HYDROLOGIC DATA FOR URBAN STUDIES IN THE AUSTIN METROPOLITAN AREA, TEXAS, 1985

By J.D. GORDON, D.L. PATE, and M.E. DORSEY

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CONTENTS

CONTENTS--Continued

ILLUSTRATIONS

Page

TABLES

METRIC CONVERSIONS

The inch-pound units of measurements used in this report may be converted to metric units by using the following conversion factors:

Multiply	By	To obtain
inch	25.4	millimeter
foot	.3048	meter
mile	1.609	kilometer
square mile (mi^2)	2.590	square kilometer
cubic foot per second (ft^3/s)	.02832	cubic meter per second
foot per mile (ft/mi)	.189	meter per kilometer
acre-foot	1233	cubic meter
	.001233	cubic hectometer

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "Mean Sea Level of 1929."

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J. D. Gordon, D. L. Pate, M. E. Dorsey
U.S. Geological Survey

INTRODUCTION

Hydrologic investigations of urban watersheds in Texas were begun by the U.S. Geological Survey in 1954. Studies are now in progress in Austin, and Houston. Studies have been completed in the Dallas, Fort Worth, and San Antonio areas.

The Geological Survey, in cooperation with the Texas Department of Water Reources, began hydrologic studies in the Austin urban area in 1954. In cooperation with the city of Austin, the program was expanded in 1975 to include additional streamflow and rainfall gaging stations, and the collection of surface water-quality data. In 1978, the program was expanded to include a ground-water resources study of the South Austin metropolitan area in the Balcones Fault Zone.

The objectives of the Austin urban hydrology study are as follows:

1. To determine, on the basis of historical data and hydrologic analyses, the magnitude and frequency of flood peaks and flood volume.

2. To determine the effect of urban development on flood peaks and volume.

3. To determine the variations in water quality during different seasons and flow conditions in representative watersheds with various types of urban development.

4. To quantitatively appraise the ground-water resources of the Edwards aquifer in hydraulic circulation with Barton Springs, the effect of urbanization on the quality and quantity of recharge and discharge, and the extent of contamination in the aquifer.

This report presents the basic hydrologic data collected in the Austin urban area for the 1985 water year (Oct. 1, 1984 to Sept. 30, 1985). Additional explanations of terms related to streamflow, water quality, and other hydrologic data used in this report are defined in the U.S. Geological Survey annual report Water Resources Data for Texas, TX-85-3, 1985.

LOCATION AND DESCRIPTION OF THE AREA

The Austin study area is about 80 miles northeast of San Antonio and about 160 miles northwest of Houston. The study area extends in an eastward direction from the Hill Country at the eastern edge of the Edwards Plateau across the Balcones Fault Escarpment to the Blackland Prairie of Texas. The land surface decreases in altitude from about 1,100 feet above sea level in the northwest to about 420 feet above sea level in the southeast.

Slopes generally range from 2 to 15 percent; slopes greater than 5 percent are present along the eastern edge of the Edwards Plateau, average about 5 percent within the Balcones Escarpment, and are less than 5 percent east of the escarpment and along the flood plain and alluvial terraces of the Colorado River and its tributaries.

Soils overlying the hard limestone in the western half of the study area are in general poorly developed thin calcareous clays, clay loams, and stony clays. Bedrock is locally exposed. Soils on the soft limestones and shales of the Balcones Fault Zone are generally dark brown calcareous clays, clay loams, or silty clay loams 6 inches or more thick. Soils on the shaly formation in the eastern part of the area are dark gray to olive calcareous clays and clay loams, 12 inches or more thick. Soils on the flood plain and terraces of the Colorado River and its tributaries are dark gray to red-brown, calcareous to noncalcareous, sandy loams, silty clay loams, clay loams, and gravelly sands 12 inches or more thick. Detailed descriptions of the soils in the Austin urban study area are presented by the U.S. Dept. of Agriculture (1974). Additional geologic information of the Austin urban study area can be found in publications by the University of Texas Bureau of Economic Geology. A list of some of these geologic reports is given in the section "Selected references".

The major streams in the study area are Onion Creek, Barton Creek, Walnut Creek, Bull Creek, Boggy Creek, Shoal Creek, Williamson Creek, Slaughter Creek, Bear Creek, and Waller Creek. All streams in the area are within the Colorado River basin. Throughout the year, low flow for some of the smaller streams in the predominantly urban areas is partly sustained by return flow from industrial and residential users; during the summer months the low flow is partly sustained by drainage from municipal and private swimming pools.

The climate of the Austin urban area is characterized by short mild winters, long moderately hot summers, moderately high humidity, and prevailing southerly winds. Records of the National Weather Service show that the mean annual temperature (based on the period 1941-70) is 70.6°F; the mean maximum temperature for July is 95°F; and the mean minimum temperature for January is 41°F. The average growing season is about 270 days.

The average rainfall (based on the period 1951-80) is 31.50 inches and is generally well distributed throughout the year; however, individual storms may cause flooding in any season. The major storms usually occur during the months of April-May and September-October.

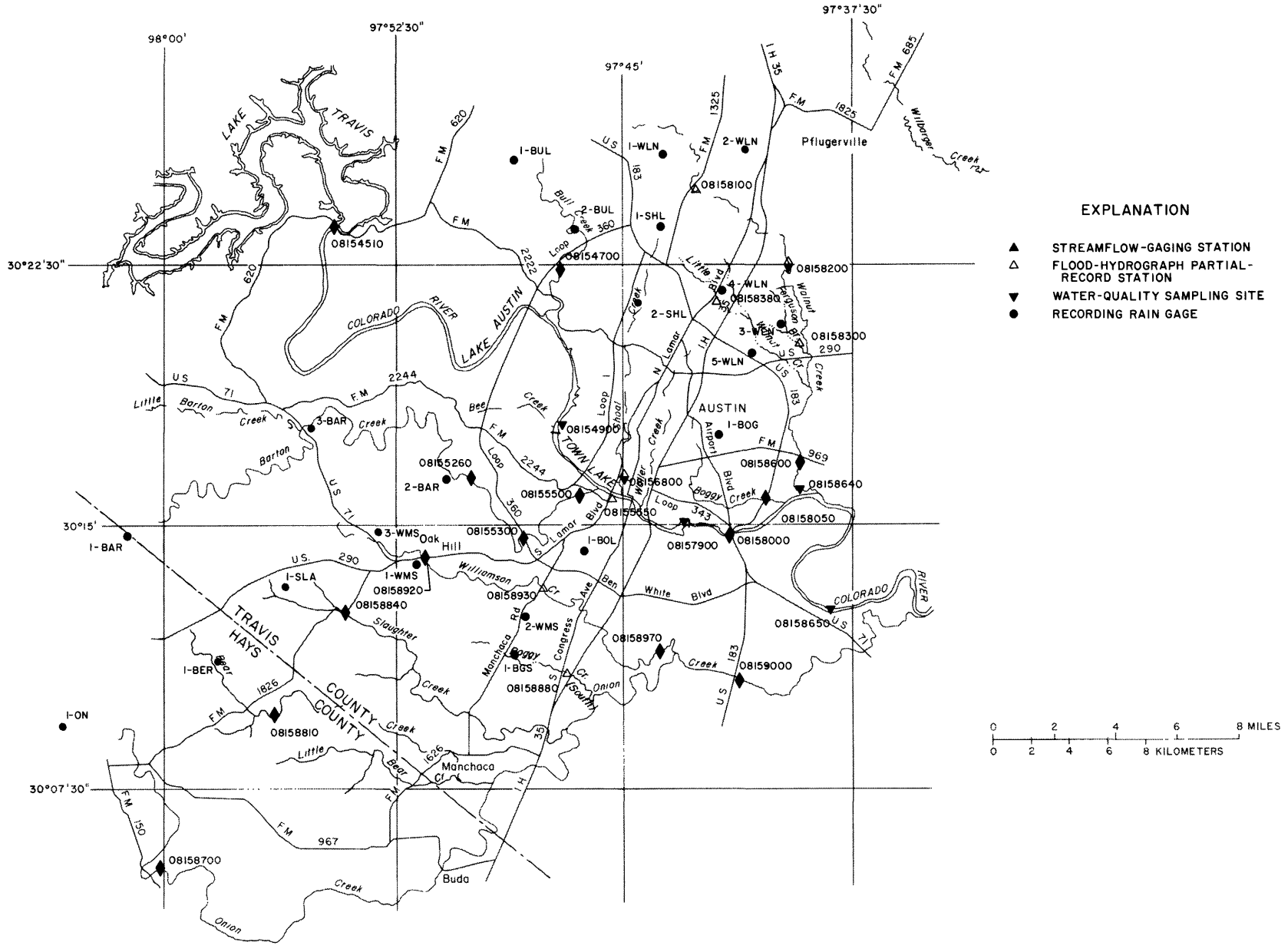

Figure 1.--Location of surface-water hydrologic-instrument installations and stream-flow water-quality sampling site.

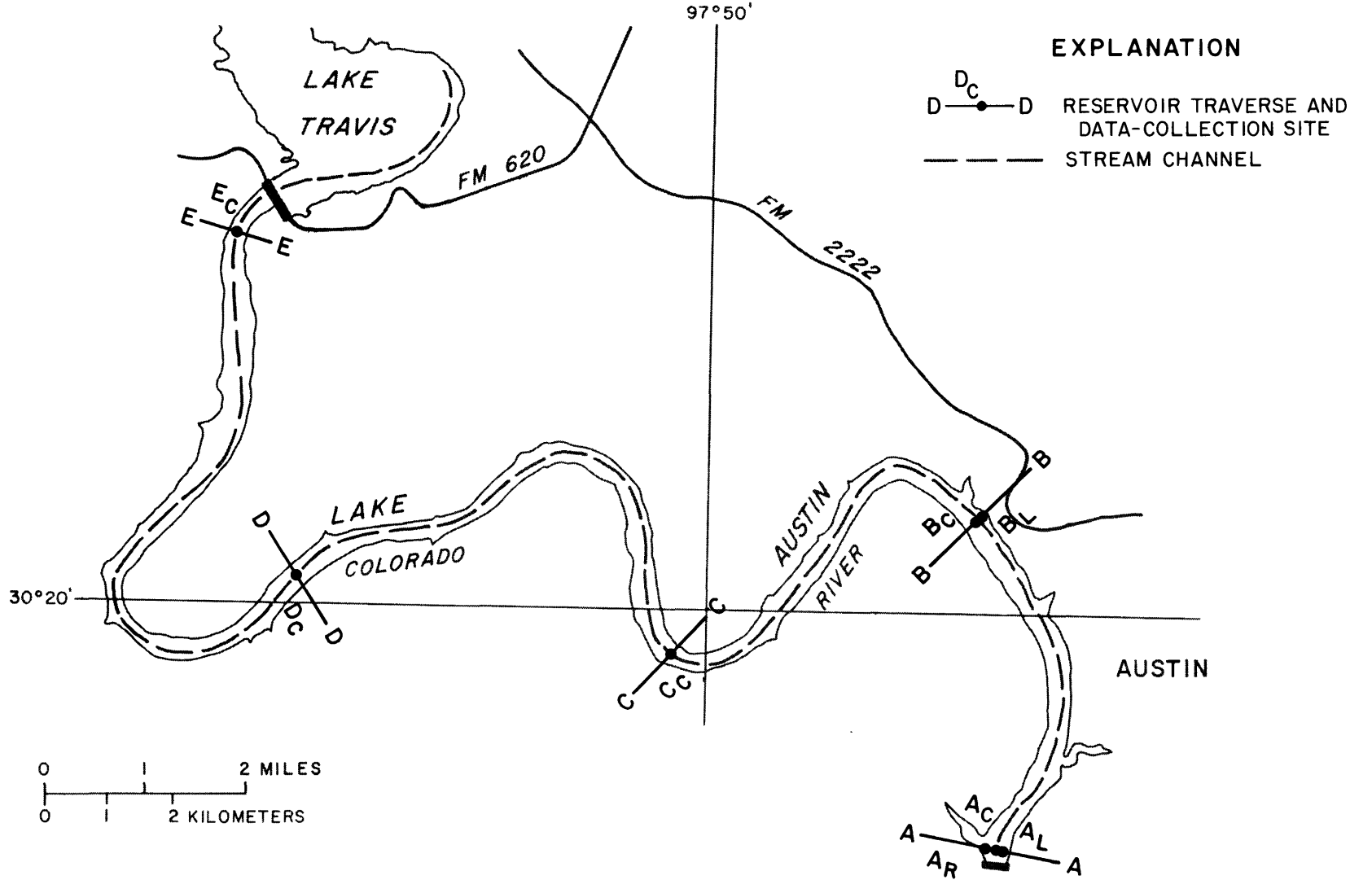

Figure 2.–Location of the water-quality data-collection sites on Lake Austin

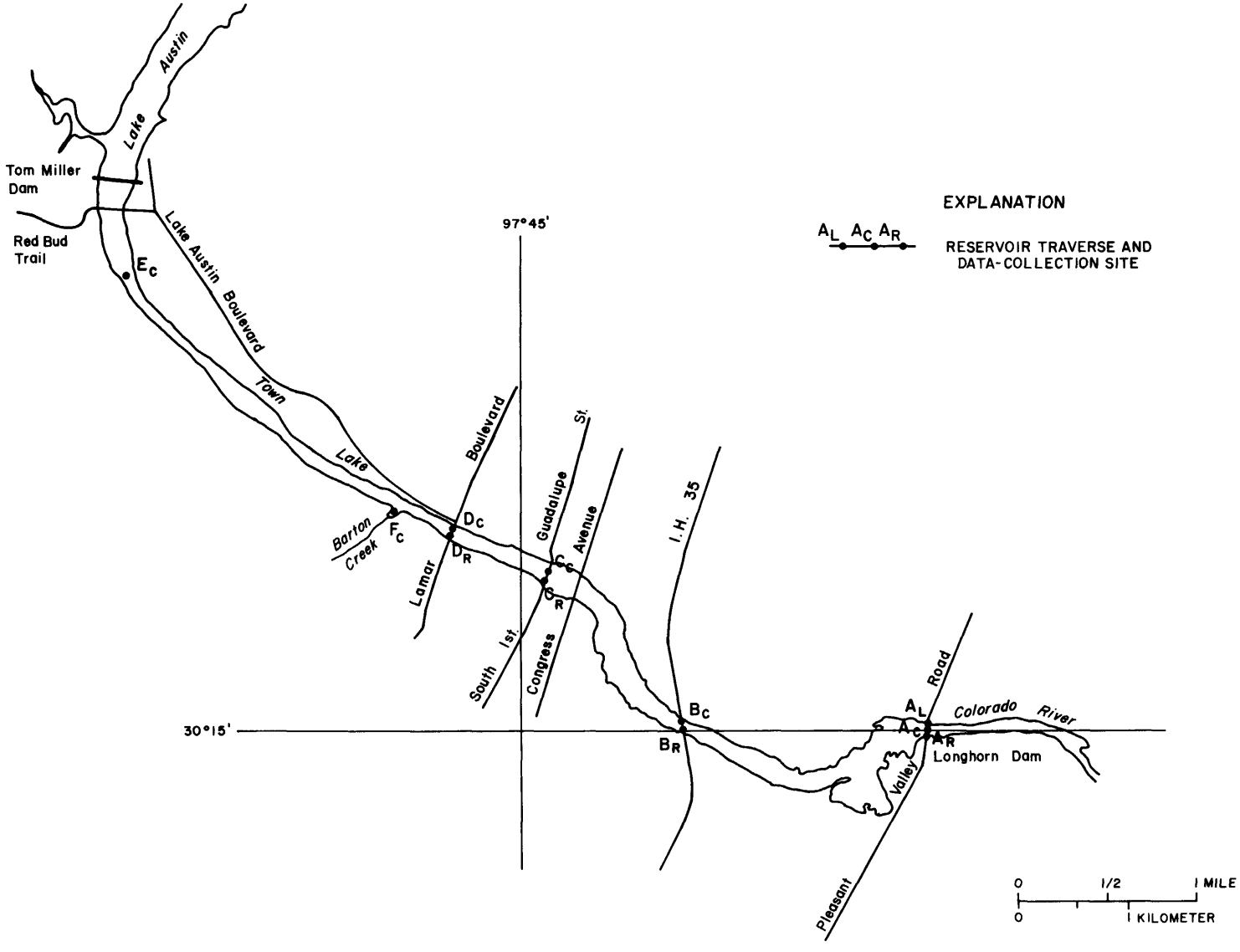

Figure 3.–Location of the water-quality data-collection sites on Town Lake

Table 1.--Location of rain gages in the Austin area

Rain gage	Location
1-BUL	Lat 30°25'37", long 97°48'53", at David Hutton residence (relocated), 1.1 miles west of the intersection of Spicewood Springs Road and gravel dirt road, which starts 800 ft north of Oak Grove Church on Spicewood Springs Road. Elevation, 775 ft (approximate).
2-BUL	Lat 30°23'51", long 97°46'42", on Dr. Lloyd A. Doggett property, 200 ft north of the centerline of Spicewood Springs Road at a point 600 ft northwest of the intersection of Spicewood Springs and Whitecliff Roads (the northernmost intersection where two roads cross twice). Elevation, 650 ft (approximate).
1-BAR	Lat 30°14'37", long 98°01'17", 25 ft north of centerline of Fitzhugh Road at Mr. Ben Crumley's residence, 4.9 miles west of the intersection of U.S. Hwy. 290 and Fitzhugh Road. Elevation, 1,058 ft (approximate).
2-BAR	Lat 30°16'24", long 97°50'55", at Lost Creek Country Club, 150 ft northwest of maintenance building, 1.7 miles southwest of intersection of Lost Creek Blvd. and Loop 360. Elevation, 638 ft (approximate).
3-BAR	Lat 30°17'48", long 97°55'31", on H.T. Hamrick property (relocated) on Barton Creek at Hwy. 71, 5.8 miles northwest of Oak Hill. Elevation, 781 ft (approximate).
1-BOL	Lat 30°14'32", long 97°46'20", at rear of Mr. Morris Kieke's property at 2509 Thorton Road, 0.4 mi southwest of the intersection of Oltorf Street and Thorton Road. Elevation, 570 ft (approximate).
1-SHL	Lat 30°23'09", long 97°43'55", at Balcones Research Center about 150 ft west and 350 ft south of Civil Engineering Structures Research building, 5,000 ft northwest of intersection at U.S. Hwy. 183 and Farm Road 1352. Elevation, 763 ft (approximate).
2-SHL	Lat 30°20'49", long 97°44'39" on Shoal Creek at Northwest Park (relocated), on left bank of drainage ditch, 60 ft east of Shoal Creek Blvd. between 6903 and 6905 Shoal Creek Blvd. Elevation 680 ft (approximate).
1-BOG	Lat 30°17'31", long 97°41'54", 50 ft behind National Weather Service building at 3724 Manor Road. Elevation, 630 ft (approximate).
1-WLN	Lat 30°25'18", long 97°43'42", at Textruss, Inc. (relocated), 200 ft east of Dorsett Road, 0.5 mile north of the intersection of Duval and Dorsett Roads. Elevation, 835 ft (approximate).

Table 1.--Location of rain gages in the Austin area--Continued

Rain gage	Location
2-WLN	Lat 30°25'48", long 97°40'49", at Turbine West Supply Company at the intersection of Hydro and Turbine Streets, 0.7 mile northwest of the Intersection of Interstate Highway 35 and Howard Lane. Elevation, 790 ft (approximate).
3-WLN	Lat 30°20'34", long 97°39'52", at Ferguson Lane at Loredo Manufacturing Company, 0.9 mile northwest at the intersection of Ferguson Lane and Springdale Road. Elevation, 595 ft (approximate).
4-WLN	Lat 30°21'39", long 97°41'49", at Mollie Barrington School on Cooper Drive, 0.1 mile east of the intersection of Lamar Blvd. and Cooper Drive. Elevation, 690 ft (approximate).
5-WLN	Lat 30°20'09", long 97°41'03", at entrance road to the Showtown Drive-In Theater, 0.25 mile north of the intersection of Cameron Road and U.S. Hwy. 183. Elevation, 664 ft (approximate).
1-ON	Lat 30°08'57", long 98°03"23", at Bullard Ranch, 2.7 miles northwest of Driftwood on FM 150, on the north side of road in fenceline. Elevation, 1,060 ft (approximate).
1-BER	Lat 30°11'08", long 97°58'11", at Mr. Lowden's residence (revised) on Nutty Brown Road, 1.6 mile south of U.S. Hwy. 290. Gage located left of driveway to house. Elevation, 1,067 ft (approximate).
1-SLA	Lat 30°13'10", long 97°56'09", at the entrance of Mr. O. D. Miller's property on Derecho Road, 0.8 mile south of the intersection Derecho Road and U.S. Hwy. 290. Elevation, 1,055 ft (approximate).
1-BGS	Lat 30°11'18", long 97°48'26", at the Brown School about 50 ft south and 200 ft west of the administration building and 20 ft of the fence line, about 3,000 ft northwest of the intersection of Manchaca Road and Dittmar Lane. Elevation, 725 ft (approximate).
1-WMS	Lat 30°13'42", long 97°52'00", at the entrance of Mr. Welty E. McCullough's property at 7101 Convict Hill Road, Oak Hill, 0.4 mile south of the intersection of Convict Hill Road and U.S. Hwy. 290. Elevation, 835 ft (approximate).
2-WMS	Lat 30°12'25" long 97°48'01", at the rear of Mr. Wilson's property at 1809 Stanley Avenue, 0.3 mile east of the intersection of Berkeley Avenue and Manchaca Road. Elevation, 700 ft (approximate).

Table 1.--Location of rain gages in the Austin area--Continued

Rain gage	Location
3-WMS	Lat 30°14'48", long 97°53'14", at entrance to Country Aire mobile home park on Hwy. 71, approximately 1.0 mile northwest of the intersection of U.S. Hwy. 290 and State Hwy. 71 near Oak Hill. Elevation, 890 ft (approximate).

DATA COLLECTION ACTIVITIES

The drainage basins and locations of hydrologic-instrument installations and surface-water-quality sampling sites in the Austin urban study area are shown on figure 1. The locations of data-collection sites for Lake Austin, and Town Lake are shown in figures 2 and 3.

Precipitation Data

Precipitation data are based on 21 recording rain gages. The gages are distributed throughout the drainage basins to measure total precipitation and to define rainfall intensities. The locations of these rain gages are given in table 1 and shown in figure 1.

Precipitation at individual gages and weighted precipitation in each basin is given in the section "Compilation of data." Weighted-mean precipitation factors are shown in table 2. Weighted mean precipitation for a study area is determined by the Thiessen method described by Linsley, Kohler, and Paulhus (1949). For example, the weighted-mean precipitation for the drainage basin upstream from the Bull Creek at Loop 360 streamflow-gaging station could be computed as follows: Multiply the recorded precipitation at rain-gage 1-BUL by 0.57 and to that value, add the recorded precipitation at rain-gage 2-BUL multiplied by 0.43.

Rainfall for the current year was unevenly distributed over the area. Individual station totals ranged from 36.03 inches at gage 1-BOG in the Boggy Creek basin to 50.72 inches at gage 3-WMS in the Williamson Creek basin. The mean water-year total of all rain gages is 43.53 inches as compared with the 30-year average (1951-80) of 31.50 inches at the Austin Municipal Airport rain gage which is operated by the National Weather Service. Daily and monthly precipitation data at individual gages in the study area are given in tables 3 and 4 at the end of this report (Supplemental Data section).

Storm Data

Five storms occurred during the year which produced rainfall amounts greater than 3.50 inches. The most significant of these storms occurred on Oct. 10, Feb. 23, and June 5. The rainfall totals for the storm of Oct. 10 ranged from 0.64 to 5.17 inches. The storms of Sept. 14 and Sept. 29 produced rainfall totals from 0 to 4.21 inches and was unevenly distributed in the study area.

Several storms are selected for which incremental values of rainfall and runoff are presented. The largest storms were selected for analysis if the quality of recorded data was sufficient and if the rainfall was uniformly distributed over the watershed. The characteristics of the analyzed storms is presented in table 5 (Supplemental Data section).

Runoff Data

Runoff data are based on discharge measurements and stage records at 12 continuous-record streamflow stations and 7 flood-hydrograph partial-record

Table 2.--Weighted-mean precipitation factors for drainage basins of the streamflow stations

Streamflow Station Number	Streamflow Station Name (abbreviated)	Rain gage 1/	Weighted-mean precipitation factor 2/	
08154700	Bull Creek at Loop 360	1-BUL	0.57	
		2-BUL	.43	
08155260	Barton Creek near Camp Craft Road	1-BAR	.63	
		2-BAR	.16	
		3-BAR	.21	
08155300	Barton Creek at Loop 360	1-BAR	.59	
		2-BAR	.15	
		3-BAR	.26	
08155550	West Bouldin Creek at Riverside Drive	1-BOL	1.00	
08156800	Shoal Creek at 12th Street	1-SHL	.24	
		2-SHL	.76	
08158050	Boggy Creek at U.S. Highway 183	1-BOG	1.00	
08158100	Walnut Creek at Farm Road 1325	1-WLN	1.00	
08158200	Walnut Creek at Dessau Road	1-WLN	.51	
		2-WLN	.49	
08158300	Ferguson Branch at Springdale Road	3-WLN	1.00	
08158380	Little Walnut Creek at Georgian Drive	1-SHL	.36	
		4-WLN	.64	
08158600	Walnut Creek at Webberville Road	1-WLN	.25 c/	.27 d/
		2-WLN	.21 c/	.24 d/
		3-WLN	.28 c/	.34 d/
		4-WLN	.15	-- d/
		5-WLN	.11 c/	.15 d/

See footnotes at end of table.

Table 2.--Weighted-mean precipitation factors for drainage basins above stations in the Austin metropolitan area--Continued

Streamflow Station		Rain gage a/	Weighted-mean precipitation factor b/
Number	Name (abbreviated)		
08158700	Onion Creek near Driftwood	1-ON	1.00
08158810	Bear Creek below Farm Road 1826	1-BER	1.00
08158840	Slaughter Creek at Farm Road 1826	1-SLA	1.00
08158880	Boggy Creek (South) at Circle S Road	1-BGS	1.00
08158920	Williamson Creek at Oak Hill	1-WMS 3-WMS	.16 .84
08158930	Williamson Creek at Manchaca Road	1-WMS 2-WMS 3-WMS	.46 .25 .29
08158970	Williamson Creek at Jimmy Clay Road	1-WMS 2-WMS 3-WMS	.31 .49 .20

a/ Rain gage designations are: BUL-Bull Creek; BAR-Barton Creek; BOL-Bouldin Creek; SHL-Shoal Creek; BOG-Boggy Creek; WLN-Walnut Creek; ON-Onion Creek; BER-Bear Creek; SLA-Slaughter Creek; BGS-Boggy Creek (South); and WMS-Williamson Creek. See locations of rain gages on figure 1.
b/ See section on "Precipitation Data" for explanation of use of weighted-mean precipitation factors
c/ Used for Sept. 14-15 storm.
d/ Used for Oct. 20-22 storm.

streamflow gaging stations. Streamflow data for continuous-record gaging stations, and for flood-hydrograph partial-record stations for the 1984 water year are presented generally in downstream order in the section "Compilation of data."

Rainfall and runoff for the 1985 water year for the continous-record gaging stations in the Austin urban study area are summarized in table 6. Runoff varied from 6.99 inches for the Williamson Creek at Jimmy Clay Road gaye, to 13.38 inches for the Slaughter Creek at Farm Road 1826 gage, which was 15 percent and 31 percent of the basins annual weighted-mean rainfall, respectively. Detailed storm rainfall and runoff records for each gaging station are shown in the section "Compilation of data."

Surface-Water-Quality Data

Water-quality data were collected at 16 streamflow locations during the 1985 water year. The locations of the streamflow water-quality data-collection sites are shown on figure 1. Water-quality samples are collected and analyzed during various flow and seasonal conditions so that the variations in the water quality may be documented for future analysis. Six of these water-quality data-collection sites are equipped with automated samplers that collect discrete samples during storms. These six automated samplers are located at the gaging stations; Barton Creek at Loop 360, Barton Creek at Camp Craft Rd., Shoal Creek at 12th Street, Boggy Creek at Highway 183, Bull Creek at Loop 360, and Williamson Creek at Oak Hill. The peak discharges associated with the water-quality samples collected during storms at all the gaging stations are shown in table 7.

Analyses for these sites include nutrients (ammonia, nitrogen, organic nitrogen, nitrate nitrogen, nitrite nitrogen, and phosphorus), physical organics and inorganics (specific conductance, pH, temperature, color, turbidity, dissolved oxygen, suspended and dissolved solids, biochemical oxygen demand, and total organic carbon), indicator bacteria (total coliform, fecal coliform, and fecal streptococci), and inorganic-chemical constituents (calcium, magnesium, sodium, potassium, alkalinity, sulfate, chloride, fluoride, and silica). Analyses are also done for 12 selected trace elements (arsenic, barium, cadmium, chromium, copper, iron, lead, manganese, mercury, selenium, silver, and zinc), and 14 insecticides and herbicides.

A report is presently being prepared that will include the water-quality characteristics of the watersheds sampled for this study. The water-quality characteristics for these watersheds will be determined and interpretations relating water-quality characteristics with urbanization will be made.

Water-quality data were also collected at eight sites on Lake Austin and at 11 sites on Town Lake. The locations of these sites are shown on figures 2 and 3 respectively, and the analyses of these samples are given in the "Compilation of data" section in this report.

Ground-Water-Quality Data

From 1978-83, ground-water-quality data were collected from 38 wells

completed in the part of the Edwards aquifer that is in hydrologic circulation with Barton Springs. These data were collected as part of the ground-water study of the Austin urban hydrology project (see Introduction). The data are published in the annual hydrologic data reports from this study.

Beginning in 1985, the Geological Survey began a cooperative study with the Planning and Growth Management Department of the city of Austin to resume collection of ground-water-quality from 15 of the original 38 wells. The Geological Survey collects 4 samples per year, one sample during dry periods in the winter, spring, and summer; and one sample after a runoff event in late spring. Multiple samples are collected by city of Austin personnel from the same wells following each of 4 runoff events. They collect three samples at two-day intervals after each of the four storms. The purpose of their sampling program is to determine the change in ground-water quality due to the influence of recharge from storm runoff. The locations of the sampled wells are shown in figures 4 and 5. Selected characteristics of the 15 wells are given in table 9 (Supplemental Data section).

The data are listed according to a well-numbering system which is used throughout the State, and which was developed by the Texas Department of Water Resources. The well-numbering system consists of a two-letter county-designation prefix plus a seven-digit well number. The two-letter prefix for Travis County is YD, and the prefix for Hays County is LR. Each one-degree quadrangle in the State is given a number consisting of two digits from 01 through 89. These are the first two digits of the well number. Each one-degree quadrangle is divided into 7-1/2-minute quadrangles which are given two-digit numbers from 01 through 64. These are the third and fourth digits of the well number. Each 7-1/2-minute quadrangle is divided into 2-1/2-minute quadrangles which are given a single-digit number from 1 through 9. This is the fifth digit of the well number. Each well or spring located within a 2-1/2-minute quadrangle is given a two-digit number beginning with 01, according to the order in which it is inventoried. These are the last two digits of the numbering system.

Only the last three digits of the well-numbering system are shown at each of the ground-water data-collection sites on figures 4 and 5; the second two digits are shown in or near the northwest corner of each 7-1/2-minute quadrangle; and the first two digits are shown by the large block numbers 57, 58, 67, or 68.

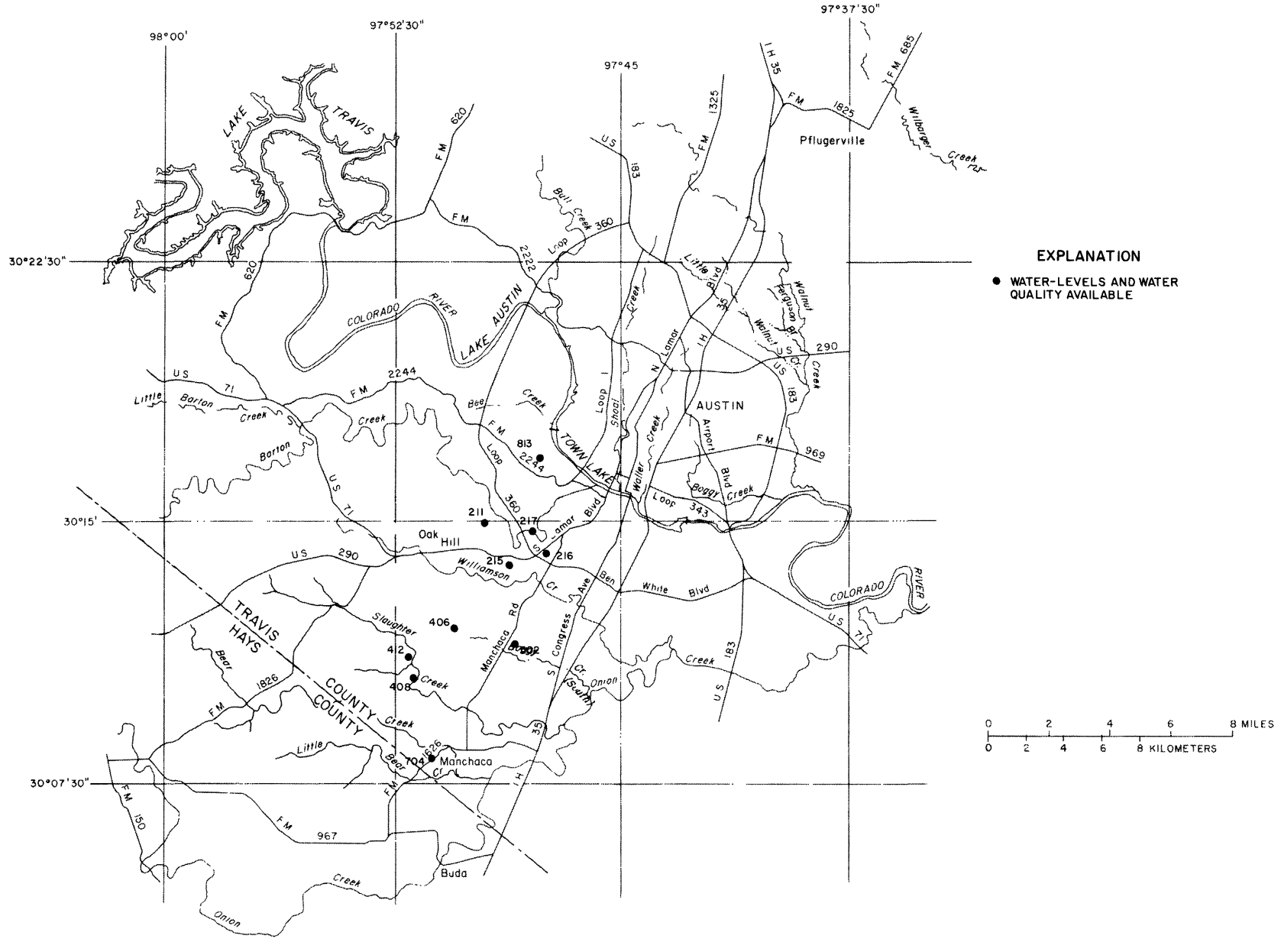

Figure 4.--Location of ground-water data collection sites in Travis County.

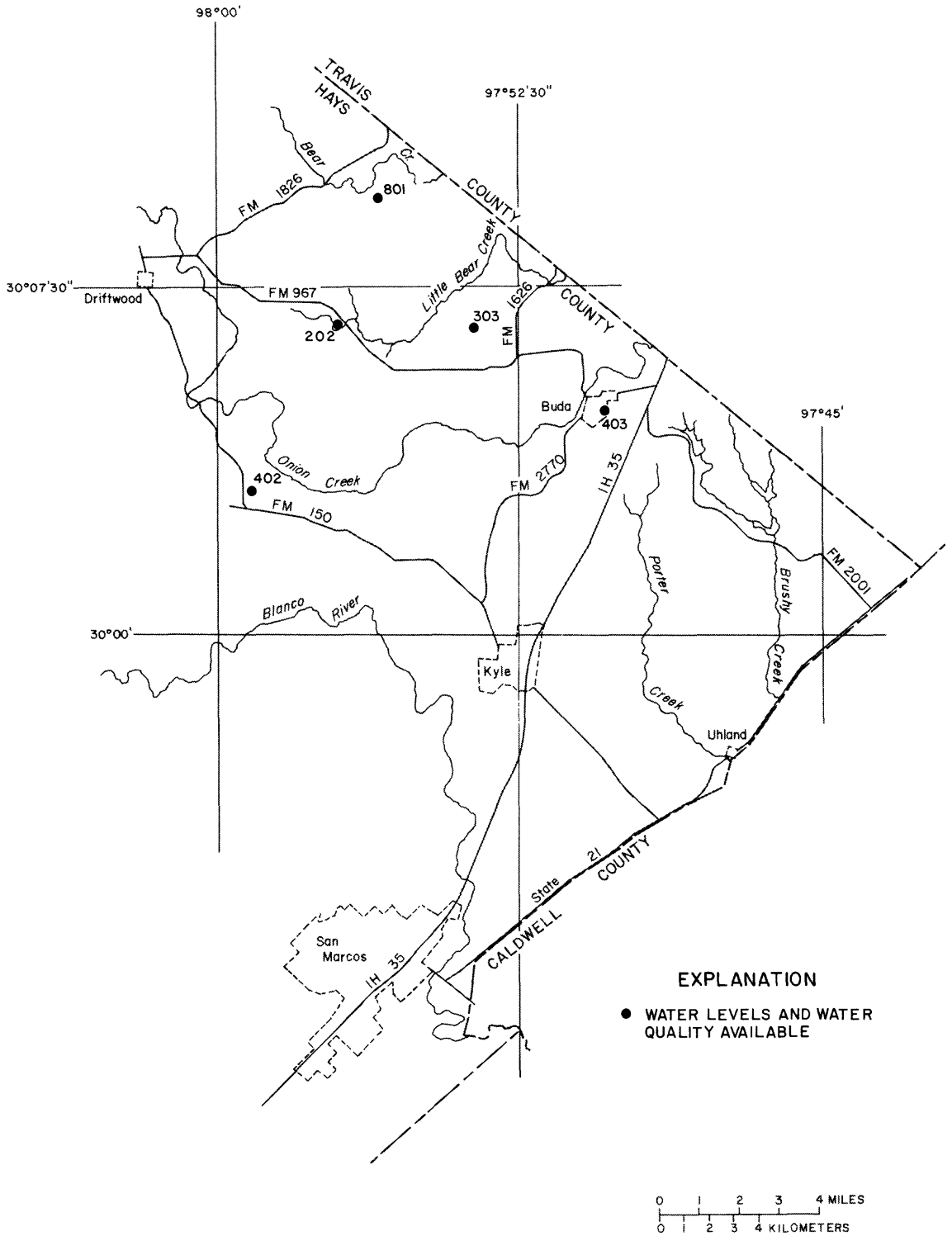

Figure 5.--Location of ground-water data collection sites in Hays County.

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COMPILATION OF DATA

COLORADO RIVER MAIN STEM

08154510 COLORADO RIVER BELOW MANSFIELD DAM, AUSTIN, TX

LOCATION.--Lat 30°23'30", long 97°54'28", Travis County, Hydrologic Unit 12090205, at the downstream side of Mansfield Dam, 12.9 mi northwest of the State Capitol at Austin, and at mile 318.0.

DRAINAGE AREA.--38,755 mi^2, approximately, of which 11,403 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

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

GAGE.--None. Daily discharge record is based on daily releases from Lake Travis.

REMARKS.--No estimated daily discharges. Records fair.

COOPERATION.--All records of releases were furnished by the Lower Colorado River Authority.

AVERAGE DISCHARGE.--11 years 1,474 ft^3/s (1,068,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 25,300 ft^3/s Apr. 17-19, 1977; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,300 ft^3/s May 31; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	758	.00	214	.00	57	.00	1270	1030	2180	2070	1470	1630
2	737	.00	.00	245	204	.00	1280	1470	2230	2060	1740	1620
3	767	.00	196	.00	74	.00	1290	1310	2100	1910	1390	1730
4	787	.00	279	20	230	.00	1100	938	2190	2000	1600	1580
5	784	.00	.00	.00	.00	.00	951	1120	1450	1590	1910	1560
6	879	.00	.00	.00	197	22	1230	1210	.00	1350	1680	1160
7	460	.00	60	.00	.00	.00	1270	1240	19	1240	1780	1470
8	1080	114	.00	125	.00	.00	1270	1270	2080	1450	1800	1370
9	.00	.00	.00	.00	88	.00	1180	1500	2000	1430	1930	823
10	.00	275	211	.00	114	.00	1070	1660	1690	1500	1720	1540
11	.00	.00	.00	.00	66	.00	1720	1750	2010	1470	1930	1290
12	230	.00	.00	.00	.00	.00	1100	1680	1790	1340	1700	1330
13	.00	.00	136	.00	.00	549	895	1560	1830	1690	1630	1140
14	.00	163	111	.00	140	1610	968	1530	2220	1830	1950	1080
15	110	286	.00	.00	143	1790	1170	1410	1850	1740	1880	1070
16	.00	.00	285	218	.00	1130	1310	1480	2140	1630	1840	1240
17	50	.00	183	.00	.00	1800	1090	1540	1870	1480	1950	1110
18	164	.00	143	.00	.00	1800	1080	1370	1890	1600	1660	1060
19	.00	240	.00	.00	.00	1800	1100	1220	1730	1660	1720	1100
20	153	.00	.00	.00	183	1810	999	1280	2120	1480	2070	968
21	.00	154	.00	.00	169	1760	1070	1320	1810	1400	1660	1010
22	.00	114	.00	.00	.00	1840	1130	1290	1470	1480	1650	1270
23	.00	114	.00	.00	.00	1760	1080	1290	1740	1450	1740	1340
24	.00	114	.00	.00	.00	1760	1160	1220	1660	1500	2010	1050
25	.00	.00	.00	94	30	1580	1000	1460	1760	1280	1870	1130
26	.00	136	143	158	.00	1760	1050	1780	1680	1540	1990	1150
27	.00	666	71	.00	.00	1720	1060	1760	1680	1410	1910	1150
28	.00	899	.00	.00	.00	1900	1170	1750	1720	1410	1600	557
29	.00	283	80	46	---	1710	1420	1980	2160	1320	1800	.00
30	.00	.00	.00	88	---	965	1280	1900	2170	1380	1890	926
31	.00	---	.00	.00	---	1420	---	2300	---	1640	1580	---
TOTAL	6959.00	3558.00	2112.00	994.00	1695.00	30486.00	34763	45618	53239.00	48330	55050	35454.00
MEAN	224	119	68.1	32.1	60.5	983	1159	1472	1775	1559	1776	1182
MAX	1080	899	285	245	230	1900	1720	2300	2230	2070	2070	1730
MIN	.00	.00	.00	.00	.00	.00	895	938	.00	1240	1390	.00
AC-FT	13800	7060	4190	1970	3360	60470	68950	90480	105600	95860	109200	70320

CAL YR 1984 TOTAL 374454.00 MEAN 1023 MAX 2930 MIN .00 AC-FT 742700
WTR YR 1985 TOTAL 318258.00 MEAN 872 MAX 2300 MIN .00 AC-FT 631300

COLORADO RIVER MAIN STEM

08154510 COLORADO RIVER BELOW MANSFIELD DAM, AUSTIN, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: June 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
APR 17...	1315	591	8.3	14.0	10.1	99	.1	200	61
JUL 02...	0910	582	7.5	15.5	5.6	57	.8	200	58
AUG 26...	1405	547	7.5	17.5	2.7	29	.4	210	59

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
APR 17...	42	23	39	1	4.1	139	44	70	.20
JUL 02...	47	21	36	1	3.9	146	46	67	.20
AUG 26...	48	21	33	1	3.9	148	38	58	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 17...	4.7	310	<.010	.30	.030	.77	.80	<.010	--
JUL 02...	6.4	320	<.010	.40	.030	.27	.30	<.010	4.1
AUG 26...	7.1	300	<.010	.30	.050	.35	.40	.020	--

COLORADO RIVER MAIN STEM

08154900 LAKE AUSTIN AT AUSTIN, TX

LOCATION.--Lat 30°18'53", long 97°47'10", Travis County, Hydrologic Unit 12090205, at city of Austin Waterplant No. 2 and 1.5 mi upstream from Tom Miller Dam on the Colorado River at Austin.

DRAINAGE AREA.--38,846 mi², of which 11,403 mi² probably is noncontributing.

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: October 1978 to current year.

