8	124.3	134.4	589.1	1,907	1,175	5,948	3,465	680	330.9
MEAN	7.06	5.72	4.45	4.01	4.63	19.0	63.6	37.9	198	112	21.9	11.0
MAX	11	6.6	5.2	5.6	7.6	54	177	82	1,830	281	42	22
MIN	3.9	4.8	3.8	3.1	3.7	6.6	19	19	16	43	11	7.5
AC-FT	434	341	273	247	267	1,170	3,780	2,330	11,800	6,870	1,350	656
CFSM	0.16	0.13	0.10	0.09	0.10	0.42	1.41	0.84	4.41	2.48	0.49	0.25
IN.	0.18	0.14	0.11	0.10	0.11	0.49	1.58	0.97	4.92	2.86	0.56	0.27

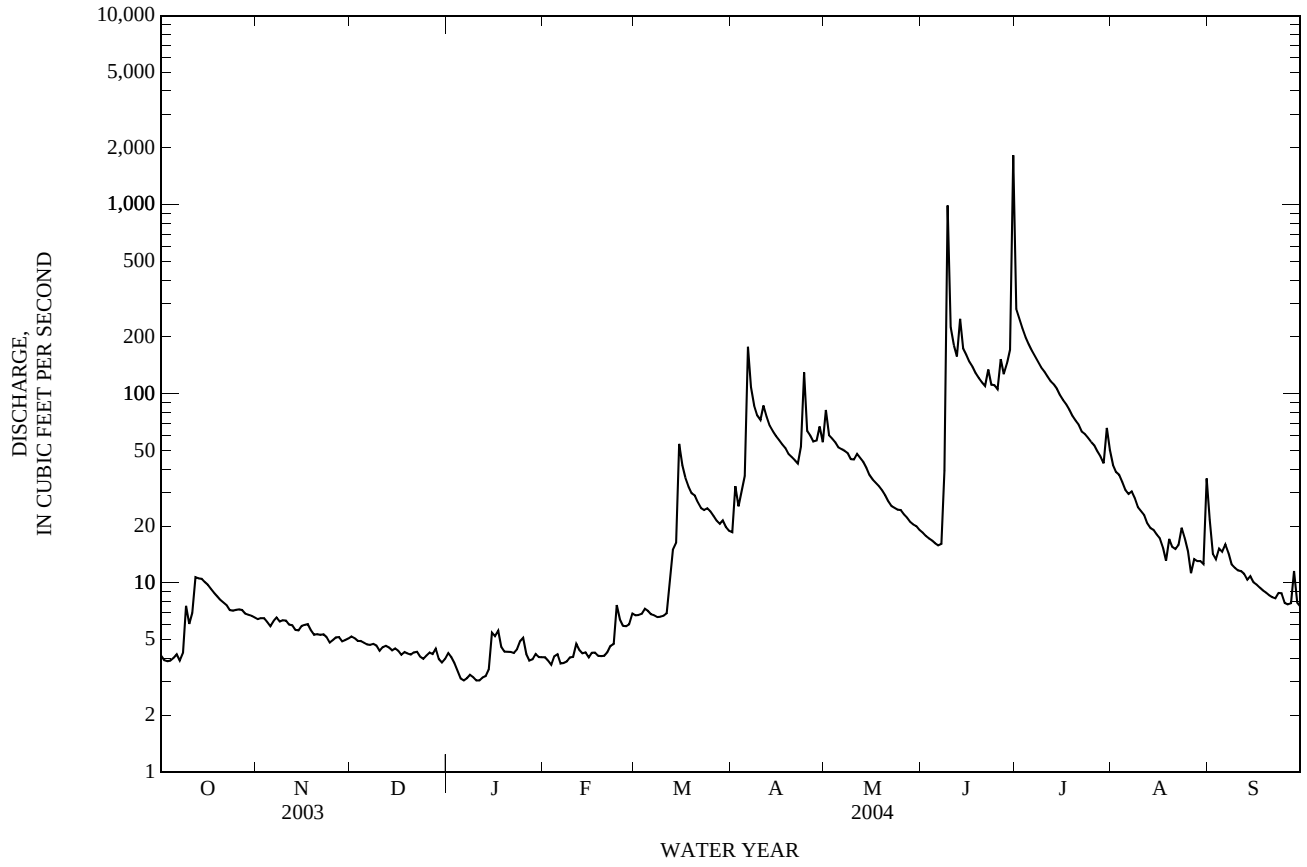
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2004, BY WATER YEAR (WY)

MEAN	19.5	13.3	16.0	11.8	13.6	15.9	16.0	25.1	43.3	30.9	20.4	14.3
MAX	169	73.6	241	92.9	136	134	91.1	120	471	331	279	63.1
(WY)	(1972)	(1999)	(1992)	(1992)	(1992)	(1992)	(1992)	(1987)	(1987)	(2002)	(1971)	(1967)
MIN	0.24	0.50	0.40	0.66	0.90	0.65	0.52	0.64	0.15	0.01	0.00	0.00
(WY)	(1964)	(1964)	(1964)	(2000)	(2000)	(2000)	(2000)	(1984)	(1989)	(1989)	(1989)	(1989)

08201500 Seco Creek at Miller Ranch near Utopia, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1961 - 2004	
ANNUAL TOTAL	2,782.05		14,882.0			
ANNUAL MEAN	7.62		40.7		20.1	
HIGHEST ANNUAL MEAN					87.4	1992
LOWEST ANNUAL MEAN					0.97	1989
HIGHEST DAILY MEAN	72	Jun 10	1,830	Jun 30	5,000	Jun 22, 1997
LOWEST DAILY MEAN	0.74	Jun 3	3.1	Jan 5	0.00	Jul 30, 1963
ANNUAL SEVEN-DAY MINIMUM	0.95	May 28	3.1	Jan 5	0.00	Jul 30, 1963
MAXIMUM PEAK FLOW			19,000	Jun 30	i64,900	Jun 22, 1997
MAXIMUM PEAK STAGE			10.60	Jun 30	a17.70	Jun 22, 1997
ANNUAL RUNOFF (AC-FT)	5,520		29,520		14,580	
ANNUAL RUNOFF (CFSM)	0.169		0.904		0.447	
ANNUAL RUNOFF (INCHES)	2.30		12.30		6.08	
10 PERCENT EXCEEDS	12		109		41	
50 PERCENT EXCEEDS	5.7		12		5.6	
90 PERCENT EXCEEDS	3.6		4.1		0.80	

i From indirect measurement of peak flow.
a From floodmark.



08202700 Seco Creek at Rowe Ranch near D'Hanis, TX

LOCATION.--Lat 29°22'14", long 99°17'15", Medina County, Hydrologic Unit 12110107, on left bank 2.9 mi north of D'Hanis and 8.0 mi downstream from Rocky Creek.

DRAINAGE AREA.--168 mi^2.

PERIOD OF RECORD.--Nov. 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 900.88 ft above NGVD of 1929. Prior to Oct. 1970, published as "at Crook Ranch, near D'Hanis". Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions. All of low flow from Seco Creek enters the Edwards and associated limestones in the Balcones Fault Zone that crosses the basin between Seco Creek at Miller Ranch near Utopia (station 08201500) and this station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1852, 35.7 ft, May 31, 1935, from information by local resident. Other floods occurred Aug. 31, 1894, 33 ft; Sept. 1919, 28 ft; July 2, 1932, 28.2 ft (discharge, 35,800 ft^3/s, by slope-area measurement); and June 17, 1958, 32.4 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.3	0.00	84	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.7	0.00	23	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	14	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.4	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.4	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.1	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	405	0.17	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36	0.04	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	5.0	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	345	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	17	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	4.3	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	1.4	0.00	300	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	21	0.00	19	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	5.3	0.00	7,450	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	5.00	394.61	10.52	8,210.68	138.14	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	0.00	0.16	13.2	0.34	274	4.46	0.00	0.00
MAX	0.00	0.00	0.00	0.00	0.00	5.0	345	6.3	7,450	84	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	9.9	783	21	16,290	274	0.00	0.00

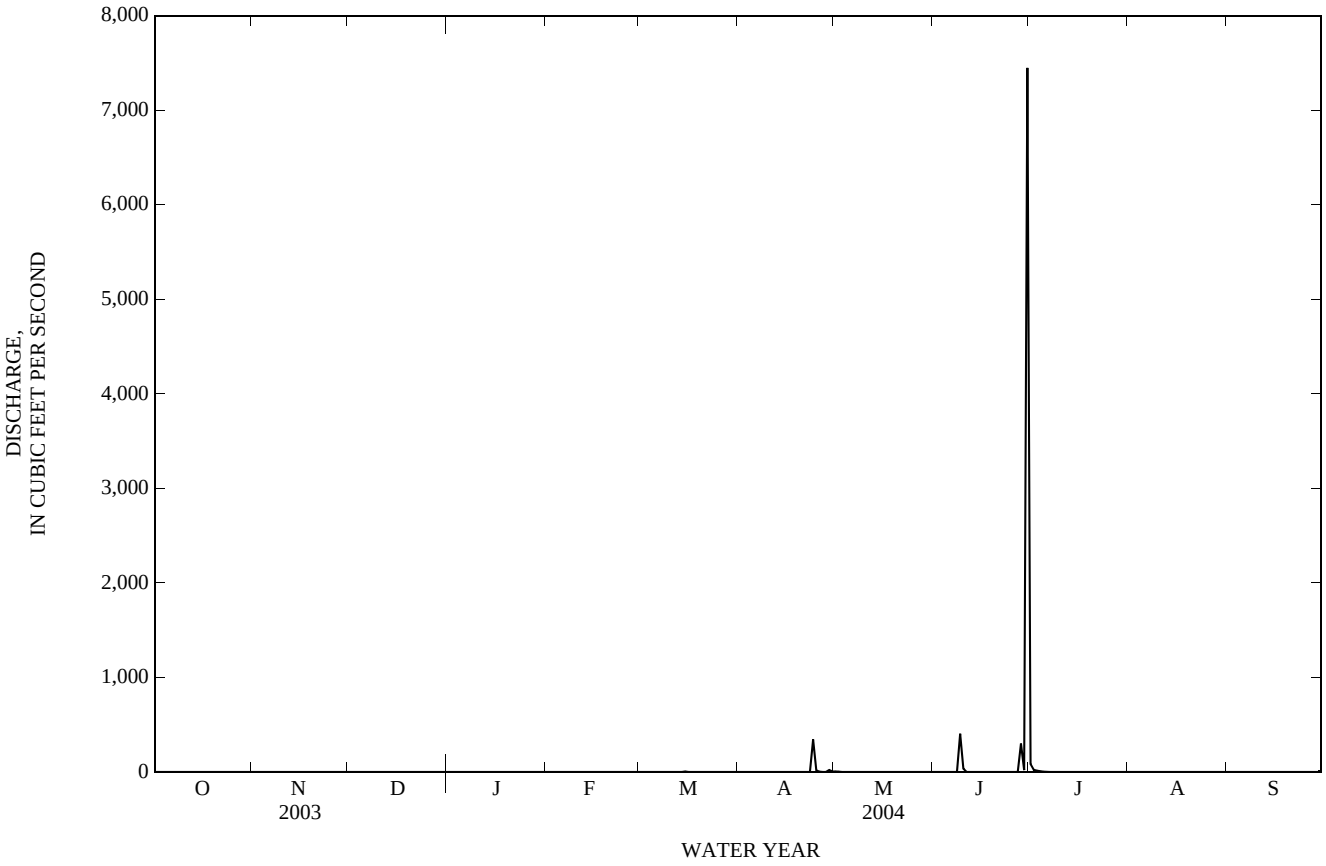
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2004, BY WATER YEAR (WY)

MEAN	9.44	0.02	3.95	0.57	0.87	1.55	3.30	10.2	31.7	18.6	25.8	3.83
MAX	183	0.99	117	24.7	33.2	27.0	74.6	277	411	487	862	58.5
(WY)	(1972)	(2002)	(1992)	(1968)	(1992)	(1992)	(1981)	(1987)	(1997)	(2002)	(1971)	(1980)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1962)	(1961)	(1961)	(1961)	(1961)	(1961)	(1961)	(1961)	(1962)	(1962)	(1961)	(1961)

08202700 Seco Creek at Rowe Ranch near D'Hanis, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1961 - 2004	
ANNUAL TOTAL	508.79		8,758.95			
ANNUAL MEAN	1.39		23.9		9.31	
HIGHEST ANNUAL MEAN					73.3	1971
LOWEST ANNUAL MEAN					0.00	1962
HIGHEST DAILY MEAN	445	Jul 5	7,450	Jun 30	11,800	Jun 22, 1997
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Nov 1, 1960
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Nov 1, 1960
MAXIMUM PEAK FLOW			43,900	Jun 30	i51,400	Jun 22, 1997
MAXIMUM PEAK STAGE			28.66	Jun 30	a30.62	Jun 22, 1997
ANNUAL RUNOFF (AC-FT)	1,010		17,370		6,740	
10 PERCENT EXCEEDS	0.00		0.00		0.00	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

i From indirect measurement of peak flow.
a From floodmark.



08204005 Leona River near Uvalde, TX

LOCATION.--Lat 29°09'15", long 99°44'35", Uvalde County, Hydrologic Unit 12110106, at old road crossing on Whites Ranch, 2.0 mi downstream from Cooks Slough, and 4.7 mi southeast of Uvalde.

DRAINAGE AREA.--132 mi^2.

PERIOD OF RECORD.--Mar. 2003 to current.

GAGE.--Water-stage recorder. Datum of gage is 838.39 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Flow is primarily from several springs that enter river above station and Cook's Slough tributary. No known regulation or diversions.

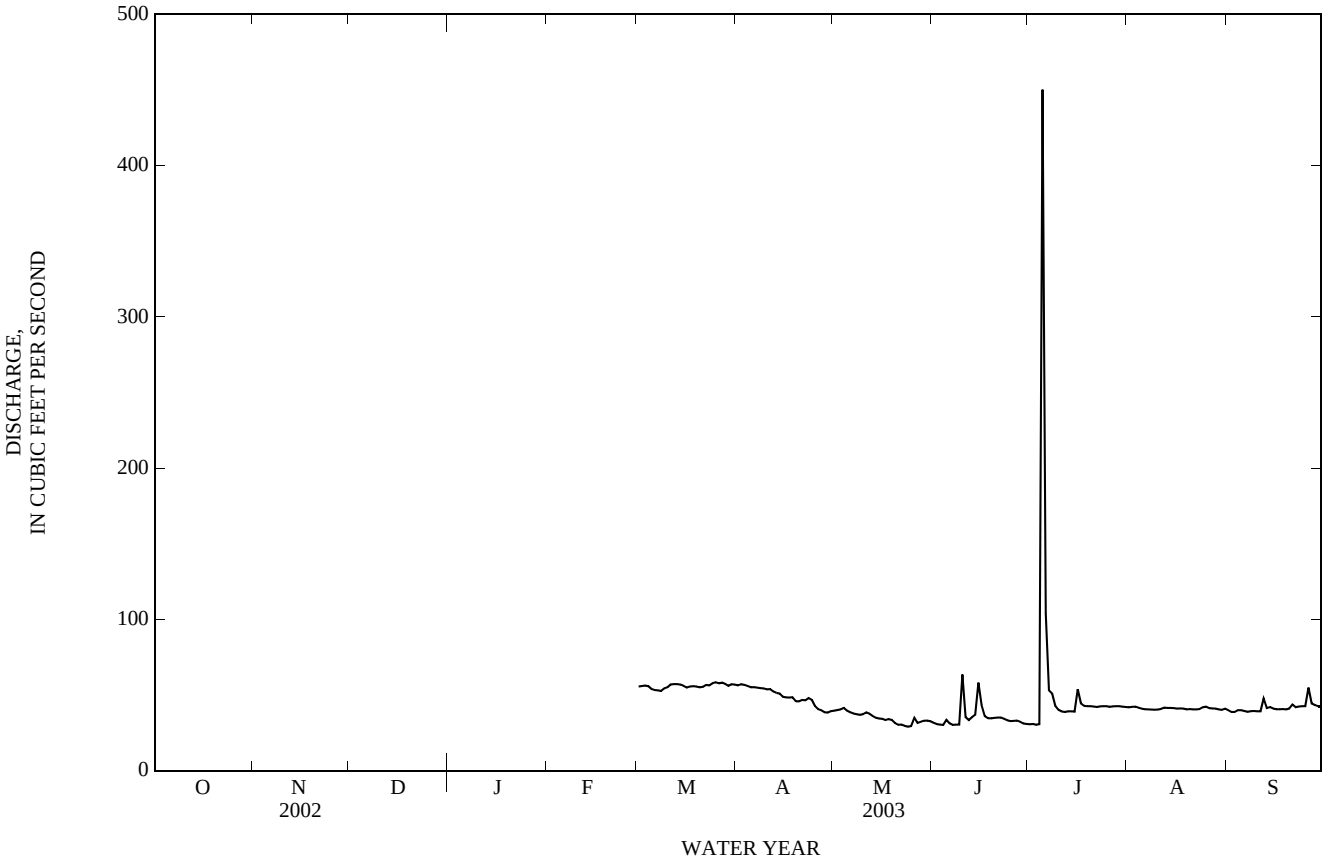
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	56	56	40	32	31	42	40
2	---	---	---	---	---	56	57	40	31	31	42	39
3	---	---	---	---	---	56	57	41	30	30	42	39
4	---	---	---	---	---	56	56	41	30	31	42	40
5	---	---	---	---	---	54	55	40	34	450	41	40
6	---	---	---	---	---	53	55	39	31	104	41	39
7	---	---	---	---	---	53	55	38	30	53	41	39
8	---	---	---	---	---	53	55	37	30	51	40	39
9	---	---	---	---	---	54	54	37	30	43	40	39
10	---	---	---	---	---	55	54	37	64	40	40	39
11	---	---	---	---	---	57	54	39	35	39	41	39
12	---	---	---	---	---	57	52	38	33	39	42	48
13	---	---	---	---	---	57	51	36	35	39	41	41
14	---	---	---	---	---	57	51	35	37	39	41	42
15	---	---	---	---	---	56	49	34	58	39	41	41
16	---	---	---	---	---	55	48	34	43	54	41	41
17	---	---	---	---	---	56	48	33	36	44	41	41
18	---	---	---	---	---	56	49	34	35	43	41	41
19	---	---	---	---	---	56	46	34	35	43	40	41
20	---	---	---	---	---	55	46	32	35	43	41	41
21	---	---	---	---	---	55	47	30	35	42	40	44
22	---	---	---	---	---	57	47	30	35	42	41	42
23	---	---	---	---	---	56	48	30	34	43	41	42
24	---	---	---	---	---	58	47	29	33	43	42	43
25	---	---	---	---	---	58	43	30	33	43	42	43
26	---	---	---	---	---	58	41	35	33	42	41	55
27	---	---	---	---	---	58	40	32	33	43	41	44
28	---	---	---	---	---	57	39	32	32	43	41	43
29	---	---	---	---	---	56	38	33	31	43	40	43
30	---	---	---	---	---	57	39	33	31	42	40	43
31	---	---	---	---	---	57	---	33	---	42	41	---
TOTAL	---	---	---	---	---	1,735	1,477	1,086	1,054	1,754	1,271	1,251
MEAN	---	---	---	---	---	56.0	49.2	35.0	35.1	56.6	41.0	41.7
MAX	---	---	---	---	---	58	57	41	64	450	42	55
MIN	---	---	---	---	---	53	38	29	30	30	40	39
AC-FT	---	---	---	---	---	3,440	2,930	2,150	2,090	3,480	2,520	2,480

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2003, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	56.0	49.2	35.0	35.1	56.6	41.0	41.7
MAX	---	---	---	---	---	56.0	49.2	35.0	35.1	56.6	41.0	41.7
(WY)	---	---	---	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	---	---	---	---	---	56.0	49.2	35.0	35.1	56.6	41.0	41.7
(WY)	---	---	---	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)

08204005 Leona River near Uvalde, TX—Continued



08204005 Leona River near Uvalde, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

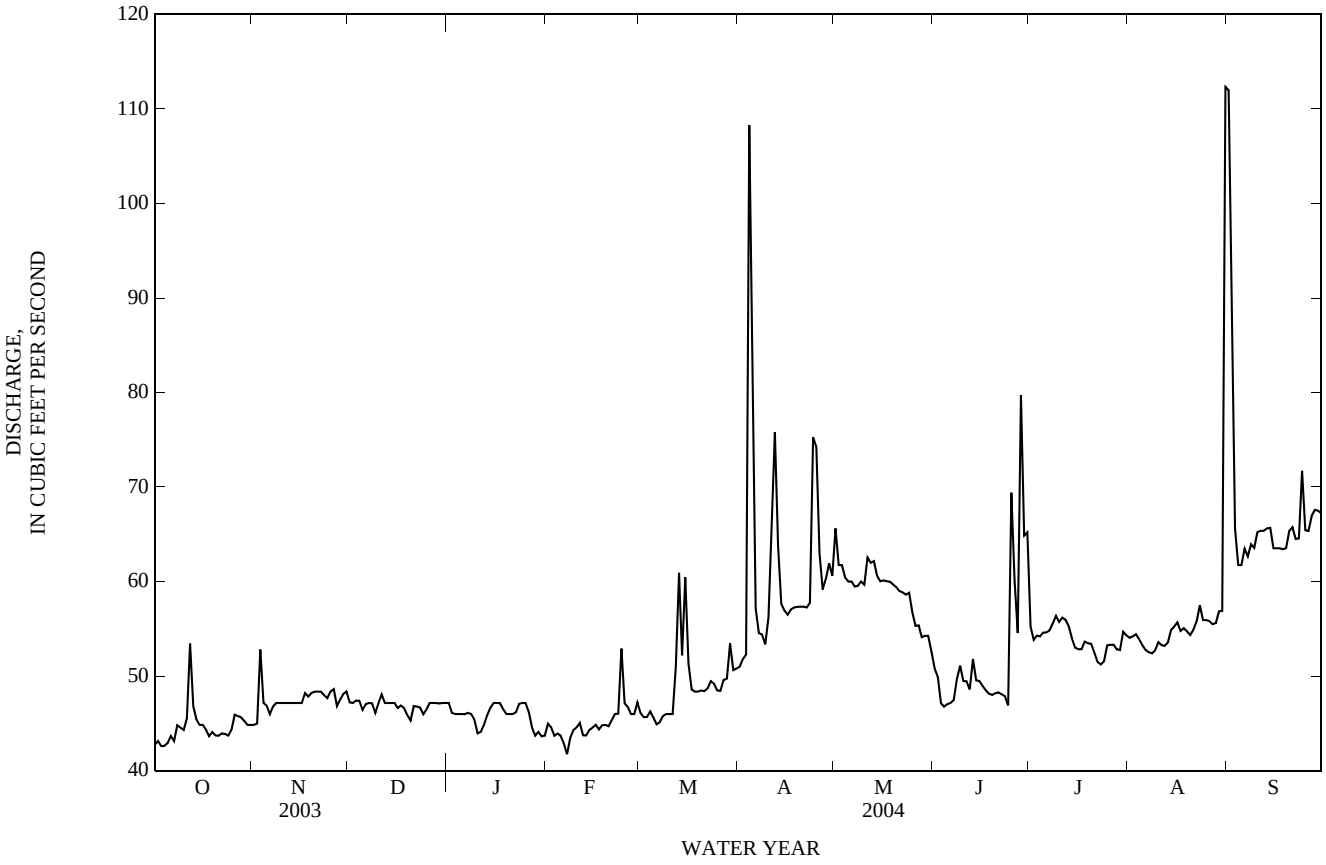
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	45	47	47	45	46	51	66	51	55	54	112
2	43	45	47	46	45	46	52	62	50	54	54	81
3	43	53	47	46	44	46	52	62	47	54	54	66
4	43	47	47	46	44	46	108	60	47	54	54	62
5	43	47	46	46	44	46	80	60	47	55	53	62
6	44	46	47	46	43	45	57	60	47	55	53	63
7	43	47	47	46	42	45	55	59	47	55	53	63
8	45	47	47	46	43	46	54	60	50	56	52	64
9	45	47	46	45	44	46	53	60	51	56	53	64
10	44	47	47	44	45	46	56	60	49	56	54	65
11	46	47	48	44	45	46	64	63	49	56	53	65
12	53	47	47	45	44	51	76	62	49	56	53	65
13	47	47	47	46	44	61	64	62	52	55	54	66
14	45	47	47	47	44	52	58	61	50	54	55	66
15	45	47	47	47	45	60	57	60	49	53	55	64
16	45	47	47	47	45	51	57	60	49	53	56	64
17	44	48	47	47	44	49	57	60	49	53	55	64
18	44	48	47	47	45	48	57	60	48	54	55	63
19	44	48	46	46	45	48	57	60	48	53	55	64
20	44	48	45	46	45	48	57	59	48	53	54	65
21	44	48	47	46	45	48	57	59	48	52	55	66
22	44	48	47	46	46	49	57	59	48	51	56	65
23	44	48	47	47	46	49	58	59	48	51	57	65
24	44	48	46	47	53	49	75	59	47	52	56	72
25	44	48	46	47	47	48	74	57	69	53	56	65
26	46	49	47	46	47	48	63	55	60	53	56	65
27	46	47	47	45	46	50	59	55	55	53	55	67
28	46	48	47	44	46	50	60	54	80	53	56	68
29	45	48	47	44	47	53	62	54	65	53	57	68
30	45	48	47	44	---	51	61	54	65	55	57	67
31	45	---	47	44	---	51	---	53	---	54	112	---
TOTAL	1,386	1,425	1,451	1,420	1,308	1,518	1,848	1,834	1,562	1,670	1,752	2,016
MEAN	44.7	47.5	46.8	45.8	45.1	49.0	61.6	59.2	52.1	53.9	56.5	67.2
MAX	53	53	48	47	53	61	108	66	80	56	112	112
MIN	43	45	45	44	42	45	51	53	47	51	52	62
AC-FT	2,750	2,830	2,880	2,820	2,590	3,010	3,670	3,640	3,100	3,310	3,480	4,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2004, BY WATER YEAR (WY)

MEAN	44.7	47.5	46.8	45.8	45.1	52.5	55.4	47.1	43.6	55.2	48.8	54.5
MAX	44.7	47.5	46.8	45.8	45.1	56.0	61.6	59.2	52.1	56.6	56.5	67.2
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2004)	(2004)	(2004)	(2003)	(2004)	(2004)
MIN	44.7	47.5	46.8	45.8	45.1	49.0	49.2	35.0	35.1	53.9	41.0	41.7
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 2003 - 2004	
ANNUAL TOTAL	19,190			
ANNUAL MEAN	52.4		52.4	
HIGHEST ANNUAL MEAN			52.4	2004
LOWEST ANNUAL MEAN			52.4	2004
HIGHEST DAILY MEAN	112	Aug 31	450	Jul 5, 2003
LOWEST DAILY MEAN	42	Feb 7	29	May 24, 2003
ANNUAL SEVEN-DAY MINIMUM	43	Oct 1	31	May 19, 2003
MAXIMUM PEAK FLOW	365	Aug 31	1,480	Jul 5, 2003
MAXIMUM PEAK STAGE	3.20	Aug 31	3.96	Jul 5, 2003
ANNUAL RUNOFF (AC-FT)	38,060		37,980	
10 PERCENT EXCEEDS	64		64	
50 PERCENT EXCEEDS	49		49	
90 PERCENT EXCEEDS	45		45	

08204005 Leona River near Uvalde, TX—Continued



08205500 Frio River near Derby, TX

LOCATION.--Lat 28°44'11", long 99°08'40", Frio County, Hydrologic Unit 12110106, on right bank 17 ft downstream from centerline of railroad tracks, 35 ft right of the Missouri Pacific Railroad Co. bridge abutment, 167 ft downstream from Interstate Highway 35, 917 ft downstream from Leona River, 2.5 mi south of Derby, and 115.1 mi upstream from mouth.

DRAINAGE AREA.--3,429 mi^2.

PERIOD OF RECORD.--Aug. 1915 to current year.

REVISED RECORDS.--WSP 568: 1915-16, 1918-22. WSP 1312: 1917-18(M). WSP 1923: 1954. WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 449.11 ft above NGVD of 1929. Aug. 1, 1915, to Apr. 21, 1931, nonrecording gage, and Apr. 22, 1931, to Mar. 6, 1940, water-stage recorder at same site and datum. Mar. 7, 1940, to May 4, 1972, water-stage recorder, and May 5 to Nov. 1, 1972, nonrecording gage at site 167 ft upstream at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. Part of the flow of the Frio River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone upstream from U.S. Highway 90. There is considerable loss of flow into various permeable formations downstream from the Balcones Fault Zone. There are many small diversions for irrigation above station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1860, that of July 4, 1932, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	100	89	84	87	88	125	715	93	8,180	293	120
2	100	100	87	84	88	89	122	619	91	16,900	440	144
3	96	103	87	86	86	95	111	785	87	9,060	292	150
4	95	103	89	87	84	96	266	521	80	4,380	229	183
5	95	101	89	83	83	89	525	373	76	2,360	200	174
6	95	103	87	82	81	85	1,650	296	70	1,570	183	159
7	97	104	88	79	79	85	1,960	246	68	1,300	173	184
8	97	101	88	77	80	87	4,560	220	71	1,120	166	171
9	98	100	84	74	84	86	3,750	217	90	981	165	163
10	100	100	80	74	84	83	1,330	204	260	897	164	152
11	105	100	79	74	80	81	907	212	403	833	158	140
12	145	100	82	76	82	76	834	220	294	787	145	132
13	131	101	81	77	84	84	865	214	204	732	137	126
14	125	100	79	75	87	86	805	219	189	667	127	127
15	129	102	81	80	85	105	710	224	166	611	113	126
16	131	102	80	81	83	748	599	185	165	558	108	124
17	123	100	80	86	83	1,950	489	156	185	503	107	124
18	114	100	82	110	84	910	426	141	172	460	107	122
19	110	96	85	170	83	496	382	132	159	422	104	117
20	107	95	86	135	83	318	352	126	152	384	102	114
21	106	95	84	109	82	226	324	122	145	351	107	113
22	104	93	86	98	82	177	302	117	239	322	117	111
23	103	94	86	94	82	148	283	113	213	305	3,270	111
24	101	95	86	92	86	129	319	112	223	285	3,720	114
25	100	95	87	95	82	117	1,610	107	287	267	619	110
26	97	97	86	94	83	110	4,820	102	193	249	268	108
27	97	94	84	94	95	106	2,740	97	176	236	169	114
28	97	90	84	94	100	101	1,040	98	177	223	136	124
29	99	89	86	94	93	101	715	94	703	216	124	120
30	102	89	87	90	---	108	531	94	2,710	212	118	116
31	100	---	83	88	---	122	---	94	---	208	116	---
TOTAL	3,304	2,942	2,622	2,816	2,455	7,182	33,452	7,175	8,141	55,579	12,277	3,993
MEAN	107	98.1	84.6	90.8	84.7	232	1,115	231	271	1,793	396	133
MAX	145	104	89	170	100	1,950	4,820	785	2,710	16,900	3,720	184
MIN	95	89	79	74	79	76	111	94	68	208	102	108
AC-FT	6,550	5,840	5,200	5,590	4,870	14,250	66,350	14,230	16,150	110,200	24,350	7,920

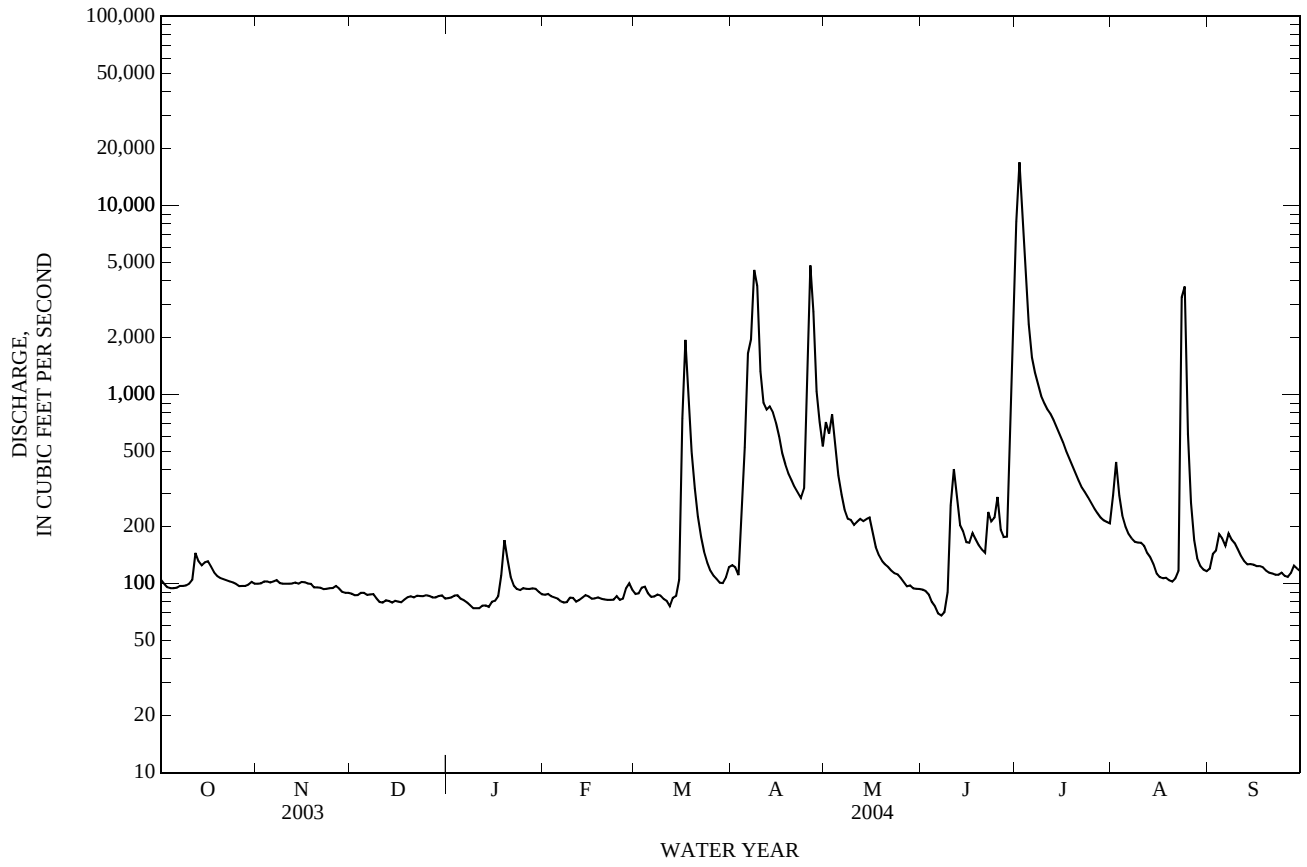
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2004, BY WATER YEAR (WY)

MEAN	175	61.5	47.8	52.0	60.1	52.2	123	189	359	331	145	198
MAX	1,813	674	950	559	988	1,079	1,115	2,320	8,069	8,943	5,648	3,247
(WY)	(1920)	(1920)	(1992)	(1992)	(1992)	(1992)	(2004)	(1935)	(1935)	(1932)	(1971)	(1919)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1918)	(1916)	(1916)	(1916)	(1916)	(1916)	(1917)	(1917)	(1918)	(1918)	(1917)	(1922)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1915 - 2004	
ANNUAL TOTAL	70,332		141,938			
ANNUAL MEAN	193		388		150	
HIGHEST ANNUAL MEAN					1,087	1935
LOWEST ANNUAL MEAN					1.76	1952
HIGHEST DAILY MEAN	11,500	Jul 8	16,900	Jul 2	135,000	Jul 4, 1932
LOWEST DAILY MEAN	30	Jul 4	68	Jun 7	0.00	Aug 1, 1915
ANNUAL SEVEN-DAY MINIMUM	35	Jun 28	75	Jan 8	0.00	Aug 1, 1915
MAXIMUM PEAK FLOW			19,100	Jul 2	i230,000	Jul 4, 1932
MAXIMUM PEAK STAGE			14.49	Jul 2	a29.45	Jul 4, 1932
ANNUAL RUNOFF (AC-FT)	139,500		281,500		108,400	
10 PERCENT EXCEEDS	172		705		163	
50 PERCENT EXCEEDS	101		110		6.8	
90 PERCENT EXCEEDS	48		83		0.00	

i From indirect measurement of peak flow.
a From floodmark.

08205500 Frio River near Derby, TX—Continued



08206600 Frio River at Tilden, TX

LOCATION.--Lat 28°28'02", long 98°32'50", Mcmullen County, Hydrologic Unit 12110108, on left bank 80 ft downstream from bridge on State Highway 16 in Tilden, 300 ft downstream from Leoncita Creek, 1.3 mi upstream from Salt Branch, 1.8 mi downstream from Big Slough, and 44.2 mi upstream from mouth.

DRAINAGE AREA.--4,493 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 216.04 ft above NGVD of 1929. July 14, 1978, to Sept. 13, 1994, at site 80 ft upstream at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation. Part of the flow of the Frio River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone that crosses the basin upstream from U.S. Highway 90. Considerable flow into various permeable formations also occurs downstream from the Balcones Fault Zone. There are many small diversions above station for irrigation. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1932 reached a stage of 38.44 ft, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

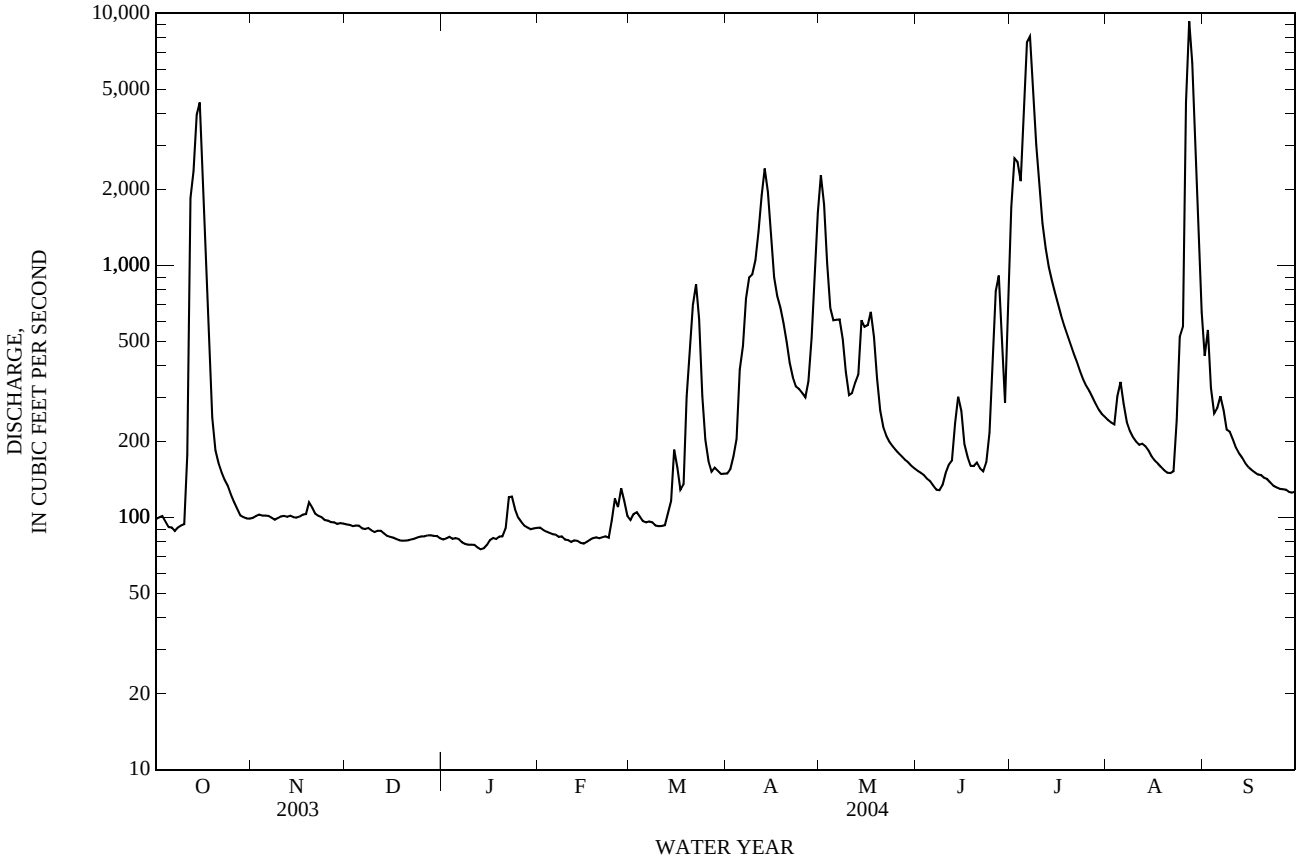
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	100	94	82	91	98	149	2,280	153	1,700	244	438
2	100	101	93	83	89	103	156	1,750	151	2,660	238	555
3	101	103	92	84	88	105	175	1,030	147	2,580	234	326
4	96	102	93	82	87	101	205	678	143	2,160	303	259
5	92	102	93	83	86	97	386	606	139	3,650	345	271
6	91	101	91	82	86	96	479	609	134	7,670	283	303
7	88	100	90	80	84	96	739	611	129	8,090	239	267
8	91	98	91	79	84	96	897	508	128	5,190	221	224
9	93	99	89	78	82	93	922	378	135	3,020	208	219
10	94	101	88	78	81	93	1,050	306	150	2,020	200	205
11	177	101	89	78	80	93	1,360	312	162	1,470	194	189
12	1,850	101	89	76	81	93	1,900	343	168	1,170	196	180
13	2,360	102	87	75	81	104	2,420	369	237	989	192	172
14	3,970	100	85	75	79	117	1,950	607	301	872	184	164
15	4,430	100	84	78	79	186	1,280	571	265	781	175	158
16	2,630	101	83	81	80	158	895	579	196	702	168	154
17	1,440	103	82	83	82	129	757	654	174	632	164	151
18	638	103	81	82	83	136	680	519	160	574	159	148
19	250	115	81	84	83	302	594	357	160	529	154	147
20	185	110	81	84	83	460	498	265	165	487	151	144
21	165	104	81	91	83	696	412	229	157	449	150	142
22	151	101	82	120	84	843	360	211	152	415	153	138
23	141	100	83	121	83	613	331	199	166	383	244	134
24	133	98	84	108	97	303	323	192	217	354	520	132
25	124	97	84	100	119	203	313	185	414	334	571	130
26	115	96	84	96	110	167	300	179	791	318	4,440	130
27	109	96	85	93	131	152	346	175	912	301	9,310	129
28	102	94	85	91	116	158	515	169	541	283	6,380	126
29	100	95	85	90	101	153	846	166	286	268	2,950	125
30	99	95	84	91	---	149	1,620	160	795	258	1,440	127
31	99	---	83	91	---	149	---	157	---	251	654	---
TOTAL	20,213	3,019	2,676	2,699	2,593	6,342	22,858	15,354	7,828	50,560	31,064	5,987
MEAN	652	101	86.3	87.1	89.4	205	762	495	261	1,631	1,002	200
MAX	4,430	115	94	121	131	843	2,420	2,280	912	8,090	9,310	555
MIN	88	94	81	75	79	93	149	157	128	251	150	125
AC-FT	40,090	5,990	5,310	5,350	5,140	12,580	45,340	30,450	15,530	100,300	61,620	11,880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2004, BY WATER YEAR (WY)

MEAN	223	106	103	101	113	104	138	182	678	589	147	273
MAX	861	459	1,314	877	1,745	1,188	935	1,171	8,992	8,637	1,002	4,721
(WY)	(1986)	(2003)	(1992)	(1992)	(1992)	(1992)	(1992)	(1980)	(1987)	(2002)	(2004)	(2002)
MIN	0.12	0.24	0.27	0.45	0.32	2.91	0.55	0.46	0.03	0.00	0.00	0.00
(WY)	(1991)	(1991)	(1991)	(1991)	(1990)	(1984)	(1984)	(1998)	(1998)	(1996)	(2000)	(2000)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1978 - 2004	
ANNUAL TOTAL	81,999		171,193			
ANNUAL MEAN	225		468		229	
HIGHEST ANNUAL MEAN					1,176	2002
LOWEST ANNUAL MEAN					7.06	1984
HIGHEST DAILY MEAN	6,320	Jul 12	9,310	Aug 27	31,500	Jul 10, 2002
LOWEST DAILY MEAN	41	Jun 9	75	Jan 13	0.00	Apr 16, 1984
ANNUAL SEVEN-DAY MINIMUM	43	May 28	77	Jan 9	0.00	Apr 22, 1984
MAXIMUM PEAK FLOW			9,750	Aug 27	33,000	Jul 10, 2002
MAXIMUM PEAK STAGE			26.33	Aug 27	30.29	Jul 10, 2002
ANNUAL RUNOFF (AC-FT)	162,600		339,600		165,800	
10 PERCENT EXCEEDS	184		902		276	
50 PERCENT EXCEEDS	102		151		28	
90 PERCENT EXCEEDS	58		83		0.24	

08206600 Frio River at Tilden, TX—Continued



08206600 Frio River at Tilden, TX—Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
MAR													
25...	1210	202	70	765	7.4	83	7.9	832	21.0	280	86.8	16.2	3.88
JUL													
08...	0940	5,430	30	759	3.5	47	7.9	394	30.0	170	57.5	5.80	8.47
AUG													
26...	1020	3,700	30	759	3.0	39	7.4	228	28.5	90	31.3	2.94	7.99
SEP													
23...	1220	137	40	760	7.0	88	8.0	1,870	26.5	570	162	39.8	3.89

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/d (70302)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)
MAR													
25...	60.1	31	154	186	1	103	<.2	13.2	92.7	481	262	.32	E.03n
JUL													
08...	10.7	12	151	183	<1	19.0	<.2	22.5	15.1	230	3,380	.50	<.04
AUG													
26...	7.88	15	123	148	<1	8.07	<.2	9.68	10.7	155	1,550	.80	E.02n
SEP													
23...	164	38	210	252	2	315d	.2	16.5	248d	1,100	407	.28	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Total nitrogen, water, fltrd, mg/L (00602)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)
MAR													
25...	--	--	2.68	--	E.006n	.153	.05	.05	3.0	<2	E.10n	E2n	64
JUL													
08...	--	--	.13	--	E.006n	.543	.18	.20	.62	2	E.16n	3	50
AUG													
26...	2.39	.54	.60	.184	.056	.797	.26	.29	1.4	2	E.11n	2	31
SEP													
23...	24.5	5.54	5.55d	.030	.009	.098	.03	.05	5.8	2	<.20	E2n	102

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recoverable, ug/L (71900)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)
MAR													
25...	<.06	<.04	1.0	.347	3.1r	E3n	<.08	13	1.6	<.02	--	1.1	2.67
JUL													
08...	<.06	<.04	<.8	.286	2.8	12	<.08	4	1.4	--	<.02	.7	1.34
AUG													
26...	<.06	<.04	<.8	.306	2.2	35	E.06n	3	1.2	<.02	--	.7	2.16
SEP													
23...	<.06	.12	<.8	.579	3.4	<6	<.08	43	2.6	<.02	--	1.1	1.89

08206600 Frio River at Tilden, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbofuran, wat flt 0.7u GF ug/L (49308)
MAR													
25...	<3	<.2	514	7	1.0	<.009	.04	<.02mc	<.006	E.026	E.01mc	E.044mc	<.006
JUL													
08...	<3	<.2	190	E4n	1.1	<.009	<.02	<.02mc	<.006	E.011	<.01mc	<.026mc	<.006
AUG													
26...	E1n	<.2	115	11	3.5	<.009	<.02	<.02mc	<.006	<.006	<.01mc	<.008mc	<.006
SEP													
23...	E1n	<.2	1,150	7	1.2	<.009	<.02	<.02mc	<.006	E.010	<.01mc	E.011mc	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	3-Ketocarbofuran, water, fltrd, ug/L (50295)	Acetochlor, water, fltrd, ug/L (49260)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	Alachlor, water, fltrd, ug/L (46342)	Aldicarb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldicarb sulfoxide, wat flt 0.7u GF ug/L (49314)	Aldicarb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Bendiocarb, water, fltrd, ug/L (50299)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)
MAR													
25...	<2mc	.008	<.007	.065	<.02mc	<.008mc	<.04mc	<.005	.397	<.050	<.03	<.010	<.004
JUL													
08...	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.059	<.050	<.03	<.010	<.004
AUG													
26...	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	<.010	<.050	<.03	<.010	<.004
SEP													
23...	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	<.007	<.050	<.03	<.010	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Bensulfuron, water, fltrd, ug/L (61693)	Bentazon, water, fltrd 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Butylate, water, fltrd, ug/L (04028)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (49309)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chloramben methyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiamino-s-triazine, wat flt ug/L (04039)
MAR													
25...	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc	<.010	<.01mc
JUL													
08...	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc	<.010	<.04mnc
AUG													
26...	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc	<.010	<.04mnc
SEP													
23...	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc	<.010	E.01mtc

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cyanazine, water, fltrd, ug/L (04041)	Cycloate, water, fltrd, ug/L (04031)	Dacthal monoacid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dieldrin, water, fltrd, ug/L (39381)
MAR													
25...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	.005	<.01	<.01	<.009
JUL													
08...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01	<.01	<.009
AUG													
26...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01	<.01	<.009
SEP													
23...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01	<.01	<.009

08206600 Frio River at Tilden, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen-amid, water, fltrd, ug/L (04033)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Flumet-sulam, water, fltrd, ug/L (61694)
MAR													
25...	<.01	<.03	<.02	<.01	.006	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc
JUL													
08...	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc
AUG													
26...	<.01	<.03	<.02	.04	<.004	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc
SEP													
23...	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fluo-meturon water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala-thion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd 0.7u GF ug/L (38501)
MAR													
25...	<.03	<.003	<.02mc	<.02mc	<.011	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc
JUL													
08...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc
AUG													
26...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc
SEP													
23...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Meth-omyl, water, fltrd 0.7u GF ug/L (49296)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Metsul-furon, water, fltrd, ug/L (61697)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chloro-phenyl) -N-' methyl-urea, ug/L (61692)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico-sul-furon, water, fltrd, ug/L (50364)	Norflur azon, water, fltrd 0.7u GF ug/L (49293)	Ory-zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)
MAR													
25...	<.004mc	<.015	.038	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01
JUL													
08...	<.004mc	<.015	.021	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01
AUG													
26...	<.004mc	<.015	<.013	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01
SEP													
23...	<.004mc	<.015	<.013	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	p,p-' DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Pic-loram, water, fltrd 0.7u GF ug/L (49291)	Prome-ton, water, fltrd, ug/L (04037)	Propy-zamide, water, fltrd 0.7u GF ug/L (82676)	Propa-chlor, water, fltrd, ug/L (04024)	Pro-panil, water, fltrd 0.7u GF ug/L (82679)	Propar-gite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propi-cona-zole, water, fltrd, ug/L (50471)
MAR													
25...	<.003	<.010	<.004	<.022	<.011	<.02	.01	E.008	<.025	<.011	<.02	<.010	<.02
JUL													
08...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02	<.010	<.02
AUG													
26...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02	<.010	<.02
SEP													
23...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02	<.010	<.02

08206600 Frio River at Tilden, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Pro-poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Sima-zine, water, fltrd, ug/L (04035)	Sulfo-met-ruron, water, fltrd, ug/L (50337)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terba-cil, water, fltrd, ug/L (04032)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-benuron water, fltrd, ug/L (61159)	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)
MAR													
25...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	.04	<.009
JUL													
08...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009
AUG													
26...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009
SEP													
23...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Uranium natural water, fltrd, ug/L (22703)
MAR	
25...	.96
JUL	
08...	.21
AUG	
26...	.09
SEP	
23...	1.70

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
c -- See laboratory comment
d -- Diluted sample: method hi range exceeded
m -- Value is highly variable by this method
n -- Below the LRL and above the LT-MDL
r -- Value verified by rerun, same method
t -- Below the long-term MDL

Null value qualifier codes used in this table:
u -- Unable to determine-matrix interference

08206700 San Miguel Creek near Tilden, TX

LOCATION.--Lat 28°35'14", long 98°32'44", Mcmullen County, Hydrologic Unit 12110109, on left bank 25 ft downstream from State Highway 16, 0.3 mi upstream from mouth of Bruce Branch, 0.9 mi downstream from mouth of Far Live Oak Creek, 3.0 mi upstream from San Patricio Creek, 7.0 mi downstream from Clear Creek, 8.7 mi north of Tilden, and 12.9 mi upstream from mouth.

DRAINAGE AREA.--783 mi^2.

PERIOD OF RECORD.--Jan. 1964 to current year. Water-quality records: Chemical data: July 1978 to Sept. 1984. Biochemical data: July 1978 to Sept. 1984.

REVISED RECORDS.--WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 242.95 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation. There are five diversions above station, but amounts are unknown. At times, water from Bexar-Medina-Atascosa Counties Water Improvement District No. 1 system enters San Miguel Creek basin via Chacon Creek 52 mi upstream (amounts unknown). No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1919, 32.6 ft in 1942; stage of 1919 flood not known, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	1.4	1.2	1.4	2.4	2.3	1.2	189	1.7	2,030	16	302
2	6.0	1.6	1.4	1.2	2.3	4.4	1.9	104	1.3	547	9.7	242
3	5.0	1.9	1.6	1.6	2.1	4.3	34	68	0.85	609	6.9	68
4	4.4	1.8	1.8	1.5	2.0	3.1	19	182	0.74	316	5.5	36
5	4.0	1.4	1.6	e1.5	2.0	2.6	689	99	0.58	143	4.8	20
6	3.6	0.98	1.6	e1.5	1.9	2.3	1,130	60	0.47	105	7.9	13
7	3.3	0.61	1.6	e1.5	1.8	2.0	374	42	0.79	84	6.2	10
8	3.8	0.45	1.7	e1.6	1.7	1.7	509	32	1.3	68	5.2	7.2
9	4.5	0.35	1.6	e1.6	1.6	1.5	183	26	30	56	4.4	5.9
10	5.4	0.36	1.6	e1.6	2.3	1.2	94	21	500	47	3.9	6.5
11	6.6	0.84	1.7	e1.6	2.2	1.1	112	22	870	41	3.7	6.2
12	483	1.2	1.6	e1.6	2.2	1.1	205	21	183	36	6.6	5.3
13	367	1.1	2.4	1.6	2.2	37	229	17	102	31	6.2	4.6
14	135	0.79	2.0	1.8	2.1	7.2	210	57	55	28	3.4	4.3
15	58	0.94	2.1	2.2	2.0	3.6	106	28	33	24	2.6	5.5
16	28	0.97	2.3	2.6	2.0	2.3	60	16	22	21	2.2	5.3
17	15	1.2	2.4	3.1	1.9	1.8	41	10	15	19	1.9	4.8
18	8.9	1.4	2.5	3.2	1.7	11	30	8.1	11	17	1.7	4.4
19	5.6	1.5	1.7	2.8	1.6	72	22	7.1	8.6	15	1.6	3.6
20	4.1	1.3	1.2	2.2	1.8	38	17	6.1	6.7	13	1.3	3.3
21	3.4	1.1	1.3	1.9	1.8	24	14	5.4	5.3	11	1.2	2.9
22	2.8	0.97	1.3	2.0	1.9	16	11	4.8	141	10	1.3	2.6
23	2.3	1.3	1.3	2.2	1.9	11	9.1	4.4	675	9.3	70	3.1
24	2.0	1.4	2.0	3.9	4.0	8.1	27	4.0	562	9.4	181	6.2
25	1.8	1.3	1.9	4.8	4.0	6.3	200	3.5	845	9.1	62	2.2
26	1.7	1.3	1.5	4.5	3.2	5.0	420	3.1	527	7.5	22	1.9
27	1.8	1.3	1.6	3.3	2.5	4.2	558	2.7	368	7.0	11	1.9
28	1.8	1.3	1.7	2.5	2.1	3.3	349	2.6	271	7.0	6.8	2.6
29	2.2	1.2	1.6	2.2	2.1	3.0	158	2.3	136	6.5	5.9	2.8
30	1.9	1.3	1.6	2.1	---	2.6	100	2.1	1,150	42	11	2.3
31	1.4	---	1.4	2.4	---	2.0	---	1.9	---	21	4.8	---
TOTAL	1,181.3	34.56	52.8	69.5	63.3	286.0	5,913.2	1,052.1	6,524.33	4,389.8	478.7	786.4
MEAN	38.1	1.15	1.70	2.24	2.18	9.23	197	33.9	217	142	15.4	26.2
MAX	483	1.9	2.5	4.8	4.0	72	1,130	189	1,150	2,030	181	302
MIN	1.4	0.35	1.2	1.2	1.6	1.1	1.2	1.9	0.47	6.5	1.2	1.9
AC-FT	2,340	69	105	138	126	567	11,730	2,090	12,940	8,710	950	1,560

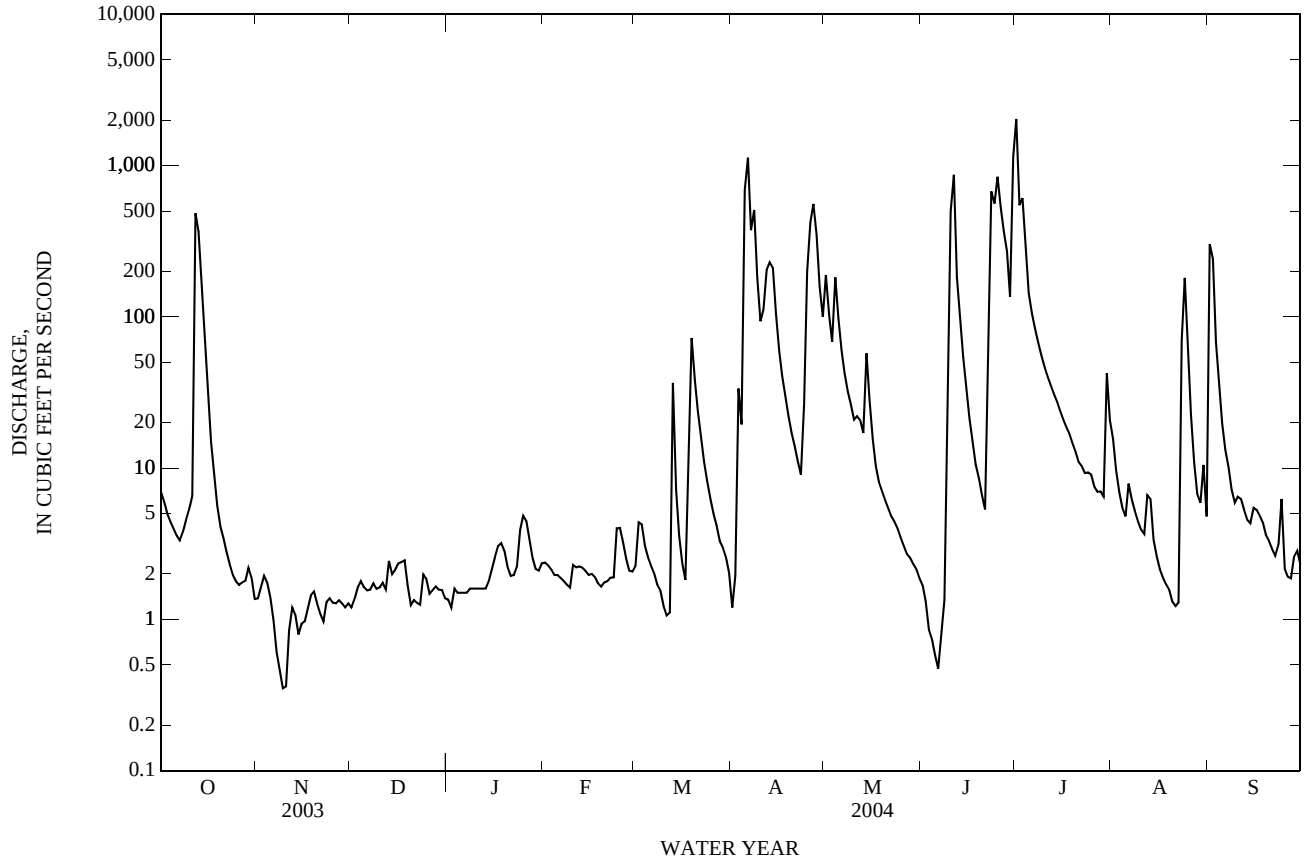
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	78.1	23.9	15.7	24.2	22.5	9.80	56.4	108	96.6	84.0	48.0	123
MAX	610	286	226	641	352	78.0	1,065	900	690	1,828	741	1,755
(WY)	(2003)	(1993)	(1987)	(1968)	(1992)	(1992)	(1977)	(1980)	(1987)	(2002)	(1980)	(2002)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1980)	(1995)	(1989)	(1989)	(1995)	(1996)	(1996)	(1971)	(1967)	(1996)	(1991)	(1999)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	11,296.42		20,831.99			
ANNUAL MEAN	30.9		56.9		58.6	
HIGHEST ANNUAL MEAN					309	2002
LOWEST ANNUAL MEAN					2.43	1984
HIGHEST DAILY MEAN	1,100	Jul 16	2,030	Jul 1	22,400	Sep 10, 2002
LOWEST DAILY MEAN	0.13	Aug 30	0.35	Nov 9	0.00	Feb 1, 1964
ANNUAL SEVEN-DAY MINIMUM	0.17	Aug 24	0.68	Nov 6	0.00	Feb 7, 1964
MAXIMUM PEAK FLOW			2,730	Jul 1	29,500	Sep 10, 2002
MAXIMUM PEAK STAGE			16.68	Jul 1	31.64	Sep 10, 2002
ANNUAL RUNOFF (AC-FT)	22,410		41,320		42,470	
10 PERCENT EXCEEDS	53		138		39	
50 PERCENT EXCEEDS	7.1		3.7		1.9	
90 PERCENT EXCEEDS	1.3		1.3		0.00	

e Estimated

08206700 San Miguel Creek near Tilden, TX—Continued



08206900 Choke Canyon Reservoir near Three Rivers, TX

LOCATION.--Lat 28°29'01", long 98°14'44", Live Oak County, Hydrologic Unit 12110108, at Choke Canyon Dam on Frio River, 3.9 mi upstream from Atascosa River, and 4.0 mi west of Three Rivers.

DRAINAGE AREA.--5,490 mi^2.

WATER-STAGE RECORDS

PERIOD OF RECORD.--Oct. 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records good. The reservoir is formed by a rolled earthfill dam, 3.5 mi long. The dam was completed and deliberate impoundment began on Oct. 12, 1982. The spillway has seven radial gates, each 50 ft long and 24 ft high. Water for municipal and industrial use to meet the needs of the Coastal Bend area is released downstream through a 5.0- x 5.0-foot square slide gate. The dam is owned by the City of Corpus Christi. Conservation pool storage is 695,271 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	241.1
Top of spillway gates	222.5
Crest of spillway	199.5
Lowest gated outlet (invert)	136.3

COOPERATION.--Capacity table computed June 1, 1983, provided by the City of Corpus Christi. Prior to Oct. 1, 1999, elevation and reservoir contents record provided by the City of Corpus Christi.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 733,100 acre-ft June 21, 1987, elevation, 222.10 ft; minimum daily, 4,500 acre-ft Oct. 1-9, 1984, elevation, 156.91 ft.

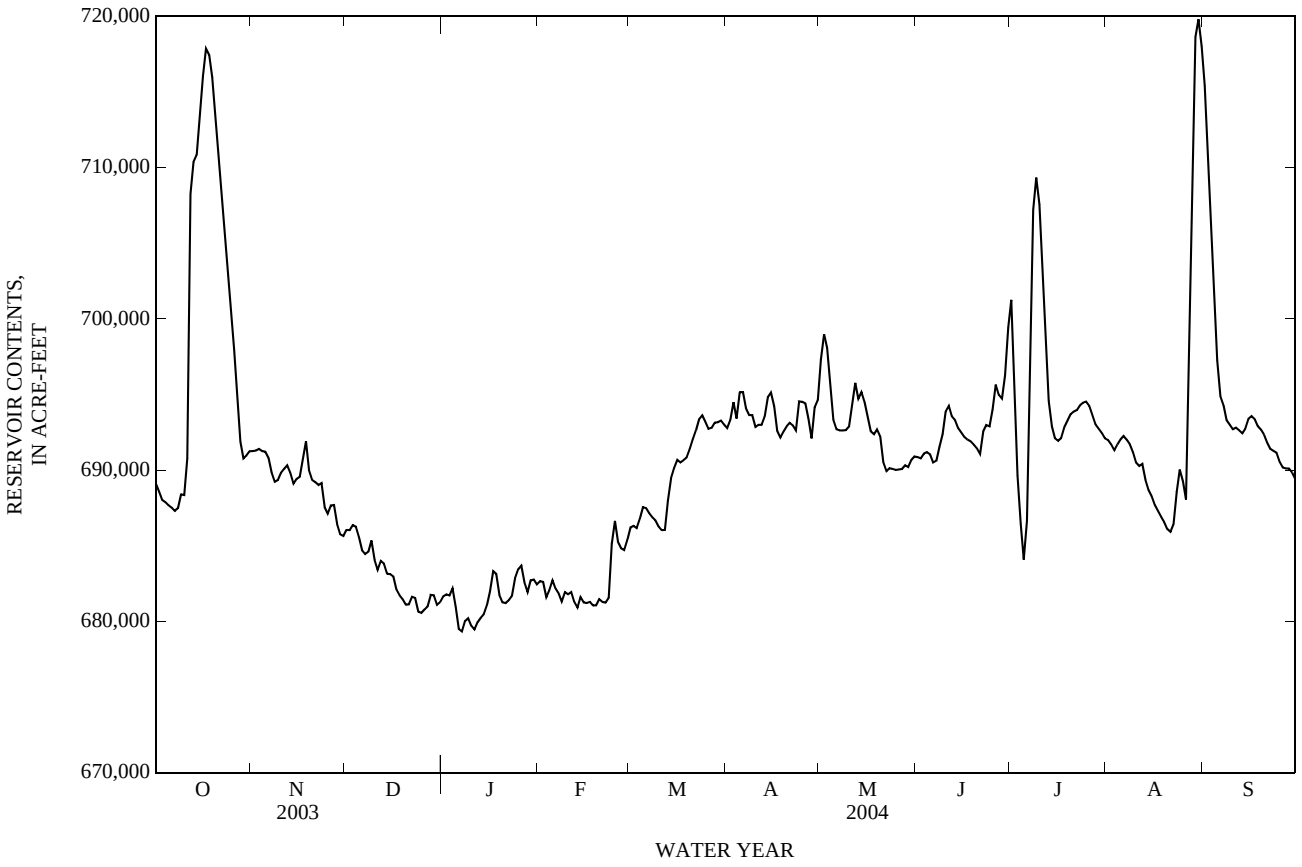
EXTREMES FOR CURRENT YEAR.--Maximum contents, 721,000 acre-ft, Aug. 29, 30, elevation, 221.64 ft; minimum contents, 678,000 acre-ft, on Feb. 13, elevation, 219.98 ft.

RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	689,000	691,000	686,000	682,000	683,000	686,000	693,000	697,000	691,000	701,000	692,000	715,000
2	689,000	691,000	686,000	682,000	683,000	686,000	693,000	699,000	691,000	694,000	692,000	712,000
3	688,000	691,000	686,000	682,000	682,000	686,000	694,000	698,000	691,000	690,000	691,000	707,000
4	688,000	691,000	686,000	682,000	682,000	687,000	693,000	696,000	691,000	686,000	692,000	702,000
5	688,000	691,000	686,000	681,000	683,000	688,000	695,000	693,000	691,000	684,000	692,000	697,000
6	688,000	691,000	685,000	680,000	682,000	687,000	695,000	693,000	691,000	687,000	692,000	695,000
7	687,000	690,000	684,000	679,000	682,000	687,000	694,000	693,000	691,000	698,000	692,000	694,000
8	687,000	689,000	685,000	680,000	681,000	687,000	694,000	693,000	692,000	707,000	692,000	693,000
9	688,000	689,000	685,000	680,000	682,000	687,000	694,000	693,000	692,000	709,000	691,000	693,000
10	688,000	690,000	684,000	680,000	682,000	686,000	693,000	693,000	694,000	708,000	691,000	693,000
11	691,000	690,000	683,000	679,000	682,000	686,000	693,000	694,000	694,000	704,000	690,000	693,000
12	708,000	690,000	684,000	680,000	681,000	686,000	693,000	696,000	694,000	699,000	690,000	693,000
13	710,000	690,000	684,000	680,000	681,000	688,000	694,000	695,000	693,000	695,000	689,000	692,000
14	711,000	689,000	683,000	680,000	682,000	689,000	695,000	695,000	693,000	693,000	689,000	693,000
15	713,000	689,000	683,000	681,000	681,000	690,000	695,000	695,000	692,000	692,000	688,000	693,000
16	716,000	690,000	683,000	682,000	681,000	691,000	694,000	694,000	692,000	692,000	688,000	694,000
17	718,000	691,000	682,000	683,000	681,000	691,000	693,000	693,000	692,000	692,000	687,000	693,000
18	717,000	692,000	682,000	683,000	681,000	691,000	692,000	692,000	692,000	693,000	687,000	693,000
19	716,000	690,000	681,000	682,000	681,000	691,000	693,000	693,000	692,000	693,000	687,000	693,000
20	714,000	689,000	681,000	681,000	681,000	691,000	693,000	692,000	691,000	694,000	686,000	692,000
21	712,000	689,000	681,000	681,000	681,000	692,000	693,000	691,000	691,000	694,000	686,000	692,000
22	710,000	689,000	682,000	681,000	681,000	693,000	693,000	690,000	693,000	694,000	686,000	691,000
23	708,000	689,000	682,000	682,000	682,000	693,000	693,000	690,000	693,000	694,000	689,000	691,000
24	705,000	688,000	681,000	683,000	685,000	694,000	695,000	690,000	693,000	694,000	690,000	691,000
25	702,000	687,000	681,000	683,000	687,000	693,000	695,000	690,000	694,000	695,000	689,000	691,000
26	698,000	688,000	681,000	684,000	685,000	693,000	694,000	690,000	696,000	694,000	688,000	690,000
27	695,000	688,000	681,000	683,000	685,000	693,000	693,000	690,000	695,000	694,000	697,000	690,000
28	692,000	686,000	682,000	682,000	685,000	693,000	692,000	690,000	695,000	693,000	711,000	690,000
29	691,000	686,000	682,000	683,000	685,000	693,000	694,000	690,000	696,000	693,000	719,000	690,000
30	691,000	686,000	681,000	683,000	---	693,000	695,000	691,000	699,000	692,000	720,000	689,000
31	691,000	---	681,000	682,000	---	693,000	---	691,000	---	692,000	718,000	---
MEAN	700,000	689,000	683,000	681,000	682,000	690,000	694,000	693,000	693,000	695,000	693,000	694,000
MAX	718,000	692,000	686,000	684,000	687,000	694,000	695,000	699,000	699,000	709,000	720,000	715,000
MIN	687,000	686,000	681,000	679,000	681,000	686,000	692,000	690,000	691,000	684,000	686,000	689,000

CAL YR 2003 MEAN 689,000 MAX 718,000 MIN 679,000
WTR YR 2004 MEAN 691,000 MAX 720,000 MIN 679,000

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued



08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Mar. 1999 to current year.
PESTICIDE DATA: Mar. 1999 to current year.

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Reservoir storage acre-ft (00054)	Sampling depth, feet (00003)	Transparency Secchi disc, meters (00078)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
MAR													
16...	0715	690,000	1.00	1.40	762	10.2	106	8.6	540	17.0	180	55.4	10.2
MAR													
16-16	0715	--	--	--	--	--	--	--	--	--	--	--	--
16...	0717	--	10.0	--	762	9.3	95	8.4	542	16.5	--	--	--
16...	0719	--	20.0	--	762	9.2	94	8.3	542	16.5	--	--	--
16...	0721	--	30.0	--	762	8.9	91	8.3	543	16.5	--	--	--
16...	0723	--	40.0	--	762	8.8	90	8.3	542	16.5	--	--	--
16...	0725	--	50.0	--	762	7.8	78	8.1	541	15.5	--	--	--
16...	0727	--	60.0	--	762	7.1	71	8.0	541	15.0	--	--	--
16...	0729	--	70.0	--	762	5.6	56	7.8	544	15.0	--	--	--
16...	0731	--	84.0	--	762	5.1	51	7.8	544	15.0	180	56.5	10.2
MAY													
11...	0700	693,000	1.00	1.40	758	8.1	95	8.4	569	23.0	170	51.1	9.05
MAY													
11-11	0700	--	--	--	--	--	--	--	--	--	--	--	--
11...	0702	--	10.0	--	758	7.6	88	8.3	569	22.5	--	--	--
11...	0704	--	20.0	--	758	7.3	84	8.3	570	22.0	--	--	--
11...	0706	--	30.0	--	758	6.8	78	8.2	570	22.0	--	--	--
11...	0708	--	40.0	--	758	6.5	75	8.2	570	22.0	--	--	--
11...	0710	--	50.0	--	758	3.4	38	7.7	569	21.0	--	--	--
11...	0712	--	60.0	--	758	1.6	18	7.6	567	20.5	--	--	--
11...	0714	--	70.0	--	758	E.1	--	7.4	565	19.0	--	--	--
11...	0716	--	84.0	--	758	E.3	--	7.3	564	19.0	170	52.3	8.91
JUL													
20...	0710	694,000	1.00	1.46	760	8.0	105	8.6	593	29.0	180	52.6	10.6
JUL													
20-20	0710	--	--	--	--	--	--	--	--	--	--	--	--
20...	0712	--	10.0	--	760	8.1	106	8.6	593	29.0	--	--	--
20...	0714	--	20.0	--	760	7.4	96	8.5	595	28.5	--	--	--
20...	0716	--	30.0	--	760	6.3	82	8.3	596	28.5	--	--	--
20...	0718	--	40.0	--	760	E.1	--	7.5	597	27.0	--	--	--
20...	0720	--	50.0	--	760	E.1	--	7.3	595	25.0	--	--	--
20...	0722	--	60.0	--	760	E.1	--	7.2	597	23.5	--	--	--
20...	0724	--	70.0	--	760	E.1	--	7.2	599	22.5	--	--	--
20...	0726	--	83.0	--	760	E.1	--	7.1	607	22.0	190	57.7	10.2

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar-bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon-ate, wat flt incrm. titr., field, mg/L (00452)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti-tuents mg/L (70301)	Alum-inum, water, fltrd, ug/L (01106)	Anti-mony, water, fltrd, ug/L (01095)
MAR													
16...	7.54	46.2	35	118	141	2	64.1	<.2	10.8	51.2	317	<2	.26
MAR													
16-16	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	7.53	45.6	34	120	145	<1	64.0	<.2	12.2	50.7	318	<2	.38
MAY													
11...	6.96	45.8	36	--q	--q	--q	70.0	<.2	10.6	54.1	--	Mn	.22
MAY													
11-11	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	6.99	44.3	35	--q	--q	--q	67.2	<.2	13.3	48.7	--	E1n	.20
JUL													
20...	7.44	51.5	38	104	123	2	78.6	<.2	12.1	59.8	336	2	.23
JUL													
20-20	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	7.14	45.9	34	140	170	<1	70.1	<.2	15.9	47.5	339	4	<.20

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Molybdenum, water, fltrd, ug/L (01060)
MAR													
16...	2	64	<.06	<.04	<.8	.173	1.6	<6	E.04n	15	.3	<.02	1.0
MAR													
16-16	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	E1n	73	<.06	<.04	<.8	.189	2.1	<6	<.08	15	29.1	<.02	1.0
MAY													
11...	2	70	<.06	<.04	<.8	.182	1.4	<6	<.08	15	1.7	<.02	1.0
MAY													
11-11	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	4	72	<.06	<.04	<.8	.394	1.2	35	E.05n	15	699	<.02	1.0
JUL													
20...	4	64	<.06	<.04	<.8	.219	1.3	<6	E.05n	14	2.3	<.02	1.0
JUL													
20-20	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	2	88	<.06	<.04	<.8	.293	.6	51	<.08	16	499	<.02	E.2n

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nickel, water, fltrd, ug/L (01065)	Selen-ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Stront-ium, water, fltrd, ug/L (01080)	Vanad-ium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Di-ethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)
MAR													
16...	1.02	<3	<.2	315	E3n	1.4	--	--	--	--	--	--	--
MAR													
16-16	--	--	--	--	--	--	--	<.009	<.02	<.02mc	<.006	E.007	<.04mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
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16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	1.00	<3	<.2	319	E3n	6.8	--	--	--	--	--	--	--
MAY													
11...	.34	<3	<.2	316	E3n	1.0	<7	--	--	--	--	--	--
MAY													
11-11	--	--	--	--	--	--	--	<.009	<.02	<.02mc	<.006	E.009	<.01mc
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	<7	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	.60	<3	<.2	317	<5	8.9	--	--	--	--	--	--	--
JUL													
20...	1.59	<3	<.2	338	E4n	2.3	--	--	--	--	--	--	--
JUL													
20-20	--	--	--	--	--	--	--	<.009	.03	<.02mc	<.006	E.009	<.01mc
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
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20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	1.23	<3	--u	332	<5	1.4	--	--	--	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbo-furan, wat flt 0.7u GF ug/L (49308)	3-Keto-carbo-furan, water, fltrd, ug/L (50295)	Aceto-chlor, water, fltrd, ug/L (49260)	Aci-fluor-fen, water, fltrd 0.7u GF ug/L (49315)	Ala-chlor, water, fltrd, ug/L (46342)	Aldi-carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF ug/L (49314)	Aldi-carb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Bendio-carb, water, fltrd, ug/L (50299)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	E.017mc	<.006	<2mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.027	<.050	<.03
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
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MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	E.017mc	<.006	Mmc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.036	<.050	<.03
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	E.051mc	<.006	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.072	<.050	<.03
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensul-furon, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Brom-oxynil, water, fltrd 0.7u GF ug/L (49311)	Butyl-ate, water, fltrd, ug/L (04028)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd 0.7u GF ug/L (49310)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (49309)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-amben methyl ester, water, fltrd, ug/L (61188)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
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MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc
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JUL													
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JUL													
20-20	<.010	<.004	<.02	E.01mnc	<.03mc	<.02mc	<.004	--r	<.03	<.041	<.006	<.020	<.02mc
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Chlori-muron, water, fltrd, ug/L (50306)	Chloro-di-amino-s-tri-azine, wat flt ug/L (04039)	Chloro-thalo-nil, water, fltrd 0.7u GF ug/L (49306)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Clopyr-alid, water, fltrd 0.7u GF ug/L (49305)	Cyana-zine, water, fltrd, ug/L (04041)	Cyclo-ate, water, fltrd, ug/L (04031)	Dacthal mono-acid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF ug/L (38442)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.010	<.01mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.010	<.01
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MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.010	<.04mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.010	<.04mnc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	E.008	<.01
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Di-chlor-prop, water, fltrd 0.7u GF ug/L (49302)	Diel-drin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen-amid, water, fltrd, ug/L (04033)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
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MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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JUL													
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JUL													
20-20	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fipronil, water, fltrd, ug/L (62166)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
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MAY													
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MAY													
11-11	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc
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JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd 0.7u GF ug/L (38501)	Meth-omyl, water, fltrd 0.7u GF ug/L (49296)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Metsul-furon, water, fltrd, ug/L (61697)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chloro-phenyl) -N-' methyl-urea, ug/L (61692)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico-sul-furon, water, fltrd, ug/L (50364)	Norflur azon, water, fltrd 0.7u GF ug/L (49293)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.02	<.008mc	<.004mc	<.015	E.008n	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
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MAY													
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MAY													
11-11	<.02	<.008mc	<.004mc	<.015	E.011n	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc
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JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.02	<.008mc	<.004mc	<.015	.015	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	.01	<.004	<.025	<.011	<.02
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
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MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.02	<.01	<.005	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propham water fltrd 0.7u GF ug/L (49236)	Propi-cona-zole, water, fltrd, ug/L (50471)	Pro-poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Sima-zine, water, fltrd, ug/L (04035)	Sulfo-met-ruron, water, fltrd, ug/L (50337)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terba-cil, water, fltrd, ug/L (04032)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-benuron water, fltrd, ug/L (61159)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
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MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206890 -- CHOKE CANYON RES SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Uranium natural water, fltrd, ug/L (22703)
MAR			
16...	--	--	.53
MAR			
16-16	<.02	E.005	--
16...	--	--	--
16...	--	--	--
16...	--	--	--
16...	--	--	--
16...	--	--	--
16...	--	--	--
16...	--	--	--
16...	--	--	.53
MAY			
11...	--	--	.56
MAY			
11-11	<.02	<.009	--
11...	--	--	--
11...	--	--	--
11...	--	--	--
11...	--	--	--
11...	--	--	--
11...	--	--	--
11...	--	--	--
11...	--	--	.51
JUL			
20...	--	--	.52
JUL			
20-20	<.02	<.009	--
20...	--	--	--
20...	--	--	--
20...	--	--	--
20...	--	--	--
20...	--	--	--
20...	--	--	--
20...	--	--	--
20...	--	--	.28

08206880 -- CHOKE CANYON RES SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sam-pling depth, feet (00003)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)
MAY								
11...	0735	1.00	758	8.5	103	8.5	553	24.5
11...	0737	10.0	758	8.5	103	8.5	553	24.5
11...	0739	20.0	758	8.3	99	8.4	558	24.0
11...	0741	30.0	758	7.3	87	8.3	563	23.5
11...	0743	38.0	758	4.2	49	7.8	569	22.5
JUL								
20...	1015	1.00	760	8.4	113	8.6	575	30.5
20...	1017	10.0	760	8.5	113	8.6	581	30.0
20...	1019	20.0	760	5.4	71	8.1	595	29.0
20...	1021	30.0	760	1.0	13	7.5	599	28.5
20...	1023	38.0	760	1.2	16	7.5	598	28.5

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206870 -- CHOKE CANYON RES SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sampling depth, feet (00003)	Transparency Secchi disc, meters (00078)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Oil and grease, water, unfltrd freon extract mg/L (00556)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)
MAR													
16...	0920	1.00	1.37	765	9.3	97	8.4	569	17.5	--	--	--	--
MAR													
16-16	0920	--	--	--	--	--	--	--	--	--	<.009	<.02	<.02mc
16...	0922	10.0	--	765	8.8	92	8.3	573	17.5	--	--	--	--
16...	0924	20.0	--	765	8.4	88	8.3	574	17.5	--	--	--	--
16...	0926	30.0	--	765	8.8	91	8.4	553	17.0	--	--	--	--
16...	0928	40.0	--	765	8.0	82	8.2	571	16.5	--	--	--	--
16...	0930	45.0	--	765	7.1	73	8.0	609	16.5	--	--	--	--
MAY													
11...	0759	1.00	1.04	759	7.9	94	8.3	579	23.5	<7	--	--	--
MAY													
11-11	0759	--	--	--	--	--	--	--	--	--	<.009	.03	<.02mc
11...	0801	10.0	--	759	7.9	93	8.3	580	23.0	--	--	--	--
11...	0803	20.0	--	759	7.3	86	8.2	598	23.0	--	--	--	--
11...	0805	30.0	--	759	6.5	76	8.1	621	23.0	--	--	--	--
11...	0807	40.0	--	759	4.7	55	7.9	648	22.5	--	--	--	--
11...	0809	50.0	--	759	3.2	37	7.7	639	22.5	--	--	--	--
11...	0811	59.0	--	759	1.8	21	7.5	649	22.0	--	--	--	--
11...	0813	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	0820	1.00	1.34	760	6.4	84	8.4	576	29.5	--	--	--	--
JUL													
20-20	0820	--	--	--	--	--	--	--	--	--	<.009	.03	<.02mc
20...	0822	10.0	--	760	6.3	83	8.4	576	29.5	--	--	--	--
20...	0824	20.0	--	760	4.4	58	8.1	577	29.5	--	--	--	--
20...	0826	30.0	--	760	E.7	--	7.5	579	29.0	--	--	--	--
20...	0828	40.0	--	760	E.1	--	7.4	598	28.0	--	--	--	--
20...	0830	50.0	--	760	E.3	--	7.4	579	28.5	--	--	--	--
20...	0832	59.0	--	760	E.2	--	7.4	618	26.5	--	--	--	--

08206870 -- CHOKE CANYON RES SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbofuran, wat flt 0.7u GF ug/L (49308)	3-Ketocarbofuran, water, fltrd, ug/L (50295)	Acetochlor, water, fltrd, ug/L (49260)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	Alachlor, water, fltrd, ug/L (46342)	Aldicarb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldicarb sulfoxide, wat flt 0.7u GF ug/L (49314)	Aldicarb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.006	E.007	<.04mc	E.019mc	<.006	<2mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.006	E.012	<.01mc	E.025mc	<.006	Mmc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
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JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.006	E.015	<.01mc	E.051mc	<.006	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206870 -- CHOKE CANYON RES SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Bendio-carb, water, fltrd, ug/L (50299)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensul-furon, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Brom-oxynil, water, fltrd 0.7u GF ug/L (49311)	Butyl-ate, water, fltrd, ug/L (04028)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd 0.7u GF ug/L (49310)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	.025	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041
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11-11	.101	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041
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20-20	.083	<.050	<.03	<.010	<.004	<.02	E.01mnc	<.03mc	<.02mc	<.004	--r	<.03	<.041
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08206870 -- CHOKE CANYON RES SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Carbo-furan, water, fltrd 0.7u GF ug/L (49309)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-amben methyl ester, water, fltrd, ug/L (61188)	Chlori-muron, water, fltrd, ug/L (50306)	Chloro-di-amino-s-tri-azine, wat flt ug/L (04039)	Chloro-thalo-nil, water, fltrd 0.7u GF ug/L (49306)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Clopyr-alid, water, fltrd 0.7u GF ug/L (49305)	Cyana-zine, water, fltrd, ug/L (04041)	Cyclo-ate, water, fltrd, ug/L (04031)	Dacthal mono-acid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)
MAR													
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MAR													
16-16	<.006	<.020	<.02mc	<.010	<.01mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003
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MAY													
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MAY													
11-11	<.006	<.020	<.02mc	<.010	<.04mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003
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JUL													
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20-20	<.006	<.020	<.02mc	<.010	<.04mnc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206870 -- CHOKE CANYON RES SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dieldrin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)
MAR													
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MAR													
16-16	<.012	<.010	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03
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MAY													
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MAY													
11-11	<.012	<.005	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	.012	<.03
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JUL													
20-20	<.012	E.012	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03
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08206870 -- CHOKE CANYON RES SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)
MAR													
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MAR													
16-16	<.029	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035
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MAY													
11-11	<.029	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035
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JUL													
20-20	<.029	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206870 -- CHOKE CANYON RES SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Malathion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Metalaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Metsulfuron, water, fltrd, ug/L (61697)	Molinate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chlorophenyl) -N-' methylurea, ug/L (61692)	Napropamide, water, fltrd 0.7u GF ug/L (82684)
MAR													
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MAR													
16-16	<.027	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	E.008n	<.006	<.03mc	<.003	<.02	<.007
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MAY													
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MAY													
11-11	<.027	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	.035	<.006	<.03mc	<.003	<.02	<.007
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JUL													
20-20	<.027	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	.019	<.006	<.03mc	<.003	<.02	<.007
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08206870 -- CHOKE CANYON RES SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Neburon water, fltrd 0.7u GF ug/L (49294)	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.01	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004
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MAY													
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MAY													
11-11	<.01	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004
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JUL													
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JUL													
20-20	<.01	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004
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08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206870 -- CHOKE CANYON RES SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometuron, water, fltrd, ug/L (50337)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbacil, water, fltrd, ug/L (04032)	Terbufos, water, fltrd 0.7u GF ug/L (82675)
MAR													
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MAR													
16-16	<.025	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02
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MAY													
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MAY													
11-11	<.025	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02
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JUL													
20-20	<.025	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02
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08206870 -- CHOKE CANYON RES SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Tribenuron water, fltrd, ug/L (61159)	Triclopyr, water, fltrd 0.7u GF ug/L (49235)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Carbophenothion, bed sedimnt ug/kg (39787)	Diazinon, bed sedimnt ug/kg (39571)	Ethion, bed sedimnt ug/kg (39399)	Malathion, bed sedimnt ug/kg (39531)	Methyl parathion, bed sedimnt ug/kg (39601)	Parathion, bed sedimnt ug/kg (39541)
MAR											
16...	--	--	--	--	--	--	--	--	--	--	--
MAR											
16-16	<.010	<.002	--u	<.02	<.009	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
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16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11-11	<.010	<.002	--u	<.02	<.009	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0
JUL											
20...	--	--	--	--	--	--	--	--	--	--	--
JUL											
20-20	<.010	<.002	--u	<.02	<.009	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206860 -- CHOKE CANYON RES SITE DC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)
MAR								
16...	1025	1.00	765	9.9	105	8.6	550	18.5
16...	1027	10.0	765	9.3	98	8.5	551	18.0
16...	1029	20.0	765	8.9	93	8.4	557	17.5
16...	1031	31.0	765	8.0	83	8.3	558	17.5
MAY								
11...	0900	1.00	757	8.5	103	8.5	585	24.5
11...	0902	10.0	757	8.5	103	8.5	585	24.5
11...	0904	20.0	757	8.1	97	8.5	588	24.0
11...	0906	33.0	757	7.0	83	8.2	590	23.5
JUL								
20...	0915	1.00	760	8.3	112	8.7	579	31.0
20...	0917	10.0	760	8.2	111	8.7	579	31.0
20...	0919	20.0	760	7.0	93	8.5	575	30.0
20...	0921	32.0	760	E.3	--	7.3	577	29.0

08206850 -- CHOKE CANYON RES SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sampling depth, feet (00003)	Transparency Secchi disc, meters (00078)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)
MAR													
16...	0945	1.00	1.40	765	9.4	100	8.5	558	18.5	--	--	--	--
MAR													
16-16	0945	--	--	--	--	--	--	--	--	<.009	<.02	<.02mc	<.006
16...	0947	10.0	--	765	8.2	86	8.3	584	18.0	--	--	--	--
16...	0949	20.0	--	765	8.3	87	8.3	582	17.5	--	--	--	--
16...	0951	30.0	--	765	8.1	84	8.3	579	17.5	--	--	--	--
16...	0953	38.0	--	765	6.7	70	8.1	578	17.5	--	--	--	--
MAY													
11...	0844	1.00	1.34	756	8.3	99	8.4	597	23.5	--	--	--	--
MAY													
11-11	0844	--	--	--	--	--	--	--	--	<.009	.02	<.02mc	<.006
11...	0846	10.0	--	756	7.9	93	8.4	603	23.0	--	--	--	--
11...	0848	20.0	--	756	6.3	74	8.1	622	23.0	--	--	--	--
11...	0850	30.0	--	756	5.6	65	8.0	606	22.5	--	--	--	--
11...	0852	39.0	--	756	3.8	44	7.8	599	22.5	--	--	--	--
JUL													
20...	0855	1.00	1.22	760	8.7	116	8.7	561	30.0	--	--	--	--
JUL													
20-20	0855	--	--	--	--	--	--	--	--	<.009	.03	<.02mc	<.006
20...	0857	10.0	--	760	5.8	77	8.4	567	30.0	--	--	--	--
20...	0859	20.0	--	760	1.6	21	7.6	540	29.5	--	--	--	--
20...	0901	30.0	--	760	E.1	--	7.5	587	29.0	--	--	--	--
20...	0903	38.0	--	760	E.2	--	7.4	599	28.5	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206850 -- CHOKE CANYON RES SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbo-furan, wat flt 0.7u GF ug/L (49308)	3-Keto-carbo-furan, water, fltrd, ug/L (50295)	Aceto-chlor, water, fltrd, ug/L (49260)	Aci-fluor-fen, water, fltrd 0.7u GF ug/L (49315)	Ala-chlor, water, fltrd, ug/L (46342)	Aldi-carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF ug/L (49314)	Aldi-carb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	E.008	<.04mc	E.017mc	<.006	<2mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.025
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	E.013	<.01mc	E.024mc	<.006	Mmc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.087
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	E.012	<.01mc	E.036mc	<.006	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.095
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206850 -- CHOKE CANYON RES SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Bendio-carb, water, fltrd, ug/L (50299)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensul-furon, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Brom-oxynil, water, fltrd 0.7u GF ug/L (49311)	Butyl-ate, water, fltrd, ug/L (04028)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd 0.7u GF ug/L (49310)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (49309)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206850 -- CHOKE CANYON RES SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorambenmethyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiamino-s-triazine, wat flt ug/L (04039)	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cyanazine, water, fltrd, ug/L (04041)	Cycloate, water, fltrd, ug/L (04031)	Dacthal monoacid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.020	<.02mc	<.010	<.01mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.020	<.02mc	<.010	<.04mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.020	<.02mc	<.010	<.04mnc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206850 -- CHOKE CANYON RES SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Diazinon, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dieldrin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulfinyl-fipronil amide, wat flt ug/L (62169)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.010	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.005	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	.014	<.03	<.029
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	E.009	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206850 -- CHOKE CANYON RES SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206850 -- CHOKE CANYON RES SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Metalaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Metsulfuron, water, fltrd, ug/L (61697)	Molinate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chlorophenyl) -N-' methylurea, ug/L (61692)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	E.008n	<.006	<.03mc	<.003	<.02	<.007	<.01
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	.030	<.006	<.03mc	<.003	<.02	<.007	<.01
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	.020	<.006	<.03mc	<.003	<.02	<.007	<.01
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206850 -- CHOKE CANYON RES SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	.01	<.004	<.025
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206850 -- CHOKE CANYON RES SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometruron, water, fltrd, ug/L (50337)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbacil, water, fltrd, ug/L (04032)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.011	<.02	<.010	<.02	<.008	<.02	<.010	<.009	<.02	<.034	<.010mc	<.02	<.010
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206850 -- CHOKE CANYON RES SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-benuron water, fltrd, ug/L (61159)	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)
MAR				
16...	--	--	--	--
MAR				
16-16	<.002	--u	<.02	<.009
16...	--	--	--	--
16...	--	--	--	--
16...	--	--	--	--
16...	--	--	--	--
MAY				
11...	--	--	--	--
MAY				
11-11	<.002	--u	<.02	<.009
11...	--	--	--	--
11...	--	--	--	--
11...	--	--	--	--
11...	--	--	--	--
JUL				
20...	--	--	--	--
JUL				
20-20	<.002	--u	<.02	<.009
20...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--
20...	--	--	--	--

08206840 -- CHOKE CANYON RES SITE FC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sam-pling depth, feet (00003)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Di-ethyl-aniline water fltrd 0.7u GF ug/L (82660)
MAR													
16...	1120	1.00	1.22	766	8.9	98	8.4	666	20.0	--	--	--	--
MAR													
16-16	1120	--	--	--	--	--	--	--	--	<.009	<.02	<.02mc	<.006
16...	1122	10.0	--	766	6.3	67	7.9	717	18.5	--	--	--	--
16...	1124	20.0	--	766	4.6	49	7.7	982	18.5	--	--	--	--
16...	1126	30.0	--	766	2.0	21	7.5	1,190	18.5	--	--	--	--
16...	1128	40.0	--	766	E.3	--	7.4	1,370	18.0	--	--	--	--
16...	1130	47.0	--	766	E.1	--	7.4	1,360	17.5	--	--	--	--
MAY													
11...	0935	1.00	1.01	759	9.7	118	8.8	642	25.0	--	--	--	--
MAY													
11-11	0935	--	--	--	--	--	--	--	--	<.009	.08	<.02mc	<.006
11...	0937	10.0	--	759	3.6	43	7.9	634	24.0	--	--	--	--
11...	0939	20.0	--	759	1.3	15	7.6	624	22.5	--	--	--	--
11...	0941	30.0	--	759	E.9	--	7.5	662	22.5	--	--	--	--
11...	0943	42.0	--	759	E.7	--	7.4	766	22.0	--	--	--	--
11...	0945	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	0940	1.00	--	760	8.2	112	8.8	510	31.5	--	--	--	--
JUL													
20-20	0940	--	--	--	--	--	--	--	--	<.009	<.02	<.02mc	<.006
20...	0942	10.0	--	760	1.4	19	7.6	472	30.0	--	--	--	--
20...	0944	20.0	--	760	E.1	--	7.3	451	29.0	--	--	--	--
20...	0946	30.0	--	760	E.1	--	7.4	550	28.5	--	--	--	--
20...	0948	44.0	--	760	E.2	--	7.3	475	28.0	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206840 -- CHOKE CANYON RES SITE FC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbofuran, wat flt 0.7u GF ug/L (49308)	3-Ketocarbofuran, water, fltrd, ug/L (50295)	Acetochlor, water, fltrd, ug/L (49260)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	Alachlor, water, fltrd, ug/L (46342)	Aldicarb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldicarb sulfoxide, wat flt 0.7u GF ug/L (49314)	Aldicarb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	E.010	<.04mc	E.013mc	<.006	<2mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.020
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	E.028	<.01mc	E.061mc	<.006	<.014mc	<.006	<.007	.011	<.02mc	<.008mc	<.04mc	<.005	.770
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	E.012	<.01mc	E.043mc	<.006	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.066
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206840 -- CHOKE CANYON RES SITE FC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Bendiocarb, water, fltrd, ug/L (50299)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensulfuron, water, fltrd, ug/L (61693)	Bentazon, water, fltrd 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Butylate, water, fltrd, ug/L (04028)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (49309)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	--r	<.03	<.041	<.006
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206840 -- CHOKE CANYON RES SITE FC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorambenmethyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiaminos-triazine, wat flt ug/L (04039)	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cyanazine, water, fltrd, ug/L (04041)	Cycloate, water, fltrd, ug/L (04031)	Dacthal monoacid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fiproonil, water, fltrd, ug/L (62170)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.020	<.02mc	<.010	<.01mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.020	<.02mc	<.010	<.04mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.020	<.02mc	<.010	<.04mnc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206840 -- CHOKE CANYON RES SITE FC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Diazinon, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dieldrin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulfinyl-fiproonil amide, wat flt ug/L (62169)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.010	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.005	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	.009	<.03	<.029
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	E.004n	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206840 -- CHOKE CANYON RES SITE FC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206840 -- CHOKE CANYON RES SITE FC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Metalaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Metsulfuron, water, fltrd, ug/L (61697)	Molinate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chlorophenyl) -N-' methylurea, ug/L (61692)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	E.009n	<.006	<.03mc	<.003	<.02	<.007	<.01
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	.253	<.006	<.03mc	<.003	<.02	<.007	<.01
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	.016	<.006	<.03mc	<.003	<.02	<.007	<.01
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206840 -- CHOKE CANYON RES SITE FC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	.01	<.004	<.025
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	.01	<.004	<.025
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206840 -- CHOKE CANYON RES SITE FC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometruron, water, fltrd, ug/L (50337)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbacil, water, fltrd, ug/L (04032)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.020	<.02	<.010	<.02	<.008	<.02	.008	<.009	<.02	<.034	<.010mc	<.02	<.010
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08206900 Choke Canyon Reservoir near Three Rivers, TX—Continued

08206840 -- CHOKE CANYON RES SITE FC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-benuron water, fltrd, ug/L (61159)	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Carbo-pheno-thion, bed sedimnt ug/kg (39787)	Diazi-non, bed sedimnt ug/kg (39571)	Ethion, bed sedimnt ug/kg (39399)	Mala-thion, bed sedimnt ug/kg (39531)	Methyl para-thion, bed sedimnt ug/kg (39601)	Para-thion, bed sedimnt ug/kg (39541)
MAR										
16...	--	--	--	--	--	--	--	--	--	--
MAR										
16-16	<.002	--u	<.02	<.009	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
MAY										
11...	--	--	--	--	--	--	--	--	--	--
MAY										
11-11	<.002	--u	<.02	<.009	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0
JUL										
20...	--	--	--	--	--	--	--	--	--	--
JUL										
20-20	<.002	--u	.03	<.009	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
c -- See laboratory comment
m -- Value is highly variable by this method
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded
r -- Sample ruined in preparation
u -- Unable to determine-matrix interference

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08206910 Choke Canyon Reservoir (Outlet Works Channel) near Three Rivers, TX

LOCATION.--Lat 28°29'09", long 98°14'29", Live Oak County, Hydrologic Unit 12110108, 0.2 mi downstream from Choke Canyon Dam on Frio River, 3.7 mi upstream from Atascosa River, and 3.8 mi west of Three Rivers.

DRAINAGE AREA.--5,490 mi^2.

PERIOD OF RECORD.--Nov. 1991 to Sept. 1999 (daily mean discharges less than 73 ft^3/s), Oct. 1999 to current year (daily mean discharges less than 1,130 ft^3/s).

GAGE.--Water-stage recorder. Datum of gage is 124.06 ft above NGVD of 1929.

REMARKS.--Records fair. Since installation of gage in water year 1992, at least 10% of the contributing drainage area has been regulated. Flow at times is affected by backwater from the spillway of Choke Canyon Reservoir and from the Atascosa River. No flow at times.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, about 38 ft (backwater), Sept. 11, 2002 (discharge not determined); minimum discharge, 0.00 ft^3/s, Oct. 21, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 23.20 ft (backwater) July 1 (discharge not determined); minimum discharge, 3.2 ft^3/s, Mar. 26, 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	34	e33	35	32	31	28	---	37	---	37	---
2	33	34	e33	35	33	30	28	---	39	---	39	---
3	33	34	e34	35	32	29	386	---	40	---	38	---
4	34	33	34	35	33	27	780	---	40	---	38	---
5	34	31	34	36	33	28	816	956	40	---	38	---
6	34	32	34	36	33	29	---	730	40	---	39	103
7	34	32	35	35	33	28	---	713	39	---	39	32
8	34	32	34	34	33	28	---	707	38	---	39	32
9	35	32	35	34	33	28	---	292	38	---	40	32
10	36	32	35	36	33	28	---	4.9	255	---	40	33
11	59	32	38	36	33	28	---	186	787	---	41	33
12	---	32	39	36	33	28	---	766	859	---	40	33
13	---	32	39	36	33	27	---	---	1,040	---	39	33
14	---	32	39	36	33	27	---	---	563	---	40	33
15	---	32	39	35	33	25	---	---	---	849	40	33
16	---	32	39	35	33	24	---	---	32	309	40	33
17	---	32	37	35	33	24	1,040	809	32	34	41	33
18	---	32	39	35	33	24	428	353	32	35	41	32
19	---	32	37	35	33	53	111	72	33	35	40	32
20	---	33	36	35	34	149	108	73	32	60	40	32
21	---	33	36	35	34	152	106	60	33	78	41	32
22	---	33	36	35	e33	154	105	35	---	78	40	32
23	---	33	37	35	e33	154	103	35	945	76	41	32
24	---	32	36	35	e33	152	392	35	1,050	74	---	32
25	---	e34	36	35	e32	152	796	35	---	74	1,110	32
26	---	e34	36	35	34	99	---	35	---	118	---	32
27	---	e34	35	35	34	3.3	---	35	---	148	---	32
28	176	e34	35	35	34	3.3	---	36	504	149	---	32
29	34	e34	35	34	34	3.3	---	35	---	149	---	32
30	33	e33	35	32	---	3.3	---	35	721	92	---	32
31	34	---	35	32	---	13	---	36	---	34	---	---
TOTAL	---	981	1,115	1,083	960	1,584.2	---	---	---	---	---	---
MEAN	---	32.7	36.0	34.9	33.1	51.1	---	---	---	---	---	---
MAX	34	39	36	34	154	--						
MIN	31	33	32	32	3.3	--						
AC-FT	---	1,950	2,210	2,150	1,900	3,140	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	37.0	39.9	44.7	41.4	89.1	59.1	35.3	35.8	36.1	38.9	37.0	39.9
MAX	41.6	54.1	68.2	52.2	218	134	37.8	37.5	38.3	42.1	41.2	41.7
(WY)	(2002)	(2002)	(2002)	(2003)	(2003)	(2003)	(2000)	(2000)	(2000)	(2000)	(2002)	(2001)
MIN	34.5	32.7	36.0	34.9	32.7	33.5	32.4	32.3	33.0	35.8	33.8	38.1
(WY)	(2001)	(2004)	(2004)	(2004)	(2002)	(2002)	(2003)	(2003)	(2003)	(2001)	(2000)	(2000)

SUMMARY STATISTICS	WATER YEARS 2000 - 2004	
ANNUAL MEAN	40.6	
HIGHEST ANNUAL MEAN	44.4	2000
LOWEST ANNUAL MEAN	36.8	2001
HIGHEST DAILY MEAN	1,110	Aug 25, 2004
LOWEST DAILY MEAN	0.16	Aug 5, 2002
ANNUAL SEVEN-DAY MINIMUM	9.5	Jul 31, 2002
MAXIMUM PEAK FLOW	1,130	Feb 17, 2000
MAXIMUM PEAK STAGE	23.20	Jul 1, 2004
ANNUAL RUNOFF (AC-FT)	29,450	
10 PERCENT EXCEEDS	40	
50 PERCENT EXCEEDS	37	
90 PERCENT EXCEEDS	35	

e Estimated

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08207320 Galvan Creek near Leming, TX

LOCATION.--Lat 29°04'16.08", long 98°30'30.66", Atascosa County, Hydrologic Unit 12110110, on the downstream side of FM 1470 at a low-water crossing, 1.9 mi west of Leming.

DRAINAGE AREA.--28.4 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Apr. 4, 2004 to Sept. 30, 2004.
BIOCHEMICAL DATA: Apr. 4, 2004 to Sept. 30, 2004.
PESTICIDE DATA: Apr. 4, 2004 to Sept. 30, 2004.

INSTRUMENTATION (CLIM).--Water stage recorder. Discharge-activated automatic sampler. Tipping bucket raingage. Satellite telemeter at station.

REMARKS.--Water-quality samples and associated discharge and precipition data were collected for selected storm events.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Discharge duration, min (81381)	Elapsed time of storm, hours (00135)	Precipitation total, inches/storm (82381)	Precipitation duration of storm event, min (00117)	Sampling method, code (82398)	Storm water discharge, Mgal/d (81395)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)
APR													
04...	2100	--	--	--	--	70	--	--	--	--	--	--	--
APR													
04-05	2130	3,030	29.8	1.5	135	90	2.5	7.3	259	40d	.46	1.6	--
JUN													
09-10	1930	1,540	21.4	3.2	405	90	E311	6.9	76	232d	.36	2.3	.06
09...	2010	--	--	--	--	70	--	--	--	--	--	--	--
JUN													
22-22	0851	2,010	26.5	2.0	225	90	38.6	7.0	102	126d	.85	1.6	.08
22...	1220	--	--	--	--	70	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)
APR													
04...	--	--	--	--	--	--	--	--	--	--	480,000	--	--
APR													
04-05	<.040	.18	--	--	.23	.69	.64	1.8	15.5	20	--	2	<.20
JUN													
09-10	.049	.29	.31	2.2	.17	.80	.65	2.6	13.9	30	--	5	<.20
09...	--	--	--	--	--	--	--	--	--	--	22,000	--	--
JUN													
22-22	.061	.28	.79	1.6	.34	.59	1.1	1.9	20.0	30	--	10	<.20
22...	--	--	--	--	--	--	--	--	--	--	E6000k	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Cyanide water unfltrd mg/L (00720)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Silver, water, fltrd, ug/L (01075)
APR													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
04-05	68	<.06	<.04	<.8	.148	1.4	<.01	<.08	11.9	.6	.7	1.06	<.2
JUN													
09-10	24	<.06	<.04	<.8	.092	1.6	<.01	<.08	13.7	.4	E.3n	.82	<.2
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
22-22	31	<.06	<.04	<.8	.178	2.7	Mn	E.08n	4.5	1.1	.4	1.34	<.2
22...	--	--	--	--	--	--	--	--	--	--	--	--	--

08207320 Galvan Creek near Leming, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Zinc, water, fltrd, ug/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	Aldrin, water, unfltrd ug/L (39330)	alpha-Endo-sulfan, water, unfltrd ug/L (39388)	Chlor-dane, tech-nical, water, unfltrd ug/L (39350)	Diel-drin, water, unfltrd ug/L (39380)	Endrin, water, unfltrd ug/L (39390)	Hepta-chlor epoxide water unfltrd ug/L (39420)	Hepta-chlor, water, unfltrd ug/L (39410)	Lindane water, unfltrd ug/L (39340)	Mirex, water, unfltrd ug/L (39755)	p,p'-DDD, water, unfltrd ug/L (39360)	p,p'-DDE, water, unfltrd ug/L (39365)
APR													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
04-05	E.6n	<7	<.001	<.002	<.1	<.002	<.002	<.001	<.001	<.0020	<.001	<.002	<.002
JUN													
09-10	E.6n	<7	<.001	<.002	<.1	<.002	<.002	<.001	<.001	<.0020	<.001	<.002	<.002
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
22-22	1.4	E5n	<.001	<.002	<.1	<.002	<.002	<.001	<.001	<.0020	<.001	<.002	<.002
22...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	p,p'-DDT, water, unfltrd ug/L (39370)	p,p'-Meth-oxy-chlor, water, unfltrd ug/L (39480)	PCBs, water, unfltrd ug/L (39516)	Petrol-eum hydro-carbons wat unf frn ext mg/L (45501)	Phen-olic com-pounds, water, unfltrd ug/L (32730)	Toxa-phene, water, unfltrd ug/L (39400)	Uranium natural water, fltrd, ug/L (22703)
APR							
04...	--	--	--	--	--	--	--
APR							
04-05	<.002	<.003	<.1	2	<16	<1	.17
JUN							
09-10	<.002	<.003	<.1	<2	<16	<1	.07
09...	--	--	--	--	--	--	--
JUN							
22-22	<.002	<.003	<.1	<2	<16	<1	.07
22...	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

08207350 Gallinas Creek near Leming, TX

LOCATION.--Lat 29°06'58.08", long 98°29'14.28", Atascosa County, Hydrologic Unit 12110110, on the downstream side of Hwy 281 low-water crossing, 3.1 mi north of Leming.

DRAINAGE AREA.--11.9 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Apr. 4, 2004 to Sept. 30, 2004.
BIOCHEMICAL DATA: Apr. 4, 2004 to Sept. 30, 2004.
PESTICIDE DATA: Apr. 4, 2004 to Sept. 30, 2004.

INSTRUMENTATION.--Water stage recorder. Discharge-activated automatic sampler. Tipping bucket raingage. Satellite telemeter at station.