301739097471601 LAKE AUSTIN SITE AR

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT							
10...	1100	1.00	582	8.2	24.0	7.0	84
10...	1102	10.0	584	8.2	24.0	6.9	83
10...	1104	20.0	585	8.1	23.5	6.7	80
24...	1025	1.00	525	7.6	20.0	6.9	77
24...	1027	10.0	525	7.7	20.0	6.9	77
24...	1029	17.0	525	7.8	20.0	6.9	77
FEB							
26...	0935	1.00	537	8.3	14.0	8.7	85
26...	0937	10.0	543	8.2	14.0	8.6	84
26...	0939	20.0	564	8.3	13.0	8.6	82
26...	0941	28.0	578	8.3	13.0	8.8	84
AUG							
21...	0940	1.00	541	7.8	25.5	7.4	92
21...	0942	10.0	531	7.5	21.5	5.3	61
21...	0944	18.0	531	7.5	21.5	4.9	56

301739097471201 LAKE AUSTIN SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT										
10...	1030	1.00	581	8.2	24.0	2.40	7	2.0	7.3	88
10...	1032	10.0	581	8.2	23.5	--	--	--	7.2	86
10...	1034	20.0	581	8.1	23.5	--	--	--	7.0	83
10...	1036	30.0	582	8.0	23.0	--	--	--	6.1	72
10...	1038	40.0	593	7.9	23.0	--	--	--	4.9	58
10...	1040	53.0	595	7.8	22.5	--	25	7.1	4.9	57
24...	0945	1.00	527	7.9	20.0	.90	30	7.5	7.0	78
24...	0947	10.0	527	7.8	20.0	--	--	--	7.1	79
24...	0949	20.0	527	7.8	20.0	--	--	--	7.1	79
24...	0951	30.0	529	7.7	20.0	--	--	--	7.2	80
24...	0953	40.0	529	7.7	20.0	--	--	--	7.2	80
24...	0955	50.0	529	7.8	20.0	--	--	--	7.2	80
24...	0957	55.0	530	7.4	20.0	--	55	20	7.2	80
FEB										
26...	0910	1.00	536	8.2	14.0	.70	25	9.4	8.9	87
26...	0912	10.0	538	8.2	13.5	--	--	--	8.6	83
26...	0914	20.0	548	8.4	13.0	--	--	--	8.7	83
26...	0916	30.0	579	8.4	12.0	--	--	--	8.8	82
26...	0918	40.0	592	8.4	11.0	--	--	--	8.8	81
26...	0920	54.0	604	8.4	9.5	--	8	3.0	8.7	77
AUG										
21...	0905	1.00	531	7.8	25.5	1.80	5	21	7.7	95
21...	0908	10.0	531	7.6	21.5	--	--	--	5.5	63
21...	0910	20.0	532	7.4	21.0	--	--	--	5.0	57
21...	0912	30.0	538	7.5	20.5	--	--	--	4.7	53
21...	0914	40.0	541	7.4	20.5	--	--	--	4.2	47
21...	0916	53.0	548	7.4	20.5	--	10	16	3.1	35

COLORADO RIVER MAIN STEM

LAKE AUSTIN AT AUSTIN, TX--Continued

301739097471201 LAKE AUSTIN SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
10...	.6	180	K23	200	60	42	23	38	1	4.2
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	.7	--	--	200	64	42	24	38	1	4.4
24...	.9	92	340	200	57	46	20	31	1	4.0
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	1.1	--	--	210	50	51	20	28	.9	4.1
FEB										
26...	1.5	590	1100	230	65	61	20	27	.8	2.9
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	.8	--	--	260	83	67	23	31	.9	3.1
AUG										
21...	.3	58	28	210	55	49	21	34	1	3.7
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	.1	--	--	210	59	50	21	34	1	3.6

DATE	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)
OCT										
10...	140	44	73	.30	5.5	310	<1	<1	--	<.010
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	<.010
10...	--	--	--	--	--	--	--	--	--	--
10...	140	47	73	.30	7.1	320	9	6	--	<.010
24...	140	43	57	.20	6.3	290	13	1	.29	.010
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	.29	.010
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	160	45	53	.20	10	310	8	4	.39	.010
FEB										
26...	170	41	44	.20	5.9	300	6	5	--	<.010
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	<.010
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	179	47	54	.20	6.8	340	6	2	--	<.010
AUG										
21...	154	41	63	.20	6.8	310	1	<1	--	<.010
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	.29	.010
21...	--	--	--	--	--	--	--	--	--	<.010
21...	--	--	--	--	--	--	--	--	--	--
21...	153	40	63	.20	7.3	310	8	2	--	<.010

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)
OCT										
10...	<.10	<.010	--	.20	--	.010	2.6	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	<.10	.010	.19	.20	--	.010	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	<.10	.120	.38	.50	--	.020	2.9	--	--	--
24...	.30	.050	.75	.80	1.1	.020	2.6	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	.30	.070	.53	.60	.90	.020	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	.40	.070	.13	.20	.60	.030	3.2	--	--	--
FEB										
26...	.30	.040	.56	.60	.90	.010	3.3	<1	60	2
26...	--	--	--	--	--	--	--	--	--	--
26...	.30	.050	.25	.30	.60	.010	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	.30	.070	.33	.40	.70	<.010	2.7	<1	71	<1
AUG										
21...	.20	.030	.37	.40	.60	.010	3.5	1	77	<1
21...	--	--	--	--	--	--	--	--	--	--
21...	.30	.040	.26	.30	.60	.010	--	--	--	--
21...	.20	.030	.27	.30	.50	.020	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	.30	.050	.25	.30	.60	.010	3.4	1	77	<1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
10...	--	--	8	--	<1	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	20	--	10	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	95	--	110	--	--	--	--
24...	--	--	6	--	2	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	--	90	--	30	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	--	200	--	73	--	--	--	--
FEB									
26...	<10	<1	25	<1	<1	<.1	<1	<1	5
26...	--	--	--	--	--	--	--	--	--
26...	--	--	20	--	<10	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	10	<1	<3	<1	9	<.1	<1	<1	14
AUG									
21...	<10	1	<3	3	3	<.1	<1	<1	9
21...	--	--	--	--	--	--	--	--	--
21...	--	--	10	--	<10	--	--	--	--
21...	--	--	10	--	<10	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	<10	1	<3	4	10	<.1	<1	<1	9

DATE	TIME	SAM-PLING DEPTH (FEET)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)
FEB							
26...	0910	1.00	<.10	<.10	<.10	<2.0	<.1
26...	0920	54.0	<.10	<.10	<.10	<2.0	<.1
AUG							
21...	0905	1.00	<.10	<.10	<.10	<2.0	<.1
21...	0916	53.0	<.10	<.10	<.10	<2.0	<.1

COLORADO RIVER MAIN STEM

LAKE AUSTIN AT AUSTIN, TX--Continued

301739097471201 LAKE AUSTIN SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	PROMETRYNE TOTAL (UG/L)	PROPAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMAZINE TOTAL (UG/L)	SIMETRYNE TOTAL (UG/L)
FEB						
26...	<.1	<.10	<2.0	<2.0	<.10	<.1
26...	<.1	<.10	<2.0	<2.0	<.10	<.1
AUG						
21...	<.1	<.10	<2.0	<2.0	<.10	<.1
21...	<.1	<.10	<2.0	<2.0	<.10	<.1

301739097470901 LAKE AUSTIN SITE AL

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT							
10...	1050	1.00	580	8.2	24.0	7.9	95
10...	1052	13.0	580	8.2	23.5	7.1	84
24...	1015	1.00	522	7.6	20.0	6.9	77
24...	1017	10.0	522	7.7	20.0	6.9	77
24...	1019	18.0	522	7.6	20.0	6.8	76
FEB							
26...	0945	1.00	537	8.2	14.5	8.4	83
26...	0947	10.0	540	8.3	14.0	8.5	83
26...	0949	17.0	550	8.2	13.5	8.0	76
AUG							
21...	0955	1.00	541	7.8	25.5	7.5	93
21...	0958	10.0	533	7.7	22.5	5.2	61
21...	1000	19.0	532	7.7	21.5	4.1	47

302043097472401 LAKE AUSTIN SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NITRATE TOTAL (MG/L AS N)
OCT									
10...	1115	1.00	578	8.2	24.5	2.40	6.9	84	--
10...	1117	10.0	578	8.2	24.0	--	6.6	79	--
10...	1119	20.0	578	8.1	23.5	--	6.1	73	--
10...	1121	27.0	578	7.9	23.5	--	5.0	59	--
24...	1045	1.00	500	7.9	20.0	.70	6.5	72	.29
24...	1047	10.0	500	7.9	20.0	--	6.6	74	--
24...	1049	20.0	507	7.8	19.5	--	6.5	72	--
24...	1051	28.0	550	7.9	18.5	--	7.1	77	.89
FEB									
26...	1005	1.00	570	8.4	14.5	1.10	9.1	90	--
26...	1007	10.0	570	8.4	14.0	--	8.7	85	--
26...	1009	20.0	561	8.4	13.5	--	8.7	84	--
26...	1011	28.0	585	8.3	11.5	--	7.8	72	--
AUG									
21...	1015	1.00	542	7.9	27.0	1.80	7.7	98	--
21...	1018	10.0	529	7.6	21.5	--	5.2	60	--
21...	1020	20.0	528	7.6	21.0	--	4.9	56	--
21...	1022	28.0	528	7.6	21.0	--	4.5	51	--

302043097472401 LAKE AUSTIN SITE BC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT									
10...	<.010	<.10	.010	.29	.30	--	.010	70	10
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	<.010	<.10	.040	.26	.30	--	.010	30	20
24...	.010	.30	.050	.55	.60	.90	.030	100	<10
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	.010	.90	.060	.74	.80	1.7	.040	60	10
FEB									
26...	<.010	.30	.040	.36	.40	.70	.010	40	<10
26...	--	--	--	--	--	--	--	--	--
26...	<.010	.40	.050	.35	.40	.80	.010	50	<10
26...	<.010	.20	.100	.30	.40	.60	.010	40	10
AUG									
21...	<.010	.20	.030	.37	.40	.60	.010	10	<10
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	<.010	.20	.040	.36	.40	.60	.020	20	10

302044097472301 LAKE AUSTIN SITE BL

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG							
21...	1025	1.00	542	8.0	27.5	7.2	92
21...	1028	12.0	528	7.6	22.0	4.2	49

301926097502201 LAKE AUSTIN SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT										
10...	1145	1.00	580	8.2	25.0	2.40	5	1.6	6.4	78
10...	1147	10.0	580	8.1	24.5	--	--	--	6.3	76
10...	1149	20.0	593	7.8	23.0	--	--	--	4.2	50
10...	1151	29.0	593	7.7	23.0	--	35	15	3.4	40
24...	1105	1.00	488	7.7	20.5	.70	35	9.3	5.9	66
24...	1107	10.0	487	7.8	20.5	--	--	--	5.9	66
24...	1109	20.0	486	7.8	20.5	--	--	--	5.9	66
24...	1111	29.0	497	7.8	20.0	--	60	30	6.0	67
FEB										
26...	1030	1.00	536	8.5	15.0	.80	25	8.2	8.8	88
26...	1032	10.0	538	8.5	14.0	--	--	--	8.7	85
26...	1034	15.0	560	8.5	13.5	--	--	--	8.6	83
26...	1036	20.0	579	8.6	12.0	--	--	--	9.0	84
26...	1038	27.0	579	8.5	11.5	--	5	3.2	8.8	81
AUG										
21...	1040	1.00	531	7.8	26.0	2.50	5	1.5	6.7	84
21...	1042	10.0	531	7.5	21.0	--	--	--	4.9	56
21...	1044	20.0	531	7.6	21.0	--	--	--	4.7	53
21...	1046	25.0	531	7.6	20.5	--	5	1.4	4.3	48

301926097502201 LAKE AUSTIN SITE CC--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	OXYGEN DEMAND, BIO-CHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
10...	.3	K18	K6	200	60	42	23	39	1	4.1
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	.2	--	--	200	60	42	23	39	1	4.1
24...	.1	600	310	190	56	43	19	28	.9	3.9
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	1.1	--	--	200	51	49	19	25	.8	3.8
FEB										
26...	1.3	K380	230	220	61	52	21	32	1	3.3
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	1.0	--	--	230	63	55	23	35	1	3.3
AUG										
21...	.5	K28	K14	200	50	47	21	34	1	3.7
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	.3	--	--	210	58	50	21	33	1	3.6

DATE	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)
OCT										
10...	140	45	70	.30	5.3	310	<1	<1	--	<.010
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	<.010
10...	140	43	71	.30	6.2	310	18	5	--	<.010
24...	130	35	53	.20	8.0	270	3	1	.19	.010
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	.19	.010
24...	150	32	47	.20	11	280	13	3	--	<.010
FEB										
26...	156	41	51	.20	3.9	300	12	4	--	<.010
26...	--	--	--	--	--	--	--	--	--	<.010
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	169	44	56	.20	3.9	320	2	1	--	<.010
AUG										
21...	154	40	62	.20	6.8	310	1	<1	--	<.010
21...	--	--	--	--	--	--	--	--	--	<.010
21...	--	--	--	--	--	--	--	--	.19	.010
21...	154	39	61	.20	6.8	310	1	<1	--	<.010

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)
OCT										
10...	<.10	<.010	--	<.20	--	.010	2.5	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	<.10	.050	.25	.30	--	.010	--	--	--	--
10...	<.10	.110	.39	.50	--	.020	2.7	--	--	--
24...	.20	.050	.45	.50	.70	.020	3.4	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	.20	.050	.15	.20	.40	.020	--	--	--	--
24...	.20	.040	.16	.20	.40	.020	3.4	--	--	--
FEB										
26...	.10	.030	.47	.50	.60	.010	3.0	<1	60	<1
26...	.10	.060	.34	.40	.50	.010	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	<.10	.050	.25	.30	--	.010	2.3	<1	69	<1
AUG										
21...	.20	.020	.28	.30	.50	.010	3.5	1	78	<1
21...	.20	.030	.47	.50	.70	.030	--	--	--	--
21...	.20	.040	.36	.40	.60	.020	--	--	--	--
21...	.20	.040	.36	.40	.60	.010	3.4	1	76	<1

LAKE AUSTIN AT AUSTIN, TX--Continued

301926097502201 LAKE AUSTIN SITE CC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
10...	--	--	4	--	<1	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	10	--	20	--	--	--	--
10...	--	--	8	--	4	--	--	--	--
24...	--	--	7	--	<1	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	--	60	--	<10	--	--	--	--
24...	--	--	7	--	9	--	--	--	--
FEB									
26...	<10	<1	<3	<1	<1	<.1	<1	<1	12
26...	--	--	10	--	<10	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	<10	<1	<3	<1	<1	<.1	<1	<1	8
AUG									
21...	<10	<1	<3	2	4	<.1	<1	<1	6
21...	--	--	20	--	<10	--	--	--	--
21...	--	--	20	--	<10	--	--	--	--
21...	<10	2	<3	4	7	<.1	<1	<1	5

DATE	TIME	SAMPLING DEPTH (FEET)	AMETRYNE TOTAL	ATRAZINE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)	METHOMYL TOTAL (UG/L)	PROMETONE TOTAL (UG/L)
FEB							
26...	1030	1.00	<.10	<.10	<.10	<2.0	<.1
26...	1038	27.0	<.10	<.10	<.10	<2.0	<.1
AUG							
21...	1040	1.00	<.10	<.10	<.10	<2.0	<.1
21...	1046	25.0	<.10	<.10	<.10	<2.0	<.1

DATE	PROMETRYNE TOTAL (UG/L)	PROPAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMAZINE TOTAL (UG/L)	SIMETRYNE TOTAL (UG/L)
FEB						
26...	<.1	<.10	<2.0	<2.0	<.10	<.1
26...	<.1	<.10	<2.0	<2.0	<.10	<.1
AUG						
21...	<.1	<.10	<2.0	<2.0	<.10	<.1
21...	<.1	<.10	<2.0	<2.0	<.10	<.1

302021097540001 LAKE AUSTIN SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NITRATE TOTAL (MG/L AS N)
OCT									
10...	1215	1.00	584	8.1	25.0	2.50	5.8	71	--
10...	1217	12.0	586	8.1	24.5	--	5.6	68	--
24...	1150	1.00	472	7.6	19.5	.60	5.0	55	--
24...	1152	10.0	480	7.6	19.5	--	5.0	55	--
24...	1154	14.0	510	7.6	19.5	--	5.0	55	.19
FEB									
26...	1110	1.00	554	8.2	15.5	.90	7.4	75	.09
26...	1112	10.0	551	8.1	14.5	--	6.4	63	--
26...	1114	18.0	546	8.1	14.5	--	6.4	63	--
AUG									
21...	1145	1.00	533	7.6	20.5	3.8	4.5	51	--
21...	1148	10.0	533	7.6	20.0	--	4.4	49	--
21...	1150	15.0	533	7.6	20.0	--	4.0	45	--

COLORADO RIVER MAIN STEM

LAKE AUSTIN AT AUSTIN, TX--Continued

302021097540001 LAKE AUSTIN SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT									
10...	<.010	<.10	.020	.18	.20	--	.010	10	10
10...	<.010	<.10	.020	.28	.30	--	.010	70	20
24...	<.010	.20	.040	.26	.30	.50	.020	50	<10
24...	--	--	--	--	--	--	--	--	--
24...	.010	.20	.050	.75	.80	1.0	.020	70	10
FEB									
26...	.010	.10	.060	.34	.40	.50	.010	10	<10
26...	--	--	--	--	--	--	--	--	--
26...	<.010	.10	.080	.32	.40	.50	.010	20	10
AUG									
21...	<.010	.20	.030	.27	.30	.50	.010	10	10
21...	--	--	--	--	--	--	--	--	--
21...	<.010	.20	.030	.37	.40	.60	.010	10	<10

302314097544901 LAKE AUSTIN SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT										
10...	1240	1.00	593	8.0	24.5	2.00	8	1.5	5.0	61
10...	1242	8.00	591	8.0	24.0	--	7	2.0	5.1	61
24...	1215	1.00	463	7.8	17.0	.40	60	19	6.1	64
24...	1217	7.00	474	7.8	17.0	--	55	20	6.0	63
FEB										
26...	1135	1.00	561	8.5	15.0	1.00	10	4.8	9.0	90
26...	1140	8.00	565	8.5	14.5	--	25	17	9.3	92
AUG										
21...	1155	1.00	530	7.5	19.0	2.40	--	--	5.5	60
21...	1158	8.00	530	7.6	19.0	--	--	--	4.3	47

DATE	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
10...	.3	K9	K12	200	62	43	23	38	1	4.2
10...	.5	--	--	200	60	42	23	39	1	4.3
24...	1.2	200	190	180	46	44	16	26	.9	3.7
24...	1.2	--	--	180	56	44	16	26	.9	3.8
FEB										
26...	1.2	84	K19	220	63	55	21	33	1	3.5
26...	1.9	--	--	220	62	55	21	33	1	3.5
AUG										
21...	.4	K6	K15	210	61	50	21	33	1	3.6
21...	.4	--	--	--	--	--	--	--	--	--

DATE	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)
OCT										
10...	140	41	73	.30	4.6	310	2	1	--	<.010
10...	140	48	72	.30	4.7	320	<1	<1	--	<.010
24...	130	35	46	.20	6.0	250	15	3	.28	.020
24...	120	36	48	.20	6.2	250	4	1	.18	.020
FEB										
26...	161	43	55	.20	5.7	310	5	4	--	<.010
26...	162	44	56	.20	5.7	320	25	5	--	<.010
AUG										
21...	151	39	60	.20	6.9	300	--	--	--	<.010
21...	--	--	--	--	--	--	--	--	--	--

LAKE AUSTIN AT AUSTIN, TX--Continued

302314097544901 LAKE AUSTIN SITE EC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)
OCT										
10...	<.10	.050	.55	.60	--	.010	2.3	--	--	--
10...	<.10	.040	.16	.20	--	.010	2.6	--	--	--
24...	.30	.050	.45	.50	.80	.020	4.2	--	--	--
24...	.20	.060	--	<.20	--	.020	2.7	--	--	--
FEB										
26...	.20	.050	.35	.40	.60	.010	2.6	<1	68	<1
26...	.20	.050	.55	.60	.80	.020	3.9	<1	68	<1
AUG										
21...	.30	.030	.37	.40	.70	.020	3.9	1	76	<1
21...	--	--	--	--	--	--	--	--	--	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
10...	--	--	23	--	42	--	--	--	--
10...	--	--	29	--	64	--	--	--	--
24...	--	--	13	--	5	--	--	--	--
24...	--	--	8	--	3	--	--	--	--
FEB									
26...	<10	<1	<3	<1	2	<.1	<1	<1	9
26...	<10	<1	<3	<1	2	<.1	<1	3	5
AUG									
21...	<10	<1	<3	2	31	<.1	<1	<1	4
21...	--	--	--	--	--	--	--	--	--

DATE	TIME	SAM-PLING DEPTH (FEET)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)
FEB							
26...	1135	1.00	<.10	<.10	<.10	<2.0	<.1
26...	1140	8.00	<.10	<.10	<.10	<2.0	<.1
AUG							
21...	1155	1.00	<.10	<.10	<.10	<2.0	<.1

DATE	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
FEB						
26...	<.1	<.10	<2.0	<2.0	<.10	<.1
26...	<.1	<.10	<2.0	<2.0	<.10	<.1
AUG						
21...	<.1	<.10	<2.0	<2.0	<.10	<.1

COLORADO RIVER MAIN STEM

08157900 TOWN LAKE AT AUSTIN, TX

LOCATION.--Lat 30°14'56", long 97°43'03", Travis County, Hydrologic Unit 12090205, at Longhorn Dam on the Colorado River at Austin, 1.5 mi downstream from Interstate Highway 35, and 2.3 mi southeast of the State Capitol in Austin.

DRAINAGE AREA.--39,003 mi², approximately, of which 11,403 mi² probably is noncontributing.

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: February 1975 to current year.

301559097424801 TOWN LAKE AR

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT							
11...	0950	1.00	525	7.7	25.0	5.4	66
11...	0952	10.0	487	7.6	24.0	5.4	65
11...	0954	20.0	453	7.6	23.0	5.4	63
11...	0956	28.0	401	7.7	23.0	5.8	68
FEB							
25...	1110	1.00	382	8.1	16.0	7.0	71
25...	1112	10.0	382	8.2	15.5	7.0	70
25...	1114	21.0	452	8.1	15.5	7.0	70
JUN							
06...	1108	1.00	574	7.7	21.5	6.7	78
06...	1110	10.0	570	7.7	21.5	6.7	78
06...	1112	21.0	574	7.7	21.5	6.7	78
AUG							
20...	0910	1.00	555	7.7	24.0	6.5	78
20...	0912	10.0	555	7.6	23.0	5.7	67
20...	0914	18.0	555	7.5	23.0	4.5	53

301500097424801 TOWN LAKE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT										
11...	0900	1.00	475	7.6	25.0	.20	70	46	5.4	66
11...	0902	10.0	425	7.6	23.0	--	--	--	5.9	69
11...	0904	20.0	345	7.6	22.0	--	--	--	6.1	70
11...	0906	30.0	349	7.3	22.0	--	250	160	6.2	71
FEB										
25...	1020	1.00	377	8.0	16.0	.30	50	34	7.0	71
25...	1022	10.0	365	8.1	15.5	--	--	--	7.0	70
25...	1024	20.0	452	8.1	15.5	--	--	--	6.9	69
25...	1026	28.0	533	8.0	15.0	--	25	15	6.0	60
JUN										
06...	1015	1.00	543	7.7	21.5	.40	12	12	6.6	77
06...	1018	10.0	548	7.7	21.5	--	--	--	7.5	87
06...	1020	20.0	550	7.7	21.5	--	--	--	7.5	87
06...	1022	23.0	552	7.7	21.5	--	8	120	7.4	86
AUG										
20...	0830	1.00	555	7.7	24.0	1.60	5	1.9	6.3	76
20...	0832	10.0	555	7.6	23.0	--	--	--	5.4	64
20...	0834	15.0	555	7.6	23.0	--	--	--	5.1	60
20...	0836	20.0	555	7.5	22.5	--	--	--	4.9	57
20...	0838	25.0	555	7.5	22.5	--	5	1.0	4.8	56

COLORADO RIVER MAIN STEM

TOWN LAKE AT AUSTIN, TX--Continued

301500097424801 TOWN LAKE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
11...	1.0	K6500	K13000	160	45	38	17	29	1	3.7
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	1.5	--	--	120	21	32	10	19	.8	3.6
FEB										
25...	1.5	K6000	3700	180	32	52	12	11	.4	2.2
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	1.2	--	--	250	53	70	18	18	.5	2.1
JUN										
06...	1.2	1960	1600	200	67	47	20	34	1	3.8
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	1.1	--	--	200	68	48	20	35	1	3.9
AUG										
20...	.4	150	23	200	48	46	21	33	1	3.5
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	.1	--	--	210	61	51	21	32	1	3.8

DATE	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)
OCT										
11...	120	36	53	.30	5.3	250	36	8	--	<.010
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	<.010
11...	100	27	33	.20	4.6	190	104	21	--	<.010
FEB										
25...	148	26	18	.20	8.4	220	25	7	.39	.010
25...	--	--	--	--	--	--	--	--	.39	.010
25...	--	--	--	--	--	--	--	--	.49	.010
25...	196	35	30	.20	7.0	300	11	6	.49	.010
JUN										
06...	133	43	61	.20	5.7	290	15	7	--	<.010
06...	--	--	--	--	--	--	--	--	--	<.010
06...	--	--	--	--	--	--	--	--	--	--
06...	135	47	66	.20	5.9	310	226	28	--	<.010
AUG										
20...	154	39	63	.20	7.1	310	4	3	--	<.010
20...	--	--	--	--	--	--	--	--	--	<.010
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	<.010
20...	153	38	61	.30	7.3	310	18	6	.29	.010

301500097424801 TOWN LAKE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)
OCT										
11...	.20	.040	.46	.50	.70	.070	3.6	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	.60	.060	.64	.70	1.3	.170	--	--	--	--
11...	.60	.070	.63	.70	1.3	.180	5.6	--	--	--
FEB										
25...	.40	.090	.41	.50	.90	.030	4.2	<1	44	<1
25...	.40	.080	.52	.60	1.0	<.010	--	--	--	--
25...	.50	.090	.41	.50	1.0	.020	--	--	--	--
25...	.50	.140	.26	.40	.90	.020	2.3	<1	61	<1
JUN										
06...	.40	.070	.53	.60	1.0	.040	5.0	<1	73	<1
06...	.40	.060	.44	.50	.90	.040	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	.40	.060	.34	.40	.80	.100	10	<1	76	<1
AUG										
20...	.30	.030	.37	.40	.70	.010	2.5	1	75	<1
20...	.30	.050	.35	.40	.70	.010	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	.30	.060	.34	.40	.70	<.010	--	--	--	--
20...	.30	.080	.42	.50	.80	.040	2.7	1	77	<1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
11...	--	--	25	--	<1	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
11...	--	--	50	--	10	--	--	--	--
11...	--	--	39	--	4	--	--	--	--
FEB									
25...	<10	2	210	<1	10	<.1	<1	<1	5
25...	--	--	120	--	10	--	--	--	--
25...	--	--	90	--	<10	--	--	--	--
25...	<10	2	13	5	10	<.1	<1	1	19
JUN									
06...	<10	2	12	<1	5	<.1	1	<1	5
06...	--	--	20	--	10	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	<10	1	34	5	36	<.1	<1	<1	5
AUG									
20...	<10	1	<3	1	6	<.1	<1	<1	12
20...	--	--	210	--	<10	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	20	--	<10	--	--	--	--
20...	<10	2	4	<1	6	<.1	<1	<1	7

COLORADO RIVER MAIN STEM

TOWN LAKE AT AUSTIN, TX--Continued

301500097424801 TOWN LAKE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	TIME	SAMPLING DEPTH (FEET)	AMETRYNE TOTAL	ATRAZINE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)	METHOMYL TOTAL (UG/L)	PROMETONE TOTAL (UG/L)
OCT							
11...	0900	1.00	--	--	--	--	--
11...	0902	10.0	--	--	--	--	--
11...	0904	20.0	--	--	--	--	--
11...	0906	30.0	--	--	--	--	--
FEB							
25...	1020	1.00	<.10	<.10	<.10	<2.0	.1
25...	1022	10.0	--	--	--	--	--
25...	1024	20.0	--	--	--	--	--
25...	1026	28.0	<.10	<.10	<.10	<2.0	.1
JUN							
06...	1015	1.00	<.10	<.10	<.10	<2.0	<.1
06...	1018	10.0	--	--	--	--	--
06...	1020	20.0	--	--	--	--	--
06...	1022	23.0	--	--	--	--	--
AUG							
20...	0830	1.00	<.10	<.10	<.10	<2.0	<.1
20...	0832	10.0	--	--	--	--	--
20...	0834	15.0	--	--	--	--	--
20...	0836	20.0	--	--	--	--	--
20...	0838	25.0	<.10	<.10	<.10	<2.0	<.1

DATE	PROMETRYNE TOTAL (UG/L)	PROPAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMAZINE TOTAL (UG/L)	SIMETRYNE TOTAL (UG/L)
OCT						
11...	--	--	--	--	--	--
11...	--	--	--	--	--	--
11...	--	--	--	--	--	--
11...	--	--	--	--	--	--
FEB						
25...	<.1	<.10	<2.0	<2.0	<.10	<.1
25...	--	--	--	--	--	--
25...	--	--	--	--	--	--
25...	<.1	<.10	<2.0	<2.0	<.10	<.1
JUN						
06...	<.1	<.10	<2.0	<2.0	<.10	<.1
06...	--	--	--	--	--	--
06...	--	--	--	--	--	--
06...	--	--	--	--	--	--
AUG						
20...	<.1	<.10	<2.0	<2.0	<.10	<.1
20...	--	--	--	--	--	--
20...	--	--	--	--	--	--
20...	--	--	--	--	--	--
20...	<.1	<.10	<2.0	<2.0	<.10	<.1

301503097424701 TOWN LAKE AL

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT							
11...	0940	1.00	510	7.6	25.0	5.3	65
11...	0942	10.0	418	7.7	23.0	5.9	69
11...	0944	22.0	341	7.7	22.0	6.1	70
FEB							
25...	1100	1.00	382	8.1	17.0	7.2	75
25...	1102	10.0	366	8.1	15.5	7.1	71
25...	1104	21.0	476	8.0	15.5	7.0	70
JUN							
06...	1100	1.00	560	7.7	21.5	6.0	70
06...	1102	10.0	556	7.7	21.5	6.1	71
06...	1104	17.0	560	7.7	21.5	6.1	71
AUG							
20...	0925	1.00	550	7.3	24.5	6.5	79
20...	0928	10.0	551	7.6	23.5	5.7	68
20...	0930	15.0	551	7.6	23.5	5.5	65
20...	0932	19.0	551	7.6	23.0	4.7	55

TOWN LAKE AT AUSTIN, TX--Continued

301500097440801 TOWN LAKE BR

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT							
11...	1015	1.00	491	7.7	24.0	5.5	66
11...	1017	10.0	311	7.8	21.5	6.2	71
11...	1019	14.0	296	7.8	21.5	6.2	71
FEB							
25...	1130	1.00	416	8.1	15.0	7.1	71
25...	1132	10.0	482	8.2	14.5	7.1	70
25...	1134	13.0	506	8.2	14.5	7.1	70
JUN							
06...	1125	1.00	440	7.6	21.5	6.3	73
06...	1127	12.0	463	7.6	21.5	6.5	75
AUG							
20...	0955	1.00	548	7.6	23.5	5.8	69
20...	0958	10.0	548	7.6	23.0	5.6	66
20...	1000	15.0	548	7.6	23.0	5.5	65

301504097440901 TOWN LAKE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT							
11...	1000	1.00	500	7.7	24.5	5.5	66
11...	1002	10.0	428	7.7	23.0	5.8	68
11...	1004	15.0	394	7.8	22.5	5.9	69
11...	1006	20.0	292	7.8	22.0	6.0	69
11...	1008	28.0	296	7.8	21.0	6.2	70
FEB							
25...	1120	1.00	440	8.2	15.0	7.2	72
25...	1122	10.0	470	8.3	14.5	7.2	71
25...	1124	15.0	470	8.2	14.5	7.2	71
25...	1126	20.0	506	8.3	14.5	7.3	72
25...	1128	27.0	511	8.3	14.5	7.2	71
JUN							
06...	1115	1.00	430	7.6	21.5	6.5	75
06...	1118	10.0	430	7.6	21.5	6.6	77
06...	1120	20.0	448	7.6	21.5	6.6	77
06...	1122	25.0	462	7.7	21.5	6.6	77
AUG							
20...	0945	1.00	548	7.6	23.5	5.9	70
20...	0948	10.0	548	7.6	23.0	5.6	66
20...	0950	20.0	548	7.6	23.0	5.5	65
20...	0952	25.0	548	7.5	23.0	5.1	60

301544097445201 TOWN LAKE CR

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT							
11...	1045	1.00	288	7.8	21.0	6.3	71
11...	1047	6.00	288	7.8	21.0	6.2	70
FEB							
25...	1155	1.00	520	8.2	14.5	7.6	75
25...	1157	8.00	524	8.2	14.5	7.4	73
JUN							
06...	1140	1.00	520	7.6	21.5	6.0	70
06...	1142	7.00	520	7.6	21.5	5.7	66
AUG							
20...	1015	1.00	548	7.5	22.5	5.3	62
20...	1018	10.0	548	7.5	22.0	5.2	60

COLORADO RIVER MAIN STEM

TOWN LAKE AT AUSTIN, TX--Continued

301546097445101 TOWN LAKE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT							
11...	1030	1.00	291	7.8	21.0	6.5	73
11...	1032	10.0	298	7.9	21.0	6.4	72
11...	1034	16.0	282	7.8	21.0	6.3	71
FEB							
25...	1145	1.00	520	8.2	15.0	7.6	76
25...	1147	10.0	527	8.2	14.0	7.6	74
25...	1149	13.0	530	8.2	14.5	7.5	74
JUN							
06...	1130	1.00	535	7.7	21.5	6.1	71
06...	1132	10.0	538	7.7	21.5	6.1	71
06...	1134	15.0	515	7.7	21.5	5.9	69
AUG							
20...	1005	1.00	548	7.6	22.0	5.3	61
20...	1008	10.0	548	7.5	22.0	5.2	60
20...	1010	14.0	548	7.5	22.0	5.0	58

301556097452301 TOWN LAKE DR

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT							
11...	1130	1.00	466	7.9	23.0	6.0	70
11...	1132	10.0	255	7.8	20.5	6.4	71
FEB							
25...	1240	1.00	520	8.2	14.5	7.4	73
25...	1242	10.0	526	8.2	14.0	7.5	73
25...	1244	14.0	527	8.2	14.0	7.4	72
JUN							
06...	1200	1.00	545	7.5	21.5	6.1	71
06...	1202	10.0	541	7.5	21.0	6.2	71
06...	1204	16.0	538	7.6	21.0	6.2	71
AUG							
20...	1040	1.00	550	7.4	22.5	5.1	60
20...	1042	10.0	545	7.5	22.0	5.1	59

301558097452201 TOWN LAKE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT										
11...	1100	1.00	465	7.8	22.5	.20	100	63	6.1	71
11...	1102	10.0	252	7.8	20.5	--	--	--	6.4	71
11...	1104	19.0	269	7.7	20.5	--	500	410	6.2	69
FEB										
25...	1200	1.00	519	8.2	14.5	.60	25	18	7.5	74
25...	1202	10.0	537	8.3	14.0	--	--	--	7.6	74
25...	1206	19.0	539	8.2	14.0	--	60	36	7.4	72
JUN										
06...	1145	1.00	533	7.6	21.0	.20	8	40	6.3	72
06...	1148	10.0	540	7.6	21.0	--	--	--	6.3	72
06...	1150	20.0	548	7.6	21.0	--	8	61	6.3	72
AUG										
20...	1025	1.00	548	7.5	22.5	1.70	5	2.0	5.4	63
20...	1028	10.0	548	7.5	22.0	--	--	--	5.3	61
20...	1030	15.0	543	7.6	22.0	--	5	4.9	5.1	59

301558097452201 TOWN LAKE DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
11...	1.2	K7000	7100	160	55	38	17	28	1	3.9
11...	--	--	--	--	--	--	--	--	--	--
11...	3.4	--	--	130	27	39	7.2	9.4	.4	3.5
FEB										
25...	.8	K1500	840	250	41	73	17	14	.4	1.8
25...	--	--	--	--	--	--	--	--	--	--
25...	.9	--	--	240	45	66	19	20	.6	2.2
JUN										
06...	.9	1160	K720	200	67	48	20	33	1	3.7
06...	--	--	--	--	--	--	--	--	--	--
06...	1.0	--	--	200	66	48	20	34	1	3.8
AUG										
20...	.4	230	42	210	50	50	20	33	1	3.8
20...	--	--	--	--	--	--	--	--	--	--
20...	.4	--	--	210	59	50	21	33	1	3.8

DATE	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)
OCT										
11...	110	37	55	.20	5.4	250	49	12	--	<.010
11...	--	--	--	--	--	--	--	--	1.3	.020
11...	100	24	15	.10	7.2	170	--	43	1.4	.020
FEB										
25...	212	29	23	.20	7.9	290	21	11	--	<.010
25...	--	--	--	--	--	--	--	--	--	<.010
25...	198	34	32	.20	7.2	300	72	18	--	<.010
JUN										
06...	135	42	59	.20	6.0	290	--	--	--	<.010
06...	--	--	--	--	--	--	--	--	--	<.010
06...	136	41	62	.20	6.0	300	--	--	--	<.010
AUG										
20...	157	37	60	.20	7.1	310	3	3	--	<.010
20...	--	--	--	--	--	--	--	--	--	<.010
20...	153	39	62	.20	7.1	310	8	6	--	<.010

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT									
11...	.40	.020	.38	.40	.80	.060	4.5	23	<1
11...	1.3	.030	1.3	1.3	2.6	.210	--	730	70
11...	1.4	.050	1.8	1.8	3.2	.190	16	300	34
FEB									
25...	.60	.050	.35	.40	1.0	.010	2.6	6	6
25...	.50	.050	.35	.40	.90	.010	--	30	<10
25...	.5D	.080	.62	.70	1.2	.030	3.4	8	8
JUN									
06...	.40	.050	.35	.40	.80	.070	4.7	10	5
06...	.40	.060	.24	.30	.70	.060	--	30	<10
06...	.40	.050	.45	.50	.90	.090	5.2	5	5
AUG									
20...	.30	.050	.35	.40	.70	.010	2.5	<3	5
20...	.30	.050	25	.30	.60	.010	--	20	10
20...	.30	.040	.36	.40	.70	.010	2.9	<3	8

COLORADO RIVER MAIN STEM

TOWN LAKE AT AUSTIN, TX--Continued

301712097470701 TOWN LAKE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT												
11...	1210	1.00	578	7.8	23.5	1.50	5	1.6	5.6	66	.5	K620
11...	1212	10.0	553	7.3	22.5	--	--	--	5.4	63	--	--
11...	1214	13.0	565	6.8	21.0	--	45	20	5.4	61	.6	--
FEB												
25...	1300	1.00	559	8.0	15.0	.90	15	7.0	7.3	73	1.1	480
25...	1304	13.0	--	--	--	--	17	6.5	--	--	.8	--
JUN												
06...	1220	1.00	596	7.8	21.0	.90	5	3.9	6.9	79	.7	192
06...	1222	10.0	596	7.8	21.0	--	--	--	6.9	79	--	--
06...	1224	19.0	596	7.8	21.0	--	5	13	6.9	79	.6	--
AUG												
20...	1100	1.00	548	7.7	23.0	1.86	5	1.9	6.1	72	.3	21
20...	1102	13.0	548	7.6	23.0	--	5	2.0	5.9	70	.5	--

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT												
11...	3000	200	62	43	23	38	1	4.1	140	45	70	.30
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	250	19	70	18	14	.4	2.0	230	<15	26	.20
FEB												
25...	740	240	61	66	19	22	.6	2.6	182	41	41	.20
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
06...	292	210	68	49	22	39	1	4.0	145	46	72	.20
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	210	70	49	22	38	1	4.0	143	49	71	.20
AUG												
20...	K123	210	55	49	21	32	1	3.8	154	37	62	.20
20...	--	210	59	50	21	33	1	3.6	153	39	62	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT												
11...	5.7	310	2	1	<.010	<.10	.030	.17	.20	--	.010	2.5
11...	--	--	--	--	<.010	.60	.030	.37	.40	1.0	.030	--
11...	9.0	--	24	4	<.010	2.0	.010	.79	.80	2.8	.050	3.2
FEB												
25...	6.3	310	8	3	<.010	.50	.040	.36	.40	.90	.030	2.8
25...	--	--	7	2	<.010	.40	.060	.34	.40	.80	.010	2.9
JUN												
06...	5.9	330	24	12	<.010	.30	.040	.36	.40	.70	.010	4.1
06...	--	--	--	--	<.010	.30	.030	.37	.40	.70	.010	--
06...	5.8	320	9	6	<.010	.30	.030	.47	.50	.80	.010	5.9
AUG												
20...	6.9	300	4	3	<.010	.30	.030	.37	.40	.70	<.010	2.6
20...	6.8	310	1	1	<.010	.30	.030	.27	.30	.60	<.010	2.7

COLORADO RIVER MAIN STEM

TOWN LAKE AT AUSTIN, TX--Continued

301712097470701 TOWN LAKE EC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT												
11...	--	--	--	--	--	<3	--	<1	--	--	--	--
11...	--	--	--	--	--	20	--	10	--	--	--	--
11...	--	--	--	--	--	8	--	<1	--	--	--	--
FEB												
25...	<1	65	<1	<10	<1	33	<1	<1	<.1	<1	<1	10
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
06...	<1	83	<1	<10	1	6	<1	1	<.1	<1	<1	3
06...	--	--	--	--	--	10	--	<10	--	--	--	--
06...	--	--	--	--	--	3	--	2	--	--	--	--
AUG												
20...	1	78	<1	<10	2	<3	<1	2	<.1	<1	<1	7
20...	<1	75	<1	<10	2	<3	3	5	<.1	<1	<1	<3

DATE	TIME	SAM-PLING DEPTH (FEET)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)
OCT							
11...	1210	1.00	--	--	--	--	--
11...	1212	10.0	--	--	--	--	--
11...	1214	13.0	--	--	--	--	--
FEB							
25...	1300	1.00	<.10	<.10	<.10	<2.0	<.1
25...	1304	13.0	<.10	<.10	<.10	<2.0	<.1
JUN							
06...	1220	1.00	<.10	<.10	<.10	<2.0	<.1
06...	1222	10.0	--	--	--	--	--
06...	1224	19.0	--	--	--	--	--
AUG							
20...	1100	1.00	<.10	<.10	<.10	<2.0	<.1
20...	1102	13.0	<.10	<.10	<.10	<2.0	<.1

DATE	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
OCT						
11...	--	--	--	--	--	--
11...	--	--	--	--	--	--
11...	--	--	--	--	--	--
FEB						
25...	<.1	<.10	<2.0	<2.0	<.10	<.1
25...	<.1	<.10	<2.0	<2.0	<.10	<.1
JUN						
06...	<.1	<.10	<2.0	<2.0	<.10	<.1
06...	--	--	--	--	--	--
06...	--	--	--	--	--	--
AUG						
20...	<.1	<.10	<2.0	<2.0	<.10	<.1
20...	<.1	<.10	<2.0	<2.0	<.10	<.1

301601097454001 TOWN LAKE FC

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT							
11...	1135	1.00	294	7.5	21.0	6.1	69
FEB							
25...	1250	1.00	498	8.1	15.5	7.4	74
JUN							
06...	1210	1.00	420	7.2	22.0	5.3	62
AUG							
20...	1120	1.00	631	7.2	23.5	8.5	101

COLORADO RIVER MAIN STEM

08158000 COLORADO RIVER AT AUSTIN, TX
(National stream-quality accounting network)

LOCATION.--Lat 30°14'40", long 97°41'39", Travis County, Hydrologic Unit 12090205, on right bank 1,000 ft upstream from upstream bridge on U.S. Highway 183 in Austin, 1.4 mi downstream from Longhorn Dam, and at mile 290.3.

DRAINAGE AREA.-39,009 mi^2, approximately, of which 11,403 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1898 to current year. Records of daily discharge for Dec. 13-26, 1914, and Feb. 9-17, 1915, published in WSP 408, have been found unreliable and should not be used.

REVISED RECORDS.--WSP 508: 1915(m). WSP 528: 1900(M), 1918(m). WSP 548: 1901-16. WSP 1342: Drainage area. WSP 1562: 1908, 1929(M), 1936.

GAGE.--Water-stage recorder. Datum of gage is 402.27 ft above National Geodetic Vertical Datum of 1929. Prior to June 19, 1939, all records collected at or near Congress Avenue Bridge 3.9 mi upstream at datum 19.6 ft higher; prior to June 18, 1915, nonrecording gages, recording gages thereafter; June 20, 1939, to Oct. 16, 1963, at site 1,000 ft downstream from present site at datum 5.0 ft higher.

REMARKS.--Estimated daily discharge: May 4-6. Records fair. Flow largely regulated by Lake Travis (station 08154500) 28 miles upstream. Since 1937, at least 10 percent of drainage area has been regulated by upstream reservoirs. The city of Austin diverts water for municipal use upstream from station and returns sewage effluent downstream. There many other diversions above Lake Buchanan for irrigation, municipal supplies, and oilfield operations. Gage-height telemeter at station.