REMARKS.--Water-quality samples and associated discharge and precipition data were collected for selected storm events.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Discharge duration, min (81381)	Elapsed time of storm, hours (00135)	Precipitation total, inches/storm (82381)	Precipitation duration of storm event, min (00117)	Sampling method, code (82398)	Storm water discharge, Mgal/d (81395)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
APR													
04...	1930	--	--	--	--	70	--	--	--	--	--	--	--
APR													
04-05	2000	1,100	12.0	2.6	150	90	21.8	8.1	123	80d	.23	3.1	<.040
JUN													
22-23	0745	1,620	15.5	.32	300	90	10.5	7.3	93	84d	.47	1.6	E.024n
22...	1200	--	--	--	--	70	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)
APR													
04...	--	--	--	--	--	--	--	24,000	--	--	--	--	--
APR													
04-05	.19	E.03n	1.04	.42	3.3	17.7	40	--	5	<.20	34	<.06	<.04
JUN													
22-23	.06	E.03n	.46	.52	1.6	13.8	30	--	5	<.20	39	<.06	<.04
22...	--	--	--	--	--	--	--	E23000k	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Cyanide water unfltrd mg/L (00720)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	Aldrin, water, unfltrd ug/L (39330)
APR													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
04-05	<.8	.147	.8	<.01	<.08	48.2d	1.0	1.6	.61	<.2	<.6	<7	<.001
JUN													
22-23	<.8	.113	2.1	<.01	E.04n	12.7	.6	1.0	.80	<.2	.6	E4n	<.001
22...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	alpha-Endosulfan, water, unfltrd ug/L (39388)	Chlordane, technical, water, unfltrd ug/L (39350)	Dieldrin, water, unfltrd ug/L (39380)	Endrin, water, unfltrd ug/L (39390)	Heptachlor epoxide water unfltrd ug/L (39420)	Heptachlor, water, unfltrd ug/L (39410)	Lindane water, unfltrd ug/L (39340)	Mirex, water, unfltrd ug/L (39755)	p,p'-DDD, water, unfltrd ug/L (39360)	p,p'-DDE, water, unfltrd ug/L (39365)	p,p'-DDT, water, unfltrd ug/L (39370)	p,p'-Methoxychlor, water, unfltrd ug/L (39480)	PCBs, water, unfltrd ug/L (39516)
APR													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
04-05	<.002	<.1	<.002	<.002	<.001	<.001	<.0020	<.001	<.002	<.002	<.002	<.003	<.1
JUN													
22-23	<.002	<.1	<.002	<.002	<.001	<.001	<.0020	<.001	<.002	<.002	<.002	<.003	<.1
22...	--	--	--	--	--	--	--	--	--	--	--	--	--

08207350 Gallinas Creek near Leming, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Petroleum hydrocarbons wat unf frn ext mg/L (45501)	Phenolic compounds, water, unfltrd ug/L (32730)	Toxaphene, water, unfltrd ug/L (39400)	Uranium natural water, fltrd, ug/L (22703)
APR 04...	--	--	--	--
APR 04-05	4	<16	<1	1.27
JUN 22-23	<2	<16	<1	.32
22...	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

08207500 Atascosa River near McCoy, TX

LOCATION.--Lat 28°51'53", long 98°20'17", Atascosa County, Hydrologic Unit 12110110, on left bank at downstream side of bridge on Farm Road 541, 0.6 mi northeast of McCoy, and 40.2 mi upstream from mouth.

DRAINAGE AREA.--530 mi^2.

PERIOD OF RECORD.--July 1951 to Sept. 1957 (mean daily discharge below 74 ft^3/s), Aug. 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 272.4 ft above NGVD of 1929. July 1951 to Sept. 1957, water-stage recorder at site 2.2 mi downstream at datum 29.3 ft. lower. Satellite telemeter at station.

REMARKS.--Records good. No known regulation or diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,120 ft^3/s, Oct. 26, gage height, 24.41 ft; minimum discharge, 1.8 ft^3/s, Aug. 30, 31, Sept. 1, 2, gage height, 4.96 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,230 ft^3/s, June 11, gage height, 22.94 ft; minimum discharge, 2.4 ft^3/s, Oct. 26-28, gage height, 5.47 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	2.8	3.9	4.6	5.2	45	5.3	61	2.6	1,470	18	13
2	6.9	2.9	4.0	4.5	5.1	42	5.3	69	2.4	1,500	17	8.9
3	6.7	2.8	4.3	4.6	4.9	16	5.3	30	2.2	537	12	8.0
4	6.4	2.9	4.5	4.5	4.9	11	17	30	2.0	134	13	8.4
5	6.1	3.3	4.3	4.6	5.0	9.5	265	34	1.9	76	11	8.2
6	6.0	3.1	4.3	4.3	5.0	8.7	397	22	1.9	56	9.8	7.3
7	5.6	e3.1	4.1	4.1	5.1	7.9	254	16	1.8	47	9.9	6.7
8	5.5	e3.1	4.1	4.1	4.7	7.4	65	13	2.1	39	9.5	26
9	5.6	e3.0	4.3	3.9	4.7	6.7	39	9.9	5.4	34	9.4	25
10	23	e3.0	4.4	4.0	5.0	6.5	32	8.8	265	30	9.5	17
11	13	e3.0	4.4	4.1	6.5	6.2	277	8.9	3,110	28	9.4	12
12	248	e2.9	4.6	4.1	8.3	5.9	350	9.8	809	26	10	9.2
13	147	2.9	4.6	4.0	6.3	8.8	167	11	106	24	10	7.6
14	32	2.9	4.5	4.1	6.1	11	66	8.7	55	22	8.2	8.6
15	14	2.9	4.5	4.3	5.8	12	40	7.7	43	20	7.8	16
16	7.2	3.1	4.5	5.3	5.5	10	28	6.8	33	19	7.4	11
17	5.5	3.1	4.6	7.4	5.3	9.5	19	6.0	27	18	6.9	7.2
18	4.6	3.2	4.7	11	5.1	8.3	15	5.5	22	16	6.8	6.6
19	4.1	3.4	4.7	7.4	5.1	7.3	13	5.2	19	15	6.4	6.2
20	3.5	4.1	4.6	6.2	4.9	7.0	12	4.9	17	14	6.2	5.8
21	3.2	3.8	4.7	5.7	4.8	6.6	11	4.6	15	13	6.2	5.6
22	3.0	3.6	4.8	5.5	4.9	6.3	10	4.4	121	13	6.3	5.4
23	2.9	3.7	4.8	5.3	5.0	6.2	9.5	4.2	1,180	13	7.4	5.3
24	2.9	3.5	4.8	6.3	12	6.1	143	3.9	986	13	9.7	5.2
25	2.7	3.4	4.7	8.3	30	6.0	140	3.7	202	12	11	5.3
26	2.6	3.7	4.7	7.6	19	6.1	82	3.5	437	12	7.5	5.5
27	2.5	3.7	4.7	6.4	9.9	6.1	85	3.3	619	12	7.2	12
28	2.5	3.6	4.8	5.7	8.0	6.1	41	2.9	308	13	7.3	10
29	2.6	3.9	4.8	5.4	6.7	5.8	42	2.8	149	11	7.6	6.5
30	2.7	3.9	4.7	5.4	---	5.6	28	2.8	472	21	33	5.8
31	2.7	---	4.8	5.2	---	5.4	---	2.6	---	28	16	---
TOTAL	588.3	98.3	140.2	167.9	208.8	313.0	2,663.4	406.9	9,017.3	4,286	317.4	285.3
MEAN	19.0	3.28	4.52	5.42	7.20	10.1	88.8	13.1	301	138	10.2	9.51
MAX	248	4.1	4.8	11	30	45	397	69	3,110	1,500	33	26
MIN	2.5	2.8	3.9	3.9	4.7	5.4	5.3	2.6	1.8	11	6.2	5.2
AC-FT	1,170	195	278	333	414	621	5,280	807	17,890	8,500	630	566

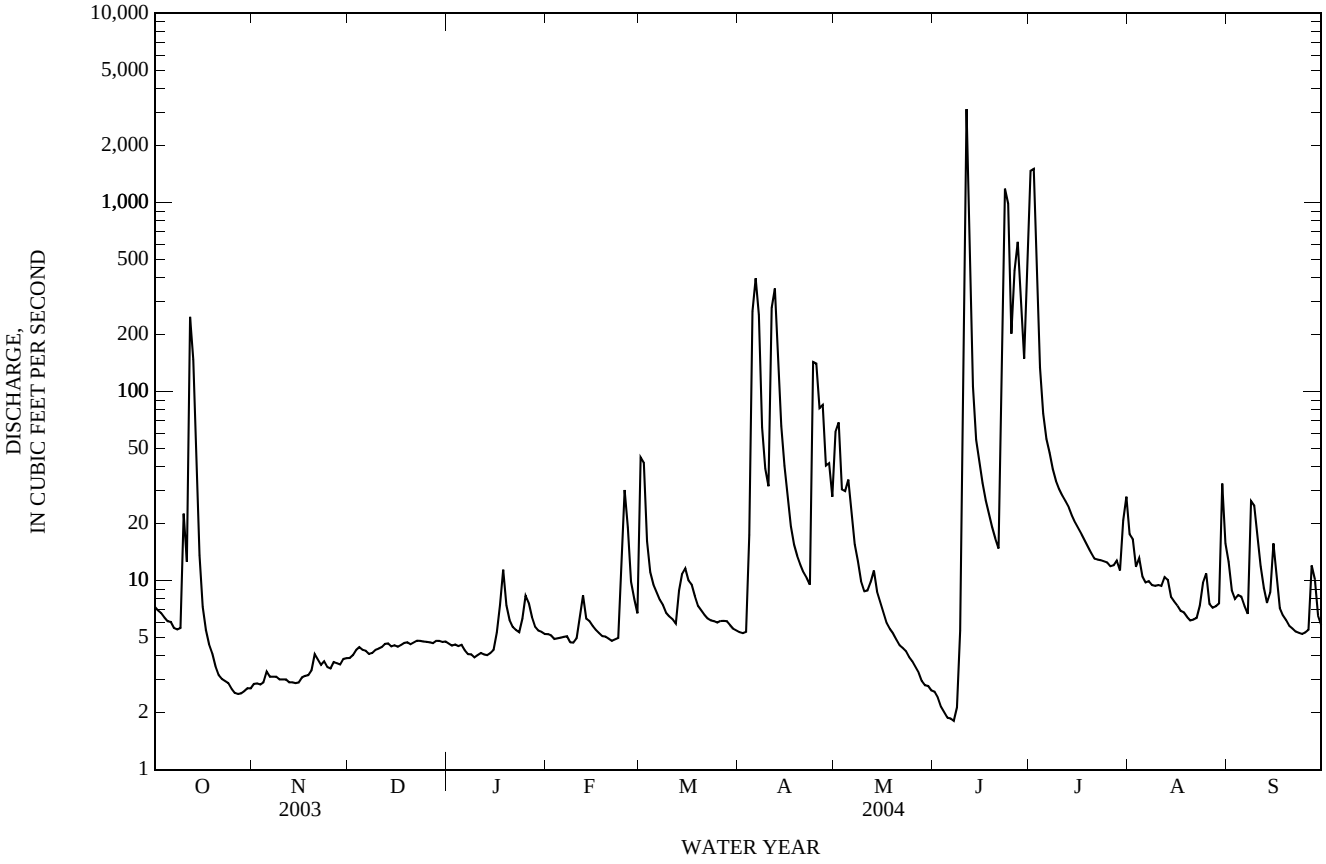
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2004, BY WATER YEAR (WY)

MEAN	103	31.1	10.9	6.76	9.69	7.89	26.1	8.82	77.5	34.4	2.36	99.4
MAX	486	222	46.1	17.4	33.5	19.1	88.8	13.1	301	138	10.2	413
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2004)	(2004)	(2004)	(2004)	(2002)
MIN	0.31	0.32	1.71	2.31	2.62	1.71	2.60	4.51	0.36	0.94	0.00	0.38
(WY)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1955)	(2003)	(1953)	(1956)	(1951)	(1955)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 2004	
ANNUAL TOTAL	7,544.4		18,492.8			
ANNUAL MEAN	20.7		50.5		66.2	
HIGHEST ANNUAL MEAN					81.9	2003
LOWEST ANNUAL MEAN					50.5	2004
HIGHEST DAILY MEAN	961	Sep 19	3,110	Jun 11	4,750	Oct 26, 2002
LOWEST DAILY MEAN	1.9	Aug 29	1.8	Jun 7	0.00	Aug 1, 1951
ANNUAL SEVEN-DAY MINIMUM	2.0	Aug 18	2.0	Jun 2	0.00	Aug 1, 1951
MAXIMUM PEAK FLOW			4,230	Jun 11	7,560	Oct 26, 2002
MAXIMUM PEAK STAGE			22.94	Jun 11	24.41	Oct 26, 2002
ANNUAL RUNOFF (AC-FT)	14,960		36,680		47,950	
10 PERCENT EXCEEDS	28		49		65	
50 PERCENT EXCEEDS	6.5		6.5		9.5	
90 PERCENT EXCEEDS	2.7		3.1		3.1	

e Estimated

08207500 Atascosa River near McCoy, TX—Continued



08208000 Atascosa River at Whitsett, TX

LOCATION.--Lat 28°37'19", long 98°16'52", Live Oak County, Hydrologic Unit 12110111, on right bank at downstream side of bridge on Farm Road 99, 1.1 mi southwest of Whitsett, 4.2 mi downstream from La Parita Creek, and 12.9 mi upstream from mouth.

DRAINAGE AREA.--1,171 mi^2.

PERIOD OF RECORD.--Sept. 1924 to May 1926 (monthly discharge only), May 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 159.04 ft above NGVD of 1929. Prior to May 8, 1926, nonrecording gage at bridge destroyed in 1956 at site 200 ft downstream at 1.38 ft higher datum. May 21, 1932, to Feb. 16, 1983, water-stage recorder at site 1,000 ft upstream at same datum. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Considerable loss of flow into various permeable formations occurs upstream from this station. The Campbellton water wells discharge into the Atascosa River 12.0 mi upstream from this station to supplement streamflow during dry periods. No known regulation. There are several small diversions above station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1881, that of Sept. 23, 1967. Second highest stage, 41 ft (discharge 106,000 ft^3/s), occurred in Sept. 1919.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	16	11	13	14	25	14	548	13	1,960	84	40
2	65	14	11	13	13	120	22	1,010	12	2,530	53	29
3	53	13	11	13	12	228	136	1,240	12	2,800	40	21
4	43	13	12	13	12	79	101	433	11	1,640	31	16
5	38	13	21	12	12	45	793	198	10	366	26	15
6	34	12	22	12	13	29	1,650	163	10	202	26	16
7	31	12	21	11	12	23	1,640	136	8.9	150	23	15
8	29	11	18	11	12	20	666	119	10	123	96	15
9	27	11	18	12	13	17	241	111	13	110	63	16
10	e27	11	16	11	13	15	153	100	74	103	37	33
11	e75	12	17	10	13	14	178	154	724	95	29	25
12	e175	12	18	10	13	13	854	143	2,200	85	25	19
13	e607	12	16	11	14	31	1,620	157	2,420	77	25	15
14	e1,490	11	14	12	17	38	985	160	541	72	21	19
15	e825	11	13	12	15	38	261	477	174	61	19	19
16	190	11	12	14	16	246	167	268	132	55	16	18
17	106	30	11	16	14	94	117	114	111	50	16	20
18	69	16	11	18	13	51	89	74	89	46	16	15
19	47	11	11	18	13	35	71	57	73	43	16	11
20	35	11	10	19	13	27	58	44	61	39	20	9.9
21	28	11	11	16	13	23	51	35	51	37	20	8.9
22	26	11	11	15	12	20	47	28	117	35	20	8.5
23	24	11	12	14	13	18	42	23	496	35	21	8.2
24	20	10	12	14	17	18	74	20	2,340	36	23	7.9
25	17	9.7	12	17	96	17	1,070	17	2,770	35	24	7.9
26	16	10	12	19	260	16	2,900	16	1,110	34	25	e7.8
27	15	11	15	19	119	16	1,910	15	1,390	30	24	9.4
28	15	10	14	18	55	15	422	16	1,530	30	20	8.4
29	14	10	14	18	34	15	336	15	657	31	18	15
30	15	10	14	16	---	15	527	12	1,080	34	17	13
31	17	---	13	15	---	14	---	12	---	59	26	---
TOTAL	4,247	366.7	434	442	886	1,375	17,195	5,915	18,239.9	11,003	920	481.9
MEAN	137	12.2	14.0	14.3	30.6	44.4	573	191	608	355	29.7	16.1
MAX	1,490	30	22	19	260	246	2,900	1,240	2,770	2,800	96	40
MIN	14	9.7	10	10	12	13	14	12	8.9	30	16	7.8
AC-FT	8,420	727	861	877	1,760	2,730	34,110	11,730	36,180	21,820	1,820	956

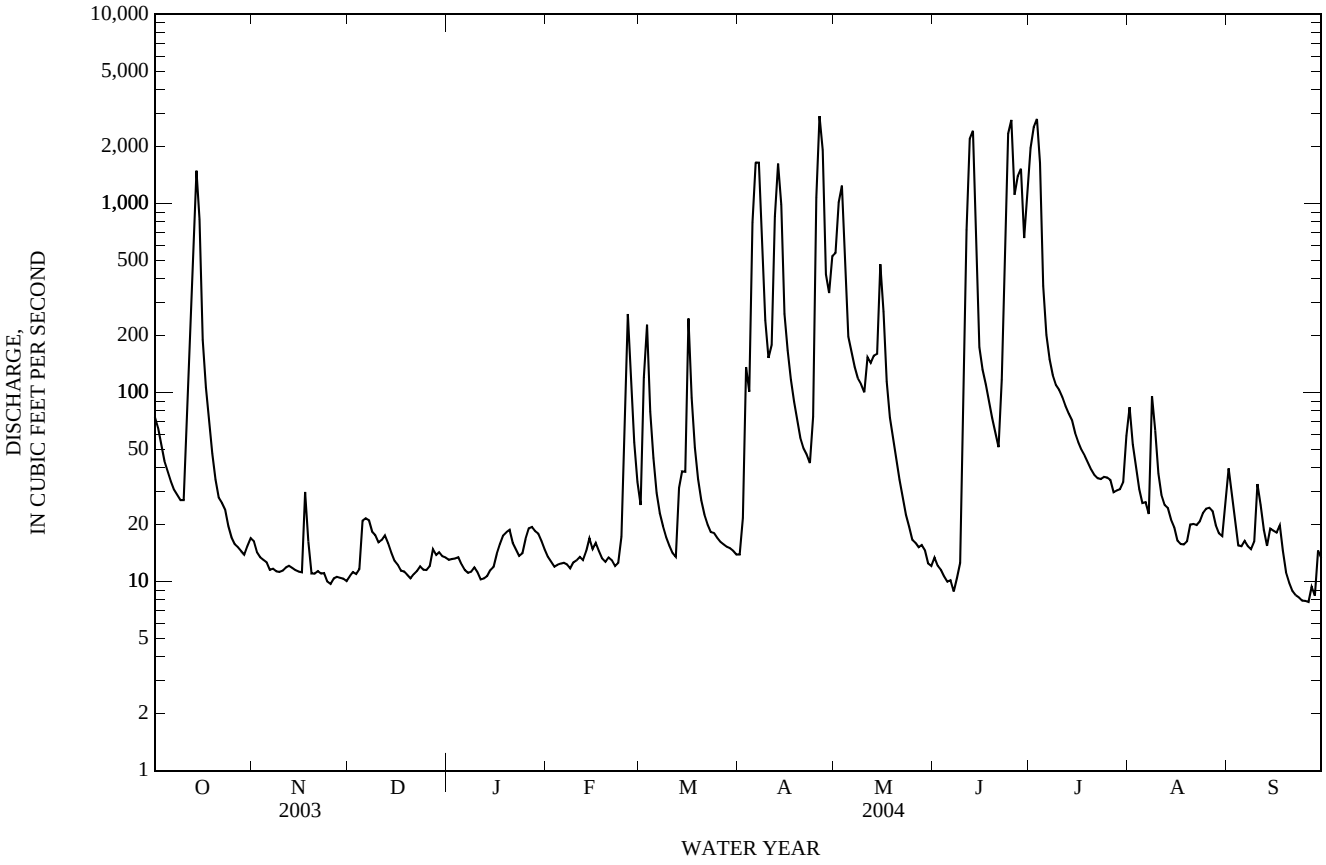
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

MEAN	112	69.7	60.5	75.0	90.4	33.5	148	215	235	147	71.8	255
MAX	926	780	1,060	2,053	1,590	250	2,298	1,365	3,445	2,879	1,207	5,006
(WY)	(2003)	(2003)	(1992)	(1968)	(1992)	(1970)	(1977)	(1957)	(1935)	(1942)	(1946)	(1967)
MIN	0.05	0.21	0.19	1.52	1.57	1.51	0.57	0.00	0.00	0.00	0.00	0.00
(WY)	(1989)	(1989)	(1989)	(1996)	(1990)	(1996)	(1996)	(1996)	(1989)	(1998)	(1954)	(1997)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	45,248.7		61,505.5			
ANNUAL MEAN	124		168		126	
HIGHEST ANNUAL MEAN					472	1935
LOWEST ANNUAL MEAN					2.29	1989
HIGHEST DAILY MEAN	5,720	Sep 20	2,900	Apr 26	65,000	Sep 23, 1967
LOWEST DAILY MEAN	2.5	Jul 3	7.8	Sep 26	0.00	Jun 11, 1934
ANNUAL SEVEN-DAY MINIMUM	4.4	Jun 21	8.3	Sep 22	0.00	Jun 11, 1934
MAXIMUM PEAK FLOW			3,370	Jun 24	i121,000	Sep 23, 1967
MAXIMUM PEAK STAGE			22.92	Apr 26	a41.30	Sep 23, 1967
ANNUAL RUNOFF (AC-FT)	89,750		122,000		91,480	
10 PERCENT EXCEEDS	129		383		96	
50 PERCENT EXCEEDS	19		20		11	
90 PERCENT EXCEEDS	6.6		11		0.95	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated

08208000 Atascosa River at Whitsett, TX—Continued



08210000 Nueces River near Three Rivers, TX

LOCATION.--Lat 28°25'38", long 98°10'40", Live Oak County, Hydrologic Unit 12110111, on right bank at U.S. Highway 281, 1.0 mi downstream from Frio River, 2.2 mi south of Three Rivers, and at mile 100.2.

DRAINAGE AREA.--15,427 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1915 to current year. Monthly discharge only for Nov. 1919 to Jan. 1920, published in WSP 1312.

REVISED RECORDS.--WSP 548: 1920-21. WSP 1562: 1916, 1918-21, 1922(M), 1923, 1929. WDR TX-83-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 99.26 ft above NGVD of 1929. Prior to Apr. 5, 1932, nonrecording gage at railroad bridge 0.8 mi upstream at datum 1.87 ft higher. Apr. 5, 1932 to Aug. 9, 1983, water-stage recorder at site 0.8 mi upstream at datum 1.87 ft higher. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Since Mar. 1948, at least 10% of contributing drainage area has been regulated. Part of the flow of the Nueces and Frio Rivers and their headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone that crosses the basin upstream from U.S. Highway 90. Some loss of flow into various permeable formations also occurs downstream from the Balcones Fault Zone. Flow of the Atascosa River at Whitsett (station 08208000) is supplemented during dry periods by discharge from the Campbellton water wells. There are many small diversions for irrigation and for municipal supply above this station. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--33 years (water years 1916-48) 945 ft^3/s (684,500 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION.-- WATER YEARS 1916-1948: Maximum discharge, 85,000 ft^3/s, Sept. 18, 1919, gage height, 46.0 ft, site and datum then in use; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	500	167	90	91	448	353	3,960	372	3,490	336	2,740
2	165	445	164	94	90	294	341	4,170	350	6,650	436	3,420
3	203	406	161	97	90	282	512	4,280	329	8,300	526	3,550
4	194	376	157	99	90	265	1,160	4,130	312	8,560	393	3,510
5	174	354	154	98	93	174	2,360	3,390	295	7,600	361	3,490
6	156	337	153	95	90	150	3,830	2,360	281	5,960	321	2,220
7	148	323	149	93	88	132	4,550	2,070	271	5,000	284	777
8	181	313	142	95	87	118	4,150	2,070	268	5,430	264	808
9	247	308	138	94	87	109	3,030	1,990	265	6,890	295	887
10	276	298	134	92	89	102	2,880	1,540	341	7,530	260	857
11	295	286	132	92	88	98	3,020	1,500	1,100	7,200	233	979
12	2,930	277	133	93	87	93	3,390	1,970	1,920	6,620	237	1,120
13	5,100	271	132	93	87	102	4,240	2,030	2,500	5,960	235	1,210
14	5,090	263	127	93	91	164	4,950	2,060	2,480	4,460	216	1,280
15	5,290	259	126	95	93	208	4,760	2,620	923	2,910	203	1,300
16	5,010	256	125	99	90	261	4,160	2,450	542	2,280	189	845
17	6,170	265	123	98	86	662	3,750	2,030	640	1,950	183	407
18	14,400	393	121	93	84	727	2,840	1,750	728	1,910	175	343
19	18,100	289	117	90	84	664	2,010	1,330	787	1,950	174	310
20	16,700	252	114	86	85	845	1,850	1,310	840	1,460	176	278
21	13,600	281	112	87	84	775	1,880	1,390	784	642	174	249
22	10,500	289	113	83	82	591	2,050	1,420	480	564	172	228
23	7,640	247	114	81	81	556	2,360	1,500	1,080	526	179	216
24	5,470	225	113	84	104	717	2,830	1,580	1,680	507	518	207
25	4,460	217	112	84	288	866	3,520	1,610	2,830	502	1,300	197
26	3,880	210	108	85	287	949	4,990	1,590	3,740	500	1,770	190
27	3,490	201	109	91	381	743	6,320	1,260	2,960	579	2,490	182
28	3,170	192	103	99	516	679	6,130	587	2,740	554	2,790	175
29	2,060	185	99	107	534	593	4,690	460	1,650	521	2,910	165
30	1,610	176	94	112	---	454	4,310	418	1,430	493	3,000	160
31	725	---	90	96	---	379	---	393	---	348	2,960	---
TOTAL	137,583	8,694	3,936	2,888	4,127	13,200	97,216	61,218	34,918	107,846	23,760	32,300
MEAN	4,438	290	127	93.2	142	426	3,241	1,975	1,164	3,479	766	1,077
MAX	18,100	500	167	112	534	949	6,320	4,280	3,740	8,560	3,000	3,550
MIN	148	176	90	81	81	93	341	393	265	348	172	160
AC-FT	272,900	17,240	7,810	5,730	8,190	26,180	192,800	121,400	69,260	213,900	47,130	64,070

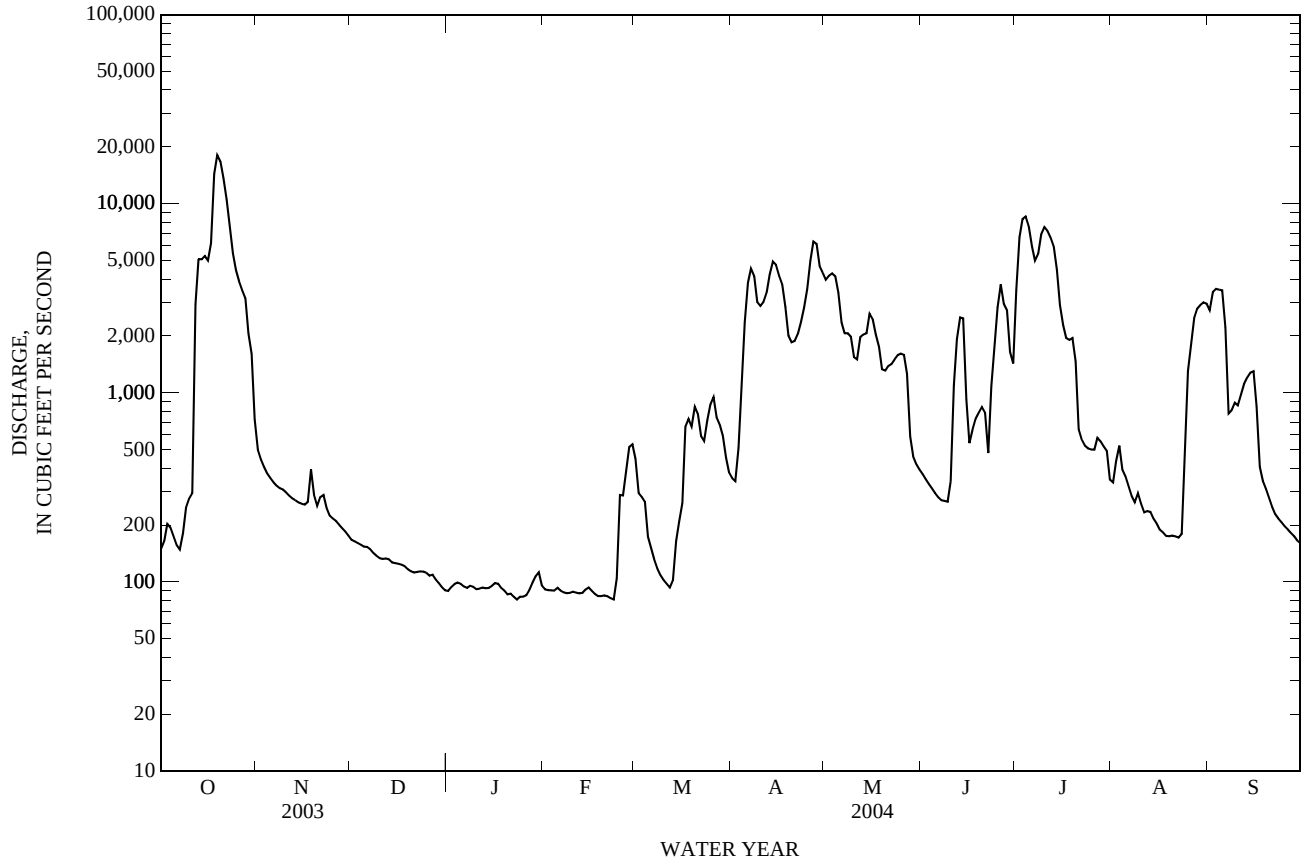
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004z, BY WATER YEAR (WY)

MEAN	1,229	556	237	310	353	223	480	1,065	1,231	967	591	1,516
MAX	13,810	4,944	1,801	4,833	7,868	2,285	5,082	8,645	8,451	16,010	10,550	23,650
(WY)	(1972)	(1977)	(1977)	(1958)	(1958)	(1949)	(1977)	(1957)	(1987)	(2002)	(1971)	(1967)
MIN	0.54	0.03	0.63	3.61	5.80	6.21	4.30	1.85	8.72	3.05	0.03	1.28
(WY)	(1963)	(1951)	(1951)	(1967)	(1951)	(1963)	(1984)	(1971)	(1967)	(1967)	(1962)	(1984)

08210000 Nueces River near Three Rivers, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004z	
ANNUAL TOTAL	265,733		527,686			
ANNUAL MEAN	728		1,442		730	
HIGHEST ANNUAL MEAN					2,764	2002
LOWEST ANNUAL MEAN					82.3	1984
HIGHEST DAILY MEAN	18,100	Oct 19	18,100	Oct 19	128,000	Sep 23, 1967
LOWEST DAILY MEAN	38	Jun 3	81	Jan 23	0.00	Aug 25, 1950
ANNUAL SEVEN-DAY MINIMUM	39	May 29	84	Feb 17	0.00	Aug 28, 1950
MAXIMUM PEAK FLOW			18,300	Oct 19	141,000	Sep 23, 1967
MAXIMUM PEAK STAGE			39.49	Oct 19	49.21	Sep 23, 1967
ANNUAL RUNOFF (AC-FT)	527,100		1,047,000		529,000	
10 PERCENT EXCEEDS	1,200		4,190		1,490	
50 PERCENT EXCEEDS	182		358		95	
90 PERCENT EXCEEDS	46		93		6.5	

z Period of requlated streamflow.



08210000 Nueces River near Three Rivers, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Aug. 1941 to Sept. 1952, May 1965 to current year.
BIOCHEMICAL DATA: May 1965 to current year.
PESTICIDE DATA: Jan. 1968 to May 1982, Oct. 1996 to current year.
SEDIMENT DATA: Oct. 1941 to Aug. 1945, Mar. 1951 to Sept. 1952, Oct. 1974 to Aug. 1994.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Oct. 1941 to Sept. 1952, Oct. 1974 to Sept. 1981.
WATER TEMPERATURE: Oct. 1950 to Sept. 1952, Oct. 1974 to Sept. 1981.
SUSPENDED-SEDIMENT DISCHARGE: Oct. 1950 to Sept. 1951.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,310 microsiemens/cm, Jan. 17, 1977; minimum daily, 157 microsiemens/cm, May 26, 1975.
WATER TEMPERATURE: Maximum daily, 32.0°C, on several days during summers of 1977, 1978, and 1981; minimum daily, 7.0°C, Jan. 2, 3, 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
MAR													
25...	0800	848	70	765	8.6	95	8.1	1,170	20.0	290	90.9	14.2	6.78
JUL													
08...	0740	5,180	30	764	5.4	71	7.9	501	29.5	140	45.7	5.70	9.76
AUG													
26...	0800	1,720	30	764	6.6	85	7.6	574	28.5	160	50.2	8.76	7.62
SEP													
23...	0810	217	40	763	6.8	86	7.9	1,180	27.0	280	92.6	11.3	7.64

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/d (70302)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)
MAR													
25...	116	46	146	175	1	210	<.2	9.52	107	644	1,470	.41	E.03n
JUL													
08...	36.7	35	111	134	<1	62.4	<.2	18.9	33.3	280	3,910	.60	<.04
AUG													
26...	49.8	39	98	118	<1	74.1	<.2	13.0	53.0	315	1,460	.43	<.04
SEP													
23...	124	48	166	201	<1	224	.2	18.0	61.3	640	375	.44	E.03n

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Total nitrogen, water, fltrd, mg/L (00602)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)
MAR													
25...	.938	.21	.22	.026	.008	.141	.05	.05	.63	<2	E.17n	3	128
JUL													
08...	--	--	<.06	--	<.008	.773	.25	.27	--	3	.22	4	74
AUG													
26...	.301	.07	.08	.039	.012	--	E.01n	E.02n	.51	Mn	.20	3	60
SEP													
23...	--	--	.29	--	<.008	.294	.10	.12	.73	E1n	E.19n	5	149

08210000 Nueces River near Three Rivers, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Beryll-ium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Chrom-ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Mangan-ese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover-able, ug/L (71900)	Molyb-denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)
MAR													
25...	<.06	<.04	<.8	.367	8.5r	E3n	<.08	36	1.2	<.02	--	1.3	2.87
JUL													
08...	<.06	<.04	<.8	.288	5.7	21	E.05n	13	1.3	--	<.02	1.1	1.17
AUG													
26...	<.06	<.04	<.8	.300	1.6	<6	<.08	13	.6	<.02	--	1.0	2.00
SEP													
23...	<.06	.68	<.8	.398	2.1	E3n	<.08	34	9.7	<.02	--	1.5	1.18

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Selen-ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Stront-ium, water, fltrd, ug/L (01080)	Vanad-ium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Di-ethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbo-furan, wat flt 0.7u GF ug/L (49308)
MAR													
25...	<3	<.2	689	6	1.3	<.009	.05	<.02mc	<.006	E.008	<.04mc	E.016mc	<.006
JUL													
08...	<3	<.2	260	7	.7	<.009	<.02	<.02mc	<.006	E.006	<.01mc	<.021mc	<.006
AUG													
26...	E2n	<.2	322	5	.7	<.009	<.02	<.02mc	<.006	E.011	<.01mc	E.034mc	<.006
SEP													
23...	<3	<.2	654	8	.9	<.009	<.02	<.02mc	<.006	<.006	<.01mc	E.017mc	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	3-Keto-carbo-furan, water, fltrd, ug/L (50295)	Aceto-chlor, water, fltrd, ug/L (49260)	Aci-fluor-fen, water, fltrd 0.7u GF ug/L (49315)	Ala-chlor, water, fltrd, ug/L (46342)	Aldi-carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF ug/L (49314)	Aldi-carb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Bendio-carb, water, fltrd, ug/L (50299)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)
MAR													
25...	<2mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.085	<.050	<.03	<.010	<.004
JUL													
08...	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.047	<.050	<.03	<.010	<.004
AUG													
26...	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.081	<.050	<.03	<.010	<.004
SEP													
23...	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.017	<.050	<.03	<.010	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Bensul-furon, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Brom-oxynil, water, fltrd 0.7u GF ug/L (49311)	Butyl-ate, water, fltrd, ug/L (04028)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd 0.7u GF ug/L (49310)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (49309)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-amben methyl ester, water, fltrd, ug/L (61188)	Chlori-muron, water, fltrd, ug/L (50306)	Chloro-di-amino-s-tri-azine, wat flt ug/L (04039)
MAR													
25...	<.02	<.01mc	<.03mc	<.02mc	<.004	.0260	<.03	<.041	<.006	<.020	<.02mc	<.010	<.01mc
JUL													
08...	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc	<.010	<.04mnc
AUG													
26...	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc	<.010	<.04mnc
SEP													
23...	<.02	<.01mc	<.03mc	<.02mc	<.004	.0274	<.03	<.041	<.006	<.020	<.02mc	<.010	<.04mc

08210000 Nueces River near Three Rivers, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cyanazine, water, fltrd, ug/L (04041)	Cycloate, water, fltrd, ug/L (04031)	Dacthal monoacid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dieldrin, water, fltrd, ug/L (39381)
MAR													
25...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01	<.01	<.009
JUL													
08...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01	<.01	<.009
AUG													
26...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.015	<.01	<.01	<.009
SEP													
23...	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01	<.01	<.009

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Flumetsulam, water, fltrd, ug/L (61694)
MAR													
25...	<.01	<.03	<.02	.18	<.004	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc
JUL													
08...	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc
AUG													
26...	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc
SEP													
23...	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024	<.016	<.01mc

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fluometuron water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Metalaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)
MAR													
25...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc
JUL													
08...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc
AUG													
26...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc
SEP													
23...	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc	<.02	<.008mc

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Metsulfuron, water, fltrd, ug/L (61697)	Molinate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chlorophenyl) -N-' methylurea, ug/L (61692)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)
MAR													
25...	<.004mc	<.015	E.007n	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01
JUL													
08...	<.004mc	<.015	E.012n	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01
AUG													
26...	<.004mc	<.015	.016	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc	<.02	<.01
SEP													
23...	<.004mc	<.015	<.013	<.006	<.03mc	<.003	--	<.007	<.01	<.01	<.02mc	<.02	<.01

08210000 Nueces River near Three Rivers, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)
MAR													
25...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02	<.010	<.02
JUL													
08...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.007	<.025	<.011	<.02	<.010	<.02
AUG													
26...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02	<.010	<.02
SEP													
23...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02	<.010	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometruron, water, fltrd, ug/L (50337)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbacil, water, fltrd, ug/L (04032)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Tribenuron water, fltrd, ug/L (61159)	Triclopyr, water, fltrd 0.7u GF ug/L (49235)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)
MAR													
25...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009
JUL													
08...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009
AUG													
26...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009
SEP													
23...	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u	<.02	<.009

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Uranium natural water, fltrd, ug/L (22703)
MAR	
25...	1.16
JUL	
08...	.32
AUG	
26...	.50
SEP	
23...	1.11

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
c -- See laboratory comment
m -- Value is highly variable by this method
n -- Below the LRL and above the LT-MDL
r -- Value verified by rerun, same method

Null value qualifier codes used in this table:
u -- Unable to determine-matrix interference

08210100 Nueces River at George West, TX

LOCATION.--Lat 28°19'58", long 98°05'08", Live Oak County, Hydrologic Unit 12110111, on downstream side of U.S. Highway 59 bridge, 2.0 mi east of Georgewest, and at mile 83.5.

DRAINAGE AREA.--15,724 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 69.91 ft above NGVD of 1988. Satellite telemeter at station.

REMARKS.--Records good. Since installation of gage in 2000, at least 10% of the contributing drainage area has been regulated. There are many small diversions for irrigation and municipal use above this station.

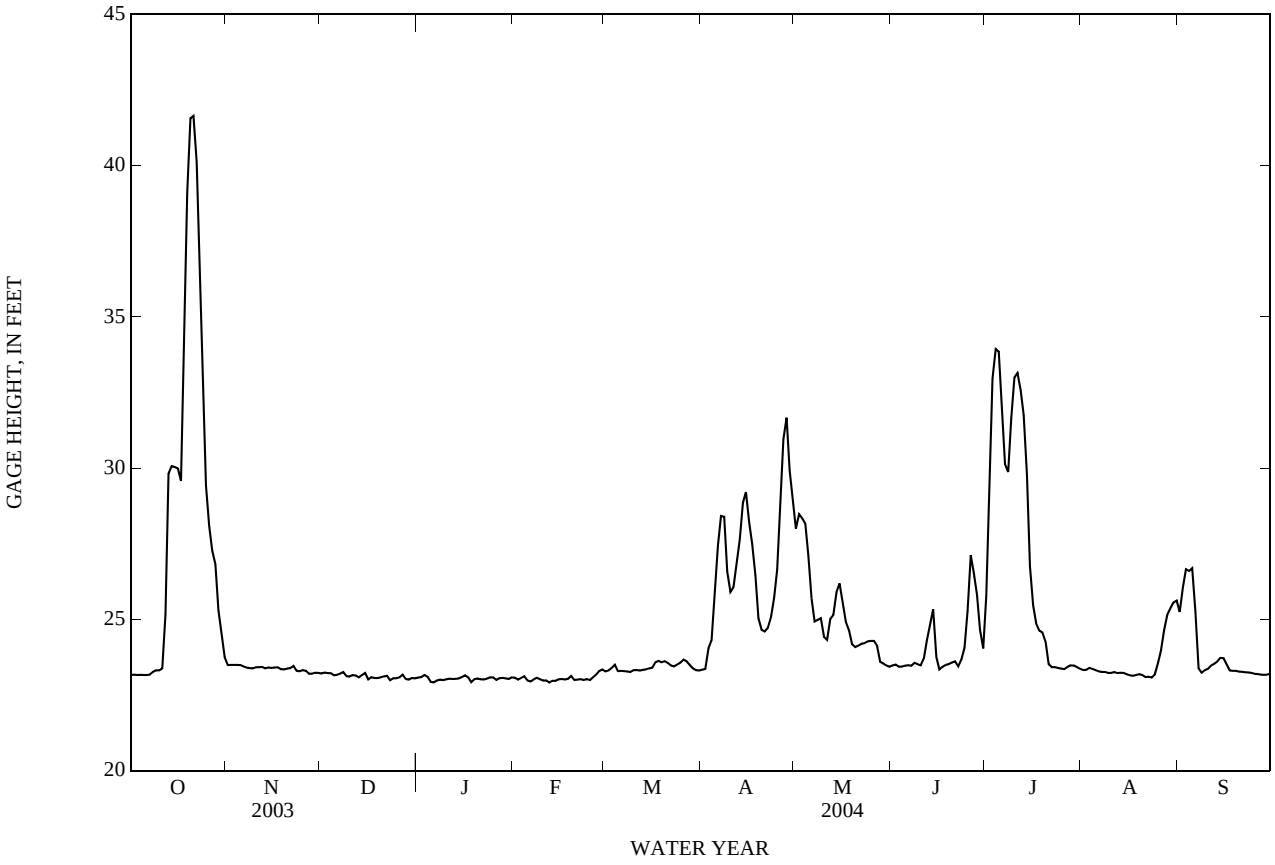
EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 56.41 ft, July 19, 2002; minimum gage height, 11.64 ft, Aug 12, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 41.96 ft, Oct. 20, 21; minimum gage height, 22.61 ft, Dec. 28.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.16	23.49	23.21	23.08	23.07	23.28	23.34	28.00	23.48	25.78	23.33	25.25
2	23.17	23.50	23.24	23.09	23.01	23.31	23.36	28.48	23.50	30.16	23.33	26.06
3	23.17	23.50	23.23	23.16	23.07	23.40	24.04	28.35	23.44	32.97	23.40	26.66
4	23.17	23.49	23.22	23.10	23.12	23.50	24.31	28.17	23.44	33.94	23.36	26.60
5	23.16	23.49	23.15	22.94	22.98	23.29	25.78	27.11	23.47	33.85	23.32	26.69
6	23.16	23.44	23.17	22.92	22.95	23.30	27.45	25.69	23.48	32.21	23.29	25.26
7	23.17	23.41	23.20	22.98	23.02	23.29	28.42	24.93	23.47	30.14	23.26	23.38
8	23.27	23.39	23.26	23.01	23.07	23.28	28.39	24.98	23.57	29.87	23.26	23.24
9	23.32	23.38	23.12	22.99	23.02	23.26	26.58	25.04	23.52	31.64	23.23	23.32
10	23.32	23.41	23.11	23.02	22.98	23.32	25.91	24.42	23.48	33.00	23.23	23.37
11	23.38	23.42	23.16	23.04	22.98	23.33	26.07	24.32	23.71	33.15	23.26	23.47
12	25.17	23.43	23.15	23.03	22.91	23.31	26.88	25.01	24.31	32.57	23.23	23.53
13	29.82	23.38	23.08	23.04	22.97	23.33	27.62	25.14	24.85	31.74	23.23	23.61
14	30.06	23.41	23.16	23.04	22.97	23.35	28.85	25.90	25.34	29.80	23.23	23.73
15	30.04	23.40	23.23	23.09	23.02	23.38	29.21	26.19	23.76	26.76	23.18	23.72
16	29.99	23.41	23.02	23.15	23.03	23.40	28.21	25.51	23.34	25.46	23.15	23.52
17	29.58	23.42	23.09	23.09	23.01	23.58	27.49	24.93	23.43	24.87	23.13	23.31
18	34.23	23.35	23.06	22.92	23.04	23.63	26.46	24.64	23.50	24.63	23.16	23.30
19	39.12	23.35	23.06	23.02	23.13	23.58	25.04	24.18	23.52	24.57	23.19	23.30
20	41.56	23.37	23.08	23.05	23.00	23.61	24.66	24.09	23.57	24.25	23.16	23.27
21	41.64	23.39	23.12	23.02	23.01	23.56	24.60	24.13	23.61	23.51	23.10	23.27
22	40.12	23.46	23.14	23.01	23.02	23.47	24.72	24.19	23.45	23.42	23.11	23.25
23	37.05	23.31	22.99	23.04	23.00	23.45	25.06	24.22	23.67	23.42	23.08	23.25
24	32.54	23.28	23.06	23.08	23.02	23.51	25.71	24.27	24.06	23.40	23.18	23.23
25	29.44	23.32	23.05	23.09	22.99	23.57	26.64	24.29	25.27	23.38	23.55	23.20
26	28.10	23.30	23.08	23.00	23.08	23.67	28.84	24.29	27.12	23.36	23.98	23.20
27	27.28	23.20	23.17	23.06	23.17	23.62	30.96	24.14	26.54	23.43	24.66	23.17
28	26.82	23.21	23.03	23.07	23.29	23.50	31.67	23.60	25.81	23.48	25.15	23.17
29	25.30	23.24	23.01	23.05	23.34	23.39	29.93	23.54	24.65	23.48	25.36	23.17
30	24.50	23.23	23.06	23.03	---	23.32	28.93	23.48	24.04	23.43	25.56	23.20
31	23.76	---	23.05	23.08	---	23.31	---	23.43	---	23.37	25.62	---
MEAN	28.44	23.38	23.12	23.04	23.04	23.42	26.84	25.12	24.08	27.39	23.59	23.89
MAX	41.64	23.50	23.26	23.16	23.34	23.67	31.67	28.48	27.12	33.94	25.62	26.69
MIN	23.16	23.20	22.99	22.92	22.91	23.26	23.34	23.43	23.34	23.36	23.08	23.17

08210100 Nueces River at George West, TX—Continued



08210400 Lagarto Creek near George West, TX

LOCATION.--Lat 28°03'34", long 98°05'48", Live Oak County, Hydrologic Unit 12110111, on downstream side of U.S. Highway 281 bridges, 18.4 miles south of George West, and 0.6 mi upstream from Dix Hollow.

DRAINAGE AREA.--155 mi^2.

PERIOD OF RECORD.--April 1972 to Sept. 1989, Oct. 1, 2003 to current year.

GAGE.--Water-stage recorder. Datum of gage is 197.77 ft. above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good. No known regulation or diversion.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
4	0.00	0.25	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
5	0.00	0.25	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
6	0.00	0.01	0.00	0.00	0.00	e0.00	0.06	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	5.8	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	2.2
13	0.00	0.00	0.23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	1.0
14	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.09
15	0.00	0.00	0.00	0.00	0.13	73	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.03	19	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	1.9	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.02	0.11	0.00	0.00	0.00	0.00	0.00	0.22
21	0.00	0.00	0.00	0.00	0.08	0.09	0.00	0.00	0.00	0.00	0.00	6.4
22	0.00	0.00	0.00	0.00	0.02	0.11	0.00	0.00	0.00	0.00	0.00	1.9
23	0.00	0.00	0.00	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00
24	31	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.19
25	3.1	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.03
26	0.03	0.02	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.21	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	1.3	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.04	---	0.00	---	0.00	0.00	---
TOTAL	34.13	0.53	6.03	0.00	0.29	98.79	0.42	0.00	0.00	0.00	0.00	12.03
MEAN	1.10	0.02	0.19	0.00	0.01	3.19	0.01	0.00	0.00	0.00	0.00	0.40
MAX	31	0.25	5.8	0.00	0.13	73	0.06	0.00	0.00	0.00	0.00	6.4
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	68	1.1	12	0.00	0.6	196	0.8	0.00	0.00	0.00	0.00	24

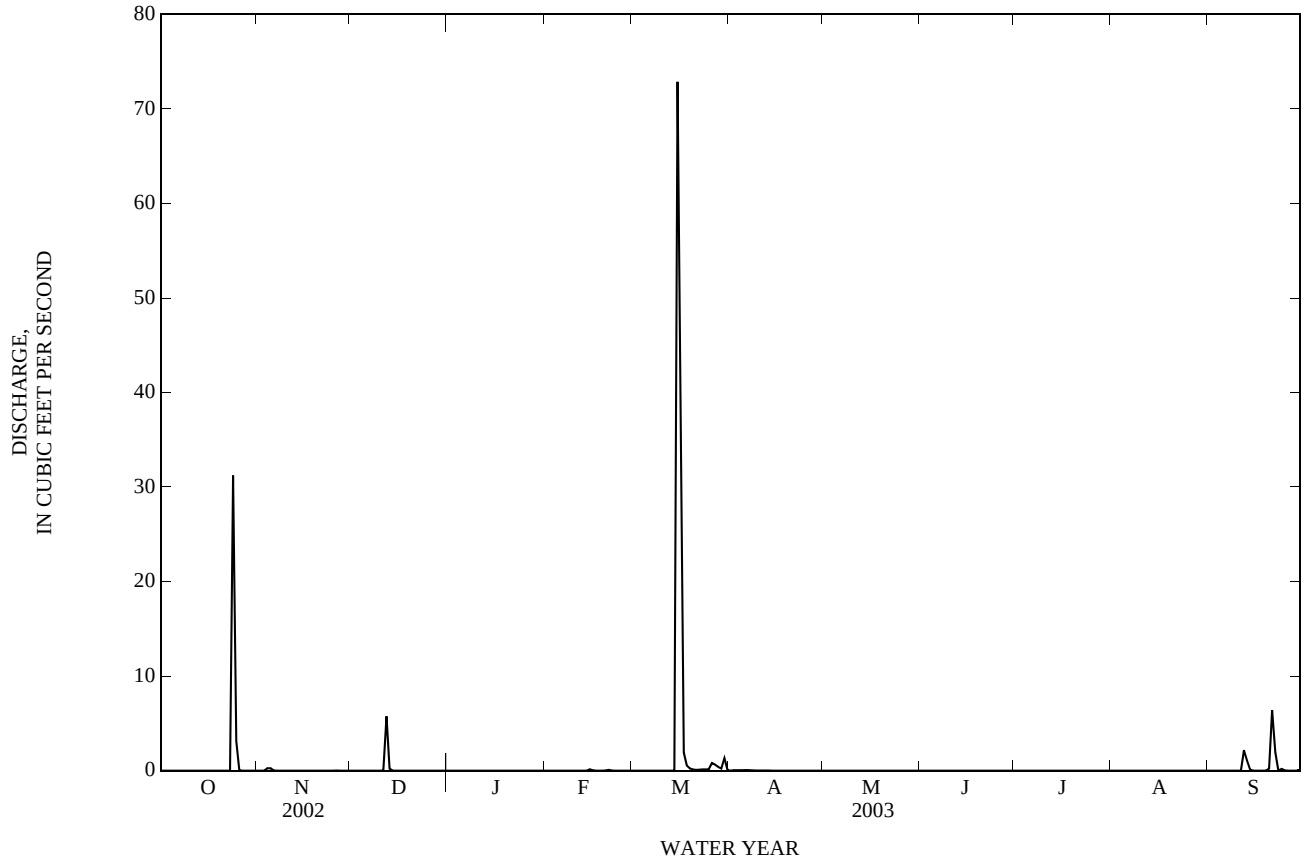
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2003h, BY WATER YEAR (WY)

MEAN	2.08	0.01	0.05	1.53	0.00	0.33	0.42	7.19	0.76	0.98	7.57	0.12
MAX	30.4	0.09	0.64	27.5	0.01	3.19	7.75	54.9	6.97	10.7	141	1.94
(WY)	(1986)	(1986)	(1977)	(1980)	(1977)	(2003)	(1985)	(1972)	(1985)	(1981)	(1980)	(1973)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1975)	(1973)	(1973)	(1973)	(1973)	(1973)	(1972)	(1973)	(1974)	(1973)	(1972)	(1972)

SUMMARY STATISTICS	FOR 2003 WATER YEAR		WATER YEARS 1972 - 2003h	
ANNUAL TOTAL	152.22			
ANNUAL MEAN	0.42		1.59	
HIGHEST ANNUAL MEAN			14.5	1980
LOWEST ANNUAL MEAN			0.00	1975
HIGHEST DAILY MEAN	73	Mar 15	3,820	Aug 11, 1980
LOWEST DAILY MEAN	0.00	Oct 1	0.00	Apr 1, 1972
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 1	0.00	Apr 1, 1972
MAXIMUM PEAK FLOW	372	Mar 15	6,350	Aug 11, 1980
MAXIMUM PEAK STAGE	8.94	Mar 15	16.50	Aug 11, 1980
ANNUAL RUNOFF (AC-FT)	302		1,150	
10 PERCENT EXCEEDS	0.04		0.00	
50 PERCENT EXCEEDS	0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00	

h See PERIOD OF RECORD paragraph.
e Estimated

08210400 Lagarto Creek near George West, TX—Continued



08210400 Lagarto Creek near George West, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.01	0.01
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
7	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00
8	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	14	0.04	0.00	0.00	0.00
9	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	64	0.02	0.00	0.00	0.00
10	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	43	0.02	0.00	0.00	0.00
11	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	36	0.01	0.00	0.00	0.00
12	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	33	0.01	0.00	0.00	0.00
13	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	31	0.00	0.01	0.01	0.00
14	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	57	0.00	0.01	0.00	0.00
15	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	43	0.00	0.01	0.00	0.00
16	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	35	0.00	0.01	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30	0.00	0.01	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.6	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.3	0.01	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.00	0.01	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.3	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.22	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.21	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	504.73	0.86	0.06	0.02	0.01
MEAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.3	0.03	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64	0.20	0.01	0.01	0.01
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,000	1.7	0.1	0.04	0.02

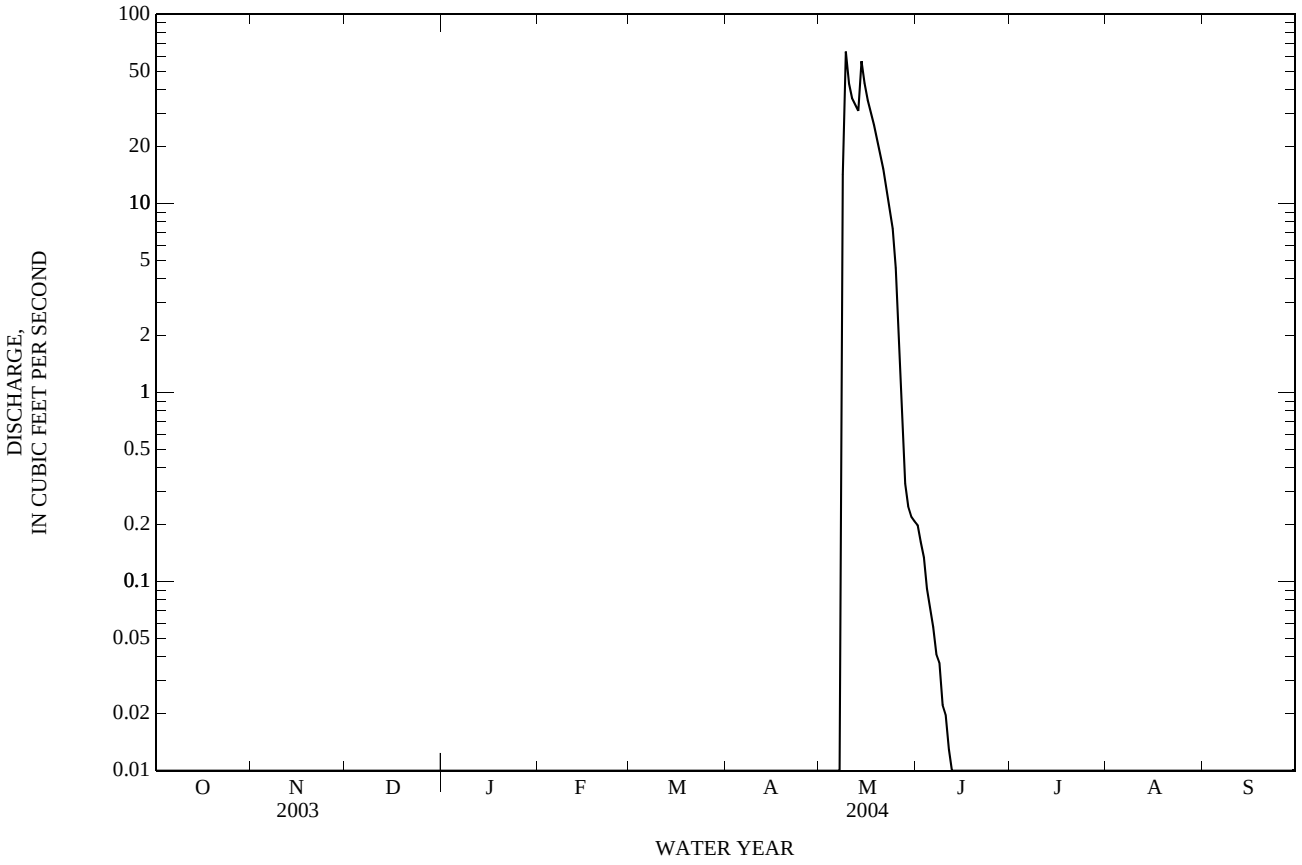
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2004h, BY WATER YEAR (WY)

MEAN	1.97	0.01	0.04	1.45	0.00	0.31	0.40	7.64	0.72	0.93	7.19	0.12
MAX	30.4	0.09	0.64	27.5	0.01	3.19	7.75	54.9	6.97	10.7	141	1.94
(WY)	(1986)	(1986)	(1977)	(1980)	(1977)	(2003)	(1985)	(1972)	(1985)	(1981)	(1980)	(1973)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1975)	(1973)	(1973)	(1973)	(1973)	(1973)	(1972)	(1973)	(1974)	(1973)	(1972)	(1972)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1972 - 2004h	
ANNUAL TOTAL	111.53		505.68			
ANNUAL MEAN	0.31		1.38		1.58	
HIGHEST ANNUAL MEAN					14.5	1980
LOWEST ANNUAL MEAN					0.00	1975
HIGHEST DAILY MEAN	73	Mar 15	64	May 9	3,820	Aug 11, 1980
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Apr 1, 1972
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Apr 1, 1972
MAXIMUM PEAK FLOW			84	May 8	6,350	Aug 11, 1980
MAXIMUM PEAK STAGE			6.56	May 8	16.50	Aug 11, 1980
ANNUAL RUNOFF (AC-FT)	221		1,000		1,150	
10 PERCENT EXCEEDS	0.02		0.01		0.00	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

h See PERIOD OF RECORD paragraph.
e Estimated

08210400 Lagarto Creek near George West, TX—Continued



08210500 Lake Corpus Christi near Mathis, TX

LOCATION.--Lat 28°02'17", long 97°52'15", Jim Wells County, Hydrologic Unit 12110111, on right upstream corner of outlet tower at right end of Wesley E. Seale Dam on Nueces River, 0.6 mi upstream from bridge on State Highway 359, and 4.5 mi southwest of Mathis.