AVERAGE DISCHARGE.--38 years (water years 1899-1936) unregulated, 2,711 ft^3/s (1,964,000 acre-ft/yr); 49 years (water years 1937-85) regulated, 1,946 ft^3/s (1,410,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 481,000 ft^3/s June 15, 1935 (gage height, 50 ft, present site and datum, from floodmark); minimum daily, 2.4 ft^3/s Feb. 28, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1833, 51 ft July 7, 1869, present site and datum (adjusted to present site on basis of record for flood of June 15, 1935), determined from information concerning stage at former site furnished by Dean T. U. Taylor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,600 ft^3/s Oct. 11 at 0030 hours (gage height, 11.77 ft); minimum daily, 58 ft^3/s Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	699	219	136	524	224	526	1320	1330	2570	1660	1410	1600
2	659	204	121	488	219	805	1250	1480	2450	1650	1370	1590
3	648	178	110	458	222	413	1330	1320	2310	1720	1620	1460
4	650	170	102	366	228	401	1280	1350	2250	1900	1550	1400
5	634	139	160	344	222	366	1260	1500	2450	1350	1670	1690
6	669	130	116	315	211	597	1270	1480	4350	1160	1660	1400
7	1260	143	110	316	202	346	1250	1370	727	1150	1700	1270
8	772	139	99	295	192	338	1270	1570	2150	1120	1730	1330
9	397	118	130	271	195	323	1240	1730	2130	1110	1720	1110
10	627	141	130	276	228	314	1260	1690	2060	1150	1680	1110
11	1840	124	141	264	249	303	1620	1870	2070	1130	1840	1310
12	207	124	136	250	202	296	1270	1910	2050	1170	1710	1240
13	1060	117	179	266	197	816	1430	2250	2010	1370	1850	1200
14	831	117	136	287	191	2150	1310	1900	1990	1380	1950	1350
15	181	124	174	269	190	2090	1270	1710	2000	1370	1890	1170
16	99	124	961	295	183	1490	1260	1740	1960	1410	1770	1050
17	62	133	619	411	190	2060	1260	1650	1940	1320	1900	1010
18	74	176	404	396	187	2060	1220	1450	1780	1310	1850	955
19	58	92	429	351	184	2040	1180	1430	1860	1320	1870	938
20	1730	106	282	331	180	2790	1140	1460	1780	1260	1870	781
21	2640	118	272	312	184	2120	1210	1700	1780	1230	1880	989
22	989	94	241	275	294	2060	1390	1570	2770	1250	1870	1110
23	912	87	239	290	3480	2100	1260	1560	2020	1240	1560	1010
24	740	239	234	262	982	1990	1190	1540	1760	1270	2100	969
25	600	405	198	274	547	1800	1200	1760	1720	1290	2010	994
26	338	485	196	268	904	2030	1310	1730	1690	1290	1980	967
27	589	726	197	269	429	2130	1230	1940	1660	1300	1930	785
28	270	594	238	257	527	1940	1260	2030	1630	1310	1630	626
29	254	316	207	253	---	1810	1250	2150	1630	903	1650	991
30	250	194	200	252	---	1440	1400	2210	1770	1330	1640	568
31	206	---	469	236	---	1300	---	2130	---	1800	1600	---
TOTAL	20945	6076	7366	9721	11443	41244	38390	52510	61317	41223	54460	33973
MEAN	676	203	238	314	409	1330	1280	1694	2044	1330	1757	1132
MAX	2640	726	961	524	3480	2790	1620	2250	4350	1900	2100	1690
MIN	58	87	99	236	180	296	1140	1320	727	903	1370	568
AC-FT	41540	12050	14610	19280	22700	81810	76150	104200	121600	81770	108000	67390

CAL YR 1984 TOTAL 379829.2 MEAN 1038 MAX 3670 MIN 2.4 AC-FT 753400
WTR YR 1985 TOTAL 378668.0 MEAN 1037 MAX 4350 MIN 58 AC-FT 751100

08158000 COLORADO RIVER AT AUSTIN, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1947 to October 1973. Chemical and biochemical analyses: October 1973 to current year. Sediment records: October 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1947 to current year.
WATER TEMPERATURES: October 1947 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 795 microsiemens Mar. 10, 1984; minimum daily, 243 microsiemens Dec. 2, 1953.
WATER TEMPERATURES: Maximum daily, 33.0°C July 25, 1979; minimum daily, 5.0°C Jan. 3, 1984.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 635 microsiemens Dec. 26; minimum daily, 340 microsiemens Oct. 11.
WATER TEMPERATURES: Maximum daily, 25.5°C June 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT												
23...	1225	1880	407	7.8	21.0	20	6.0	68	1.1	K1800	1100	160
FEB												
21...	0925	184	575	7.7	19.0	.90	7.0	76	.3	120	540	270
JUL												
03...	0915	2970	588	7.7	22.0	2.1	5.6	65	.7	124	224	220
AUG												
22...	1100	286	566	8.0	26.0	1.3	11.0	138	.4	51	71	210

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT											
23...	48	44	13	19	.7	3.3	116	34	32	.20	7.1
FEB											
21...	43	73	20	19	.5	1.6	223	37	29	.20	7.1
JUL											
03...	66	51	22	37	1	3.8	153	46	65	.20	6.7
AUG											
22...	58	51	21	34	1	3.7	157	39	59	.20	7.7

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
23...	238	220	.45	.100	.60	.050	.030	<.010	21	107	95
FEB											
21...	323	320	.68	.070	.50	<.010	.010	<.010	11	5.5	19
JUL											
03...	348	320	.36	.060	.50	<.010	<.010	<.010	25	200	29
AUG											
22...	345	310	.25	.080	.50	.020	<.010	<.010	5	3.9	68

COLORADO RIVER MAIN STEM

08158000 COLORADO RIVER AT AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT										
23...	1225	<1	45	<.0	<1	1	<3	1	16	2
FEB										
21...	0925	<1	59	<.5	<1	1	<3	3	5	<1
JUL										
03...	0915	<1	82	<.5	<1	<1	<3	2	<3	6
AUG										
22...	1100	1	79	<.5	<1	<1	<3	2	6	<1

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
23...	11	6	<.1	<10	<1	<1	4	340	<6	<3
FEB										
21...	10	10	<.1	<10	<1	<1	<1	490	<6	11
JUL										
03...	14	6	<.1	<10	<1	<1	<1	510	<6	6
AUG										
22...	14	19	<.1	<10	<1	<1	<1	500	<6	18

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1984 TO SEPTEMBER 1985

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1984	20945	492	269	15200	43	2430	32	1790	190
NOV.	1984	6076	496	272	4460	43	707	32	521	200
DEC.	1984	7366	604	328	6520	56	1120	40	793	230
JAN.	1985	9721	600	325	8540	56	1460	40	1040	230
FEB.	1985	11443	562	306	9450	51	1570	37	1130	220
MAR.	1985	41244	561	306	34000	51	5660	37	4080	220
APR.	1985	38390	596	323	33500	55	5710	39	4060	230
MAY	1985	52510	592	321	45500	55	7730	39	5510	230
JUNE	1985	61317	564	307	50800	51	8480	37	6100	220
JULY	1985	41223	582	316	35200	53	5940	38	4250	220
AUG.	1985	54460	566	308	45300	51	7550	37	5430	220
SEPT	1985	33973	546	298	27300	49	4490	35	3250	210
TOTAL		378668	**	**	316000	**	52800	**	37900	**
WTD.AVG.		1037	568	309	**	52	**	37	**	220

08158000 COLORADO RIVER AT AUSTIN, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	586	517	529	594	615	550	595	596	600	589	574	552
2	588	432	542	590	617	541	603	433	598	589	573	559
3	592	473	550	592	608	549	597	601	602	591	577	550
4	583	413	563	595	600	555	590	595	595	581	572	552
5	593	517	555	597	604	559	580	601	426	580	572	556
6	589	515	583	600	607	551	593	595	568	578	573	555
7	572	508	599	598	610	560	602	599	565	582	571	551
8	567	512	615	601	612	563	604	596	415	579	570	549
9	580	520	622	602	605	567	605	597	540	588	575	546
10	587	506	633	597	583	569	598	598	548	580	572	548
11	340	511	628	600	559	572	595	598	550	581	570	543
12	417	515	630	604	565	575	598	602	537	580	565	545
13	455	520	612	600	568	560	599	601	545	581	560	544
14	477	523	620	593	574	545	568	594	565	582	551	541
15	464	518	615	598	575	547	583	591	576	584	568	544
16	470	521	580	596	577	560	598	592	579	582	568	541
17	483	511	591	584	569	552	590	590	584	582	567	542
18	505	495	603	593	571	554	600	589	595	580	564	549
19	502	515	600	599	573	555	599	590	586	584	564	543
20	540	510	614	603	579	547	600	592	591	580	565	542
21	450	500	618	606	575	558	598	591	594	584	560	545
22	347	517	622	611	570	562	600	590	593	579	563	547
23	445	528	625	604	535	560	584	592	518	584	565	542
24	477	512	627	607	550	568	602	597	568	582	566	542
25	440	501	633	602	561	571	604	595	587	573	564	540
26	498	484	635	606	555	565	586	598	586	580	564	538
27	445	477	631	605	563	560	599	600	586	581	561	545
28	465	485	622	609	549	576	601	599	588	581	560	540
29	485	503	628	612	---	582	601	601	587	580	561	532
30	497	514	630	614	---	590	602	599	585	579	553	513
31	533	---	607	613	---	597	---	598	---	578	556	---
MEAN	502	502	605	601	580	562	596	591	565	582	566	545

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0						---	19.5	---	19.5	---	21.0
2	20.0						16.5	20.5	---	16.0	---	21.0
3	20.0						15.5	20.5	---	16.5	23.0	24.0
4	20.5						---	20.5	---	16.0	23.5	24.0
5	21.5						---	21.0	24.5	16.0	23.0	22.0
6	21.5						---	21.0	---	16.0	22.0	22.0
7	21.5						---	19.0	---	16.0	22.0	23.0
8	21.5						---	19.0	25.5	16.5	22.0	22.0
9	21.0						---	20.5	23.5	21.0	22.0	22.0
10	23.0						18.0	20.0	23.5	21.0	23.0	24.0
11	22.0						16.5	20.0	24.0	20.5	23.0	23.0
12	23.5						16.5	19.0	23.5	22.0	23.0	22.0
13	23.5						---	20.0	23.0	21.0	21.5	22.0
14	21.5						15.5	19.5	---	---	22.0	22.0
15	21.5						---	21.0	23.5	15.0	22.0	22.0
16	22.0						16.5	19.5	18.0	21.0	23.0	22.0
17	20.5						19.0	19.5	19.5	22.0	21.5	21.0
18	24.5						19.5	20.5	19.5	---	21.0	22.0
19	22.0						---	19.5	19.0	23.0	23.0	21.5
20	23.0						18.5	19.0	21.0	20.5	22.0	22.0
21	22.0						19.0	20.5	18.0	13.0	22.0	21.0
22	19.0						19.0	20.5	18.0	22.0	22.0	22.0
23	19.0						19.5	19.5	18.5	22.0	23.0	24.5
24	18.5						19.5	19.0	18.0	20.5	22.0	21.5
25	19.0						19.5	18.0	20.0	21.5	---	21.5
26	19.0						19.5	20.0	20.0	23.5	21.5	21.0
27	---						20.5	19.5	18.0	23.0	23.0	22.0
28	---						20.5	19.5	18.5	---	22.0	21.5
29	---						20.0	20.0	16.0	21.5	21.5	22.0
30	---						19.0	20.5	16.5	21.5	21.5	21.0
31	---						---	21.5	---	21.0	22.0	---
MEAN	21.0						18.5	20.0	20.5	19.5	22.5	22.0

COLORADO RIVER MAIN STEM

08158650 COLORADO RIVER BELOW AUSTIN, TX
(Low-flow partial-record station)

LOCATION.--Lat 30°12'28", long 97°38'15", Travis County, Hydrologic Unit 12090205, at bridge on Farm Road 973, 0.3 mi northeast of intersection of State Highway 71 and Farm Road 973, 8.8 mi downstream from Govalle Sewage Treatment Plant outfall, and 9.6 mi downstream from gaging station at Austin.

PERIOD OF RECORD.--Chemical and biochemical analyses: February 1968 to current year. Pesticide analyses: October 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
OCT 24...	1000	487	7.6	19.0	70	43	6.4	70	2.6	1000	2500	190
DEC 11...	0900	648	7.4	17.0	25	2.5	4.6	48	4.8	K17	K7	230
FEB 21...	1215	650	7.4	18.5	8	1.7	6.2	67	5.1	100	46	260
APR 16...	1010	599	8.2	20.5	2	2.0	9.8	110	.4	88	88	230
JUL 03...	1300	544	7.6	23.5	10	59	6.5	77	1.3	2800	1800	210
AUG 23...	1520	583	8.0	28.0	7	1.5	10.2	132	.5	59	120	220

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT 24...	54	55	12	24	.8	3.5	133	46	39	.40	8.3
DEC 11...	64	64	18	42	1	5.0	170	55	58	.80	7.9
FEB 21...	55	73	18	36	1	3.9	202	55	49	.90	7.1
APR 16...	72	57	21	35	1	3.6	157	55	61	.30	5.8
JUL 03...	59	56	18	33	1	3.9	155	47	57	.30	6.4
AUG 23...	65	53	21	36	1	4.0	154	42	62	.30	7.7

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 24...	270	62	13	1.5	.130	1.6	.410	.89	1.3	.520	4.3
DEC 11...	350	8	4	1.9	.310	2.2	2.50	.60	3.1	2.30	6.1
FEB 21...	360	4	4	2.6	.360	3.0	1.40	.60	2.0	1.90	3.8
APR 16...	330	23	10	.73	.070	.80	.120	.68	.80	.280	3.2
JUL 03...	310	87	16	.66	.040	.70	.110	.69	.80	.250	4.1
AUG 23...	320	4	2	.71	.090	.80	.110	.39	.50	.330	3.4

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
OCT 24...	1000	<1	54	<1	<10	2	19
FEB 21...	1215	1	55	<1	<10	1	10
JUL 03...	1300	<1	69	<1	<10	2	8
AUG 23...	1520	1	76	<1	<10	1	3

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 24...	3	17	<.1	<1	2	8
FEB 21...	<1	24	<.1	<1	1	13
JUL 03...	7	6	.1	<1	<1	11
AUG 23...	<1	6	<.1	<1	<1	27

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
FEB 21...	1215	<.10	<.10	<.10	--	.2	<.1	<.10	--	--	<.10	<.1
AUG 23...	1520	<.10	<.10	<.10	<2.0	.1	<.1	<.10	<2.0	<2.0	<.10	<.1

COLORADO RIVER BASIN

08154700 BULL CREEK AT LOOP 360 NEAR AUSTIN, TX

LOCATION.--Lat 30°22'19", long 97°47'04", Travis County, Hydrologic Unit 12090205, on right bank at downstream side of bridge at Loop 360, 1.0 mi upstream from West Fork Bull Creek and Farm Road 2222, and 7.1 mi northwest of the State Capitol Building in Austin.

DRAINAGE AREA.--22.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to July 1978 (operated as a flood-hydrograph partial-record station only), July 1978 to current year.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 534.08 ft above National Geodetic Vertical Datum of 1929 (levels from city of Austin bench mark).

REMARKS.--Estimated daily discharges: June 6-10. Water-discharge records good. No known regulation or diversion above station. There are two recording rain gages in the watershed. This station is part of a hydrologic research project to study the rainfall-runoff relationship for the Austin urban-rural areas.

AVERAGE DISCHARGE.--7 years, 9.95 ft^3/s (6.06 in/yr), 7,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,700 ft^3/s May 13, 1982 (gage height, 11.96 ft); no flow for several days in 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 200 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	1945	1,450	6.12	Oct. 22	1830	347	4.20
Oct. 13	1245	661	5.15	Feb. 23	0600	4,950	8.33
Oct. 14	0515	289	4.25	May 13	1600	1,400	5.62
Oct. 20	1400	*8,500	*10.10	June 6	0915	2,950	6.99
Oct. 21	1000	1,050	5.30				

Minimum daily discharge, 0.04 ft^3/s Oct. 1, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	25	8.4	23	12	59	13	15	3.3	3.5	.43	.41
2	.06	22	7.7	21	12	47	13	8.3	2.8	3.4	.41	.43
3	.06	21	7.7	21	12	43	12	7.4	2.3	4.2	.41	.40
4	.07	19	8.4	22	11	41	12	6.7	2.0	8.3	.42	.34
5	.05	17	18	21	12	36	11	5.9	7.5	4.7	.47	.41
6	.04	15	12	20	13	33	9.3	5.4	441	3.4	.42	2.8
7	16	14	11	19	11	31	8.9	5.4	36	4.1	.81	1.1
8	1.7	14	9.5	18	11	31	8.8	5.4	21	3.9	.50	.68
9	19	13	9.2	18	11	29	8.3	5.4	19	2.9	.42	.55
10	109	12	9.0	17	29	26	8.5	5.3	17	1.9	.38	.62
11	35	10	8.4	15	30	24	11	4.9	19	2.0	1.7	2.4
12	14	9.5	8.4	15	19	23	10	4.7	18	2.1	3.2	1.9
13	148	9.5	12	15	17	23	22	89	13	1.8	1.2	1.2
14	116	9.5	11	16	17	29	21	20	8.6	1.8	.81	.87
15	26	8.9	9.7	16	16	24	13	8.2	7.0	2.0	.71	.92
16	16	8.1	28	32	16	23	11	6.4	6.8	1.7	.54	.84
17	11	8.0	19	28	16	22	8.9	7.6	5.1	1.4	.54	.72
18	9.5	15	23	24	15	20	8.7	5.9	4.9	1.4	.54	.62
19	7.6	10	19	22	14	18	8.3	5.1	4.6	1.2	.54	.77
20	749	8.1	18	19	13	42	8.1	4.6	4.1	1.2	.53	.57
21	295	7.6	16	18	13	24	9.7	17	3.2	1.1	.48	.48
22	126	7.2	15	17	18	22	8.2	7.4	20	.90	.43	.43
23	104	6.8	13	17	728	20	7.4	6.7	14	.73	.42	.43
24	91	16	13	17	103	19	6.5	5.4	6.9	.65	.39	.43
25	66	36	12	17	72	19	5.8	4.7	5.8	.63	.46	.43
26	52	16	11	14	57	17	6.9	4.4	5.7	.67	.51	.41
27	49	12	12	14	48	20	5.7	3.8	4.1	.61	.42	.37
28	39	11	13	13	64	19	7.8	3.3	3.8	.55	.40	.82
29	33	10	12	13	---	18	8.3	3.5	4.3	.52	.34	14
30	28	8.9	12	13	---	17	9.8	3.0	3.7	.47	.37	3.3
31	29	---	42	12	---	14	---	3.6	---	.43	.38	---
TOTAL	2190.12	400.1	428.4	567	1410	833	302.9	289.4	714.5	64.16	19.58	39.65
MEAN	70.6	13.3	13.8	18.3	50.4	26.9	10.1	9.34	23.8	2.07	.63	1.32
MAX	749	36	42	32	728	59	22	89	441	8.3	3.2	14
MIN	.04	6.8	7.7	12	11	14	5.7	3.0	2.0	.43	.34	.34
CFSM	3.17	.60	.62	.82	2.26	1.21	.45	.42	1.07	.09	.03	.06
IN.	3.65	.67	.71	.95	2.35	1.39	.51	.48	1.19	.11	.03	.07
AC-FT	4340	794	850	1120	2800	1650	601	574	1420	127	39	79

CAL YR 1984 TOTAL 3407.98 MEAN 9.31 MAX 749 MIN .00 CFSM .42 IN 5.68 AC-FT 6760
WTR YR 1985 TOTAL 7258.81 MEAN 19.9 MAX 749 MIN .04 CFSM .89 IN 12.11 AC-FT 14400

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: April 1978 to current year. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
09...	1300	55	591	7.7	21.5	1000	530	8.6	99	3.4	33000	33000
20...	1242	770	362	8.1	--	2500	2200	--	--	5.6	27000	25000
20...	1327	3120	309	8.4	20.0	2500	2800	7.9	89	7.2	56000	63000
20...	1401	8500	196	8.2	19.5	2500	900	8.3	93	12	74000	55000
20...	1501	4270	208	8.1	20.0	2500	680	8.4	95	5.9	46000	18000
20...	1552	1750	236	8.2	20.5	650	450	8.2	93	3.1	35000	13000
FEB												
12...	0830	19	604	8.7	6.0	5	6.7	11.8	95	.3	K360	68
APR												
07...	0835	5.0	594	7.8	21.0	--	--	8.4	95	1.4	160	2600
MAY												
13...	1530	128	219	--	--	300	1200	--	--	5.6	70000	100000
13...	1545	730	267	--	--	--	--	--	--	4.1	50000	94000
13...	1615	1200	255	--	--	100	1900	--	--	6.5	64000	73000
13...	1700	512	370	--	--	--	--	--	--	4.1	--	--
13...	1730	274	366	--	--	90	550	--	--	5.4	50000	79000
JUN												
06...	1118	902	248	7.9	22.0	70	180	--	--	2.2	20000	48000

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT												
09...	180	68	52	12	50	2	3.6	112	94	63	.20	7.0
20...	160	54	49	10	9.0	.3	3.2	110	43	24	.10	6.5
20...	110	33	36	6.0	13	.6	2.6	82	30	16	.10	5.2
20...	100	21	33	5.0	4.6	.2	3.1	82	18	7.6	<.10	8.4
20...	99	20	32	4.7	4.3	.2	2.3	79	26	7.3	<.10	8.8
20...	110	24	35	5.2	5.5	.2	3.1	85	20	9.0	.10	7.4
FEB												
12...	310	66	86	22	20	.5	1.4	240	51	35	.20	7.9
APR												
07...	--	--	--	--	--	--	--	190	--	--	--	--
MAY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
06...	120	23	37	6.8	6.8	.3	2.9	98	18	11	.20	7.3

STORM RAINFALL AND RUNOFF RECORD

08154700 Bull Creek at Loop 360, Austin, Texas

Date and time	Rainfall at gage 1-BUL (inches)	Rainfall at gage 2-BUL (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of October 20-21, 1984			
Oct. 20					
0000	0.0	0.0	0.0	7.7	0.0027
1015	.0	.0	.0	7.2	.0054
1030	.0	.01	.00	7.2	.0055
1045	.31	.01	.18	7.2	.0056
1100	.62	.03	.37	7.2	.0057
1115	.63	.03	.37	7.2	.0059
1130	.83	.08	.51	7.2	.0060
1145	1.84	.10	1.09	13.0	.0062
1200	2.65	.79	1.85	146.0	.0088
1215	3.22	1.79	2.61	305.0	.0141
1230	3.92	2.04	3.11	363.0	.0204
1245	4.40	2.47	3.57	873.0	.0355
1300	4.47	2.73	3.72	1,510.0	.0618
1315	4.47	2.73	3.72	2,230.0	.1005
1330	4.48	2.74	3.73	3,450.0	.1604
1345	4.48	2.74	3.73	6,230.0	.2687
1400	4.48	2.75	3.74	8,470.0	.4158
1415	4.49	2.75	3.74	7,370.0	.5438
1430	4.50	2.75	3.75	6,760.0	.6613
1445	4.51	2.76	3.76	5,520.0	.7572
1500	4.51	2.76	3.76	4,370.0	.8331
1515	4.51	2.76	3.76	3,280.0	.8901
1530	4.52	2.77	3.77	2,590.0	.9351
1545	4.52	2.77	3.77	1,950.0	.9689
1600	4.52	2.77	3.77	1,500.0	.9950
1615	4.52	2.77	3.77	1,220.0	1.0162
1630	4.52	2.77	3.77	1,010.0	1.0337
1645	4.52	2.77	3.77	881.0	1.0567
1715	4.52	2.77	3.77	698.0	1.0809
1745	4.52	2.77	3.77	568.0	1.1007
1815	4.52	2.78	3.77	496.0	1.1136
1830	4.52	2.82	3.79	476.0	1.1343
1930	4.52	2.82	3.79	381.0	1.1607
2030	4.52	2.82	3.79	299.0	1.1815
2130	4.52	2.82	3.79	222.0	1.1969
2230	4.52	2.82	3.79	181.0	1.2095
2330	4.52	2.82	3.79	160.0	1.2179
2400	4.52	2.82	3.79	151.0	1.2257

STORM RAINFALL AND RUNOFF RECORD

08154700 Bull Creek at Loop 360, Austin, Texas

Date and time	Rainfall at gage 1-BUL (inches)	Rainfall at gage 2-BUL (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of October 20-21, 1984--Continued			
Oct. 21					
0000	4.52	2.82	3.79	151.0	1.2257
0200	4.52	2.82	3.79	127.0	1.2486
0400	4.52	2.82	3.79	109.0	1.2638
0600	4.52	2.82	3.79	96.0	1.2729
0645	4.52	2.82	3.79	94.0	1.2762
0700	4.73	2.97	3.97	94.0	1.2778
0715	5.03	3.59	4.41	295.0	1.2830
0730	5.11	3.84	4.56	557.0	1.2926
0745	5.12	3.87	4.58	585.0	1.3028
0800	5.14	3.87	4.59	873.0	1.3180
0815	5.15	3.89	4.61	680.0	1.3298
0830	5.15	3.90	4.61	737.0	1.3426
0845	5.15	3.91	4.62	769.0	1.3559
0900	5.16	3.91	4.62	711.0	1.3683
0915	5.23	4.05	4.72	698.0	1.3804
0930	5.24	4.09	4.75	873.0	1.3956
0945	5.24	4.09	4.75	845.0	1.4103
1000	5.24	4.10	4.75	955.0	1.4269
1015	5.24	4.10	4.75	866.0	1.4419
1030	5.25	4.10	4.76	769.0	1.4553
1045	5.25	4.10	4.76	686.0	1.4672
1100	5.25	4.10	4.76	614.0	1.4778
1115	5.25	4.11	4.76	580.0	1.4980
1200	5.25	4.11	4.76	476.0	1.5269
1300	5.25	4.11	4.76	374.0	1.5659
1500	5.25	4.11	4.76	253.0	1.6011
1700	5.25	4.11	4.76	181.0	1.6262
1900	5.25	4.11	4.76	140.0	1.6457
2100	5.25	4.11	4.76	127.0	1.6611
2230	5.25	4.11	4.76	120.0	1.6736
2400	5.25	4.11	4.76	109.0	1.6793

STORM RAINFALL AND RUNOFF RECORD

08154700 Bull Creek at Loop 360, Austin, Texas

Date and time	Rainfall at gage 1-BUL (inches)	Rainfall at gage 2-BUL (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of May 13-14, 1985			
May 13					
0000	0.0	0.0	0.0	4.7	0.0024
1445	.0	.0	.0	4.1	.0045
1500	.01	.01	.01	12.0	.0048
1515	.04	.12	.07	174.0	.0078
1530	.04	.45	.22	484.0	.0162
1545	.06	.92	.43	756.0	.0293
1600	.17	1.24	.63	1,400.0	.0536
1615	.39	1.27	.77	1,240.0	.0752
1630	.67	1.27	.93	917.0	.0911
1645	.87	1.27	1.04	631.0	.1021
1700	.89	1.27	1.05	423.0	.1094
1715	.89	1.27	1.05	286.0	.1144
1730	.89	1.28	1.06	193.0	.1177
1745	.90	1.28	1.06	151.0	.1204
1800	.90	1.28	1.06	120.0	.1224
1815	.90	1.29	1.07	104.0	.1243
1830	.90	1.29	1.07	94.0	.1259
1845	.90	1.29	1.07	90.0	.1275
1900	.90	1.29	1.07	79.0	.1288
1915	.90	1.29	1.07	76.0	.1301
1930	.90	1.29	1.07	71.0	.1314
1945	.90	1.29	1.07	67.0	.1325
2000	.90	1.29	1.07	64.0	.1337
2015	.90	1.29	1.07	60.0	.1383
2215	.90	1.29	1.07	58.0	.1459
2400	.90	1.29	1.07	43.0	.1504
May 14					
0000	.90	1.29	1.07	43.0	.1504
0230	.90	1.29	1.07	29.0	.1550
0245	.90	1.30	1.07	32.0	.1559
0315	.90	1.42	1.12	32.0	.1572
0400	1.03	1.43	1.20	30.0	.1591
0500	1.07	1.43	1.22	29.0	.1628
0745	1.08	1.44	1.23	24.0	.1674
1030	1.08	1.44	1.23	21.0	.1704
1145	1.08	1.44	1.23	18.0	.1730
1445	1.08	1.45	1.24	16.0	.1772
1915	1.08	1.46	1.24	13.0	.1814
2400	1.08	1.46	1.24	11.0	.1832

COLORADO RIVER BASIN

08155260 BARTON CREEK NEAR CAMP CRAFT ROAD NEAR AUSTIN, TX

LOCATION.--Lat 30°16'12", long 97°49'43", Travis County, Hydrologic Unit 12090205, on left bank about 0.5 mi south of Camp Craft Road, 1.0 mi downstream from bridge on Lost Creek Blvd., and 5 mi west of the State Capitol Building in Austin.

DRAINAGE AREA.--109 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 6 and June 27 to July 12. Records good above 10 ft³/s and poor below, except those for estimated daily discharges, which are poor. Daily discharges are not published above 250 ft³/s. Station is equipped with an automatic water-quality sampler. Discharge records for samples collected by the sampler are poor. There are three recording rain gages upstream from this station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 12.94 ft June 6, 1985 (discharge not determined); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.94 ft June 6 (discharge not determined); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	98	34	258	101	406	105	32	4.2	27	.07	.00
2	.00	91	34	210	101	279	102	30	2.1	25	.06	.00
3	.00	87	32	210	96	244	99	27	1.0	24	.04	.00
4	.00	84	32	218	96	229	96	26	.28	39	.04	.00
5	.00	74	36	205	97	206	93	24	.60	40	.03	.00
6	.00	59	38	194	97	196	90	23	1780	35	.02	.00
7	.00	53	36	181	94	191	85	21	302	30	.02	.00
8	.00	49	35	167	88	184	76	21	136	28	.02	.00
9	.00	46	34	159	88	171	69	20	106	25	.02	.00
10	100	44	34	145	88	159	70	19	92	22	.01	.00
11	140	41	33	130	103	151	80	18	84	20	.00	.00
12	22	39	32	128	94	141	69	17	75	18	.00	.00
13	76	38	34	131	88	134	67	28	59	17	.00	.00
14	126	37	57	135	86	213	113	33	48	16	.00	.00
15	44	37	46	160	82	188	84	26	45	14	.00	.00
16	31	35	170	194	82	175	59	20	42	13	.00	.00
17	24	34	148	267	80	159	48	18	40	12	.00	.00
18	21	38	200	211	73	147	45	17	37	11	.00	.00
19	19	35	171	197	73	143	43	16	37	10	.00	.00
20	102	33	156	179	69	218	43	15	36	10	.00	.00
21	578	30	143	161	67	187	43	16	34	9.3	.00	.00
22	397	28	126	160	69	165	42	16	117	8.5	.00	.00
23	458	28	115	156	1410	157	40	16	209	6.7	.00	.00
24	309	35	112	147	503	144	37	13	84	3.2	.00	.00
25	288	66	100	138	408	138	35	11	58	.97	.00	.00
26	199	60	96	127	328	129	37	10	62	.61	.00	.00
27	173	41	96	124	270	133	36	9.9	55	.51	.00	.00
28	152	37	98	119	276	126	36	9.1	42	.23	.00	.00
29	153	36	95	114	---	120	35	9.4	35	.15	.00	.00
30	121	35	92	113	---	117	34	8.5	30	.11	.00	.03
31	111	---	377	107	---	110	---	7.0	---	.08	.00	---
TOTAL	3644.00	1448	2842	5145	5107	5460	1911	576.9	3653.18	466.36	.33	.03
MEAN	118	48.3	91.7	166	182	176	63.7	18.6	122	15.0	.011	.001
MAX	578	98	377	267	1410	406	113	33	1780	40	.07	.03
MIN	.00	28	32	107	67	110	34	7.0	.28	.08	.00	.00
CFSM	1.08	.44	.84	1.52	1.67	1.62	.58	.17	1.12	.14	.000	.000
IN.	1.24	.49	.97	1.76	1.74	1.86	.65	.20	1.25	.16	.00	.00
AC-FT	7230	2870	5640	10210	10130	10830	3790	1140	7250	925	.7	.06

CAL YR 1984 TOTAL 8428.72 MEAN 23.0 MAX 578 MIN .00 CFSM .21 IN 2.88 AC-FT 16720
WTR YR 1985 TOTAL 30253.80 MEAN 82.9 MAX 1780 MIN .00 CFSM .76 IN 10.33 AC-FT 60010

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: February 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
11...	2000	334	250	--	--	--	--	--	--	--	40000	56000
11...	2015	860	228	--	--	--	--	--	--	--	--	--
11...	2030	820	197	--	--	--	--	--	--	--	60000	64000
11...	2045	720	170	7.7	--	--	--	--	--	--	--	--
11...	2100	660	161	--	--	250	800	--	--	9.0	96000	39000
11...	2115	564	154	--	--	--	--	--	--	--	--	--
DEC												
31...	0500	334	464	--	--	50	150	--	--	1.7	K900	7900
31...	0515	373	457	--	--	--	--	--	--	--	--	--
31...	0530	397	455	--	--	--	--	--	--	--	--	--
31...	0545	406	454	--	--	--	--	--	--	.9	1300	5800
31...	0600	409	451	--	--	50	29	--	--	--	--	--
31...	0615	409	450	--	--	--	--	--	--	.8	--	--
FEB												
20...	1030	48	485	8.3	14.5	5	.70	9.6	95	.0	24	K32
23...	0715	334	--	--	--	--	--	--	--	--	5600	13000
23...	0730	460	406	--	--	--	--	--	--	--	--	--
23...	0745	604	403	--	--	25	140	--	--	1.9	14000	12000
23...	0800	860	407	8.1	--	--	--	--	--	--	--	--
23...	0815	920	371	--	--	--	--	--	--	2.7	--	--
23...	0830	1000	--	--	--	--	--	--	--	--	20000	22000
JUN												
06...	0830	437	362	--	--	--	--	--	--	2.0	K7000	9200
06...	0900	497	309	--	--	15	170	--	--	--	--	--
06...	0930	516	294	--	--	--	--	--	--	--	--	--
06...	1000	576	292	--	--	--	--	--	--	1.8	K17000	19000
06...	1030	815	305	7.9	--	--	--	--	--	--	--	--
06...	1100	1390	315	--	--	--	--	--	--	--	--	--
06...	1155	3190	220	--	--	--	--	--	--	3.6	50000	29000

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT												
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	57	19	17	3.6	5.7	.3	3.3	38	23	7.9	.10	6.9
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
20...	250	38	68	19	8.1	.2	.90	210	26	17	.20	6.4
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	200	24	57	15	7.8	.2	1.3	180	23	14	.20	6.7
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	150	25	43	11	6.4	.2	1.9	128	17	14	.10	8.6
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
11...	--	--	--	.95	.050	1.0	.040	4.8	4.8	.330	32
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	.89	.110	1.0	.310	6.2	6.5	.910	--
11...	90	--	--	.96	.140	1.1	.390	6.1	6.5	.800	68
11...	--	2640	200	.94	.160	1.1	.430	4.6	5.0	.650	45
11...	--	--	--	1.0	.170	1.2	.440	4.1	4.5	.550	36
DEC											
31...	--	245	35	.29	.010	.30	.070	.63	.70	.140	28
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	<.010	.30	.020	.18	.20	.020	2.4
31...	--	--	--	--	<.010	.30	.020	.18	.20	.030	2.2
31...	--	44	17	--	<.010	.30	.030	--	<.20	.020	2.1
31...	--	--	--	--	<.010	.30	.050	.25	.30	.020	2.6
FEB											
20...	270	2	1	--	<.010	.20	.040	--	<.20	.010	.9
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	.29	.010	.30	.050	.45	.50	.060	3.2
23...	--	197	25	.29	.010	.30	.050	.75	.80	.080	5.3
23...	230	--	--	.29	.010	.30	.040	1.7	1.7	.100	14
23...	--	--	--	.29	.010	.30	.040	3.6	3.6	.190	26
23...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	--	--	--	.19	.010	.20	.080	.82	.90	.120	9.9
06...	--	288	32	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	.19	.010	.20	.070	.63	.70	.100	6.7
06...	180	--	--	.19	.010	.20	.070	1.3	1.4	.190	14
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	.14	.060	.20	.250	2.8	3.0	.250	43

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
11...	2115	13	<100	<1	<10	3	320
DEC							
31...	0530	1	25	<1	<10	2	<3
31...	0615	<1	24	<1	<10	3	10
FEB							
20...	1030	<1	37	<1	<10	1	5
23...	0730	<1	23	<1	<10	<1	8
23...	0815	<1	17	<1	<10	<1	4
JUN							
06...	0900	2	19	<1	<10	2	5

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT						
11...	9	<10	<.1	<1	<1	<10
DEC						
31...	<1	3	<.1	<1	<1	<3
31...	3	1	<.1	<1	<1	<3
FEB						
20...	3	2	<.1	<1	<1	11
23...	<1	<1	<.1	<1	1	<3
23...	3	3	<.1	<1	<1	<3
JUN						
06...	12	<1	<.1	<1	<1	9

08155260 BARTON CREEK NEAR CAMP CRAFT ROAD NEAR AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
OCT												
11...	2015	--	--	--	<2.0	--	--	--	<2.0	<2.0	--	--
11...	2030	<.10	<.10	<.10	--	<.1	<.1	<.10	--	--	<.10	<.1
DEC												
31...	0515	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
FEB												
23...	0715	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
23...	0830	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
JUN												
06...	0930	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
06...	1100	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1

COLORADO RIVER BASIN

08155300 BARTON CREEK AT LOOP 360, AUSTIN, TX

LOCATION.--Lat 30°14'40", long 97°48'07", Travis County, Hydrologic Unit 12090205, on Loop 360, 0.9 mi west of the intersection of Ben White and Lamar Boulevards, and 4.3 mi southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--116 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1975 to January 1977 (periodic gage-height and discharge measurements only), February 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 510.32 ft above National Geodetic Vertical Datum of 1929 (State Department of Highways and Public Transportation bench mark).

REMARKS.--Estimated daily discharges: Oct. 1-10, 13, 17-20, May 12-13, 20-22, May 26 to June 6, July 15 to Sept. 30. Water-discharge records fair except those below 5 ft³/s, which are poor. No known regulation or diversions. There are three recording rain gages located in the watershed.

AVERAGE DISCHARGE.--8 years, 35.6 ft³/s (4.17 in/yr), 25,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,100 ft³/s May 25, 1981 (gage height, 15.03 ft); no flow for many days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 28, 1929, was probably the highest since that date (discharge 39,400 ft³/s), based on a slope-area measurement of peak flow at a site about 2 mi upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 10	2230	6,650	9.29	Feb. 23	1245	9,090	10.56
Oct. 21	1845	2,390	6.89	June 6	1715	*11,300	*11.96

Minimum daily discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	75	13	.00	77	356	79	20	.00	20	.00	.00
2	.00	64	11	183	76	249	74	16	.00	15	.00	.00
3	.00	59	8.7	185	75	226	77	13	.00	13	.00	.00
4	.00	54	8.8	195	74	209	72	11	.00	27	.00	.00
5	.00	46	14	179	74	182	66	9.1	.00	28	.00	.00
6	.00	39	21	165	74	170	59	7.9	2990	16	.00	.00
7	2.2	35	20	151	68	163	56	5.7	336	15	.00	.00
8	.00	32	18	140	61	155	52	4.3	142	8.1	.00	.00
9	.00	28	15	132	61	143	50	3.7	105	6.6	.00	.00
10	447	25	13	123	59	135	49	2.8	85	7.5	.00	.00
11	275	21	12	111	80	129	58	1.6	71	4.8	.00	.00
12	4.6	18	11	111	69	121	53	.48	64	3.6	.00	.00
13	58	15	12	116	63	116	53	11	63	1.6	.00	.00
14	144	13	38	118	59	177	100	32	56	1.4	.00	.00
15	36	12	39	134	55	169	65	21	49	.68	.00	.00
16	5.7	8.3	135	167	54	151	47	8.4	52	.30	.00	.00
17	1.3	6.9	131	233	53	138	40	6.0	56	.00	.00	.00
18	.00	14	175	189	49	129	34	4.4	51	.00	.00	.00
19	.00	11	146	171	49	126	32	3.4	51	.00	.00	.00
20	57	7.4	135	150	46	206	32	3.1	48	.00	.00	.00
21	1030	5.9	123	139	46	167	32	2.7	37	.00	.00	.00
22	411	4.7	112	134	51	143	33	2.2	129	.00	.00	.00
23	428	3.7	105	132	2650	136	30	1.6	265	.00	.00	.00
24	269	8.3	102	116	544	128	25	1.1	97	.00	.00	.00
25	249	59	92	114	347	121	22	.54	74	.00	.00	.00
26	177	51	88	105	280	115	25	.04	68	.00	.00	.00
27	147	30	88	103	242	118	23	.00	54	.00	.00	.00
28	125	22	89	97	241	114	23	.00	38	.00	.00	.00
29	112	19	85	93	---	107	23	.00	33	.00	.00	.00
30	100	16	79	90	---	101	21	.00	24	.00	.00	.00
31	89	---	342	84	---	93	---	.00	---	.00	.00	---
TOTAL	4167.80	803.2	2281.5	4160.00	5677	4793	1405	193.06	5038.00	168.58	.00	.00
MEAN	134	26.8	73.6	134	203	155	46.8	6.23	168	5.44	.000	.000
MAX	1030	75	342	233	2650	356	100	32	2990	28	.00	.00
MIN	.00	3.7	8.7	.00	46	93	21	.00	.00	.00	.00	.00
CFSM	1.16	.23	.63	1.16	1.75	1.34	.40	.05	1.45	.05	.000	.000
IN.	1.34	.26	.73	1.33	1.82	1.54	.45	.06	1.62	.05	.00	.00
AC-FT	8270	1590	4530	8250	11260	9510	2790	383	9990	334	.00	.00

CAL YR 1984 TOTAL 7252.50 MEAN 19.8 MAX 1030 MIN .00 CFSM .17 IN 2.33 AC-FT 14390
WTR YR 1985 TOTAL 28687.14 MEAN 78.6 MAX 2990 MIN .00 CFSM .68 IN 9.20 AC-FT 56900

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

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: January 1979 to current year. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
11...	1000	47	171	--	--	500	350	--	--	2.7	16000	22000
11...	1125	31	176	8.1	20.0	600	240	8.8	99	2.9	19000	19000
21...	0930	393	288	8.0	20.0	650	550	8.2	92	1.8	22000	16000
21...	1100	1260	250	8.0	19.5	450	300	8.8	97	2.4	27000	35000
21...	1230	1580	288	7.9	19.5	650	530	8.7	96	3.0	29000	27000
22...	1215	239	337	8.1	18.0	250	220	8.9	95	1.4	15000	7200
DEC												
16...	1200	62	447	--	--	--	--	--	--	--	--	--
16...	1230	102	446	--	--	--	--	--	--	--	--	--
16...	1400	189	448	--	--	--	--	--	--	--	--	--
16...	1800	174	444	--	--	--	--	--	--	--	--	--
FEB												
20...	0955	9.4	465	8.4	15.0	5	.60	10.2	102	.2	K76	K20
23...	0924	5220	260	7.8	--	500	1300	--	--	7.6	38000	48000
23...	1045	5760	229	8.0	--	500	1200	--	--	16	96000	K100000
23...	1210	8290	252	7.9	--	500	1800	--	--	17	59000	54000
23...	1505	2740	233	7.9	--	500	1000	--	--	9.8	49000	33000
JUN												
06...	1000	305	238	7.8	--	30	720	--	--	5.0	44000	46000
06...	1200	3090	284	--	--	90	200	--	--	--	--	--
06...	1300	6850	275	--	--	--	--	--	--	6.2	41000	31000
06...	1515	9130	175	--	--	80	640	--	--	5.3	40000	31000

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT												
11...	82	21	27	3.6	2.3	.1	3.0	61	20	5.3	<.10	5.3
11...	--	--	--	--	--	--	--	62	--	--	--	--
21...	130	31	40	7.4	4.7	.2	1.9	100	29	7.6	.10	7.7
21...	120	23	38	6.4	3.8	.2	2.1	98	19	6.8	<.10	7.7
21...	140	26	42	7.4	4.4	.2	2.1	110	19	7.4	.10	7.6
22...	180	29	55	10	4.3	.1	1.8	150	20	7.6	.10	9.2
DEC												
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
20...	250	48	66	20	8.5	.2	.90	200	27	17	20	6.3
23...	130	24	40	8.2	4.2	.2	1.7	110	14	7.4	.10	6.3
23...	120	18	35	6.8	3.6	.2	1.9	98	12	6.1	.10	6.8
23...	130	16	38	7.6	3.6	.1	2.1	110	14	6.7	.10	6.7
23...	110	14	34	7.1	3.3	.1	1.8	100	13	5.5	.10	7.1
JUN												
06...	110	48	37	3.4	3.6	.2	2.8	59	46	5.5	.20	5.6
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
11...	100	380	48	1.5	.030	1.5	.020	1.8	1.8	.110	16
11...	--	324	48	1.4	.090	1.5	.220	1.5	1.7	.110	17
21...	160	840	72	--	<.010	.60	.050	1.3	1.3	.410	11
21...	140	508	45	.49	.010	.50	.050	1.6	1.6	.210	12
21...	160	888	64	--	<.010	.60	.040	2.0	2.0	.230	17
22...	200	240	24	--	<.010	.80	.020	1.1	1.1	.070	7.7
DEC											
16...	--	--	--	--	<.010	.10	<.010	--	.30	.020	6.8
16...	--	--	--	--	<.010	.10	<.010	--	.40	.030	3.6
16...	--	--	--	--	<.010	.10	<.010	--	.50	.060	4.4
16...	--	--	--	--	<.010	.10	<.010	--	.20	.010	2.5
FEB											
20...	270	3	2	--	<.010	.20	.030	.27	.30	.010	1.1
23...	150	1820	180	.28	.020	.30	.070	7.1	7.2	.340	41
23...	130	2250	236	.28	.020	.30	.100	7.0	7.1	.600	55
23...	140	3020	296	--	<.010	.30	.100	11	11	.820	83
23...	130	1480	152	.29	.010	.30	.050	5.0	5.0	.330	45
JUN											
06...	140	1390	144	.86	.040	.90	.110	.79	.90	.880	34
06...	--	428	84	.18	.020	.20	.080	.52	.60	.190	14
06...	--	--	--	.18	.020	.20	.070	2.9	3.0	.340	32
06...	--	1850	172	.05	.150	.20	.550	3.3	3.8	.510	62