DRAINAGE AREA.--16,656 mi^2.

WATER-STAGE RECORDS

PERIOD OF RECORD.--Sept. 1948 to Sept. 1960 (end of month contents only), Oct. 1960 to current year.

REVISED RECORDS.--WSP 1923: 1953(M), 1957(M).

GAGE.--Water-stage recorder. Supplemental water-stage recorder operated by city of Corpus Christi. Datum of gage is NGVD of 1929. Prior to Oct. 1, 1957, nonrecording gage at various sites 0.2 mi upstream at datum 0.52 ft higher. Oct. 1, 1957, to Apr. 3, 1961, nonrecording gage near left end of Mathis Dam 0.2 mi upstream at present datum. Satellite telemeter at station.

REMARKS.--Records good. Mathis Dam was completed and storage began July 24, 1934. The original capacity at spillway crest (elevation, 74.5 ft) was 54,000 acre-ft, but by Mar. 1948 had decreased to 39,400 acre-ft because of sedimentation. Wesley E. Seale Dam was completed and deliberate impoundment began on Apr. 26, 1958, submerging the old Mathis Dam. Wesley E. Seale Dam is a rolled earthfill dam, 5,930 ft long, including two spillways. The 1,320-foot north spillway has 33 gates that are operated by movable hydraulic lifts. The 1,080-foot south spillway has 27 gates that are electrically operated from the control tower. The gates were repaired and modified in Aug. 1966. All gates in both spillways are 37.5 by 8.75 ft wide. The dam is owned by the City of Corpus Christi. Water for municipal supply for the City of Corpus Christi is released downstream through a 4.0-foot-diameter cylinder valve and three 2.5-by 4.0-foot rectangular openings. The releases are diverted from the river at Calallen 35 mi downstream for domestic, municipal, irrigation, mining, and industrial uses in the Corpus Christi area. The cities of Alice, Beeville, and Mathis withdraw water from the lake for municipal use. Conservation pool storage is 269,900 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	106.0
Top of north spillway gates	94.5
Top of south spillway gates	94.0
Crest of spillways	88.0
Lowest gated outlet (invert)	55.5

COOPERATION.--Capacity curve 5-C from a Jan. 1987 survey provided by the City of Corpus Christi. Figures for new capacity curve were used beginning Oct. 1, 1989. Prior to Aug. 31, 1998, the City of Corpus Christi provided daily observer readings.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 320,000 acre-ft Sept. 22, 1967 and Sept. 12, 1971, elevation, 94.82 ft, Sept. 22, 1967; minimum contents, 14,740 acre-ft, May 5, 1951, elevation, 67.62 ft.

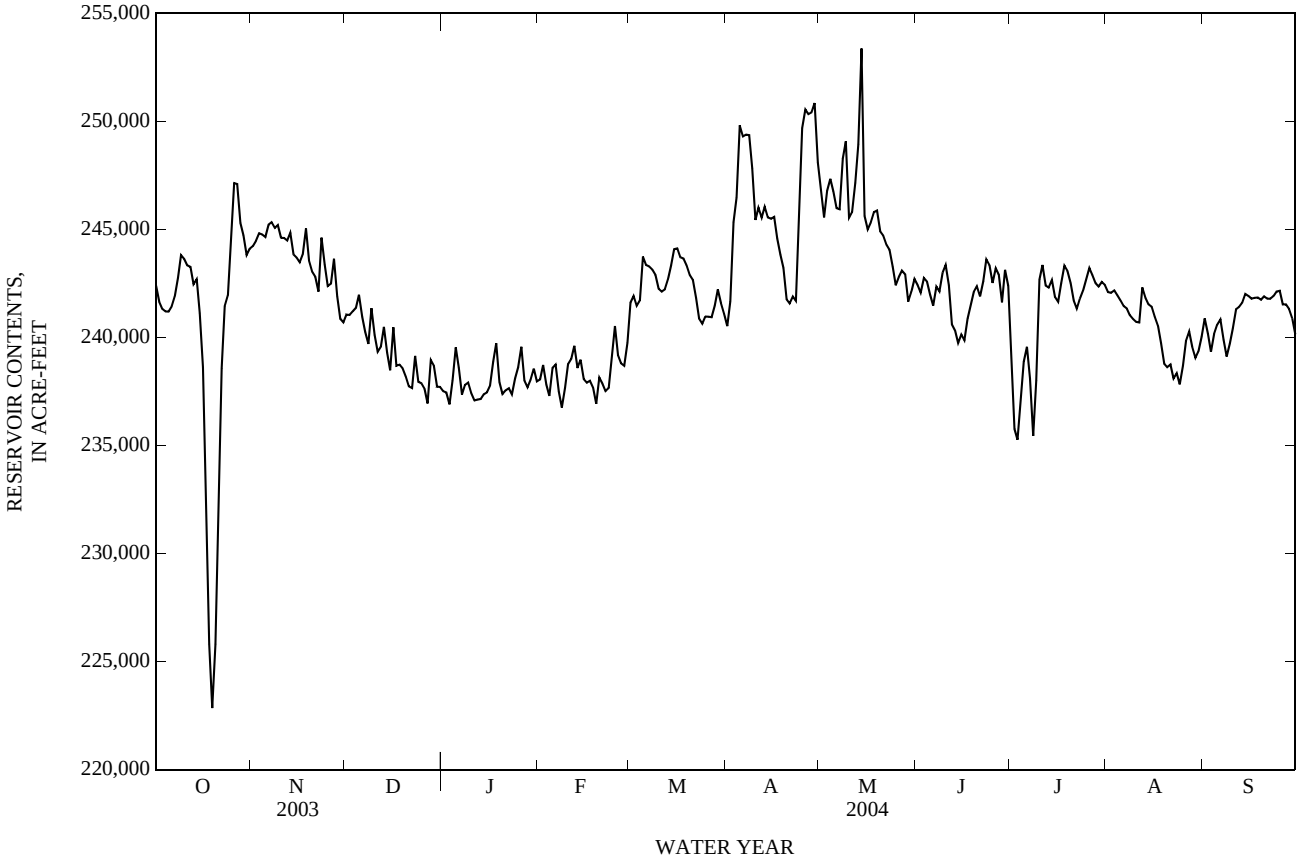
EXTREMES FOR CURRENT YEAR.--Maximum contents, 256,900 acre-ft, May 14 elevation, 94.75 ft; Minimum contents, 222,100 acre-ft, Oct. 19 elevation, 92.99 ft.

RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242,400	244,200	241,100	237,500	238,100	241,600	240,500	246,900	242,400	238,700	242,100	240,900
2	241,700	244,500	241,000	237,400	238,700	241,900	241,700	245,600	242,100	235,800	242,100	240,200
3	241,300	244,800	241,200	236,900	237,800	241,500	245,300	246,800	242,800	235,300	242,200	239,300
4	241,200	244,800	241,400	238,000	237,300	241,700	246,500	247,300	242,600	237,000	242,000	240,200
5	241,200	244,600	242,000	239,500	238,600	243,700	249,800	246,800	242,000	238,900	241,700	240,600
6	241,400	245,200	241,000	238,600	238,700	243,400	249,300	246,000	241,500	239,600	241,500	240,800
7	241,900	245,300	240,300	237,300	237,500	243,300	249,400	245,900	242,400	238,100	241,300	239,900
8	242,800	245,100	239,700	237,800	236,800	243,100	249,400	248,300	242,100	235,400	241,000	239,100
9	243,800	245,200	241,400	237,900	237,700	242,900	247,800	249,100	243,000	238,000	240,900	239,700
10	243,600	244,600	240,100	237,400	238,800	242,300	245,400	245,500	243,400	242,700	240,700	240,400
11	243,300	244,600	239,300	237,100	239,000	242,100	246,000	245,800	242,400	243,400	240,700	241,300
12	243,300	244,500	239,600	237,100	239,600	242,200	245,600	247,100	240,600	242,400	242,300	241,400
13	242,500	244,800	240,500	237,200	238,600	242,700	246,100	248,900	240,300	242,300	241,800	241,600
14	242,700	243,800	239,300	237,400	239,000	243,300	245,600	253,400	239,700	242,700	241,500	242,000
15	241,100	243,700	238,500	237,500	238,100	244,100	245,500	245,600	240,100	241,900	241,400	241,900
16	238,600	243,500	240,500	237,800	237,900	244,100	245,600	245,000	239,900	241,700	241,000	241,800
17	233,600	243,800	238,700	238,900	238,000	243,700	244,600	245,300	240,900	242,500	240,500	241,800
18	225,800	245,000	238,700	239,700	237,700	243,700	243,800	245,800	241,500	243,300	239,700	241,800
19	222,900	243,600	238,600	237,900	236,900	243,300	243,200	245,900	242,100	243,100	238,800	241,800
20	225,800	243,000	238,200	237,400	238,100	242,900	241,800	244,900	242,400	242,500	238,600	241,900
21	232,800	242,800	237,700	237,600	237,900	242,700	241,600	244,700	241,900	241,700	238,800	241,800
22	238,600	242,100	237,700	237,700	237,500	241,800	241,900	244,300	242,600	241,300	238,100	241,800
23	241,400	244,600	239,100	237,400	237,700	240,900	241,700	244,100	243,600	241,800	238,300	241,900
24	242,000	243,400	237,900	238,100	239,100	240,600	246,600	243,300	243,300	242,200	237,800	242,100
25	244,400	242,400	237,900	238,600	240,500	241,000	249,700	242,400	242,500	242,700	238,700	242,200
26	247,100	242,500	237,600	239,600	239,200	241,000	250,600	242,800	243,200	243,200	239,800	241,500
27	247,100	243,600	236,900	238,000	238,800	240,900	250,300	243,100	242,900	242,900	240,300	241,500
28	245,300	241,900	239,000	237,700	238,700	241,500	250,400	242,900	241,600	242,500	239,600	241,300
29	244,700	240,900	238,700	238,000	239,700	242,200	250,900	241,700	243,100	242,400	239,100	240,900
30	243,800	240,700	237,700	238,600	---	241,600	248,100	242,100	242,400	242,600	239,400	240,100
31	244,100	---	237,700	238,000	---	241,100	---	242,700	---	242,400	240,000	---
MEAN	240,400	243,800	239,300	237,900	238,300	242,300	246,200	245,500	242,000	241,000	240,400	241,100
MAX	247,100	245,300	242,000	239,700	240,500	244,100	250,900	253,400	243,600	243,400	242,300	242,200
MIN	222,900	240,700	236,900	236,900	236,800	240,600	240,500	241,700	239,700	235,300	237,800	239,100

CAL YR 2003 MEAN 237,800 MAX 249,700 MIN 207,400
WTR YR 2004 MEAN 241,500 MAX 253,400 MIN 222,900

08210500 Lake Corpus Christi near Mathis, TX—Continued



08210500 Lake Corpus Christi near Mathis, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Mar. 1971 to Sept. 1976, Mar. 1999 to current year.
BIOCHEMICAL DATA: Mar. 1971 to Sept. 1976.
PESTICIDE DATA: Mar. 1999 to current year.

280238097521301 -- LK CORPUS CHRISTI SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Reservoir storage acre-ft (00054)	Sampling depth, feet (00003)	Transparency Secchi disc, meters (00078)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
MAR													
16...	1430	244,000	1.00	.64	767	10.3	118	8.5	458	22.5	160	52.9	5.85
MAR													
16-16	1430	--	--	--	--	--	--	--	--	--	--	--	--
16...	1432	--	10.0	--	767	8.7	93	8.3	458	19.0	--	--	--
16...	1434	--	20.0	--	767	8.5	90	8.2	458	18.5	--	--	--
16...	1436	--	30.0	--	767	8.3	87	8.2	457	18.0	--	--	--
16...	1438	--	39.0	--	767	6.4	67	7.9	460	18.0	160	55.0	6.05
MAY													
11...	1320	247,000	1.00	.43	764	7.4	86	8.1	650	23.0	180	59.6	6.78
MAY													
11-11	1320	--	--	--	--	--	--	--	--	--	--	--	--
11...	1322	--	10.0	--	764	7.3	85	8.1	650	23.0	--	--	--
11...	1324	--	20.0	--	764	7.2	84	8.1	654	23.0	--	--	--
11...	1326	--	30.0	--	764	7.0	82	8.1	656	23.0	--	--	--
11...	1328	--	39.0	--	764	6.5	75	8.0	675	22.5	180	61.6	6.97
11...	1330	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	1255	243,000	1.00	.55	765	8.3	112	8.5	576	31.5	180	59.5	7.40
JUL													
20-20	1255	--	--	--	--	--	--	--	--	--	--	--	--
20...	1257	--	10.0	--	765	5.3	70	8.0	578	30.0	--	--	--
20...	1259	--	20.0	--	765	4.8	62	7.9	577	29.0	--	--	--
20...	1301	--	30.0	--	765	4.4	57	7.8	579	29.0	--	--	--
20...	1303	--	38.0	--	765	2.1	27	7.7	582	29.0	180	59.3	7.35

280238097521301 -- LK CORPUS CHRISTI SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)
MAR													
16...	8.50	33.1	30	134	159	2	46.5	<.2	17.3	25.5	271	<2	.23
MAR													
16-16	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	8.64	33.6	30	135	162	1	44.6	<.2	18.4	25.3	273	Mn	.32
MAY													
11...	8.64	53.8	38	--q	--q	--q	99.7	<.2	15.1	36.4	--	<2	.20
MAY													
11-11	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	8.93	57.5	39	--q	--q	--q	103	<.2	15.3	37.5	--	<2	.22
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	8.49	48.4	36	111	131	2	78.3	<.2	16.4	41.8	327	E1n	.36
JUL													
20-20	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	8.27	47.6	35	119	144	<1	78.7	<.2	18.9	41.7	333	<2	.20

08210500 Lake Corpus Christi near Mathis, TX—Continued

280238097521301 -- LK CORPUS CHRISTI SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll-ium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Chrom-ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Mangan-ese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Molyb-denum, water, fltrd, ug/L (01060)
MAR													
16...	2	94	<.06	<.04	<.8	.163	2.5	<6	<.08	13	.5	<.02	1.2
MAR													
16-16	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	3	96	<.06	<.04	<.8	.191	2.6	<6	<.08	12	53.1	<.02	1.2
MAY													
11...	4	110	<.06	<.04	<.8	.207	2.2	<6	<.08	17	.6	<.02	1.2
MAY													
11-11	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	E1n	122	<.06	<.04	<.8	.506	1.7	24	<.08	18	206	<.02	1.2
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	5	92	<.06	<.04	<.8	.244	2.4	<6	E.05n	14	.9	<.02	1.2
JUL													
20-20	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	5	92	<.06	<.04	<.8	.341	1.9	E3n	<.08	14	106	<.02	1.2

280238097521301 -- LK CORPUS CHRISTI SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nickel, water, fltrd, ug/L (01065)	Selen-ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Stront-ium, water, fltrd, ug/L (01080)	Vanad-ium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Di-ethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)
MAR													
16...	1.37	<3	<.2	264	7	.7	--	--	--	--	--	--	--
MAR													
16-16	--	--	--	--	--	--	--	<.009	<.02	<.02mc	<.006	E.005n	<.04mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	1.39	<3	<.2	273	7	1.7	--	--	--	--	--	--	--
MAY													
11...	.70	<3	<.2	352	7	E.6n	<7	--	--	--	--	--	--
MAY													
11-11	--	--	--	--	--	--	--	<.009	.06	<.02mc	<.006	E.012	<.01mc
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	<7	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	.93	<3	<.2	361	E4n	<.6	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	2.13	<3	<.2	334	7	1.6	--	--	--	--	--	--	--
JUL													
20-20	--	--	--	--	--	--	--	<.009	.03	<.02mc	<.006	E.011	<.01mc
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	2.28	<3	<.2	328	6	4.2	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbofuran, wat flt 0.7u GF ug/L (49308)	3-Ketocarbofuran, water, fltrd, ug/L (50295)	Acetochlor, water, fltrd, ug/L (49260)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	Alachlor, water, fltrd, ug/L (46342)	Aldicarb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldicarb sulfoxide, wat flt 0.7u GF ug/L (49314)	Aldicarb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Bendiocarb, water, fltrd, ug/L (50299)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	E.015mc	<.006	<2mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.024	<.050	<.03
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	E.038mc	<.006	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.235	<.050	<.03
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	E.039mc	<.006	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005	.110	<.050	<.03
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensulfuron, water, fltrd, ug/L (61693)	Bentazon, water, fltrd 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Butylate, water, fltrd, ug/L (04028)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (49309)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorambenmethyl ester, water, fltrd, ug/L (61188)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041	<.006	<.020	<.02mc
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Chlori-muron, water, fltrd, ug/L (50306)	Chloro-di-amino-s-tri-azine, wat flt ug/L (04039)	Chloro-thalo-nil, water, fltrd 0.7u GF ug/L (49306)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Clopyr-alid, water, fltrd 0.7u GF ug/L (49305)	Cyana-zine, water, fltrd, ug/L (04041)	Cyclo-ate, water, fltrd, ug/L (04031)	Dacthal mono-acid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF ug/L (38442)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.010	<.01mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.010	<.04mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.010	<.04mnc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003	<.012	<.005	<.01
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Di-chlor-prop, water, fltrd 0.7u GF ug/L (49302)	Diel-drin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen-amid, water, fltrd, ug/L (04033)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03	<.029	<.013	<.024
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.01	<.009	<.01	<.03	<.02	.05	<.004	<.009	<.005	<.03	<.029	<.013	<.024
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.01	<.009	<.01	<.03	<.02	E.01n	<.004	<.009	<.005	<.03	<.029	<.013	<.024
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fipronil, water, fltrd, ug/L (62166)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035	<.027	<.02	<.01mc
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Metalaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Metsulfuron, water, fltrd, ug/L (61697)	Molinate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chlorophenyl) -N-' methylurea, ug/L (61692)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.02	<.008mc	<.004mc	<.015	E.008n	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.02	<.008mc	<.004mc	<.015	.050	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.02	<.008mc	<.004mc	<.015	.018	<.006	<.03mc	<.003	<.02	<.007	<.01	<.01	<.02mc
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.011	<.02
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.025	<.020	<.02
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.007	<.025	<.011	<.02
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

280238097521301 -- LK CORPUS CHRISTI SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometruron, water, fltrd, ug/L (50337)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbacil, water, fltrd, ug/L (04032)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Tribenuron water, fltrd, ug/L (61159)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.010	<.02	<.008	<.02	.010	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.010	<.02	<.008	<.02	.005	<.009	<.02	<.034	<.010mc	<.02	<.010	<.002	--u
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

280238097521301 -- LK CORPUS CHRISTI SITE AC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Carbo-pheno-thion, bed sedimnt ug/kg (39787)	Diazi-non, bed sedimnt ug/kg (39571)	Ethion, bed sedimnt ug/kg (39399)	Mala-thion, bed sedimnt ug/kg (39531)	Methyl para-thion, bed sedimnt ug/kg (39601)	Para-thion, bed sedimnt ug/kg (39541)	Uranium natural water, fltrd, ug/L (22703)
MAR									
16...	--	--	--	--	--	--	--	--	.58
MAR									
16-16	<.02	E.006n	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	.56
MAY									
11...	--	--	--	--	--	--	--	--	.71
MAY									
11-11	<.02	<.009	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	.78
11...	--	--	<.2	<1.0	<.2	<.2	<.2	<.2	--
JUL									
20...	--	--	--	--	--	--	--	--	.52
JUL									
20-20	<.02	<.009	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	.49

280656097542801 -- LK CORPUS CHRISTI SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sam-pling depth, feet (00003)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Oil and grease, water, unfltrd freon extract mg/L (00556)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)
MAR													
16...	1700	1.00	.40	765	9.7	108	8.4	547	20.5	--	--	--	--
MAR													
16-16	1700	--	--	--	--	--	--	--	--	--	<.009	<.02	<.02mc
16...	1702	10.0	--	765	7.8	84	8.2	509	19.0	--	--	--	--
16...	1704	24.0	--	765	7.1	76	8.1	491	19.0	--	--	--	--
MAY													
11...	1515	1.00	.27	760	7.5	90	8.1	570	24.5	<7	--	--	--
MAY													
11-11	1515	--	--	--	--	--	--	--	--	--	<.009	.05	<.02mc
11...	1517	10.0	--	760	7.2	86	8.1	570	24.0	--	--	--	--
11...	1519	20.0	--	760	7.2	86	8.0	570	24.0	--	--	--	--
11...	1521	24.0	--	760	7.1	85	8.0	570	24.0	--	--	--	--
JUL													
20...	1330	1.00	.34	764	6.3	85	8.1	556	31.0	--	--	--	--
JUL													
20-20	1330	--	--	--	--	--	--	--	--	--	<.009	<.02	<.02mc
20...	1332	10.0	--	764	5.3	70	7.8	557	30.0	--	--	--	--
20...	1334	24.0	--	764	2.3	30	7.5	558	30.0	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

280656097542801 -- LK CORPUS CHRISTI SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2,6-Di-ethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbo-furan, wat flt 0.7u GF ug/L (49308)	3-Keto-carbo-furan, water, fltrd, ug/L (50295)	Aceto-chlor, water, fltrd, ug/L (49260)	Aci-fluor-fen, water, fltrd 0.7u GF ug/L (49315)	Ala-chlor, water, fltrd, ug/L (46342)	Aldi-carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF ug/L (49314)	Aldi-carb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.006	E.006n	<.04mc	E.017mc	<.006	<2mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.006	E.012	<.01mc	E.033mc	<.006	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.006	E.007	<.01mc	E.029mc	<.006	<.0698mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

280656097542801 -- LK CORPUS CHRISTI SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Bendio-carb, water, fltrd, ug/L (50299)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensul-furon, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Brom-oxynil, water, fltrd 0.7u GF ug/L (49311)	Butyl-ate, water, fltrd, ug/L (04028)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd 0.7u GF ug/L (49310)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	.024	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	.225	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	.066	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

280656097542801 -- LK CORPUS CHRISTI SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Carbofuran, water, fltrd 0.7u GF ug/L (49309)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorambenmethyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chloro-di-amino-s-triazine, wat flt ug/L (04039)	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cyanazine, water, fltrd, ug/L (04041)	Cycloate, water, fltrd, ug/L (04031)	Dacthal mono-acid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.006	<.020	<.02mc	<.010	<.01mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.006	<.020	<.02mc	<.010	<.04mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.006	<.020	<.02mc	<.010	<.04mnc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

280656097542801 -- LK CORPUS CHRISTI SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dieldrin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.012	<.005	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.012	<.005	<.01	<.01	<.009	<.01	<.03	<.02	.03	<.004	<.009	<.005	<.03
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.012	<.005	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

280656097542801 -- LK CORPUS CHRISTI SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Flumet-sulam, water, fltrd, ug/L (61694)	Fluo-meturon water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.029	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.029	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.029	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

280656097542801 -- LK CORPUS CHRISTI SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Mala-thion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd 0.7u GF ug/L (38501)	Meth-omyl, water, fltrd 0.7u GF ug/L (49296)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Metsul-furon, water, fltrd, ug/L (61697)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chloro-phenyl) -N-' methyl-urea, ug/L (61692)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.027	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	E.010n	<.006	<.03mc	<.003	<.02	<.007
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	E.018n	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	.026	<.006	<.03mc	<.003	<.02	<.007
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.027	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	.015	<.006	<.03mc	<.003	<.02	<.007
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

280656097542801 -- LK CORPUS CHRISTI SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico-sul-furon, water, fltrd, ug/L (50364)	Norflur azon, water, fltrd 0.7u GF ug/L (49293)	Ory-zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p-' DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Pic-loram, water, fltrd 0.7u GF ug/L (49291)	Prome-ton, water, fltrd, ug/L (04037)	Propy-zamide, water, fltrd 0.7u GF ug/L (82676)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.01	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.01	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.01	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	Mn	<.004
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

280656097542801 -- LK CORPUS CHRISTI SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propa-chlor, water, fltrd, ug/L (04024)	Pro-panil, water, fltrd 0.7u GF ug/L (82679)	Propar-gite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propi-cona-zole, water, fltrd, ug/L (50471)	Pro-poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Sima-zine, water, fltrd, ug/L (04035)	Sulfo-met-ruron, water, fltrd, ug/L (50337)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terba-cil, water, fltrd, ug/L (04032)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.025	<.011	<.02	<.010	<.02	<.008	<.02	.006	<.009	<.02	<.034	<.010mc	<.02
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.025	<.020	<.02	<.010	<.02	<.008	<.02	.010	<.009	<.02	<.034	<.010mc	<.02
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.025	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

280656097542801 -- LK CORPUS CHRISTI SITE BC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-benuron water, fltrd, ug/L (61159)	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)
MAR					
16...	--	--	--	--	--
MAR					
16-16	<.010	<.002	--u	<.02	E.008n
16...	--	--	--	--	--
16...	--	--	--	--	--
MAY					
11...	--	--	--	--	--
MAY					
11-11	<.010	<.002	--u	<.02	<.009
11...	--	--	--	--	--
11...	--	--	--	--	--
11...	--	--	--	--	--
JUL					
20...	--	--	--	--	--
JUL					
20-20	<.010	<.002	--u	<.02	<.009
20...	--	--	--	--	--
20...	--	--	--	--	--

280921097562701 -- LK CORPUS CHRISTI SITE CC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sam-pling depth, feet (00003)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)
MAR								
16...	1640	1.00	765	9.7	110	8.3	596	21.5
16...	1642	12.0	765	6.8	74	8.0	608	19.5
MAY								
11...	1505	1.00	760	7.1	86	8.0	565	25.0
11...	1507	12.0	760	4.0	48	7.5	575	24.0
JUL								
20...	1445	1.00	764	6.1	86	8.0	557	34.0
20...	1447	12.0	764	2.2	29	7.5	559	30.5

281108097544701 -- LK CORPUS CHRISTI SITE DC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sam-pling depth, feet (00003)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)
MAR								
16...	1624	1.00	765	9.9	115	8.4	664	23.0
16...	1626	10.0	765	6.3	68	7.8	1,220	19.0
16...	1628	18.0	765	5.7	62	7.8	1,730	19.5
MAY								
11...	1450	1.00	760	6.6	80	7.8	605	25.0
11...	1452	10.0	760	6.1	74	7.8	606	24.5
11...	1454	20.0	760	5.5	66	7.7	611	24.0
JUL								
20...	1430	1.00	764	6.7	92	8.0	558	32.0
20...	1432	10.0	764	2.0	26	7.4	543	30.0
20...	1434	19.0	764	1.2	16	7.4	547	30.0

08210500 Lake Corpus Christi near Mathis, TX—Continued

281411097564801 -- LK CORPUS CHRISTI SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sampling depth, feet (00003)	Transparency Secchi disc, meters (00078)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Oil and grease, water, unfltrd freon extract mg/L (00556)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)
MAR													
16...	1555	1.00	.43	766	10.7	125	8.2	1,660	23.0	--	--	--	--
MAR													
16-16	1555	--	--	--	--	--	--	--	--	--	<.009	<.02	<.02mc
16...	1557	10.0	--	766	6.2	68	7.7	2,090	19.5	--	--	--	--
16...	1559	20.0	--	766	3.0	32	7.4	2,520	19.0	--	--	--	--
16...	1601	25.0	--	766	2.2	24	7.3	2,620	19.0	--	--	--	--
MAY													
11...	1425	1.00	.30	760	6.1	74	7.8	629	25.0	<7	--	--	--
MAY													
11-11	1425	--	--	--	--	--	--	--	--	--	<.009	<.02	<.02mc
11...	1427	10.0	--	760	6.0	72	7.6	629	24.0	--	--	--	--
11...	1429	20.0	--	760	5.9	70	7.7	627	24.0	--	--	--	--
11...	1431	26.0	--	760	6.0	72	7.8	628	24.0	--	--	--	--
11...	1433	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	1410	1.00	.34	764	5.6	77	7.8	482	32.5	--	--	--	--
JUL													
20-20	1410	--	--	--	--	--	--	--	--	--	<.009	<.02	<.02mc
20...	1412	10.0	--	764	3.9	52	7.6	485	30.5	--	--	--	--
20...	1414	24.0	--	764	3.2	43	7.5	487	30.5	--	--	--	--

281411097564801 -- LK CORPUS CHRISTI SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxycarbofuran, wat flt 0.7u GF ug/L (49308)	3-Ketocarbofuran, water, fltrd, ug/L (50295)	Acetochlor, water, fltrd, ug/L (49260)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	Alachlor, water, fltrd, ug/L (46342)	Aldicarb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldicarb sulfoxide, wat flt 0.7u GF ug/L (49314)	Aldicarb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.006	E.006	<.04mc	E.013mc	<.006	<2mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.006	E.011	<.01mc	E.019mc	<.006	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.006	E.004n	<.01mc	<.008mc	<.006	<.014mc	<.006	<.007	<.005	<.02mc	<.008mc	<.04mc	<.005
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

281411097564801 -- LK CORPUS CHRISTI SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Bendiocarb, water, fltrd, ug/L (50299)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensulfuron, water, fltrd, ug/L (61693)	Bentazon, water, fltrd 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Butylate, water, fltrd, ug/L (04028)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	.035	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	.126	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	.015	<.050	<.03	<.010	<.004	<.02	<.01mc	<.03mc	<.02mc	<.004	<.0096	<.03	<.041
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

281411097564801 -- LK CORPUS CHRISTI SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Carbofuran, water, fltrd 0.7u GF ug/L (49309)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chloramben methyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiamino-s-triazine, wat flt ug/L (04039)	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cyanazine, water, fltrd, ug/L (04041)	Cycloate, water, fltrd, ug/L (04031)	Dacthal mono-acid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.006	<.020	<.02mc	<.010	<.01mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.006	<.020	<.02mc	<.010	<.04mc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.006	<.020	<.02mc	<.010	<.04mnc	<.04mc	<.005	<.006	<.01	<.018	<.01mc	<.01	<.003
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

281411097564801 -- LK CORPUS CHRISTI SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd 0.7u GF ug/L (49302)	Diel-drin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen-amid, water, fltrd, ug/L (04033)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.012	<.005	<.01	<.01	<.009	<.01	<.03	<.02	.05	<.004	<.009	<.005	<.03
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.012	<.005	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.012	<.005	<.01	<.01	<.009	<.01	<.03	<.02	<.01	<.004	<.009	<.005	<.03
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

281411097564801 -- LK CORPUS CHRISTI SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Flumet-sulam, water, fltrd, ug/L (61694)	Fluo-meturon water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.029	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.029	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.029	<.013	<.024	<.016	<.01mc	<.03	<.003	<.02mc	<.02mc	<.007	<.004	<.01	<.035
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

281411097564801 -- LK CORPUS CHRISTI SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Malathion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Metalaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Metsulfuron, water, fltrd, ug/L (61697)	Molinate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chlorophenyl) -N-' methylurea, ug/L (61692)	Napropamide, water, fltrd 0.7u GF ug/L (82684)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.027	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	E.010n	<.006	<.03mc	<.003	<.02	<.007
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	E.016n	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	E.009n	<.006	<.03mc	<.003	<.02	<.007
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.027	<.02	<.01mc	<.02	<.008mc	<.004mc	<.015	E.007n	<.006	<.03mc	<.003	<.02	<.007
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

281411097564801 -- LK CORPUS CHRISTI SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Neburon water, fltrd 0.7u GF ug/L (49294)	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.01	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.01	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.01	<.01	<.02mc	<.02	<.01	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

08210500 Lake Corpus Christi near Mathis, TX—Continued

281411097564801 -- LK CORPUS CHRISTI SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometruron, water, fltrd, ug/L (50337)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbacil, water, fltrd, ug/L (04032)	Terbufos, water, fltrd 0.7u GF ug/L (82675)
MAR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
16-16	<.025	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
11-11	<.025	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
20-20	<.025	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.034	<.010mc	<.02
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--

281411097564801 -- LK CORPUS CHRISTI SITE EC
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Tribenuron water, fltrd, ug/L (61159)	Triclopyr, water, fltrd 0.7u GF ug/L (49235)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Carbophenothion, bed sedimnt ug/kg (39787)	Diazinon, bed sedimnt ug/kg (39571)	Ethion, bed sedimnt ug/kg (39399)	Malathion, bed sedimnt ug/kg (39531)	Methyl parathion, bed sedimnt ug/kg (39601)	Parathion, bed sedimnt ug/kg (39541)
MAR											
16...	--	--	--	--	--	--	--	--	--	--	--
MAR											
16-16	<.010	<.002	--u	<.02	E.006n	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11-11	<.010	<.002	--u	<.02	<.009	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
JUL											
20...	--	--	--	--	--	--	--	--	--	--	--
JUL											
20-20	<.010	<.002	--u	<.02	<.009	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
c -- See laboratory comment
m -- Value is highly variable by this method
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
q -- Sample discarded: holding time exceeded
u -- Unable to determine-matrix interference

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08211000 Nueces River near Mathis, TX

LOCATION.--Lat 28°02'17", long 97°51'36", San Patricio County, Hydrologic Unit 12110111, at downstream side of bridge on State Highway 359, 0.6 mi downstream from Wesley E. Seale Dam, 4.0 mi southwest of Mathis, and at mile 46.7.

DRAINAGE AREA.--16,660 mi^2.

PERIOD OF RECORD.--Aug. 1939 to current year. Water-quality records: Chemical data: Oct. 1947 to Sept. 1991. Specific conductance: Oct. 1947 to Sept. 1991. Water temperature: Oct. 1947 to Sept. 1991.

GAGE.--Water-stage recorder. Datum of gage is 26.53 ft above NGVD of 1929. Aug. 5, 1939, to Aug. 29, 1984, on left bank 9.0 ft upstream at datum 1.0 ft higher. Aug. 29 to Nov. 5, 1984, on left bank 9.0 ft upstream at present datum. Nov. 5, 1984, to Aug. 5, 1987, on left bank 154 ft downstream at present datum. Satellite telemeter at station.

REMARKS.--Records fair. Since installation of gage in water year 1939, at least 10% of contributing drainage area has been regulated. Upstream from Lake Corpus Christi, flow is affected by recharge to permeable formations, small diversions, and minor regulation. Water for municipal and industrial uses at the City of Corpus Christi is released from Lake Corpus Christi above gage and is diverted from river at Calallen 34.0 mi downstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of about 41 ft, present datum, occurred Sept. 20, 1919, from information by Texas and New Orleans Railroad Co. and is the second highest known. Maximum stage since at least 1888, that of Sept. 24, 1967.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	530	76	42	49	73	252	6,690	175	4,230	329	2,350
2	99	275	74	42	60	74	175	4,830	169	5,900	235	3,410
3	95	265	74	42	47	87	730	3,290	120	6,550	250	3,150
4	76	259	73	42	46	90	928	3,930	115	6,760	327	3,000
5	68	256	132	78	51	110	2,900	4,150	109	7,060	296	3,040
6	60	266	91	77	75	95	4,200	3,070	103	7,210	238	2,890
7	45	299	63	41	49	92	4,440	2,140	105	7,050	204	1,790
8	49	314	36	56	48	101	4,840	2,550	100	6,260	200	377
9	52	320	265	51	50	87	4,680	4,290	205	4,190	204	128
10	53	255	174	41	55	62	4,240	3,120	398	5,180	176	120
11	50	244	25	41	69	61	3,440	1,320	1,020	7,430	160	357
12	1,690	243	45	40	133	62	2,870	1,590	2,120	7,330	225	1,010
13	4,930	251	75	44	49	72	3,140	2,390	2,270	6,680	143	1,180
14	5,950	245	46	44	160	69	3,850	9,360	2,480	5,950	142	1,200
15	6,120	242	47	45	45	73	4,580	6,130	1,190	4,410	142	1,190
16	7,270	242	253	47	42	91	4,690	2,590	439	2,430	141	868
17	9,120	257	38	59	41	278	4,470	2,060	111	1,620	162	230
18	10,900	717	50	331	45	708	3,370	1,520	192	1,610	155	112
19	11,300	148	49	60	87	809	2,690	1,500	251	1,870	143	109
20	11,700	133	49	42	87	893	2,530	1,390	437	1,600	136	107
21	12,700	129	50	43	120	989	e1,790	1,070	555	980	136	106
22	13,100	128	50	43	75	914	1,780	1,240	506	395	136	105
23	11,300	250	128	44	65	678	1,850	1,390	1,070	192	136	105
24	8,000	152	31	45	83	585	2,770	1,700	1,590	183	136	108
25	5,420	125	34	46	501	585	3,760	1,510	2,330	182	135	117
26	4,280	124	36	161	67	653	4,890	1,010	2,970	245	460	102
27	3,780	299	36	61	48	718	5,640	1,200	3,540	313	1,900	117
28	3,530	305	103	48	50	694	6,040	1,050	3,290	340	2,840	115
29	2,960	124	76	49	51	679	6,480	465	2,360	340	2,860	101
30	1,880	120	41	65	---	550	6,610	315	3,020	337	2,880	98
31	1,180	---	41	49	---	389	---	193	---	337	2,590	---
TOTAL	137,859	7,517	2,361	1,919	2,348	11,421	104,625	79,053	33,340	105,164	18,217	27,692
MEAN	4,447	251	76.2	61.9	81.0	368	3,488	2,550	1,111	3,392	588	923
MAX	13,100	717	265	331	501	989	6,610	9,360	3,540	7,430	2,880	3,410
MIN	45	120	25	40	41	61	175	193	100	182	135	98
AC-FT	273,400	14,910	4,680	3,810	4,660	22,650	207,500	156,800	66,130	208,600	36,130	54,930

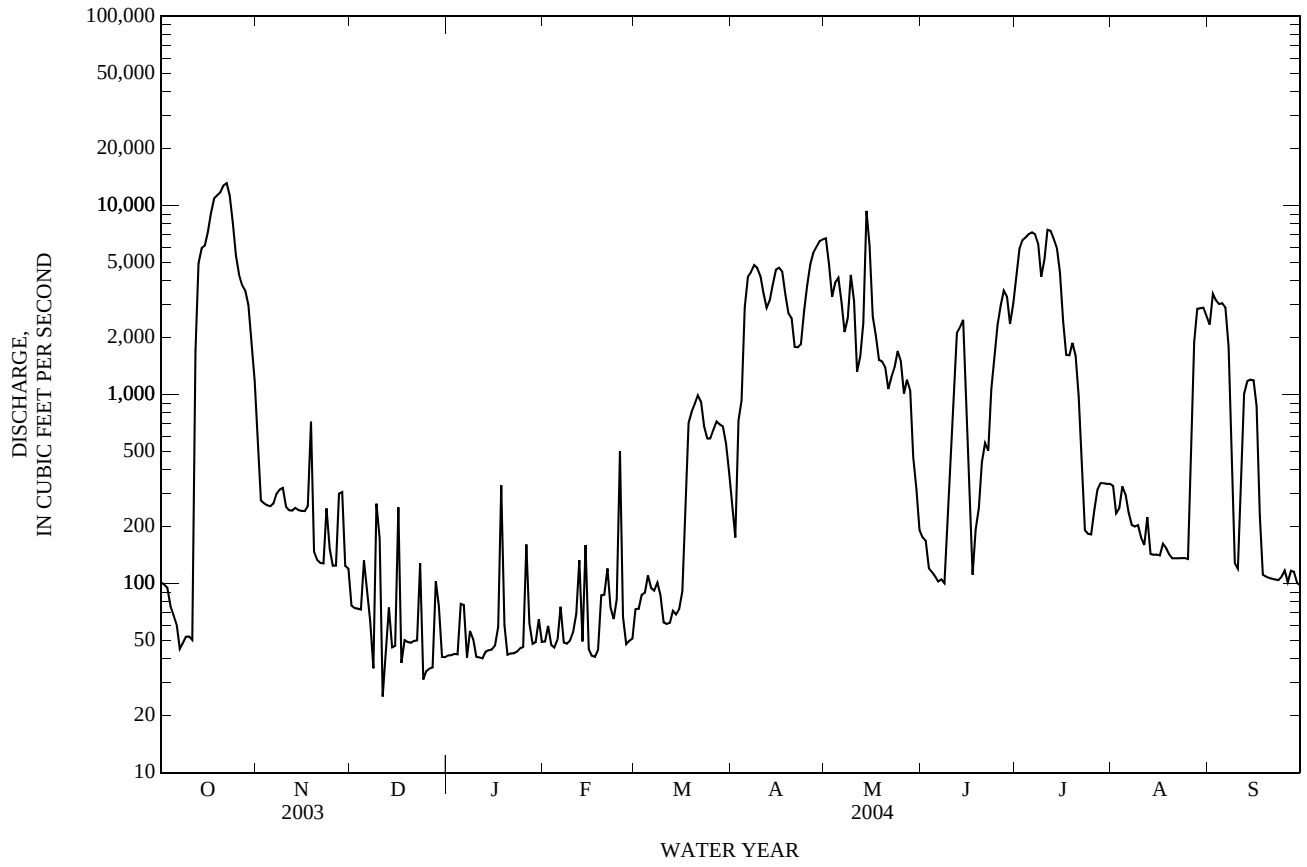
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	1,272	496	216	284	319	275	464	1,161	1,220	1,073	502	1,634
MAX	14,850	4,552	1,871	4,994	5,165	4,377	4,639	10,500	8,204	15,180	10,050	24,950
(WY)	(1972)	(1977)	(1977)	(1958)	(1958)	(1958)	(1977)	(1941)	(1987)	(2002)	(1971)	(1967)
MIN	55.3	31.0	27.9	28.1	24.3	31.0	37.3	39.3	43.7	67.0	41.6	44.0
(WY)	(1953)	(1940)	(1940)	(1940)	(1942)	(1948)	(1948)	(1948)	(1948)	(1951)	(1943)	(1945)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	256,412		531,516			
ANNUAL MEAN	702		1,452		745	
HIGHEST ANNUAL MEAN					2,743	2002
LOWEST ANNUAL MEAN					104	1964
HIGHEST DAILY MEAN	13,100	Oct 22	13,100	Oct 22	125,000	Sep 25, 1967
LOWEST DAILY MEAN	25	Dec 11	25	Dec 11	6.8	Aug 15, 1940
ANNUAL SEVEN-DAY MINIMUM	51	Dec 24	43	Jan 10	15	Aug 9, 1940
MAXIMUM PEAK FLOW			13,400	Oct 22	i138,000	Sep 24, 1967
MAXIMUM PEAK STAGE			29.33	Oct 22	a48.70	Sep 24, 1967
ANNUAL RUNOFF (AC-FT)	508,600		1,054,000		539,700	
10 PERCENT EXCEEDS	1,100		4,680		1,290	
50 PERCENT EXCEEDS	128		250		130	
90 PERCENT EXCEEDS	70		47		53	

i From indirect measurement of peak flow.
a From floodmark.
e Estimated

08211000 Nueces River near Mathis, TX—Continued



08211200 Nueces River at Bluntzer, TX

LOCATION.--Lat 27°56'15", long 97°46'32", Nueces County, Hydrologic Unit 12110111, on right bank, at downstream end of bridge on Farm Road 666, 1.2 mi south of San Patricio, 5.5 mi upstream from Cayamon Creek, and 10.3 mi northwest of Calallen.

DRAINAGE AREA.--16,772 mi^2.

PERIOD OF RECORD.--Jan. 1966 to Feb. 1967, Mar. 1992 to current year (daily mean discharges less than 2,950 ft^3/s). Prior to Oct. 1994, published as "above Calallen".

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Mar. 27, 1992, at same site at datum 6.04 ft higher. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since installation of gage in Jan. 1966, at least 10% of contributing drainage area has been regulated.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 32.22 ft, Sept. 16, 2002; minimum discharge, no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 29.41 ft Oct. 23; minimum daily discharge, 0.95 ft^3/s Mar. 1.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	1,330	194	78	63	44	391	---	261	---	352	---
2	170	725	162	78	65	67	230	---	229	---	296	---
3	157	482	157	78	70	79	859	---	197	---	226	---
4	143	431	153	77	57	86	999	---	155	---	267	---
5	115	410	154	75	62	87	---	---	142	---	318	---
6	104	397	208	132	58	110	---	---	128	---	266	---
7	88	400	159	102	92	86	---	---	116	---	204	---
8	81	428	132	83	56	87	---	---	118	---	191	1,680
9	81	440	95	92	56	83	---	---	107	---	214	708
10	73	407	385	77	57	71	---	---	289	---	165	288
11	69	364	161	66	66	48	---	---	569	---	167	202
12	343	355	96	64	120	47	---	1,940	1,490	---	186	667
13	---	356	127	60	110	45	---	2,270	2,280	---	186	1,120
14	---	351	126	69	95	61	---	---	---	---	137	1,290
15	---	347	107	69	146	60	---	---	2,250	---	134	1,320
16	---	342	162	78	46	55	---	---	1,290	---	133	1,300
17	---	341	240	107	39	127	---	---	566	---	140	794
18	---	413	105	171	37	389	---	2,360	199	2,080	157	322
19	---	649	108	297	52	729	---	1,940	236	2,080	145	175
20	---	288	102	80	95	822	---	1,770	291	2,080	127	152
21	---	241	100	66	97	954	2,560	1,480	533	1,680	123	143
22	---	229	102	62	131	994	2,230	1,340	564	1,050	124	136
23	---	225	114	62	77	897	2,150	1,470	729	491	125	135
24	---	354	162	69	84	709	---	1,620	1,250	260	125	132
25	---	216	72	75	173	645	---	1,880	2,020	220	124	134
26	---	218	75	65	432	639	---	1,460	---	208	152	143
27	---	217	73	203	87	727	---	1,300	---	289	890	126
28	---	440	75	77	42	757	---	1,320	---	351	---	146
29	---	293	161	68	36	732	---	976	---	363	---	137
30	---	215	112	73	---	714	---	569	---	358	---	122
31	2,010	---	80	79	---	537	---	377	---	353	---	---
TOTAL	---	11,904	4,259	2,832	2,601	11,488	---	---	---	---	---	---
MEAN	---	397	137	91.4	89.7	371	---	---	---	---	---	---
MAX	1,330	385	297	432	994							
MIN	215	72	60	36	44							
AC-FT	---	23,610	8,450	5,620	5,160	22,790	---	---	---	---	---	---

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08211500 Nueces River at Calallen, TX

LOCATION.--Lat 27°52'58", long 97°37'30", Nueces County, Hydrologic Unit 12110111, below the Cunningham pumping station in Corpus Christi, 200 ft upstream from Calallen Dam, 1.0 mi northwest of Calallen, about 0.4 mi upstream from bridge on Interstate Highway 37, about 7.0 mi upstream from Nueces Bay, and about 0.5 mi upstream from Missouri-Pacific Railroad bridge.

DRAINAGE AREA.--16,920 mi^2.

PERIOD OF RECORD.--Oct. 1983 to Sept. 1989 (maximum annual gage height and discharge). Oct. 1989 to Sept. 1999 (daily mean discharges below base discharge), Oct. 1999 to current year.