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
OCT							
11...	1000	<1	10	1	<10	3	65
21...	0930	<1	19	1	<10	1	18
21...	1100	<1	16	<1	10	2	37
21...	1230	<1	15	<1	<10	2	34
22...	1215	<1	20	<1	<10	1	32
FEB							
20...	0955	<1	34	<1	<10	<1	4
23...	0924	<1	14	<1	<10	2	31
23...	1045	<1	14	<1	<10	1	52
23...	1210	<1	16	<1	<10	<1	13
23...	1505	<1	14	<1	<10	1	24
JUN							
06...	1000	2	27	<1	<10	2	12
06...	1515	1	13	<1	<10	2	13

DATE	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
OCT						
11...	10	3	<.1	<1	<1	7
21...	<1	<1	<.1	<1	<1	<3
21...	5	<1	<.1	<1	<1	6
21...	3	<1	<.1	<1	<1	12
22...	<1	<1	<.1	<1	<1	<3
FEB						
20...	4	<1	<.1	<1	<1	10
23...	<1	<1	2.3	<1	<1	<3
23...	4	2	<.1	<1	<1	14
23...	<1	<1	<.1	<1	<1	14
23...	5	<1	<.1	<1	<1	6
JUN						
06...	4	2	<.1	<1	<1	17
06...	5	<1	<.1	<1	<1	28

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
OCT												
21...	0930	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
21...	1100	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
FEB												
23...	0924	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
23...	1045	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
23...	1210	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
23...	1505	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
JUN												
06...	1000	<.10	.10	<.10	<2.0	.1	<.1	<.10	<2.0	<2.0	<.10	<.1
06...	1515	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1

STORM RAINFALL AND RUNOFF RECORD

08155300 Barton Creek at Loop 360, Austin, Texas

Date and time	Rainfall at gage 1-BAR (inches)	Rainfall at gage 2-BAR (inches)	Rainfall at gage 3-BAR (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of October 10-11, 1984			
Oct. 10						
0000	0.0	0.0	0.0	0.0	0.0	0.0000
1730	.0	.0	.0	.0	.0	.0000
1745	.0	.0	.12	.03	.0	.0000
1815	.0	.0	.68	.18	.0	.0000
1900	.13	.0	.70	.26	.0	.0000
1915	.15	.0	.86	.31	.0	.0000
1930	.19	.02	1.26	.44	.0	.0000
1945	.40	.10	1.52	.65	.0	.0000
2000	.84	.20	1.83	1.00	.0	.0000
2015	1.14	.25	2.16	1.27	.0	.0000
2030	1.15	.66	2.56	1.44	.0	.0000
2045	1.19	1.90	3.02	1.77	.0	.0000
2100	1.25	3.24	3.50	2.13	63.0	.0002
2115	1.33	3.91	3.67	2.33	382.0	.0015
2130	1.49	4.33	3.79	2.51	691.0	.0038
2145	1.75	4.42	3.94	2.72	479.0	.0054
2200	1.90	4.49	4.01	2.84	5,390.0	.0234
2215	1.91	4.55	4.03	2.86	6,420.0	.0448
2230	1.93	4.58	4.04	2.88	6,650.0	.0670
2245	1.94	4.60	4.04	2.88	6,460.0	.0994
2315	1.95	4.62	4.06	2.90	4,210.0	.1346
2400	1.95	4.62	4.06	2.90	1,760.0	.1448
Oct. 11						
0000	1.95	4.62	4.06	2.90	1,760.0	.1448
0015	1.95	4.62	4.06	2.90	1,400.0	.1533
0045	1.95	4.64	4.07	2.90	2,080.0	.1637
0100	1.95	4.65	4.07	2.91	2,200.0	.1711
0115	1.95	4.66	4.07	2.91	2,140.0	.1854
0200	1.95	4.66	4.07	2.91	1,250.0	.2021
0315	1.97	4.66	4.08	2.92	441.0	.2087
0415	1.97	4.66	4.09	2.92	246.0	.2132
0600	1.97	4.66	4.10	2.93	128.0	.2179
0945	2.07	4.72	4.19	3.02	40.0	.2190
1000	2.09	4.73	4.20	3.03	204.0	.2197
1015	2.12	4.74	4.22	3.06	34.0	.2204
1300	2.19	4.82	4.28	3.13	15.0	.2209
1600	2.25	4.89	4.32	3.18	4.4	.2211
2000	2.27	5.04	4.48	3.26	4.1	.2214
2400	2.27	5.05	4.51	3.27	1.3	.2214

STORM RAINFALL AND RUNOFF RECORD

08155300 Barton Creek at Loop 360, Austin, Texas

Date and time	Rainfall at gage 1-BAR (inches)	Rainfall at gage 2-BAR (inches)	Rainfall at gage 3-BAR (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of February 23-24, 1985			
Feb. 23						
0000	0.0	0.0	0.0	0.0	9.4	0.0000
0015	.0	.09	.0	.01	9.4	.0001
0100	.01	.76	.0	.12	9.4	.0002
0200	.06	.97	.01	.18	9.4	.0003
0215	.28	.97	.11	.34	9.4	.0003
0230	.74	.97	.43	.69	9.4	.0003
0245	1.03	.98	.71	.94	9.4	.0004
0300	1.21	1.02	.85	1.09	9.4	.0004
0315	1.60	1.07	1.12	1.40	9.4	.0004
0330	2.32	1.19	1.68	1.98	18.0	.0005
0345	2.35	1.32	2.28	2.18	17.0	.0005
0400	2.38	1.44	2.81	2.35	18.0	.0006
0415	2.44	1.55	3.14	2.49	19.0	.0007
0430	2.46	1.60	3.44	2.59	19.0	.0008
0515	2.49	1.68	3.55	2.64	29.0	.0011
0615	2.61	1.68	3.60	2.73	54.0	.0019
0715	2.71	1.68	3.68	2.81	73.0	.0026
0745	2.85	1.68	3.71	2.90	136.0	.0033
0800	2.89	1.68	3.71	2.92	923.0	.0063
0815	2.91	1.68	3.71	2.93	2,470.0	.0187
0845	2.94	1.68	3.71	2.95	4,180.0	.0466
0915	2.94	1.68	3.71	2.95	4,880.0	.0711
0930	2.94	1.68	3.71	2.95	4,960.0	.0876
0945	2.94	1.68	3.71	2.95	5,240.0	.1051
1000	2.94	1.68	3.71	2.95	5,180.0	.1311
1030	2.94	1.68	3.71	2.95	5,500.0	.1770
1115	2.94	1.68	3.71	2.95	6,710.0	.2330
1145	2.95	1.68	3.71	2.96	7,660.0	.2842
1215	2.95	1.68	3.71	2.96	8,380.0	.3402
1245	2.95	1.68	3.71	2.96	8,660.0	.3980
1315	2.96	1.68	3.71	2.96	8,380.0	.4540
1345	2.96	1.68	3.71	2.96	7,410.0	.5035
1415	2.96	1.68	3.71	2.96	6,250.0	.5452
1445	2.96	1.68	3.71	2.96	4,100.0	.5795
1530	2.96	1.68	3.71	2.96	2,980.0	.5994
1545	2.96	1.68	3.71	2.96	2,900.0	.6381
1730	2.96	1.68	3.71	2.96	2,140.0	.6917
1930	2.96	1.68	3.71	2.96	1,410.0	.7247
2100	2.96	1.68	3.71	2.96	1,030.0	.7487

STORM RAINFALL AND RUNOFF RECORD

08155300 Barton Creek at Loop 360, Austin, Texas--Continued

Date and time	Rainfall at gage 1-BAR (inches)	Rainfall at gage 2-BAR (inches)	Rainfall at gage 3-BAR (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of February 23-24, 1985--Continued			
Feb. 23						
2300	2.96	1.68	3.71	2.96	709.0	0.7630
2400	2.96	1.68	3.71	2.96	625.0	.7692
Feb. 24						
0000	2.96	1.68	3.71	2.96	625.0	.7692
0100	2.96	1.68	3.71	2.96	564.0	.7788
0200	2.96	1.68	3.71	2.96	500.0	.7889
0400	2.96	1.68	3.71	2.96	404.0	.7996
0600	2.96	1.68	3.71	2.96	350.0	.8067
0700	2.96	1.68	3.71	2.96	339.0	.8112
0800	2.96	1.68	3.71	2.96	324.0	.8177
1000	2.96	1.68	3.71	2.96	286.0	.8253
1200	2.96	1.68	3.71	2.96	273.0	.8326
1400	2.96	1.68	3.71	2.96	256.0	.8395
1600	2.96	1.68	3.71	2.96	239.0	.8458
1800	2.96	1.68	3.71	2.96	229.0	.8520
2000	2.96	1.68	3.71	2.96	216.0	.8577
2200	2.96	1.68	3.71	2.96	207.0	.8633
2400	2.96	1.68	3.71	2.96	195.0	.8659

COLORADO RIVER BASIN

08155500 BARTON SPRINGS AT AUSTIN, TX

LOCATION.--Lat 30°15'48", long 97°46'16", Travis County, Hydrologic Unit 12090205, at ground-water well (YD 58-42-903), on right bank 0.4 mi upstream from Barton Springs Road bridge over Barton Creek, 0.7 mi upstream from mouth, and 1.8 mi southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--Not applicable. Only springflow is published for this station.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1894 to April 1917, and October 1918 to February 1978 (discharge measurements only), May 1917 to September 1918 (published as "Barton Creek at Austin, Texas"), and March 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage, at ground-water well (YD 58-42-903), is 462.34 ft above National Geodetic Vertical Datum of 1929. May 1917 to September 1918, nonrecording gage at site 1,000 ft downstream at different datum.

REMARKS.--Records fair. Only springflow from the Edwards and associated limestones in the Balcones Fault Zone is published for this station. This station is part of an urban hydrologic project to study the ground-water resources in the Austin urban area.

AVERAGE DISCHARGE.--8 years (water years 1918, 1979-85), 53.1 ft^3/s (38,470 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD (DISCHARGE MEASUREMENTS ONLY).--Maximum measured discharge, 166 ft^3/s May 10, 1941; minimum measured, 9.6 ft^3/s Mar. 29, 1956.

EXTREMES FOR PERIOD OF RECORD (1917-18 AND SINCE MARCH 1978).--Maximum daily spring discharge, 108 ft^3/s June 9-11, 16, 20, 21, 1979; minimum daily spring discharge, 12 ft^3/s Feb. 25, 1918.

EXTREMES FOR CURRENT YEAR.--Maximum daily spring discharge, 90 ft^3/s Feb. 25, 26; minimum daily, 24 ft^3/s Oct. 1-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	a51	48	a60	72	a87	81	a76	66	a72	a64	53
2	24	a50	a48	a62	72	a86	81	a75	66	a71	a63	53
3	24	a50	a48	a64	72	a85	81	75	a66	71	63	52
4	a24	49	a48	a68	72	a84	a81	75	a67	72	63	52
5	a24	49	a48	a70	72	a83	a80	75	a67	72	a63	a52
6	24	48	a49	a70	72	a82	80	a75	a68	72	a62	a51
7	a26	48	a49	a70	72	a81	80	a74	a68	72	62	51
8	a28	47	a50	a70	72	a80	80	74	a69	a72	a62	51
9	a30	47	a50	a71	72	a80	80	a74	a69	a71	a61	51
10	32	46	a51	a71	72	a80	80	a73	a70	70	61	50
11	a34	46	a51	a71	72	aB0	a80	73	a70	a70	61	50
12	a34	46	a52	a71	71	a80	a80	72	70	a70	a61	a50
13	a36	45	a53	a71	71	a80	a80	a72	a69	70	a60	a50
14	a36	45	a54	a71	71	a80	a80	a73	a69	69	60	a51
15	a38	45	a55	71	71	a80	a80	73	69	a69	a60	a51
16	a38	45	a55	a71	71	a80	80	a73	69	a68	a59	51
17	a40	a45	a55	a72	71	a80	80	a72	a69	68	59	51
18	a40	a45	a55	a74	a71	a80	a80	72	a70	a68	59	50
19	a42	45	a56	74	a71	a80	a79	71	a70	a68	a58	a50
20	a42	45	a56	74	a71	a80	a79	a71	a71	a67	a58	a49
21	a44	44	a56	74	a75	a80	a79	a71	a71	67	57	48
22	a44	44	a56	74	a80	a80	a78	70	a72	a67	a57	48
23	a48	44	a57	74	a85	a80	a78	a70	a72	a66	a56	47
24	a48	44	a57	74	89	a80	78	a69	a72	66	56	47
25	a48	a44	57	74	a90	a80	a78	68	a72	a66	55	46
26	a50	a45	57	74	a90	a80	a77	68	72	a65	a55	a46
27	a50	a45	57	74	a88	a80	a77	68	a72	65	a55	a45
28	a50	a46	58	74	a88	a81	a77	68	a72	65	55	45
29	a51	a47	58	73	---	a81	a76	67	72	a65	a54	a45
30	a51	48	58	73	---	a81	a76	a67	72	a64	a54	a45
31	a51	---	a58	73	---	81	---	66	---	64	53	---
TOTAL	1175	1388	1660	2207	2116	2512	2376	2220	2091	2122	1826	1481
MEAN	37.9	46.3	53.5	71.2	75.6	81.0	79.2	71.6	69.7	68.5	58.9	49.4
MAX	51	51	58	74	90	87	81	76	72	72	64	53
MIN	24	44	48	60	71	80	76	66	66	64	53	45
AC-FT	2330	2750	3290	4380	4200	4980	4710	4400	4150	4210	3620	2940

CAL YR 1984 TOTAL 12673 MEAN 34.6 MAX 58 MIN 24 AC-FT 25140
WTR YR 1985 TOTAL 23174 MEAN 63.5 MAX 90 MIN 24 AC-FT 45970

a Estimated.

08155500 BARTON SPRINGS AT AUSTIN, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: December 1978 to current year. Radiochemical analyses October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
12...	1215	--	697	7.2	21.5	10	5.0	4.6	53	.2	960	1300
22...	1120	55	601	7.1	21.5	10	4.5	4.8	55	.2	K1500	K1700
FEB												
12...	1000	72	586	7.2	18.0	5	.70	7.8	82	.0	46	K1
JUN												
07...	1430	74	557	7.2	21.5	5	11	6.4	73	--	1040	3080
AUG												
13...	1210	59	609	7.0	22.0	5	1.0	6.8	80	.1	86	K1

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT											
12...	290	56	83	21	28	.7	2.1	238	43	45	.30
22...	270	39	78	18	17	.5	1.8	230	34	27	.30
FEB											
12...	290	45	85	20	13	.3	1.1	250	28	23	.20
JUN											
07...	270	34	79	18	15	.4	2.0	238	25	23	.20
AUG											
13...	300	45	84	21	13	.3	1.3	252	23	32	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
12...	11	380	4	3	<.010	1.9	.010	.39	.40	.010	1.0
22...	11	330	9	1	<.010	1.5	<.010	--	.30	.020	1.2
FEB											
12...	10	330	3	1	<.010	1.2	<.010	--	.40	.010	.6
JUN											
07...	11	320	24	4	<.010	1.2	.080	.22	.30	.030	1.5
AUG											
13...	12	340	1	<1	<.010	1.4	.030	.17	.20	.020	1.9

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
12...	1215	<1	57	1	<10	2	4
22...	1120	<1	52	<1	<10	1	4
FEB							
12...	1000	<1	45	<1	<10	1	<3
JUN							
07...	1430	2	50	<1	<10	1	5

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT						
12...	7	<1	<.1	<1	<1	<3
22...	<1	<1	<.1	<1	<1	<3
FEB						
12...	2	<1	<.1	<1	<1	8
JUN						
07 ..	4	2	<.1	<1	<1	4

08155500 BARTON SPRINGS AT AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
OCT 12...	1215	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1

08155550 WEST BOULDIN CREEK AT RIVERSIDE DRIVE, AUSTIN, TX
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°15'49", long 97°45'17", Travis County, on upstream side of eastbound bridge on Riverside Drive, 0.1 mi east of the intersection of South Lamar Boulevard and Riverside Drive and 1.2 mi southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--3.12 mi^2.

PERIOD OF RECORD.--August 1975 to September 1985 (discontinued).

REVISED RECORDS.--Open-file report 82-506: 1977 maximum.

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 434.42 ft NGVD. Prior to March 31, 1977, at site 30 ft downstream at same datum.

REMARKS.--Records fair. Storms analyzed for periods Oct. 10-11 and Apr. 22.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft^3/s, June 13, 1981 (gage height, 6.12 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,130 ft^3/s, Oct. 10 (gage height, 4.70 ft).

STORM RAINFALL AND RUNOFF RECORD

08155550 West Bouldin Creek at Riverside Drive, Austin, Texas

Date and time	Rainfall at gage 1-BOL (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
	Storm of October 10-11, 1984			
Oct. 10				
0000	0.0	0.0	0.0	0.0000
2050	.0	.0	.0	.0000
2055	.01	.01	.0	.0000
2100	.10	.10	.0	.0000
2105	.30	.30	.0	.0000
2110	.55	.55	.0	.0000
2115	.84	.84	8.0	.0003
2120	.99	.99	18.0	.0011
2125	1.78	1.78	33.0	.0024
2130	2.47	2.47	43.0	.0042
2135	2.89	2.89	51.0	.0063
2140	2.99	2.99	57.0	.0087
2145	3.09	3.09	67.0	.0115
2150	3.23	3.23	239.0	.0214
2155	3.38	3.38	417.0	.0386
2200	3.49	3.49	794.0	.0715
2205	3.61	3.61	852.0	.1067
2210	3.69	3.69	830.0	.1411
2215	3.79	3.79	926.0	.1794
2220	3.88	3.88	973.0	.2197
2225	3.99	3.99	1,050.0	.2631
2230	4.14	4.14	1,090.0	.3083
2235	4.21	4.21	1,130.0	.3550
2240	4.22	4.22	981.0	.3956
2245	4.23	4.23	942.0	.4346
2250	4.24	4.24	801.0	.4678
2255	4.24	4.24	733.0	.4981
2300	4.24	4.24	581.0	.5222
2305	4.26	4.26	669.0	.5498
2310	4.26	4.26	502.0	.5706
2315	4.28	4.28	524.0	.5923
2320	4.28	4.28	489.0	.6125
2325	4.28	4.28	390.0	.6287
2330	4.28	4.28	463.0	.6479
2335	4.28	4.28	342.0	.6620
2340	4.28	4.28	328.0	.6756
2345	4.28	4.28	291.0	.6876
2350	4.28	4.28	246.0	.6978
2355	4.29	4.29	213.0	.7066
2400	4.29	4.29	185.0	.7124

STORM RAINFALL AND RUNOFF RECORD

08155550 West Bouldin Creek at Riverside Drive, Austin, Texas

Date and time	Rainfall at gage 1-BOL (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
	Storm of October 10-11, 1984--Continued			
Oct. 11				
0000	4.29	4.29	185.0	0.7124
0005	4.29	4.29	163.0	.7210
0010	4.29	4.29	145.0	.7270
0015	4.29	4.29	131.0	.7325
0020	4.29	4.29	120.0	.7424
0035	4.29	4.29	85.0	.7565
0100	4.35	4.35	40.0	.7647
0125	4.35	4.35	8.0	.7657
0130	4.35	4.35	2.0	.7658
0135	4.35	4.35	.0	.7658
2400	5.13	5.13	.0	.7658

STORM RAINFALL AND RUNOFF RECORD

08155550 West Bouldin Creek at Riverside Drive, Austin, Texas

Date and time	Rainfall at gage 1-BOL (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm April 22, 1985		
Apr. 22				
0000	0.0	0.0	0.0	0.0000
1925	.01	.01	.0	.0000
1930	.05	.05	.0	.0000
1935	.08	.08	.0	.0000
1940	.20	.20	.0	.0000
1945	.43	.43	.0	.0000
1950	.52	.52	2.5	.0001
1955	.53	.53	15.0	.0007
2000	.81	.81	27.0	.0018
2005	.88	.88	58.0	.0042
2010	.88	.88	133.0	.0097
2015	.88	.88	197.0	.0179
2020	.88	.88	309.0	.0307
2025	.88	.88	169.0	.0377
2030	.88	.88	171.0	.0448
2035	.88	.88	145.0	.0508
2040	.88	.88	134.0	.0563
2045	.88	.88	120.0	.0613
2050	.88	.88	102.0	.0655
2055	.88	.88	91.0	.0693
2100	.88	.88	80.0	.0726
2105	.90	.90	70.0	.0755
2110	.90	.90	62.0	.0780
2115	.90	.90	57.0	.0804
2120	.90	.90	53.0	.0837
2130	.90	.90	46.0	.0884
2145	.90	.90	36.0	.0929
2200	.90	.90	27.0	.0979
2230	.90	.90	14.0	.1014
2300	.90	.90	5.0	.1022
2310	.90	.90	2.5	.1025
2320	.90	.90	1.0	.1025
2330	.90	.90	0.0	.1025
2400	.90	.90	0.0	.1025

COLORADO RIVER BASIN

08156800 SHOAL CREEK AT 12TH STREET, AUSTIN, TX

LOCATION.--Lat 30°16'35", long 97°45'00", Travis County, Hydrologic Unit 12090205, on left bank at downstream side of bridge at 12th Street and 0.6 mi west of the State Capitol Building in Austin.

DRAINAGE AREA.--12.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1985. Periodic discharge measurements, periodic QW sample collection and associated peak discharges along with annual maximum, November 1974 to September 1985.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 455.33 ft above National Geodetic Vertical Datum of 1929 (City of Austin bench mark). Apr. 2 1975, to Nov. 14, 1984, operated as a flood-hydrograph partial-record station at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 14. Records fair, except those for estimated periods which are poor. No known regulation or diversions. This station is part of a hydrologic research project to study the rainfall-runoff relationship in the Austin urban area. Station is equipped with an automatic water-quality sampler. There are two recording rain gages in the watershed above station.

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 16,000 ft³/s May 24, 1981 (gage height, 23.22 ft); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 7	0530	1,700	9.37	Dec. 16	0015	1,280	8.32
Oct. 10	2145	1.770	9.53	May 13	1715	2,160	10.39
Oct. 13	1245	2,850	11.73	June 22	1300	1,050	7.67
Oct. 20	1330	*2,940	*11.90	Sept. 14	1715	1,010	7.54
Oct. 21	0845	2,050	10.15				

Minimum discharge, no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	18	.20	2.1	.07	5.7	.76	11	.00	.06	.00	.00
2	.00	9.2	.20	2.4	.56	2.4	.82	.89	.00	.06	.00	.00
3	.00	.65	.14	4.0	1.1	2.1	.79	.23	.00	5.7	.00	.00
4	.00	.58	2.2	2.2	.94	2.8	.74	.18	.10	27	.00	.00
5	.00	.42	10	1.8	1.4	2.1	.68	.06	27	2.0	.00	1.9
6	.00	.27	1.1	1.6	.54	1.8	.50	.00	109	.98	.00	14
7	165	.20	.35	1.5	.26	1.7	.49	.00	1.4	.55	.00	.28
8	2.2	.20	.14	1.5	.14	1.7	.37	.00	1.4	.34	.00	.00
9	49	.20	.09	1.4	.09	1.7	.35	.00	.33	.16	.00	.00
10	123	.20	.09	1.2	23	1.6	1.1	.00	.13	.11	.00	.00
11	58	.20	.10	1.1	2.6	1.5	17	.00	.06	.07	.00	1.1
12	39	.14	.14	1.6	.74	1.5	2.3	.00	.05	1.1	.00	.02
13	232	.14	6.3	2.2	.48	1.4	38	124	.13	.40	.00	.00
14	100	.14	3.0	1.9	.31	23	9.3	21	.06	.19	.00	60
15	2.7	.14	30	1.4	.11	2.9	1.5	.96	.04	.07	.29	2.8
16	1.4	.14	104	26	.08	2.2	1.1	.36	.02	.04	.19	.02
17	1.0	.27	7.6	2.1	.02	1.6	.92	6.4	.02	.04	.00	.00
18	.91	36	3.3	1.5	.00	1.4	.45	.63	.05	.03	.00	.00
19	.91	.90	1.3	1.4	.00	1.3	.32	.08	.44	.14	.41	.00
20	222	.11	.75	.97	.00	110	.25	.02	.05	.05	.00	.00
21	207	.04	.53	.87	.00	5.0	2.6	29	.04	.04	.00	.00
22	43	.02	.24	.84	20	2.8	1.7	1.9	137	.04	.00	.00
23	21	.01	.09	.72	98	2.3	.59	1.1	24	.04	.00	.00
24	31	54	.05	.65	3.2	2.0	.48	.12	2.4	.02	.00	.00
25	7.4	34	.00	.62	2.3	1.7	.40	.02	1.4	.02	.00	.00
26	3.6	7.8	.00	.61	2.1	1.7	12	.01	.66	.00	.00	.00
27	2.7	2.3	2.8	.84	2.4	10	.99	.00	.48	.00	.00	.00
28	2.3	.60	1.3	.50	38	1.9	.35	.00	.34	.00	.00	5.0
29	2.0	.28	.06	.89	---	1.4	1.7	.00	.15	.00	.38	57
30	1.6	.22	.00	.70	---	1.2	14	.00	.08	.00	.00	2.0
31	1.2	---	59	.24	---	1.2	---	.00	---	.00	.00	---
TOTAL	1319.92	167.37	235.07	67.35	198.44	201.6	112.55	197.96	306.83	39.25	1.27	144.12
MEAN	42.6	5.58	7.58	2.17	7.09	6.50	3.75	6.39	10.2	1.27	.041	4.80
MAX	232	54	104	26	98	110	38	124	137	27	.41	60
MIN	.00	.01	.00	.24	.00	1.2	.25	.00	.00	.00	.00	.00
CFSM	3.46	.45	.62	.18	.58	.53	.31	.52	.83	.10	.003	.39
IN.	3.99	.51	.71	.20	.60	.61	.34	.60	.93	.12	.00	.44
AC-FT	2620	332	466	134	394	400	223	393	609	78	2.5	286

WTR YR 1985 TOTAL 2991.73 MEAN 8.20 MAX 232 MIN .00 CFSM .67 IN 9.05 AC-FT 5930

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: January 1975 to current year. Water temperatures: January 1975 to current year. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
07...	0501	396	125	--	--	--	--	--	--	13	980000	240000
07...	0516	1480	194	--	--	3500	1900	--	--	--	--	--
07...	0531	1690	192	--	--	--	--	--	--	--	500000	86000
07...	0546	1450	154	6.8	--	--	--	--	--	11	--	--
07...	0601	1270	141	--	--	2500	2000	--	--	--	K180000	76000
07...	0616	1180	133	--	--	--	--	--	--	5.9	--	--
FEB												
12...	0740	1.0	582	8.5	6.0	10	2.9	9.5	76	.7	K1400	420
22...	0659	186	--	--	--	--	--	--	--	--	K22000	160000
22...	0714	245	405	--	--	--	--	--	--	21	46000	170000
22...	0729	209	487	--	--	1000	--	--	--	13	--	--
22...	0744	164	453	7.1	--	--	--	--	--	--	K22000	39000
22...	0759	136	422	--	--	--	--	--	--	14	--	--
22...	0814	100	405	--	--	1000	2200	--	--	--	42000	58000
MAR												
20...	0245	173	--	--	--	600	370	--	--	12	56000	71000
20...	0300	275	--	--	--	800	560	--	--	18	40000	128000
20...	0315	303	--	--	--	500	790	--	--	11	58000	160000
20...	0330	331	--	--	--	800	560	--	--	13	44000	102000
20...	0345	419	--	--	--	500	790	--	--	14	58000	160000
20...	0400	441	--	--	--	--	--	--	--	14	--	--
APR												
13...	1844	185	373	--	--	30	230	--	--	9.9	330000	K160000
13...	1859	318	220	--	--	--	--	--	--	16	--	--
13...	1914	339	315	--	--	25	730	--	--	16	K130000	K200000
13...	1929	294	332	--	--	25	780	--	--	14	88000	130000
13...	1944	247	278	--	--	--	--	--	--	13	--	--
13...	1959	207	262	--	--	30	580	--	--	13	K61000	140000
MAY												
13...	1645	185	402	--	--	--	--	--	--	--	710000	330000
13...	1700	1100	302	--	--	--	--	--	--	7.0	80000	180000
JUN												
06...	0919	862	138	7.7	22.0	90	700	--	--	5.0	K120000	110000
06...	1034	324	144	7.7	22.0	60	360	--	--	4.4	46000	92000

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT												
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	84	29	30	2.3	3.9	.2	3.3	56	29	5.9	.20	13
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
12...	260	100	94	6.4	25	.7	3.1	160	85	49	.30	5.7
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	190	76	67	4.5	16	.5	2.6	110	66	32	.30	5.3
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
06...	61	22	22	1.4	2.6	.2	2.2	39	22	3.6	.10	2.3
06...	64	23	23	1.5	2.3	.1	2.2	41	25	3.1	.10	2.5

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
07...	--	--	--	.46	.040	.50	.060	4.4	4.5	.830	31
07...	--	4440	460	.45	.050	.50	.150	8.4	8.5	3.40	61
07...	--	--	--	.36	.040	.40	.110	6.9	7.0	2.40	--
07...	120	--	--	.37	.030	.40	.100	2.7	2.8	2.60	52
07...	--	2660	300	.37	.030	.40	.070	3.8	3.9	2.10	--
07...	--	--	--	.27	.030	.30	.080	4.1	4.2	1.50	33
FEB											
12...	360	2	2	1.2	.010	1.2	<.010	--	.40	.030	3.1
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	.45	.050	.50	.110	--	--	1.40	31
22...	--	--	--	.56	.040	.60	.070	3.8	3.9	--	29
22...	260	--	--	.65	.050	.70	.060	5.4	5.5	.300	34
22...	--	--	--	.55	.050	.60	.050	--	--	.210	33
22...	--	3130	256	.57	.030	.60	.040	5.1	5.1	3.20	45
MAR											
20...	--	768	204	.67	.030	.70	.030	3.8	3.8	.900	28
20...	--	1040	192	.67	.030	.70	.020	3.6	3.6	1.90	32
20...	--	1450	308	.68	.020	.70	.070	2.6	2.7	.950	25
20...	--	1040	192	.49	.010	.50	.040	2.3	2.3	.890	26
20...	--	1450	308	.48	.020	.50	.060	4.5	4.6	1.80	32
20...	--	--	--	.48	.020	.50	.090	3.9	4.0	1.90	32
APR											
13...	--	444	108	.56	.040	.60	.050	3.7	3.7	.680	25
13...	--	--	--	.35	.050	.40	.090	2.1	2.2	1.20	32
13...	--	1520	292	.44	.060	.50	.120	3.5	3.6	1.10	37
13...	--	1200	212	.54	.060	.60	.160	3.8	4.0	1.20	26
13...	--	--	--	.44	.060	.50	.140	3.7	3.8	.970	26
13...	--	1370	224	.44	.060	.50	.120	3.7	3.8	1.00	27
MAY											
13...	--	--	--	.63	.070	.70	.650	3.0	3.6	7.60	>80
13...	--	--	--	.47	.030	.50	.450	1.5	1.9	.420	>80
JUN											
06...	80	1960	184	.12	.180	.30	.620	.18	.80	.770	35
06...	84	944	800	.25	.050	.30	.200	.80	1.0	.390	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
07...	0501	<1	<100	<1	<10	6	80
FEB							
12...	0740	<1	56	<1	<10	2	4
22...	0714	1	38	<1	<10	2	8
22...	0814	1	49	<1	<10	1	3
MAR							
20...	0245	--	--	<1	<10	--	--
20...	0330	--	--	<1	<10	--	--
20...	0345	--	--	<1	<10	--	--
APR							
13...	1844	--	--	--	--	--	--
13...	1914	--	--	--	--	--	--
13...	1929	--	--	--	--	--	--
13...	1959	--	--	--	--	--	--
MAY							
13...	1645	1	51	<1	<10	3	49
13...	1700	--	--	--	<10	3	--
JUN							
06...	0919	1	13	<1	<10	2	6
06...	1034	2	14	<1	<10	2	20

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT						
07...	17	10	<.1	<1	<1	<10
FEB						
12...	<1	4	<.1	<1	<1	21
22...	<1	<1	<.1	<1	<1	4
22...	<1	<1	<.1	<1	<1	<3
MAR						
20...	--	--	--	--	--	--
20...	--	--	--	--	--	--
20...	--	--	--	--	--	--
APR						
13...	--	--	--	--	--	--
13...	--	--	--	--	--	--
13...	--	--	--	--	--	--
13...	--	--	--	--	--	--
MAY						
13...	3	92	<.1	<1	<1	9
13...	--	--	--	--	--	--
JUN						
06...	8	<1	<.1	<1	<1	4
06...	3	<1	<.1	<1	<1	<3

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
OCT												
07...	0531	--	--	--	<2.0	--	--	--	<2.0	<2.0	--	--
FEB												
22...	0659	<.10	.10	<.10	<2.0	.2	<.1	<.10	<2.0	<2.0	.10	<.1

STORM RAINFALL AND RUNOFF RECORD

08156800 Shoal Creek at 12th Street, Austin, Texas

Date and time	Rainfall at gage 1-SHL (inches)	Rainfall at gage 2-SHL (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of October 7, 1984			
Oct. 7					
0000	0.0	0.0	0.0	0.5	0.0001
0245	.0	.0	.0	.5	.0002
0300	.10	.0	.02	.5	.0002
0315	.23	.08	.12	.5	.0002
0330	.57	.25	.33	2.5	.0003
0345	.95	.47	.59	10.0	.0006
0400	1.39	.93	1.04	20.0	.0012
0415	1.47	1.08	1.17	34.0	.0023
0430	1.55	1.22	1.30	56.0	.0041
0445	1.73	1.37	1.46	70.0	.0063
0500	1.90	1.54	1.63	99.0	.0094
0515	2.04	1.87	1.91	1,460.0	.0554
0530	2.11	1.98	2.01	1,700.0	.1089
0545	2.14	2.04	2.06	1,460.0	.1549
0600	2.16	2.09	2.11	1,280.0	.1952
0615	2.17	2.12	2.13	1,190.0	.2327
0630	2.19	2.15	2.16	1,100.0	.2673
0645	2.23	2.17	2.18	954.0	.2974
0700	2.24	2.20	2.21	813.0	.3230
0715	2.24	2.21	2.22	684.0	.3445
0730	2.26	2.24	2.24	566.0	.3624
0745	2.27	2.26	2.26	472.0	.3772
0800	2.29	2.27	2.27	405.0	.3900
0815	2.30	2.28	2.28	358.0	.4013
0830	2.30	2.29	2.29	312.0	.4111
0845	2.30	2.29	2.29	271.0	.4196
0900	2.30	2.29	2.29	235.0	.4270
0915	2.30	2.29	2.29	208.0	.4336
0930	2.30	2.29	2.29	184.0	.4394
0945	2.31	2.29	2.29	159.0	.4444
1000	2.33	2.32	2.32	142.0	.4511
1030	2.36	2.35	2.35	115.0	.4583
1100	2.37	2.36	2.36	95.0	.4718
1245	2.38	2.37	2.37	54.0	.4854
1500	2.38	2.37	2.37	39.0	.4946
1630	2.38	2.37	2.37	30.0	.5008
1815	2.38	2.37	2.37	25.0	.5067
2015	2.38	2.37	2.37	20.0	.5139
2400	2.38	2.37	2.37	8.0	.5158

STORM RAINFALL AND RUNOFF RECORD

08156800 Shoal Creek at 12th Street, Austin, Texas

Date and time	Rainfall at gage 1-SHL (inches)	Rainfall at gage 2-SHL (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of May 13, 1985			
May 13					
0000	0.0	0.0	0.0	0.0	0.0000
1445	.0	.0	.0	.0	.0000
1500	.02	.0	.00	.0	.0000
1515	.17	.04	.07	.0	.0000
1530	.93	.32	.47	.0	.0000
1545	2.49	1.07	1.41	4.2	.0001
1600	2.62	1.76	1.97	1.6	.0002
1615	2.78	1.90	2.11	2.6	.0003
1630	2.90	2.14	2.32	2.1	.0003
1645	2.90	2.21	2.38	225.0	.0074
1700	2.90	2.22	2.38	1,100.0	.0421
1715	2.90	2.22	2.38	2,160.0	.1101
1730	2.90	2.22	2.38	1,860.0	.1687
1745	2.90	2.22	2.38	1,300.0	.2096
1800	2.90	2.23	2.39	870.0	.2370
1815	2.90	2.23	2.39	631.0	.2569
1830	2.90	2.23	2.39	481.0	.2720
1845	2.90	2.23	2.39	396.0	.2845
1900	2.90	2.23	2.39	331.0	.2949
1915	2.90	2.23	2.39	282.0	.3038
1930	2.90	2.23	2.39	249.0	.3117
1945	2.90	2.23	2.39	230.0	.3189
2000	2.90	2.23	2.39	201.0	.3252
2015	2.90	2.23	2.39	179.0	.3309
2030	2.90	2.23	2.39	170.0	.3362
2045	2.90	2.23	2.39	145.0	.3408
2100	2.90	2.23	2.39	134.0	.3450
2115	2.90	2.23	2.39	113.0	.3486
2130	2.90	2.23	2.39	105.0	.3519
2145	2.90	2.23	2.39	98.0	.3550
2200	2.90	2.23	2.39	90.0	.3578
2215	2.90	2.23	2.39	85.0	.3605
2230	2.90	2.23	2.39	80.0	.3630
2245	2.90	2.23	2.39	75.0	.3654
2300	2.90	2.23	2.39	70.0	.3676
2315	2.90	2.23	2.39	65.0	.3696
2330	2.90	2.23	2.39	62.0	.3716
2345	2.90	2.23	2.39	60.0	.3735
2400	2.90	2.23	2.39	56.0	.3743

COLORADO RIVER BASIN

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

LOCATION.--Lat 30°15'47", long 97°40'20", Travis County, Hydrologic Unit 12090205, on U.S. Highway 183, 1.6 mi south of the intersection of Webberville Road and U.S. Highway 183, 4.1 mi east of the State Capitol Building in Austin, and 0.7 mi upstream from mouth.

DRAINAGE AREA.--13.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to July 1975 (periodic discharge measurements only), August 1975 to June 1977 (operated as a flood-hydrograph partial-record station only), June 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 411.29 ft above National Geodetic Vertical Datum of 1929 (levels from city of Austin bench mark).

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions. The station is part of a hydrologic research project to study the rainfall-runoff relationship for the Austin urban area. Station is equipped with an automatic water-quality sampler. There is a recording rain gage in the watershed.

AVERAGE DISCHARGE.--8 years (water years 1978-85), 6.13 ft³/s (6.35 in/yr) 4,440 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,100 ft³/s May 23, 1975 (gage height, 17.03 ft, from floodmark), from rating curve extended above 500 ft³/s on basis of slope-area measurement of peak flow; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/ s)	Gage height (ft)
Oct. 13	1330	2,690	12.02	June 6	0930	1,660	10.35
Oct. 21	0845	2,420	11.57	June 22	1315	2,420	11.57
Dec. 16	0045	2,170	11.20	Sept. 14	1730	*3,140	*13.23

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.10	.10	2.5	.40	1.1	.29	1.7	.03	.11	.01	.05
2	.00	.17	.08	5.2	1.6	.47	.28	.20	.03	16	.00	.07
3	.00	.09	.03	7.3	1.2	.31	.27	.14	.02	2.9	.00	.06
4	.00	.07	.57	2.8	1.7	.55	.28	.14	.06	87	.00	.00
5	.00	.05	2.1	1.8	1.5	.34	.26	.14	38	2.1	.00	.38
6	.00	.04	.15	1.3	1.3	.30	.24	.14	194	.89	.00	8.3
7	138	.04	.08	.98	1.4	.25	.22	.14	1.5	.77	.00	.05
8	1.8	.00	.06	.92	.45	.23	.21	.14	.81	.50	.00	.02
9	.71	.00	.07	.89	.65	.23	.23	.13	.67	.21	.03	.00
10	43	.00	.06	.83	2.1	.29	.44	.13	1.6	.19	.02	.00
11	120	.00	.06	.56	.67	.28	7.7	.13	.40	.22	.03	.01
12	9.0	.00	.08	1.7	.29	.28	.21	.14	.44	.66	.04	.00
13	190	.00	2.2	4.2	.25	.29	28	46	.53	.32	.00	.00
14	87	.00	.74	2.7	.22	22	1.1	15	.50	.31	.00	173
15	3.6	.00	7.5	1.7	.21	1.2	.31	.23	.54	.22	.00	3.3
16	2.6	.00	180	14	.21	.52	.22	.18	.44	.18	.02	1.3
17	2.2	.00	5.2	2.1	.19	.27	.19	1.9	.33	.19	.01	.79
18	1.1	8.8	4.4	1.3	.13	.23	.19	.11	1.1	.24	.02	.05
19	.34	.16	2.4	.94	.13	.23	.19	.05	1.3	.31	.00	.00
20	119	.09	1.9	.57	.14	82	.21	.04	.68	.34	.00	.00
21	235	.09	1.7	.46	.12	.93	1.4	28	.64	.28	.00	.00
22	2.6	.12	1.5	.52	15	.60	12	.73	248	.22	.00	.00
23	4.9	.11	1.4	.51	68	.47	.37	.13	5.8	.19	.00	.00
24	5.8	67	1.3	.47	.59	.44	.08	.07	.23	.29	.00	.00
25	.98	27	.99	.47	.29	.42	.11	.12	.14	.29	.00	.00
26	6.7	.42	1.2	.47	.25	.38	14	.13	.29	.36	.00	.00
27	1.3	.20	6.1	1.3	.59	1.8	.21	.17	.17	.27	.00	.00
28	.24	.14	3.3	.57	43	.45	.15	.07	.13	.15	.00	.30
29	.15	.17	1.4	.47	---	.38	.24	.04	.13	.14	.16	66
30	.11	.15	1.2	.47	---	.39	.40	.03	.15	.00	.26	.54
31	.10	---	67	.41	---	.31	---	.03	---	.00	.06	---
TOTAL	976.23	105.01	294.87	60.41	142.58	117.94	70.00	96.30	498.66	115.85	.66	254.22
MEAN	31.5	3.50	9.51	1.95	5.09	3.80	2.33	3.11	16.6	3.74	.021	8.47
MAX	235	67	180	14	68	82	28	46	248	87	.26	173
MIN	.00	.00	.03	.41	.12	.23	.08	.03	.02	.00	.00	.00
CFSM	2.41	.27	.73	.15	.39	.29	.18	.24	1.27	.29	.002	.65
IN.	2.77	.30	.84	.17	.40	.33	.20	.27	1.42	.33	.00	.72
AC-FT	1940	208	585	120	283	234	139	191	989	230	1.3	504

CAL YR 1984 TOTAL 1661.41 MEAN 4.54 MAX 235 MIN .00 CFSM .35 IN 4.72 AC-FT 3300
WTR YR 1985 TOTAL 2732.73 MEAN 7.49 MAX 248 MIN .00 CFSM .57 IN 7.76 AC-FT 5420

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: January 1975 to current year. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
07...	0600	433	174	--	--	--	--	--	--	17	550000	250000
07...	0615	975	162	--	--	2500	1400	--	--	--	--	--
07...	0630	1060	142	--	--	--	--	--	--	--	K630000	210000
07...	0645	1100	140	7.6	--	--	--	--	--	14	--	--
07...	0700	1180	127	--	--	--	--	--	--	--	K640000	110000
07...	0715	1170	121	--	--	--	--	--	--	5.9	--	--
10...	2215	471	288	--	--	--	--	--	--	6.2	110000	64000
10...	2230	776	182	--	--	3500	1800	--	--	--	--	--
10...	2245	776	146	--	--	--	--	--	--	5.0	72000	84000
10...	2300	653	142	7.7	--	--	--	--	--	--	--	--
10...	2315	553	156	--	--	2500	960	--	--	--	430000	58000
10...	2330	499	180	--	--	--	--	--	--	5.5	--	--
20...	1315	471	308	--	--	--	--	--	--	>25	--	--
20...	1330	853	--	--	--	--	--	--	--	--	--	--
20...	1345	1300	174	--	--	--	--	--	--	16	--	--
20...	1400	1420	164	--	--	2500	1800	--	--	15	--	--
20...	1415	1290	152	--	--	--	--	--	--	10	--	--
20...	1430	1040	142	--	--	--	--	--	--	15	--	--
DEC												
15...	2346	477	211	--	--	--	--	--	--	19	210000	230000
16...	0001	678	160	--	--	--	--	--	--	--	--	--
16...	0016	1030	165	--	--	500	500	--	--	18	230000	260000
16...	0031	1860	132	--	--	--	--	--	--	--	--	--
16...	0046	2170	112	--	--	--	--	--	--	--	220000	310000
16...	0101	1920	102	--	--	500	350	--	--	--	--	--
FEB												
19...	1055	.12	598	8.6	15.5	5	.80	14.9	149	.2	620	390
JUN												
06...	0830	465	165	--	--	--	--	--	--	11	K110000	160000
06...	0845	857	163	--	--	90	640	--	--	--	--	--
06...	0900	1090	156	--	--	--	--	--	--	11	270000	220000
06...	0915	1290	138	--	--	100	640	--	--	--	--	--
06...	0930	1660	129	7.8	--	--	--	--	--	--	--	--
06...	0945	1550	120	--	--	120	690	--	--	7.7	260000	170000
SEP												
14...	1700	432	--	--	--	--	--	--	--	--	340000	390000
14...	1715	2050	--	--	--	200	15	--	--	--	--	--
14...	1730	3140	--	--	--	--	--	--	--	--	K130000	200000
14...	1745	3080	--	--	--	--	--	--	--	--	--	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT												
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	73	24	25	2.5	5.1	.3	3.4	49	20	7.2	.20	12
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	68	14	24	1.9	4.6	.3	2.4	54	14	6.0	.20	4.3
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
15...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	55	8	20	1.3	3.7	.2	2.8	47	10	3.9	.20	5.6
16...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
19...	250	63	83	11	32	.9	2.6	190	65	38	.40	8.9
JUN												
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	54	5	19	1.5	3.2	.2	2.9	49	11	3.4	.10	4.5
06...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
07...	--	--	--	.46	.040	.50	.080	3.3	3.4	3.60	50
07...	--	3700	392	.37	.030	.40	.080	2.3	2.4	4.10	45
07...	--	--	--	.47	.030	.50	.050	4.0	4.0	2.50	--
07...	100	--	--	.47	.030	.50	.060	.64	.70	2.10	38
07...	--	--	--	.48	.020	.50	.060	1.5	1.6	1.70	--
07...	--	--	--	.38	.020	.40	.060	1.8	1.9	1.30	31
10...	--	--	--	.18	.020	.20	<.010	--	1.5	.840	37
10...	--	4500	432	.28	.020	.30	<.010	--	1.8	.920	47
10...	--	--	--	.27	.030	.30	.040	3.6	3.6	2.00	39
10...	90	--	--	.27	.030	.30	.040	2.2	2.2	1.60	31
10...	--	2400	296	.28	.020	.30	.030	2.1	2.1	1.50	49
10...	--	--	--	.28	.020	.30	.010	1.6	1.6	.840	28
20...	--	--	--	.08	.020	.10	.640	7.9	8.5	.790	56
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	2920	168	.18	.020	.20	.040	3.2	3.2	.260	30
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
DEC											
15...	--	--	--	.04	.060	.10	.120	9.9	10	1.60	42
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	3530	300	.18	.020	.20	.030	15	15	2.60	57
16...	--	--	--	.18	.020	.20	.040	16	16	2.70	53
16...	76	--	--	.18	.020	.20	.040	11	11	1.80	45
16...	--	3040	240	.19	.010	.20	.030	11	11	1.80	37
FEB											
19...	350	5	5	--	<.010	.10	.050	--	<.20	.050	1.4
JUN											
06...	--	--	--	.27	.030	.30	.090	.51	.60	.810	33
06...	--	3240	276	.27	.030	.30	.110	2.3	2.4	1.10	45
06...	--	--	--	.27	.030	.30	.100	4.5	4.6	.240	32
06...	--	3290	232	.27	.030	.30	.100	.90	1.0	.980	59
06...	75	--	--	.28	.020	.30	.090	2.5	2.6	1.50	25
06...	--	1950	196	.24	.060	.30	.150	1.1	1.2	.460	43
SEP											
14...	--	--	--	--	--	.80	--	--	11	8.30	78
14...	--	4440	684	--	--	--	--	--	--	--	--
14...	--	--	--	.61	.090	.70	.230	5.2	5.4	3.50	53
14...	--	--	--	.57	.030	.60	.110	5.3	5.4	<3.50	40

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)
SEP								
14...	1800	2200	450	130	--	--	5700	468
14...	1815	1180	--	--	260000	126000	--	--

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
SEP								
14...	--	--	--	--	--	--	--	--
14...	.53	.070	.60	.210	6.5	6.7	4.20	43

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
07...	0600	3	36	<1	<10	5	460
10...	2300	1	<100	<1	<10	4	60
20...	1345	1	37	<1	10	2	200
20...	1430	1	28	<1	<10	3	54
DEC							
15...	2346	2	39	<1	10	5	45
16...	0031	2	26	<1	<10	2	76
16...	0101	2	23	<1	<10	3	110
FEB							
19...	1055	<1	96	<1	<10	1	4

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT						
07...	14	31	<.1	1	1	8
10...	7	<10	<.1	<1	<1	<10
20...	<1	11	<.1	<1	<1	8
20...	<1	2	<.1	<1	<1	<3
DEC						
15...	<1	4	<.1	<1	1	7
16...	<1	<1	<.1	<1	<1	<3
16...	<1	4	<.1	<1	<1	<3
FEB						
19...	<1	9	<.1	<1	<1	<3

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
OCT												
07...	0630	<.10	<.10	<.10	--	.1	<.1	<.10	--	--	<.10	<.1
07...	0700	--	--	--	<2.0	--	--	--	<2.0	<2.0	--	--
20...	1330	<.10	.10	<.10	<2.0	.3	<.1	<.10	<2.0	<2.0	.10	<.1
DEC												
16...	0001	<.10	<.10	<.10	<2.0	.3	<.1	<.10	<2.0	<2.0	<.10	<.1

STORM RAINFALL AND RUNOFF RECORD

08158050 Boggy Creek at U.S. Hwy. 183, Austin, Texas

Date and time	Rainfall at gage 1-BOG (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
	Storm of October 20-21, 1984			
Oct. 20				
0000	0.0	0.0	0.1	0.0001
1030	.0	.0	.1	.0001
1145	.03	.03	.1	.0001
1200	.28	.28	.1	.0001
1215	.61	.61	.1	.0001
1230	.67	.67	.4	.0002
1245	.76	.76	.4	.0002
1300	.77	.77	.9	.0002
1315	.78	.78	3.1	.0003
1330	.79	.79	9.9	.0006
1345	.79	.79	518.0	.0159
1400	.79	.79	1,170.0	.0505
1415	.79	.79	1,400.0	.0919
1430	.79	.79	1,270.0	.1295
1445	.79	.79	1,050.0	.1605
1500	.79	.79	772.0	.1833
1515	.79	.79	583.0	.2006
1530	.79	.79	465.0	.2143
1545	.79	.79	315.0	.2236
1600	.79	.79	231.0	.2239
1630	.80	.80	148.0	.2426
1700	.80	.80	90.0	.2480
1730	.80	.80	64.0	.2527
1815	.80	.80	32.0	.2551
1845	1.04	1.04	26.0	.2562
1900	1.04	1.04	40.0	.2574
1915	1.04	1.04	64.0	.2593
1930	1.04	1.04	168.0	.2643
1945	1.04	1.04	203.0	.2703
2000	1.04	1.04	210.0	.2765
2015	1.04	1.04	253.0	.2840
2030	1.04	1.04	242.0	.2911
2045	1.04	1.04	213.0	.2974
2100	1.04	1.04	195.0	.3032
2115	1.04	1.04	218.0	.3161
2200	1.04	1.04	106.0	.3239
2230	1.04	1.04	51.0	.3277
2315	1.04	1.04	30.0	.3303
2400	1.04	1.04	19.0	.3336

STORM RAINFALL AND RUNOFF RECORD

08158050 Boggy Creek at U.S. Hwy. 183, Austin, Texas--Continued

Date and time	Rainfall at gage 1-BOG (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of October 20-21, 1984--Continued		
Oct. 21				
0000	1.04	1.04	19.0	0.3336
0415	1.04	1.04	5.3	.3374
0445	1.06	1.06	5.3	.3382
0645	1.07	1.07	3.8	.3387
0700	1.68	1.68	3.6	.3388
0715	2.17	2.17	3.6	.3390
0730	2.21	2.21	13.0	.3393
0745	2.22	2.22	28.0	.3402
0800	2.26	2.26	324.0	.3497
0815	2.41	2.41	799.0	.3734
0830	2.43	2.43	1,700.0	.4236
0845	2.43	2.43	2,410.0	.4949
0900	2.43	2.43	2,390.0	.5656
0915	2.75	2.75	1,940.0	.6230
0930	2.76	2.76	1,440.0	.6655
0945	2.76	2.76	1,220.0	.7016
1000	2.76	2.76	1,220.0	.7377
1015	2.76	2.76	1,250.0	.7747
1030	2.76	2.76	1,120.0	.8078
1045	2.76	2.76	1,090.0	.8400
1100	2.76	2.76	1,050.0	.8711
1115	2.76	2.76	923.0	.8984
1130	2.76	2.76	745.0	.9204
1145	2.76	2.76	607.0	.9384
1200	2.76	2.76	505.0	.9533
1215	2.76	2.76	392.0	.9649
1230	2.76	2.76	324.0	.9745
1245	2.76	2.76	260.0	.9821
1300	2.76	2.76	215.0	.9980
1400	2.76	2.76	90.0	1.0087
1500	2.76	2.76	47.0	1.0142
1600	2.76	2.76	24.0	1.0171
1700	2.76	2.76	19.0	1.0193
1800	2.76	2.76	13.0	1.0209
1900	2.76	2.76	12.0	1.0223
2000	2.76	2.76	9.5	1.0233
2045	2.76	2.76	8.8	1.0243
2200	2.76	2.76	7.2	1.0257
2400	2.76	2.76	6.6	1.0265

STORM RAINFALL AND RUNOFF RECORD

08158050 Boggy Creek at U.S. Hwy. 183, Austin, Texas

Date and time	Rainfall at gage 1-BOG (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of June 22, 1985		
June 22				
0000	0.0	0.0	0.9	0.0001
0215	.0	.0	.9	.0003
0415	.05	.05	.9	.0006
0645	.22	.22	1.1	.0009
0830	.38	.38	5.1	.0015
0845	.50	.50	5.3	.0016
0900	.51	.51	5.8	.0018
0915	.53	.53	9.1	.0021
0930	.55	.55	25.0	.0028
0945	.62	.62	70.0	.0049
1000	.78	.78	94.0	.0077
1015	.95	.95	122.0	.0113
1030	1.04	1.04	146.0	.0156
1045	1.14	1.14	193.0	.0213
1100	1.32	1.32	242.0	.0284
1115	1.47	1.47	333.0	.0383
1130	1.70	1.70	483.0	.0526
1145	1.97	1.97	780.0	.0756
1200	2.05	2.05	1,040.0	.1064
1215	2.13	2.13	1,210.0	.1422
1230	2.20	2.20	1,500.0	.1867
1245	2.24	2.24	1,830.0	.2407
1300	2.26	2.26	2,270.0	.3078
1315	2.29	2.29	2,420.0	.3793
1330	2.34	2.34	1,860.0	.4343
1345	2.39	2.39	1,410.0	.4760
1400	2.42	2.42	1,060.0	.5074
1415	2.44	2.44	807.0	.5313
1430	2.47	2.47	639.0	.5691
1515	2.56	2.56	468.0	.6037
1545	2.59	2.59	370.0	.6310
1630	2.59	2.59	307.0	.6628
1730	2.59	2.59	210.0	.6783
1745	2.59	2.59	151.0	.6850
1815	2.59	2.59	99.0	.6909
1845	2.59	2.59	66.0	.6996
2030	2.59	2.59	18.0	.7036
2230	2.59	2.59	7.8	.7052
2400	2.59	2.59	4.6	.7057

08158100 WALNUT CREEK AT FARM ROAD 1325 NEAR AUSTIN, TX
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°24'35", long 97°42,41", Travis County, on downstream side of bridge on Farm Road 1325 and 9.5 mi north of the State Capitol Building in Austin.

DRAINAGE AREA.--12.6 mi^2.

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 670.62 ft NGVD.

REMARKS.--Records fair. Storms analyzed for periods Oct. 20 and May 13.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s May 24, 1981 (gage height, 19.46 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,564 ft^3/s, Oct. 10 (gage height, 10.41 ft).

STORM RAINFALL AND RUNOFF RECORD

08158100 Walnut Creek at F.R. 1325, Austin, Texas

Date and time	Rainfall at gage 1-WLN (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of October 20, 1984		
Oct. 20				
0000	0.0	0.0	1.0	0.0007
1200	.0	.0	1.0	.0015
1215	.03	.03	20.0	.0021
1230	1.25	1.25	58.0	.0039
1245	1.47	1.47	105.0	.0071
1300	1.48	1.48	155.0	.0119
1315	2.48	2.48	236.0	.0191
1330	2.48	2.48	344.0	.0297
1345	2.48	2.48	753.0	.0529
1400	2.48	2.48	1,000.0	.0836
1415	2.48	2.48	1,020.0	.1150
1430	2.48	2.48	1,130.0	.1497
1445	2.48	2.48	1,150.0	.1851
1500	2.48	2.48	1,260.0	.2238
1515	2.48	2.48	1,390.0	.2666
1530	2.48	2.48	1,250.0	.3050
1545	2.48	2.48	942.0	.3339
1600	2.48	2.48	755.0	.3572
1615	2.48	2.48	612.0	.3760
1630	2.48	2.48	522.0	.3920
1645	2.48	2.48	455.0	.4060
1700	2.48	2.48	397.0	.4182
1715	2.48	2.48	344.0	.4288
1730	2.48	2.48	309.0	.4383
1745	2.48	2.48	261.0	.4463
1800	2.53	2.53	247.0	.4539
1815	2.54	2.54	209.0	.4603
1830	2.57	2.57	177.0	.4658
1845	2.57	2.57	157.0	.4706
1900	2.57	2.57	139.0	.4749
1915	2.57	2.57	129.0	.4788
1930	2.57	2.57	116.0	.4824
1945	2.57	2.57	108.0	.4857
2000	2.57	2.57	92.0	.4886
2015	2.57	2.57	85.0	.4938
2100	2.57	2.57	59.0	.5001
2200	2.57	2.57	33.0	.5042
2300	2.57	2.57	10.0	.5054
2400	2.57	2.57	1.5	.5055

STORM RAINFALL AND RUNOFF RECORD

08158100 Walnut Creek at F.R. 1325, Austin, Texas

Date and time	Rainfall at gage 1-WLN (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of May 13, 1985		
May 13				
0000	0.0	0.0	0.0	0.0000
1430	.0	.0	.0	.0000
1445	.02	.02	.0	.0000
1500	.03	.03	2.5	.0001
1515	.11	.11	20.0	.0007
1530	.44	.44	84.0	.0033
1545	1.20	1.20	186.0	.0090
1600	1.89	1.89	133.0	.0131
1615	1.98	1.98	166.0	.0182
1630	1.98	1.98	197.0	.0242
1645	1.98	1.98	251.0	.0320
1700	1.98	1.98	230.0	.0390
1715	1.98	1.98	200.0	.0452
1730	1.99	1.99	166.0	.0503
1745	1.99	1.99	139.0	.0546
1800	1.99	1.99	116.0	.0581
1815	1.99	1.99	99.0	.0612
1830	1.99	1.99	86.0	.0638
1845	1.99	1.99	74.0	.0661
1900	1.99	1.99	64.0	.0681
1915	1.99	1.99	53.0	.0697
1930	1.99	1.99	45.0	.0711
1945	1.99	1.99	40.0	.0723
2000	1.99	1.99	33.0	.0733
2015	1.99	1.99	30.0	.0742
2030	1.99	1.99	26.0	.0750
2045	1.99	1.99	23.0	.0757
2100	1.99	1.99	20.0	.0764
2115	1.99	1.99	18.0	.0769
2130	1.99	1.99	15.0	.0776
2200	1.99	1.99	13.0	.0782
2215	1.99	1.99	11.0	.0785
2230	1.99	1.99	10.0	.0788
2245	1.99	1.99	9.1	.0791
2300	1.99	1.99	8.6	.0794
2315	1.99	1.99	7.8	.0796
2330	1.99	1.99	7.3	.0799
2345	1.99	1.99	6.6	.0801
2400	1.99	1.99	6.2	.0802

COLORADO RIVER BASIN

08158200 WALNUT CREEK AT DESSAU ROAD, AUSTIN, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 30°22'30", long 97°39'37", Travis County, Hydrologic Unit 12090205, on downstream side of bridge on Dessau Road and 8.4 mi northeast of the State Capitol Building in Austin.

DRAINAGE AREA.--26.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 553.44 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Additional storm rainfall-runoff data for this site can be obtained from the report "Hydrologic Data for Urban Studies in the Austin, Texas Metropolitan Area, 1984." Two recording rain gages are located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,600 ft³/s May 25, 1981 (gage height, 26.20 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,810 ft³/s Oct. 20 at 0830 hours (gage height, 14.46 ft).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 09...	1400	872	108	8.1	20.0	5000	2600	--	--	5.8	160000	230000
FEB 19...	0747	8.7	693	8.4	13.5	5	.80	8.5	82	.4	620	600
AUG 14...	0730	.04	738	7.2	26.1	30	2.6	2.5	31	4.4	--	19200

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 09...	62	15	23	1.0	2.7	.2	2.5	47	10	3.6	.30	4.9
FEB 19...	320	83	120	5.6	25	.6	2.4	240	57	43	.40	5.3
AUG 14...	240	54	84	7.0	52	2	3.5	185	60	76	.20	12

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 09...	76	5480	404	.56	.040	.60	.170	2.0	2.2	3.20	66
FEB 19...	400	1	<1	2.0	.040	2.0	.050	.35	.40	.220	2.0
AUG 14...	410	7	6	.26	.040	.30	.050	.75	.80	.170	15

08158200 WALNUT CREEK AT DESSAU ROAD, AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 09...	1400	1	16	<1	<10	3	180
FEB 19...	0747	<1	88	<1	<10	1	5

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 09...	13	15	<.1	<1	<1	10
FEB 19...	2	2	<.1	<1	<1	22

STORM RAINFALL AND RUNOFF RECORD

08158200 Walnut Creek at Dessau Road, Austin, Texas

Date and time	Rainfall at gage 1-WLN (inches)	Rainfall at gage 2-WLN (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of October 20, 1984			
Oct. 20					
0000	0.0	0.0	0.0	6.1	0.0017
0915	.0	.0	.0	5.7	.0033
0930	.0	.05	.02	5.7	.0036
1100	.0	.08	.04	5.7	.0039
1130	.0	.10	.05	6.1	.0040
1145	.0	.26	.13	6.1	.0041
1200	.0	1.34	.66	6.1	.0042
1215	.03	1.95	.97	103.0	.0057
1230	1.25	2.37	1.80	1,130.0	.0224
1245	1.47	2.59	2.02	1,850.0	.0498
1300	1.48	2.85	2.15	2,650.0	.0890
1315	2.48	2.87	2.67	3,320.0	.1381
1330	2.48	2.87	2.67	3,640.0	.1919
1345	2.48	2.87	2.67	3,810.0	.2482
1400	2.48	2.87	2.67	3,710.0	.3305
1430	2.48	2.87	2.67	3,490.0	.4079
1445	2.48	2.87	2.67	3,250.0	.4560
1500	2.48	2.87	2.67	3,100.0	.5247
1530	2.48	2.87	2.67	2,900.0	.6105
1600	2.48	2.87	2.67	2,470.0	.6835
1630	2.48	2.87	2.67	1,830.0	.7377
1700	2.48	2.87	2.67	1,350.0	.7776
1730	2.48	2.87	2.67	1,090.0	.8018
1745	2.53	2.87	2.70	997.0	.8165
1800	2.54	2.87	2.70	902.0	.8298
1815	2.57	3.04	2.80	814.0	.8419
1830	2.57	3.04	2.80	788.0	.8535
1845	2.57	3.04	2.80	1,140.0	.8704
1900	2.57	3.04	2.80	1,050.0	.8937
1930	2.57	3.04	2.80	814.0	.9177
2000	2.57	3.04	2.80	635.0	.9365
2030	2.57	3.04	2.80	535.0	.9523
2100	2.57	3.04	2.80	486.0	.9667
2130	2.57	3.04	2.80	427.0	.9793
2200	2.57	3.04	2.80	376.0	.9905
2230	2.57	3.04	2.80	329.0	1.0002
2300	2.57	3.04	2.80	296.0	1.0089
2330	2.57	3.04	2.80	264.0	1.0167
2400	2.57	3.04	2.80	241.0	1.0203

STORM RAINFALL AND RUNOFF RECORD

08158200 Walnut Creek at Dessau Road, Austin, Texas

Date and time	Rainfall at gage 1-WLN (inches)	Rainfall at gage 2-WLN (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of May 13, 1985			
May 13					
0000	0.0	0.0	0.0	5.0	0.0021
1430	.0	.0	.0	5.0	.0043
1445	.02	.0	.01	5.0	.0044
1515	.11	.08	.10	5.0	.0045
1530	.44	.29	.37	5.0	.0046
1545	1.20	.97	1.09	5.0	.0047
1600	1.89	1.88	1.89	62.0	.0056
1615	1.98	2.25	2.11	1,110.0	.0220
1630	1.98	2.29	2.13	1,600.0	.0457
1645	1.98	2.34	2.16	2,050.0	.0760
1700	1.98	2.35	2.16	2,260.0	.1094
1715	1.98	2.35	2.16	2,370.0	.1445
1730	1.99	2.35	2.17	2,270.0	.1780
1745	1.99	2.35	2.17	1,890.0	.2060
1800	1.99	2.36	2.17	1,500.0	.2281
1815	1.99	2.36	2.17	1,290.0	.2472
1830	1.99	2.36	2.17	1,100.0	.2635
1845	1.99	2.36	2.17	908.0	.2769
1900	1.99	2.36	2.17	738.0	.2878
1915	1.99	2.36	2.17	596.0	.2966
1930	1.99	2.36	2.17	469.0	.3036
1945	1.99	2.36	2.17	388.0	.3093
2000	1.99	2.36	2.17	325.0	.3141
2015	1.99	2.36	2.17	270.0	.3181
2030	1.99	2.36	2.17	241.0	.3217
2045	1.99	2.36	2.17	199.0	.3246
2100	1.99	2.36	2.17	176.0	.3272
2115	1.99	2.36	2.17	155.0	.3295
2130	1.99	2.36	2.17	141.0	.3316
2145	1.99	2.36	2.17	127.0	.3335
2200	1.99	2.36	2.17	117.0	.3352
2215	1.99	2.36	2.17	108.0	.3368
2230	1.99	2.36	2.17	103.0	.3383
2245	1.99	2.36	2.17	98.0	.8898
2300	1.99	2.36	2.17	94.0	.3412
2315	1.99	2.36	2.17	93.0	.3425
2330	1.99	2.36	2.17	90.0	.3439
2345	1.99	2.36	2.17	88.0	.3452
2400	1.99	2.36	2.17	87.0	.3458

08158300 FERGUSON BRANCH AT SPRINGDALE ROAD, AUSTIN, TX
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°19'53", long 97°39'12", Travis County, on upstream side of culvert on Springdale Road and 6.5 mi northeast of the State Capitol Building in Austin.

DRAINAGE AREA.--1.63 mi^2.

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 509.64 ft NGVD.

REMARKS.--Because of insufficient data, no storms were analyzed for this station for the period of record.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 1,040 ft^3/s May 21, 1979 (gage height, 8.60 ft).

EXTREMES FOR CURRENT YEAR--Maximum discharge 394 ft^3/s, Oct. 21 (gage height, 8.69 ft).

08158380 LITTLE WALNUT CREEK AT GEORGIAN DRIVE, AUSTIN, TX
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°21'15", long 97°41'52", Travis County, on upstream side of bridge on Georgian Drive and 6.0 miles north of the State Capital Building in Austin.

DRAINAGE AREA.--5.22 mi^2.

PERIOD OF RECORD.--February 1983 to current year.

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 637.23 ft NGVD.

REMARKS.--Records fair. Storms analyzed for periods Feb. 22-23 and May 13. Two recording rain gages are located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 3,490 ft^3/s, Sept. 14, 1985 (gage height, 11.90 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge 3,490 ft^3/s Sept. 14 (gage height, 11.90 ft).

STORM RAINFALL AND RUNOFF RECORD

08158380 Little Walnut Creek at Georgian Drive, Austin, Texas

Date and time	Rainfall at gage 1-SHL (inches)	Rainfall at gage 4-WLN (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of February 22-23, 1985			
Feb. 22					
0000	0.0	0.0	0.0	3.3	0.0022
0435	.02	.01	.01	3.3	.0046
0445	.05	.02	.03	3.4	.0047
0455	.09	.11	.10	3.9	.0049
0500	.12	.16	.15	5.2	.0050
0505	.27	.35	.32	15.0	.0054
0510	.27	.42	.37	37.0	.0063
0515	.35	.47	.43	72.0	.0081
0520	.35	.50	.45	123.0	.0111
0525	.37	.51	.46	177.0	.0155
0530	.37	.51	.46	239.0	.0214
0535	.37	.51	.46	314.0	.0331
0545	.37	.51	.46	284.0	.0436
0550	.37	.51	.46	293.0	.0581
0605	.37	.51	.46	243.0	.0821
0630	.37	.51	.46	182.0	.1069
0700	.37	.51	.46	107.0	.1307
0800	.37	.51	.46	29.0	.1393
0900	.37	.51	.46	12.0	.1429
1000	.37	.51	.46	6.8	.1469
1300	.38	.51	.46	4.3	.1517
1730	.38	.51	.46	3.6	.1576
2400	.38	.51	.46	3.4	.1615
Feb. 23					
0000	.38	.51	.46	3.4	.1615
0230	.53	.61	.58	3.6	.1638
0305	.57	.63	.61	8.1	.1648
0320	.57	.64	.61	38.0	.1676
0335	.89	.87	.88	45.0	.1698
0340	1.02	.95	.98	84.0	.1719
0345	1.08	.99	1.02	118.0	.1748
0350	1.21	1.03	1.09	156.0	.1787
0355	1.27	1.08	1.15	251.0	.1849
0400	1.28	1.10	1.16	338.0	.1933
0405	1.29	1.10	1.17	469.0	.2049
0410	1.31	1.11	1.18	514.0	.2176
0415	1.37	1.12	1.21	566.0	.2316
0420	1.38	1.15	1.23	514.0	.2507
0430	1.40	1.15	1.24	605.0	.2731
0435	1.42	1.16	1.25	535.0	.2863

STORM RAINFALL AND RUNOFF RECORD

08158380 Little Walnut Creek at Georgian Drive, Austin, Texas--Continued

Date and time	Rainfall at gage 1-SHL (inches)	Rainfall at gage 4-WLN (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of February 22-23, 1985--Continued			
Feb. 23					
0440	1.44	1.16	1.26	566.0	0.3003
0445	1.44	1.16	1.26	548.0	.3139
0450	1.44	1.16	1.26	678.0	.3391
0500	1.44	1.17	1.27	495.0	.3758
0520	1.46	1.20	1.29	324.0	.4159
0550	1.50	1.21	1.31	202.0	.4409
0610	1.57	1.31	1.40	172.0	.4536
0620	1.63	1.34	1.44	182.0	.4604
0625	1.64	1.35	1.45	177.0	.4691
0640	1.64	1.36	1.46	209.0	.4795
0645	1.64	1.36	1.46	204.0	.4845
0650	1.64	1.36	1.46	208.0	.4948
0705	1.66	1.37	1.47	181.0	.5060
0715	1.67	1.38	1.48	186.0	.5129
0720	1.67	1.39	1.49	165.0	.5190
0730	1.67	1.39	1.49	177.0	.5322
0750	1.76	1.45	1.56	139.0	.5425
0800	1.77	1.52	1.61	136.0	.5492
0810	1.87	1.56	1.67	172.0	.5556
0815	1.87	1.57	1.68	172.0	.5620
0825	1.87	1.57	1.68	225.0	.5731
0835	1.87	1.57	1.68	209.0	.5809
0840	1.87	1.57	1.68	221.0	.5918
0855	1.87	1.58	1.68	189.0	.6011
0900	1.87	1.59	1.69	202.0	.6111
0915	1.87	1.59	1.69	159.0	.6190
0920	1.87	1.60	1.70	169.0	.6232
0925	1.88	1.60	1.70	164.0	.6272
0930	1.88	1.60	1.70	141.0	.6325
0940	1.89	1.60	1.70	136.0	.6426
1000	1.89	1.60	1.70	98.0	.6547
1030	1.89	1.60	1.70	64.0	.6642
1100	1.89	1.60	1.70	41.0	.6733
1200	1.89	1.60	1.70	21.0	.6827
1400	1.91	1.61	1.72	10.0	.6916
1800	1.91	1.61	1.72	6.0	.7005
2400	1.91	1.61	1.72	5.0	.7049

STORM RAINFALL AND RUNOFF RECORD

08158380 Little Walnut Creek at Georgian Drive, Austin, Texas

Date and time	Rainfall at gage 1-SHL (inches)	Rainfall at gage 4-WLN (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of May 13, 1985			
May 13					
0000	0.0	0.0	0.0	3.2	0.0070
1450	.0	.0	.0	3.2	.0141
1455	.01	.0	.00	3.2	.0142
1505	.04	.01	.02	3.2	.0144
1515	.17	.05	.09	3.2	.0145
1520	.30	.07	.15	3.2	.0146
1525	.61	.17	.33	3.4	.0147
1530	.93	.34	.55	4.5	.0148
1535	1.30	.51	.79	13.0	.0151
1540	2.27	.85	1.36	44.0	.0162
1545	2.49	1.24	1.69	215.0	.0215
1550	2.61	1.52	1.91	637.0	.0373
1555	2.62	1.54	1.93	1,690.0	.0791
1600	2.62	1.54	1.93	2,320.0	.1652
1610	2.69	1.66	2.03	2,610.0	.2620
1615	2.78	1.77	2.13	2,440.0	.3224
1620	2.89	1.87	2.24	2,480.0	.3837
1625	2.89	1.88	2.24	2,420.0	.4735
1635	2.90	1.90	2.26	2,520.0	.5982
1645	2.90	1.92	2.27	2,370.0	.6862
1650	2.90	1.93	2.28	2,220.0	.7411
1655	2.90	1.95	2.29	1,970.0	.8385
1710	2.90	1.96	2.30	1,470.0	.9295
1720	2.90	1.96	2.30	1,120.0	.9849
1730	2.90	1.96	2.30	849.0	1.0374
1745	2.90	1.96	2.30	548.0	1.0645
1750	2.90	1.96	2.30	535.0	1.0843
1800	2.90	1.96	2.30	380.0	1.1078
1815	2.90	1.97	2.30	293.0	1.1296
1830	2.90	1.97	2.30	206.0	1.1525
1900	2.90	1.97	2.30	126.0	1.1712
1930	2.90	1.97	2.30	83.0	1.1835
2000	2.90	1.97	2.30	54.0	1.1956
2100	2.90	1.97	2.30	30.0	1.2045
2200	2.90	1.97	2.30	17.0	1.2095
2300	2.90	1.97	2.30	11.0	1.2128
2400	2.90	1.97	2.30	9.3	1.2142

COLORADO RIVER BASIN

08158600 WALNUT CREEK AT WEBBERVILLE ROAD, AUSTIN, TX

LOCATION.--Lat 30°16'59", long 97°39'17", Travis County, Hydrologic Unit 12090205, on left bank 190 ft downstream from bridge on Farm Road 969, 0.8 mi downstream from Little Walnut Creek, 2.8 mi upstream from Colorado River, 5.2 mi east of the State Capitol Building in Austin, and 2.8 mi upstream from mouth.

DRAINAGE AREA.--51.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 425.96 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 2-3. Records fair. No known regulation or diversion. Station is part of a hydrologic research project to study rainfall-runoff relation for urban areas. Five recording rain gages are located in the watershed above this station.

AVERAGE DISCHARGE.--19 years, 24.4 ft^3/s (6.46 in/yr), 17,680 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft^3/s May 25, 1981 (gage height, 27.24 ft); no flow at times in 1967, 1971, and 1982-84.
Maximum stage since at least 1891, that of May 25, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 15, 1935, reached a stage of 24 ft, backwater from Colorado River. A flood in 1919 reached a stage of 22 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 1,500 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	2345	4,060	17.20	Dec. 16	0200	1,830	12.34
Oct. 13	1345	4,330	17.70	Feb. 23	1000	2,470	13.93
Oct. 20	1700	4,230	17.51	May 13	1815	2,780	14.60
Oct. 21	1000	*5,590	*19.78	Sept. 14	1800	5,140	19.07

Minimum daily discharge, 0.15 ft^3/s Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.75	70	18	36	16	74	16	17	4.9	6.0	2.0	.25
2	.67	59	17	39	19	44	15	8.8	4.9	78	2.2	.33
3	.34	34	16	53	18	39	15	7.8	4.9	48	2.2	.39
4	.32	33	24	42	21	43	14	8.7	5.0	142	1.9	.15
5	1.2	28	45	35	21	32	14	8.9	27	22	1.8	6.5
6	1.1	26	20	32	18	31	13	7.6	249	14	4.3	17
7	215	23	17	30	16	30	13	7.3	34	11	1.4	1.4
8	6.3	22	17	27	15	29	13	6.4	19	9.6	1.2	.55
9	90	21	16	27	16	28	12	7.3	11	10	1.3	.23
10	357	20	15	24	83	26	15	7.6	7.8	8.7	1.1	3.1
11	369	19	16	23	57	25	34	7.1	18	7.9	1.1	3.8
12	55	17	14	24	26	25	16	6.8	22	9.3	1.5	1.5
13	810	19	31	29	23	23	36	391	8.3	6.8	.62	1.1
14	301	20	19	27	21	56	25	65	6.7	6.3	1.5	448
15	34	19	30	24	20	29	13	12	6.2	5.8	.96	22
16	21	19	427	83	19	25	11	9.7	5.4	5.5	.81	5.2
17	15	18	49	38	18	22	10	19	5.3	5.2	.95	3.5
18	14	65	41	30	18	20	10	9.1	10	5.3	1.3	3.2
19	12	19	33	27	17	20	10	7.6	8.0	7.0	1.2	2.5
20	1040	17	30	23	17	229	11	7.0	6.2	6.2	.63	2.0
21	1020	19	28	22	17	31	19	70	5.2	5.3	.55	2.0
22	201	16	25	22	66	26	13	20	267	4.5	.70	2.0
23	160	16	24	24	551	23	13	13	44	3.9	.81	2.0
24	140	80	23	22	70	22	10	9.2	24	3.3	.78	1.7
25	107	157	21	20	51	21	9.9	8.2	25	3.2	.94	2.1
26	95	33	20	19	45	19	24	7.4	13	2.6	.70	2.7
27	111	27	29	20	44	29	10	6.7	9.8	2.6	.37	1.7
28	76	21	26	18	135	19	9.6	6.9	8.2	2.4	.32	5.6
29	72	20	21	18	---	18	12	6.4	7.3	2.3	.85	84
30	57	19	20	18	---	19	31	5.8	6.5	1.7	1.5	24
31	54	---	173	17	---	16	---	5.7	---	2.0	.48	---
TOTAL	5436.68	976	1305	893	1458	1093	467.5	781.0	873.6	448.4	37.97	650.50
MEAN	175	32.5	42.1	28.8	52.1	35.3	15.6	25.2	29.1	14.5	1.22	21.7
MAX	1040	157	427	83	551	229	36	391	267	142	4.3	448
MIN	.32	16	14	17	15	16	9.6	5.7	4.9	1.7	.32	.15
CFSM	3.41	.63	.82	.56	1.02	.69	.30	.49	.57	.28	.02	.42
IN.	3.94	.71	.95	.65	1.06	.79	.34	.57	.63	.33	.03	.47
AC-FT	10780	1940	2590	1770	2890	2170	927	1550	1730	889	75	1290

CAL YR 1984 TOTAL 9356.75 MEAN 25.6 MAX 1040 MIN .00 CFSM .50 IN 6.78 AC-FT 18560
WTR YR 1985 TOTAL 14420.65 MEAN 39.5 MAX 1040 MIN .15 CFSM .77 IN 10.46 AC-FT 28600

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1975 to current year. Sediment records: October 1977 to September 1982. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
09...	1500	230	127	8.2	23.5	1000	920	--	--	4.6	K170000	170000
FEB												
19...	1125	18	656	8.5	15.0	5	1.8	10.5	104	.3	440	230
JUN												
06...	1045	1220	245	7.6	22.5	30	940	6.7	79	6.8	440000	94000
AUG												
14...	0825	1.4	564	7.5	27.2	10	1.8	6.0	76	.7	K280	K1360

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT												
09...	57	14	21	1.1	3.4	.2	2.1	43	17	5.4	.20	2.9
FEB												
19...	300	100	110	6.2	26	.7	2.5	200	75	55	.40	4.4
JUN												
06...	100	28	37	2.7	9.2	.4	3.1	76	26	11	.40	4.5
AUG												
14...	190	82	64	6.6	34	1	4.0	105	56	69	.40	7.9

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
09...	79	1420	236	.28	.020	.30	.080	2.4	2.5	1.20	22
FEB											
19...	400	5	4	1.6	.020	1.6	.050	.35	.40	.060	1.9
JUN											
06...	140	2720	208	.31	.090	.40	.400	2.2	2.6	2.10	38
AUG											
14...	300	1	1	--	<.010	<.10	.040	.26	.30	.020	3.1

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
09...	1500	<1	17	<1	<10	3	45
FEB							
19...	1125	<1	86	<1	<10	<1	5
JUN							
06...	1045	1	28	<1	<10	2	25

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 09...	8	2	<.1	<1	<1	6
FEB 19...	<1	2	<.1	<1	<1	<3
JUN 06...	3	2	<.1	<1	<1	7

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)
JUN 06...	1045	<.10	<.10	<.10	<2.0	2.0	.1

DATE	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
JUN 06...	<.1	<.10	<2.0	<2.0	<.10	<.1

STORM RAINFALL AND RUNOFF RECORD

08158600 Walnut Creek at Webberville Road, Austin, Texas

Date and time	Rainfall at gage 1-WLN (inches)	Rainfall at gage 2-WLN (inches)	Rainfall at gage 3-WLN (inches)	Rainfall at gage 5-WLN (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of October 20-21, 1984				
Oct. 20							
0000	0.0	0.0	0.0	0.0	0.0	11.0	0.0016
0930	.0	.05	.0	.0	0.01	11.0	.0034
1115	.0	.09	.0	.0	0.02	10.0	.0038
1145	.0	.26	.0	.0	0.06	10.0	.0039
1200	.0	1.34	.03	.04	0.34	10.0	.0040
1215	.03	1.95	.58	.75	0.79	10.0	.0041
1230	1.25	2.37	1.33	1.40	1.57	12.0	.0041
1245	1.47	2.59	1.48	1.63	1.77	18.0	.0043
1300	1.48	2.85	1.86	1.83	1.99	18.0	.0044
1315	2.48	2.87	2.03	1.97	2.34	174.0	.0057
1330	2.48	2.87	2.03	1.98	2.35	882.0	.0157
1400	2.48	2.87	2.03	1.98	2.35	2,900.0	.0486
1415	2.48	2.87	2.03	1.98	2.35	3,510.0	.0883
1445	2.48	2.87	2.03	1.99	2.35	3,920.0	.1475
1515	2.48	2.87	2.04	1.99	2.35	4,090.0	.1939
1530	2.48	2.87	2.04	1.99	2.35	4,110.0	.2404
1600	2.48	2.87	2.05	1.99	2.35	4,000.0	.3008
1630	2.48	2.87	2.05	2.00	2.36	4,030.0	.3465
1645	2.48	2.87	2.05	2.00	2.36	4,220.0	.3783
1700	2.48	2.87	2.05	2.00	2.36	4,230.0	.4263
1730	2.48	2.87	2.05	2.00	2.36	4,090.0	.4726
1745	2.53	2.87	2.05	2.00	2.37	4,010.0	.5029
1800	2.54	2.87	2.05	2.00	2.37	3,820.0	.5461
1830	2.57	3.04	2.05	2.03	2.42	3,050.0	.6037
1915	2.57	3.04	2.07	2.16	2.45	1,640.0	.6409
2000	2.57	3.04	2.07	2.16	2.45	975.0	.6593
2030	2.57	3.04	2.07	2.16	2.45	1,310.0	.6741
2045	2.57	3.04	2.07	2.16	2.45	1,370.0	.6845
2100	2.57	3.04	2.07	2.16	2.45	1,370.0	.6948
2115	2.57	3.04	2.07	2.16	2.45	1,320.0	.7197
2215	2.57	3.04	2.07	2.16	2.45	762.0	.7399
2300	2.57	3.04	2.07	2.16	2.45	513.0	.7534
2400	2.57	3.04	2.07	2.16	2.45	332.0	.7635

STORM RAINFALL AND RUNOFF RECORD

08158600 Walnut Creek at Webberville Road, Austin, Texas

Date and time	Rainfall at gage 1-WLN (inches)	Rainfall at gage 2-WLN (inches)	Rainfall at gage 3-WLN (inches)	Rainfall at gage 5-WLN (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of October 20-21, 1984--Continued				
Oct. 21							
0000	2.57	3.04	2.07	2.16	2.45	332.0	0.7635
0200	2.57	3.04	2.07	2.16	2.45	219.0	.7850
0500	2.57	3.08	2.11	2.18	2.48	145.0	.7932
0545	2.57	3.09	2.11	2.18	2.48	136.0	.7953
0600	2.57	3.10	2.11	2.18	2.48	133.0	.7973
0645	2.59	3.10	2.11	2.19	2.49	128.0	.7992
0700	3.16	3.12	2.11	2.19	2.65	127.0	.8002
0715	3.57	3.51	2.16	2.40	2.90	123.0	.8011
0730	3.59	3.84	3.33	2.87	3.45	143.0	.8022
0745	3.59	3.89	3.45	2.94	3.52	165.0	.8034
0800	3.59	3.90	3.45	2.95	3.52	523.0	.8074
0815	3.67	3.90	3.46	2.95	3.55	897.0	.8142
0830	3.83	3.92	3.53	3.06	3.63	1,760.0	.8274
0845	4.02	3.93	3.57	3.08	3.70	2,760.0	.8483
0900	4.56	3.93	3.58	3.08	3.85	3,670.0	.8760
0915	4.66	3.93	3.58	3.08	3.88	4,540.0	.9103
0930	4.67	4.01	3.72	3.22	3.97	5,190.0	.9495
0945	4.67	4.02	3.73	3.30	3.99	5,530.0	.9912
1000	4.67	4.02	3.73	3.30	3.99	5,590.0	1.0335
1015	4.67	4.03	3.73	3.30	3.99	5,450.0	1.1158
1100	4.67	4.03	3.75	3.31	4.00	4,550.0	1.2017
1130	4.67	4.03	3.75	3.31	4.00	3,760.0	1.2585
1200	4.67	4.03	3.75	3.31	4.00	2,890.0	1.3021
1230	4.67	4.03	3.75	3.31	4.00	2,240.0	1.3444
1315	4.67	4.03	3.76	3.31	4.00	1,550.0	1.3854
1415	4.67	4.03	3.76	3.31	4.00	944.0	1.4103
1500	4.67	4.03	3.76	3.31	4.00	696.0	1.4287
1600	4.67	4.03	3.76	3.31	4.00	481.0	1.4432
1700	4.67	4.03	3.76	3.31	4.00	342.0	1.4561
1830	4.67	4.03	3.76	3.31	4.00	272.0	1.4685
2000	4.67	4.03	3.76	3.31	4.00	228.0	1.4805
2200	4.67	4.03	3.76	3.31	4.00	196.0	1.4924
2400	4.67	4.03	3.76	3.31	4.00	170.0	1.4975

STORM RAINFALL AND RUNOFF RECORD

08158600 Walnut Creek at Webberville Road, Austin, Texas

Date and time	Rainfall at gage 1-WLN (inches)	Rainfall at gage 2-WLN (inches)	Rainfall at gage 3-WLN (inches)	Rainfall at gage 4-WLN (inches)	Rainfall at gage 5-WLN (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
				September 14-15, 1985				
Sept. 14								
0000	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0002
1430	.0	.0	.0	.0	.0	.0	.6	.0004
1445	.02	.0	.0	.0	.0	.00	.6	.0004
1500	.29	.0	.0	.63	.0	.17	.6	.0004
1515	.79	.08	.0	1.40	.05	.43	.6	.0004
1530	.88	.28	.0	1.97	.24	.60	1.1	.0004
1545	.93	.34	.14	2.66	.74	.82	1.1	.0004
1600	.98	.36	.53	3.47	1.74	1.18	1.4	.0004
1615	1.04	.36	.78	4.12	2.51	1.45	1.4	.0004
1630	1.08	.36	.88	4.17	2.60	1.50	180.0	.0018
1645	1.14	.36	1.05	4.18	2.61	1.57	655.0	.0067
1700	1.14	.36	1.12	4.20	2.61	1.59	1,420.0	.0175
1715	1.15	.36	1.12	4.20	2.62	1.59	2,460.0	.0360
1730	1.16	.36	1.12	4.20	2.63	1.60	3,800.0	.0647
1745	1.16	.36	1.12	4.20	2.63	1.60	5,030.0	.1027
1800	1.16	.36	1.12	4.20	2.63	1.60	5,140.0	.1415
1815	1.16	.36	1.12	4.20	2.63	1.60	4,470.0	.1922
1845	1.16	.36	1.12	4.20	2.63	1.60	3,090.0	.2272
1900	1.16	.36	1.12	4.21	2.63	1.60	2,510.0	.2556
1930	1.16	.36	1.12	4.21	2.63	1.60	1,630.0	.2741
1945	1.16	.36	1.12	4.21	2.63	1.60	1,300.0	.2888
2015	1.16	.36	1.12	4.21	2.63	1.60	784.0	.3036
2100	1.16	.36	1.13	4.21	2.63	1.60	422.0	.3116
2130	1.16	.36	1.13	4.21	2.63	1.60	289.0	.3148
2145	1.16	.36	1.13	4.21	2.63	1.60	242.0	.3194
2245	1.16	.36	1.13	4.21	2.63	1.60	158.0	.3230
2315	1.16	.36	1.13	4.21	2.63	1.60	129.0	.3254
2400	1.16	.36	1.13	4.21	2.63	1.60	96.0	.3272
Sept. 15								
0000	1.16	.36	1.13	4.21	2.63	1.60	96.0	.3272
0100	1.16	.36	1.13	4.21	2.63	1.60	66.0	.3299
0200	1.16	.36	1.13	4.21	2.63	1.60	54.0	.3316
0300	1.16	.36	1.13	4.21	2.63	1.60	42.0	.3335
0500	1.16	.36	1.13	4.21	2.63	1.60	30.0	.3355
0730	1.16	.36	1.13	4.21	2.63	1.60	22.0	.3370
0930	1.16	.36	1.13	4.21	2.63	1.60	18.0	.3389
1430	1.16	.36	1.13	4.21	2.64	1.60	13.0	.3410
2000	1.16	.37	1.13	4.22	2.65	1.61	8.7	.3422
2400	1.16	.37	1.13	4.22	2.65	1.61	7.2	.3427

08158640 WALNUT CREEK AT SOUTHERN PACIFIC RAILROAD BRIDGE, AUSTIN, TX
(Reconnaissance partial-record station)

LOCATION.--Lat 30°15'58", long 97°39'24", Travis County, Hydrologic Unit 12090205, at Southern Pacific Railroad bridge, 1.2 mi south of Webberville Road, and 5.0 mi east of the State Capitol in Austin.