REVISED RECORDS.--WSP 1312: Data Aug. 1915 to Mar. 1919 unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 0.84 ft above NGVD of 1929. Prior to June 15, 2000, water-stage recorder at site 0.5 mi upstream from Calallen Dam at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Since installation of gage in Oct. 1983, at least 10% of contributing drainage area has been regulated. There are numerous diversions above station for agricultural, municipal, and industrial supply. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

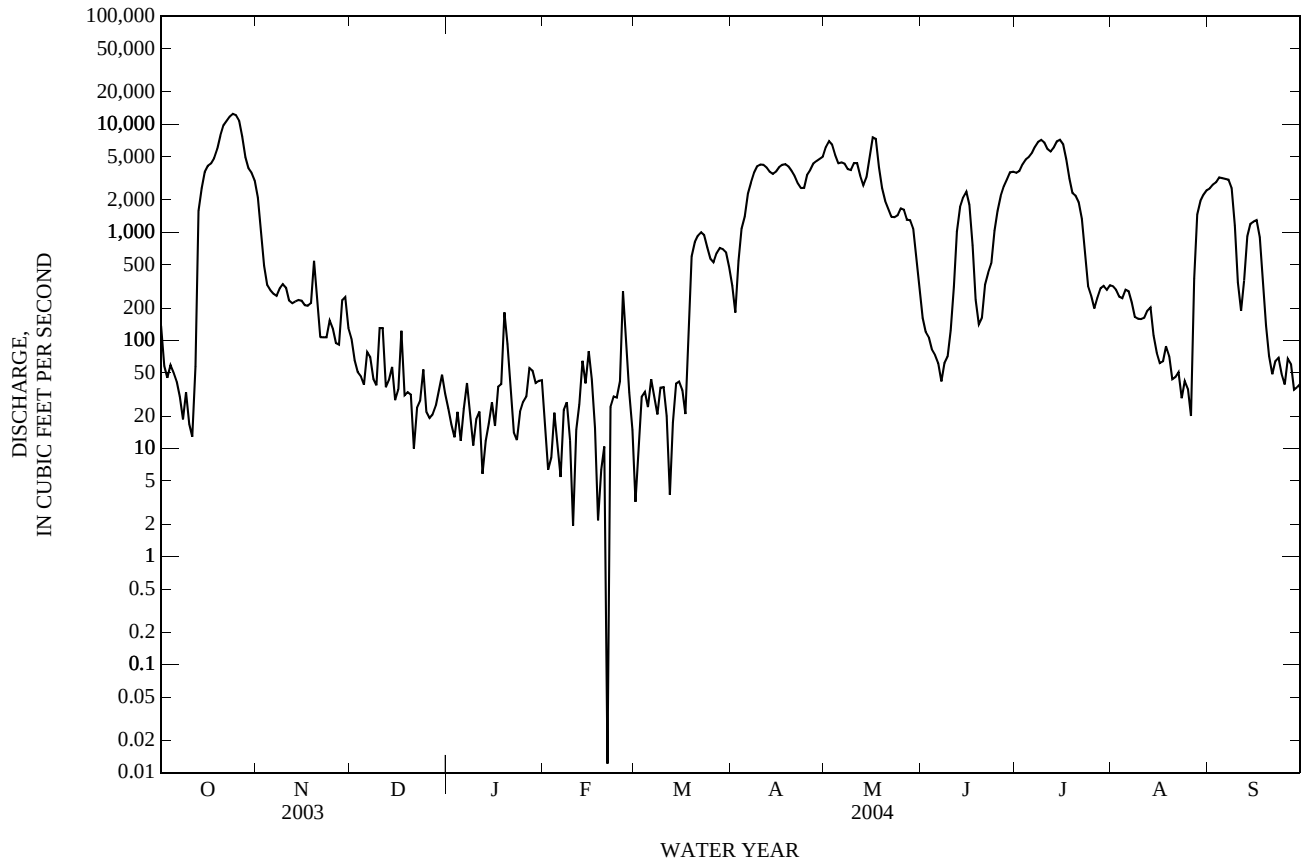
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	2,100	104	24	16	3.2	321	6,180	162	3,570	317	2,550
2	58	1,080	66	17	6.4	11	181	7,000	120	3,710	295	2,770
3	45	490	51	13	8.3	30	546	6,510	106	4,270	254	2,910
4	59	328	47	22	21	33	1,080	5,190	82	4,730	246	3,230
5	51	293	39	12	10	24	1,400	4,380	73	4,980	294	3,190
6	42	271	78	23	5.4	44	2,290	4,440	62	5,440	286	3,130
7	30	259	70	40	23	30	2,890	4,330	42	6,210	224	3,080
8	19	304	44	21	27	21	3,580	3,860	62	6,900	165	2,580
9	33	332	38	11	12	37	4,100	3,780	71	7,200	159	1,160
10	17	308	130	19	1.9	37	4,250	4,390	123	6,780	158	345
11	13	234	131	22	15	20	4,220	4,390	313	5,930	162	189
12	57	221	37	5.8	26	3.7	3,990	3,340	1,020	5,600	188	359
13	1,580	230	43	12	65	17	3,650	2,730	1,720	6,090	202	925
14	2,570	237	57	17	40	40	3,480	3,250	2,110	6,940	111	1,200
15	3,630	234	28	27	79	42	3,650	4,930	2,380	7,200	77	1,260
16	4,140	213	35	16	44	35	4,020	7,570	1,800	6,540	62	1,300
17	4,340	210	123	37	16	21	4,220	7,340	761	4,790	64	900
18	4,870	222	31	39	2.2	152	4,290	3,980	238	3,170	89	326
19	5,900	547	33	182	6.3	601	4,090	2,580	140	2,320	72	137
20	7,920	228	32	93	10	814	3,720	1,950	161	2,190	44	72
21	9,810	107	10	38	0.01	933	3,320	1,670	330	1,910	46	49
22	10,800	107	24	14	24	1,000	2,850	1,390	426	1,330	51	64
23	11,800	107	28	12	30	946	2,570	1,380	517	662	29	69
24	12,500	154	54	22	30	725	2,590	1,440	1,040	319	42	49
25	12,200	130	22	27	42	573	3,420	1,660	1,580	261	36	39
26	10,800	95	19	30	285	530	3,810	1,620	2,180	198	20	68
27	7,720	91	21	56	109	643	4,340	1,310	2,670	247	376	60
28	4,980	236	25	52	33	716	4,580	1,300	3,100	304	1,470	35
29	3,940	253	34	41	15	702	4,790	1,090	3,600	320	1,950	37
30	3,570	130	48	42	---	655	5,020	530	3,640	294	2,230	40
31	3,030	---	32	43	---	481	---	290	---	324	2,460	---
TOTAL	126,661	9,751	1,534	1,029.8	1,002.51	9,919.9	97,258	105,800	30,629	110,729	12,179	32,123
MEAN	4,086	325	49.5	33.2	34.6	320	3,242	3,413	1,021	3,572	393	1,071
MAX	12,500	2,100	131	182	285	1,000	5,020	7,570	3,640	7,200	2,460	3,230
MIN	13	91	10	5.8	0.01	3.2	181	290	42	198	20	35
AC-FT	251,200	19,340	3,040	2,040	1,990	19,680	192,900	209,900	60,750	219,600	24,160	63,720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	1,435	1,724	580	80.6	198	144	669	703	282	4,212	209	3,366
MAX	4,086	5,611	1,639	259	723	334	3,242	3,413	1,021	16,170	604	13,950
(WY)	(2004)	(2003)	(2002)	(2003)	(2003)	(2003)	(2004)	(2004)	(2004)	(2002)	(2002)	(2002)
MIN	4.45	4.33	10.6	4.55	12.5	4.67	4.67	4.64	1.59	2.90	4.52	4.46
(WY)	(2000)	(2000)	(2000)	(2000)	(2002)	(2000)	(2000)	(2000)	(2001)	(2001)	(2000)	(2000)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	277,804.39		538,616.21			
ANNUAL MEAN	761		1,472		1,415	
HIGHEST ANNUAL MEAN					2,953	2002
LOWEST ANNUAL MEAN					39.0	2001
HIGHEST DAILY MEAN	12,500	Oct 24	12,500	Oct 24	45,800	Sep 16, 2002
LOWEST DAILY MEAN	0.00	May 8	0.01	Feb 21	0.00	Oct 1, 2000
ANNUAL SEVEN-DAY MINIMUM	0.16	Aug 17	13	Feb 17	0.00	May 11, 2001
MAXIMUM PEAK FLOW			12,600	Oct 24	49,000	Sep 16, 2002
MAXIMUM PEAK STAGE			9.24	Oct 24	13.21	Sep 16, 2002
ANNUAL RUNOFF (AC-FT)	551,000		1,068,000		1,025,000	
10 PERCENT EXCEEDS	2,160		4,400		4,030	
50 PERCENT EXCEEDS	87		235		45	
90 PERCENT EXCEEDS	3.2		21		0.00	

08211500 Nueces River at Calallen, TX—Continued



08211503 Rincon Bayou Channel near Calallen, TX

LOCATION.--Lat 27°53'48", long 97°37'31", San Patricio County, Hydrologic Unit 12110111, on the left bank, 800 ft downstream of the Nueces River, about 1400 ft downstream from bridge on Interstate Highway 37, and 2.8 mi NNE od Calallen.

DRAINAGE AREA.--Indeterminate

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1996 to Aug 2000, Dec. 20, 2003 to Sept. 30, 2004 (daily mean discharges less than 400 ft^3/s).

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

REMARKS.--No estimated daily discharges. Records fair. No flow some days. Flow in channel is bi-directional and determined by Nueces Bay tides and discharge at Nueces River at Calallen (station 08211500), 1.2 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 7.36 ft, Oct. 19, 1998.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.47 ft^3/s, May 16, 17; minimum discharge, 0.73 ft^3/s, Aug. 6, 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	2.1	3.2	-1.7	-4.0	---	-14	274	4.1	171
2	---	---	---	1.8	1.1	-2.0	-3.1	---	-5.6	273	3.1	198
3	---	---	---	-0.57	1.5	2.1	15	---	-5.0	---	2.8	204
4	---	---	---	-3.2	7.1	16	39	---	-4.5	---	-0.90	245
5	---	---	---	-0.84	2.4	-5.1	70	---	-0.86	---	-0.57	255
6	---	---	---	0.08	-0.58	-3.6	114	---	-3.7	---	-0.05	247
7	---	---	---	0.46	-1.5	-1.9	144	---	-5.2	---	0.33	242
8	---	---	---	1.1	-1.0	-1.6	218	---	0.92	---	1.4	200
9	---	---	---	0.98	-0.90	-0.40	305	---	-4.9	---	0.42	8.3
10	---	---	---	-0.21	-0.98	-0.80	---	---	0.00	---	0.40	-56
11	---	---	---	0.34	-0.20	2.9	---	---	1.1	---	-0.09	-38
12	---	---	---	0.22	0.03	2.3	---	---	29	---	-0.36	-14
13	---	---	---	0.25	-0.19	-1.1	330	180	59	---	3.4	22
14	---	---	---	0.37	0.01	0.30	293	250	78	---	5.8	49
15	---	---	---	0.99	-0.11	-3.2	293	---	108	---	6.6	59
16	---	---	---	2.0	0.24	-1.3	328	---	---	---	1.8	60
17	---	---	---	0.48	0.04	-0.71	---	---	---	---	3.5	40
18	---	---	---	-0.55	0.25	1.2	---	---	---	---	-0.90	3.7
19	---	---	---	0.06	-0.05	6.1	---	---	---	125	-0.39	-9.4
20	---	---	---	-0.08	0.03	12	---	117	---	76	-3.5	-21
21	---	---	0.54	-0.05	-0.07	8.1	---	65	---	63	-2.3	12
22	---	---	0.02	-0.24	0.04	21	179	35	---	5.6	-1.3	38
23	---	---	-0.42	-0.99	1.0	38	110	38	---	-44	-0.97	26
24	---	---	0.30	-0.83	2.0	22	89	51	---	-36	-1.1	-28
25	---	---	0.32	-0.35	-0.13	8.8	---	71	---	-23	-0.77	-26
26	---	---	1.0	-0.21	0.02	5.8	277	72	---	-14	0.53	3.4
27	---	---	4.6	-0.04	0.01	9.8	---	44	---	-7.0	7.0	-20
28	---	---	3.0	-0.37	2.9	6.2	---	31	---	-0.90	33	-17
29	---	---	-0.38	-0.04	7.0	-14	---	23	256	0.40	64	-9.7
30	---	---	0.28	0.01	---	-9.7	---	-20	282	1.3	92	-4.0
31	---	---	1.7	1.4	---	-7.0	---	-23	---	1.5	137	---
TOTAL	---	---	---	4.07	23.16	108.49	---	---	---	---	353.98	1,840.3
MEAN	---	---	---	0.13	0.80	3.50	---	---	---	---	11.4	61.3
MAX	---	---	---	2.1	7.1	38	--	---	---	137	255	
MIN	---	---	---	-3.2	-1.5	-14	--	---	---	-3.5	-56	
AC-FT	---	---	---	8.1	46	215	---	---	---	---	702	3,650

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08211503 Rincon Bayou Channel near Calallen, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Mar. 20, 2004 to Sept. 30, 2004.
TEMPERATURE: Mar. 20, 2004 to Sept. 30, 2004.

INSTRUMENTATION.-- Water-quality monitor since Mar. 2004.

REMARKS.-- Records good. Interruption in the record was caused by malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 7,590 microsiemens/cm, Apr. 3; minimum, 313 microsiemens/cm, Apr. 4.
WATER TEMPERTURE: Maximum, 38.8°C, Aug. 5; minimum, 18.17°C, Apr. 1.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 7,590 microsiemens/cm, Apr. 3; minimum, 313 microsiemens/cm, Apr. 4.
WATER TEMPERATURE: Maximum, 38.8°C, Aug. 5; minimum, 18.2°C, Apr. 1.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
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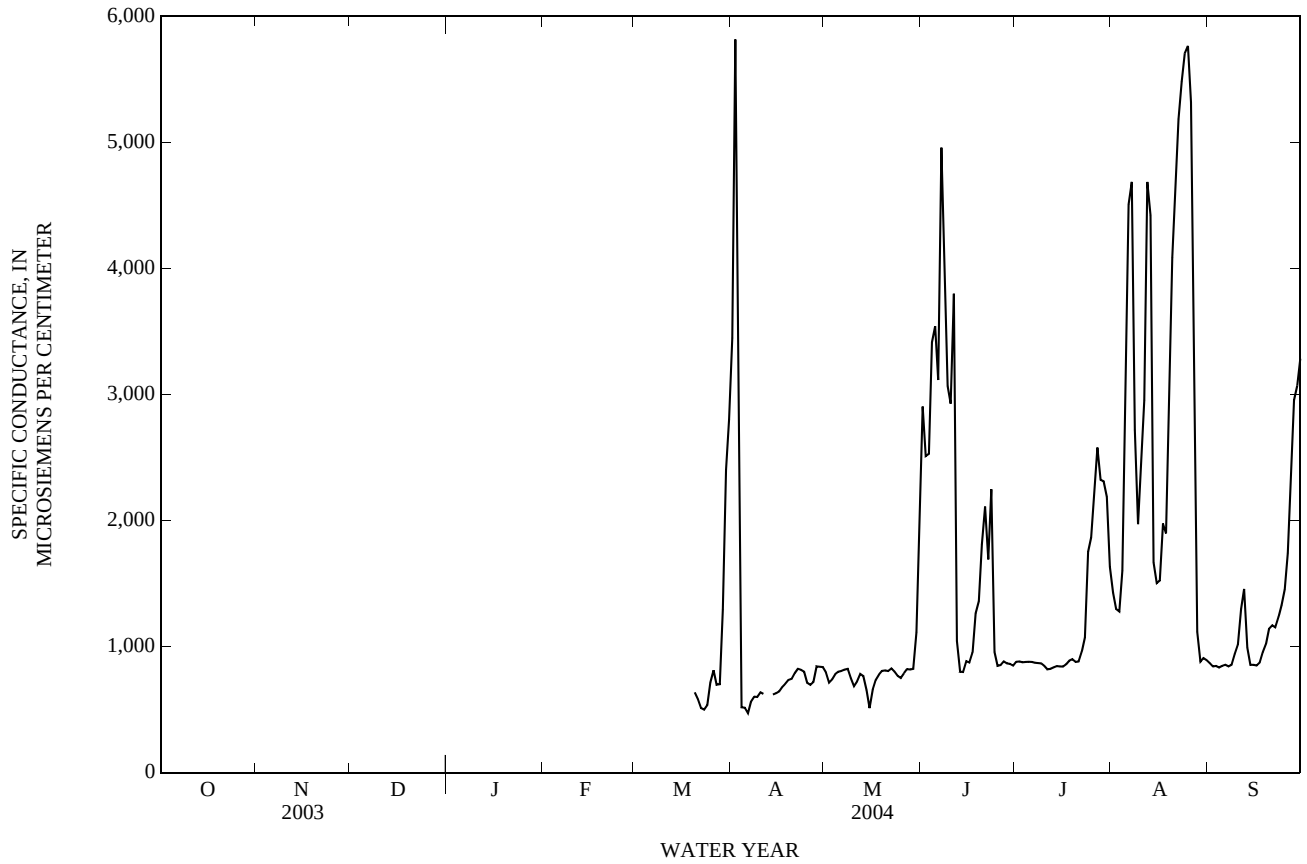
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

08211503 Rincon Bayou Channel near Calallen, TX—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	4,270	2,880	3,450	851	734	797
2	---	---	---	---	---	---	6,620	4,270	5,820	734	695	715
3	---	---	---	---	---	---	7,590	797	4,240	772	711	739
4	---	---	---	---	---	---	797	313	520	810	762	782
5	---	---	---	---	---	---	651	343	516	825	784	801
6	---	---	---	---	---	---	538	370	471	819	796	808
7	---	---	---	---	---	---	599	526	564	830	802	817
8	---	---	---	---	---	---	620	586	603	844	795	824
9	---	---	---	---	---	---	616	580	601	802	677	751
10	---	---	---	---	---	---	692	597	638	711	670	687
11	---	---	---	---	---	---	672	584	624	756	706	724
12	---	---	---	---	---	---	---	---	---	800	755	783
13	---	---	---	---	---	---	---	---	---	789	748	767
14	---	---	---	---	---	---	643	600	620	758	463	656
15	---	---	---	---	---	---	645	615	629	586	463	511
16	---	---	---	---	---	---	665	630	644	716	586	659
17	---	---	---	---	---	---	693	662	679	763	713	736
18	---	---	---	---	---	---	725	689	705	804	758	778
19	---	---	---	---	---	---	755	717	735	831	791	807
20	---	---	---	753	571	637	760	732	744	825	794	811
21	---	---	---	631	514	586	836	753	789	823	787	806
22	---	---	---	534	484	512	839	810	823	892	806	826
23	---	---	---	514	484	500	833	800	816	844	765	802
24	---	---	---	566	497	537	821	786	801	799	726	768
25	---	---	---	1,240	530	715	797	669	713	770	733	752
26	---	---	---	1,370	557	812	734	667	697	844	738	788
27	---	---	---	1,260	550	699	808	679	720	843	806	821
28	---	---	---	1,190	546	702	871	804	843	838	794	819
29	---	---	---	2,080	560	1,290	864	814	840	849	793	823
30	---	---	---	2,820	2,070	2,400	861	819	838	1,340	831	1,110
31	---	---	---	3,150	2,440	2,800	---	---	---	3,240	1,240	2,070
MONTH	---	---	---							3,240	463	817
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3,140	2,600	2,900	909	840	880	1,850	1,160	1,430	889	838	869
2	3,410	1,230	2,510	903	860	882	1,560	1,160	1,300	857	835	843
3	3,780	1,340	2,530	895	856	876	1,490	1,160	1,280	858	838	847
4	4,750	1,390	3,410	893	856	879	2,040	1,200	1,600	843	827	833
5	5,030	1,450	3,540	899	858	880	3,870	2,010	3,260	868	831	847
6	4,980	1,460	3,110	895	857	878	4,960	3,870	4,510	875	837	855
7	5,460	1,860	4,960	886	852	873	5,300	4,010	4,690	865	827	843
8	5,380	1,450	3,820	887	847	869	4,810	1,650	2,720	885	832	856
9	5,600	1,450	3,070	882	849	867	2,190	1,700	1,970	1,060	871	942
10	6,170	1,500	2,930	871	820	846	2,690	1,950	2,390	1,100	930	1,010
11	6,720	1,400	3,800	834	805	820	3,570	2,230	2,950	1,540	1,070	1,300
12	1,420	816	1,040	840	803	823	5,460	3,570	4,690	1,750	1,090	1,460
13	816	783	801	864	810	835	6,210	1,850	4,420	1,100	847	992
14	817	780	798	870	820	846	1,850	1,510	1,670	872	836	855
15	958	805	883	865	820	843	1,610	1,440	1,500	876	836	855
16	950	850	873	862	821	841	1,770	1,380	1,520	865	842	851
17	1,190	877	954	893	830	859	3,240	1,440	1,980	909	843	875
18	1,400	1,140	1,260	917	864	889	2,800	1,430	1,900	1,070	880	956
19	1,640	1,200	1,360	917	883	900	3,910	1,860	2,840	1,120	950	1,020
20	2,390	1,180	1,810	899	862	879	4,500	2,660	4,090	1,360	1,020	1,140
21	2,840	1,170	2,110	914	863	883	5,200	4,290	4,750	1,370	1,120	1,170
22	2,180	1,150	1,690	1,110	869	962	5,590	4,890	5,190	1,170	1,120	1,150
23	2,790	968	2,250	1,320	1,000	1,070	6,000	5,210	5,480	1,310	1,140	1,230
24	1,020	859	957	2,050	1,320	1,750	6,390	4,640	5,710	1,390	1,260	1,330
25	870	825	848	2,020	1,710	1,870	6,510	4,510	5,760	1,880	1,350	1,450
26	893	836	855	2,610	1,890	2,230	6,920	2,790	5,320	2,230	1,490	1,740
27	924	857	882	2,850	2,360	2,580	6,490	1,570	4,140	2,830	1,510	2,310
28	885	846	866	2,940	1,340	2,320	1,570	878	1,120	3,210	2,780	2,960
29	884	842	863	3,130	1,250	2,310	891	872	879	3,460	2,800	3,070
30	863	829	849	3,520	1,200	2,190	967	853	909	3,680	2,960	3,280
31	---	---	---	2,460	1,180	1,630	911	873	892	---	---	---
MONTH	6,720	780	1,950	3,520	803	1,200	6,920	853	3,000	3,680	827	1,290
YEAR												

08211503 Rincon Bayou Channel near Calallen, TX—Continued



TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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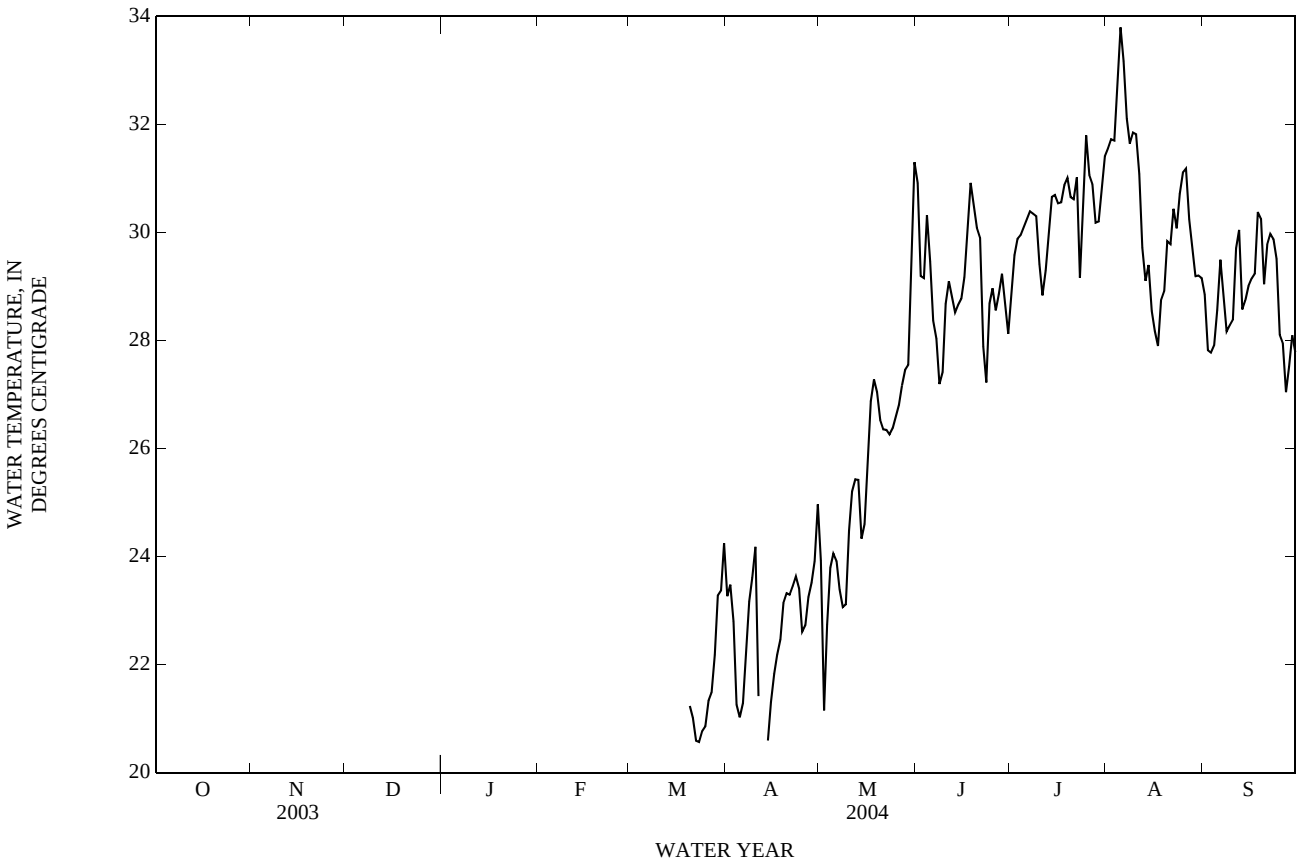
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---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

08211503 Rincon Bayou Channel near Calallen, TX—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	28.3	18.2	23.3	25.4	21.5	23.9
2	---	---	---	---	---	---	25.4	20.7	23.5	22.3	19.9	21.2
3	---	---	---	---	---	---	24.5	21.0	22.8	24.3	21.3	22.7
4	---	---	---	---	---	---	22.9	19.9	21.3	24.9	22.6	23.8
5	---	---	---	---	---	---	22.5	19.3	21.0	25.2	23.1	24.1
6	---	---	---	---	---	---	22.0	20.2	21.3	24.5	23.4	23.9
7	---	---	---	---	---	---	23.2	21.4	22.1	23.8	23.1	23.4
8	---	---	---	---	---	---	23.8	22.6	23.2	23.2	22.8	23.1
9	---	---	---	---	---	---	24.4	22.7	23.6	23.9	22.4	23.1
10	---	---	---	---	---	---	24.9	23.6	24.2	25.6	23.7	24.5
11	---	---	---	---	---	---	23.9	19.4	21.4	25.6	24.7	25.2
12	---	---	---	---	---	---	---	---	---	26.0	25.0	25.4
13	---	---	---	---	---	---	---	---	---	26.0	24.8	25.4
14	---	---	---	---	---	---	21.9	19.5	20.6	25.1	23.6	24.3
15	---	---	---	---	---	---	22.3	20.5	21.3	25.7	23.6	24.6
16	---	---	---	---	---	---	22.7	21.1	21.8	27.3	24.5	25.9
17	---	---	---	---	---	---	22.7	21.6	22.2	28.0	25.9	26.9
18	---	---	---	---	---	---	23.4	21.7	22.5	28.1	26.5	27.3
19	---	---	---	---	---	---	24.1	22.4	23.1	28.0	26.2	27.0
20	---	---	---	22.2	20.3	21.2	23.9	22.8	23.3	27.2	25.7	26.5
21	---	---	---	23.1	20.0	21.0	24.3	22.5	23.3	27.0	25.7	26.4
22	---	---	---	21.3	20.1	20.6	24.0	22.8	23.5	27.1	25.8	26.3
23	---	---	---	20.9	20.3	20.6	24.3	23.0	23.6	26.9	25.8	26.3
24	---	---	---	21.7	20.2	20.8	23.9	23.0	23.4	27.0	25.8	26.4
25	---	---	---	21.4	20.4	20.9	23.3	22.1	22.6	27.2	26.0	26.6
26	---	---	---	22.5	20.8	21.3	23.1	22.4	22.7	27.4	26.2	26.8
27	---	---	---	22.9	20.7	21.5	24.2	22.4	23.2	27.9	26.6	27.2
28	---	---	---	24.7	21.1	22.2	24.0	22.9	23.5	28.4	26.9	27.5
29	---	---	---	26.4	21.3	23.3	25.1	22.9	23.9	28.3	27.1	27.5
30	---	---	---	28.7	18.3	23.4	25.8	24.4	25.0	33.3	26.2	29.0
31	---	---	---	29.6	18.9	24.2	---	---	---	36.9	27.3	31.3
MONTH	---	---	---							36.9	19.9	25.6
		JUNE			JULY			AUGUST			SEPTEMBER	
1	35.7	27.2	30.9	30.1	27.9	28.8	35.4	29.4	31.6	29.4	28.1	28.9
2	32.0	26.8	29.2	30.6	28.7	29.6	35.9	29.5	31.7	28.1	27.6	27.8
3	32.1	26.5	29.2	30.9	29.0	29.9	35.4	29.3	31.7	28.3	27.3	27.8
4	34.3	27.1	30.3	30.8	28.9	30.0	37.3	29.4	32.8	28.1	27.8	27.9
5	33.1	26.4	29.5	31.0	29.2	30.1	38.8	30.1	33.8	29.8	27.7	28.6
6	31.9	25.0	28.4	31.2	29.3	30.3	35.8	30.4	33.2	30.7	28.5	29.5
7	30.0	25.7	28.0	31.2	29.5	30.4	34.9	30.3	32.1	30.0	28.2	28.9
8	29.5	25.1	27.2	31.3	29.3	30.3	34.5	29.3	31.6	28.6	27.7	28.2
9	29.0	25.4	27.4	31.1	29.4	30.3	36.3	28.8	31.8	30.0	27.4	28.3
10	32.2	26.4	28.7	30.5	28.8	29.4	35.1	29.4	31.8	31.2	26.3	28.4
11	32.4	27.2	29.1	29.7	28.1	28.8	33.6	29.0	31.1	33.5	26.8	29.7
12	30.0	27.7	28.8	30.0	28.5	29.3	33.1	26.5	29.7	34.8	27.1	30.0
13	29.2	27.8	28.5	31.4	28.8	30.0	31.5	26.1	29.1	29.3	27.8	28.6
14	29.3	28.0	28.7	32.0	29.4	30.7	31.9	27.4	29.4	29.5	28.2	28.7
15	29.4	28.2	28.8	31.7	29.6	30.7	30.7	26.1	28.5	29.7	28.5	29.0
16	29.9	28.6	29.2	31.4	29.6	30.5	32.1	25.1	28.2	29.6	28.9	29.1
17	32.0	28.8	30.0	31.8	29.4	30.6	32.5	24.3	27.9	30.1	28.8	29.2
18	35.6	27.6	30.9	32.2	29.6	30.9	31.2	26.2	28.7	33.7	28.9	30.4
19	35.6	26.7	30.5	31.8	30.2	31.0	31.7	26.0	28.9	33.1	28.6	30.3
20	33.8	27.0	30.1	31.4	30.1	30.7	32.8	26.4	29.8	33.6	26.4	29.0
21	33.6	26.8	29.9	31.3	30.2	30.6	32.2	26.9	29.8	30.9	27.5	29.8
22	29.8	26.6	27.9	33.2	29.6	31.0	32.0	28.6	30.4	30.8	29.1	30.0
23	30.5	24.7	27.2	30.4	28.0	29.2	32.0	28.7	30.1	30.8	29.3	29.9
24	30.4	27.4	28.7	35.3	27.1	30.4	34.0	28.2	30.7	32.6	27.4	29.5
25	30.0	28.5	29.0	37.4	28.1	31.8	34.4	28.5	31.1	29.8	26.4	28.1
26	28.8	28.1	28.6	35.7	27.4	31.1	34.0	28.6	31.2	29.8	25.6	28.0
27	29.6	28.2	28.9	34.4	28.1	30.9	32.7	28.0	30.2	28.8	25.6	27.0
28	30.1	28.5	29.2	33.4	27.3	30.2	30.2	29.0	29.7	31.5	24.3	27.5
29	29.5	28.2	28.7	33.8	26.9	30.2	29.8	28.7	29.2	33.4	24.2	28.1
30	28.4	27.9	28.1	34.1	27.7	30.9	29.8	28.6	29.2	32.1	24.1	27.8
31	---	---	---	35.7	28.6	31.4	29.8	28.5	29.2	---	---	---
MONTH	35.7	24.7	29.0	37.4	26.9	30.3	38.8	24.3	30.5	34.8	24.1	28.8
YEAR												

08211503 Rincon Bayou Channel near Calallen, TX—Continued



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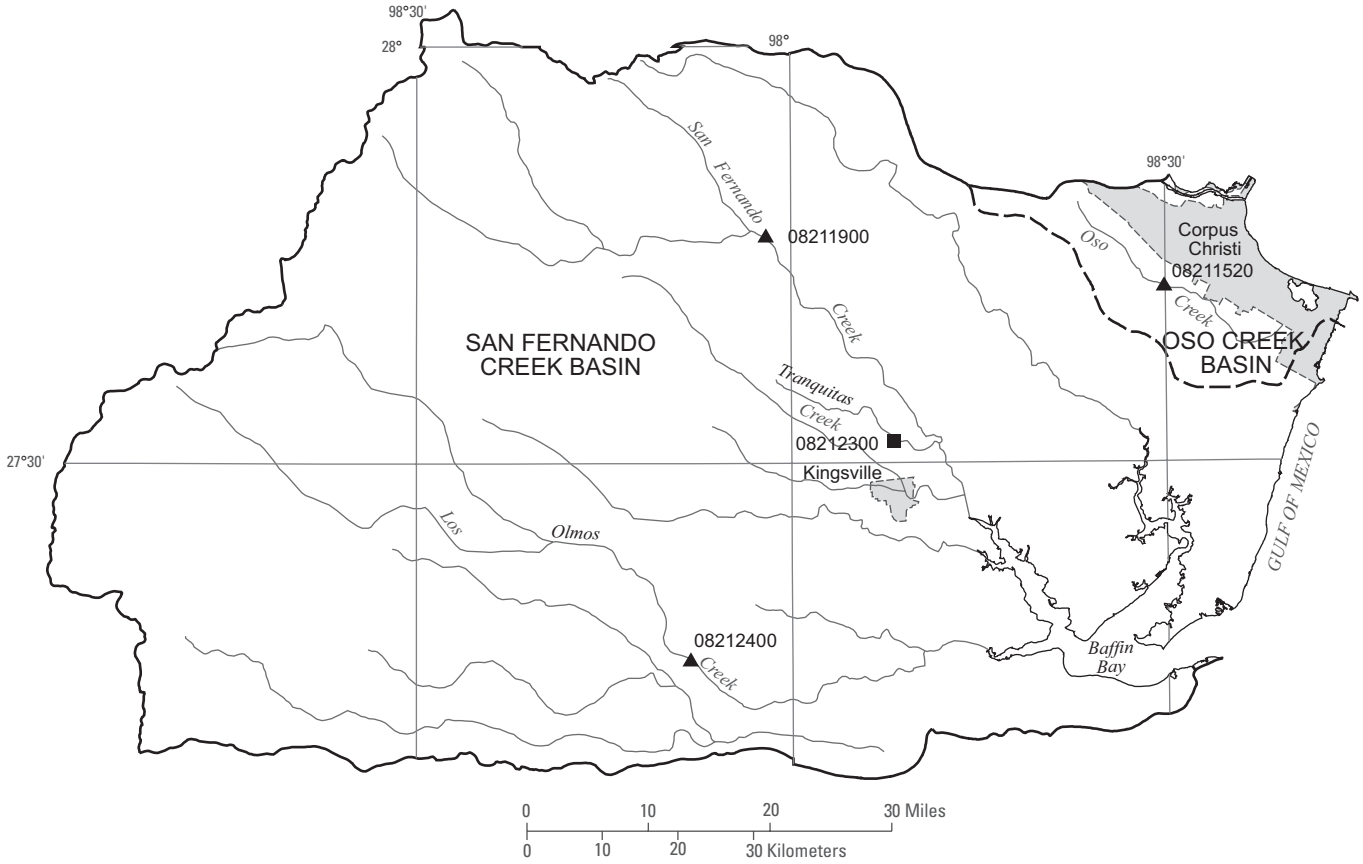


EXPLANATION

08212400 ▲ Surface-water continuous station and number

08212300 ■ Surface-water partial record/stage only station and number

Figure 8.--Map showing location of gaging stations in the Oso Creek and San Fernando Creek Basins

08211520 Oso Creek at Corpus Christi, TX

LOCATION.--Lat 27°42'40", long 97°30'06", Nueces County, Hydrologic Unit 12110202, on left downstream end of bridge on Farm Road 763, 1.5 mi south of intersection of Farm Roads 763 and 665, 1.6 mi downstream from mouth of West Oso Creek, and 1.9 mi southwest of intersection of Farm Road 665 and State Highway 357.

DRAINAGE AREA.--90.3 mi^2.

PERIOD OF RECORD.--Sept. 1972 to current year. Water-quality records: Chemical data: July 1972 to Aug. 1988. Biochemical data: July 1972 to Aug. 1988. Pesticide data: July 1972 to July 1981.

GAGE.--Water-stage recorder. Datum of gage is 1.91 ft below NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. No known regulation or diversions. An undetermined amount of water from oil-field operations enters the stream upstream from station at various points.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 24.5 ft occurred in May 1968, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	5.1	1.7	2.6	1.8	2.3	1.1	209	2.3	63	2.0	6.1
2	2.2	4.0	1.8	2.3	1.8	1.7	1.0	508	2.3	88	2.1	13
3	2.0	3.4	1.8	2.2	1.7	1.5	1.1	193	2.2	34	1.8	7.0
4	1.6	3.1	1.8	2.2	1.8	1.3	1.6	43	2.1	14	1.7	353
5	1.4	2.9	1.7	2.0	1.8	1.2	33	18	1.9	7.4	1.6	223
6	3.3	2.8	1.7	1.9	1.8	1.2	57	9.9	1.9	4.8	1.6	40
7	2.9	2.7	1.7	1.8	1.8	1.1	137	30	2.4	3.9	1.6	81
8	3.4	2.6	1.7	2.0	1.7	1.1	46	135	2.7	3.6	1.5	53
9	4.4	2.6	1.8	2.1	1.8	1.1	11	142	3.5	2.9	1.4	19
10	2.6	2.4	1.8	2.2	2.2	1.1	6.0	193	3.7	2.5	3.4	9.9
11	2.2	2.6	1.7	2.4	2.7	1.1	3.6	83	3.5	3.2	5.3	8.0
12	6.4	2.6	1.8	2.2	2.6	1.1	2.6	28	5.4	3.5	4.8	6.5
13	20	2.4	2.3	2.1	2.7	1.1	1.8	20	7.9	3.3	3.8	45
14	26	2.6	2.2	2.1	2.8	1.5	1.6	2,380	4.3	2.8	5.8	104
15	18	2.1	1.9	2.2	3.1	3.6	1.4	948	2.9	2.2	4.3	58
16	8.6	2.1	1.8	9.2	3.1	5.8	1.3	129	2.6	2.0	3.6	21
17	4.7	6.7	1.7	7.5	3.0	4.4	1.5	39	2.5	2.1	3.0	13
18	3.2	7.1	1.7	6.2	2.8	2.7	1.3	22	2.3	1.9	2.9	11
19	2.5	9.9	1.7	3.9	2.6	1.9	1.2	13	2.3	1.7	2.6	9.4
20	2.1	5.7	1.8	2.8	2.5	1.6	1.6	7.6	2.4	1.5	1.9	8.7
21	1.9	3.8	1.8	2.5	2.5	1.5	1.7	4.8	2.4	1.6	2.2	8.6
22	1.8	2.8	1.9	2.2	2.5	1.3	1.5	3.7	171	1.6	2.2	9.3
23	1.8	2.3	1.9	2.0	2.4	1.2	1.2	3.6	260	1.7	2.2	8.7
24	1.7	2.0	1.9	2.1	38	1.2	1.2	3.0	47	1.8	2.0	8.7
25	16	1.9	1.8	2.2	98	1.2	429	2.7	327	1.7	2.1	8.0
26	88	1.8	1.8	3.4	36	1.2	e4,540	2.7	590	1.7	2.0	25
27	59	1.8	1.8	3.5	9.0	1.2	1,010	2.6	107	1.4	1.9	39
28	29	1.7	2.0	2.7	4.9	1.2	214	2.3	35	2.9	1.7	31
29	18	1.7	2.1	2.2	3.2	1.2	77	2.4	29	4.6	1.9	17
30	11	1.7	2.1	2.1	---	1.1	32	2.4	45	2.5	2.1	12
31	7.2	---	2.5	1.9	---	1.1	---	2.4	---	1.8	3.5	---
TOTAL	354.8	96.9	57.7	88.7	242.6	51.8	6,620.3	5,183.1	1,674.5	271.6	80.5	1,256.9
MEAN	11.4	3.23	1.86	2.86	8.37	1.67	221	167	55.8	8.76	2.60	41.9
MAX	88	9.9	2.5	9.2	98	5.8	4,540	2,380	590	88	5.8	353
MIN	1.4	1.7	1.7	1.8	1.7	1.1	1.0	2.3	1.9	1.4	1.4	6.1
AC-FT	704	192	114	176	481	103	13,130	10,280	3,320	539	160	2,490

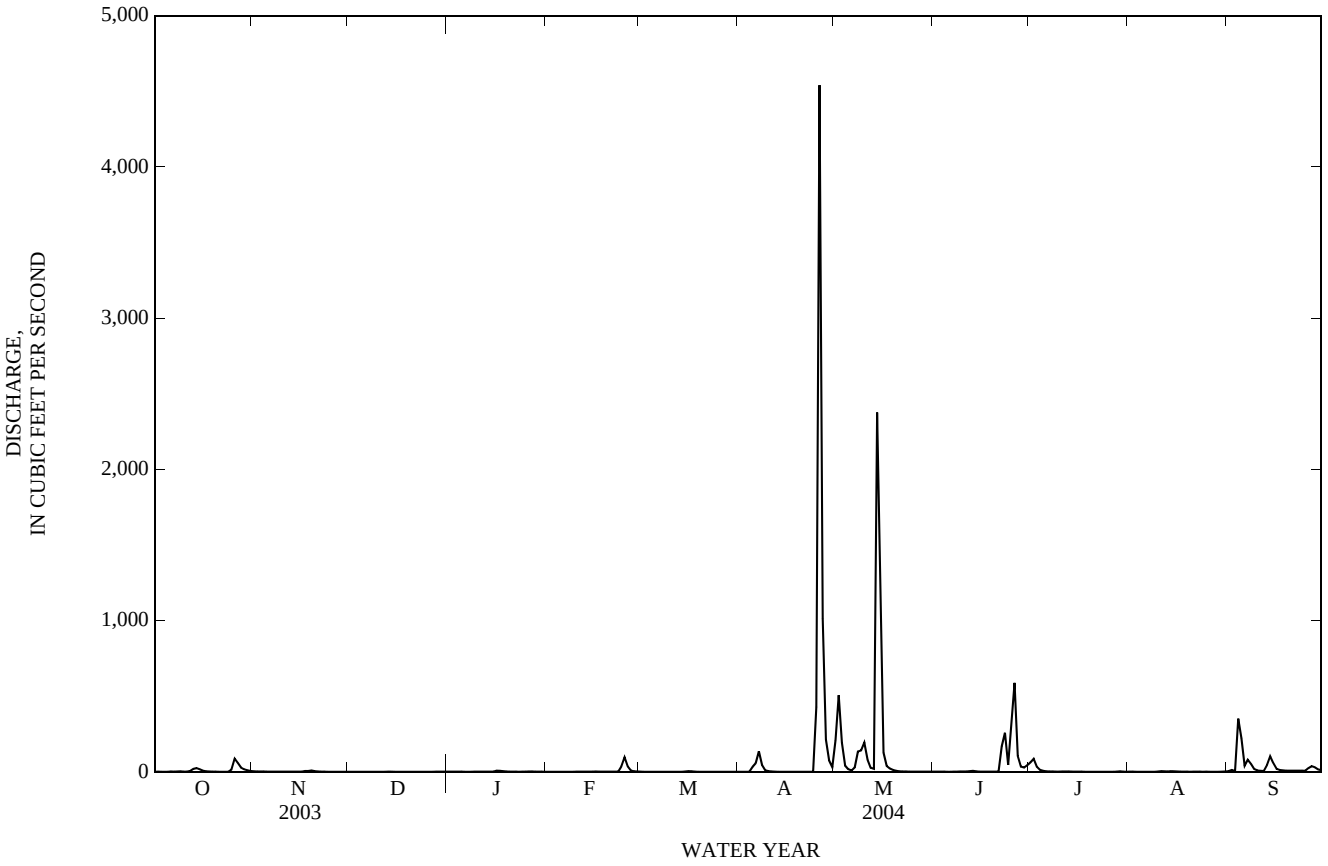
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2004, BY WATER YEAR (WY)

MEAN	76.2	29.3	12.8	10.8	17.8	15.7	24.8	32.1	47.0	20.2	24.5	49.2
MAX	477	226	181	130	238	128	221	185	379	339	454	228
(WY)	(1998)	(2002)	(1992)	(1984)	(1982)	(1995)	(2004)	(1993)	(1993)	(1976)	(1980)	(1979)
MIN	1.26	1.40	1.15	1.33	1.19	0.89	0.88	1.02	1.09	0.86	1.07	1.56
(WY)	(1991)	(1994)	(2000)	(2000)	(2002)	(1988)	(2002)	(2002)	(1998)	(1996)	(1997)	(2000)

08211520 Oso Creek at Corpus Christi, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1972 - 2004	
ANNUAL TOTAL	2,176.45		15,979.4			
ANNUAL MEAN	5.96		43.7		30.0	
HIGHEST ANNUAL MEAN					54.3	1992
LOWEST ANNUAL MEAN					3.03	1989
HIGHEST DAILY MEAN	167	Sep 19	4,540	Apr 26	6,160	Aug 11, 1980
LOWEST DAILY MEAN	0.58	Jun 24	1.0	Apr 2	0.14	Aug 15, 2001
ANNUAL SEVEN-DAY MINIMUM	0.72	Jun 24	1.1	Mar 7	0.15	Aug 13, 2001
MAXIMUM PEAK FLOW			8,780	Apr 26	12,100	Aug 10, 1980
MAXIMUM PEAK STAGE			30.33	Apr 26	a30.33	Apr 26, 2004
ANNUAL RUNOFF (AC-FT)	4,320		31,700		21,760	
10 PERCENT EXCEEDS	7.9		45		18	
50 PERCENT EXCEEDS	1.9		2.5		2.2	
90 PERCENT EXCEEDS	1.1		1.5		1.2	

a From floodmark.
e Estimated



08211900 San Fernando Creek at Alice, TX

LOCATION.--Lat 27°46'20", long 98°02'00", Jim Wells County, Hydrologic Unit 12110204, on left bank 34 ft downstream from downstream bridge of two bridges on State Hiqhways 44 and 359, 0.5 mi downstream from confluence of San Diego and Chiltipin Creeks, 2.3 mi upstream from head of Pintas Creek, and 2.7 mi northeast of Alice.

DRAINAGE AREA.--507 mi^2.

PERIOD OF RECORD.--Dec. 1964 to Mar. 1987, Apr. 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 160.05 ft above NGVD of 1929. Prior to Mar. 1987 at datum 1.63 ft higher at same site. Satellite telemeter at station.

REMARKS.--Records good. San Diego Creek joins Chiltipin Creek below Lake Alice to form San Fernando Creek. Since installation of gage in Dec. 1964, at least 10% of contributing drainage area has been regulated. Flow is affected at times by discharge from the flood-detention pools of ten floodwater-retarding structures. These structures control runoff from 170 mi^2 in the San Diego-Rosita drainage basins. Records furnished by city of Alice show that sewage effluent is discharged into San Diego Creek 1.3 mi upstream, which comprises most of the low flow.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	3.1	0.94	2.7	1.8	8.3	4.7	61	0.91	16	6.4	22
2	1.2	3.0	1.2	3.1	1.9	9.1	6.0	346	2.4	13	2.4	50
3	0.95	3.4	2.2	2.9	1.9	9.2	9.9	99	3.4	9.7	13	46
4	0.32	3.6	2.2	2.7	2.1	9.6	6.1	39	1.6	7.2	14	27
5	0.70	3.7	2.4	2.7	2.3	10	19	20	0.48	6.2	14	20
6	0.73	3.4	2.2	2.5	2.3	9.9	24	15	1.4	6.1	8.2	14
7	2.0	3.3	2.1	1.7	2.0	9.0	38	16	4.8	7.3	5.5	14
8	2.9	3.2	2.3	2.1	1.0	9.6	30	98	6.6	5.8	5.9	12
9	9.1	4.1	2.5	2.1	1.5	9.7	22	85	12	0.49	0.39	13
10	21	4.4	1.2	3.0	3.2	9.8	17	64	18	3.7	1.3	17
11	14	3.8	0.22	2.8	3.8	7.7	16	38	13	5.6	8.0	15
12	186	3.3	2.0	1.9	3.8	7.6	15	23	7.6	8.8	18	12
13	508	3.1	2.3	2.1	3.9	11	13	17	6.2	7.9	14	13
14	232	2.9	2.3	3.2	5.0	14	12	1,740	10	6.6	14	640
15	71	2.5	2.5	3.0	6.1	150	11	766	9.2	2.5	13	194
16	32	1.1	2.4	3.3	5.3	59	9.0	148	8.4	1.7	14	47
17	17	1.6	2.4	3.4	4.9	30	5.6	57	4.2	6.2	14	25
18	11	3.3	1.8	2.9	5.1	19	12	34	2.9	1.8	14	15
19	4.4	3.1	1.1	2.7	5.4	14	12	24	3.6	3.4	14	11
20	3.3	2.8	2.2	2.6	5.7	11	12	16	7.7	4.6	6.9	10
21	2.8	2.7	2.4	2.7	5.8	9.9	12	13	9.0	4.6	5.9	9.5
22	2.6	2.4	2.8	2.4	6.1	6.1	12	7.7	8.6	0.56	5.3	45
23	2.6	2.3	3.1	2.6	7.0	5.0	12	e4.8	14	2.9	2.2	53
24	1.1	2.4	3.0	3.4	12	8.9	15	1.9	12	9.5	11	44
25	2.3	2.3	2.7	4.1	11	8.4	273	2.9	42	9.4	11	23
26	8.8	2.3	3.0	3.7	10	8.5	802	2.6	60	6.4	4.3	15
27	6.1	2.3	1.5	2.5	8.2	8.5	219	2.4	38	7.2	0.59	12
28	3.9	2.1	1.0	2.2	6.5	8.2	62	2.0	25	0.41	7.9	8.9
29	3.5	1.9	2.8	2.1	5.9	9.0	28	1.8	19	5.1	13	2.1
30	2.9	1.8	2.7	2.0	---	8.5	18	3.4	17	12	11	5.8
31	3.0	---	2.8	1.8	---	8.8	---	1.8	---	13	11	---
TOTAL	1,158.30	85.2	66.26	82.9	141.5	507.3	1,747.3	3,750.3	368.99	195.66	284.18	1,435.3
MEAN	37.4	2.84	2.14	2.67	4.88	16.4	58.2	121	12.3	6.31	9.17	47.8
MAX	508	4.4	3.1	4.1	12	150	802	1,740	60	16	18	640
MIN	0.32	1.1	0.22	1.7	1.0	5.0	4.7	1.8	0.48	0.41	0.39	2.1
AC-FT	2,300	169	131	164	281	1,010	3,470	7,440	732	388	564	2,850

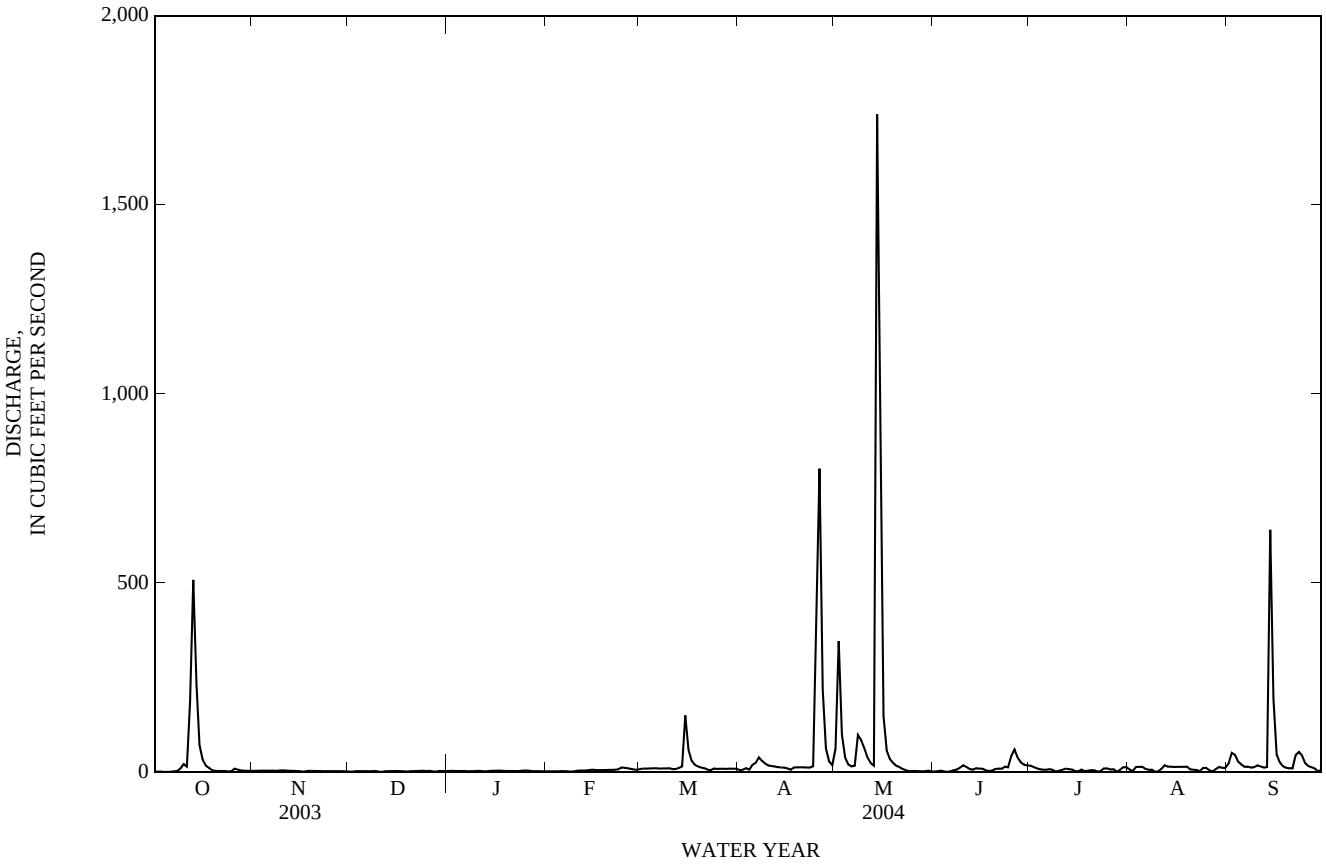
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004h, BY WATER YEAR (WY)

MEAN	40.4	21.9	3.99	2.75	3.25	3.70	8.73	18.4	8.50	30.7	28.9	110
MAX	827	492	38.6	17.0	18.5	28.6	93.7	121	59.8	591	403	1,419
(WY)	(1972)	(2002)	(2002)	(1980)	(1969)	(1965)	(1985)	(2004)	(1981)	(2002)	(1980)	(1971)
MIN	0.84	0.95	0.93	0.92	0.84	0.94	0.72	1.02	0.79	0.63	0.69	0.70
(WY)	(2001)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2002)	(2001)	(2000)	(2000)	(2000)

08211900 San Fernando Creek at Alice, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004h	
ANNUAL TOTAL	6,356.65		9,823.19			
ANNUAL MEAN	17.4		26.8		24.7	
HIGHEST ANNUAL MEAN					126	1971
LOWEST ANNUAL MEAN					0.94	2000
HIGHEST DAILY MEAN	2,080	Sep 19	1,740	May 14	22,200	Sep 12, 1971
LOWEST DAILY MEAN	0.07	Apr 20	0.22	Dec 11	0.07	Apr 20, 2003
ANNUAL SEVEN-DAY MINIMUM	0.64	May 6	1.0	Oct 1	0.39	Aug 22, 1965
MAXIMUM PEAK FLOW			3,110	May 14	26,800	Sep 12, 1971
MAXIMUM PEAK STAGE			9.59	May 14	16.51	Sep 12, 1971
ANNUAL RUNOFF (AC-FT)	12,610		19,480		17,900	
10 PERCENT EXCEEDS	4.4		31		5.3	
50 PERCENT EXCEEDS	1.7		6.1		1.9	
90 PERCENT EXCEEDS	0.69		1.8		1.0	

h See Period of Record paragraph.
e Estimated



08212400 Los Olmos Creek near Falfurias, TX

LOCATION.--Lat 27°15'51", long 98°08'08", Brooks County, Hydrologic Unit 12110205, at downstream side of bridge on U.S. Highway 281 and 2.6 mi north of Falfurrias.

DRAINAGE AREA.--480 mi^2 of which 4 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Jan. 1967 to Sept. 1983, Mar. 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 116.58 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1929, 15.0 ft, Sept. 13, 1951, from information by Texas Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.10	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.06	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.00
4	0.00	0.00	0.00	0.00	e0.00	0.00	42	0.00	0.00	0.02	0.00	0.00
5	0.00	0.00	0.00	0.00	e0.00	0.00	614	0.00	0.00	0.01	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	98	0.02	0.00	0.01	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	20	0.02	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	15	0.03	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	12	0.06	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	7.5	0.06	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	5.5	0.04	0.00	0.00	0.00	0.00
12	99	0.00	0.00	0.00	0.00	0.00	3.3	0.03	0.00	0.00	0.00	0.00
13	228	0.00	0.00	0.00	0.00	0.00	2.3	0.02	0.00	0.00	0.00	0.00
14	57	0.00	0.00	0.00	0.00	0.00	1.5	0.01	0.00	0.00	0.00	0.00
15	18	0.00	0.00	0.00	0.00	0.02	0.94	0.01	0.00	0.00	0.00	0.00
16	9.7	0.00	0.00	0.00	0.00	0.01	0.54	0.00	0.00	0.00	0.00	0.00
17	4.3	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00
18	1.0	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
19	0.25	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
20	0.08	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
21	0.04	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
22	0.03	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
23	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	e0.00
24	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	e0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.00	e0.00
26	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	15	0.00	0.00	0.00
27	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	10	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.0	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.21	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	417.45	0.00	0.00	0.00	0.00	0.03	823.12	0.35	28.93	0.24	0.00	0.00
MEAN	13.5	0.00	0.00	0.00	0.00	0.00	27.4	0.01	0.96	0.01	0.00	0.00
MAX	228	0.00	0.00	0.00	0.00	0.02	614	0.06	15	0.10	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	828	0.00	0.00	0.00	0.00	0.06	1,630	0.7	57	0.5	0.00	0.00

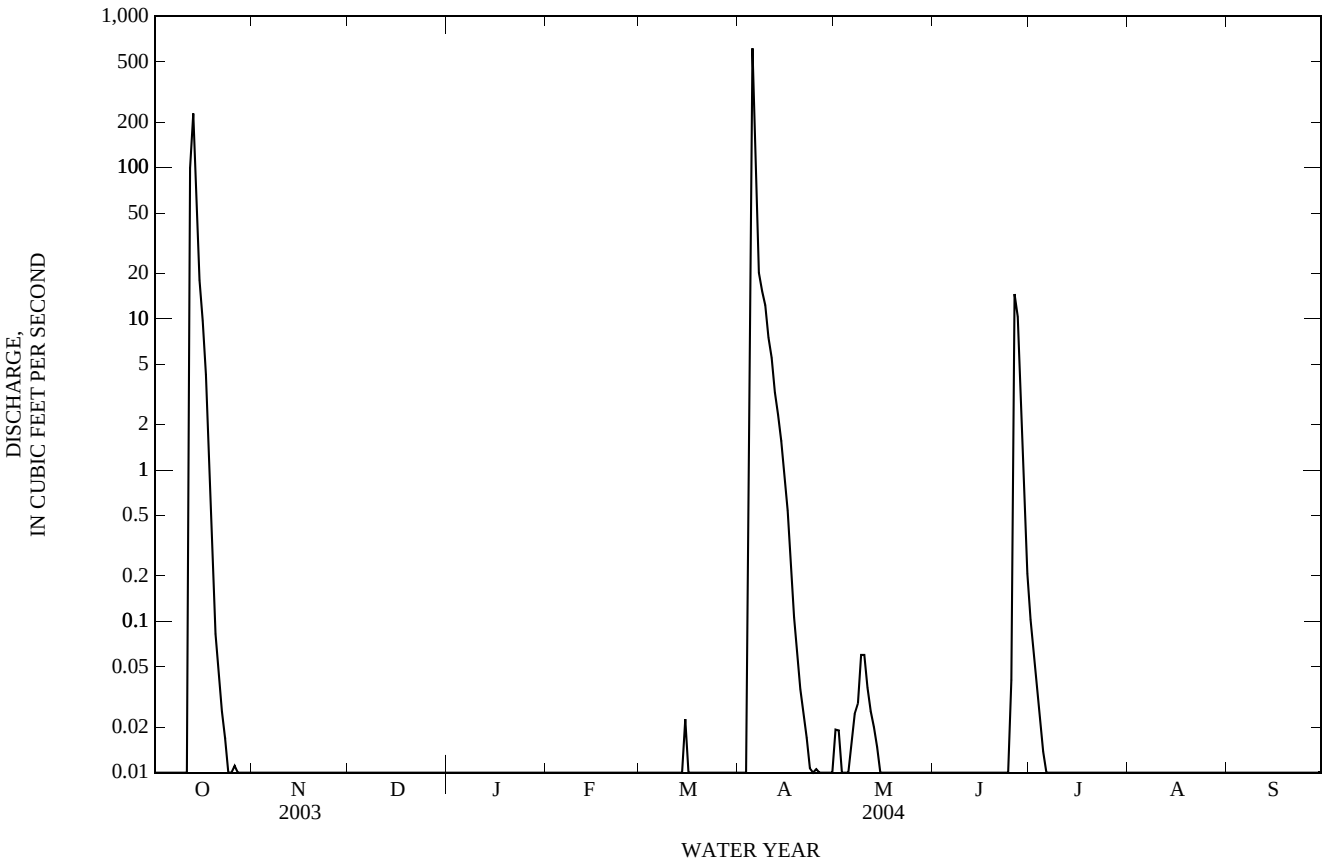
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004h, BY WATER YEAR (WY)

MEAN	2.02	0.36	0.11	0.11	0.11	3.02	1.48	9.56	4.60	3.28	7.05	44.9
MAX	13.5	4.89	0.75	0.69	0.67	50.8	27.4	146	52.8	36.1	62.5	491
(WY)	(2004)	(1977)	(1970)	(1970)	(1970)	(1974)	(2004)	(1982)	(1973)	(1976)	(1980)	(1967)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1973)	(1971)	(1971)	(1972)	(1973)	(1971)	(1971)	(1971)	(1980)	(1972)	(1972)	(1972)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004h	
ANNUAL TOTAL	449.50		1,270.12			
ANNUAL MEAN	1.23		3.47		4.70	
HIGHEST ANNUAL MEAN					34.1	1971
LOWEST ANNUAL MEAN					0.00	1983
HIGHEST DAILY MEAN	228	Oct 13	614	Apr 5	3,790	Sep 14, 1971
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Aug 10, 1970
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Sep 4, 1970
MAXIMUM PEAK FLOW			825	Apr 5	5,300	Sep 13, 1971
MAXIMUM PEAK STAGE			9.52	Apr 5	12.66	Sep 13, 1971
ANNUAL RUNOFF (AC-FT)	892		2,520		3,400	
10 PERCENT EXCEEDS	0.00		0.04		0.64	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

h See Period of Record paragraph.
e Estimated

08212400 Los Olmos Creek near Falfurias, TX—Continued



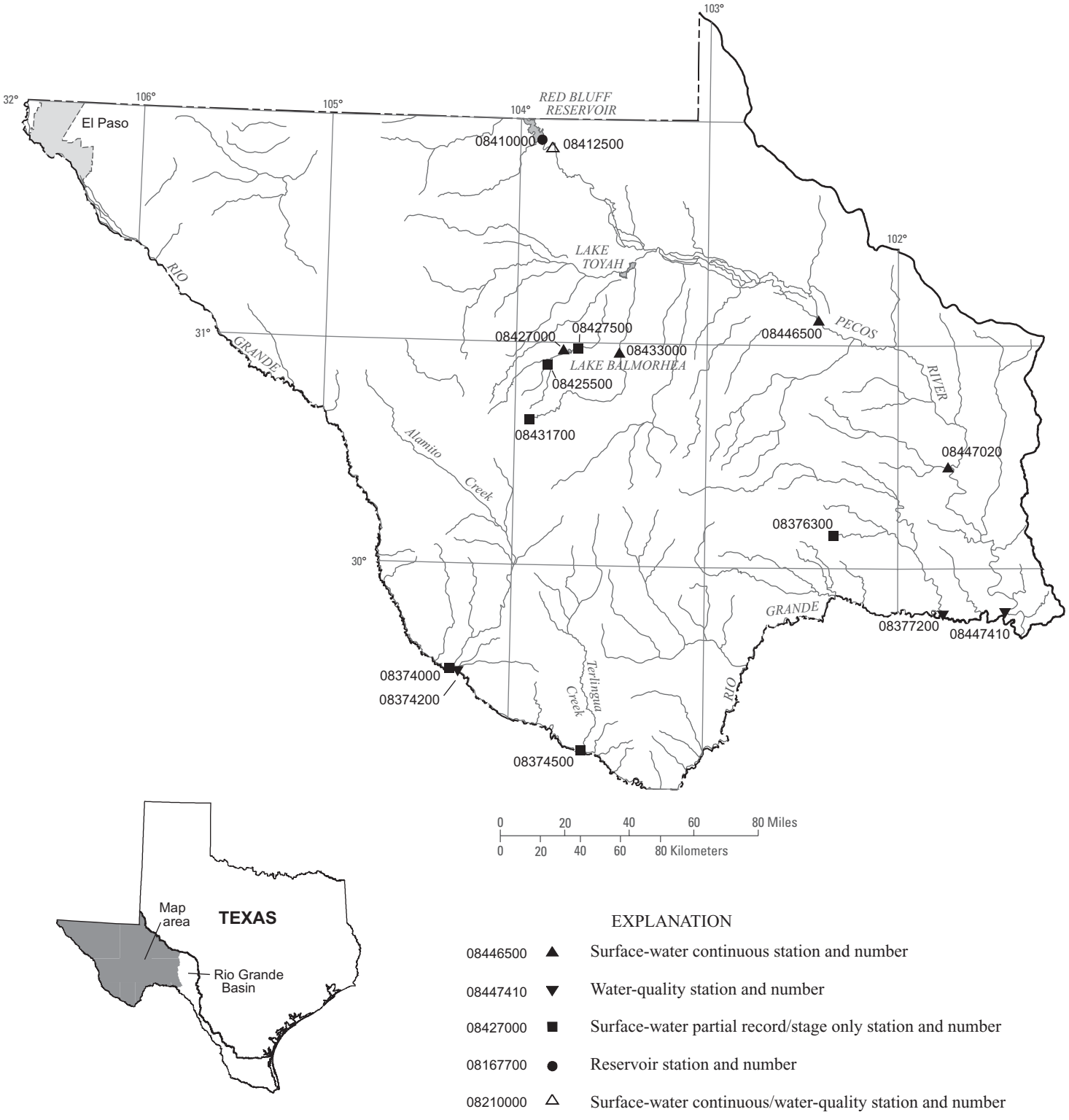


Figure 9.--Map showing location of gaging stations in the first section of the Rio Grande Basin

08374200 Rio Grande below Rio Conchos near Presidio, TX

LOCATION.--Lat 29°31'10", long 104°17'10", Presidio County, Hydrologic Unit 13040203, at gaging station 0.4 miles downstream from Alamito Creek and 8.9 river miles downstream from the International Highway bridge between Presidio, Texas and Ojinaga, Chihuahua.

DRAINAGE AREA.--66,203 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Apr. 1999 to current year.
BIOCHEMICAL DATA: Apr. 1999 to current year.
PESTICIDE DATA: Aug. 1999 to current year.
SEDIMENT DATA: Apr. 1999 to current year.

REMARKS.--Instantaneous discharges published in the table were provided directly by International Boundary and Water Commission. Records of daily mean discharge for water year 2004 are published in International Boundary and Water Commission Water Bulletins Nos. 73 and 74. Since 1999, quality assurance data for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV													
20...	1030	51	70	69	.051	.037	700	9.7	104	8.0	3,300	14.0	860
JAN													
29...	1100	85	10	60	.066	.049	--e	E8.7	--	8.0	2,420	13.0	640
FEB													
25...	1030	29	10	52	.064	.046	--e	E9.2	--	8.0	3,440	14.2	860
MAR													
18...	1030	86	10	75	.122	.094	696	6.9	86	7.9	1,380	21.5	360
APR													
15...	1030	98	10	140	.085	.063	700	7.4	92	8.0	2,670	21.1	650
JUL													
15...	1030	48	10	120	.086	.063	700	6.8	94	7.9	2,040	26.8	540
AUG													
05...	1030	150	10	170	.114	.086	699	5.7	81	7.9	1,640	28.4	460
SEP													
01...	1030	267	10	580d	.140	.106	700	6.2	81	--	1,730	23.9	430

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
NOV													
20...	268d	45.8d	10.2d	465d	54	241	289	2	359d	1.5	27.6d	1030d	2,350
JAN													
29...	210d	28.3d	8.26d	313d	51	192	233	<1	265d	1.4	22.7d	687d	1,660
FEB													
25...	265	47.2	10.7	452d	53	266	321	1	435d	1.6	23.6	1020d	2,420
MAR													
18...	119	13.8	6.44	178	52	132	160	<1	128	.8	14.0	380d	924
APR													
15...	207d	31.7d	8.80d	342d	53	205	248	1	311d	1.3	21.2d	747d	1,800
JUL													
15...	179	22.9	8.92	252	50	171	--e	--e	163d	1.2	22.2	640d	1,400
AUG													
05...	157	16.7	7.43	181	46	152	184	<1	138d	1.0	20.0	482d	1,100
SEP													
01...	139	18.5	9.22	222	53	169	204	<1	207d	.9	19.0	394d	1,110

08374200 Rio Grande below Rio Conchos near Presidio, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Organic nitrogen, water, fltrd, mg/L (00607)
NOV													
20...	330	2,400	.17	.57	.05	.036	.903	.20	.213	.030	.009	.28	.13
JAN													
29...	401	1,750	1.2	1.6	1.22	.95	2.51	.57	.59	.069	.021	.38	.24
FEB													
25...	195	2,530	.40	.98	.15	.11	.606	.14	.15	.046	.014	.43	.29
MAR													
18...	225	962	.52	.87	.35	.27	3.08	.70	.72	.092	.028	.18	.25
APR													
15...	501	1,900	.23	.67	--	<.04	1.88	.42	.44	.036	.011	.43	--
JUL													
15...	190	1,450	.25	.57	--	<.04	1.92	.43	.45	.039	.012	.28	--
AUG													
05...	472	1,160	.27	.70	--	<.04	2.09	.47	.49	.076	.023	.38	--
SEP													
01...	817	1,130	.38	1.9	--	<.04	--	--	.24	--	E.005n	1.87	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)
NOV													
20...	.53	--	<.006	<.004	.094	.38	.78	3.1	<.1	3.0	2.6	<3d	<.40d
JAN													
29...	.63	.328	.11	.10	.24	1.8	2.2	3.0	<.1	3.0	3.0	2	E.18n
FEB													
25...	.87	--	<.02	<.04	.13	.55	1.1	4.4	.2	4.2	3.3	--	--
MAR													
18...	.60	.101	.03	.05	.14	1.2	1.6	3.2	.3	2.8	4.6	2	.25
APR													
15...	--	--	<.02	<.04	.12	.67	1.1	6.2	<.1	6.2	3.3	<3d	E.25nd
JUL													
15...	--	--	<.02	<.04	.11	.69	1.0	4.5	<.1	4.5	3.4	2	.36
AUG													
05...	--	--	<.02	<.04	.15	.76	1.2	4.6	.3	4.3	3.3	--	--
SEP													
01...	--	--	E.01n	<.04	.84	.61	2.1	23.1	.9	22.3	4.5	3	.37

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)
NOV													
20...	1.4d	81d	<.12d	588d	<.08d	<.8	.940d	4.9d	<19d	<.16d	153d	156d	7.3d
JAN													
29...	2.6	100	<.06	425	E.03n	<.8	1.19	3.2c	<19d	<.08	124	200	7.0
FEB													
25...	2.6d	--	--	600d	--	--	--	--	E5n	--	164d	--	--
MAR													
18...	2.6	73	<.06	259	E.03n	<.8	.761	2.6	E4n	E.05n	53.2	57.3	5.9
APR													
15...	2.2d	84d	<.12d	421d	<.08d	<.8	.910d	4.4d	<19d	<.16d	111d	91.2d	6.9d
JUL													
15...	2.9	123	<.06	349	<.04	<.8	1.17	4.2	<6	.10	83.8	75.8	7.5
AUG													
05...	2.6	--	--	283	--	--	--	--	<6	--	61.0	--	--
SEP													
01...	3.0	88	<.06	276	.04	<.8	.664	3.0	E4n	E.05n	83.1	3.1	8.7

08374200 Rio Grande below Rio Conchos near Presidio, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)
NOV													
20...	1.63d	2.4d	<.4d	3640d	2.6d	3.1d	<.006	<.006	<.006	<.005	<.005	<.007	<.050
JAN													
29...	2.78	1.6	<.2	2830d	3.4	4.0	<.006	<.006	<.006	<.005	<.005	<.007	<.050
FEB													
25...	--	1.8d	--	3640d	1.9d	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
MAR													
18...	2.74	1.4	<.2	1,660	4.2	1.7	<.006	<.006	<.006	<.005	<.005	<.007	<.050
APR													
15...	4.29d	2.3d	<.4d	3070d	3.5d	2.2d	<.006	<.006	<.006	<.005	<.005	<.007	<.050
JUL													
15...	3.11	1.5	<.2	2,500	5.4	1.7	<.006	<.006	<.006	<.005	<.005	<.007	<.050
AUG													
05...	--	1.4	--	2,050	4.6	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
SEP													
01...	2.99	1.3	<.2	1,680	5.8	2.3	<.006	<.006	<.006	<.005	<.005	<.007	<.050

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
NOV													
20...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
JAN													
29...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
FEB													
25...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
MAR													
18...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
APR													
15...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.007	<.009	<.02	<.004
JUL													
15...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
AUG													
05...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
SEP													
01...	<.010	<.004	<.041	<.020	<.010	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
NOV													
20...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
JAN													
29...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
FEB													
25...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
MAR													
18...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
APR													
15...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
JUL													
15...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
AUG													
05...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
SEP													
01...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006

08374200 Rio Grande below Rio Conchos near Presidio, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)
NOV													
20...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
JAN													
29...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
FEB													
25...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
MAR													
18...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
APR													
15...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
JUL													
15...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
AUG													
05...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
SEP													
01...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Deuterium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Uranium natural water, fltrd, ug/L (22703)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV												
20...	<.02	<.034	<.02	<.010	<.002	<.009	--	--	10.6d	99	110	15
JAN												
29...	.05r	<.034	<.02	<.010	<.002	<.009	--	--	7.70	98	84	19
FEB												
25...	<.02	<.034	<.02	<.010	<.002	<.009	-40.80	-4.30	--	91	80	6.2
MAR												
18...	<.02	<.034	<.02	<.010	<.002	<.009	-45.70	-6.82	3.89	100	73	17
APR												
15...	<.02	<.034	<.02	<.010	<.002	<.009	-39.31	-4.87	7.69d	98	190	50
JUL												
15...	<.02	<.034	<.02	<.010	<.002	<.009	-27.90	-3.08	6.11	100	238	31
AUG												
05...	<.02	<.034	<.02	<.010	<.002	<.009	-44.40	-5.99	--	99	181	73
SEP												
01...	<.02	<.034	<.02	<.010	<.002	<.009	-37.10	-5.00	5.69	98	923	665

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
c -- See laboratory comment
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL
r -- Value verified by rerun, same method

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

08376300 Sanderson Creek at Sanderson, TX

LOCATION.--Lat 30°07'42", long 102°23'04", Terrell County, Hydrologic Unit 13040208, on left bank at upstream side of bridge on U.S. Highway 90, 1.0 mi south of Sanderson, 2.9 mi downstream from Three Mile Draw, and 30.0 mi upstream from mouth.

DRAINAGE AREA.--195 mi^2.

PERIOD OF RECORD.--Feb. 1968 to Sept. 1980 (daily mean discharge), Aug. 2001 to current year (gage heights only). Published as "Sanderson Canyon" prior to Oct. 1979.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,706.35 ft above the NGVD of 1929. Prior to Oct. 19, 1977, at site on right bank 95 ft downstream at same datum. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions. Flow is affected at times by discharge from the flood-detention pools of floodwater-retarding structures. No flow most of time each year.

AVERAGE DISCHARGE.--12 years (water years 1969-80), 8.51 ft^3/s (6,170 acre-ft/year).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,600 ft^3/s, Sept. 18, 1969, gage height, 9.18 ft, from rating curve based on a step-backwater analysis below 10,000 ft^3/s and two combined slope-area measurements of about 100,000 ft^3/s; maximum gage height, 9.44 ft, Apr. 30, 1974; no flow most of time each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1935, 14.2 ft June 11, 1965, discharge about 100,000 ft^3/s, by combining two slope-area measurements within 4.0 mi upstream from gage. A flood in 1935 reached a discharge of about 20,000 ft^3/s, estimated channel capacity by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 2.63 ft, July 25, from floodmark; minimum gage height, 0.99 ft, Mar. 12, Apr. 4, 28, June 12, 30, July 26.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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	---	---	---	---	---	---	---	---	---	---	1.23	0.99
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	1.18	1.00	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	1.18	1.00	1.23	0.99

08376300 Sanderson Creek at Sanderson, TX—Continued

GAGE HEIGHT, FEET—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	1.29	1.01	---	---	---	---	---	---	---	---	---	---
3	1.05	1.05	---	---	---	---	---	---	---	---	---	---
4	1.94	0.99	---	---	---	---	---	---	---	---	---	---
5	1.27	1.00	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	1.21	1.00	---	---	---	---	---	---
12	---	---	---	---	1.32	0.99	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	2.63	1.04	---	---	---	---
26	---	---	---	---	---	---	1.40	0.99	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	1.02	0.99	---	---	---	---	1.71	1.00	---	---	---	---
29	---	---	---	---	1.30	1.12	---	---	---	---	---	---
30	---	---	---	---	1.19	0.99	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	1.94	0.99	---	---	1.32	0.99	2.63	0.99	---	---	---	---
YEAR	2.63	0.99										

08377200 Rio Grande at Foster Ranch near Langtry, TX

LOCATION.--Lat 29°46'50", long 101°45'20", Val Verde County, Hydrologic Unit 13040212, at gaging station 0.1 mi downstream from Terrell-Val Verde County line, 12.3 mi west of Langtry, and 597.2 mi downstream from the American Dam at El Paso.

DRAINAGE AREA.--80,742 mi^2, United States and Mexico; from International Boundary and Water Commission Water Bulletin No. 44.

PERIOD OF RECORD.--
CHEMICAL DATA: Apr. 1944 to current year.
BIOCHEMICAL DATA: Oct. 1975 to Aug. 1982, Oct. 1995 to current year.
PESTICIDE DATA: July 1975 to June 1982, Oct. 1995 to current year.
SEDIMENT DATA: Oct. 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Oct. 1974 to Sept. 1981 (local observer).
WATER TEMPERATURE: Oct. 1974 to Sept. 1981 (local observer).

REMARKS.--Instantaneous discharges published in the table were provided directly by International Boundary and Water Commission. Records of daily mean discharge for water year 2004 are published in International Boundary and Water Commission Water Bulletins Nos. 73 and 74. Since Sept. 1995, suspended sediment chemistry and quality assurance data 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, 2,110 microsiemens/cm, Dec. 4, 1974; minimum daily, 225 microsiemens/cm, May 2, 1981.
WATER TEMPERATURE: Maximum daily, 32.0°C, June 13, 1977, July 25, 26, 1979, July 4, 1980, and June 8, 1981; minimum daily, 9.0°C, Jan. 12, 1975, Jan. 8, 1976, and Jan. 18, 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV													
19...	1030	338	70	73	.023	.017	741	8.5	88	8.2	1,180	15.5	370
JAN													
28...	1120	352	10	2,600	.046	.036	738	8.2	78	8.2	1,160	11.4	420
FEB													
24...	1100	339	10	20	.019	.014	728	9.3	104	8.2	1,010	18.4	310
MAR													
17...	1300	2,370	10	E10,000	.078	.060	730	6.8	80	7.7	934	20.9	280
APR													
14...	1130	551	10	E990d	.070	.053	739	8.2	91	8.4	772	18.7	210
JUL													
14...	1200	326	10	220	.061	.046	735	--e	--	8.2	878	--e	260
AUG													
04...	1100	1,260	10	3600d	.079	.060	730	6.1	82	7.8	783	28.1	300
31...	1130	1,140	10	8500d	.101	.078	735	6.4	83	8.0	697	26.3	160

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
NOV													
19...	103	26.1	5.47	132	44	145	173	2	109	1.1	20.3	306d	795
JAN													
28...	138	17.9	4.77	103	35	119	144	<1	77.3	.9	14.6	356d	791
FEB													
24...	83.3	23.4	4.81	94.2	40	140	169	<1	84.3	1.2	20.5	239	639
MAR													
17...	92.9c	10.7c	5.14c	110	46	96	116	<1	59.5c	.6	11.1c	280c	633
APR													
14...	68.7	9.21	4.04	82.3	45	139	E168	<1	54.5	.9	17.5	163	489
JUL													
14...	77.7	15.8	5.42	81.1	40	168	--e	--e	53.7	1.1	20.6	185	547
AUG													
04...	103	10.1	4.72	49.9	26	110	133	<1	19.8	.7	13.7	243	518
31...	59.4	3.68	3.75	81.3	51	107	E130	<1	27.9	.9	15.2	180	441

08377200 Rio Grande at Foster Ranch near Langtry, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Organic nitrogen, water, fltrd, mg/L (00607)
NOV													
19...	732	802	E.06n	.32	--	<.010	2.89	.65	.656	.007	.002	.14	--
JAN													
28...	793	834	.13	1.6	.05	.037	5.31	1.20	1.21d	.046	.014	.79	.10
FEB													
24...	614	671	E.08n	.17	--	<.010	2.76	.62	.627	.013	.004	.14	--
MAR													
17...	4,120	645	.22	M	--	E.006n	3.58	.81	.813	.013	.004	17.8r	--
APR													
14...	761	512	.17	1.1	.02	.019	4.46	1.01	1.01d	.010	.003	1.08	.15
JUL													
14...	491	558	.18	.54	--	<.010	4.55	1.03	1.03d	.010	.003	.42	--
AUG													
04...	1,870	550	.18	6.6d	--	E.007n	5.45	1.23	1.23d	.007	.002	5.41	--
31...	1,400	453	.21	M	--	<.010	3.81	.86	.862	.007	.002	12.6	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)
NOV													
19...	--	--	<.006	<.004	.073	--	.97	2.0	<.1	2.0	1.1	<2	E.13n
JAN													
28...	1.5	--	E.003n	E.003n	.71oc	1.3	2.8	18.6	5.4	13.1	1.7	E2n	E.14n
FEB													
24...	--	--	<.006	E.003n	.029	--	.80	1.7	<.1	1.7	2.0	--	--
MAR													
17...	--	--	<.006	.008	9.12	1.0	--	445r	255r	190r	2.8r	2	.30
APR													
14...	1.1	.028	.009	.014	.73oc	1.2	2.1	24.0	<.1	24.0	2.2	2	E.19n
JUL													
14...	--	--	<.006	<.004	.189	1.2	1.6	5.8	<.1	5.8	1.9	3	.29
AUG													
04...	--	.021	.007	.012	1.76oc	1.4	7.8	143	83.1	60.3	2.2	--	--
31...	--	.031	.010	.012	E3.44+do	1.1	--	255	156	99.0	2.7	7	E.17n

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)
NOV													
19...	1.6	112	<.06	230	E.03n	<.8	.351	3.6	<6	<.08	80.3	.9	8.8
JAN													
28...	1.4	81	<.06	155	E.03n	<.8	.415	2.6cr	<6	<.08	63.3	.8	7.0
FEB													
24...	2.7	--	--	213	--	--	--	--	<6	--	78.5	--	--
MAR													
17...	1.2	66	<.06	159	<.04	<.8	.300	2.5	<6c	E.07n	34.8	.4	6.0
APR													
14...	2.2	61	<.06	134	<.04	<.8	.217	1.8	7	<.08	35.1	1.1	6.0
JUL													
14...	3.5	101	<.06	170	E.02n	<.8	.261	2.1	<6	E.07n	52.4	1.1	8.1
AUG													
04...	1.8	--	--	101	--	--	--	--	<6	--	21.7	--	--
31...	1.6	96	<.06	106	E.03n	<.8	.212	2.2	<6	.20	19.7	.2	6.4

08377200 Rio Grande at Foster Ranch near Langtry, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)
NOV													
19...	2.76	1.7	<.2	2,130	4.3	1.3	<.006	<.006	<.006	<.005	<.005	<.007	<.050
JAN													
28...	1.70	2.4	<.2	2,100	2.9	1.9	<.006	<.006	<.006	<.005	<.005	<.007	<.050
FEB													
24...	--	4.1	--	2,000	4.6	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
MAR													
17...	1.98	1.9	<.2	1,360	3.8	M	<.006	<.006	<.006	<.005	<.005	<.007	<.050
APR													
14...	1.54	1.2	<.2	1,080	6.2	.6	<.006	<.006	<.006	<.005	<.005	E.005n	<.050
JUL													
14...	1.45	1.4	<.2	1,420	9.3	.7	<.006	<.006	<.006	<.005	<.005	<.007	<.050
AUG													
04...	--	1.8	--	1,370	4.9	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
31...	1.39	1.6	<.2	937	4.7	1.3	<.006	<.006	<.006	<.005	<.005	<.007	<.050

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
NOV													
19...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
JAN													
28...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
FEB													
24...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
MAR													
17...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
APR													
14...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
JUL													
14...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
AUG													
04...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
31...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
NOV													
19...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
JAN													
28...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
FEB													
24...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
MAR													
17...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
APR													
14...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
JUL													
14...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
AUG													
04...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
31...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006

08377200 Rio Grande at Foster Ranch near Langtry, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)
NOV													
19...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
JAN													
28...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
FEB													
24...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
MAR													
17...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
APR													
14...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
JUL													
14...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
AUG													
04...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
31...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Deuterium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Uranium natural water, fltrd, ug/L (22703)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV												
19...	<.02	<.034	<.02	<.010	<.002	<.009	--	--	5.31	100	--	
JAN												
28...	<.02	<.034	<.02	<.010	<.002	<.009	--	--	3.96	100	1,190	1,130
FEB												
24...	<.02	<.034	<.02	<.010	<.002	<.009	-47.40	-6.42	--	100	39	36
MAR												
17...	<.02	<.034	<.02	<.010	<.002	<.009	-52.10	-8.09	3.70	100	14,200	90,700
APR												
14...	<.02	<.034	<.02	<.010	<.002	<.009	-38.30	-5.85	4.06	100	1,140	1,700
JUL												
14...	<.02	<.034	<.02	<.010	<.002	<.009	-38.70	-5.33	3.98	100	277	244
AUG												
04...	<.02	<.034	<.02	<.010	<.002	<.009	-39.80	-6.19	--	100	5,420	18,400
31...	<.02	<.034	<.02	<.010	<.002	<.009	-31.10	-5.05	2.52	100	13,000	39,900

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
+ -- Improper preservation
c -- See laboratory comment
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL
o -- Result determined by alternate method
r -- Value verified by rerun, same method

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

08410000 Red Bluff Reservoir near Orla, TX

LOCATION.--Lat 31°54'04", long 103°54'35", Reeves County, Hydrologic Unit 13070001, at upstream side and near the center of Red Bluff Dam at the service outlet structure on the Pecos River, 2.8 mi upstream from Salt Creek, and 5.2 mi north of Orla.

DRAINAGE AREA.--20,720 mi^2.

PERIOD OF RECORD.--Feb. 1937 to Sept. 2003 (contents), Oct. 2003 to current year. Monthly contents only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Oct. 2003, nonrecording gage at right end of dam at datum 0.43 ft lower. Satellite telemeter at station.

REMARKS.--Records fair. Interruptions in the record were due to malfunction of the instrument. Reservoir is formed by a rock-faced earthfill dam 9,200 ft long. The dam was completed and storage began in Sept. 1936. The dam and reservoir are owned and operated by the Red Bluff Water Power Control District. The water is used for power development and for irrigation from Mentone to Grandfalls. The uncontrolled emergency spillway, 790 ft wide, is a cut through natural ground located to the right of right end of dam. The controlled service spillway is equipped with 12 tainter gates that are 25 by 15 ft high. Inflow is regulated by many reservoirs and diversion dams. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	2,856.4
Crest of emergency spillway	2,845.4
Top of gates	2,842.4
Crest of service spillway and bottom of tainter gates	2,827.4
Lowest gated outlet (invert)	2,764.4

COOPERATION.--Records of diversions may be obtained from the Red Bluff Water Power Control District.

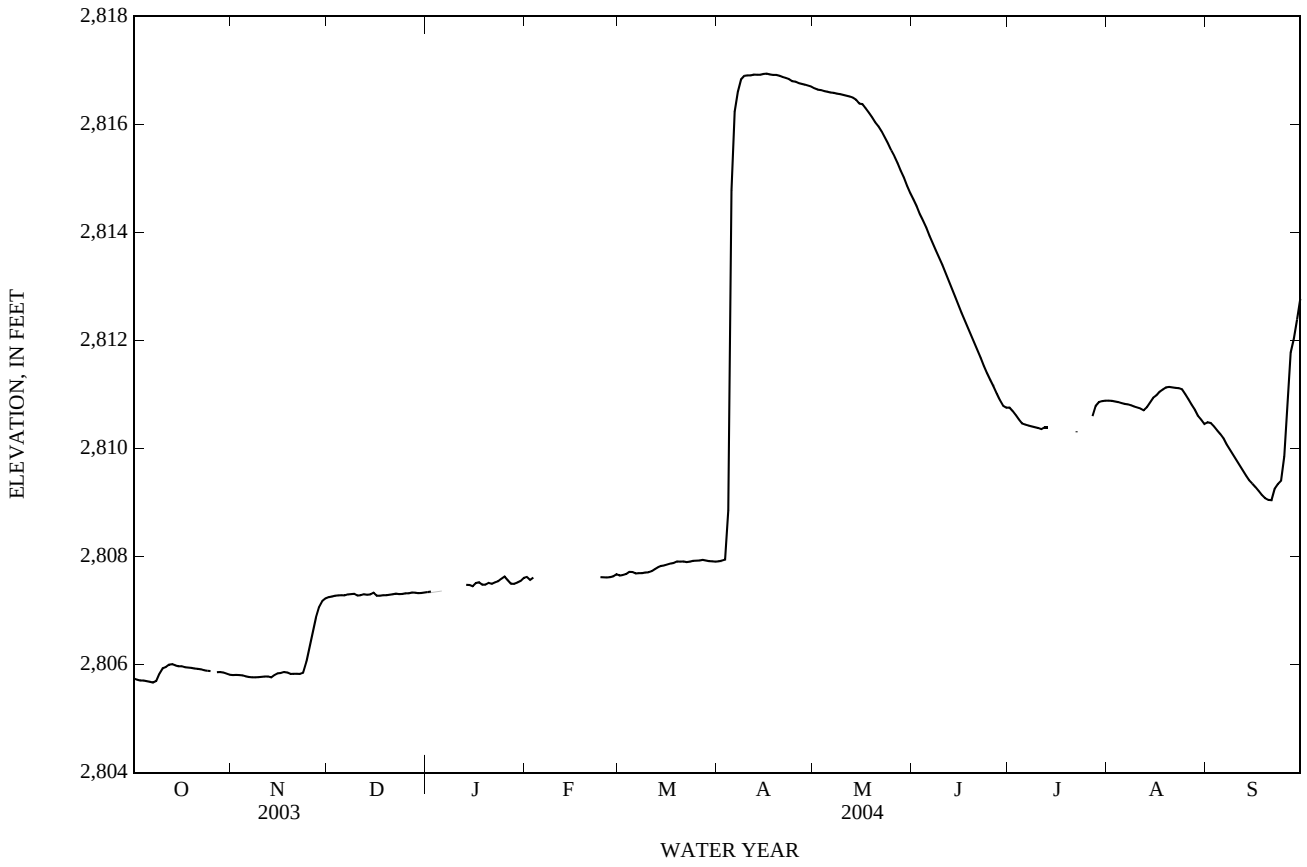
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 352,000 acre-ft, Sept. 27, 28, 1941, gage height, 2,846.2 ft, observed on nonrecording gage at service spillway (affected by variable drawdown due to flow through tainter gates); minimum contents observed, 11,080 acre-ft, May 13, 1948, gage height, 2,781.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 2,816.94 ft, Apr. 16; minimum elevation, 2,805.65 ft, Oct. 7, 8.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,805.74	2,805.81	2,807.25	2,807.34	2,807.62	2,807.65	2,807.91	2,816.67	2,814.61	2,810.76	2,810.89	2,810.49
2	2,805.72	2,805.81	2,807.26	2,807.35	2,807.57	2,807.66	2,807.92	2,816.64	2,814.48	2,810.69	2,810.88	2,810.47
3	2,805.70	2,805.81	2,807.28	---	2,807.61	2,807.68	2,807.94	2,816.64	2,814.34	2,810.62	2,810.87	2,810.41
4	2,805.71	2,805.80	2,807.28	---	---	2,807.72	2,808.86	2,816.62	2,814.22	2,810.54	2,810.86	2,810.33
5	2,805.70	2,805.78	2,807.28	---	---	2,807.72	2,814.77	2,816.60	2,814.09	2,810.46	2,810.84	2,810.27
6	2,805.68	2,805.77	2,807.28	---	---	2,807.69	2,816.24	2,816.59	2,813.94	2,810.44	2,810.83	2,810.19
7	2,805.67	2,805.76	2,807.30	---	---	2,807.69	2,816.61	2,816.58	2,813.81	2,810.42	2,810.82	2,810.07
8	2,805.70	2,805.77	2,807.31	---	---	2,807.69	2,816.83	2,816.57	2,813.67	2,810.41	2,810.80	2,809.97
9	2,805.83	2,805.77	2,807.31	---	---	2,807.70	2,816.90	2,816.56	2,813.54	2,810.39	2,810.78	2,809.87
10	2,805.93	2,805.77	2,807.28	---	---	2,807.71	2,816.91	2,816.55	2,813.40	2,810.38	2,810.76	2,809.78
11	2,805.95	2,805.78	2,807.29	---	---	2,807.73	2,816.91	2,816.53	2,813.25	2,810.36	2,810.74	2,809.69
12	2,806.00	2,805.78	2,807.30	---	---	2,807.77	2,816.92	2,816.52	2,813.10	2,810.39	2,810.71	2,809.59
13	2,806.01	2,805.76	2,807.29	2,807.48	---	2,807.80	2,816.92	2,816.50	2,812.95	2,810.39	2,810.76	2,809.50
14	2,805.99	2,805.81	2,807.30	2,807.47	---	2,807.83	2,816.92	2,816.46	2,812.81	---	2,810.85	2,809.41
15	2,805.97	2,805.84	2,807.33	2,807.45	---	2,807.83	2,816.93	2,816.39	2,812.66	---	2,810.94	2,809.35
16	2,805.97	2,805.84	2,807.28	2,807.51	---	2,807.85	2,816.94	2,816.38	2,812.51	---	2,810.98	2,809.28
17	2,805.95	2,805.86	2,807.28	2,807.52	---	2,807.87	2,816.93	2,816.30	2,812.38	---	2,811.05	2,809.21
18	2,805.95	2,805.85	2,807.28	2,807.48	---	2,807.88	2,816.92	2,816.22	2,812.23	---	2,811.09	2,809.14
19	2,805.94	2,805.83	2,807.29	2,807.48	---	2,807.91	2,816.91	2,816.13	2,812.10	---	2,811.13	2,809.08
20	2,805.93	2,805.83	2,807.29	2,807.51	---	2,807.91	2,816.90	2,816.04	2,811.95	---	2,811.14	2,809.05
21	2,805.92	2,805.83	2,807.30	2,807.49	---	2,807.91	2,816.88	2,815.96	2,811.82	---	2,811.13	2,809.04
22	2,805.91	2,805.83	2,807.31	2,807.52	---	2,807.90	2,816.86	2,815.87	2,811.68	2,810.31	2,811.12	2,809.26
23	2,805.89	2,805.85	2,807.30	2,807.54	---	2,807.91	2,816.84	2,815.76	2,811.53	---	2,811.12	2,809.34
24	2,805.89	2,806.05	2,807.31	2,807.59	2,807.62	2,807.92	2,816.80	2,815.65	2,811.39	---	2,811.10	2,809.40
25	2,805.88	2,806.33	2,807.32	2,807.63	2,807.62	2,807.92	2,816.79	2,815.52	2,811.27	---	2,811.01	2,809.86
26	---	2,806.61	2,807.32	2,807.56	2,807.61	2,807.93	2,816.76	2,815.41	2,811.15	---	2,810.91	2,810.81
27	2,805.86	2,806.87	2,807.33	2,807.50	2,807.62	2,807.94	2,816.75	2,815.28	2,811.02	2,810.60	2,810.81	2,811.78
28	2,805.86	2,807.07	2,807.33	2,807.50	2,807.64	2,807.93	2,816.74	2,815.14	2,810.89	2,810.79	2,810.72	2,812.03
29	2,805.85	2,807.18	2,807.32	2,807.52	2,807.67	2,807.92	2,816.72	2,815.02	2,810.79	2,810.86	2,810.60	2,812.39
30	2,805.83	2,807.22	2,807.32	2,807.55	---	2,807.91	2,816.70	2,814.86	2,810.76	2,810.88	2,810.53	2,812.77
31	2,805.81	---	2,807.34	2,807.60	---	2,807.91	---	2,814.73	---	2,810.89	2,810.45	---
MEAN	---	2,806.03	2,807.30	---	---	2,807.82	2,815.60	2,816.09	2,812.61	---	2,810.88	2,810.06
MAX	---	2,807.22	2,807.34	---	---	2,807.94	2,816.94	2,816.67	2,814.61	---	2,811.14	2,812.77
MIN	---	2,805.76	2,807.25	---	---	2,807.65	2,807.91	2,814.73	2,810.76	---	2,810.45	2,809.04

08410000 Red Bluff Reservoir near Orla, TX—Continued



08412500 Pecos River near Orla, TX

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, Hydrologic Unit 13070001, on right bank at bridge on Farm Road 652, 5.5 mi downstream from Salt Creek Arroyo (Screw Bean Draw), 5.9 mi northeast of Orla, and 8.5 mi downstream from Red Bluff Reservoir.

DRAINAGE AREA.--21,210 mi^2.

PERIOD OF RECORD.--May 1937 to current year. Water-quality records: Chemical data: July 1937 to Jan. 2003. Specific conductance: July 1937 to Jan. 2003. Water temperature: Mar. 1953 to Jan. 2003. Prior to Oct. 1969, water-quality data published as station 08410100, Pecos River below Red Bluff Dam, near Orla, TX.

REVISED RECORDS.--WSP 928: 1937.

GAGE.--Water-stage recorder. Datum of gage is 2,730.86 ft above NGVD of 1929. Prior to Nov. 16, 1969, at site 6.9 mi downstream at datum 12.81 ft lower. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Most of flow is releases from storage in Red Bluff Reservoir (station 08410000) 8.5 mi upstream. Occasional runoff occurs from draws between dam and station. There are many diversions above Red Bluff Reservoir for irrigation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	7.5	4.9	4.3	4.1	5.9	5.1	4.8	291	239	28	226
2	4.3	5.4	4.9	4.3	4.1	6.1	5.4	4.8	349	240	27	236
3	4.3	5.3	4.9	4.3	4.1	6.1	5.3	4.6	349	246	27	215
4	4.4	5.2	4.8	4.2	4.2	7.8	273	4.5	345	253	27	207
5	4.4	5.0	4.7	4.2	4.2	6.2	320	4.4	341	236	26	204
6	4.4	5.2	4.7	4.2	4.1	5.7	45	4.4	336	37	26	201
7	4.4	5.3	4.7	4.2	4.2	5.9	16	4.4	332	16	26	200
8	6.7	5.2	4.7	4.3	4.4	12	11	6.1	334	16	26	200
9	7.3	5.3	4.5	5.7	4.2	10	8.9	4.6	336	16	25	199
10	6.8	5.2	4.4	4.4	4.5	9.9	7.6	4.5	337	16	25	198
11	5.7	5.4	4.4	4.1	4.6	5.8	7.3	4.6	338	17	25	198
12	12	5.5	4.5	4.2	4.8	5.3	6.9	4.6	339	18	24	199
13	17	5.4	4.5	4.2	4.7	4.7	6.4	4.5	342	18	26	199
14	7.8	5.9	4.6	4.2	4.7	4.0	6.2	17	344	18	27	183
15	6.0	5.5	4.5	4.3	4.8	3.7	6.1	279	348	18	26	111
16	5.6	5.3	4.3	4.4	4.8	3.1	6.7	296	352	18	24	107
17	5.3	5.3	4.3	4.2	5.0	2.7	6.0	286	358	19	24	107
18	4.9	5.1	4.2	4.2	5.0	2.7	5.9	281	365	19	36	107
19	4.9	5.0	4.2	4.1	5.2	3.6	5.8	277	371	19	109	108
20	4.9	5.0	4.2	4.1	5.0	4.0	5.7	282	377	19	28	92
21	4.9	5.0	4.1	4.1	5.1	4.4	5.4	305	383	24	24	21
22	4.8	5.1	4.1	4.1	5.4	6.9	5.4	315	386	77	23	15
23	4.8	4.9	4.2	4.1	5.5	7.1	5.3	316	390	73	23	14
24	4.9	4.9	4.2	4.3	6.2	7.1	5.3	356	395	79	43	14
25	4.9	5.0	4.3	4.4	5.7	7.1	5.4	376	397	155	216	489
26	5.4	4.9	4.3	4.0	5.7	7.1	5.3	355	401	71	225	e883
27	5.2	4.7	4.3	4.0	5.9	5.9	5.5	375	406	36	224	e1,260
28	5.1	4.7	4.1	4.1	6.0	4.9	5.5	373	410	32	219	177
29	5.2	4.7	4.1	4.2	6.5	5.0	5.4	368	422	30	217	131
30	5.1	4.7	4.1	4.2	---	4.9	5.0	363	301	30	216	417
31	5.0	---	4.2	4.2	---	4.9	---	310	---	29	212	---
TOTAL	180.5	156.6	136.9	131.8	142.7	180.5	813.8	5,590.8	10,775	2,134	2,254	6,918
MEAN	5.82	5.22	4.42	4.25	4.92	5.82	27.1	180	359	68.8	72.7	231
MAX	17	7.5	4.9	5.7	6.5	12	320	376	422	253	225	1,260
MIN	4.1	4.7	4.1	4.0	4.1	2.7	5.0	4.4	291	16	23	14
AC-FT	358	311	272	261	283	358	1,610	11,090	21,370	4,230	4,470	13,720

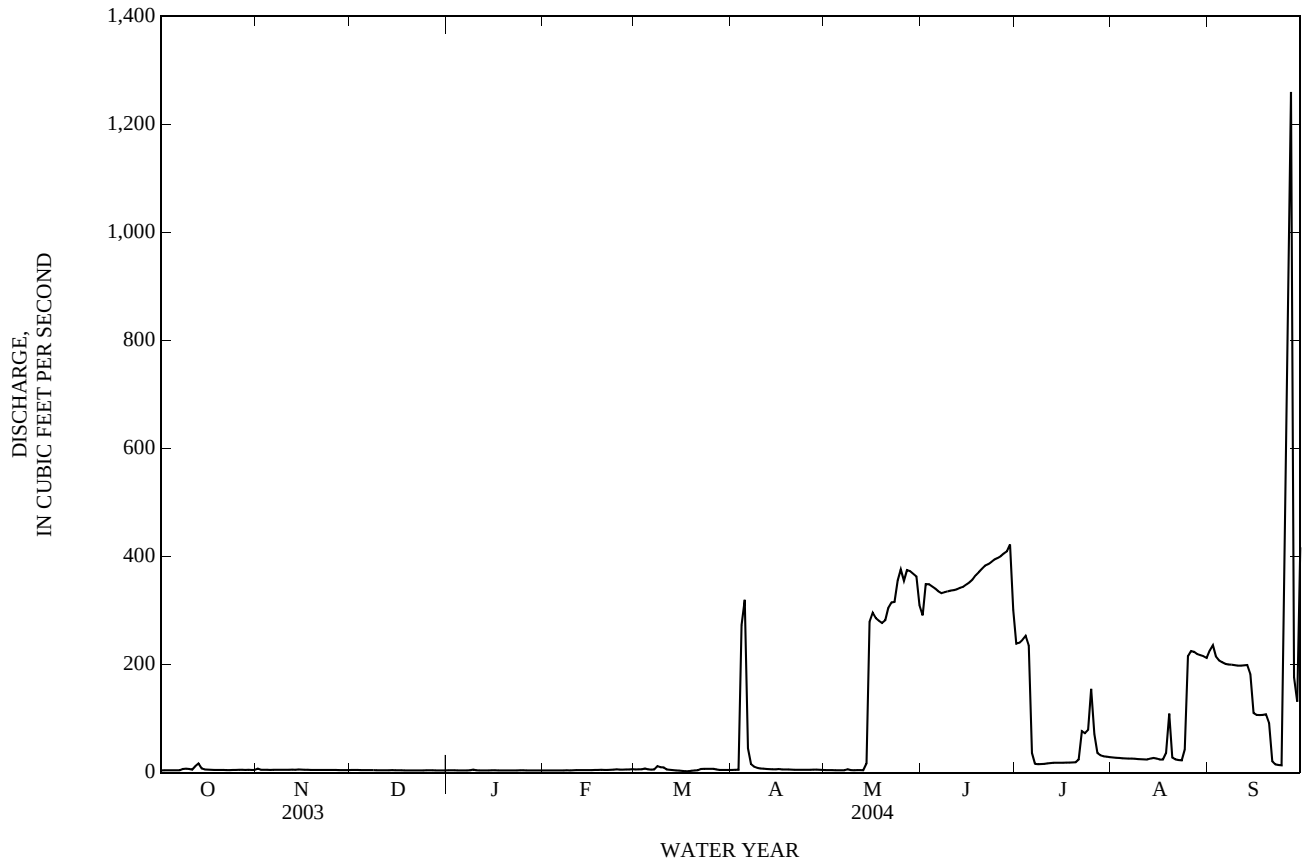
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2004, BY WATER YEAR (WY)

MEAN	161	70.6	43.9	40.8	46.7	89.9	201	203	236	237	197	247
MAX	5,717	1,474	838	712	617	288	601	2,717	3,481	1,425	686	6,515
(WY)	(1942)	(1942)	(1942)	(1942)	(1942)	(1955)	(1942)	(1941)	(1941)	(1941)	(1941)	(1941)
MIN	1.78	1.38	1.77	0.76	0.46	0.84	1.05	5.86	17.2	8.11	0.74	8.70
(WY)	(1948)	(1960)	(1962)	(1965)	(1965)	(1965)	(1965)	(1978)	(1953)	(1984)	(1965)	(1953)

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1938 - 2004	
ANNUAL TOTAL	29,414.6			
ANNUAL MEAN	80.4		148	
HIGHEST ANNUAL MEAN			1,284	1941
LOWEST ANNUAL MEAN			13.1	1953
HIGHEST DAILY MEAN	1,260	Sep 27	23,700	Sep 28, 1941
LOWEST DAILY MEAN	2.7	Mar 17	0.00	Sep 9, 1946
ANNUAL SEVEN-DAY MINIMUM	3.4	Mar 14	0.00	Jul 7, 1965
MAXIMUM PEAK FLOW	1,620	Sep 27	23,700	Sep 29, 1941
MAXIMUM PEAK STAGE	a13.52	Sep 27	g20.74	Sep 29, 1941
ANNUAL RUNOFF (AC-FT)	58,340		107,300	
10 PERCENT EXCEEDS	336		377	
50 PERCENT EXCEEDS	5.9		33	
90 PERCENT EXCEEDS	4.2		4.9	

g At site and datum then in use.
a From floodmark.
e Estimated

08412500 Pecos River near Orla, TX—Continued



08427000 Giffin Springs at Toyahvale, TX

LOCATION.--Lat 30°56'51", long 103°47'19", Reeves County, Hydrologic Unit 13070003, on left bank, 0.10 mi north of U.S. Highway 290, 0.15 mi below spring source, 0.20 mi northwest of entrance to Balmorhea State Park, and 4.0 mi southwest of Balmorhea.

DRAINAGE AREA.--Not applicable.