DRAINAGE AREA.--53.5 mi².

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: January 1975 to current year. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 09...	1545	420	230	7.7	23.5	500	1400	--	--	4.5	K140000	94000
FEB 19...	1200	42	855	7.4	18.0	5	3.3	8.6	91	.9	96	K12
AUG 14...	0855	58	872	6.8	28.9	25	3.1	4.9	64	2.0	100	84

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 09...	82	30	28	2.9	8.0	.4	3.1	52	22	18	.40	4.6
FEB 19...	230	99	67	15	65	2	7.3	130	90	83	1.8	8.7
AUG 14...	170	75	36	19	98	3	12	93	110	120	2.1	10

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 09...	120	1790	96	1.6	.030	1.6	.100	2.4	2.5	2.00	23
FEB 19...	420	9	5	8.2	.010	8.2	.070	1.8	1.9	5.00	6.1
AUG 14...	460	8	5	6.2	.890	7.1	2.50	1.4	3.9	<.010	10

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 09...	1545	1	23	<1	<10	3	170
FEB 19...	1200	<1	44	<1	<10	2	33

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 09...	6	11	<.1	<1	<1	9
FEB 19...	<1	14	<.1	<1	<1	18

COLORADO RIVER BASIN

08158700 ONION CREEK NEAR DRIFTWOOD, TX

LOCATION.--Lat 30°04'59", long 98°00'29", Hays County, Hydrologic Unit 12090205, on left bank at upstream side of low-water croasing on Farm Road 150, 3.2 mi southeast of Driftwood, and 10 mi west of Buda.

DRAINAGE AREA.--124 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1958, November 1961 to June 1979 (periodic discharge measuremrents only), July 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage 878.13 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: June 22 to July 12. Records fair except those for estimated daily discharges, which are poor. Station is part of hydrologic research project to study rainfall-runoff relationship in the Austin urban-rural areas. There is a recording rain gage in the watershed.

AVERAGE DISCHARGE.--6 years 37.8 ft^3/s (4.14 in/yr) 27,390 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,990 ft^3/s June 6, 1985 (gage height, 16.38 ft); no flow for several days in August and September 1984, and Oct. 1-10, 1984.
Flood of Mar. 20, 1979, reached a stage of 11.48 ft (discharge, 4,980 ft /s), on basis of peak flow over dam, 1.5 mi downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 21	1515	860	5.94	Feb. 23	0815	7,680	14.86
Oct. 28	2400	1,400	6.62	June 6	1300	*8,990	*16.38

Minimum daily discharge, no flow Oct. 1-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	38	19	220	121	250	139	40	10	70	13	2.2
2	.00	35	18	198	120	218	136	37	10	65	12	3.4
3	.00	32	18	193	115	212	128	31	9.3	60	11	3.4
4	.00	30	18	197	115	200	123	28	9.2	100	10	2.8
5	.00	26	19	187	120	185	105	27	14	90	11	3.1
6	.00	23	20	177	112	181	104	27	2850	80	11	4.7
7	.00	22	19	162	104	180	102	25	264	75	10	2.9
8	.00	21	19	149	99	174	91	25	207	70	9.6	2.0
9	.00	20	19	146	97	168	85	25	186	65	9.8	3.4
10	.00	18	19	142	98	162	98	25	145	60	8.7	3.2
11	75	16	20	138	93	165	104	24	116	75	8.2	4.0
12	27	16	20	140	85	157	96	25	93	89	7.6	4.2
13	18	16	31	145	83	153	99	26	83	75	8.6	8.8
14	26	15	42	147	79	198	123	32	74	64	11	10
15	30	15	30	177	75	198	95	26	59	53	9.2	6.3
16	15	14	209	208	74	195	79	22	44	46	8.0	4.0
17	9.4	14	148	225	70	185	70	24	38	41	5.7	3.4
18	8.3	17	149	209	69	180	65	22	43	36	4.5	3.0
19	4.1	15	134	198	67	177	70	19	82	35	3.5	3.2
20	3.4	13	123	183	66	211	61	19	42	33	3.0	2.4
21	169	13	112	173	67	189	57	20	38	33	3.6	2.0
22	55	12	101	173	67	182	54	21	38	31	4.1	1.9
23	56	10	97	169	1710	175	51	22	300	29	3.7	2.0
24	57	14	94	161	304	167	43	18	200	26	3.7	1.3
25	78	35	83	148	253	160	41	16	150	24	3.3	2.1
26	46	28	78	143	230	153	45	15	120	21	3.1	1.3
27	43	20	81	144	212	185	42	14	100	19	3.1	1.2
28	82	18	86	140	224	166	40	14	90	17	2.9	2.5
29	206	18	78	137	---	155	41	12	85	16	3.2	8.9
30	58	19	79	137	---	151	39	12	80	15	3.4	4.6
31	44	---	440	127	---	141	---	11	---	15	3.5	---
TOTAL	1110.20	603	2423	5193	4929	5573	2426	704	5579.5	1528	213.0	108.2
MEAN	35.8	20.1	78.2	168	176	180	80.9	22.7	186	49.3	6.87	3.61
MAX	206	38	440	225	1710	250	139	40	2850	100	13	10
MIN	.00	10	18	127	66	141	39	11	9.2	15	2.9	1.2
CFSM	.29	.16	.63	1.36	1.42	1.45	.65	.18	1.50	.40	.06	.03
IN.	.33	.18	.73	1.56	1.48	1.67	.73	.21	1.67	.46	.06	.03
AC-FT	2200	1200	4810	10300	9780	11050	4810	1400	11070	3030	422	215

CAL YR 1984 TOTAL 4943.19 MEAN 13.5 MAX 440 MIN .00 CFSM .11 IN 1.48 AC-FT 9800
WTR YR 1985 TOTAL 30389.90 MEAN 83.3 MAX 2850 MIN .00 CFSM .67 IN 9.12 AC-FT 60280

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: January 1974 to current year. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
11...	1020	116	322	7.7	22.0	500	550	8.6	101	4.2	27000	19000
FEB												
20...	0750	103	498	8.3	15.5	5	.80	9.2	94	.0	130	96
JUN												
06...	1240	8800	142	8.2	21.5	250	480	8.8	101	6.5	24000	43000
AUG												
13...	1055	8.5	486	7.7	27.5	5	9.0	6.8	88	.2	120	112

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT												
11...	160	55	48	9.5	4.6	.2	3.7	104	43	9.0	.20	7.9
FEB												
20...	240	35	70	17	7.6	.2	1.4	210	29	18	.20	6.9
JUN												
06...	71	9	23	3.3	1.6	.0	2.6	62	8.9	2.6	.10	6.8
AUG												
13...	240	43	70	17	8.1	.2	1.2	202	26	13	.20	11

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
11...	190	1620	180	.66	.040	.70	.080	3.0	3.1	.130	19
FEB											
20...	280	1	<1	--	<.010	.40	.040	--	<.20	.070	.8
JUN											
06...	86	1380	168	.16	.040	.20	.130	.57	.70	.210	38
AUG											
13...	270	2	2	--	<.010	<.10	.060	.34	.40	.100	1.9

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
11...	1020	<1	26	<1	<10	2	25
FEB							
20...	0750	<1	40	<1	<10	2	4
JUN							
06...	1240	2	11	<1	<10	2	38

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 11...	10	<1	<.1	<1	<1	3
FEB 20...	3	3	<.1	<1	<1	7
JUN 06...	5	2	<.1	<1	<1	<3

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
OCT 11...	1020	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
JUN 06...	1240	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1

STORM RAINFALL AND RUNOFF RECORD

08158700 Onion Creek near Driftwood, Texas

Date and time	Rainfall at gage 1-ON (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of February 23, 1985		
Feb. 23				
0000	0.0	0.0	67.0	0.0004
0100	.04	.04	67.0	.0013
0200	.10	.10	67.0	.0021
0300	1.22	1.22	71.0	.0030
0400	2.19	2.19	106.0	.0043
0500	2.30	2.30	1,330.0	.0209
0600	2.33	2.33	4,140.0	.0727
0700	2.51	2.51	5,750.0	.1445
0800	2.75	2.75	7,680.0	.2405
0900	2.80	2.80	5,750.0	.3123
1000	2.82	2.82	3,140.0	.3516
1100	2.82	2.82	2,220.0	.3793
1200	2.83	2.83	1,790.0	.4017
1300	2.83	2.83	1,520.0	.4207
1400	2.83	2.83	1,250.0	.4363
1500	2.83	2.83	1,040.0	.4493
1600	2.84	2.84	868.0	.4602
1700	2.84	2.84	768.0	.4698
1800	2.84	2.84	684.0	.4783
1900	2.84	2.84	607.0	.4859
2000	2.84	2.84	554.0	.4928
2100	2.84	2.84	502.0	.4991
2200	2.84	2.84	459.0	.5048
2300	2.84	2.84	427.0	.5102
2400	2.84	2.84	406.0	.5127

STORM RAINFALL AND RUNOFF RECORD

08158700 Onion Creek near Driftwood, Texas

Date and time	Rainfall at gage 1-ON (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of June 6, 1987		
June 6				
0000	0.0	0.0	40.0	0.0002
0100	.08	.08	560.0	.0072
0200	.15	.15	2,210.0	.0349
0300	.15	.15	753.0	.0443
0400	.15	.15	436.0	.0497
0500	.15	.15	302.0	.0535
0600	.15	.15	261.0	.0568
0700	.46	.46	2,820.0	.0920
0800	1.96	1.96	5,290.0	.1581
0900	2.35	2.35	6,210.0	.2357
1000	2.38	2.38	5,360.0	.3027
1100	2.38	2.38	5,900.0	.3764
1200	2.38	2.38	7,800.0	.4739
1300	2.40	2.40	8,990.0	.5862
1400	2.40	2.40	7,980.0	.6860
1500	2.41	2.41	5,140.0	.7502
1600	2.41	2.41	2,280.0	.7787
1700	2.41	2.41	1,580.0	.7984
1800	2.41	2.41	1,190.0	.8133
1900	2.41	2.41	924.0	.8249
2000	2.41	2.41	753.0	.8343
2100	2.41	2.41	644.0	.8423
2200	2.41	2.41	544.0	.8491
2300	2.41	2.41	482.0	.8551
2400	2.41	2.41	436.0	.8579

COLORADO RIVER BASIN

08158810 BEAR CREEK BELOW FARM ROAD 1826 NEAR DRIFTWOOD, TX

LOCATION.--Lat 30°09'19", long 97°56'23", Hays County, Hydrologic Unit 12090205, 0.8 mi southeast of Farm Road 1826 and 5.9 mi northeast of Driftwood.

DRAINAGE AREA.--12.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1978 to July 1979 (periodic discharge measurements only), October 1978 to June 1979 (peak discharges above base only), July 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 23 to Mar. 11. Records good except those for period of estimated daily discharges, which are fair. Station is part of a hydrologic research project to study rainfall-runoff relationship in the Austin urban-rural areas. There is one recording rain gage located in the watershed above station.

AVERAGE DISCHARGE.--6 years 5.91 ft^3/s (6.58 in/yr) 4,280 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,330 ft^3/s June 11, 1981 (gage height, 13.05 ft, from floodmarks), from slope-area measurements of peak flow; no flow in 1980 and 1983-84.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 9, 1919, reached a stage of 16.2 ft (discharge unknown) and was the highest since at least 1924, from information by local resident. A flood in 1915 was 2 ft higher than the 1939 flood, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 23	Unknown	*2,210	*8.15	June 6	0915	1,670	7.42

Minimum discharge, no flow Oct. 1-13, 18-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	5.9	2.6	44	2.9	34	12	1.8	.37	1.8	.15	.00
2	.00	4.7	2.5	31	2.6	21	11	1.6	.33	1.5	.14	.00
3	.00	4.4	2.0	41	2.6	17	10	1.4	.29	1.9	.13	.00
4	.00	4.1	2.2	45	2.6	15	9.6	1.2	.26	2.9	.12	.00
5	.00	3.0	3.3	34	2.6	11	8.5	1.2	3.2	2.2	.10	.00
6	.00	2.6	2.7	21	2.6	11	7.7	1.1	209	1.6	.09	.03
7	.08	2.6	2.6	17	2.3	10	7.2	.98	17	1.3	.08	.00
8	.00	2.6	2.6	15	2.2	9.0	6.5	.88	8.5	1.2	.08	.00
9	.00	2.4	2.6	13	2.2	8.3	6.2	.82	5.5	1.2	.07	.00
10	.12	1.7	2.4	10	2.2	7.8	7.2	.80	4.0	1.1	.06	.00
11	.00	.91	2.2	8.9	1.6	7.0	8.4	.71	3.2	.97	.05	.01
12	.00	.91	2.2	8.4	1.3	5.9	7.3	.66	2.6	1.1	.04	.06
13	.65	.92	3.5	8.4	1.3	5.7	6.7	.95	2.4	.80	.03	.01
14	1.0	1.1	2.5	12	1.3	36	8.0	1.9	2.2	.71	.03	.09
15	.00	1.2	21	17	1.2	15	5.6	.95	1.9	.65	.03	.01
16	.00	1.2	32	53	1.2	15	3.9	.71	1.6	.56	.02	.00
17	.00	1.2	29	38	1.0	13	3.0	.74	1.5	.50	.02	.00
18	.00	1.8	39	25	1.0	11	2.7	.66	1.4	.45	.01	.00
19	.00	1.2	33	19	1.0	11	2.0	.65	1.6	.42	.01	.00
20	.01	1.0	31	11	.91	83	2.1	.59	1.4	.42	.00	.00
21	27	1.0	26	10	.91	32	2.5	.70	1.2	.41	.00	.00
22	50	1.0	20	9.8	.91	27	2.6	.59	28	.36	.00	.00
23	26	1.0	19	9.8	241	23	2.4	.59	9.1	.34	.00	.00
24	18	13	19	8.1	47	21	2.1	.52	5.6	.32	.00	.00
25	15	15	14	7.0	27	18	2.1	.52	4.3	.26	.00	.00
26	19	5.2	14	5.7	18	17	3.0	.48	3.6	.26	.00	.00
27	21	3.1	14	5.7	15	20	2.2	.46	3.1	.27	.00	.00
28	16	2.6	15	4.8	39	17	2.5	.46	2.7	.26	.00	.00
29	11	2.8	14	4.8	---	16	2.2	.45	2.2	.23	.00	.49
30	8.5	2.9	52	4.7	---	15	2.1	.43	2.0	.21	.00	.07
31	6.9	---	143	3.6	---	13	---	.40	---	.19	.00	---
TOTAL	220.26	93.04	570.9	545.7	425.43	565.7	159.3	25.90	330.05	26.39	1.26	.77
MEAN	7.11	3.10	18.4	17.6	15.2	18.2	5.31	.84	11.0	.85	.041	.026
MAX	50	15	143	53	241	83	12	1.9	209	2.9	.15	.49
MIN	.00	.91	2.0	3.6	.91	5.7	2.0	.40	.26	.19	.00	.00
CFSM	.86	.38	2.23	2.14	1.85	2.21	.64	.10	1.34	.10	.005	.003
IN.	.99	.42	2.58	2.46	1.92	2.55	.72	.12	1.49	.12	.01	.00
AC-FT	437	185	1130	1080	844	1120	316	51	655	52	2.5	1.5

CAL YR 1984 TOTAL 977.98 MEAN 2.67 MAX 143 MIN .00 CFSM .32 IN 4.41 AC-FT 1940
WTR YR 1985 TOTAL 2964.70 MEAN 8.12 MAX 241 MIN .00 CFSM .99 IN 13.38 AC-FT 5880

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: March 1978 to current year. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
FEB												
20...	0825	5.7	550	8.1	15.9	5	.70	8.4	87	.0	80	K40
JUN												
06...	1125	204	137	8.2	21.0	110	120	8.5	97	6.2	K24000	40000
AUG												
13...	1020	.37	493	7.5	28.5	7	1.1	6.0	79	.0	K260	320

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB												
20...	290	63	89	17	8.5	.2	.90	230	41	18	.20	6.7
JUN												
06...	65	5	21	3.1	1.5	.0	2.9	60	5.2	2.4	.10	8.5
AUG												
13...	240	43	67	17	9.4	.3	1.0	195	31	16	.20	13

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB											
20...	320	1	1	--	<.010	.60	.040	.36	.40	.010	1.0
JUN											
06...	81	146	22	.16	.040	.20	.130	.97	1.1	.110	20
AUG											
13...	270	5	4	--	<.010	<.10	.040	.16	.20	.020	2.1

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
FEB							
20...	0825	<1	42	<1	<10	<1	5
JUN							
06...	1125	1	11	<1	<10	1	53

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB						
20...	2	3	<.1	<1	<1	8
JUN						
06...	1	4	<.1	<1	<1	<3

STORM RAINFALL AND RUNOFF RECORD

08158810 Bear Creek below Farm Road 1826
near Driftwood, Texas

Date and time	Rainfall at gage 1-BER (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of June 5-6, 1985		
June 5				
0000	0.0	0.0	0.9	0.0009
1545	.0	.0	1.2	.0022
1700	.50	.50	1.2	.0023
1730	1.51	1.51	1.7	.0027
2030	1.81	1.81	2.4	.0035
2245	3.13	3.13	2.8	.0040
2315	3.13	3.13	2.8	.0041
2330	3.13	3.13	108.0	.0076
2345	3.13	3.13	120.0	.0114
2400	3.13	3.13	146.0	.0160
June 6				
0000	3.13	3.13	146.0	.0160
0030	3.13	3.13	113.0	.0255
0100	3.15	3.15	74.0	.0325
0200	3.23	3.23	31.0	.0365
0300	3.23	3.23	17.0	.0386
0400	3.23	3.23	11.0	.0407
0600	3.23	3.23	5.4	.0417
0645	3.35	3.35	4.3	.0420
0700	3.66	3.66	4.1	.0421
0715	4.02	4.02	4.3	.0422
0730	4.51	4.51	9.6	.0425
0745	4.86	4.86	14.0	.0430
0800	5.04	5.04	16.0	.0435
0815	5.23	5.23	23.0	.0442
0830	5.39	5.39	39.0	.0455
0845	5.42	5.42	218.0	.0524
0900	5.42	5.42	1,310.0	.0940
0915	5.42	5.42	1,670.0	.1470
0930	5.42	5.42	1,600.0	.2232
1000	5.42	5.42	980.0	.2854
1030	5.42	5.42	550.0	.3291
1115	5.42	5.42	233.0	.3476
1145	5.42	5.42	168.0	.3609
1230	5.42	5.42	95.0	.3715
1330	5.42	5.42	53.0	.3833
1600	5.42	5.42	20.0	.3915
2000	5.42	5.42	9.0	.3961
2400	5.42	5.42	5.7	.3976

COLORADO RIVER BASIN

08158840 SLAUGHTER CREEK AT FARM ROAD 1826 NEAR AUSTIN, TX

LOCATION.--Lat 30°12'32", long 97°54'11", Travis County, Hydrologic Unit 12U90205, 1.7 mi south the intersection of U.S. Highway 290 and Farm Road 1826 and 11.9 mi southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--8.24 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1978 to current year.

GAGE.--Wster-stage recorder. Datum of gage is 876.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No known regulation or diversion. There is a recording rain gage in the watershed.

AVERAGE DISCHARGE.--7 years (water years 1979-85), 5.43 ft^3/s (8.95 in/yr), 3,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,080 ft^3/s June 11, 1981 (gage height, 10.79 ft); no flow st times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 23	0530	*1,910	*8.35	June 6	0915	1,390	7.66

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	5.9	2.6	44	2.9	34	12	1.8	.37	1.8	.15	.00
2	.00	4.7	2.5	31	2.6	21	11	1.6	.33	1.5	.14	.00
3	.00	4.4	2.0	41	2.6	17	10	1.4	.29	1.9	.13	.00
4	.00	4.1	2.2	45	2.6	15	9.6	1.2	.26	2.9	.12	.00
5	.00	3.0	3.3	34	2.6	11	8.5	1.2	3.2	2.2	.10	.00
6	.00	2.6	2.7	21	2.6	11	7.7	1.1	209	1.6	.09	.03
7	.08	2.6	2.6	17	2.3	10	7.2	.98	17	1.3	.08	.00
8	.00	2.6	2.6	15	2.2	9.0	6.5	.88	8.5	1.2	.08	.00
9	.00	2.4	2.6	13	2.2	8.3	6.2	.82	5.5	1.2	.07	.00
10	.12	1.7	2.4	10	2.2	7.8	7.2	.80	4.0	1.1	.06	.00
11	.00	.91	2.2	8.9	1.6	7.0	8.4	.71	3.2	.97	.05	.01
12	.00	.91	2.2	8.4	1.3	5.9	7.3	.66	2.6	1.1	.04	.06
13	.65	.92	3.5	8.4	1.3	5.7	6.7	.95	2.4	.80	.03	.01
14	1.0	1.1	2.5	12	1.3	36	8.0	1.9	2.2	.71	.03	.09
15	.00	1.2	21	17	1.2	15	5.6	.95	1.9	.65	.03	.01
16	.00	1.2	32	53	1.2	15	3.9	.71	1.6	.56	.02	.00
17	.00	1.2	29	38	1.0	13	3.0	.74	1.5	.50	.02	.00
18	.00	1.8	39	25	1.0	11	2.7	.66	1.4	.45	.01	.00
19	.00	1.2	33	19	1.0	11	2.0	.65	1.6	.42	.01	.00
20	.01	1.0	31	11	.91	83	2.1	.59	1.4	.42	.00	.00
21	27	1.0	26	10	.91	32	2.5	.70	1.2	.41	.00	.00
22	50	1.0	20	9.8	.91	27	2.6	.59	28	.36	.00	.00
23	26	1.0	19	9.8	241	23	2.4	.59	9.1	.34	.00	.00
24	18	13	19	8.1	47	21	2.1	.52	5.6	.32	.00	.00
25	15	15	14	7.0	27	18	2.1	.52	4.3	.26	.00	.00
26	19	5.2	14	5.7	18	17	3.0	.48	3.6	.26	.00	.00
27	21	3.1	14	5.7	15	20	2.2	.46	3.1	.27	.00	.00
28	16	2.6	15	4.8	39	17	2.5	.46	2.7	.26	.00	.00
29	11	2.8	14	4.8	---	16	2.2	.45	2.2	.23	.00	.49
30	8.5	2.9	52	4.7	---	15	2.1	.43	2.0	.21	.00	.07
31	6.9	---	143	3.6	---	13	---	.40	---	.19	.00	---
TOTAL	220.26	93.04	570.9	545.7	425.43	565.7	159.3	25.90	330.05	26.39	1.26	.77
MEAN	7.11	3.10	18.4	17.6	15.2	18.2	5.31	.84	11.0	.85	.041	.026
MAX	50	15	143	53	241	83	12	1.9	209	2.9	.15	.49
MIN	.00	.91	2.0	3.6	.91	5.7	2.0	.40	.26	.19	.00	.00
CFSM	.86	.38	2.23	2.14	1.85	2.21	.64	.10	1.34	.10	.005	.003
IN.	.99	.42	2.58	2.46	1.92	2.55	.72	.12	1.49	.12	.01	.00
AC-FT	437	185	1130	1080	844	1120	316	51	655	52	2.5	1.5

CAL YR 1984 TOTAL 977.98 MEAN 2.67 MAX 143 MIN .00 CFSM .32 IN 4.41 AC-FT 1940
WTR YR 1985 TOTAL 2964.70 MEAN 8.12 MAX 241 MIN .00 CFSM .99 IN 13.38 AC-FT 5880

PERIOD OF RECORD.--Chemical and biochemical analyses: June 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
21...	1537	26	208	8.1	19.0	250	83	8.8	96	2.0	44000	49000
FEB												
20...	0850	1.0	764	8.0	15.6	5	1.0	8.8	91	.2	K68	K68
JUN												
06...	1055	463	203	8.0	21.5	100	150	8.7	100	5.6	K34000	60000
AUG												
13...	0745	.04	630	7.5	26.5	12	2.0	5.6	71	.2	K180	2800

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT												
21...	91	21	29	4.6	4.2	.2	2.3	71	20	9.1	.10	7.7
FEB												
20...	360	120	100	26	26	.6	.60	240	76	61	.20	5.6
JUN												
06...	88	19	26	5.7	5.9	.3	2.6	70	18	9.5	<.10	7.1
AUG												
13...	270	73	70	23	23	.6	.70	197	41	54	.20	12

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
21...	120	133	21	.29	.010	.30	.070	.73	.80	.110	6.7
FEB											
20...	440	5	3	--	<.010	.40	.050	.25	.30	<.010	1.1
JUN											
06...	120	218	24	.13	.070	.20	.220	1.1	1.3	.14D	14
AUG											
13...	340	3	3	--	<.010	<.10	.040	.26	.30	.060	3.2

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
21...	1537	<1	16	<1	<10	2	52
FEB							
20...	0850	<1	49	<1	<10	<1	3
JUN							
06...	1055	1	13	<1	<10	1	46

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT						
21...	<1	<1	<.1	<1	<1	11
FEB						
20...	2	6	<.1	<1	<1	21
JUN						
06...	5	2	<.1	<1	<1	6

DAT	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
OCT												
21...	1537	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1

STORM RAINFALL AND RUNOFF RECORD

08158840 Slaughter Creek at Farm Road 1826
near Austin, Texas

Date and time	Rainfall at gage 1-SLA (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of February 23, 1985		
Feb. 23				
0000	0.0	0.0	0.9	0.0001
0130	.0	.0	.9	.0003
0145	.01	.01	.9	.0003
0215	.07	.07	.9	.0004
0230	.22	.22	.9	.0004
0245	.40	.40	1.1	.0005
0300	.44	.44	1.1	.0005
0315	.59	.59	2.4	.0007
0330	.99	.99	7.8	.0010
0345	1.42	1.42	30.0	.0024
0400	1.96	1.96	167.0	.0103
0415	2.39	2.39	253.0	.0222
0430	2.70	2.70	363.0	.0392
0445	2.74	2.74	928.0	.0829
0500	2.74	2.74	1,630.0	.1595
0515	2.74	2.74	1,870.0	.2474
0530	2.74	2.74	1,900.0	.3368
0545	2.74	2.74	1,650.0	.4143
0600	2.76	2.76	1,290.0	.4750
0615	2.81	2.81	923.0	.5184
0630	2.83	2.83	717.0	.5521
0645	2.86	2.86	583.0	.5795
0700	2.89	2.89	444.0	.6004
0715	2.92	2.92	334.0	.6161
0730	2.96	2.96	271.0	.6288
0745	3.02	3.02	260.0	.6410
0800	3.05	3.05	238.0	.6522
0815	3.11	3.11	256.0	.6643
0830	3.13	3.13	216.0	.7049
1015	3.14	3.14	205.0	.7772
1215	3.16	3.16	197.0	.8420
1345	3.16	3.16	185.0	.9029
1545	3.16	3.16	153.0	.9496
1700	3.16	3.16	132.0	.9962
1930	3.16	3.16	104.0	1.0353
2100	3.16	3.16	90.0	1.0628
2245	3.16	3.16	81.0	1.0856
2400	3.16	3.16	73.0	1.0942

STORM RAINFALL AND RUNOFF RECORD

08158840 Slaughter Creek at Farm Road 1826
near Austin, Texas

Date and time	Rainfall at gage 1-SLA (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of June 5-6, 1985		
June 5				
0000	0.0	0.0	3.1	0.0042
1430	.0	.0	3.1	.0085
1445	.01	.01	3.4	.0087
1500	.05	.05	3.4	.0090
1545	.05	.05	3.4	.0093
1600	.07	.07	3.4	.0095
1615	.17	.17	3.4	.0096
1630	.31	.31	4.1	.0098
1645	.36	.36	4.1	.0100
1700	.37	.37	4.4	.0102
1715	.58	.58	23.0	.0113
1730	1.11	1.11	30.0	.0127
1745	1.31	1.31	25.0	.0139
1800	1.35	1.35	25.0	.0151
1815	1.38	1.38	25.0	.0163
1830	1.39	1.39	38.0	.0180
1845	1.40	1.40	38.0	.0207
1915	1.43	1.43	25.0	.0225
1930	1.43	1.43	21.0	.0250
2030	1.46	1.46	12.0	.0264
2045	1.50	1.50	13.0	.0270
2100	1.59	1.59	14.0	.0276
2115	1.70	1.70	14.0	.0283
2130	1.87	1.87	17.0	.0291
2145	2.17	2.17	81.0	.0829
2200	2.30	2.30	81.0	.0367
2215	2.33	2.33	145.0	.0435
2230	2.34	2.34	158.0	.0510
2245	2.34	2.34	104.0	.0607
2330	2.34	2.34	73.0	.0693
2400	2.34	2.34	66.0	.0747
June 6				
0000	2.34	2.34	66.0	.0747
0045	2.34	2.34	38.0	.0806
0100	2.34	2.34	40.0	.0825
0115	2.36	2.36	224.0	.0931
0130	2.41	2.41	235.0	.1151
0215	2.51	2.51	212.0	.1550
0330	2.51	2.51	153.0	.2126
0615	2.51	2.51	63.0	.2303

STORM RAINFALL AND RUNOFF RECORD

08158840 Slaughter Creek at Farm Road 1826
near Austin, Texas

Date and time	Rainfall at gage 1-SLA (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
	Storm of June 5-6, 1985--Continued			
June 6				
0630	2.59	2.59	63.0	0.2333
0645	2.87	2.87	66.0	.2364
0700	3.11	3.11	70.0	.2397
0715	3.23	3.23	81.0	.2435
0730	3.30	3.30	209.0	.2533
0745	3.37	3.37	381.0	.2712
0800	3.49	3.49	483.0	.2939
0815	3.65	3.65	563.0	.3204
0830	3.80	3.80	772.0	.3567
0845	3.93	3.93	954.0	.4016
0900	4.01	4.01	1,370.0	.4660
0915	4.01	4.01	1,390.0	.5313
0930	4.01	4.01	1,260.0	.5906
0945	4.02	4.02	1,100.0	.6423
1000	4.02	4.02	897.0	.6844
1015	4.02	4.02	748.0	.7196
1030	4.02	4.02	645.0	.7499
1045	4.02	4.02	550.0	.7758
1100	4.02	4.02	467.0	.7977
1115	4.02	4.02	429.0	.8179
1130	4.02	4.02	414.0	.8374
1145	4.02	4.02	400.0	.8562
1200	4.02	4.02	389.0	.9019
1300	4.04	4.04	342.0	.9662
1400	4.05	4.05	294.0	1.0215
1500	4.05	4.05	260.0	1.0704
1600	4.05	4.05	231.0	1.1138
1700	4.05	4.05	212.0	1.1537
1800	4.05	4.05	190.0	1.1894
1900	4.05	4.05	171.0	1.2216
2000	4.05	4.05	158.0	1.2513
2100	4.05	4.05	145.0	1.2786
2200	4.05	4.05	132.0	1.3034
2300	4.05	4.05	121.0	1.3262
2400	4.05	4.05	110.0	1.3365

08158880 BOGGY CREEK (SOUTH) AT CIRCLE S ROAD, AUSTIN, TX
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°10'50", long 97°46'55", Travis County, on downstream side of bridge on Circle S Road and 7.0 mi south of the State Capitol Building in Austin.

DRAINAGE AREA.--3.58 mi^2.

PERIOD OF RECORD.--April 1976 to current year.

REVISED RECORDS.--Open-File Report 82-506: 1979 maximum.

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 591.66 ft NGVD.

REMARKS.--Records fair. Storms analyzed for periods Oct. 10-11 and June 6.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,920 ft^3/s (gage height, 10.56 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,670 ft^3/s, Oct. 10 (gage height 10.09 ft).

STORM RAINFALL AND RUNOFF RECORD

08158880 Boggy Creek (South) at Circle S Road, Austin, Texas

Date and time	Rainfall at gage 1-BGS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of October 10-11, 1984		
Oct. 10				
0000	0.0	0.0	0.0	0.0
1915	.01	.01	.0	.0
1920	.04	.04	.0	.0
1930	.11	.11	.0	.0
2105	.11	.11	.0	.0
2125	.36	.36	.0	.0
2130	.54	.54	.5	.0000
2135	.67	.67	1.0	.0001
2140	.75	.75	1.5	.0001
2145	.92	.92	2.5	.0002
2150	1.12	1.12	5.0	.0004
2155	1.26	1.26	10.0	.0007
2200	1.62	1.62	15.0	.0013
2205	1.85	1.85	30.0	.0024
2210	1.98	1.98	63.0	.0046
2215	2.08	2.08	144.0	.0098
2220	2.23	2.23	316.0	.0212
2225	2.36	2.36	574.0	.0419
2230	2.47	2.47	865.0	.0731
2235	2.60	2.60	1,120.0	.1135
2240	2.73	2.73	1,450.0	.1658
2245	2.83	2.83	1,790.0	.2304
2250	2.90	2.90	2,140.0	.3076
2255	2.97	2.97	2,390.0	.3938
2300	3.02	3.02	2,500.0	.4840
2305	3.05	3.05	2,670.0	.5803
2310	3.08	3.08	2,470.0	.6694
2315	3.09	3.09	2,290.0	.7520
2320	3.09	3.09	2,060.0	.8634
2330	3.10	3.10	1,720.0	.9875
2340	3.10	3.10	1,320.0	1.0827
2350	3.10	3.10	1,070.0	1.1599
2400	3.10	3.10	836.0	1.2127
Oct. 11				
0000	3.10	3.10	836.0	1.2127
0015	3.13	3.13	568.0	1.2968
0030	3.15	3.15	376.0	1.3375
0045	3.18	3.18	279.0	1.3677
0100	3.19	3.19	210.0	1.4017
0130	3.19	3.19	132.0	1.4303

STORM RAINFALL AND RUNOFF RECORD

08158880 Boggy Creek (South) at Circle S Road, Austin, Texas

Date and time	Rainfall at gage 1-BGS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
	Storm of October 10-11, 1984--Continued			
Oct. 11				
0200	3.19	3.19	90.0	1.4595
0300	3.19	3.19	52.0	1.4820
0400	3.19	3.19	33.0	1.5035
0600	3.20	3.20	10.0	1.5100
0700	3.20	3.20	4.0	1.5117
0800	3.21	3.21	2.0	1.5130
1000	3.28	3.28	1.5	1.5149
1400	3.42	3.42	1.0	1.5162
1600	3.54	3.54	1.0	1.5167
1610	3.55	3.55	4.0	1.5170
1620	3.60	3.60	12.0	1.5179
1630	3.63	3.63	22.0	1.5194
1640	3.77	3.77	45.0	1.5219
1645	3.79	3.79	79.0	1.5247
1650	3.91	3.91	142.0	1.5298
1655	3.96	3.96	164.0	1.5358
1700	3.96	3.96	174.0	1.5420
1705	3.97	3.97	209.0	1.5496
1710	3.98	3.98	248.0	1.5585
1715	4.01	4.01	266.0	1.5681
1720	4.04	4.04	283.0	1.5783
1725	4.06	4.06	302.0	1.5892
1730	4.06	4.06	327.0	1.6010
1735	4.06	4.06	343.0	1.6258
1750	4.06	4.06	311.0	1.6482
1755	4.06	4.06	281.0	1.6583
1800	4.06	4.06	248.0	1.6762
1815	4.06	4.06	182.0	1.6926
1825	4.06	4.06	151.0	1.7035
1835	4.06	4.06	130.0	1.7129
1845	4.06	4.06	109.0	1.7188
1850	4.06	4.06	100.0	1.7314
1920	4.06	4.06	70.0	1.7440
1940	4.06	4.06	55.0	1.7579
2030	4.06	4.06	27.0	1.7657
2100	4.06	4.06	15.0	1.7706
2200	4.06	4.06	12.0	1.7784
2400	4.06	4.06	5.0	1.7805

STORM RAINFALL AND RUNOFF RECORD

08158880 Boggy Creek (South) at Circle S Road, Austin, Texas

Date and time	Rainfall at gage 1-BGS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of June 6, 1985		
June 6				
0000	1.42	1.42	2.5	0.0036
0640	1.42	1.42	2.5	.0076
0725	1.55	1.55	2.5	.0082
0740	1.92	1.92	5.0	.0086
0750	2.20	2.20	35.0	.0111
0800	2.38	2.38	59.0	.0143
0805	2.50	2.50	80.0	.0172
0810	2.62	2.62	113.0	.0213
0815	2.66	2.66	155.0	.0269
0820	2.68	2.68	200.0	.0377
0830	2.77	2.77	309.0	.0600
0840	2.87	2.87	466.0	.0936
0850	3.10	3.10	518.0	.1403
0905	3.47	3.47	521.0	.1779
0910	3.60	3.60	586.0	.1990
0915	3.68	3.68	759.0	.2264
0920	3.78	3.78	990.0	.2621
0925	3.83	3.83	1,160.0	.3040
0930	3.90	3.90	1,270.0	.3498
0935	3.92	3.92	1,320.0	.4212
0945	3.97	3.97	1,290.0	.4910
0950	3.98	3.98	1,280.0	.5603
1000	4.00	4.00	1,140.0	.6425
1010	4.00	4.00	1,050.0	.7182
1020	4.01	4.01	1,020.0	.7918
1030	4.01	4.01	1,010.0	.8647
1040	4.01	4.01	902.0	.9298
1050	4.01	4.01	769.0	.9852
1100	4.01	4.01	639.0	1.0429
1115	4.04	4.04	457.0	1.1006
1135	4.07	4.07	302.0	1.1496
1200	4.08	4.08	188.0	1.1869
1230	4.10	4.10	124.0	1.2137
1300	4.12	4.12	82.0	1.2403
1400	4.14	4.14	25.0	1.2511
1500	4.14	4.14	10.0	1.2576
1700	4.15	4.15	5.0	1.2641
2100	4.16	4.16	2.5	1.2679
2400	4.16	4.16	2.2	1.2693

COLORADO RIVER BASIN

08158920 WILLIAMSON CREEK AT OAK HILL, TX

LOCATION.--Lat 30°06'06", long 97°51'36", Travis County, Hydrologic Unit 12090205, at downstream side of bridge on U.S. Highway 290 in Oak Hill, 0.8 mi east of the intersection of U.S. Highway 290 and State Highway 71, and 7.7 mi southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--6.30 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1974 to February 1977 (periodic discharge measurements only), January 1978 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 798.68 ft above National Geodetic Vertical Datum of 1929 (levels from city of Austin bench mark).

REMARKS.--No estimated daily discharges. Records fair. Station is part of a hydrologic-research project to study rainfall-runoff relations for the Austin urban-rural areas. Station is equipped with an automatic water-quality sampler. There are two recording rain gages in the watershed above this station.