PERIOD OF RECORD.--Oct. 1931 to Sept. 1933, published as "Giffen", July 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,302.32 ft above the NGVD of 1929. Prior to July 25, 2002, water-stage recorder 700 ft upstream at unknown datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good except those for daily discharges above 6.0 ft^3/s, which are poor. Computed discharge includes all flow passing gage and may include runoff and diversion from San Solomon Springs through canal that enters between the spring source and the gage. No known regulation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.3	4.2	4.2	4.2	4.1	4.1	4.7	4.4	4.5	4.8	8.2
2	4.2	4.3	4.3	4.2	4.3	4.1	4.1	4.7	4.4	4.5	4.8	4.7
3	4.3	4.3	4.3	4.2	4.3	4.2	4.1	4.7	4.4	4.5	4.9	4.6
4	4.3	4.4	4.3	4.2	4.3	4.1	4.1	4.7	4.4	4.5	4.9	4.6
5	4.3	4.4	4.3	4.2	4.3	4.2	4.1	4.7	4.4	4.5	4.9	4.6
6	4.3	4.4	4.3	4.2	4.3	4.1	4.1	4.7	4.3	4.5	4.9	4.6
7	4.3	4.4	4.3	4.2	4.3	4.0	4.2	4.7	4.3	4.5	4.9	4.7
8	4.3	4.4	4.3	4.2	4.3	4.0	4.1	4.7	4.3	4.5	4.9	4.7
9	4.3	4.3	4.3	4.2	4.3	4.1	4.2	4.7	4.3	4.5	5.1	4.7
10	4.2	4.3	4.3	4.3	4.3	4.1	4.1	4.7	4.4	4.5	4.9	4.8
11	4.3	4.3	4.3	4.3	4.2	4.1	4.1	4.7	4.4	4.6	4.9	4.9
12	4.4	4.3	4.3	4.3	4.2	4.2	4.1	4.6	4.4	4.5	5.0	5.0
13	4.2	4.2	4.3	4.3	4.2	4.1	4.0	4.6	4.5	4.6	5.0	4.9
14	4.1	4.2	4.3	4.3	4.3	4.1	4.0	4.6	4.5	4.6	5.1	4.9
15	4.1	4.2	4.3	4.3	4.2	4.1	4.0	4.7	4.6	4.6	5.0	4.8
16	4.1	4.2	4.2	4.3	4.2	4.1	4.0	4.7	4.6	4.5	5.0	4.8
17	4.2	4.2	4.2	4.3	4.1	4.1	4.1	4.6	4.5	4.6	4.9	4.8
18	4.2	4.2	4.2	4.3	4.1	4.1	4.2	4.6	4.5	4.6	4.9	4.8
19	4.2	4.2	4.2	4.3	4.1	4.1	4.2	4.6	4.4	4.6	5.0	4.8
20	4.2	4.2	4.2	4.2	4.1	4.1	4.2	4.5	4.4	4.6	5.0	4.8
21	4.2	4.3	4.3	4.2	4.1	4.1	4.3	4.4	4.2	4.6	5.0	4.8
22	4.2	4.3	4.3	4.2	4.1	4.1	4.3	4.4	4.2	4.6	5.0	4.7
23	4.3	4.3	4.3	4.2	4.1	4.0	4.3	4.4	4.3	4.6	5.0	4.7
24	4.3	4.3	4.3	4.2	4.2	4.0	4.4	4.4	4.4	4.7	5.1	4.8
25	4.3	4.3	4.2	4.2	4.2	4.0	4.5	4.4	4.4	4.8	5.1	4.9
26	4.3	4.3	4.2	4.2	4.2	4.0	4.6	4.4	4.4	4.8	5.1	5.3
27	4.3	4.2	4.2	4.2	4.2	4.1	4.6	4.4	4.4	4.8	5.1	5.0
28	4.3	4.2	4.2	4.2	4.1	4.1	4.6	4.4	4.4	6.8	5.1	5.1
29	4.3	4.2	4.2	4.2	4.1	4.1	4.7	4.4	4.4	4.6	5.1	5.1
30	4.3	4.2	4.2	4.3	---	4.1	4.7	4.4	4.4	4.6	5.1	5.1
31	4.3	---	4.2	4.3	---	4.1	---	4.4	---	4.7	5.1	---
TOTAL	131.9	128.3	132.0	131.4	121.9	126.8	127.1	141.6	131.9	144.4	154.6	148.2
MEAN	4.25	4.28	4.26	4.24	4.20	4.09	4.24	4.57	4.40	4.66	4.99	4.94
MAX	4.4	4.4	4.3	4.3	4.3	4.2	4.7	4.7	4.6	6.8	5.1	8.2
MIN	4.1	4.2	4.2	4.2	4.1	4.0	4.0	4.4	4.2	4.5	4.8	4.6
AC-FT	262	254	262	261	242	252	252	281	262	286	307	294

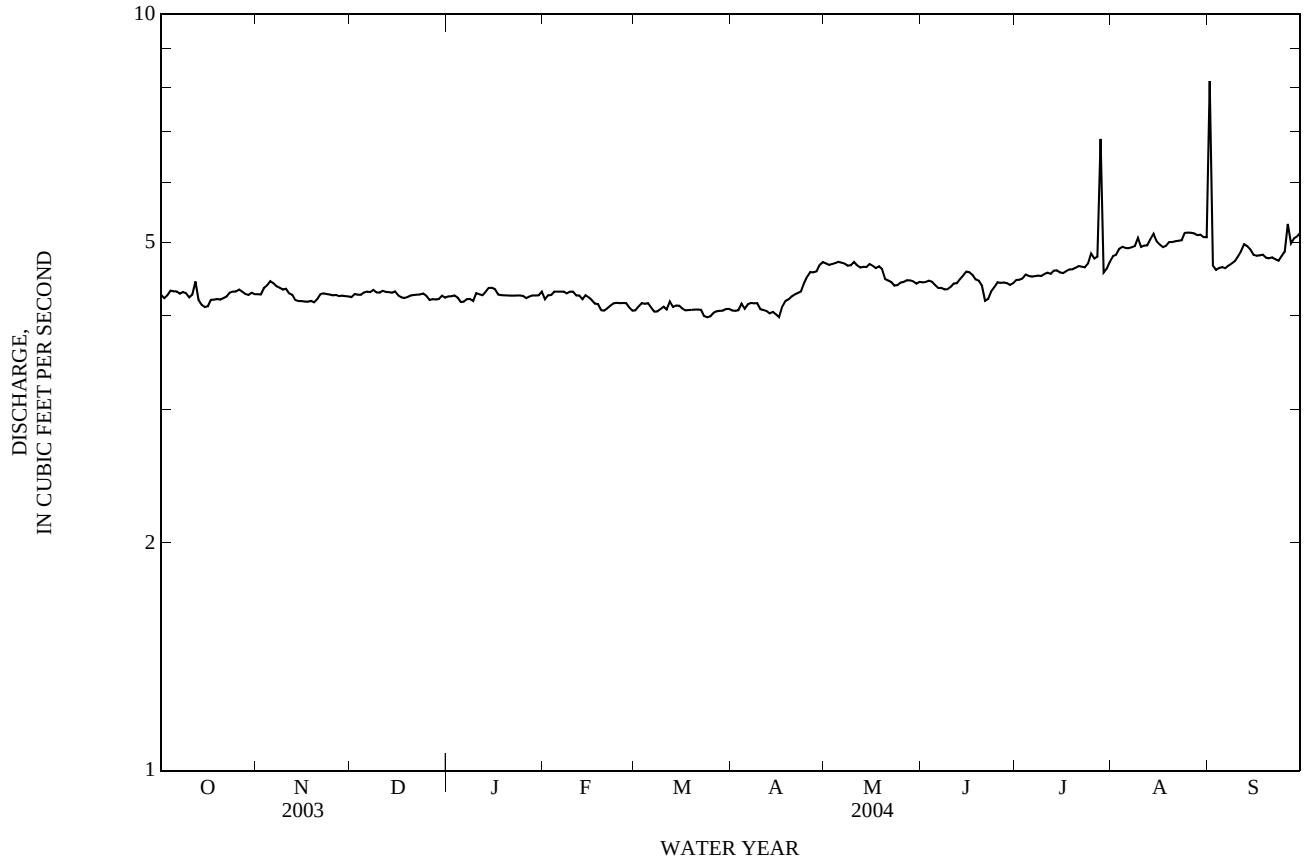
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004h, BY WATER YEAR (WY)

MEAN	4.77	4.48	4.36	4.40	4.64	4.59	4.60	4.55	4.46	4.53	4.60	4.85
MAX	6.10	5.90	5.60	5.29	4.94	5.07	5.00	4.94	4.94	4.81	4.99	5.54
(WY)	(1933)	(1933)	(1933)	(1933)	(1933)	(1933)	(1933)	(1933)	(1933)	(1933)	(2004)	(1933)
MIN	3.95	3.83	3.61	3.88	4.20	4.09	4.24	4.11	3.86	4.00	4.06	4.20
(WY)	(2003)	(2003)	(1932)	(1932)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004h	
ANNUAL TOTAL	1,553.5		1,620.1			
ANNUAL MEAN	4.26		4.43		4.57	
HIGHEST ANNUAL MEAN					5.24	1933
LOWEST ANNUAL MEAN					4.17	2003
HIGHEST DAILY MEAN	5.3	Feb 13	8.2	Sep 1	8.2	Sep 1, 2004
LOWEST DAILY MEAN	3.5	Jun 24	4.0	Mar 7	3.5	Jun 24, 2003
ANNUAL SEVEN-DAY MINIMUM	3.6	Jun 24	4.0	Mar 20	3.6	Dec 4, 1931
MAXIMUM PEAK FLOW			34	Sep 1	34	Sep 1, 2004
MAXIMUM PEAK STAGE			5.79	Sep 1	5.79	Sep 1, 2004
ANNUAL RUNOFF (AC-FT)	3,080		3,210		3,310	
10 PERCENT EXCEEDS	4.6		4.9		5.3	
50 PERCENT EXCEEDS	4.2		4.3		4.6	
90 PERCENT EXCEEDS	3.9		4.1		3.9	

h See PERIOD OF RECORD paragraph.

08427000 Giffin Springs at Toyahvale, TX—Continued



08431700 Limpia Creek above Fort Davis, TX

LOCATION.--Lat 30°36'48", long 104°00'04", Jeff Davis County, Hydrologic Unit 13070005, on left bank at downstream side of bridge on State Highway 118, about 1,400 ft upstream from Jones Creek, and 6.8 mi west of Fort Davis.

DRAINAGE AREA.--52.4 mi^2.

PERIOD OF RECORD.--Oct. 1965 to Sept. 1986 (daily mean discharge), July 2001 to Sept. 2003 (gage heights only), Oct. 2003 to current year. Water-quality records: Chemical data: May 1965 to June 1986.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 5,175 ft above the NGVD of 1929. Prior to Mar. 1, 1979, at site 600 ft upstream at datum 3.71 ft higher. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges and discharges above 300 ft^3/s, which are poor. No known regulation or diversions.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1925, about 9.00 ft in 1939, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.15	0.00	0.00	0.00	4.0
2	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.16	0.00	0.00	0.00	3.6
3	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.20	0.00	0.00	0.00	3.3
4	0.00	0.00	0.00	e0.00	e0.00	0.00	2.4	0.18	0.00	0.00	0.00	3.4
5	0.00	0.00	0.00	e0.00	e0.00	0.00	0.41	0.15	0.00	0.00	0.00	3.0
6	0.00	0.00	0.00	e0.00	e0.00	0.00	5.5	0.12	0.00	0.00	0.00	2.6
7	0.00	0.00	0.00	e0.00	e0.00	0.00	0.32	0.11	0.00	0.00	0.00	2.3
8	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.10	0.00	0.00	0.00	2.3
9	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.08	0.00	0.00	0.00	2.3
10	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	2.2
11	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	2.0
12	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	1.8
13	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	1.6
14	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.03	0.00	0.00	11	1.5
15	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.10	0.00	0.00	11	1.3
16	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	2.4	0.00	0.00	38	1.1
17	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.55	0.00	0.00	29	0.94
18	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.22	0.00	0.00	39	0.78
19	0.00	0.00	e0.00	e0.00	0.00	0.00	0.02	0.10	0.00	0.00	37	0.83
20	0.00	0.00	e0.00	e0.00	0.00	0.00	0.03	0.05	0.00	0.00	17	1.6
21	0.00	0.00	e0.00	e0.00	0.00	0.00	0.03	0.02	0.00	0.00	13	1.1
22	0.00	0.00	e0.00	e0.00	0.00	0.00	0.07	0.00	0.00	0.00	38	11
23	0.00	0.00	e0.00	e0.00	0.00	0.00	0.12	0.00	0.00	0.00	15	2.8
24	0.00	0.00	e0.00	e0.00	0.00	0.00	0.20	0.00	0.00	0.00	9.6	13
25	0.00	0.00	e0.00	e0.00	0.00	0.00	0.29	0.00	0.00	0.00	7.0	56
26	0.00	0.00	e0.00	e0.00	0.00	0.00	0.29	0.00	0.00	0.00	5.5	427
27	0.00	0.00	e0.00	e0.00	0.00	0.00	0.33	0.00	0.00	0.00	9.4	195
28	0.00	0.00	e0.00	e0.00	0.00	0.00	0.37	0.00	0.00	0.00	6.4	90
29	0.00	0.00	e0.00	e0.00	0.00	0.00	0.33	0.00	0.00	0.00	4.7	45
30	0.00	0.00	e0.00	e0.00	---	0.00	0.31	0.00	0.00	0.00	5.3	200
31	0.00	---	e0.00	e0.00	---	0.00	---	0.00	---	0.00	4.2	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	11.02	5.55	0.00	0.00	300.10	1,083.35
MEAN	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.18	0.00	0.00	9.68	36.1
MAX	0.00	0.00	0.00	0.00	0.00	0.00	5.5	2.4	0.00	0.00	39	427
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	22	11	0.00	0.00	595	2,150

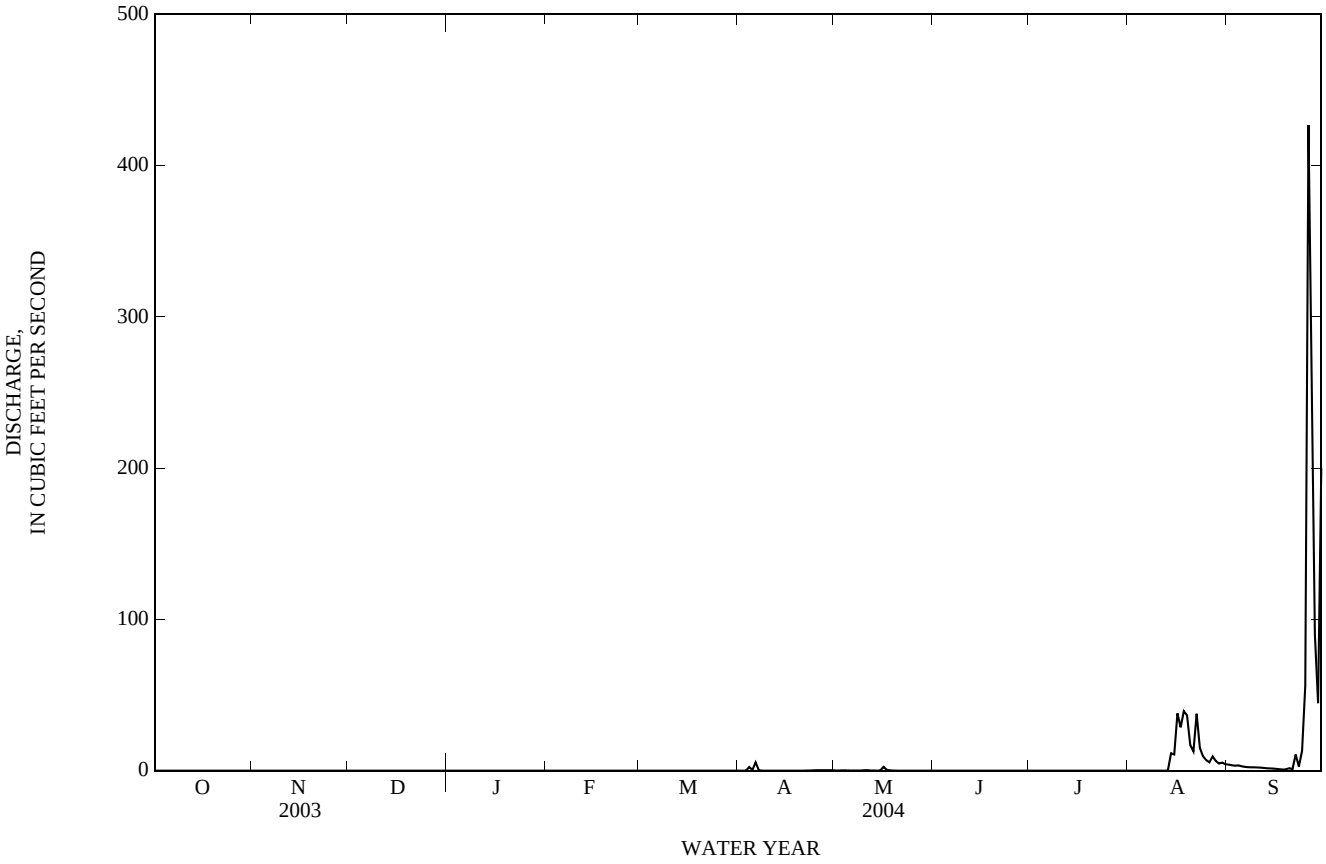
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004h, BY WATER YEAR (WY)

MEAN	2.96	0.30	0.04	0.00	0.00	0.00	0.02	0.01	7.77	2.48	6.51	17.7
MAX	34.6	4.58	0.96	0.02	0.00	0.00	0.37	0.18	141	21.6	31.0	112
(WY)	(1975)	(1975)	(1975)	(1975)	(1966)	(1966)	(2004)	(2004)	(1984)	(1976)	(1972)	(1978)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1966)	(1966)	(1966)	(1966)	(1966)	(1966)	(1966)	(1966)	(1968)	(1969)	(1969)	(1969)

08431700 Limpia Creek above Fort Davis, TX—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004h	
ANNUAL TOTAL	1,400.02			
ANNUAL MEAN	3.83		3.14	
HIGHEST ANNUAL MEAN			13.4	1984
LOWEST ANNUAL MEAN			0.03	1985
HIGHEST DAILY MEAN	427	Sep 26	1,700	Jun 19, 1984
LOWEST DAILY MEAN	0.00	Oct 1	0.00	Oct 1, 1965
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 1	0.00	Oct 1, 1965
MAXIMUM PEAK FLOW	1,400	Sep 26	i8,610	Jun 19, 1984
MAXIMUM PEAK STAGE	6.87	Sep 26	a9.00	Jun 19, 1984
ANNUAL RUNOFF (AC-FT)	2,780		2,270	
10 PERCENT EXCEEDS	2.3		1.1	
50 PERCENT EXCEEDS	0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00	

h See Period of Record paragraph.
i From slope-area measurement of peak flow.
a From floodmark.
e Estimated



08433000 Barrilla Draw near Saragosa, TX

LOCATION.--Lat 30°57'28", long 103°27'33", Reeves County, Hydrologic Unit 13070005, on right bank at downstream side of bridge on Interstate Highway 10, 12.2 mi east of Saragosa, 17.0 mi east of Balmorhea, and 34.4 mi west of Fort Stockton.

DRAINAGE AREA.--612 mi^2.

PERIOD OF RECORD.--Dec. 1924 to July 1926, June to Sept. 1932 (published as "Barrilla Creek"), Oct. 1975 to Sept. 1983, Aug. 2002 to current year.

REVISIONS.--The maximum discharges reported for water years 2002 and 2003 have been revised to 964 ft^3/s, Sept. 13, 2002, gage height, 5.20 ft, and 7,540 ft^3/s, June 22, 2003, gage height, 7.42 ft, superseding figures published in the reports for 2002 and 2003.

GAGE.--Water-stage recorder. Datum of gage is 3,078.36 ft above the NGVD of 1929. Prior to Oct. 1, 1975, water-stage recorder at site 600 ft upstream at datum 6.07 ft higher. Satellite telemeter at station.

REMARKS.--Records good except those for affected days, which are fair. No known regulation. Considerable diversion for irrigation by spreader dams above station. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	&289	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	&603	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	&288	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	&50	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	1.8	e0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	43	e0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	4.4	e0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	293
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	181
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	129	0.00	0.00	0.00	50
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	321
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.7
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.6	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.8	0.00	782
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17	0.00	537
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	214
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	146
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	1,279.20	129.98	5.47	22.54	0.00	2,563.70
MEAN	0.00	0.00	0.00	0.00	0.00	0.00	42.6	4.19	0.18	0.73	0.00	85.5
MAX	0.00	0.00	0.00	0.00	0.00	0.00	603	129	4.6	17	0.00	782
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	2,540	258	11	45	0.00	5,090

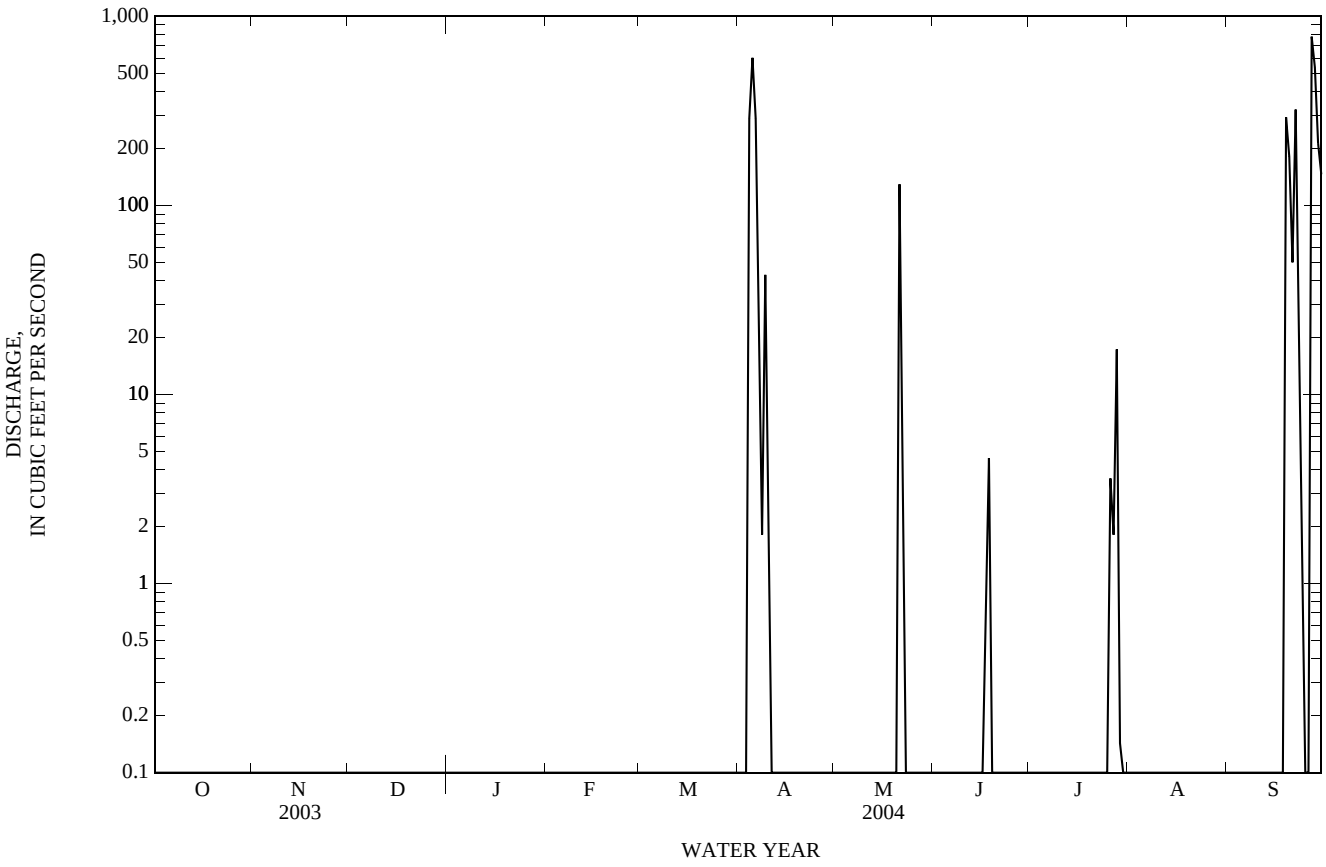
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2004h, BY WATER YEAR (WY)

MEAN	0.42	0.00	0.00	0.07	0.04	0.00	4.12	1.47	3.96	0.58	19.1	38.3
MAX	3.50	0.00	0.00	0.82	0.30	0.00	42.6	9.25	41.4	3.75	208	284
(WY)	(1979)	(1926)	(1926)	(1983)	(1982)	(1926)	(2004)	(1926)	(2003)	(2003)	(1932)	(1978)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1926)	(1926)	(1926)	(1926)	(1926)	(1926)	(1926)	(1976)	(1926)	(1977)	(1976)	(1976)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1925 - 2004h	
ANNUAL TOTAL	1,487.07		4,000.89			
ANNUAL MEAN	4.07		10.9		4.24	
HIGHEST ANNUAL MEAN					23.5	1978
LOWEST ANNUAL MEAN					0.00	1977
HIGHEST DAILY MEAN	534	Jun 20	782	Sep 27	4,260	Sep 26, 1978
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Dec 1, 1924
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Dec 1, 1924
MAXIMUM PEAK FLOW			4,130	Sep 19	g15,500	Aug 30, 1932
MAXIMUM PEAK STAGE			6.66	Sep 19	g10.45	Aug 30, 1932
ANNUAL RUNOFF (AC-FT)	2,950		7,940		3,070	
10 PERCENT EXCEEDS	0.00		0.00		0.00	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

h See PERIOD OF RECORD paragraph.
g At site and datum then in use.
& Value was computed from affected unit values
e Estimated

08433000 Barrilla Draw near Saragosa, TX—Continued



08446500 Pecos River near Girvin, TX

LOCATION.--Lat 31°06'47", long 102°25'02", Pecos County, Hydrologic Unit 13070001, on right bank 2.1 mi upstream from Comanche Creek, 3.8 mi northwest of Girvin, and 7.2 mi upstream from bridge on U.S. Highway 67.

DRAINAGE AREA.--29,560 mi^2, which is contributing area of supplementary gage 7.2 mi downstream.

PERIOD OF RECORD.--Aug. 1939 to current year. Water-quality records: Chemical data: Oct. 1939 to June 1941, Oct. 1946 to Sept. 1947, Oct. 1953 to Aug. 1982. Pesticide data: May 1968 to July 1974. Specific conductance: Oct. 1939 to June 1941, Oct. 1946 to Sept. 1947, Oct. 1953 to Sept. 1982. Water temperature: Oct. 1953 to Jan. 1959, Mar. 1964 to Sept. 1982.

GAGE.--Water-stage recorder with concrete control and measuring flume. Elevation of gage is 2,290 ft above NGVD of 1929, from topographic map. Supplementary water-stage recorder, 7.2 mi downstream at datum 2,269.65 ft above NGVD of 1929, used as regular gage prior to July 17, 1951, is now used only for peaks exceeding about 750 ft^3/s. Satellite telemeter at station.

REMARKS.--Records good except those for Apr. 26, 27, June 30, July 1, which are fair and those for estimated daily discharges, which are poor. Since installation of gage in water year 1939, at least 10% of contributing drainage area has been regulated. There are also numerous diversions above station for irrigation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1932 occurred Oct. 5, 1941.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	13	12	12	14	14	13	13	20	27	21	25
2	12	13	12	12	15	14	13	13	19	16	20	37
3	10	13	12	12	14	14	13	13	24	13	20	25
4	9.0	13	12	12	14	15	28	12	9.2	13	18	21
5	8.2	14	12	12	15	16	29	12	8.6	13	16	20
6	7.9	14	12	12	15	15	23	11	8.6	13	15	19
7	7.7	14	12	12	14	13	20	11	8.5	14	14	21
8	7.8	14	12	12	14	13	27	12	8.7	14	14	21
9	e10	14	12	12	14	13	42	12	8.8	17	14	19
10	e11	14	12	12	14	13	60	12	8.6	17	15	17
11	e12	13	12	12	15	13	47	12	9.0	16	15	16
12	e13	13	12	12	15	17	33	12	8.6	16	16	16
13	e36	13	12	12	15	20	26	12	8.8	15	17	16
14	e21	14	12	13	15	21	23	12	8.6	14	15	15
15	e21	14	12	16	15	19	23	12	8.2	14	15	14
16	24	13	12	16	14	18	22	12	8.2	13	15	14
17	19	14	12	27	14	17	19	12	7.9	14	15	13
18	16	15	12	22	14	15	19	12	7.9	14	26	12
19	14	14	12	19	14	15	20	13	7.9	14	21	12
20	13	13	12	16	14	15	19	13	8.1	13	17	14
21	13	13	12	16	14	16	17	14	8.6	13	17	17
22	13	13	12	15	14	16	16	15	8.8	12	17	22
23	13	13	12	15	15	15	15	16	8.2	12	15	22
24	13	12	12	15	15	15	15	16	8.1	12	15	23
25	13	12	12	15	16	14	15	17	e10	15	14	18
26	13	13	11	15	17	14	17	17	e16	21	16	22
27	14	12	12	14	14	14	29	18	e27	22	24	42
28	13	12	12	14	14	14	33	19	e15	25	16	45
29	12	12	12	14	14	14	17	19	16	21	15	53
30	13	13	12	14	---	13	14	19	54	22	15	71
31	13	---	11	15	---	13	---	19	---	19	26	---
TOTAL	431.6	397	370	447	421	468	707	432	378.9	494	529	702
MEAN	13.9	13.2	11.9	14.4	14.5	15.1	23.6	13.9	12.6	15.9	17.1	23.4
MAX	36	15	12	27	17	21	60	19	54	27	26	71
MIN	7.7	12	11	12	14	13	13	11	7.9	12	14	12
AC-FT	856	787	734	887	835	928	1,400	857	752	980	1,050	1,390

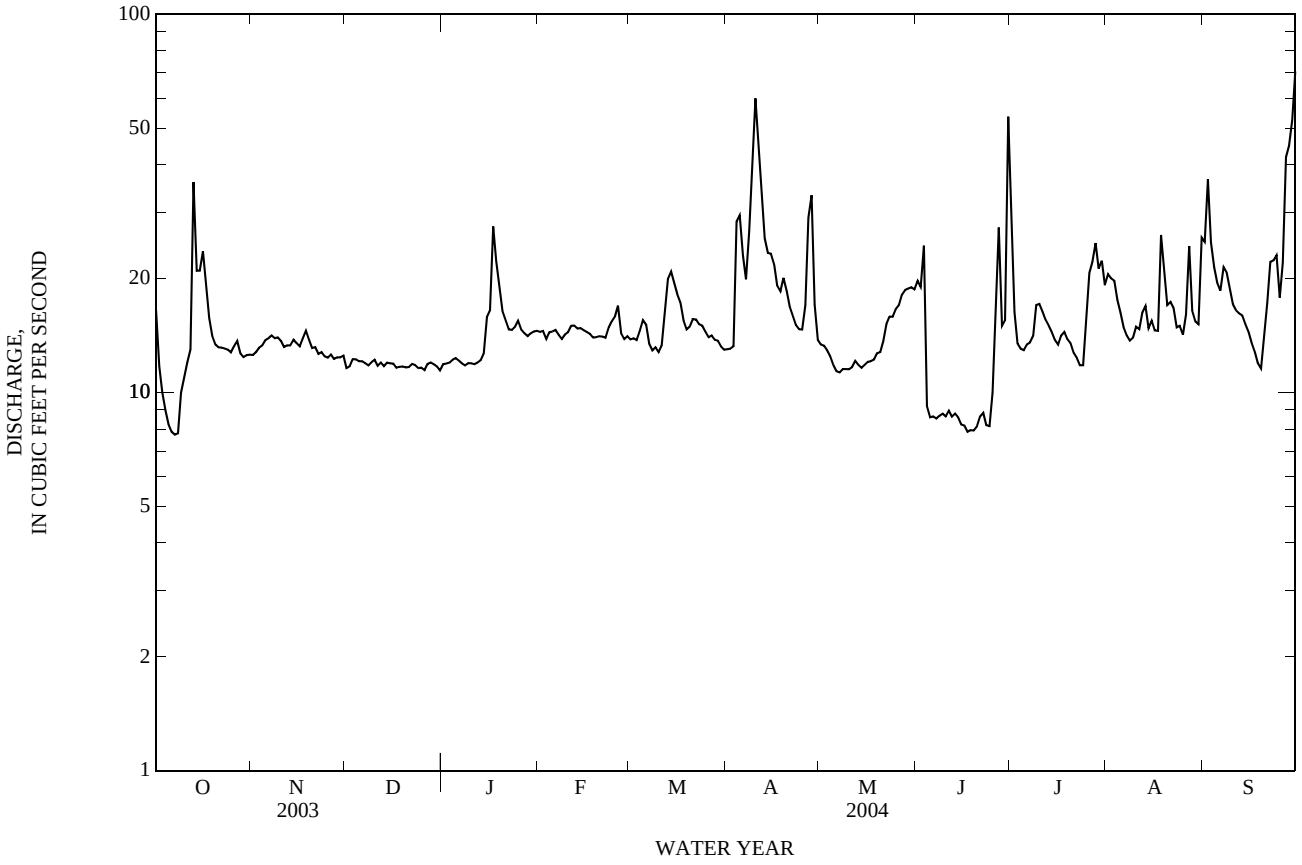
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	184	99.1	64.7	61.0	52.1	43.7	34.8	43.7	94.5	44.4	33.0	61.2
MAX	8,506	3,007	1,192	935	769	314	142	538	3,556	813	376	1,168
(WY)	(1942)	(1942)	(1942)	(1942)	(1942)	(1942)	(1957)	(1942)	(1941)	(1941)	(1941)	(1941)
MIN	9.52	13.0	11.9	14.4	14.5	15.1	11.3	6.38	2.84	3.86	4.13	6.05
(WY)	(1980)	(1974)	(2004)	(2004)	(1982)	(2004)	(1985)	(2003)	(1983)	(1964)	(1969)	(1983)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	4,815.2		5,777.5			
ANNUAL MEAN	13.2		15.8		68.1	
HIGHEST ANNUAL MEAN					1,386	1942
LOWEST ANNUAL MEAN					15.1	2002
HIGHEST DAILY MEAN	48	Sep 29	71	Sep 30	19,400	Oct 5, 1941
LOWEST DAILY MEAN	3.6	May 24	7.7	Oct 7	1.9	Jun 19, 1982
ANNUAL SEVEN-DAY MINIMUM	4.1	May 28	8.1	Jun 14	2.3	Jul 1, 1983
MAXIMUM PEAK FLOW			100	Jun 30	k20,000	Oct 5, 1941
MAXIMUM PEAK STAGE			1.82	Jun 30	pk20.49	Oct 5, 1941
ANNUAL RUNOFF (AC-FT)	9,550		11,460		49,360	
10 PERCENT EXCEEDS	20		22		80	
50 PERCENT EXCEEDS	13		14		27	
90 PERCENT EXCEEDS	4.8		12		10	

k From supplementary gage.
p Observed.
e Estimated

08446500 Pecos River near Girvin, TX—Continued



08447020 Independence Creek near Sheffield, TX

LOCATION.--Lat 30°27'07", long 101°43'58", Terrell County, Hydrologic Unit 13070010, on left bank 0.5 mi downstream from Joe Chandler Ranch Headquarters, 1.0 mi upstream from mouth, 6.0 mi downstream from bridge on FM 1217, and 17.0 mi southeast of Sheffield.

DRAINAGE AREA.--763 mi^2.

PERIOD OF RECORD.--Jan. 1974 to Sept. 1985, Aug. 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,883 ft above NGVD of 1929, by Topographic Division plane table survey. Satellite telemeter at station.

REMARKS.--Records good except those for discharges above 500 ft^3/s, which are fair. The Chandler Estate and the Roden Ranch have permits to divert 243 and 530 acre-ft annually, respectively.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	14	29	33	32	33	34	42	31	35	60	50
2	21	15	33	33	32	33	34	40	31	34	58	52
3	21	15	33	34	32	33	34	39	31	33	56	52
4	21	15	32	33	32	37	53	38	31	33	54	51
5	21	15	30	33	32	35	44	38	31	33	53	51
6	21	16	30	32	31	33	55	38	30	32	53	50
7	22	17	32	32	31	33	46	38	31	32	52	49
8	23	17	32	32	31	33	44	37	31	32	52	48
9	5,070	17	30	33	32	33	43	37	31	31	53	48
10	215	18	28	33	33	33	42	37	31	31	51	47
11	1,780	19	32	33	33	36	40	38	31	31	51	46
12	1,140	19	32	33	33	60	38	36	31	31	55	46
13	92	20	32	33	32	55	37	36	31	31	67	45
14	38	19	32	33	32	45	36	35	31	30	56	45
15	23	20	34	37	32	42	34	35	30	29	53	45
16	18	21	34	35	32	43	33	35	30	30	52	44
17	16	22	34	35	32	41	32	34	30	30	51	44
18	15	21	33	34	32	39	32	34	30	30	53	44
19	14	21	33	33	32	39	32	34	30	29	49	45
20	14	21	33	33	32	38	31	34	30	30	48	45
21	13	22	34	33	32	40	30	33	30	30	47	45
22	13	24	34	33	32	38	29	33	30	30	47	45
23	13	24	31	34	47	37	28	33	37	30	47	46
24	12	24	32	33	39	37	28	33	33	31	46	47
25	13	25	33	33	35	36	29	33	41	12,600	47	48
26	14	25	33	32	33	36	30	34	37	684	48	59
27	14	26	33	32	33	36	28	34	34	109	46	52
28	14	26	33	32	33	35	37	33	36	86	46	51
29	14	27	32	32	33	34	51	32	37	75	45	45
30	14	28	32	32	---	34	42	32	35	68	44	44
31	14	---	32	32	---	34	---	31	---	64	57	---
TOTAL	8,753	613	997	1,025	957	1,171	1,106	1,096	963	14,434	1,597	1,429
MEAN	282	20.4	32.2	33.1	33.0	37.8	36.9	35.4	32.1	466	51.5	47.6
MAX	5,070	28	34	37	47	60	55	42	41	12,600	67	59
MIN	12	14	28	32	31	33	28	31	30	29	44	44
AC-FT	17,360	1,220	1,980	2,030	1,900	2,320	2,190	2,170	1,910	28,630	3,170	2,830

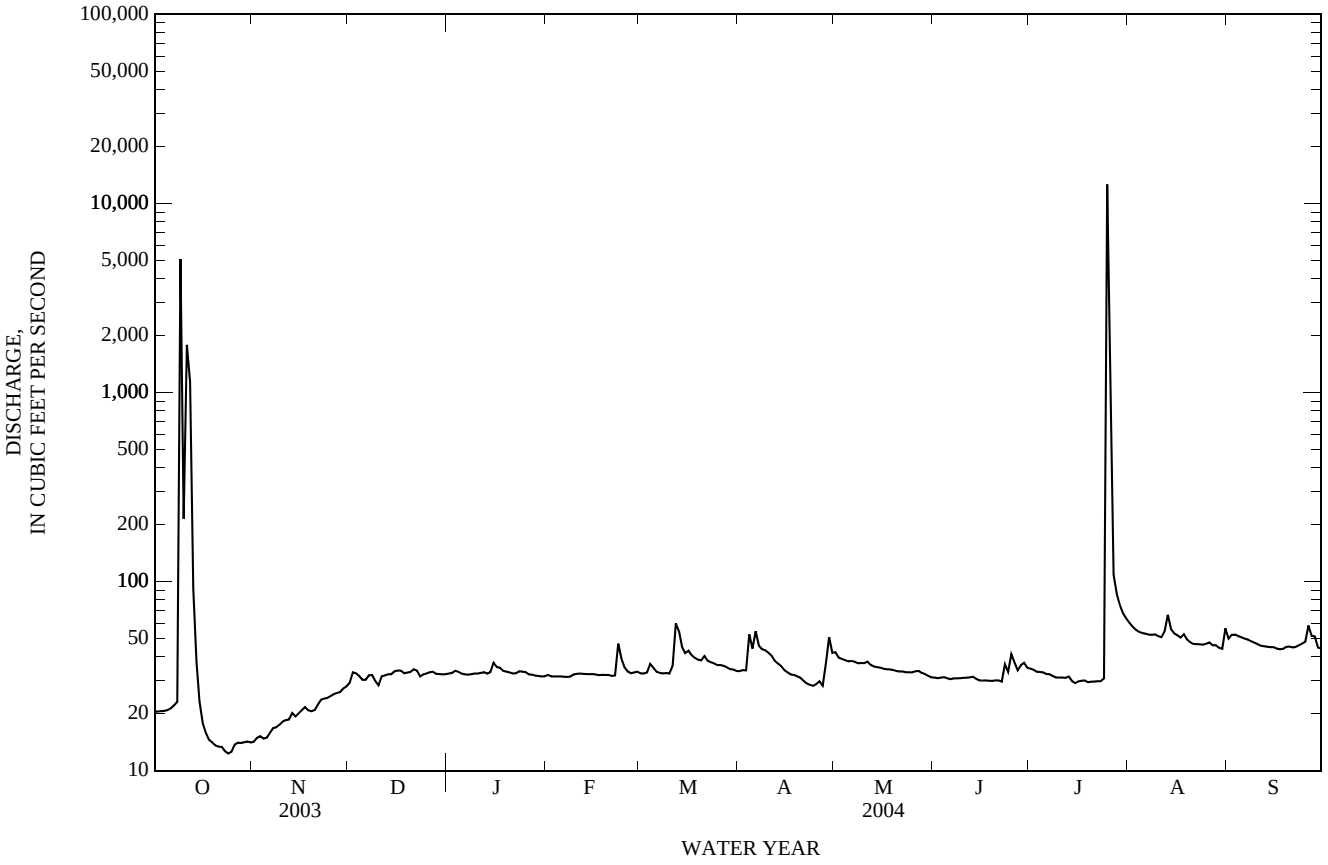
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004h, BY WATER YEAR (WY)

MEAN	58.2	34.4	27.8	26.4	24.9	25.2	30.7	27.6	24.2	56.1	24.1	110
MAX	282	98.6	49.5	39.3	37.4	37.8	71.7	61.5	33.5	466	51.5	1,299
(WY)	(2004)	(1979)	(1975)	(1975)	(1975)	(2004)	(1977)	(1981)	(1978)	(2004)	(2004)	(1974)
MIN	19.5	19.9	20.2	18.8	18.1	16.4	15.6	15.8	16.1	14.6	15.8	16.2
(WY)	(1981)	(1985)	(1985)	(2003)	(2003)	(2003)	(2003)	(2003)	(1974)	(1974)	(1985)	(1983)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1974 - 2004h	
ANNUAL TOTAL	15,095		34,141			
ANNUAL MEAN	41.4		93.3		32.6	
HIGHEST ANNUAL MEAN					93.3	2004
LOWEST ANNUAL MEAN					20.0	1983
HIGHEST DAILY MEAN	5,070	Oct 9	12,600	Jul 25	22,700	Sep 20, 1974
LOWEST DAILY MEAN	12	Oct 24	12	Oct 24	7.3	Oct 5, 2002
ANNUAL SEVEN-DAY MINIMUM	13	Oct 19	13	Oct 19	7.5	Sep 30, 2002
MAXIMUM PEAK FLOW			i79,300	Jul 25	i79,300	Jul 25, 2004
MAXIMUM PEAK STAGE			a18.31	Jul 25	a18.31	Jul 25, 2004
ANNUAL RUNOFF (AC-FT)	29,940		67,720		23,590	
10 PERCENT EXCEEDS	29		51		37	
50 PERCENT EXCEEDS	17		33		23	
90 PERCENT EXCEEDS	15		21		18	

h See PERIOD OF RECORD paragraph.
i From indirect measurement of peak flow.
a From floodmark.

08447020 Independence Creek near Sheffield, TX—Continued



08447410 Pecos River near Langtry, TX

LOCATION.--Lat 29°48'10", long 101°26'45", Val Verde County, Hydrologic Unit 13070008, at gaging station 7.4 mi east of Langtry, and 15.0 mi upstream from confluence with the Rio Grande.

DRAINAGE AREA.--35,179 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Oct. 1954 to current year.
BIOCHEMICAL DATA: Oct. 1974 to current year.
PESTICIDE DATA: July 1975 to June 1982, Oct. 1995 to current year.
SEDIMENT DATA: Oct. 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Oct. 1970 to Sept. 1976 and Oct. 1980 (local observer), Nov. 1980 to Sept. 1985.
WATER TEMPERATURE: Oct. 1970 to Sept. 1976 and Oct. 1980 (local observer), Nov. 1980 to Sept. 1985.

INSTRUMENTATION.--Water-quality monitor Nov. 1980 to Sept. 1985.

REMARKS.--Instantaneous discharges published in the table were provided by International Boundary and Water Commission. Records of daily mean discharge for water year 2004 are published in International Boundary and Water Commission Water Bulletins Nos. 73 and 74. Since Oct. 1995, suspended sediment chemistry and quality assurance data 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, 6,000 microsiemens/cm, Mar. 21, 22, 1981; minimum, 230 microsiemens/cm, Oct. 11, 1981.
WATER TEMPERATURE: Maximum, 32.5°C, June 8, 1981; minimum, 1.5°C, Dec. 26, 27, 1983.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV													
17...	1230	246	20	<2.0	.031	.023	730	8.4	95	8.2	2,090	18.9	470
JAN													
27...	1040	167	20	<2.0	.021	.016	741	9.7	93	8.3	2,740	11.7	570
FEB													
23...	1300	148	20	17	.021	.015	729	9.3	102	8.1	3,030	17.0	610
MAR													
16...	1000	456	20	3.2	.095	.071	735	8.1	94	8.3	2,720	20.3	550
APR													
13...	1030	271	20	--	.052	.038	741	9.1	96	8.4	2,560	16.1	520
JUL													
13...	1000	217	20	<2.0	.043	.032	735	7.0	91	7.9	3,160	26.3	610
AUG													
03...	1000	352	20	24	.067	.049	734	6.6	90	8.1	2,180	29.2	470
30...	1500	303	20	<2.0	.035	.026	735	7.5	101	8.1	2,440	28.1	510

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
NOV													
17...	113	46.0	5.79	250	53	174	206	3	411d	.8	17.3	251d	1,210
JAN													
27...	128d	61.0d	6.22d	359d	57	154	186	1	595d	.8	13.3d	344d	1,610
FEB													
23...	132c	68.2c	7.13c	392c	58	160	192	1	658d	.9	10.9c	389d	1,760
MAR													
16...	126	55.5	5.67	336	57	159	189	2	570d	.7	13.2	339d	1,550
APR													
13...	117d	54.7d	6.41d	339d	58	113	137	<1	535d	.8	13.6d	304d	1,440
JUL													
13...	129	68.5	7.99	435d	61	134	--e	--e	696d	.9	16.9	404d	1,840
AUG													
03...	109	46.7	6.73	253	54	167	201	1	431d	.8	20.5	274d	1,250
30...	117d	52.6d	6.70d	292d	55	160	194	<1	485d	.9	19.6d	305d	1,380

08447410 Pecos River near Langtry, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)
NOV													
17...	821	1,240	.18	.17	<.04	--	--	.88	--	E.004n	<.02	<.006	.005
JAN													
27...	748	1,660	.16	<.50d	<.04	--	--	.81	--	E.004n	<.02	<.006	<.004
FEB													
23...	749	1,880	.20	.21	<.04	2.69	.61	.62	.030	.009	.03	<.006	E.003n
MAR													
16...	2,050	1,660	.26	.27	<.04	--	--	.66	--	E.006n	<.02	<.006	<.004
APR													
13...	1,150	1,570	.18	.19	<.04	--	--	.62	--	<.008	.02	<.006	E.003n
JUL													
13...	1,130	1,930	.21	.26	E.03n	--	--	.28	--	E.005n	.02	<.006	E.003n
AUG													
03...	1,220	1,280	.21	.37	<.04	--	--	1.19	--	<.008	.19	<.006	E.005@c
30...	1,170	1,430	.15	.20	<.04	--	--	.83	--	E.005n	.03	<.006	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Lithium water, fltrd, ug/L (01130)	Selenium, water, fltrd, ug/L (01145)	Strontium, water, fltrd, ug/L (01080)
NOV													
17...	E.004n	1.1	1.1	.2	<.1	.2	1.3	1.2	165	<6	45.9	.6	1,810
JAN													
27...	E.003n	.97	--	.2	<.1	.2	1.2	1.3d	212d	<19d	58.5d	1.1d	2440d
FEB													
23...	.006	.82	.82	.3	<.1	.3	1.4	1.2d	212d	<6c	63.3d	1.2d	2470d
MAR													
16...	.006	.92	.94	.2	<.1	.2	3.3	1.3	171	<6	50.9	1.1	2,010
APR													
13...	.005	.80	.80	.1	<.1	.1	2.0	1.0d	175d	<19d	51.6d	.9d	2060d
JUL													
13...	E.004n	.49	.54	.2	<.1	.2	2.0	1.4d	215d	<6	57.6d	E.6nd	2520d
AUG													
03...	.013	1.4	1.6	1.6	<.1	1.6	2.2	1.9	185	<6	47.8	1.3	1,910
30...	.007	.98	1.0	.6	<.1	.6	1.2	1.4	187	<19d	50.0	1.2	2,040

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Vanadium, water, fltrd, ug/L (01085)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)
NOV													
17...	8.2	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
JAN													
27...	7.5d	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
FEB													
23...	8.6d	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
MAR													
16...	7.8	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
APR													
13...	7.6d	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
JUL													
13...	7.5d	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
AUG													
03...	10.0	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
30...	8.6	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005

08447410 Pecos River near Langtry, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
NOV													
17...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
JAN													
27...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
FEB													
23...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
MAR													
16...	<.006	<.018	<.003	<.012	.017	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
APR													
13...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
JUL													
13...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
AUG													
03...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
30...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)
NOV													
17...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
JAN													
27...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
FEB													
23...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
MAR													
16...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
APR													
13...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
JUL													
13...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
AUG													
03...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
30...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)
NOV													
17...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002
JAN													
27...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002
FEB													
23...	<.022	<.011	<.01	<.004	<.025	<.011	<.04	<.005	<.02	<.034	<.02	<.010	<.002
MAR													
16...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002
APR													
13...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002
JUL													
13...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002
AUG													
03...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002
30...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002

08447410 Pecos River near Langtry, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Deu-terium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment dis-charge, tons/d (80155)
NOV						
17...	<.009	--	--	90	3	2.0
JAN						
27...	<.009	--	--	56	2	.90
FEB						
23...	<.009	-33.10	-4.90	100	1	.40
MAR						
16...	<.009	-27.00	-4.76	94	4	4.9
APR						
13...	<.009	-31.90	-5.05	100	1	.73
JUL						
13...	<.009	-27.50	-4.04	83	2	1.2
AUG						
03...	<.009	-29.00	-4.55	97	9	8.6
30...	<.009	-29.70	-4.53	94	9	7.4

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
@-- Holding time exceeded
c -- See laboratory comment
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

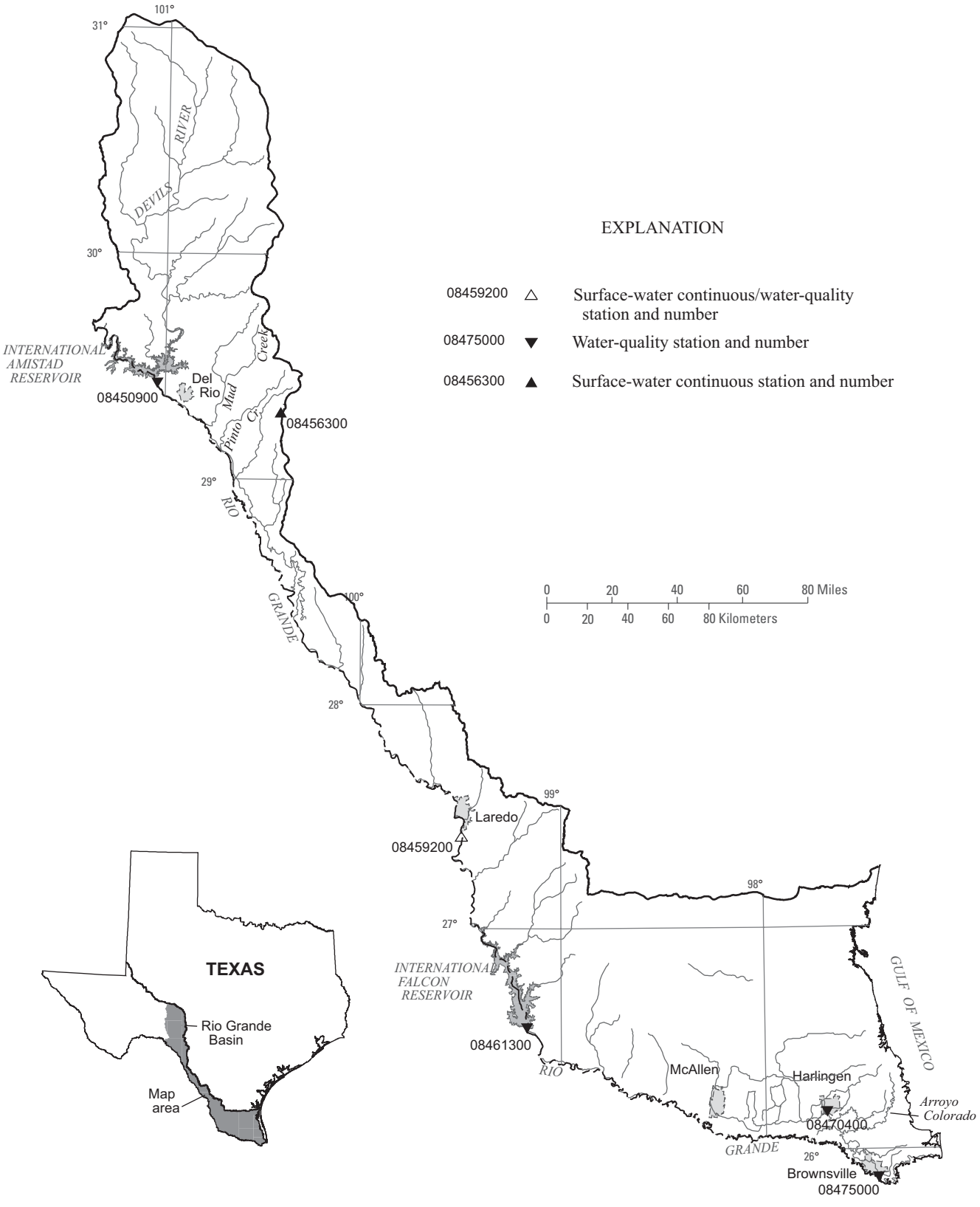


Figure 10.--Map showing location of gaging stations in the second section of the Rio Grande Basin

08450900 USGS Rio Grande below Amistad Dam near Del Rio, TX

LOCATION.--Lat 29°25'30", long 101°02'27", Val Verde County, Hydrologic Unit 13080001, 2.2 mi downstream from Amistad Dam and 10.0 mi northwest of Del Rio.

DRAINAGE AREA.--123,143 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: July 1968 to current year.
BIOCHEMICAL DATA: Oct. 1995 to current year.
PESTICIDE DATA: Oct. 1995 to current year.
SEDIMENT DATA: Oct. 1995 to current year.

REMARKS.--The flow is controlled largely by releases from Amistad Reservoir. Instantaneous discharges published in the table were provided directly by International Boundary and Water Commission. Records of daily mean discharge for water year 2004 are published in International Boundary and Water Commission Water Bulletins Nos. 73 and 74. Since June 1996, suspended sediment chemistry and quality assurance data for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV													
18...	0930	487	70	<2.0	.059	.043	739	7.5	84	8.0	818	19.4	240
JAN													
26...	1330	487	10	<2.0	.056	.041	740	10.1	100	8.2	826	13.6	230
MAR													
15...	1400	470	10	<2.0	.051	.037	740	10.5	108	8.3	851	15.4	240
APR													
12...	1330	459	10	--	.049	.034	741	9.7	101	8.2	852	15.6	240
JUL													
12...	1300	459	10	<2.0	.048	.034	740	--e	--	7.8	872	--e	240
AUG													
02...	1400	459	10	24	.047	.034	739	10.7	124	8.1	848	20.8	240

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
NOV													
18...	64.7	17.7	4.44	80.8	42	112	134	1	96.8	.6	14.1	142	491
JAN													
26...	62.5	17.2	4.03	78.6	42	111	134	<1	94.1	.6	13.2	140	479
MAR													
15...	67.7	18.0	3.97	81.4	42	122	146	1	98.6	.6	13.0	149	507
APR													
12...	67.0	17.8	4.18	84.7	43	127	E154	<1	97.7	.6	13.1	145	508
JUL													
12...	67.3	17.3	4.06	79.9	42	126	--e	--e	99.0	.6	13.1	147	506
AUG													
02...	63.9	18.3	3.94	76.7	41	128	155	<1	99.2	.6	13.5	145	500

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)
NOV													
18...	675	513	.23	.30	E.03n	--	--	.20	--	<.008	.03	E.004n	.006
JAN													
26...	665	506	.24	.26	<.04	--	--	.24	--	<.008	.03	<.006	E.003n
MAR													
15...	672	529	.21	.21	<.04	--	--	.28	--	<.008	<.02	<.006	E.003n
APR													
12...	669	540	.18	.19	<.04	1.27	.29	.30	.036	.011	<.02	<.006	.004
JUL													
12...	668	539	.17	.22	<.04	--	--	.31	--	<.008	<.02	<.006	E.003n
AUG													
02...	675	545	.14	.16	<.04	--	--	.25	--	<.008	.02	<.006	E.006@c

08450900 USGS Rio Grande below Amistad Dam near Del Rio, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Lithium water, fltrd, ug/L (01130)	Selenium, water, fltrd, ug/L (01145)	Strontium, water, fltrd, ug/L (01080)
NOV 18...	.013	.44	.50	.2	<.1	.2	2.7	2.4	120	<6	28.4	E.3n	988
JAN 26...	.009	.47	.50	.2	<.1	.2	2.7	2.4	137	<6	30.3	.7	1,020
MAR 15...	.009	.49	.49	.2	<.1	.2	2.5	2.2	129	E4n	30.5	.6	1,010
APR 12...	.008	.48	.49	.3	<.1	.3	2.3	2.0	119	<6	30.2	.7	1,030
JUL 12...	E.003n	.47	.53	.2	<.1	.2	2.2	1.9	111	<6	26.4	E.4n	1,040
AUG 02...	.005	.39	.42	.2	<.1	.2	2.0	2.1	122	<6	30.5	.5	1,080

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Vanadium, water, fltrd, ug/L (01085)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)
NOV 18...	3.5	<.006	E.003n	<.006	<.005	<.005	E.006n	<.050	<.010	<.004	<.041	<.020	<.005
JAN 26...	4.6	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
MAR 15...	4.4	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
APR 12...	4.7	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
JUL 12...	3.8	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020	<.005
AUG 02...	3.3	<.006	<.006	<.006	<.005	<.005	E.003t	<.050	<.010	<.004	E.004t	<.020	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
NOV 18...	<.006	<.018	E.003n	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
JAN 26...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
MAR 15...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
APR 12...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
JUL 12...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
AUG 02...	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024

08450900 USGS Rio Grande below Amistad Dam near Del Rio, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)
NOV													
18...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
JAN													
26...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
MAR													
15...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
APR													
12...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
JUL													
12...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004
AUG													
02...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)
NOV													
18...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002
JAN													
26...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002
MAR													
15...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002
APR													
12...	<.022	<.011	<.01	<.004	<.025	<.011	<.05	<.005	<.02	<.034	<.02	<.010	<.002
JUL													
12...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002
AUG													
02...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	E.01t	<.034	<.02	<.010	<.002

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Deuterium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV						
18...	<.009	--	--	100	2	2.6
JAN						
26...	<.009	--	--	83	5	6.6
MAR						
15...	<.009	-26.40	-3.60	100	1	1.3
APR						
12...	<.009	-26.50	-3.73	100	3	3.7
JUL						
12...	<.009	-26.70	-3.68	100	4	5.0
AUG						
02...	<.009	-27.40	-3.64	<.001	<.001	--

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
@-- Holding time exceeded
c -- See laboratory comment
n -- Below the LRL and above the LT-MDL
t -- Below the long-term MDL

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

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08456300 Las Moras Springs at Brackettville, TX

LOCATION.--Lat 29°18'33", long 100°25'13", Kinney County, Hydrologic Unit 13080001, in spring pool at Brackettville, Kinney County, 160 ft south of U.S. Hwy 90, and 1,550 ft upstream from Brackettville-Fort Clark road bridge.