AVERAGE DISCHARGE.--7 years, 4.18 ft^3/s (9.01 in/yr), 3.030 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,170 ft^3/s June 11, 1981 (gage height, 8.55 ft); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 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	2115	*1,500	*5.58	Feb. 23	0500	787	4.42
Oct. 13	1200	686	4.22	June 6	0800	1,200	5.13
Oct. 21	1000	852	4.54	June 23	1830	731	4.31

Minimum daily discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	4.5	.85	10	4.3	8.0	7.0	.64	.14	.85	.00	.00
2	.00	4.1	.89	8.7	5.8	6.1	7.3	.57	.09	.84	.00	.00
3	.00	3.8	.85	13	5.0	6.4	7.5	.50	.08	3.1	.00	.00
4	.00	3.2	1.1	10	4.5	6.5	7.8	.37	.13	4.3	.00	.00
5	.00	2.4	1.9	7.1	5.4	5.9	8.1	.37	13	1.2	.00	.03
6	.00	2.3	1.0	5.3	5.3	5.0	7.3	.37	123	1.5	.00	2.6
7	16	2.0	1.0	4.4	5.5	5.8	6.7	.37	9.1	1.1	.00	.00
8	.01	2.0	1.2	2.4	5.4	5.6	5.9	.45	4.4	1.1	.00	.00
9	.00	1.7	1.2	2.0	5.9	5.5	5.9	.46	3.4	1.0	.00	.00
10	87	1.4	1.0	1.5	7.4	4.9	6.7	.37	2.4	.72	.00	.00
11	5.8	1.2	1.2	2.1	6.3	4.9	7.1	.37	1.7	.50	.00	.00
12	.19	1.2	1.6	3.0	5.8	5.2	3.3	.32	1.7	.72	.00	.00
13	53	1.1	4.0	4.5	6.0	5.2	3.5	5.5	1.5	.35	.00	.00
14	31	1.2	2.1	6.5	6.0	16	2.6	1.4	1.5	.27	.00	3.4
15	3.7	1.2	6.5	7.4	6.1	9.2	2.0	.67	1.0	.20	.00	.00
16	1.3	1.0	9.2	18	6.2	8.8	1.7	.55	.70	.18	.00	.00
17	.55	.70	9.2	14	5.9	7.7	1.8	.77	1.0	.13	.00	.00
18	.44	2.3	8.5	11	5.1	7.8	2.0	.41	1.4	.11	.00	.00
19	.37	1.2	6.7	8.6	5.0	7.9	1.7	.37	1.2	.10	.00	.00
20	5.8	1.0	5.9	6.0	4.9	30	1.5	.30	1.9	.06	.00	.00
21	98	.97	4.6	6.4	4.2	11	1.5	1.0	1.6	.03	.00	.00
22	36	.70	3.3	6.3	4.7	9.3	1.2	.47	14	.02	.00	.00
23	29	.93	3.0	5.7	71	7.6	1.0	.35	33	.01	.00	.00
24	23	9.5	3.2	8.1	11	7.0	.85	.33	10	.01	.00	.00
25	18	5.8	2.7	7.1	7.8	7.1	1.4	.32	3.2	.01	.00	.00
26	16	1.9	2.7	7.0	6.2	7.0	2.9	.30	2.0	.01	.00	.00
27	13	1.4	3.4	8.7	5.5	8.9	1.0	.29	1.7	.01	.00	.00
28	9.6	1.2	3.3	7.3	11	7.8	3.3	.29	1.7	.00	.00	.04
29	7.8	1.1	3.2	5.3	---	7.5	1.2	.25	1.3	.00	.00	22
30	5.5	.87	8.6	6.5	---	7.4	.79	.17	1.0	.00	.00	.01
31	5.7	---	27	5.2	---	7.2	---	.14	---	.00	.00	---
TOTAL	466.76	63.87	130.89	219.1	233.2	250.2	112.54	19.04	238.84	18.43	.00	28.08
MEAN	15.1	2.13	4.22	7.07	8.33	8.07	3.75	.61	7.96	.59	.000	.94
MAX	98	9.5	27	18	71	30	8.1	5.5	123	4.3	.00	22
MIN	.00	.70	.85	1.5	4.2	4.9	.79	.14	.08	.00	.00	.00
CFSM	2.40	.34	.67	1.12	1.32	1.28	.60	.10	1.26	.09	.000	.15
IN.	2.76	.38	.77	1.29	1.38	1.48	.66	.11	1.41	.11	.00	.17
AC-FT	926	127	260	435	463	496	223	38	474	37	.00	56

CAL YR 1984 TOTAL 741.86 MEAN 2.03 MAX 98 MIN .00 CFSM .32 IN 4.38 AC-FT 1470
WTR YR 1985 TOTAL 1780.95 MEAN 4.88 MAX 123 MIN .00 CFSM .78 IN 10.51 AC-FT 3530

08158920 WILLIAMSON CREEK AT OAK HILL, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Occasional discharge measurements: January 1974 to current year. Chemical, biochemical, and pesticide analyses: January 1974 to current year. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
21...	1320	68	340	8.0	18.5	250	84	8.4	91	1.9	140000	81000
DEC												
31...	0430	59	571	--	--	--	--	--	--	11	3200	440000
31...	0445	63	317	--	--	1000	930	--	--	--	--	--
31...	0500	62	240	--	--	--	--	--	--	--	--	--
31...	0515	58	223	--	--	1500	960	--	--	--	150000	360000
31...	0530	52	218	--	--	--	--	--	--	14	--	--
31...	0545	48	214	--	--	--	--	--	--	14	K190000	24000
FEB												
20...	0915	4.9	697	7.9	15.7	5	.50	6.5	67	.2	220	K52
23...	0345	59	--	--	--	--	--	--	--	--	12000	K50000
23...	0400	105	281	--	--	--	--	--	--	9.8	--	--
23...	0415	119	183	7.9	--	500	2600	--	--	--	--	--
23...	0430	221	169	--	--	--	--	--	--	18	140000	500000
23...	0445	442	244	--	--	100	2400	--	--	--	K140000	360000
23...	0500	787	--	--	--	--	--	--	--	--	K140000	K210000
MAR												
20...	0330	63	--	--	--	400	220	--	--	4.0	8400	52000
20...	0345	111	--	--	--	--	--	--	--	5.6	20000	120000
20...	0400	164	--	--	--	4500	840	--	--	12	20000	120000
20...	0415	140	--	--	--	--	--	--	--	9.9	--	--
20...	0430	125	--	--	--	--	--	--	--	8.1	--	--
20...	0445	95	--	--	--	800	570	--	--	6.9	38000	150000
JUN												
06...	1020	334	194	8.2	21.5	80	180	8.0	92	5.9	36000	78000

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT												
21...	160	31	48	10	5.9	.2	2.6	130	22	11	.10	7.5
DEC												
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
20...	360	71	100	27	17	.4	1.1	290	46	32	.20	2.2
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	80	14	24	4.8	3.3	.2	1.9	66	13	5.4	.10	3.0
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
06...	86	11	25	5.8	4.0	.2	3.1	75	14	6.3	.10	5.9

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
21...	190	195	25	1.1	.010	1.1	.070	1.3	1.4	.170	28
DEC											
31...	--	--	--	.68	.020	.70	.070	3.0	3.1	.700	36
31...	--	4920	436	.68	.020	.70	.070	3.0	3.1	.700	36
31...	--	4920	436	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	9.0	1.50	--
31...	--	4380	412	.37	.030	.40	.080	8.9	9.0	1.50	83
31...	--	--	--	.37	.030	.40	.080	7.9	8.0	1.00	77
FEB											
20...	400	1	<1	.57	.030	.60	.060	--	<.20	.240	1.6
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	.37	.030	.40	.290	12	12	2.50	78
23...	96	4550	344	.45	.050	.50	.150	9.4	9.5	1.70	62
23...	--	--	--	.57	.030	.60	.100	6.4	6.5	1.30	59
23...	--	4680	308	.66	.040	.70	.140	8.4	8.5	1.80	69
23...	--	--	--	--	--	--	--	--	--	--	--
MAR											
20...	--	374	100	.49	.010	.50	.070	1.5	1.6	.350	15
20...	--	--	--	.49	.010	.50	.050	3.4	3.4	.610	28
20...	--	2000	268	.49	.010	.50	.070	3.9	4.0	.780	36
20...	--	--	--	.48	.020	.50	.090	4.7	4.8	.720	35
20...	--	--	--	.58	.020	.60	.110	4.5	4.6	.620	33
20...	--	566	110	.58	.020	.60	.110	3.4	3.5	.510	25
JUN											
06...	110	292	46	.33	.070	.40	.260	1.3	1.6	.300	12

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
21...	1320	<1	22	<1	<10	2	43
DEC							
31...	0445	1	27	<1	<10	2	<3
31...	0500	1	27	<1	<10	2	<3
31...	0545	1	20	<1	<10	2	32
FEB							
20...	0915	<1	49	<1	<10	<1	4
23...	0400	<1	24	<1	<10	2	9
23...	0415	<1	24	<1	<10	2	9
23...	0430	<1	15	<1	<10	2	22
23...	0445	<1	15	<1	<10	2	22
JUN							
06...	1020	2	16	<1	<10	1	58

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT						
21...	2	<1	<.1	<1	<1	8
DEC						
31...	2	3	<.1	<1	<1	<3
31...	2	3	<.1	<1	<1	<3
31...	2	4	<.1	<1	<1	<3
FEB						
20...	1	<1	<.1	<1	<1	11
23...	<1	400	4.4	<1	<1	<3
23...	<1	400	4.4	<1	<1	<3
23...	<1	1	--	<1	<1	<3
23...	<1	1	--	<1	<1	<3
JUN						
06...	4	4	<.1	<1	<1	4

08158920 WILLIAMSON CREEK AT OAKHILL, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
DEC												
31...	0500	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
31...	0515	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
FEB												
23...	0345	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
23...	0400	<.10	<.10	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1
23...	0500	<.10	.20	<.10	<2.0	<.1	<.1	<.10	<2.0	<2.0	<.10	<.1

STORM RAINFALL AND RUNOFF RECORD

08158920 Williamson Creek at Oak Hill, Texas

Date and time	Rainfall at gage 1-WMS (inches)	Rainfall at gage 3-WMS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of October 10-11, 1984			
Oct. 10					
0000	0.0	0.0	0.0	0.0	0.0
1915	.01	.01	.01	.0	.0
1930	.12	.04	.05	.0	.0
1945	.15	.54	.48	.0	.0
2000	.16	.73	.64	.0	.0
2015	.16	.95	.82	16.0	.0010
2030	.23	1.72	1.48	1,190.0	.0742
2045	.77	2.16	1.94	1,510.0	.1670
2100	1.76	2.44	2.33	1,340.0	.2494
2115	2.28	2.76	2.68	1,050.0	.3140
2130	2.54	3.10	3.01	976.0	.3740
2145	2.93	3.23	3.18	798.0	.4231
2200	3.03	3.24	3.21	600.0	.4784
2230	3.13	3.26	3.24	330.0	.5190
2300	3.16	3.29	3.27	166.0	.5394
2330	3.16	3.29	3.27	95.0	.5511
2400	3.18	3.33	3.31	61.0	.5558
Oct. 11					
0000	3.18	3.33	3.31	61.0	.5558
0015	3.20	3.35	3.33	48.0	.5626
0100	3.27	3.38	3.36	31.0	.5683
0145	3.28	3.38	3.36	21.0	.5716
0215	3.28	3.38	3.36	18.0	.5749
0315	3.28	3.38	3.36	11.0	.5779
0430	3.29	3.38	3.37	6.1	.5800
0600	3.29	3.39	3.37	2.1	.5814
1000	3.42	3.53	3.51	.0	.5814
1200	3.53	3.61	3.60	.3	.5815
1330	3.59	3.62	3.62	.5	.5818
1700	3.84	3.79	3.80	.4	.5820
1730	3.90	3.85	3.86	1.2	.5822
1800	3.91	3.85	3.86	5.5	.5829
1830	3.91	3.85	3.86	6.7	.5837
1900	3.92	3.85	3.86	6.7	.5843
1915	3.92	3.85	3.86	4.4	.5847
1945	3.92	3.85	3.86	2.3	.5849
2000	3.92	3.85	3.86	1.5	.5851
2030	3.92	3.85	3.86	.6	.5854
2400	3.93	3.85	3.86	.0	.5854

STORM RAINFALL AND RUNOFF RECORD

08158920 Williamson Creek at Oak Hill, Texas

Date and time	Rainfall at gage 1-WMS (inches)	Rainfall at gage 3-WMS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of June 5-6, 1985			
June 5					
0000	0.0	0.0	0.0	0.0	0.0
1430	.0	.0	.0	.0	.0
1445	.02	.03	.03	.0	.0
1545	.11	.10	.10	.1	.0000
1615	.17	.10	.11	.2	.0001
1715	.32	.31	.31	1.5	.0003
1730	.64	.76	.74	6.7	.0007
1745	.89	1.05	1.02	4.9	.0011
1815	.93	1.08	1.06	70.0	.0076
1830	.94	1.09	1.07	70.0	.0141
1900	.96	1.12	1.09	40.0	.0190
1930	.99	1.13	1.11	25.0	.0228
2015	1.02	1.15	1.13	12.0	.0258
2130	1.19	1.45	1.41	9.6	.0275
2145	1.39	1.74	1.68	20.0	.0288
2200	1.61	2.02	1.95	56.0	.0322
2215	1.63	2.07	2.00	201.0	.0446
2230	1.65	2.09	2.02	212.0	.0576
2245	1.66	2.09	2.02	97.0	.0636
2300	1.66	2.10	2.03	66.0	.0737
2400	1.66	2.10	2.03	30.0	.0830
June 6					
0000	1.66	2.10	2.03	30.0	.0830
0300	1.69	2.22	2.14	10.0	.0968
0645	1.77	2.46	2.35	9.6	.1018
0715	2.14	3.03	2.89	28.0	.1044
0730	2.46	3.63	3.44	109.0	.1111
0745	3.04	4.55	4.31	852.0	.1635
0800	3.29	4.84	4.59	1,200.0	.2373
0815	3.37	4.99	4.73	1,160.0	.3086
0830	3.48	5.17	4.90	1,010.0	.4328
0915	4.02	5.65	5.39	825.0	.5850
1000	4.08	5.75	5.48	502.0	.6776
1045	4.08	5.80	5.52	179.0	.7051
1115	4.08	5.83	5.55	97.0	.7230
1215	4.09	5.85	5.57	63.0	.7598
1600	4.12	5.89	5.61	30.0	.7847
1900	4.12	5.91	5.62	21.0	.8054
2400	4.12	5.91	5.62	15.0	.8146

08158930 WILLIAMSON CREEK AT MANCHACA ROAD, AUSTIN, TX
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°13'16", long 97°47'36", Travis County, on downstream side of bridge on Manchaca Road, 0.7 mi south of the intersection of Ben White Boulevard and Manchaca Road, and 4.9 mi southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--19.0 mi^2.

PERIOD OF RECORD.--August 1975 to current year. Periodic measurements only, May to August 1975.

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 618.39 ft NGVD.

REMARKS.--Records fair. Storms analyzed for periods Oct. 10-11 and June 5-6. Three recording rain gages are located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,490 ft^3/s June 11, 1981 (gage height, 16.00 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,940 ft^3/s, Oct. 10 (gage height, 13.00 ft).

STORM RAINFALL AND RUNOFF RECORD

08158930 Williamson Creek at Manchaca Road, Austin, Texas

Date and time	Rainfall at gage 1-WMS (inches)	Rainfall at gage 2-WMS (inches)	Rainfall at gage 3-WMS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of October 10-11, 1984			
Oct. 10						
0000	0.0	0.0	0.0	0.0	3.1	0.0019
1500	.0	.0	.0	.0	2.8	.0041
1915	.01	.0	.01	.01	2.8	.0046
1930	.12	.03	.04	.07	2.8	.0047
1945	.15	.04	.54	.24	2.8	.0047
2000	.16	.04	.73	.30	2.8	.0048
2015	.16	.04	.95	.36	2.8	.0048
2030	.23	.04	1.72	.61	2.8	.0049
2045	.77	.04	2.16	.99	2.8	.0050
2100	1.76	.05	2.44	1.53	8.5	.0051
2115	2.28	1.31	2.76	2.18	328.0	.0118
2130	2.54	2.60	3.10	2.72	1,930.0	.0512
2145	2.93	2.96	3.23	3.02	3,760.0	.1278
2200	3.03	3.69	3.24	3.26	4,430.0	.2182
2215	3.09	4.15	3.26	3.40	5,250.0	.3252
2230	3.13	4.39	3.26	3.48	5,940.0	.5069
2300	3.16	5.09	3.29	3.68	5,290.0	.7226
2330	3.16	5.17	3.29	3.70	4,250.0	.8959
2400	3.18	5.17	3.33	3.72	2,820.0	.9821
Oct. 11						
0000	3.18	5.17	3.33	3.72	2,820.0	.9821
0030	3.22	5.17	3.36	3.75	1,810.0	1.0847
0100	3.27	5.17	3.38	3.78	1,270.0	1.1494
0145	3.28	5.17	3.38	3.78	774.0	1.2047
0245	3.28	5.17	3.38	3.78	471.0	1.2383
0330	3.29	5.17	3.38	3.79	352.0	1.2706
0500	3.29	5.17	3.38	3.79	196.0	1.2906
0600	3.29	5.17	3.39	3.79	135.0	1.3071
0800	3.29	5.17	3.40	3.79	76.0	1.3164
0900	3.35	5.17	3.43	3.83	42.0	1.3232
1200	3.53	5.17	3.61	3.96	38.0	1.3325
1500	3.65	5.17	3.65	4.03	34.0	1.3377
1545	3.68	5.17	3.68	4.05	35.0	1.3391
1600	3.69	5.17	3.70	4.06	52.0	1.3402
1615	3.74	5.17	3.71	4.09	71.0	1.3416
1630	3.75	5.17	3.72	4.10	71.0	1.3438
1700	3.84	5.17	3.79	4.16	116.0	1.3474
1715	3.88	5.17	3.83	4.19	249.0	1.3524
1730	3.90	5.17	3.85	4.20	409.0	1.3608
1745	3.91	5.17	3.85	4.21	369.0	1.3683

STORM RAINFALL AND RUNOFF RECORD

08158930 Williamson Creek at Manchaca Road, Austin, Texas

Date and time	Rainfall at gage 1-WMS (inches)	Rainfall at gage 2-WMS (inches)	Rainfall at gage 3-WMS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of October 10-11, 1984--Continued			
Oct. 11						
1800	3.91	5.17	3.85	4.21	315.0	1.3747
1815	3.91	5.17	3.85	4.21	293.0	1.3867
1900	3.92	5.17	3.85	4.21	171.0	1.3971
1945	3.92	5.17	3.85	4.21	109.0	1.4060
2100	3.92	5.17	3.85	4.21	52.0	1.4108
2200	3.92	5.17	3.85	4.21	35.0	1.4151
2400	3.93	5.17	3.85	4.22	20.0	1.4167

STORM RAINFALL AND RUNOFF RECORD

08158930 Williamson Creek at Manchaca Road, Austin, Texas

Date and time	Rainfall at gage 1-WMS (inches)	Rainfall at gage 2-WMS (inches)	Rainfall at gage 3-WMS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of June 5-6, 1985			
June 5						
0000	0.0	0.0	0.0	0.0	0.0	0.0
1215	.0	.02	.0	.00	.0	.0
1330	.0	.14	.0	.03	.0	.0
1445	.02	.20	.03	.07	.0	.0
1545	.11	.27	.10	.15	.0	.0
1645	.22	.27	.14	.21	.0	.0
1715	.32	.29	.31	.31	4.5	.0001
1730	.64	.37	.76	.61	9.9	.0003
1745	.89	.45	1.05	.83	13.0	.0006
1800	.91	.47	1.07	.85	17.0	.0010
1815	.93	.47	1.08	.86	47.0	.0019
1830	.94	.47	1.09	.87	154.0	.0050
1845	.95	.51	1.11	.89	160.0	.0083
1900	.96	.62	1.12	.92	160.0	.0132
1930	.99	.79	1.13	.98	154.0	.0179
1945	1.00	.90	1.13	1.01	162.0	.0212
2000	1.01	1.10	1.15	1.07	258.0	.0291
2030	1.02	1.16	1.16	1.10	277.0	.0404
2100	1.09	1.32	1.23	1.19	252.0	.0532
2145	1.39	1.43	1.74	1.50	249.0	.0685
2230	1.65	1.50	2.09	1.74	273.0	.0824
2300	1.66	1.52	2.10	1.75	240.0	.0971
2400	1.66	1.52	2.10	1.75	174.0	.1077
June 6						
0000	1.66	1.52	2.10	1.75	174.0	.1077
0100	1.66	1.52	2.10	1.75	119.0	.1258
0300	1.69	1.52	2.22	1.80	54.0	.1346
0500	1.69	1.52	2.22	1.80	28.0	.1386
0630	1.69	1.52	2.25	1.81	18.0	.1399
0645	1.77	1.54	2.46	1.91	17.0	.1403
0700	1.98	1.62	2.81	2.13	21.0	.1407
0715	2.14	1.67	3.03	2.28	27.0	.1412
0730	2.46	1.75	3.63	2.62	30.0	.1419
0745	3.04	1.89	4.55	3.19	306.0	.1481
0800	3.29	2.14	4.84	3.45	706.0	.1625
0815	3.37	2.71	4.99	3.67	922.0	.1813
0830	3.48	2.90	5.17	3.83	1,140.0	.2045
0845	3.65	3.09	5.38	4.01	1,220.0	.2294
0900	3.83	3.39	5.57	4.22	1,110.0	.2520
0915	4.02	3.69	5.65	4.41	1,180.0	.2761

STORM RAINFALL AND RUNOFF RECORD

08158930 Williamson Creek at Manchaca Road, Austin, Texas--Continued

Date and time	Rainfall at gage 1-WMS (inches)	Rainfall at gage 2-WMS (inches)	Rainfall at gage 3-WMS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of June 5-6, 1985--Continued			
JUN. 6						
0930	4.06	3.92	5.70	4.50	1,810.0	0.3130
0945	4.07	4.01	5.73	4.54	2,830.0	.3707
1000	4.08	4.06	5.75	4.56	2,740.0	.4545
1030	4.08	4.06	5.79	4.57	2,300.0	.5952
1130	4.08	4.06	5.83	4.58	1,350.0	.6778
1200	4.09	4.06	5.84	4.59	950.0	.7359
1300	4.10	4.06	5.87	4.60	504.0	.7770
1400	4.11	4.06	5.88	4.61	352.0	.8344
1700	4.12	4.06	5.90	4.62	190.0	.8731
1900	4.12	4.06	5.91	4.62	114.0	.8917
2100	4.12	4.06	5.91	4.62	83.0	.9087
2400	4.12	4.06	5.91	4.62	43.0	.9139

COLORADO RIVER BASIN

08158970 WILLIAMSON CREEK AT JIMMY CLAY ROAD, AUSTIN, TX

LOCATION.--Lat 30°11'21", long 97°43'56", Travis County, Hydrologic Unit 12090205, at Jimmy Clay Road, 0.5 mi southeast of the intersection of Jimmy Clay and Nuckles Crossing Roads, and 5.9 mi south of the State Capitol in Austin.

DRAINAGE AREA.--27.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1974 to September 1975 (periodic discharge measurements only), September 1975 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 493.88 ft above National Geodetic Vertical Datum of 1929 (city of Austin bench mark). Prior to Oct. 1, 1982, at datum 3.30 ft higher.

REMARKS.--Estimated daily discharges: Feb. 23 to Mar. 6 and Mar. 21 to Apr. 15. Records good except those for periods of estimated daily discharges, which are poor. No known regulation or diversion in watershed above station. There are three recording rain gages located in the watershed above station. The station is part of a hydrologic research project to study the rainfall-runoff relationships for the Austin urban-rural areas.

AVERAGE DISCHARGE.--10 years, 8.97 ft³/s (4.41 in/yr), 6,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft³/s June 11, 1981 (gage height, 20.55 ft), present datum; no flow Aug. 16, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--The maximum flood since 1869 occurred on Sept. 9 or 10, 1921 (stage and discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 7	0930	648	8.45	Dec. 16	0045	1,040	9.83
Oct. 11	0115	*7,080	a*16.79	Feb. 23	Unknown	537	7.98
Oct. 21	1400	666	8.52	June 6	1215	1,650	11.26
Nov. 25	0015	629	8.37	June 22	1400	570	8.12

a From floodmark.

Minimum daily discharge, 0.23 ft³/s Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	7.4	4.5	17	11	11	15	8.3	6.1	6.9	4.0	5.3
2	1.9	5.4	4.6	17	13	9.0	15	8.1	5.5	7.0	3.8	5.3
3	1.8	4.8	2.9	21	12	8.0	16	7.3	6.1	6.0	4.1	5.2
4	1.8	4.5	4.2	18	12	9.5	17	7.3	6.1	53	4.1	1.9
5	1.9	3.9	5.6	14	11	7.5	16	6.9	19	11	4.0	1.2
6	2.2	3.8	5.0	12	11	8.8	16	7.0	338	7.2	2.1	5.0
7	66	3.9	4.5	11	11	7.9	15	6.8	17	8.2	.24	3.1
8	5.6	4.0	3.2	11	11	7.3	14	6.5	8.7	7.4	.33	3.6
9	3.6	3.8	5.7	11	10	7.2	14	7.0	7.7	6.9	.45	3.3
10	56	3.6	4.0	11	11	6.9	15	6.2	7.2	6.9	2.7	3.2
11	667	3.7	2.9	11	11	7.2	15	7.5	6.9	6.9	3.4	3.8
12	23	3.4	3.7	12	11	7.2	13	7.1	7.4	8.5	3.6	3.8
13	77	2.8	6.5	15	10	7.6	12	9.6	7.2	7.7	2.7	2.8
14	114	3.0	5.4	16	10	51	12	13	6.9	7.9	.46	2.7
15	13	3.7	6.7	11	10	15	11	8.3	6.7	6.9	1.5	3.0
16	8.1	3.6	134	21	9.9	13	10	7.5	6.9	6.7	3.5	2.7
17	6.9	3.3	24	17	9.4	11	9.5	7.5	7.2	6.0	3.7	3.1
18	6.1	15	18	12	10	9.6	9.5	5.6	7.4	6.0	3.6	3.7
19	5.5	4.8	11	10	9.9	8.9	7.5	4.9	7.9	12	3.7	3.4
20	6.3	3.7	9.7	9.8	10	73	8.3	5.2	6.9	8.2	3.7	3.2
21	184	3.7	8.8	8.1	10	70	12	7.2	6.7	6.7	3.6	3.6
22	38	3.3	7.6	8.6	21	30	9.6	6.2	135	6.4	3.5	4.6
23	51	3.4	7.8	10	50	21	10	6.2	26	2.8	3.3	4.4
24	27	24	6.5	11	15	16	8.2	6.0	14	5.1	3.6	4.9
25	17	71	5.9	9.4	8.2	15	8.4	6.2	8.5	5.1	3.7	5.0
26	16	6.1	6.1	10	7.0	17	18	5.7	8.2	4.2	3.8	5.8
27	16	5.1	9.5	12	12	17	9.6	4.9	6.7	3.5	2.4	6.2
28	11	4.2	12	11	16	16	9.1	5.1	6.4	3.2	.23	6.1
29	14	3.0	9.2	11	---	16	8.9	6.3	6.7	3.8	.27	60
30	6.3	4.3	9.3	11	---	16	9.0	5.9	6.9	4.0	2.9	11
31	6.8	---	74	10	---	15	---	5.5	---	3.9	5.4	---
TOTAL	1457.5	220.2	422.8	389.9	353.4	535.6	363.6	212.8	717.9	246.0	88.38	180.9
MEAN	47.0	7.34	13.6	12.6	12.6	17.3	12.1	6.86	23.9	7.94	2.85	6.03
MAX	667	71	134	21	50	73	18	13	338	53	5.4	60
MIN	1.8	2.8	2.9	8.1	7.0	6.9	7.5	4.9	5.5	2.8	.23	1.2
CFSM	1.70	.27	.49	.46	.46	.63	.44	.25	.87	.29	.10	.22
IN.	1.96	.30	.57	.53	.48	.72	.49	.29	.97	.33	.12	.24
AC-FT	2890	437	839	773	701	1060	721	422	1420	488	175	359

CAL YR 1984 TOTAL 2619.26 MEAN 7.16 MAX 667 MIN .08 CFSM .26 IN 3.53 AC-FT 5200
WTR YR 1985 TOTAL 5188.98 MEAN 14.2 MAX 667 MIN .23 CFSM .51 IN 6.99 AC-FT 10290

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: January 1975 to current year. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
11...	1100	85	297	7.6	21.0	350	190	6.8	78	3.1	50000	72000
FEB												
19...	0910	9.6	739	7.4	18.0	10	2.7	7.0	74	8.4	25	K4
JUN												
06...	0840	68	273	7.9	22.0	40	340	6.7	78	6.2	K130000	40000
AUG												
14...	1040	.63	875	7.3	25.5	10	1.7	5.4	67	.5	3600	8600

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT												
11...	120	34	42	4.5	12	.5	5.0	90	33	19	.20	7.6
FEB												
19...	200	54	55	16	62	2	8.1	150	80	76	.60	9.4
JUN												
06...	120	19	41	3.9	14	.6	5.0	100	26	23	.30	6.6
AUG												
14...	310	120	87	22	62	2	7.8	189	120	100	.70	15

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
11...	180	216	28	2.0	.030	2.0	.100	1.0	1.1	1.20	11
FEB											
19...	400	4	2	11	.470	11	3.80	5.4	9.2	8.00	6.9
JUN											
06...	180	1060	100	1.5	.020	1.5	.100	.90	1.0	.960	25
AUG											
14...	530	4	3	7.8	.330	8.1	.140	.86	1.0	<.010	4.5

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
11...	1100	<1	31	<1	<10	2	41
FEB							
19...	0910	3	55	<1	<10	2	25
JUN							
06...	0840	3	25	<1	<10	3	12

08158970 WILLIAMSON CREEK AT JIMMY CLAY ROAD, AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 11...	8	2	<.1	1	<1	11
FEB 19...	<1	65	<.1	<1	<1	51
JUN 06...	4	<1	<.1	<1	<1	6

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
JUN 06...	0840	<.10	<.10	<.10	<2.0	.2	<.1	<.10	<2.0	<2.0	<.10	<.1

STORM RAINFALL AND RUNOFF RECORD

08158970 Williamson Creek at Jimmy Clay Road, Austin, Texas

Date and time	Rainfall at gage 1-WMS (inches)	Rainfall at gage 2-WMS (inches)	Rainfall at gage 3-WMS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of October 10-11, 1984			
Oct. 10						
0000	0.0	0.0	0.0	0.0	1.9	0.0008
1515	.0	.0	.01	.00	2.1	.0019
1915	.01	.0	.01	.01	2.1	.0022
1930	.12	.03	.04	.06	2.1	.0022
1945	.15	.04	.54	.17	2.1	.0023
2000	.16	.04	.73	.22	2.1	.0023
2015	.16	.04	.95	.26	2.1	.0023
2030	.23	.04	1.72	.43	2.1	.0023
2045	.77	.04	2.16	.69	2.0	.0024
2100	1.76	.05	2.44	1.06	2.0	.0024
2115	2.28	1.31	2.76	1.90	2.0	.0024
2130	2.54	2.60	3.10	2.68	2.3	.0025
2145	2.93	2.96	3.23	3.00	20.0	.0027
2200	3.03	3.69	3.24	3.40	85.0	.0039
2215	3.09	4.15	3.26	3.64	35.0	.0044
2230	3.13	4.39	3.26	3.77	28.0	.0048
2245	3.14	4.93	3.28	4.05	230.0	.0080
2300	3.16	5.09	3.29	4.13	440.0	.0142
2315	3.16	5.17	3.29	4.17	719.0	.0243
2330	3.16	5.17	3.29	4.17	1,040.0	.0389
2345	3.17	5.17	3.32	4.18	1,520.0	.0602
2400	3.18	5.17	3.33	4.19	2,290.0	.0844
Oct. 11						
0000	3.18	5.17	3.33	4.19	2,290.0	.0844
0015	3.20	5.17	3.35	4.20	3,200.0	.1373
0030	3.22	5.17	3.36	4.20	4,230.0	.1967
0045	3.25	5.17	3.37	4.21	5,440.0	.2730
0100	3.27	5.17	3.38	4.22	6,300.0	.3615
0115	3.28	5.17	3.38	4.23	7,090.0	.5107
0145	3.28	5.17	3.38	4.23	5,140.0	.6190
0200	3.28	5.17	3.38	4.23	4,380.0	.7112
0230	3.28	5.17	3.38	4.23	2,340.0	.7769
0300	3.28	5.17	3.38	4.23	1,230.0	.8114
0330	3.29	5.17	3.38	4.23	759.0	.8434
0430	3.29	5.17	3.38	4.23	413.0	.8607
0500	3.29	5.17	3.38	4.23	302.0	.8735
0600	3.29	5.17	3.39	4.23	185.0	.8838
0700	3.29	5.17	3.40	4.23	119.0	.8905
0800	3.29	5.17	3.40	4.23	86.0	.8978
1000	3.42	5.17	3.53	4.30	60.0	.9028

STORM RAINFALL AND RUNOFF RECORD

08158970 Williamson Creek at Jimmy Clay Road, Austin, Texas

Date and time	Rainfall at gage 1-WMS (inches)	Rainfall at gage 2-WMS (inches)	Rainfall at gage 3-WMS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
		Storm of October 10-11, 1984--Continued				
Oct. 11						
1100	3.49	5.17	3.58	4.33	51.0	0.9071
1300	3.57	5.17	3.61	4.36	42.0	.9130
1600	3.69	5.17	3.70	4.42	41.0	.9176
1700	3.84	5.17	3.79	4.48	41.0	.9196
1745	3.91	5.17	3.85	4.52	49.0	.9210
1800	3.91	5.17	3.85	4.52	61.0	.9219
1815	3.91	5.17	3.85	4.52	92.0	.9232
1830	3.91	5.17	3.85	4.52	198.0	.9259
1845	3.92	5.17	3.85	4.52	322.0	.9305
1900	3.92	5.17	3.85	4.52	368.0	.9356
1915	3.92	5.17	3.85	4.52	362.0	.9432
1945	3.92	5.17	3.85	4.52	311.0	.9542
2030	3.92	5.17	3.85	4.52	247.0	.9663
2130	3.92	5.17	3.85	4.52	148.0	.9746
2230	3.92	5.17	3.85	4.52	88.0	.9808
2400	3.93	5.17	3.85	4.52	55.0	.9831

STORM RAINFALL AND RUNOFF RECORD

08158970 Williamson Creek at Jimmy Clay Road, Austin, Texas

Date and time	Rainfall at gage 1-WMS (inches)	Rainfall at gage 2-WMS (inches)	Rainfall at gage 3-WMS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of June 5-6, 1985			
June 5						
0000	0.0	0.0	0.0	0.0	6.4	0.0022
1200	.0	.0	.0	.0	6.4	.0044
1215	.0	.02	.0	.01	6.4	.0045
1245	.0	.08	.0	.04	6.4	.0049
1430	.0	.15	.0	.07	6.7	.0053
1445	.02	.20	.03	.11	6.7	.0058
1715	.32	.29	.31	.30	6.7	.0063
1730	.64	.37	.76	.53	6.7	.0064
1745	.89	.45	1.05	.71	6.7	.0066
1845	.95	.51	1.11	.77	7.2	.0070
1945	1.00	.90	1.13	.98	11.0	.0077
2045	1.05	1.28	1.17	1.19	25.0	.0087
2115	1.12	1.38	1.34	1.29	68.0	.0111
2200	1.61	1.49	2.02	1.63	98.0	.0145
2230	1.65	1.50	2.09	1.66	108.0	.0183
2315	1.66	1.52	2.10	1.68	106.0	.0220
2345	1.66	1.52	2.10	1.68	144.0	.0251
2400	1.66	1.52	2.10	1.68	157.0	.0267
June 6						
0000	1.66	1.52	2.10	1.68	157.0	.0267
0015	1.66	1.52	2.10	1.68	155.0	.0360
0200	1.68	1.52	2.19	1.70	90.0	.0429
0300	1.69	1.52	2.22	1.71	60.0	.0463
0400	1.69	1.52	2.22	1.71	41.0	.0498
0600	1.69	1.52	2.22	1.71	24.0	.0514
0630	1.69	1.52	2.25	1.72	22.0	.0519
0645	1.77	1.54	2.46	1.80	21.0	.0522
0700	1.98	1.62	2.81	1.97	20.0	.0526
0730	2.46	1.75	3.63	2.35	19.0	.0530
0745	3.04	1.89	4.55	2.78	23.0	.0533
0800	3.29	2.14	4.84	3.04	33.0	.0538
0815	3.37	2.71	4.99	3.37	53.0	.0545
0830	3.48	2.90	5.17	3.53	81.0	.0557
0845	3.65	3.09	5.38	3.72	173.0	.0581
0900	3.83	3.39	5.57	3.96	279.0	.0620
0915	4.02	3.69	5.65	4.18	415.0	.0679
0930	4.06	3.92	5.70	4.32	537.0	.0754
0945	4.07	4.01	5.73	4.37	666.0	.0847
1000	4.08	4.06	5.75	4.40	805.0	.0960
1015	4.08	4.06	5.77	4.41	895.0	.1086

STORM RAINFALL AND RUNOFF RECORD

08158970 Williamson Creek at Jimmy Clay Road, Austin, Texas

Date and time	Rainfall at gage 1-WMS (inches)	Rainfall at gage 2-WMS (inches)	Rainfall at gage 3-WMS (inches)	Accumulated weighted rainfall (inches)	Discharge (cubic feet per second)	Accumulated runoff (inches)
			Storm of June 5-6, 1985--Continued			
June 6						
1030	4.08	4.06	5.79	4.41	1,030.0	0.1231
1045	4.08	4.06	5.80	4.41	1,180.0	.1396
1100	4.08	4.06	5.82	4.42	1,320.0	.1581
1115	4.08	4.06	5.83	4.42	1,420.0	.1781
1130	4.08	4.06	5.83	4.42	1,480.0	.1988
1145	4.08	4.06	5.84	4.42	1,540.0	.2205
1200	4.09	4.06	5.84	4.43	1,570.0	.2425
1215	4.09	4.06	5.85	4.43	1,650.0	.2772
1245	4.10	4.06	5.86	4.43	1,590.0	.3107
1300	4.10	4.06	5.87	4.43	1,520.0	.3534
1345	4.11	4.06	5.88	4.44	976.0	.3945
1430	4.11	4.06	5.88	4.44	595.0	.4195
1515	4.11	4.06	5.89	4.44	375.0	.4353
1600	4.12	4.06	5.89	4.44	260.0	.4463
1645	4.12	4.06	5.90	4.45	192.0	.4571
1800	4.12	4.06	5.90	4.45	123.0	.4683
2000	4.12	4.06	5.91	4.45	73.0	.4765
2200	4.12	4.06	5.91	4.45	49.0	.4820
2400	4.12	4.06	5.91	4.45	37.0	.4841

COLORADO RIVER BASIN

08159000 ONION CREEK AT U.S. HIGHWAY 183 NEAR AUSTIN, TX

LOCATION.--Lat 30°10'40", long 97°41'18", Travis County, Hydrologic Unit 12090205, on right bank at downstream side of downstream bridge on U.S. Highway 183, 2.4 mi downstream from Williamson Creek, 3.2 mi southwest of Del Valle, and 7.5 mi southeast of the State Capitol Building in Austin.

DRAINAGE AREA.--321 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1924 to March 1930, March 1976 to current year. In 1924-30 station was published as "near Del Valle."

GAGE.--Water-stage recorder. Datum of gage is 442.85 ft above National Geodetic Vertical Datum of 1929 (from Texas State Department of Highways and Public Transportation bench mark). May 15, 1924, to Mar. 15, 1930, nonrecording gage at highway bridge 1,700 ft upstream at 6.42-foot higher datum.

REMARKS.--Estimated daily discharges: Dec. 13 to Jan. 21. Records fair except those for estimated daily discharges, which are poor. Flow is slightly regulated by several small ponds on main channel and tributaries above station. There are eleven recording rain gages in the watershed.

AVERAGE DISCHARGE.--14 years (water years 1925-29, 1977-85), 78.6 ft^3/s (3.33 in/yr), 56,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,000 ft^3/s May 28, 1929 (gage height, 30.5 ft), present datum; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1869 occurred about July 3, 1869, stage about 38 ft from newspaper accounts, and Sept. 9, 1921, stage 38.0 ft, from floodmark, present site and datum.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 11	0215	6,280	15.55	June 6	2200	*10,300	*19.33
Feb. 23	1815	7,240	16.87	June 22	2245	5,490	14.45

Minimum daily discharge, no flow Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	41	11	95	79	459	124	32	11	81	8.7	4.0
2	5.8	20	11	100	85	297	115	27	10	75	7.8	4.1
3	2.9	14	10	110	94	246	113	24	9.9	78	7.2	4.0
4	2.0	13	11	95	94	220	101	23	9.9	444	7.2	3.3
5	2.7	10	19	82	100	181	100	21	13	234	7.2	.50
6	3.6	9.9	17	73	100	171	94	18	3930	116	6.9	3.1
7	179	9.8	14	64	85	168	88	16	1760	110	3.4	3.1
8	16	9.3	11	56	71	161	79	16	308	112	2.4	2.0
9	4.7	9.3	10	50	66	148	77	15	160	90	1.8	2.0
10	2.8	9.0	13	45	124	139	75	15	119	85	1.8	2.2
11	1230	8.2	11	64	160	132	129	15	95	76	3.4	2.3
12	151	8.2	9.4	90	76	128	110	15	78	193	3.3	2.3
13	253	7.5	9.8	120	60	121	98	16	67	90	3.5	2.7
14	493	6.8	60	170	59	298	123	26	56	73	1.9	4.7
15	62	6.8	500	300	53	304	101	17	44	58	1.1	5.4
16	22	6.8	250	250	48	210	75	15	36	50	1.5	4.1
17	12	6.8	130	230	48	179	69	15	32	45	3.0	3.2
18	8.9	43	80	200	44	161	66	16	32	38	3.5	3.0
19	6.5	20	52	170	42	156	60	13	44	36	3.3	3.0
20	8.8	12	45	150	34	550	54	13	49	41	3.3	3.0
21	556	10	41	140	34	272	59	15	33	31	3.2	2.7
22	210	9.5	40	148	76	190	52	15	1560	27	2.6	3.1
23	297	9.3	40	148	2230	178	54	13	1580	18	2.6	3.3
24	166	10	42	149	927	170	46	12	332	16	2.6	3.6
25	70	385	43	135	393	155	39	12	203	14	2.6	4.0
26	43	46	45	118	290	150	58	12	163	13	2.6	4.6
27	71	22	43	111	242	158	47	12	131	12	2.6	5.0
28	35	15	42	103	281	176	42	11	112	10	1.6	5.9
29	47	11	40	93	---	151	37	11	99	9.9	.06	65
30	114	10	200	88	---	139	35	12	88	9.8	.00	28
31	45	---	800	80	---	133	---	11	---	8.7	2.6	---
TOTAL	4129.0	799.2	2650.2	3827	5995	6301	2320	504	11164.8	2294.4	105.26	187.20
MEAN	133	26.6	85.5	123	214	203	77.3	16.3	372	74.0	3.40	6.24
MAX	1230	385	800	300	2230	550	129	32	3930	444	8.7	65
MIN	2.0	6.8	9.4	45	34	121	35	11	9.9	8.7	.00	.50
FSM	.41	.08	.27	.38	.67	.63	.24	.05	1.16	.23	.01	.02
IN.	.48	.09	.31	.44	.69	.73	.27	.06	1.29	.27	.01	.02
AC-FT	8190	1590	5260	7590	11890	12500	4600	1000	22150	4550	209	371

CAL YR 1984 TOTAL 9103.85 MEAN 24.9 MAX 1230 MIN .00 CFSM .08 IN 1.06 AC-FT 18060
WTR YR 1985 TOTAL 40277.06 MEAN 110 MAX 3930 MIN .00 CFSM .34 IN 4.67 AC-FT 79890

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: October 1976 to current year. Sediment analyses: October 1976 to September 1982. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
11...	1000	461	217	7.7	21.0	600	500	7.0	80	4.1	70000	98000
FEB												
19...	1004	42	616	8.3	15.0	10	6.5	9.0	89	1.9	14000	110
JUN												
06...	0955	468	354	7.7	22.5	35	160	6.2	72	11	78000	49000
AUG												
14...	0945	1.7	626	8.1	29.0	10	4.0	5.1	68	.4	K900	192

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT												
11...	95	29	33	3.0	6.2	.3	4.2	66	25	10	.20	6.7
FEB												
19...	260	58	80	14	30	.8	3.4	200	54	40	.40	4.7
JUN												
06...	140	31	45	5.7	15	.6	4.1	105	32	21	.20	8.3
AUG												
14...	220	40	61	16	43	1	5.2	179	51	56	.50	14

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
11...	130	672	100	.86	.140	1.0	.360	1.7	2.1	.620	17
FEB											
19...	350	12	6	2.4	.340	2.7	.900	.70	1.6	1.40	2.9
JUN											
06...	190	412	46	.77	.030	.80	.110	.89	1.0	1.90	29
AUG											
14...	350	4	2	.19	.010	.20	.110	.49	.60	1.70	3.6

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
11...	1000	1	26	<1	<10	4	21
FEB							
19...	1004	1	61	<1	<10	2	6

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT						
11...	5	2	<.1	<1	1	5
FEB						
19...	<1	<1	<.1	<1	<1	23

DATE	TIME	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
JUN												
06...	0955	<.10	<.10	<.10	<2.0	.4	<.1	<.10	<2.0	<2.0	<.10	<.1

SUPPLEMENTAL DATA

Table 3.--Daily rainfall for gages north of the Colorado River
1985 water year

[BUL, Bull Creek; BAR, Barton Creek; BOL, Bouldin Creek; SHL, Shoal Creek; BOG, Boggy Creek; WLN, Walnut Creek; ON, Onion Creek; BER, Bear Creek; SLA Slaughter Creek; BGS, Boggy Creek (South); and WMS, Williamson Creek; MTOT, monthly totals; CTOT, calendar year totals; WTOT, water year totals]

	Gage name									
Month	1-BUL	2-BUL	1-SHL	2-SHL	1-BOG	1-WLN	2-WLN	3-WLN	4-WLN	5-WLN
Oct.										
4	0.00	0.00	0.01	0.03	0.12	0.00	0.01	0.06	0.03	0.05
5	.00	.00	.01	.00	.01	.00	.00	.01	.00	.01
6	.01	.00	.04	.03	.01	* .03	.01	.01	* .01	.01
7	2.41	2.11	2.38	2.37	.84	*2.40	2.57	2.25	*2.34	2.52
9	1.95	1.34	1.05	.65	.00	* .92	1.68	.01	* .65	.20
10	2.01	2.39	1.82	2.13	.71	*3.29	3.64	1.29	*1.32	2.07
11	.34	.39	.68	* .68	1.26	* .86	1.02	.88	* .70	.88
12	.01	.15	.16	* .16	.11	.02	.13	.08	.08	.15
13	1.91	1.85	2.77	*2.77	1.32	2.76	2.03	2.02	1.89	1.69
14	.90	.89	.89	* .89	.86	1.13	1.45	.94	1.02	.93
17	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
18	.00	.02	.04	* .04	.04	.01	.06	.05	.08	.05
19	.00	.01	.00	.00	.00	.00	.12	.00	.00	.00
20	4.52	2.82	2.18	*2.18	1.04	2.57	3.04	2.07	3.32	2.16
21	.73	1.29	1.56	*1.56	1.72	2.10	.99	1.69	1.76	1.15
22	.69	.78	.65	* .65	.11	.46	.86	.15	.23	.15
23	.29	.33	.24	* .24	.38	.51	.30	.22	.28	.18
24	.32	.47	.31	* .31	.24	.49	.30	.34	.41	.27
25	.03	.05	.06	* .06	.10	.01	.16	.07	.17	.11
26	* .18	.15	.08	* .08	.26	.00	.20	.05	.18	.12
27	* .15	.12	.18	* .18	.16	.07	.41	.18	.28	.18
28	* .07	.06	.18	* .18	.06	.01	.33	.16	.25	.16
29	* .03	.02	.02	* .02	.00	.01	.01	.01	.03	.02
30	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
31	* .18	.15	.06	* .06	.00	.00	.05	.00	.06	.04
MTOT	16.73	15.39	15.37	15.27	10.36	17.67	20.39	12.54	15.09	13.10

See footnote at end of table.

Table 3.--Daily rainfall for gages north of the Colorado River
1985 water year--Continued

Month	Gage name									
	1-BUL	2-BUL	1-SHL	2-SHL	1-BOG	1-WLN	2-WLN	3-WLN	4-WLN	5-WLN
Nov.										
1	0.00	0.00	0.16	*0.16	0.06	0.00	0.00	0.48	0.46	0.30
2	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
4	* .01	.01	.01	* .01	.01	.00	.00	.01	.01	.01
8	.01	.00	.00	.00	.00	.00	.00	.00	.00	.01
9	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
17	.13	.09	.27	.10	.06	* .25	.00	.01	.07	.05
18	.36	.41	.68	.06	.49	* .63	.39	.51	.69	.49
19	.00	.00	.00	.57	.00	.00	.97	.00	.00	.00
21	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00
24	1.14	1.25	1.18	.70	1.28	*1.10	1.55	1.29	1.22	1.25
25	.02	.02	.00	.00	.01	.00	.05	.00	.01	.03
26	.00	.00	.12	.25	.01	* .11	.20	.01	.04	.02
MTOT	1.68	1.79	2.42	1.85	1.93	2.09	3.16	2.32	2.50	2.16
Dec.										
3	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.02
4	.31	.00	.46	.00	.24	.40	.32	.25	.35	.22
5	.40	.00	.21	.00	.07	.45	.01	.12	.10	.10
6	.00	.00	.00	.00	.00	.03	.00	.01	.01	.01
7	.01	.00	.01	.00	.01	.01	.00	.00	.01	.00
9	.00	.00	.01	.00	.00	.00	.01	.01	.01	.01
13	.34	.27	.26	.00	.22	.20	.27	.20	.26	.26
14	.01	.00	.25	.06	.06	.15	.09	.20	.09	.09
15	.61	.12	.93	1.45	.61	1.19	1.02	1.04	1.17	1.31
16	.25	.51	.17	.17	.76	.21	.37	.20	.25	.20
17	.29	.34	.19	.25	.12	.13	.09	.10	.16	.11
18	.01	.06	.00	.01	.00	.00	.00	.00	.00	.01
19	.00	.00	.01	.00	.01	.02	.00	.02	.01	.00
20	.00	.00	.00	.00	.00	.00	.01	.01	.00	.01
21	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
26	.01	.00	.00	.00	.01	.02	.02	.00	.01	.00
27	.11	.17	.24	.18	.21	.23	.11	.11	.14	.16
28	.01	.02	.01	.01	.01	.00	.01	.02	.01	* .02
29	.04	.07	.00	.01	.02	.00	.01	.01	.05	* .01
30	.09	.00	.00	.00	.01	.02	.00	.01	.00	* .01
31	.73	1.03	.76	.93	.76	.97	.81	1.04	.81	*1.04
MTOT	3.22	2.59	3.51	3.08	3.18	4.03	3.15	3.35	3.44	2.59
CTOT	33.74	32.19	31.41	31.46	26.50	38.52	40.59	28.22	33.95	29.15

See footnote at end of table.