DRAINAGE AREA.--Not applicable. This is a spring flow station.

PERIOD OF RECORD.--Oct 1, 2003 to Sept. 30, 2004. Discharge measurements made Dec. 1895 to Aug. 2000 were published as miscellaneous measurements.

GAGE.--Water-stage recorder. Datum of gage is 1101.86 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good, except those for estimated daily discharges, which are fair. During periods of local runoff springflow is estimated using stage plot. Las Moras Springs emerge from the Edwards and associated limestones about 600 ft above the gage.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e20	25	25	23	e23	22	42	e45	e42	e42	e41	39
2	e20	25	25	23	e23	e22	42	e45	e42	e42	e41	e39
3	e20	24	25	23	e23	22	42	e45	e42	e43	42	e39
4	e20	24	24	e23	e23	22	42	e45	e42	e43	e42	e39
5	e20	24	24	23	e23	22	43	e45	e42	e43	42	e39
6	e20	25	24	e22	e23	22	45	e45	e42	e43	e42	e39
7	e20	26	24	e22	e23	22	e47	45	e42	e43	42	e39
8	e20	26	24	e22	e23	22	e48	45	e42	e43	42	e40
9	e20	26	25	22	e23	e22	e49	45	e42	e43	42	40
10	e21	26	e24	21	e23	e23	e49	45	e42	43	42	40
11	22	26	e24	21	e22	e23	e49	e47	e42	42	42	40
12	23	e26	25	21	e22	23	e48	e47	e42	41	e41	40
13	25	e26	24	23	22	26	e48	e47	e42	40	41	40
14	25	e25	24	23	22	31	e47	46	e42	39	41	e40
15	e25	e25	25	e23	22	34	e46	46	e42	e40	41	e40
16	e24	e25	24	e23	23	37	e46	46	e42	39	41	e40
17	24	e25	24	e23	22	39	44	46	e42	39	40	39
18	23	e25	24	23	22	40	44	46	e42	39	41	39
19	22	e26	24	23	23	40	44	46	e42	40	e41	39
20	21	e26	24	23	23	40	43	46	e42	40	41	39
21	21	e26	24	e23	23	41	45	e47	e42	41	e41	39
22	23	26	e24	e23	23	41	e45	e47	e42	e41	e41	39
23	24	e26	e24	22	24	41	45	e46	e41	41	e41	39
24	25	26	24	22	24	42	45	e46	e41	41	40	e39
25	25	e26	24	22	e24	e41	45	e46	e41	41	40	e39
26	24	e26	24	22	e24	e41	44	e46	e41	41	e40	e39
27	25	26	24	23	24	e42	e45	e45	e41	41	e40	e39
28	25	e26	24	23	23	e42	e45	e43	e41	e41	40	e39
29	e25	25	24	23	22	e42	e45	e43	e41	e41	39	e39
30	e25	25	24	e22	---	42	e45	e43	e41	40	39	e39
31	25	---	24	e23	---	42	---	e42	---	e41	39	---

e Estimated

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08459200 Rio Grande at Pipeline Crossing below Laredo, TX

LOCATION.--Lat 27°24'01", long 99°29'18", Webb County, Hydrologic Unit 13080002, 8.7 mi (14.0 km) downstream from Texas-Mexican Railway bridge near Laredo, and at mile 352.60 (567.47 km).

DRAINAGE AREA.--132,578 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 335.00 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Since installation of gage in Oct. 1997, at least 10% of contributing drainage area has been regulated. Extensive withdrawals during the year for municipal and agricultural usage.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,330	1,250	1,030	748	772	951	1,860	3,390	1,430	3,680	1,190	1,450
2	1,120	1,240	1,010	732	806	857	1,670	3,150	1,360	2,220	1,210	1,970
3	1,010	1,230	1,010	731	829	827	1,570	2,900	1,290	1,480	1,220	1,640
4	937	1,210	986	722	804	827	2,680	2,720	1,280	1,260	1,180	1,630
5	904	1,200	967	748	783	806	7,010	2,520	1,140	1,180	1,130	1,440
6	892	1,170	1,000	752	761	803	e29,100	2,390	974	1,120	1,090	1,890
7	942	1,150	972	736	736	800	e22,400	2,330	1,020	1,080	1,060	6,970
8	1,190	1,170	963	731	673	863	e12,100	2,300	1,030	1,060	1,050	2,020
9	1,060	1,200	947	701	635	815	7,710	2,170	1,070	1,040	998	1,600
10	1,200	1,240	917	660	655	773	5,880	2,140	1,720	1,000	1,110	1,390
11	1,230	1,180	906	657	706	746	4,940	2,060	1,140	1,030	1,300	1,270
12	e19,300	1,170	896	676	717	1,080	4,450	4,080	1,030	1,070	1,440	1,230
13	e28,600	1,170	922	695	726	1,700	4,410	3,600	981	1,100	1,420	1,360
14	e15,600	1,230	903	695	728	5,170	3,950	3,000	966	1,070	1,200	1,330
15	e5,450	1,140	907	713	688	4,130	3,570	2,560	995	1,060	1,110	1,370
16	e2,470	1,180	897	792	664	3,200	3,360	2,410	997	1,020	1,090	1,320
17	e1,910	1,160	911	861	667	2,870	3,200	2,260	984	994	1,070	1,260
18	e1,730	1,330	899	869	672	1,960	3,070	2,190	932	973	1,090	1,250
19	e1,560	1,190	884	902	651	1,730	2,940	2,120	874	919	1,140	1,260
20	e1,460	1,130	879	845	638	1,570	2,850	2,030	841	876	1,150	1,280
21	e1,370	1,110	836	862	622	1,460	2,750	1,960	839	1,150	1,190	1,270
22	e1,310	1,080	795	900	582	1,390	2,660	1,910	835	1,040	1,350	1,280
23	e1,280	1,030	745	869	598	1,350	2,600	1,840	1,100	1,000	2,070	1,260
24	1,290	1,050	751	936	2,220	1,350	4,150	1,790	1,110	860	1,310	1,190
25	1,240	1,070	758	868	1,150	1,370	5,620	1,730	1,280	822	1,130	1,170
26	1,260	1,050	778	840	1,040	1,370	3,840	1,670	1,750	832	1,100	1,250
27	1,350	1,010	777	813	942	1,650	4,300	1,600	1,440	782	1,060	1,280
28	1,280	977	732	724	900	1,800	3,530	1,550	1,540	1,050	1,010	1,280
29	1,300	997	742	867	870	1,850	3,180	1,480	1,970	1,130	2,490	1,390
30	1,280	1,030	719	837	---	2,480	3,540	1,400	2,370	1,040	1,150	1,980
31	1,260	---	730	815	---	2,390	---	1,440	---	1,250	1,190	---
TOTAL	104,115	34,344	27,169	24,297	23,235	50,938	164,890	70,690	36,288	36,188	38,298	48,280
MEAN	3,359	1,145	876	784	801	1,643	5,496	2,280	1,210	1,167	1,235	1,609
MAX	28,600	1,330	1,030	936	2,220	5,170	29,100	4,080	2,370	3,680	2,490	6,970
MIN	892	977	719	657	582	746	1,570	1,400	835	782	998	1,170
AC-FT	206,500	68,120	53,890	48,190	46,090	101,000	327,100	140,200	71,980	71,780	75,960	95,760

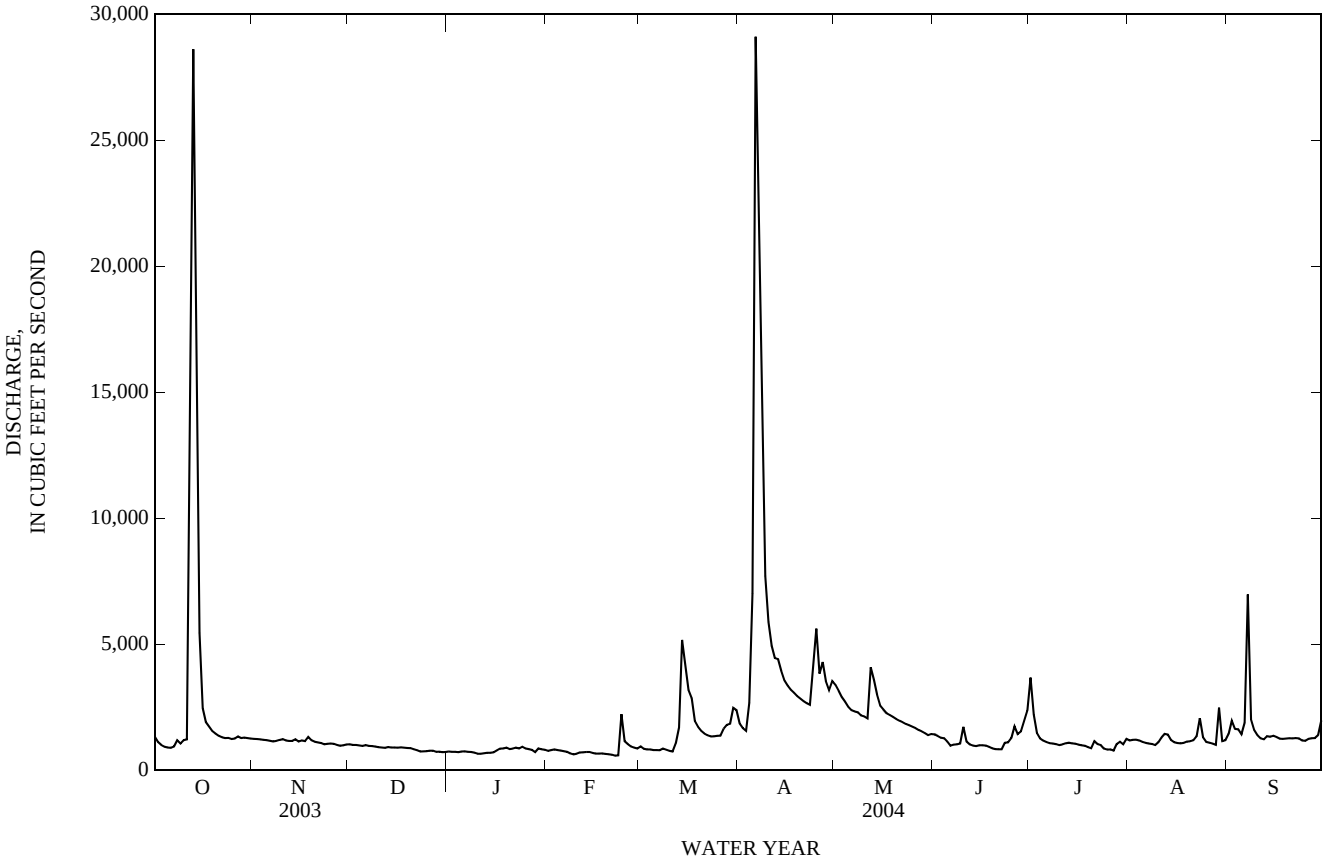
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	2,353	1,242	947	907	1,034	1,492	2,890	3,504	2,208	1,765	3,177	1,865
MAX	6,439	1,659	1,478	1,451	1,427	3,092	5,496	5,832	3,707	2,467	7,561	2,869
(WY)	(2003)	(1998)	(1998)	(1998)	(2001)	(1999)	(2004)	(1998)	(1999)	(2002)	(1998)	(2001)
MIN	690	781	586	489	779	720	878	2,026	1,210	1,167	1,141	1,138
(WY)	(2002)	(1999)	(1999)	(1999)	(2002)	(2003)	(2003)	(1999)	(2004)	(2004)	(2002)	(2000)

08459200 Rio Grande at Pipeline Crossing below Laredo, TX—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	586,491		658,732			
ANNUAL MEAN	1,607		1,800		1,954	
HIGHEST ANNUAL MEAN					2,713	1998
LOWEST ANNUAL MEAN					1,400	2002
HIGHEST DAILY MEAN	28,600	Oct 13	29,100	Apr 6	88,000	Aug 27, 1998
LOWEST DAILY MEAN	452	Apr 17	582	Feb 22	414	Feb 7, 1999
ANNUAL SEVEN-DAY MINIMUM	484	Apr 12	633	Feb 17	439	Feb 1, 1999
MAXIMUM PEAK FLOW			36,700	Oct 13	91,000	Aug 27, 1998
MAXIMUM PEAK STAGE			19.84	Oct 13	a34.61	Aug 27, 1998
INSTANTANEOUS LOW FLOW			624	Feb 22		
ANNUAL RUNOFF (AC-FT)	1,163,000		1,307,000		1,416,000	
10 PERCENT EXCEEDS	3,610		2,910		3,680	
50 PERCENT EXCEEDS	1,100		1,160		1,270	
90 PERCENT EXCEEDS	698		747		751	

a From floodmark.
e Estimated



08459200 Rio Grande at Pipeline Crossing below Laredo, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Jan. 1998 to current year.
BIOCHEMICAL DATA: Apr. 1977 to Dec. 1981, Jan. 1998 to current year.
PESTICIDE DATA: Jan. 1998 to current year.
SEDIMENT DATA: Jan. 1998 to current year.

REMARKS.--Since Jan. 1998, suspended sediment chemistry and quality assurance data for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
DEC													
16...	1700	872	10	3.9	.047	.033	760	10.6	105	8.2	833	14.5	250
JAN													
22...	1030	897	10	6.7	.061	.044	760	8.7	86	7.6	972	14.5	290
MAR													
17...	1500	2,630	10	160	.100	.076	750	7.4	85	7.4	818	21.5	240
APR													
07...	1800	19,600	40	E810d	.120	.090	745	7.1	82	7.2	388	21.0	160
JUL													
14...	1330	1,080	10	44	.056	.040	750	6.7	89	7.4	804	29.0	240
27...	1130	785	10	27	.060	.044	755	5.8	78	7.5	774	30.5	240
AUG													
25...	0830	1,080	10	49	.053	.039	755	6.0	78	7.6	709	28.0	230
SEP													
13...	1230	1,450	10	49	.064	.047	750	6.7	90	7.8	801	30.0	250

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
DEC													
16...	70.1	17.5	3.33	78.3	40	124	148	2	88.4	.5	1.30	148	488
JAN													
22...	83.5	19.8	4.38	89.1	40	145	174	1	103	.5	2.77	175	573
MAR													
17...	70.3	15.9	4.67	76.6	40	117	142	<1	84.7	.4	9.12	148	
APR													
07...	50.7	6.87	3.68	17.0	19	109	132	<1	20.1	<.2	7.49	39.4	214
JUL													
14...	68.3	16.6	3.28	67.4	38	134	160	2	83.0	.5	14.4	139	478
27...	67.4	16.7	3.42	66.5	37	121	146	1	82.6	.5	12.8	134	462
AUG													
25...	67.2	15.1	3.25	57.3	35	138	166	1	66.6	.4	14.6	113	426
SEP													
13...	72.2	16.6	3.64	66.0	36	134	162	<1	78.2	.4	14.0	141	477

08459200 Rio Grande at Pipeline Crossing below Laredo, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Organic nitrogen, water, fltrd, mg/L (00607)
DEC													
16...	1,160	493	.50	.49	.21	.16	4.17	.94	.97	.079	.024	.04	.34
JAN													
22...	1,430	590	.64	.79	.38	.29	5.30	1.20	1.24	.141	.043	.05	.35
MAR													
17...		516	.61	1.2	--	--	4.99	1.13	1.19	.191	.058	.40	--
APR													
07...	12,300	232	.44	1.7	--	<.04	3.49	.79	.80	.049	.015	1.20	--
JUL													
14...	1,480	509	.44	.62	.22	.17	2.70	.61	.65	.115	.035	.23	.26
27...	1,020	482	.62	.69	.37	.29	2.74	.62	.68	.194	.059	.19	.33
AUG													
25...	1,270	435	.42	.61	.24	.19	4.03	.91	.95	.125	.038	.16	.23
SEP													
13...	2,020	515	.34	.45	.11	.08	3.04	.69	.71	.069	.021	.18	.26

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)
DEC													
16...	.33	.788	.26	.31	.29	1.5	1.5	.4	<.1	.4	5.1	--	--
JAN													
22...	.49	.570	.19	.20	.27	1.9	2.0	.7	<.1	.7	5.2	--	--
MAR													
17...	--	.322	.10	.19	.39	1.8	2.3	7.8	--	7.1	4.6	3	.48
APR													
07...	--	--	<.02	E.03n	.44	1.2	2.5	41.5	15.0	26.5	12.3	E1n	.38
JUL													
14...	.45	.589	.19	.21	.27	1.1	1.3	2.9	<.1	2.8	3.0	8	.32
27...	.41	.806	.26	.28	.33	1.3	1.4	1.8	<.1	1.7	3.7	--	--
AUG													
25...	.43	.650	.21	.22	.29	1.4	1.6	2.7	<.1	2.7	2.9	--	--
SEP													
13...	.37	.488	.16	.17	.22	1.1	1.2	2.5	<.1	2.5	3.0	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)
DEC													
16...	1.2	--	--	172	--	--	--	--	<6	--	25.8	--	--
JAN													
22...	2.0	--	--	191	--	--	--	--	E4n	--	28.5	--	--
MAR													
17...	2.1	76	<.06	208	<.04	<.8	.296	1.6	<6	<.08	22.1	3.7	3.6
APR													
07...	1.4	63	<.06	56	<.04	<.8	.206	1.0	<6	<.08	5.7	.4	2.2
JUL													
14...	2.7	78	<.06	150	<.04	<.8	.396	1.5	<6	<.08	20.9	5.1	3.9
27...	2.9	--	--	162	--	--	--	--	<6	--	23.0	--	--
AUG													
25...	2.5	--	--	124	--	--	--	--	<6	--	16.3	--	--
SEP													
13...	2.5	--	--	178	--	--	--	--	<6	--	33.9	--	--

08459200 Rio Grande at Pipeline Crossing below Laredo, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)
DEC													
16...	--	E.3n	--	1,010	2.7	--	<.006	<.006	<.006	<.005	<.005	E.004n	<.050
JAN													
22...	--	.9	--	1,180	4.4	--	<.006	<.006	<.006	<.005	<.005	.010	<.050
MAR													
17...	1.94	.5	<.2	993	6.5	1.3	<.006	<.006	<.006	<.005	<.005	.114	<.050
APR													
07...	1.64	.5	<.2	482	6.5	E.3n	<.006	<.008	<.006	<.010	<.005	.014	<.050
JUL													
14...	1.94	.6	<.2	1,140	7.3	1.4	<.006	<.006	<.006	<.005	<.005	<.007	<.050
27...	--	.9	--	1,060	6.9	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
AUG													
25...	--	.5	--	992	6.5	--	<.006	<.006	<.006	<.005	<.005	<.010	<.050
SEP													
13...	--	E.3n	--	1,130	5.9	--	<.006	<.006	<.006	<.005	<.005	E.004n	<.050

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
DEC													
16...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	.004	<.012	<.005	<.009	<.02	<.004
JAN													
22...	<.010	<.004	E.030n	<.020	.012	<.006	<.018	.004	<.012	<.010	<.009	<.02	<.005
MAR													
17...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	.009	<.012	.009	<.009	<.02	<.004
APR													
07...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.008	<.009	<.02	<.004
JUL													
14...	<.010	<.004	<.041	<.020	.007	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
27...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
AUG													
25...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
SEP													
13...	<.010	<.004	<.041	<.020	E.004n	<.006	<.018	<.003	<.012	E.003t	<.009	<.02	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
DEC													
16...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
JAN													
22...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
MAR													
17...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
APR													
07...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
JUL													
14...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	.004	<.035	<.027	<.015	<.013	<.006
27...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
AUG													
25...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
SEP													
13...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006

08459200 Rio Grande at Pipeline Crossing below Laredo, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)
DEC													
16...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
JAN													
22...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
MAR													
17...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
APR													
07...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
JUL													
14...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
27...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
AUG													
25...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
SEP													
13...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Deuterium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Uranium natural water, fltrd, ug/L (22703)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC												
16...	<.02	<.034	<.02	<.010	<.002	<.009	-24.40	-3.54	--	--	--	--
JAN												
22...	<.02	<.034	<.02	<.010	<.002	<.009	-24.00	-3.43	--	90	16	39
MAR												
17...	Mt	<.034	<.02	<.010	<.002	<.009	-18.80	-3.49	1.90	90	16	114
APR												
07...	<.02	<.034	<.02	<.010	<.002	<.009	-24.30	-4.51	1.17	99	658	34,800
JUL												
14...	<.02	<.034	<.02	<.010	<.002	<.009	-20.77	-3.10	2.03	99	69	201
27...	<.02	<.034	<.02	<.010	<.002	<.009	-21.20	-2.97	--	97	35	74
AUG												
25...	<.02	<.034	<.02	<.010	<.002	<.009	-20.68	-3.14	--	100	30	87
SEP												
13...	<.02	<.034	<.02	<.010	<.002	<.009	-19.92	-3.19	--	100	108	423

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL
t -- Below the long-term MDL

08461300 USGS Rio Grande below Falcon Dam, TX

LOCATION.--Lat 26°33'25", long 99°10'05", Starr County, Hydrologic Unit 13090001, at International Boundary and Water Commission, Chapeno gaging station, 2.5 mi below Falcon Dam.

DRAINAGE AREA.--159,270. mi^2.United States and Mexico; from International Boundary and Water Commission Water Bulletin No. 44.

PERIOD OF RECORD.--
CHEMICAL DATA: July 1955 to current year.
BIOCHEMICAL DATA: Oct. 1995 to current year.
PESTICIDE DATA: Oct. 1995 to current year.
SEDIMENT DATA: Oct. 1995 to current year.

REMARKS.--The flow is controlled by releases from Falcon Reservoir. Instantaneous discharges published in the table were provided directly by International Boundary and Water Commission. Records of daily mean discharge for water year 2004 are published in International Boundary and Water Commission Water Bulletins Nos. 73 and 74. Since Sept. 1995, suspended sediment chemistry and quality assurance data for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Discharge, cfs (00060)	Sampling method, code (82398)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
DEC													
16...	1300	650	10	2.2	.091	.067	765	10.2	105	7.8	614	17.0	180
JAN													
21...	1300	1,190	10	6.5	.090	.066	760	9.4	95	7.6	639	15.5	180
MAR													
10...	1430	1,120	10	3.8	.087	.064	760	11.1	121	7.9	673	19.5	210
MAY													
26...	1430	195	30	3.9	.083	.058	760	6.4	81	7.6	721	27.0	220
JUL													
14...	1800	904	10	3.0	.083	.060	750	9.1	121	7.8	717	29.0	200
AUG													
24...	1400	1,600	30	2.1	.079	.057	755	8.0	106	7.6	712	29.5	210

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
DEC													
16...	54.7	10.8	4.82	51.4	37	110	132	1	59.5	.3	8.77	87.2	344
JAN													
21...	55.4	11.0	4.79	49.2	36	116	140	1	58.2	.3	8.54	87.9	346
MAR													
10...	63.9	12.8	5.24	60.2	37	128	154	<1	66.9	.3	8.89	99.1	394
MAY													
26...	65.4	13.7	5.12	63.1	38	129	155	1	73.5	.3	8.52	109	418
JUL													
14...	58.9	13.4	4.90	63.1	40	125	150	1	75.1	.3	8.37	111	411
AUG													
24...	59.4	14.8	5.52	66.8	40	122	148	<1	77.6	.3	8.41	114	421

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Organic nitrogen, water, fltrd, mg/L (00607)
DEC													
16...	608	347	.36	.37	--	<.04	--	--	E.04n	--	E.006n	.06	--
JAN													
21...	1,140	355	.31	.53	--	<.04	--	--	<.06	--	<.008	.10	--
MAR													
10...	1,250	412	.33	.44	--	<.04	--	--	<.06	--	<.008	.11	--
MAY													
26...	234	444	.35	.39	--	E.03n	--	--	E.04n	--	E.004n	.05	--
JUL													
14...	1,060	434	.39	.57	.10	.08	--	--	E.04n	.033	.010	.13	.32
AUG													
24...	1,870	433	.33	.52	--	<.04	.248	.06	.06	.026	.008	.12	--

08461300 USGS Rio Grande below Falcon Dam, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic nitrogen, water, unfltrd mg/L (00605)	Ortho-phosphate, water, fltrd, mg/L (00660)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)
DEC 16...	--	.025	.008	.019	.034	--	--	.6	<.1	.6	4.4	2.9	128
JAN 21...	--	--	<.006	.011	.037	--	--	.8	<.1	.8	4.2	2.5	122
MAR 10...	--	--	E.003n	.014	.033	--	--	.8	<.1	.8	--	2.5	145
MAY 26...	--	.025	.008	.022	.036	--	--	.5	<.1	.4	V4.1	2.6	161
JUL 14...	.50	.077	.025	.038	.067	--	--	.9	<.1	.8	4.1	3.3	141
AUG 24...	--	--	E.005n	.015	.036	.39	.58	.8	<.1	.8	E6.4	3.8	146

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Iron, water, fltrd, ug/L (01046)	Lithium water, fltrd, ug/L (01130)	Selenium, water, fltrd, ug/L (01145)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)
DEC 16...	E5n	17.1	E.3n	649	4.2	<.006	<.006	<.006	<.005	<.005	.007	<.050	<.010
JAN 21...	<6	16.0	.5	685	4.2	<.006	<.006	<.006	<.005	<.005	E.007n	<.050	<.010
MAR 10...	E5n	18.5	.4	749	4.2	<.006	<.006	<.006	<.005	<.005	.007	<.050	<.010
MAY 26...	E5n	21.3	.5	812	3.0	<.006	<.007	<.006	<.005	<.005	.021	<.050	<.010
JUL 14...	E5n	17.7	<.4	824	3.1	<.006	<.006	<.006	<.005	<.005	.019	<.050	<.010
AUG 24...	<6	17.0	E.3n	872	3.2	<.006	<.006	<.006	<.005	<.005	.023	<.050	<.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)
DEC 16...	<.004	<.041	<.020	<.005	<.006	<.018	.004	<.012	<.005	<.009	<.02	<.004	<.009
JAN 21...	<.004	<.041	<.020	<.005	<.006	<.018	.003	<.012	<.005	<.009	<.02	<.004	<.009
MAR 10...	<.004	<.041	<.020	<.005	<.006	<.018	.003	<.012	<.005	<.009	<.02	<.004	<.009
MAY 26...	<.004	<.041	<.020	<.005	<.006	<.018	E.003n	<.012	<.007	<.009	<.02	<.004	<.009
JUL 14...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.006	<.009	<.02	<.004	<.009
AUG 24...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009

08461300 USGS Rio Grande below Falcon Dam, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinylfipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)
DEC 16...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
JAN 21...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
MAR 10...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
MAY 26...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
JUL 14...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
AUG 24...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)
DEC 16...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02
JAN 21...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02
MAR 10...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	Mt
MAY 26...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02
JUL 14...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02
AUG 24...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Deuterium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC 16...	<.034	<.02	<.010	<.002	<.009	-29.40	-4.22	--	--	--
JAN 21...	<.034	<.02	<.010	<.002	<.009	-28.90	-4.04	90	7	22
MAR 10...	<.034	<.02	<.010	<.002	<.009	-27.70	-3.90	77	9	27
MAY 26...	<.034	<.02	<.010	<.002	<.009	-21.31	-3.36	--	--	--
JUL 14...	<.034	<.02	<.010	<.002	<.009	-17.97	-2.88	86	5	12
AUG 24...	<.034	<.02	<.010	<.002	<.009	-16.54	-2.38	54	4	17

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified
V -- Contamination

Value qualifier codes used in this table:
n -- Below the LRL and above the LT-MDL
t -- Below the long-term MDL

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08470400 USGS Arroyo Colorado at Harlingen, TX

LOCATION.--Lat 26°10'24", long 97°42'01", Cameron County, Hydrologic Unit 12110208, on downstream side of northbound service road on U.S. Highways 83 and 77, about 18.0 mi from point of main floodway that divides into North Floodway and Arroyo Colorado.

DRAINAGE AREA.--182 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Nov. 1986 to current year.
BIOCHEMICAL DATA: Nov. 1986 to current year.
PESTICIDE DATA: Oct. 1995 to current year.
SEDIMENT DATA: Oct. 1995 to current year.

REMARKS.--Instantaneous discharges published in the table were provided directly by International Boundary and Water Commission. Records of daily mean discharge for water year 2004 are published in International Boundary and Water Commission Water Bulletins Nos. 73 and 74. Since Sept. 1995, suspended sediment chemistry and quality assurance data for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
DEC													
09...	1030	185	10	120	.085	.061	755	7.8	86	7.6	4,910	19.0	950
JAN													
14...	0900	200	30	200	.093	.067	765	7.3	79	7.6	4,520	18.5	980
APR													
21...	1000	243	40	68	.093	.067	750	7.5	92	7.7	5,330	24.0	1,200
MAY													
18...	1330	302	10	180	.104	.074	760	7.6	99	7.7	4,330	28.0	950
JUL													
07...	1230	239	30	120	.103	.075	760	7.7	103	--e	4,790	29.5	980
20...	1030	252	30	190	.111	.081	760	6.2	82	7.6	3,910	29.0	830
AUG													
10...	1300	227	30	160	.107	.078	760	7.3	98	7.6	4,220	30.0	940
SEP													
08...	1200	161	30	170	.104	.076	765	7.0	91	7.6	4,480	28.5	900

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
DEC													
09...	232d	88.2d	10.2d	637d	59	244	294	2	962d	.9	29.0d	899d	3,030
JAN													
14...	244d	89.2d	11.5d	630d	58	227	273	2	867d	.8	24.3d	804d	2,840
APR													
21...	289dr	117dr	13.3d	881dr	61	246	295	3	1010dr	.9r	27.0d	897dr	3,410
MAY													
18...	227d	90.7d	11.9d	640d	59	223	267	3	845d	.8	24.6d	785d	2,780
JUL													
07...	233d	95.0d	11.4d	692d	60	246	294	3	977d	.9	30.6d	906d	
20...	196d	80.5d	11.4d	538d	58	209	250	2	744d	.8	26.6d	710d	
AUG													
10...	226d	89.7d	11.8d	646d	60	225	270	2	820d	.8	26.8d	777d	2,750
SEP													
08...	216d	85.4d	10.8d	599d	59	232	280	1	884d	.8	31.1d	816d	2,810

08470400 USGS Arroyo Colorado at Harlingen, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Organic nitrogen, water, fltrd, mg/L (00607)
DEC													
09...	1,620	3,230	.77	1.2	.21	.16	20.4	4.62	4.80	.595	.181	.66	.61
JAN													
14...	1,600	2,960	.85	1.4	.27	.21	22.6	5.10	5.47d	1.24	.376	.45	.65
APR													
21...	2,210	3,370	.44	1.2	--	<.04	17.6	3.98	4.03	.145	.044	.71	--
MAY													
18...	2,350	2,880	.53	1.5	--	<.04	16.3	3.67	3.77	.306	.093	.68	--
JUL													
07...		3,250	.45	1.4	--	<.04	15.1	3.41	3.49	.250	.076	.56	--
20...		2,600	.63	1.3	--	E.03n	12.5	2.83	2.90	.227	.069	.68	--
AUG													
10...	1,710	2,790	.55	1.3	--	<.04	13.9	3.13	3.20	.233	.071	.84	--
SEP													
08...	1,320	3,050	.45	1.2	--	<.04	17.7	4.00	4.16	.549	.167	.50	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)
DEC													
09...	1.1	.938	.31	.36	.59	5.6	6.0	8.1	.8	7.3	3.8	E2nd	.41d
JAN													
14...	1.2	1.18	.39	.43	.74	6.3	6.9	6.3	.6	5.7	10.8r	<3d	.49d
APR													
21...	--	1.18	.39	.40	.65	4.5	5.2	6.8	.1	6.7	4.4	--	--
MAY													
18...	--	.739	.24	.25	.60	4.3	5.3	7.8	1.5	6.3	4.9v	12d	.61d
JUL													
07...	--	.754	.25	.27	.54	3.9	4.9	6.7	.2	6.4	4.1	--	E.48nd
20...	--	.711	.23	.26	.58	3.5	4.2	8.9	1.2	7.7	4.0	E2nd	.61d
AUG													
10...	--	.813	.27	.28	.57	3.8	4.5	9.4	.6	8.8	4.0	--	--
SEP													
08...	--	1.47	.48	.49	.77	4.6	5.4	6.5	1.4	5.0	4.4	E2nd	.42d

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)
DEC													
09...	5.5d	83d	<.12d	1860d	E.06nd	<.8	1.10d	4.4d	<19d	<.16d	132d	11.3d	21.9d
JAN													
14...	6.4d	75d	<.12d	1620d	E.07nd	<.8	.780d	4.5d	<19d	E.10nd	118d	7.2d	20.4d
APR													
21...	7.1d	--	--	1600d	--	--	--	--	<19dc	--	139d	--	--
MAY													
18...	7.9d	78d	<.12d	1500d	.09d	<.8	.940d	5.2d	<19d	E.10nd	117d	2.7d	21.4d
JUL													
07...	9.0d	112d	<.24d	1760d	E.08nd	<.8	1.24d	--	<19d	<.32d	128d	--	25.6d
20...	10.4d	101d	<.12d	1270d	.09d	<.8	.990d	--	<32d	E.11nd	112d	2.9d	21.9d
AUG													
10...	8.8d	--	--	1520d	--	--	--	--	E12nd	--	111d	--	--
SEP													
08...	7.2d	105d	<.12d	2170d	.08d	<.8	1.03d	9.1d	<19d	E.11nd	180d	4.2d	23.4d

08470400 USGS Arroyo Colorado at Harlingen, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)
DEC													
09...	4.46d	3.2d	<.4d	5000d	10.8d	4.6d	<.006	E.010	<.006	<.005	<.005	1.23	<.050
JAN													
14...	4.33d	2.9d	<.4d	4390d	10.6d	4.5d	<.006	E.022	<.006	<.005	<.005	.327	<.050
APR													
21...	--	2.2d	--	5510d	13.8d	--	<.006	E.034	<.006	<.005	<.005	.176	<.050
MAY													
18...	7.62d	3.0d	<.4d	4370d	11.4d	3.3d	<.006	E.088	<.006	<.005	<.005	1.40	<.050
JUL													
07...	--	--	<.8d	5220d	16.0d	--	<.006	E.018	<.006	<.005	<.005	.070	<.050
20...	6.18d	4.5d	<.4d	4210d	15.0d	3.6d	<.006	E.103	<.006	<.005	<.005	2.58	<.050
AUG													
10...	--	3.4d	--	4280d	15.2d	--	<.006	E.015	<.006	<.005	<.005	.213	<.050
SEP													
08...	4.39d	4.1d	<.4d	4560d	14.7d	4.6d	<.006	E.021	<.006	<.005	<.005	.126	<.050

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
DEC													
09...	<.010	<.004	<.041	<.020	.013	<.006	<.018	.082	<.012	.034	<.009	<.02	<.004
JAN													
14...	<.010	<.004	E.015t	<.020	<.005	<.006	<.018	.020	<.012	.043	<.009	E.01n	<.004
APR													
21...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	.004	<.012	<.005	<.009	<.02	<.004
MAY													
18...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	.003	<.012	<.005	<.009	<.02	<.004
JUL													
07...	<.010	<.004	<.041	<.040	<.005	<.006	<.018	<.003	E.002t	<.005	<.009	<.02	<.004
20...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
AUG													
10...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	.005	<.009	<.02	<.004
SEP													
08...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	.006	<.012	.033	<.009	<.02	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
DEC													
09...	E.007n	<.005	<.029	<.013	<.024	<.016	<.003	<.004	.039	<.027	<.015	.017	<.006
JAN													
14...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
APR													
21...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.033	<.006
MAY													
18...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	E.020n	.031	<.015	<.013	<.006
JUL													
07...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	.277	.039	E.004t	<.006
20...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	E.026n	.018	<.013	<.006
AUG													
10...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
SEP													
08...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006

08470400 USGS Arroyo Colorado at Harlingen, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)
DEC													
09...	<.003	<.007	<.005	<.010	<.004	.342r	<.011	.01	<.004	<.025	<.011	<.02	.018
JAN													
14...	<.003	<.007	<.003	<.010	<.004	.084	<.011	.01	<.004	<.025	<.011	<.02	.024
APR													
21...	<.003	<.007	<.005	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.022
MAY													
18...	<.003	<.007	<.003	<.010	<.004	E.013n	<.011	.01	<.004	<.025	<.011	<.02	.023
JUL													
07...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.010	<.025	<.011	<.02	.079
20...	<.003	<.007	<.005	<.010	<.004	<.022	<.011	Mn	<.010	<.025	<.011	<.02	.041
AUG													
10...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.010	<.025	<.011	<.02	.013
SEP													
08...	<.003	<.007	<.005	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.058

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Deuterium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Uranium natural water, fltrd, ug/L (22703)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC												
09...	<.02	<.034	<.02	<.010	<.002	E.007n	-19.40	-2.54	11.0d	100	319	159
JAN												
14...	<.02	<.034	<.02	<.010	<.002	E.007n	-20.90	-2.77	10.7d	100	236	127
APR												
21...	<.02	<.034	<.02	<.010	<.002	<.009	-17.40	-2.22	--	98	386	253
MAY												
18...	<.02	<.034	<.02	<.010	<.002	<.009	-17.23	-2.32	10.1d	99	343	280
JUL												
07...	<.02	<.034	<.02	<.010	<.002	<.009	-17.38	-2.26	12.4d	99	346	223
20...	<.02	<.034	<.02	<.010	<.002	<.009	-15.74	-1.96	9.30d	100	456	310
AUG												
10...	<.02	<.060	<.02	<.010	<.002	E.006n	-14.38	-1.84	--	100	194	119
SEP												
08...	<.02	<.034	<.02	<.010	<.002	<.009	-16.19	-2.17	10.1d	100	598	260

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
c -- See laboratory comment
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL
r -- Value verified by rerun, same method
t -- Below the long-term MDL
v -- Analyte detected in laboratory blank

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

08475000 Rio Grande near Brownsville, TX

LOCATION.--Lat 25°52'35", long 97°27'15", Cameron County, Hydrologic Unit 13090002, 900 feet above International Boundary and Water Commission gaging station, 1,000 ft downstream from El Jardin pumping plant on earthen dam, 6.8 mi below International Bridge between Brownsville and Matamoros, Tamaulipas, Mexico and 48.8 mi above the Gulf of Mexico.

DRAINAGE AREA.--176,333 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Jan. 1932, Mar. 1943 to Feb. 1944, Feb. 1966 to current year.
BIOCHEMICAL DATA: Oct. 1974 to current year.
PESTICIDE DATA: May 1975 to May 1982, Oct. 1995 to current year.
SEDIMENT DATA: Feb. 1996 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Mar. 1943 to Feb. 1944, Apr. 1967 to Sept. 1983.
WATER TEMPERATURE: Oct. 1966 to Sept. 1983.
SUSPENDED SEDIMENT DISCHARGE: Feb. 1966 to Sept. 1983.

REMARKS.--The flow is controlled largely by releases from Falcon Reservoir. Instantaneous discharges published in the table were provided directly by International Boundary and Water Commission. Records of daily mean discharge for water year 2004 are published in International Boundary and Water Commission Water Bulletins Nos. 73 and 74. Since Sept. 1995, suspended sediment chemistry and quality assurance data for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,130 microsiemens/cm, May 29, 1972; minimum daily, 337 microsiemens/cm, Sept. 3, 1967.
WATER TEMPERATURE: Maximum daily, 35.0°C, on several days during summer months of 1982 and 1983; minimum daily, 8.0°C, Jan. 10, 1967.
SEDIMENT CONCENTRATION: Maximum daily mean, 6,000 mg/L, Feb. 28, 1983; minimum daily mean, 4.0 mg/L, Apr. 26, 1970, Aug. 16, 18, 24, 27, 1977.
SEDIMENT LOADS: Maximum daily, 181,000 tons, Feb. 28, 1983; minimum daily, 0.12 tons, Aug. 26, 1983.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
OCT													
16...	1550	E5,990	10	--	.080	.060	765	--e	--	7.2	904	27.0	200
JAN													
13...	1500	392	30	20	.090	.065	765	8.7	92	7.4	1,340	18.0	350
FEB													
25...	1330	307	10	27	.097	.070	760	8.3	95	7.5	1,820	21.5	460
APR													
20...	1400	1,330	10	90	.104	.075	760	6.8	82	7.5	1,630	24.5	390
MAY													
18...	1630	4,910	30	140	.095	.068	760	7.6	96	7.3	1,220	27.0	320
JUL													
20...	1300	357	10	21	.098	.071	760	7.4	102	7.9	1,220	32.0	320
AUG													
10...	1500	448	10	38	.088	.062	760	7.1	98	7.5	1,040	32.0	290
SEP													
08...	1430	1,460	40	100	.088	.063	760	5.6	75	7.4	867	30.5	230

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
OCT													
16...	55.8	14.7	5.75	107	53	86	104	<1	129	.4	10.8	152	531
JAN													
13...	98.0	25.3	6.33	152	48	154	186	<1	186	.4	10.1	219	795
FEB													
25...	126	34.2	7.34	203	49	166	201	1	268d	.5	11.5	336d	1,100
APR													
20...	105	31.2	7.43	199	52	136	164	1	235	.4	11.5	320d	998
MAY													
18...	83.7	26.8	7.21	135	47	120	145	<1	153	.4	9.69	241	732
JUL													
20...	85.1	26.4	6.75	122	45	144	172	2	156	.4	11.9	229	728
AUG													
10...	79.4	21.6	6.08	101	43	146	176	1	129	.4	12.1	178	619
SEP													
08...	64.6	17.2	5.70	80.6	42	117	142	<1	105	.4	11.0	142	501

08475000 Rio Grande near Brownsville, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Organic nitrogen, water, fltrd, mg/L (00607)
OCT													
16...	--	551	.83	2.7	.65	.504d	1.33	.30	.431	.427	.130	1.31	.32
JAN													
13...	873	825	.76	.91	.46	.359d	3.44	.78	.874	.315	.096	.11	.40
FEB													
25...	966	1,170	.72	.94	.26	.205	4.63	1.04	1.16d	.384	.117	.22	.52
APR													
20...	3,730	1,040	.60	1.1	.11	.085	3.66	.83	.960	.437	.133	.12	.51
MAY													
18...	10,100	764	.44	.86	.05	.037	2.15	.49	.531	.148	.045	.35	.40
JUL													
20...	750	778	.57	.93	.16	.121	.947	.21	.243	.095	.029	.28	.45
AUG													
10...	784	648	.49	.88	.14	.106	1.41	.32	.351	.108	.033	.34	.38
SEP													
08...	2,130	539	.47	.82	.08	.066	2.95	.67	.749	.269	.082	.26	.40

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)
OCT													
16...	2.2	.123	.040	.050	.87oc	1.3	3.1	26.3	8.3	18.1	2.8	<2	.69
JAN													
13...	.55	.555	.181	.20oc	.27oc	1.6	1.8	1.6	<.1	1.6	4.3	--	--
FEB													
25...	.74	.607	.198	.23oc	.28oc	1.9	2.1	2.1	.2	2.0	5.2	--	--
APR													
20...	.99	.552	.180	.20oc	.36oc	1.6	2.0	2.4	<.1	2.4	7.1	--	--
MAY													
18...	.82	.175	.057	.079	.26oc	.97	1.4	5.8	.6	5.2	V3.8	Mn	.82
JUL													
20...	.81	.340	.111	.148	.21oc	.82	1.2	1.7	<.1	1.7	4.6	--	--
AUG													
10...	.77	.432	.141	.163	.22oc	.84	1.2	3.5	<.1	3.5	E10.3	--	--
SEP													
08...	.75	.423	.138	.167	.29oc	1.2	1.6	4.7	.5	4.2	4.4	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)
OCT													
16...	3.1	98	<.06	284	<.04	<.8	.226	.8	<6	<.08	26.1	.6	5.9
JAN													
13...	3.6	--	--	394	--	--	--	--	E3n	--	35.1	--	--
FEB													
25...	4.5	--	--	576d	--	--	--	--	<6	--	44.7	--	--
APR													
20...	4.2	--	--	457	--	--	--	--	<6	--	40.0	--	--
MAY													
18...	3.7	105	<.06	300	E.03n	<.8	.366	2.2	<6	E.05n	25.8	1.2	5.5
JUL													
20...	7.0	--	--	320	--	--	--	--	<6	--	30.8	--	--
AUG													
10...	5.6	--	--	272	--	--	--	--	E3n	--	27.0	--	--
SEP													
08...	3.8	--	--	212	--	--	--	--	<6	--	31.1	--	--

08475000 Rio Grande near Brownsville, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)
OCT													
16...	2.04	1.0	<.2	829	5.6	<.6	<.006	<.006	<.006	<.004	<.005	.011	<.050
JAN													
13...	--	.6	--	1,400	4.2	--	<.006	<.006	<.006	<.005	<.005	.008	<.050
FEB													
25...	--	.6	--	1,890	6.7	--	<.006	E.007	<.006	<.005	<.005	.020	<.050
APR													
20...	--	1.2	--	1,840	6.4	--	<.006	E.009	<.006	<.005	<.005	.050	<.050
MAY													
18...	4.45	.9	<.2	1,390	5.4	1.3	<.006	<.006	<.006	<.005	<.005	.015	<.050
JUL													
20...	--	.9	--	1,510	8.0	--	<.006	<.006	<.006	<.005	<.005	.014	<.050
AUG													
10...	--	.6	--	1,160	7.4	--	<.006	<.006	<.006	<.005	<.005	.019	<.050
SEP													
08...	--	E.3n	--	979	6.1	--	<.006	<.006	<.006	<.005	<.005	.022	<.050

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
OCT													
16...	<.010	<.002	<.041	<.020	<.005	<.006	<.018	.007	<.004	.010	<.005	<.02	<.002
JAN													
13...	<.010	<.004	<.041	<.020	.006	<.006	<.018	.005	<.012	<.005	<.009	<.02	<.004
FEB													
25...	<.010	<.004	<.041	<.020	.006	<.006	<.018	.004	<.012	.005	<.009	<.02	<.004
APR													
20...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	.032	<.009	<.02	<.004
MAY													
18...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
JUL													
20...	<.010	<.004	<.041	<.020	.008	<.006	<.018	<.003	<.012	E.004n	<.009	<.02	<.004
AUG													
10...	<.010	<.004	<.041	<.020	.007	<.006	<.018	<.003	<.012	.006	<.009	<.02	<.004
SEP													
08...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
OCT													
16...	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006
JAN													
13...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
FEB													
25...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
APR													
20...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
MAY													
18...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
JUL													
20...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
AUG													
10...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
SEP													
08...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006

08475000 Rio Grande near Brownsville, TX—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)
OCT													
16...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005
JAN													
13...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
FEB													
25...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
APR													
20...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
MAY													
18...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
JUL													
20...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.010	<.025	<.011	<.02	<.005
AUG													
10...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.010	<.025	<.011	<.02	<.005
SEP													
08...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Deuterium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Uranium natural water, fltrd, ug/L (22703)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT												
16...	<.02	<.034	<.02	<.005	<.002	<.009	-37.50	-5.34	1.74	98	700	--
JAN												
13...	<.02	<.034	<.02	<.010	<.002	<.009	-23.50	-3.31	--	98	29	31
FEB												
25...	<.02	<.034	<.02	<.010	<.002	<.009	-21.60	-2.95	--	98	236	196
APR												
20...	<.02	<.034	<.02	<.010	<.002	<.009	-17.20	-2.50	--	99	225	808
MAY												
18...	<.02	<.034	<.02	<.010	<.002	<.009	-19.50	-2.86	1.77	100	268	3,550
JUL												
20...	<.02	<.034	<.02	<.010	<.002	<.009	-13.86	-1.98	--	98	30	29
AUG												
10...	<.02	<.034	<.02	<.010	<.002	<.009	-14.38	-2.00	--	100	51	62
SEP												
08...	<.02	<.034	<.02	<.010	<.002	<.009	-13.54	-1.91	--	100	203	800

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified
V -- Contamination

Value qualifier codes used in this table:
c -- See laboratory comment
d -- Diluted sample: method hi range exceeded
n -- Below the LRL and above the LT-MDL
o -- Result determined by alternate method

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

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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 2004

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Guadalupe River Basin				
08177818	San Antonio Springs at San Antonio, TX	Lat 29°27'58", long 98°28'07", Bexar County, Hydrologic Unit 12100301, springs emerge from the Blue Hole located on the University of the Incarnate Word campus, and from fissures just below the Hildebrand Ave. bridge in San Antonio.	--	1951-52, 1959-62, 1972, 1974-77, 1979-2004	10-29-03 11-24-03 12-22-03 02-02-04 03-08-04 04-15-04 05-17-04 07-06-04 08-26-04 09-21-04	88.0 79.1 66.1 76.6 75.8 111.0 129.0 160.0 99.6 101.0
08178090	San Pedro Springs at San Antonio, TX	Lat 29°26'42", long 98°30'06", Bexar County, Hydrologic Unit 12100301, springs emerge at San Pedro Park in San Antonio.	--	1933-35, 1951-52, 1958-61, 1966, 1971, 1974-77, 1979-2004	10-29-03 11-24-03 12-22-03 02-02-04 03-08-04 04-15-04 05-17-04 07-06-04 08-26-04 09-21-04	13.3 12.2 11.8 11.6 12.5 13.3 18.1 19.8 14.5 14.9
		Rio Grande Basin				
08425500	Phantom Lake Spring near Toyahvale, TX	Lat 30°56'01", long 103°50'43", Jeff Davis County, Hydrologic Unit 13070005, 375 ft downstream from source of spring, 3.5 mi southwest of Toyahvale, and 7.0 mi southwest of Balmorhea in Reeves County.	--	1931-33†, 1934, 1941, 1942-66†, 1967-2004	10-08-03 12-16-03 02-10-04 03-31-04 05-04-04 07-07-04	0 0 0 0 0 0

See footnote at end of table.

Discharge measurements made at low-flow partial-record station during water year 2004--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Rio Grande Basin--Continued				
08427500	San Solomon Springs at Toyahvale, TX	Lat 30°56'34", long 103°47'16", Reeves County, Hydrologic Unit 13070003, on South Canal at Toyahvale, 540 ft downstream from headgate at pool of springs, and 4.0 mi southwest of Balmorhea.	--	1919, 1922-25, 1931-33✞, 1934-36, 1941-65✞, 1966-86, 2004	10-08-03 12-16-03 02-10-04 03-31-04 05-04-04 07-07-04	26.1 25.5 24.4 26.3 26.7 26.4

✞ Operated as a continuous-record station.

1/ Measurements furnished by International Boundary and Water Commission.

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 2004

Station name and number	Location	Period of record	Water Year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		Guadalupe River Basin						
San Antonio River at Navarro St., San Antonio, TX 08177900	Lat 29°25'50", long 98°29'24", Bexar County, Hydrologic Unit 12100301, in San Antonio, on vertical concrete channel wall and bridge on Navarro Street, 0.1 mi upstream from N. St. Mary's Street bridge, 0.1 mi downstream from Richmond Avenue Bridge, and 1.8 mi upstream from gaging station 08178000 (San Antonio River at San Antonio. Drainage area is 36.7 mi^2.	1973-2004	06-04-04	*633.74	--	10-17-98	*643.72	--
San Pedro Creek at Santa Rosa St., San Antonio, TX 08178100	Lat 29°25'51", long 98°29'49", Bexar County, Hydrologic Unit 12100301, NWIS location needs to be resolved, at San Antonio, on downstream side of bridge over San Pedro Creek on Santa Rosa Street at the intersection with Cameron Street, and 2.1 mi upstream from mouth of Alazan Creek. Drainage area is 2.00 mi^2.	1973-2004	04-24-04	*638.47	--	07-16-90	*648.38	--
Martinez Creek at Fredericksburg Rd., San Antonio, TX 08178350	Lat 29°27'22", long 98°31'04", Bexar County, Hydrologic Unit 12100301, NWIS location needs to be resolved, at San Antonio, on downstream side of the bridge on Fredericksburg Road at the intersection with East Drive, 2.0 mi upstream from mouth. Drainage area is 5.80 mi^2.	1973-2004	06-09-04	*682.60	--	10-17-98	*685.46	--
		San Fernando Creek Basin						
Tranquitas Creek at Kingsville, TX 08212300	Lat 27°31'33", long 97°52'02", Kleberg County, Hydrologic Unit 12110204, at bridge on U.S. Highway 77 Business Route in Kingsville, 4.9 mi upstream from San Fernando Creek, and 5.9 mi downstream from Tranquitas Dam. Drainage area is 48.5 mi^2.	1965-82, 1984-90, 1992-2004	05-12-04	3.57	--	08-10-80	6.88	--

* Elevation, in feet above sea level.
✞ Operated as a continuous-record station.
a From floodmark.
i From indirect measurement of peak flow.

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