Table 3.--Daily rainfall for gages north of the Colorado River
1985 water year--Continued

Month	Gage name									
	1-BUL	2-BUL	1-SHL	2-SHL	1-BOG	1-WLN	2-WLN	3-WLN	4-WLN	5-WLN
Jan.										
1	0.00	0.01	0.00	0.01	0.05	0.00	0.01	0.02	0.02	*0.02
2	.00	.01	.00	.01	.00	.00	.00	.01	.00	* .01
3	.13	.13	* .12	.23	.11	.32	.09	.07	.00	* .07
6	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
13	.01	.00	.04	.00	.09	.02	.05	.00	.04	.14
14	.21	.14	.12	.15	.02	.24	.05	.16	.13	.06
15	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
16	.86	.54	.60	.59	.47	.66	.58	.44	.57	.48
17	.00	.01	.02	.00	.00	.00	.00	.01	.01	.00
18	.00	.01	.00	.01	.00	.00	.00	.00	.00	.00
20	.00	.02	.00	.00	.00	.07	.09	.00	.07	.00
21	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.02	.08	.00	.00	.04	.03	.06
27	.00	.00	.03	.02	.04	.00	.02	.04	.03	.04
28	.01	.12	.00	.00	.00	.00	.00	.00	.00	.00
30	.02	.00	.01	.00	.00	.00	.00	.01	.01	.02
31	.00	.00	.00	.02	.00	.00	.00	.03	.07	.00
MTOT	1.24	0.99	0.97	1.06	.87	1.31	.90	.83	.98	.90
Feb.										
1	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.16
2	.05	.12	.16	.00	.09	.38	* .42	.04	.14	.00
3	.01	.12	.03	.00	.02	.01	* .01	.00	.02	.00
4	.23	.00	.10	.21	.03	.13	* .14	.10	.03	.07
5	.56	.00	.00	.02	.02	.00	.00	.03	.00	.02
6	.00	.00	.00	.00	.00	.01	.00	.00	.00	.01
7	.00	.01	.01	.00	.00	.00	.00	.01	.01	.00
8	.00	.00	.00	.00	.01	.00	.00	.01	.00	.00
9	.00	.01	.01	.00	.01	.01	.00	.00	.00	.00
10	*1.00	1.11	.98	.45	.11	1.16	*1.28	.18	.42	.20
11	.00	.01	.01	.00	.00	.00	.00	.01	.00	.01
12	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
16	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
21	.00	.00	.00	.00	.02	.00	.00	.00	.03	.00
22	* .23	.23	.38	.43	.30	.37	* .41	.35	.51	.45
23	*2.47	2.47	1.53	1.23	.72	2.62	*2.89	.66	1.10	.66
26	.00	.05	.09	.06	.06	.00	.00	.08	.07	.08
27	.00	.02	.01	.01	.01	.03	* .03	.01	.01	.02
28	* .20	.20	.76	.70	.55	.25	* .27	.65	.65	.64
MTOT	4.75	4.35	4.07	3.12	1.96	4.98	5.45	2.13	3.01	2.32

See footnote at end of table.

Table 3.--Daily rainfall for gages north of the Colorado River
1985 water year--Continued

Month	Gage name									
	1-BUL	2-BUL	1-SHL	2-SHL	1-BOG	1-WLN	2-WLN	3-WLN	4-WLN	5-WLN
Mar.										
1	0.00	0.00	0.03	0.01	0.02	0.02	*0.02	0.01	0.02	0.02
4	* .14	.14	.09	.06	.04	.17	* .18	.06	.07	.08
12	.00	.00	.00	.00	.02	.00	.00	.02	.03	.02
13	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
14	* .50	.53	* .02	.02	.51	.00	.00	.52	.47	.54
15	* .09	.09	* .02	.02	.13	.42	* .46	.11	.12	.10
16	.00	.02	.00	.01	.01	.14	* .15	.01	.01	.03
17	.00	.01	* .02	.02	.00	.04	* .04	.00	.00	.01
18	.00	.00	.00	.01	.00	.00	.00	.00	.01	.00
19	* .08	.14	.00	.00	.05	.06	* .06	.04	.05	.07
20	* .55	.67	* .33	.33	.87	.90	* .15	1.23	1.08	.96
21	* .01	.01	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	* .02	.02	.00	.01	.00	.01	.00	.00
23	.00	.00	* .01	.01	.00	.00	.00	.00	.00	.00
24	.00	.00	* .01	.01	.00	.00	.00	.00	.00	.00
25	.00	.00	* .01	.01	.00	.00	.00	.00	.00	.00
26	* .19	.12	* .01	.01	.09	.10	.10	.10	.10	.07
27	* .06	.08	.00	.01	.06	.09	.10	.09	.08	.10
29	.00	.00	* .01	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.04	.00	.01	.05	.07	.05
MTOT	1.62	1.83	0.58	0.56	1.84	1.95	2.27	2.25	2.11	2.05

Table 3.--Daily rainfall for gages north of the Colorado River
1985 water year--Continued

Month	Gage name									
	1-BUL	2-BUL	1-SHL	2-SHL	1-BOG	1-WLN	2-WLN	3-WLN	4-WLN	5-WLN
Apr.										
1	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
8	.00	.00	.00	.00	.00	.06	.20	.00	.03	.00
9	.00	.01	.00	.00	.00	.01	.00	.01	.01	.00
10	.18	.20	.00	.00	.19	.19	.15	.14	.17	.18
11	.22	.21	* .01	.01	.32	.22	.27	.52	.30	.35
12	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
13	1.35	1.02	* .01	.01	.67	.50	.49	.56	.35	.48
14	.01	.03	* .01	.09	.01	.01	.02	.03	.01	.01
15	.00	.00	* .07	.06	.00	.00	.00	.00	.00	.00
19	.02	.05	.00	.00	.00	.03	.03	.00	.00	.00
20	.00	.00	.00	.00	.00	.01	.00	.01	.01	.01
21	.35	.31	* .22	.19	.27	.21	.34	.17	.21	.19
22	.01	.01	.00	.00	.25	.00	.40	.00	.00	.01
23	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00
25	.22	.25	* .33	.28	.41	.16	.21	.30	.27	.35
26	.02	.03	* .02	.02	.04	.06	.04	.04	.04	.04
27	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
28	.57	.20	* .15	.13	.01	.16	.06	.09	.02	.00
29	.18	.19	* .17	.15	.10	.14	.15	.88	.11	.11
30	.53	.35	* .94	.79	.17	.11	.13	.00	.74	1.09
MTOT	3.66	2.86	2.03	1.74	2.45	1.88	2.50	2.75	2.28	2.82
May										
1	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	.00	.00	.00	.00	.00	.00	.05	.03	.00	.00
13	.90	1.29	2.90	2.23	.56	1.99	2.36	.82	1.97	.93
14	.18	.17	.26	.07	.33	.21	.12	.48	.39	.49
17	.29	.18	.26	.25	.24	.26	.21	.27	.24	.24
21	.78	.17	.59	.57	.48	.63	.59	.57	.75	.54
22	.12	.05	.15	.14	.12	.10	.11	.25	.17	.20
23	.00	.07	.00	.01	.00	.00	.00	.01	.00	.02
MTOT	2.28	1.96	4.16	3.27	1.73	3.19	3.44	2.43	3.52	2.45

See footnote at end of table.

Table 3.--Daily rainfall for gages north of the Colorado River
1985 water year--Continued

Month	Gage name									
	1-BUL	2-BUL	1-SHL	2-SHL	1-BOG	1-WLN	2-WLN	3-WLN	4-WLN	5-WLN
Sept.										
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
5	.01	.00	.10	.34	.34	.33	.14	.24	.24	.22
6	.88	.74	.38	.46	.45	.50	.36	.33	.44	.36
10	.46	.23	* .12	.15	.11	.53	.32	.11	.06	.22
11	.13	.11	* .02	.03	.12	.00	.01	.02	.01	.04
12	.00	.05	.00	.00	.00	.00	.01	.01	.00	.00
13	.00	.01	.00	.00	.00	.00	.15	.00	.00	.00
14	.00	.09	*1.08	1.35	1.42	1.16	.36	1.13	4.21	2.63
15	.00	.00	.00	.00	.01	.00	.01	.00	.00	.02
25	.01	* .01	.00	.00	.07	.00	.00	.07	.02	.05
26	.00	.00	.00	.00	.00	.00	.01	.00	.00	.01
28	.58	* .62	* .36	.46	.23	.37	.25	.19	* .21	.21
29	1.92	*2.05	*1.04	1.30	1.25	1.33	1.40	1.41	*1.23	1.23
30	.00	.00	.00	.00	.00	.03	.00	.01	.00	.01
MTOT	3.99	3.91	3.10	4.01	4.00	4.25	3.02	3.53	6.42	5.00
WTOT	46.76	43.42	41.61	40.10	36.03	45.82	50.24	39.54	46.36	41.87

* Estimated.

Table 3.--Daily rainfall for gages north of the Colorado River
1985 water year--Continued

Month	Gage name									
	1-BUL	2-BUL	1-SHL	2-SHL	1-BOG	1-WLN	2-WLN	3-WLN	4-WLN	5-WLN
June										
5	1.24	*1.19	0.88	1.06	1.07	0.85	0.78	0.70	0.67	0.81
6	3.60	*3.40	.31	1.41	1.69	.12	1.61	1.39	1.16	1.42
7	.00	.00	.00	.00	.00	.43	.25	.11	.18	.01
11	.35	.80	.00	.12	.00	.00	.08	.18	.40	.46
12	.00	.01	.00	.00	.00	.00	.00	.02	.00	.02
18	.04	.10	.13	.14	.17	.06	.04	.05	.07	.17
19	.01	.03	.02	.01	.00	.02	.02	.14	.04	.06
21	.02	.01	.01	.00	.03	.05	.00	.00	.00	.00
22	.36	1.16	1.72	2.26	2.59	1.70	1.19	.00	2.71	2.56
23	.00	.02	1.20	.30	.09	.58	.43	1.60	.23	.25
24	.07	.00	.14	.00	.00	.04	.19	.11	.00	.02
25	.10	.06	.21	.00	.16	.00	.02	.22	.15	.38
26	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00
MTOT	5.79	6.78	4.62	5.30	5.80	3.85	4.61	4.77 :	5.61	6.16
July										
2	0.00	0.00	0.00	0.00	0.23	0.15	0.00	0.00	0.00	0.70
3	.22	* .25	.30	* .29	.33	.22	.25	1.66	.39	.32
4	.12	* .13	.42	* .41	.79	.21	.64	.29	.34	.86
5	.00	.00	.00	.00	.00	.01	.01	* .69	.37	.01
6	.10	* .11	.00	.00	.00	.00	.00	.00	.00	.00
8	.20	* .22	.00	.00	.00	.00	.00	.00	.00	.00
9	.01	* .01	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.22	.00	.00	.00	.03	.12
19	.00	.00	.00	.00	.00	.00	.37	.00	.00	.00
MTOT	0.65	0.72 :	0.72	0.70	1.57 :	0.59 :	1.27	2.64 :	1.13	2.01
Aug.										
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
15	.07	.00	.00	.06	.00	.00	.00	.00	.24	.00
24	1.08	.25	.06	* .08	.00	.02	.08	.00	.03	.00
25	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
29	.00	.00	.00	.00	.34	.00	.00	.00	.00	.12
MTOT	1.15	0.25	0.06	0.14	0.34	0.03	0.08	0.00	0.27	0.31

See footnote at end of table.

Table 4.--Daily rainfall for gages south of the Colorado River
1985 water year

[BUL, Bull Creek; BAR, Barton Creek; BOL, Bouldin Creek; SHL, Shoal Creek; BOG, Boggy Creek; WLN, Walnut Creek; ON, Onion Creek; BER, Bear Creek; SLA, Slaughter Creek; BGS, Boggy Creek (South); and WMS, Williamson Creek; MTOT, monthly totals; CTOT, calendar year totals; WTOT, water year totals.]

	Gage name										
Month	1-BAR	2-BAR	3-BAR	1-BOL	1-ON	1-BER	1-SLA	1-BGS	1-WMS	2-WMS	3-WMS
Oct.											
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
4	.00	.02	.00	.00	.00	.00	.00	.01	.00	.00	.00
5	.00	.00	.11	.00	.00	.07	.02	.00	.00	.01	.02
6	.00	.00	.00	.00	.00	.00	.00	*1.69	.00	1.71	.01
7	2.55	2.23	2.98	2.04	2.38	3.00	2.46	* .53	2.77	.54	2.21
8	.00	.00	.00	.01	.00	.01	.00	.00	.00	.00	.01
9	.00	.01	.02	.10	.03	.02	.02	.00	.00	.00	.01
10	1.95	4.62	4.04	4.29	.72	.64	1.54	3.10	3.18	5.17	3.33
11	.32	.43	.45	.84	.39	.46	.65	.96	.75	.02	.52
12	.10	.14	.04	.32	.00	.03	.03	.09	.09	1.28	.05
13	.39	1.56	.73	.67	.26	1.18	.99	.88	1.57	.79	1.97
14	1.16	1.32	.97	1.11	.84	.75	1.04	.86	.90	.86	.95
15	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
18	.00	.00	.01	.00	.00	.00	.00	.01	.00	.00	.00
19	.02	.00	.02	.00	.00	.00	.00	.14	.00	.00	.00
20	.73	1.34	1.96	.69	.32	.28	* .60	.14	.52	.14	1.11
21	1.86	1.83	2.18	1.69	1.86	1.46	*1.92	1.53	1.67	1.72	1.82
22	.91	.66	1.09	.17	.75	.66	* .56	.23	.49	.19	.71
23	.24	.39	.23	.32	.18	.12	* .21	.44	.18	.36	.30
24	.35	.22	.30	.23	.40	.16	* .23	.26	.20	.00	.18
25	.05	.05	.11	.00	.27	.10	* .09	.02	.08	.01	.08
26	.18	.11	.00	.02	.22	.24	* .15	.58	.13	.00	.14
27	.20	.03	.00	.00	.06	.02	* .08	.13	.07	1.21	.02
28	.09	.01	.00	.01	.24	.08	.24	.12	.21	.68	.02
29	.00	.00	.00	.00	.01	.01	.00	.00	.00	.04	.01
30	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.01	.02	* .27	.00	.00	.48	.00
MTOT	11.10	14.97	15.24	12.51	8.97	9.31	11.10	12.05	13.04	15.22	13.52

See footnote at end of table.

Table 4.--Daily rainfall for gages south of the Colorado River
1985 water year--Continued

Month	Gage name										
	1-BAR	2-BAR	3-BAR	1-BOL	1-ON	1-BER	1-SLA	1-BGS	1-WMS	2-WMS	3-WMS
Nov.											
1	0.00	0.04	0.00	0.00	0.04	0.00	*0.18	0.00	0.16	0.02	0.16
2	.00	.00	.00	.00	.00	.00	* .01	.00	.01	.01	.00
3	.01	.00	.00	.00	.01	.01	.00	.00	.00	.00	.01
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00
6	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
17	.24	.28	.00	.00	.14	.00	.04	.03	.11	.01	.19
18	.29	.34	.27	.65	.31	.29	.31	.71	.53	.82	.40
20	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.01
24	1.13	1.56	.92	1.55	1.02	.86	1.41	1.56	1.49	1.60	1.41
25	.02	.02	.02	.03	.01	.01	.04	.01	.02	.03	.02
26	.01	.02	.00	.05	.04	.02	.00	.07	.01	.06	.01
MTOT	1.72	2.26	1.21	2.28	1.57	1.20	2.00	2.39	2.33	2.57	2.21
Dec.											
3	0.00	0.01	0.00	0.06	0.04	0.05	0.03	0.03	0.01	0.11	0.02
4	.38	.31	.40	.34	.31	.23	.30	.44	.47	.35	.32
5	.25	.10	.27	.06	.07	.09	.13	.02	.10	.02	.11
6	.00	.00	.00	.00	.01	.01	.00	.00	.01	.03	.02
7	.00	.12	.11	.01	.07	.06	.00	.00	.01	.01	.01
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
12	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.74	.26	.33	.25	.50	.30	.30	.32	.34	.35	.37
14	.09	.10	.37	.00	.15	.29	.25	.15	.26	.05	.23
15	1.70	.30	.94	1.61	1.37	1.09	.68	.84	.48	1.08	.70
16	.06	.15	.14	.39	.00	.08	.11	.27	.09	.51	.15
17	.58	.38	.61	.38	.61	.50	.46	.68	.39	.73	.43
18	.02	.01	.01	.01	.00	.02	.02	.00	.00	.01	.00
19	.00	.01	.00	.00	.01	.00	.02	.01	.01	.01	.01
20	.01	.00	.00	.02	.01	.01	.01	.00	.00	.02	.01
21	.00	.00	.01	.00	.00	.00	.00	.00	.01	.00	.00
26	.01	.01	.00	.01	.01	.03	.04	.02	.03	.00	.03
27	.19	.19	.14	.25	.25	.30	.23	.46	.22	.41	.18
28	.01	.01	.01	.03	.04	.02	.01	.00	.01	.02	.01
29	.01	.05	.04	.00	.01	.06	.08	.01	.03	.02	.04
30	.78	.22	.74	.15	.70	.87	.93	.16	.39	.11	.59
31	.44	.77	.56	.98	.53	.54	.53	.95	.93	1.02	.61
MTOT	5.28	3.00	4.68	4.55	4.69	4.55	4.14	4.37	3.79	4.86	3.85
CTOT	28.58	29.06	30.80	30.99	27.93	26.40	28.00	29.22	29.73	36.12	30.13

See footnote at end of table.

Table 4.--Daily rainfall for gages south of the Colorado River
1985 water year--Continued

Month	Gage name										
	1-BAR	2-BAR	3-BAR	1-BOL	1-ON	1-BER	1-SLA	1-BGS	1-WMS	2-WMS	3-WMS
Jan.											
1	0.00	0.00	0.00	0.06	0.00	0.03	0.00	0.04	0.03	0.03	0.00
2	.06	.00	.01	.00	.00	.02	.00	.05	.04	.11	.00
3	.00	.08	.00	.35	.17	.08	.14	.11	.00	.10	.03
5	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
9	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.02	.00	.01	.00	.00	.00
12	.03	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
13	.01	.00	.00	.12	.00	.01	.00	.11	.07	.06	.00
14	.11	.29	.00	.39	.44	.29	.50	.45	.45	.65	.57
15	.00	.00	.01	.00	.00	.00	.00	.00	.01	.00	.00
16	.66	.54	.63	.41	.36	.53	.57	.41	.42	.41	.54
17	.01	.00	.00	.01	.02	.01	.01	.00	.00	.01	.01
18	.00	.00	.01	.04	.00	.01	.00	.00	.00	.01	.00
19	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
20	.01	.00	.00	.04	.00	.32	.02	.05	.02	.00	.04
23	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.01	.01	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
26	.05	.07	.03	.03	.08	.09	.09	.11	.08	.08	.08
27	.02	.01	.02	.06	.00	.00	.02	.02	.02	.04	.03
30	.00	.01	.00	.01	.00	.02	.03	.00	.03	.04	.02
31	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00	.00
MTOT	0.96	1.00	0.73	1.54	1.12	1.44	1.38	1.47	1.17	1.54	1.35

See footnote at end of table.

Table 4.--Daily rainfall for gages south of the Colorado River
1985 water year--Continued

Month	Gage name										
	1-BAR	2-BAR	3-BAR	1-BOL	1-ON	1-BER	1-SLA	1-BGS	1-WMS	2-WMS	3-WMS
Feb.											
2	0.35	0.13	0.07	0.29	0.12	0.08	0.08	0.07	0.23	0.28	0.26
3	.01	.00	.01	.02	.00	.00	.00	.04	.00	.00	.00
4	.11	.13	.20	.09	.00	.10	.11	.06	.11	.13	.11
5	.00	.01	.03	.00	.00	.01	.03	.00	.01	.02	.01
6	.01	.01	.00	.00	.00	.01	.01	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
8	.00	.00	.00	.00	.00	.01	.00	.01	.00	.00	.01
9	.00	.01	.00	.01	.00	.00	.00	.01	.00	.01	.00
10	.45	.14	.52	.10	.06	.26	.23	.04	.10	.07	.34
11	.00	.01	.01	.00	.00	.00	.01	.00	.01	.02	.01
12	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
18	.00	.00	.00	.00	.00	.01	.01	.00	.02	.00	.01
19	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01
21	.00	.00	.00	.00	.00	.01	.00	.00	.01	.00	.00
22	.07	.18	.08	.43	.04	.09	.16	.84	.26	.80	.15
23	2.96	1.68	3.71	.95	2.84	3.05	3.16	.85	1.46	1.07	2.15
25	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
26	.02	.09	.00	.05	.02	.06	.08	.07	.09	.07	.08
27	.02	.00	.00	.02	.02	.01	.01	.01	.00	.02	.00
28	.70	.66	.00	.60	.61	.63	.63	.56	.66	.57	.64
MTOT	4.71	3.00	4.63	2.56	3.73	4.34	4.53	2.56	2.96	3.07	3.79

See footnote at end of table.

Table 4.--Daily rainfall for gages south of the Colorado River
1985 water year--Continued

Month	Gage name										
	1-BAR	2-BAR	3-BAR	1-BOL	1-ON	1-BER	1-SLA	1-BGS	1-WMS	2-WMS	3-WMS
Mar.											
1	0.02	0.01	0.00	0.04	0.04	0.01	0.00	0.00	0.00	0.03	0.02
2	.00	.01	.00	.00	.00	.00	.00	.00	.01	.00	.00
3	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
4	.10	.06	.09	.07	.07	.07	.10	.08	.11	.12	.09
5	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
7	.04	.00	.05	.00	.01	.04	.03	.00	.02	.00	.03
9	.00	.00	.01	.00	.01	.00	.00	.00	.00	.00	.00
11	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.01
12	.02	.01	.00	.05	.00	.03	.07	.05	.07	.05	.03
13	.37	.04	.26	.05	.28	.21	.25	.18	.08	.04	.21
14	.79	.74	.71	.72	.82	.00	.96	.83	.87	1.31	* .47
15	.18	.14	.13	.17	.20	.19	.19	.19	.19	.21	* .20
16	.01	.01	.02	.01	.01	.01	.01	.01	.01	.00	.00
17	.00	.00	.01	.02	.00	.00	.01	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
19	.02	.11	.05	.05	.14	.14	.13	.32	.10	.03	.07
20	.58	.31	.81	1.25	.44	.31	.73	.52	1.10	.08	1.74
26	.13	.14	.12	.07	.12	.11	.13	.12	.13	.03	.14
27	.01	.09	.05	.09	.32	.21	.02	.07	.08	.05	.08
28	.00	.00	.00	.01	.00	.00	.00	.00	.00	.07	.00
30	.00	.03	.02	.07	.03	.16	.08	.09	.02	.18	.04
MTOT	2.27	1.81	2.33	2.67	2.50	2.69	2.72	2.46	2.80	2.21	3.13

See footnote at end of table.

Table 4.--Daily rainfall for gages south of the Colorado River
1985 water year--Continued

Month	Gage name										
	1-BAR	2-BAR	3-BAR	1-BOL	1-ON	1-BER	1-SLA	1-BGS	1-WMS	2-WMS	3-WMS
Apr.											
1	0.00	0.00	0.00	0.00	0.13	0.01	0.00	0.00	0.00	0.00	0.00
9	.00	.00	.00	.00	.00	.00	.01	.00	.00	.01	.00
10	.20	.29	.24	.24	.36	.35	.37	.31	.45	.28	.37
11	.13	.47	.36	.46	.14	.24	.23	.52	.43	.40	.42
12	.00	.00	.01	.02	.01	.01	.01	.00	.01	.14	.02
13	.81	.47	.67	.91	.47	.64	.52	.40	.31	.49	.28
14	.03	.02	.02	.03	.02	.02	.02	.01	.02	.03	.03
15	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
18	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.01	.00	.00	.00	.00	.00	.13	.00	.00	.00
20	.00	.00	.00	.01	.01	.01	.00	.00	.00	.01	.00
21	.22	.20	.27	.26	.14	.13	.17	.35	.08	.35	.15
22	.00	.00	.00	.90	.01	.03	.02	.02	.02	.06	.06
23	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00
25	.28	.45	.34	.48	.34	.50	.46	.53	.53	.54	.52
26	.02	.01	.02	.04	.00	.01	.03	.01	.03	.03	.03
28	.22	.36	.31	.04	.12	.09	.16	.05	.44	.03	.51
29	.08	.19	.13	.10	.07	.22	.18	.10	.19	.13	.18
30	.14	.00	.04	.01	.00	.04	.26	.15	.02	.00	.01
MTOT	2.14	2.54	2.41	3.52	1.83	2.30	2.44	2.58	2.53	2.50	2.58
MAY											
1	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
13	1.24	1.53	.95	.77	.86	.44	.98	.44	.32	.19	1.25
14	.05	.17	.03	.20	.10	.10	.15	.16	.11	.43	.15
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
17	.32	.27	.26	.23	.35	.28	.29	.45	.23	.23	.25
18	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.35	.27	.31	.44	.24	.22	.25	.20	.33	.20	.29
22	.18	.14	.14	.09	.07	.22	.18	.11	.12	.13	.11
MTOT	2.16	2.38	1.69	1.73	1.64	1.26	1.85	1.36	1.11	1.18	2.06

See footnote at end of table.

Table 4.--Daily rainfall for gages south of the Colorado River
1985 water year--Continued

Month	Gage name										
	1-BAR	2-BAR	3-BAR	1-BOL	1-ON	1-BER	1-SLA	1-BGS	1-WMS	2-WMS	3-WMS
June											
5	1.58	1.69	3.09	1.17	2.61	3.13	2.34	1.42	1.66	1.52	2.10
6	3.71	2.06	3.02	2.15	2.41	2.29	1.69	2.74	2.46	2.54	3.81
7	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
11	.18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.23	.17	.12	.21	.14	.34	.25	.31	.27	.24	.23
19	.03	.01	.00	.01	.00	.01	.01	.01	.01	.03	.01
21	.04	.08	.02	.00	.00	.00	.04	.04	.00	.00	.00
22	.80	1.28	.33	2.47	1.04	1.52	1.84	1.96	2.08	2.10	*1.99
23	.00	.22	1.09	.34	.00	.01	.01	.06	1.07	.06	*1.03
24	.03	.03	.02	.06	.00	.13	.01	.11	.15	.04	* .14
25	.11	.09	.00	.00	.00	.46	.03	.00	.00	.00	.00
26	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MTOT	6.77	: 5.63	7.69	6.41	6.21	7.89	6.22	6.65	7.70	6.53	9.31
July											
2	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.13	0.00
3	.57	.41	.52	.40	.00	.99	.53	.15	.50	.44	* .48
4	.33	.65	.19	.62	.00	.72	.10	.42	.58	.70	* .55
5	.00	.01	.00	.01	.00	.08	.00	1.28	.00	.00	.00
6	.00	.52	.25	.00	* .19	.01	.08	* .35	.30	.23	* .29
7	.23	.01	.02	.00	.00	.00	.09	.00	.01	.02	* .01
8	.03	.15	.00	.13	.00	.00	.02	.00	.21	.03	* .19
9	.00	.02	.00	.00	.00	.00	.00	.00	.01	.02	* .01
12	.12	.00	.18	.25	.21	.34	.21	* .60	.29	.39	* .28
14	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.02	.18	.00	.00	.00	* .58	.20	.38	* .19
MTOT	1.28	1.77	1.18	1.66	0.40	2.14	1.03	3.38	2.10	2.34	*2.00

See footnote at end of table.

Table 4.--Daily rainfall for gages south of the Colorado River
1985 water year--Continued

Month	Gage name										
	1-BAR	2-BAR	3-BAR	1-BOL	1-ON	1-BER	1-SLA	1-BGS	1-WMS	2-WMS	3-WMS
Aug.											
15	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	.06	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
MTOT	0.06	0.00	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sept.											
5	0.25	0.52	0.05	0.56	0.08	0.06	0.11	0.50	0.66	0.71	0.21
6	1.41	.59	1.58	.52	.78	.89	.87	1.01	.75	1.08	1.09
7	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00
10	.00	.05	.17	.00	.00	.75	.04	.00	.00	.00	.15
11	.11	.06	.06	.02	.18	.27	.60	.03	.01	.06	.03
12	.00	.00	.00	.02	.05	.16	.72	.10	.01	.18	.00
13	.45	.00	.00	.00	.16	1.12	.22	.00	.01	.01	.01
14	.00	.01	.00	.51	1.24	.63	.26	.36	.88	.54	.48
15	.00	.01	.00	.01	.00	.01	.01	.00	.01	.01	.01
16	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.01
18	.00	.00	.00	.13	.00	.00	.00	.00	.02	.02	.02
19	.00	.00	.00	.01	.01	.00	.00	.00	.00	.00	.00
25	.20	.00	.07	.00	.00	.03	.04	.00	.00	.00	.02
28	.23	.85	.49	.63	.14	.27	.21	.55	.74	.54	.78
29	1.29	1.69	1.54	1.90	2.04	.96	2.07	1.83	1.67	1.95	4.10
30	.00	.01	.00	.00	.01	.00	.01	.00	.00	.02	.01
MTOT	3.94	3.99	3.96	4.31	4.70	5.15	5.16	4.48	4.76	5.12	6.92
WTOT	42.39	42.35	45.82	43.76	37.36	42.27	42.57	43.75	44.29	47.14	50.72

* Estimated.

Table 5.--Summary of storm rainfall-runoff, 1985 water year

Date of Storm	Duration (hours)	Rainfall (inches) Total	Maximum increment 15-minute	30-minute	60-minute	Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft^3/s)
		08154700 Bull Creek at Loop 360, Austin, Texas						
October 20-21, 1984	22	4.76	1.01	1.82	3.09	1.68	0.35	8,470
May 13-14, 1985	2	1.24	.47	.80	1.23	.18	.15	1,400
		08155300 Barton Creek at Loop 360, Austin, Texas						
October 10-11, 1984	29	3.27	1.34	2.58	3.67	.22	.07	6,650
February 23-24, 1985	8	2.96	.72	1.16	2.02	.87	.29	8,660
		08155550 West Bouldin Creek at Riverside Drive, Austin, Texas						
October 10-11, 1984	2	5.13	1.90	2.59	3.39	.77	.15	1,130
April 22, 1985	1	.90	.44	.80	.87	.10	.11	309
		08156800 Shoal Creek at 12th St., Austin, Texas						
October 7, 1984	10	2.37	.46	.82	1.29	.52	.22	1,700
May 13, 1985	1	2.39	1.56	2.32	2.61	.37	.15	2,160
		08158050 Boggy Creek at U.S. 183, Austin, Texas						
October 20-21, 1984	21	2.76	.61	1.10	1.15	1.03	.37	2,410
June 22, 1985	9	2.59	.27	.50	.83	.71	.27	2,420
		08158100 Walnut Creek at F.M. 1325, Austin, Texas						
October 20, 1984	1	2.57	1.22	1.44	2.45	.51	.20	1,390
May 13, 1985	1	1.99	.76	1.45	1.87	.08	.04	251

Table 5.--Summary of storm rainfall-runoff, 1985 water year--Continued

Date of Storm	Duration (hours)	Rainfall (inches) Total	Maximum increment 15-minute	30-minute	60-minute	Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft^3/s)
08158200 Walnut Creek at Dessau Rd., Austin, Texas								
October 20, 1984	2	2.80	1.22	1.69	2.45	1.02	0.36	3,810
May 13, 1985	2	2.17	.91	1.59	2.17	.35	.16	2,370
08158380 Little Walnut Creek at Georgian Dr., Austin, Texas								
February 22-23, 1985	21	1.72	.34	.64	.81	.70	.41	678
May 13, 1985	1.5	2.30	1.66	2.32	2.61	1.21	.53	2,610
08158600 Walnut Creek at Webberville Rd., Austin, Texas								
October 20-21, 1984	21	4.00	1.22	1.69	2.45	1.50	.37	5,590
September 14-15, 1984	2	1.61	1.00	1.77	2.84	.34	.21	5,140
08158700 Onion Creek near Driftwood, Texas								
February 23, 1985	11	2.84	.28	.56	1.12	.51	.18	7,679
June 6, 1985	8	2.41	.38	.75	1.50	.86	.36	8,990
08158810 Bear Creek below F.M.1826 near Driftwood, Texas								
June 5-6, 1985	17	5.42	.51	1.01	1.51	.40	.07	1,670
08158840 Slaughter Creek at F.M. 1826 near Austin, Texas								
February 23, 1985	6	3.16	.54	.97	1.80	1.09	.34	1,900
June 5-6, 1985	15	4.05	.53	.74	.98	1.34	.33	1,390

Table 5.--Summary of storm rainfall-runoff, 1985 water year--Continued

Date of Storm	Duration (hours)	Rainfall (inches) Total	Maximum increment 15-minute	30-minute	60-minute	Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft^3/s)
08158880 Boggy Creek (south) at Circle S Rd., Austin, Texas								
October 10-11, 1984	20	4.06	.73	1.23	2.00	1.78	0.44	2,670
June 6, 1985	3	4.16	.40	.73	1.14	1.27	.31	1,320
08158920 Williamson Creek at Oak Hill, Texas								
October 10-11, 1984	22	3.86	.99	1.53	2.31	.59	.15	1,510
June 5-6, 1985	19	5.62	.92	1.52	2.10	.81	.14	1,200
08158930 Williamson Creek at Manchaca Rd., Austin, Texas								
October 10-11, 1984	22	4.22	1.29	2.55	3.64	1.42	.34	5,940
June 5-6, 1985	25	4.62	.92	1.52	2.09	.91	.20	2,830
08158970 Williamson Creek at Jimmy Clay Rd., Austin, Texas								
October 10-11, 1984	22	4.52	1.29	2.55	3.64	.98	.22	7,090
June 5-6, 1985	20	4.45	.92	1.33	2.09	.48	.11	1,650

Table 6.--Rainfall and runoff data for selected continuous-record gaging stations in the Austin urban study area, 1985 water year

Station	Weighted-mean rainfall (inches)	Total runoff (inches)	Ratio of runoff to rainfall
Bull Creek at Loop 360, near Austin, Tex. (08154700)	45.33	11.95	0.26
Barton Creek at Loop 360, Austin, Tex. (08155300)	43.28	9.20	.21
Shoal Creek at 12th Street, Austin, TX (08156800)	40.45	9.05	.22
Boggy Creek at U.S. Hwy. 183, Austin, TX (08158050)	36.03	7.76	.22
Walnut Creek at Webberville Road, Austin, TX (08158600)	44.65	10.46	.23
Onion Creek near Driftwood, TX (08158700	37.36	9.12	.24
Bear Creek below Farm Road 1826 near Driftwood, TX (08158810)	42.27	8.32	.20
Slaughter Creek at Farm Road 1826 near Austin, Tex. (08158840)	42.57	13.38	.31
Williamson Creek at Oak Hill, Austin, Tex. (08158920)	49.69	10.52	.21
Williamson Creek at Jimmy Clay Road, Austin, Tex. (08158970)	46.98	6.99	.15

Note: See "Remarks" paragraph of station descriptions in the section "Compilation off Data" for information about regulation or diversion.

Table 7.--Peak discharges associated with water-quality samples collected during storms
[ft^3/s, cubic feet per second]

Station no.	Station name	Water-quality sample			Peak flow		
		Date	Time	Instantaneous flow (ft^3/s)	Date	Time	(ft^3/s)
08154700	Bull Creek at Loop 360 near Austin, Tex.	Oct. 9	1300	55	Oct. 9	1345	187
		Oct. 20	(5 samples)	--	Oct. 20	1400	8,500
		Feb. 12	0830	16	Feb. 10	1800	87
		May 13	(5 samples)	--	May 13	1600	1,400
		June 6	1118	902	June 6	0915	2,950
08155260	Barton Creek near Camp Craft Rd., Austin, Tex.	Oct. 11	(6 samples)	--	Oct. 11	2200	a/1,480
		Dec. 31	(6 samples)	--	Dec. 31	0805	a/ 559
		Feb. 23	(6 samples)	--	Feb. 23	1200	a/5,540
		June 6	(7 samples)	--	June 6	1545	a/7,370
08155300	Barton Creek at Loop 360, Austin, Tex.	Oct. 11	(2 samples)	--	Oct. 10	2230	6,650
		Oct. 21	(3 samples)	--	Oct. 21	2000	2,510
		Oct. 22	1215	195	Oct. 21	2000	2,510
		Dec. 16	(4 samples)	--	Dec. 16	1530	256
		Feb. 23	(4 samples)	--	Feb. 23	1245	8,660
		June 6	(4 samples)	--	June 6	1700	11,400
08156800	Shoal Creek at 12th Street, Austin, Tex.	Oct. 7	(6 samples)	--	Oct. 7	0530	1,700
		Feb. 22	(6 samples)	--	Feb. 22	0715	241
		Mar. 20	(6 samples)	--	Mar. 20	0430	857
		April 13	(6 samples)	--	April 13	1915	335
		May 13	(2 samples)	--	May 13	1715	2,160
		June 6	(2 samples)	--	June 6	0900	879
08158050	Boggy Creek at U.S. Hwy. 183, Austin, Tex.	Oct. 7	(6 samples)	--	Oct. 7	0700	1,180
		Oct. 10	(6 samples)	--	Oct. 10	2230	776
		Oct. 20	(6 samples)	--	Oct. 20	1415	1,400
		Dec. 15-16	(7 samples)	--	Dec. 16	0045	2,170
		June 6	(6 samples)	--	June 6	0930	1,660
		Sept. 14	(4 samples)	--	Sept. 14	1730	3,140

See footnote at end of table.

Table 7.--Peak discharges associated with water-quality samples collected during storms--continued

Station no.	Station name	Water-quality sample			Peak flow		
		Date	Time	Instantaneous flow (ft^3/s)	Date	Time	(ft^3/s)
08158200	Walnut Creek at Dessau Road Austin, Tex.	Oct. 9	1400	872	Oct. 9	1300	1450
08158600	Walnut Creek at Webberville Road, Austin, Tex.	Oct. 9	1500	230	Oct. 9	1650	627
		June 6	1045	1,180	June 6	1045	1,180
08158700	Onion Creek near Driftwood, Tex.	Oct. 11	1020	173	Oct. 11	0730	273
		June 6	1240	8,800	June 6	1300	8,990
08158810	Bear Creek below F.M. 1826 near Driftwood, Tex.	June 6	1125	204	June 6	0915	1670
08158840	Slaughter Creek at F.M. 1826 near Austin, Tex.	Oct. 21	1537	26	Oct. 21	1015	228
		June 6	1055	475	June 6	0915	1,390
08158920	Williamson Creek at Oak Hill, Tex.	Oct. 21	1320	68	Oct. 21	1000	852
		Dec. 31	(6 samples)	--	Dec. 31	0445	63
		Feb. 23	(6 samples)	--	Feb. 23	0500	787
		Mar. 20	(6 samples)	--	Mar. 20	0400	177
		June 6	1020	334	June 6	0800	1,200
08158970	Williamson Creek at Jimmy Clay Road, Austin, Tex.	Oct. 11	1100	85	Oct. 11	0115	7,090
		June 6	0840	141	June 6	1215	1,650

See footnotes at end of table.

Table 7.--Peak discharges associated with water-quality samples collected during storms--continued

Station no.	Station name	Water-quality sample			Peak flow		
		Date	Time	Instantaneous flow (ft^3/s)	Date	Time	(ft^3/s)
08159000	Onion Creek at U.S. Highway 183 near Austin, Tex.	Oct. 11	1000	461	Oct. 11	0215	6,280
		June 6	0955	268	June 6	2200	10,300

a/ Discharge estimated.

Table 8.--Records of wells, test holes, and springs in the Austin urban study area

Water-bearing units: Kea, Edwards and associated limestones; Kyru, Upper Glen Rose; Kyrl, Lower Glen Rose; Kho, Hosston.
Method of lift and type of power: C, cylinder; cf, centrifugal; E, electric; G, natural gas, butane, or gasoline; H, hand J, Jet; N, none; S, submersible; T, turbine; W, windmill.
Use of water: D, domestic; Ind, industrial; Irr, irrigation; N, none; P, public supply; S, livestock.

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing Diameter (in)	Casing Depth (ft)	Water-bearing unit	Altitude of land surface (ft)	Water level below land surface datum (ft)	Water level Date of latest measurement for annual water-level survey	Method of lift	Use of water	Remarks
						Travis County							
YD-58-42-814	G & J Water Co.	C. T. Sterzing	--	300	8	--	Kea	660	210.0	Aug. 7, 1985	S, E	Irr, P	1/
YD-58-50-211	Travis Country Estates	Richard Bible	1973	282	7	265	Kea	670	200.0	Aug. 9, 1985	S, E	Irr	1/
215	City of Sunset Valley	Tom Arnold	1976	360	6-5/8	200	Kea	675	230.0	Aug. 7, 1985	S, E	P	1/
216	U.S. Geological Survey	Texas Dept. of Water Resources	1978	582	4	580	Kea	692	230.6	Aug. 12, 1985	N	N	U.S. Geol. Survey test well #3. 1/ 2/ 3/
217	U.S. Geological Survey	Texas Dept. of Water Resources	1978	126	4	126	Kea	567	115.8	Aug. 7, 1985	N	N	U.S. Geol. Survey test well #2A. 1/ 2/ 3/
406	Nash Philips, Copus	John Glass	1946	360	5	100	Kea	820	298.D	Aug. 7, 1985	S, E	D	1/
408	Ben Buchanan	E. W. Glass	1971	439	7	125	Kea	772	173.7	Aug. 8, 1985	S, E	D	Reported drawdown 0 foot when pumped at 25 gal/min for one hour on Mar. 18, 1971. 1/
412	Circle C Ranch	Glass	1972	295	7	194	Kea	809	160.6	Aug. 8, 1985	S, E	D	1/ 2/
502	Mrs. R. W. Herndon	Glass	1937	300	5-5/16	168	Kea	740	222.8	Aug. 8, 1985	S, E	Irr, S	1/ 4/
704	Marbridge Foundation	Central Tex. Drilling	1968	345	16 14	68 40	Kea	727	168.0	Aug. 9, 1985	S, E	Irr	Measured drawdown, 12 feet after pumping 72 hours at 942 gal/min, 2 feet at 578 gal/min, and 1 foot at 473 gal/min. 1/ 3/
						Hays County							
801	Clara Calhoun	Tyler	1942	100	6	20	Kea	856	38.0	Aug. 13, 1985	S, E	S	1/
LR-58-57-202	Daphna Greenhaw	Scarly Glass	--	200	7	200	Kea	905	20.4	Aug. 9, 1985	S, E	S	1/
303	W. D. Turner	W. H. Glass	1973	315	7	315	Kea	870	238.50	Aug. 9, 1985	S, E	D	1/ 3/
402	Tom Fairey	James B. Tucker	1976	380	6	55	Kea	880	90.6	Aug. 12, 1985	S, E.	D, S	1/
LR-58-58-403	City of Buda	J. B. Virdell	1954	390	10	222	Kea	710	91.4	Aug. 9, 1985	T, E	P	1/

1/ Well or spring sampled for quality of water.
2/ Driller's log, sampling log, or core data.
3/ Geophysical log (radioactivity or electric log).
4/ Discontinued observation well.

Table 9.--Water-quality data from wells in the Austin urban study area, 1985

[min, minutes; µs/cm, micromohos per centimeter; deg C, degree Celsius; mg/L, milligrams per liter; µg/L, micrograms per liter]

Well number	Date	Time	Depth below land surface (water level) (feet)	Pump or flow period prior to sampling (min)	Depth of well, total (feet)	Specific conductance (µs/cm)	PH (standard units)	Temperature (deg C)
			Travis County					
YD-58-42-814	06-20-85	0925	214.00	30	300.00	480	7.30	24.0
	08-07-85	0900	210.00	60	300.00	586	7.40	22.0
YD-58-50-211	06-20-85	1200	197.50	1440	282.00	611	7.10	22.0
	08-09-85	0830	200.00	30	282.00	657	7.10	22.0
YD-58-50-215	06-19-85	1415	221.00	30	360.00	584	7.40	23.5
	08-07-85	1100	230.00	60	360.00	592	7.10	24.0
YD-58-50-216	06-24-85	1040	223.00	--	582.00	838	7.30	23.5
	08-12-85	1000	230.60	--	582.00	936	7.20	24.5
YD-58-50-217	06-20-85	1115	80.40	--	125.00	410	7.30	25.0
	08-07-85	1005	115.80	--	125.00	496	6.90	23.0
YD-58-50-406	06-24-85	1145	286.50	30	360.00	612	7.30	24.0
	08-07-85	1230	298.00	30	360.00	635	7.20	24.0
YD-58-50-408	08-08-85	0915	173.70	30	439.00	641	7.00	23.5
YD-58-50-412	06-19-85	1200	157.00	30	295.00	547	7.40	23.0
	08-08-85	0930	160.60	30	295.00	567	7.10	22.5
YD-58-50-502	06-18-85	1355	200.00	60	300.00	516	7.40	24.5
	08-08-85	1130	222.80	30	300.00	580	7.10	22.5
YD-58-50-704	06-19-85	1130	158.70	15	345.00	519	7.40	22.0
	08-09-85	1045	168.00	30	345.00	540	7.10	23.0

Table 9.--Water-quality data from wells in the Austin urban study area, 1985--Continued

Well number	Hardness (mg/L as $CaCO_3$)	Hardness noncarbonate (mg/L as $CaCO_3$)	Calcium dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sodium adsorption ratio	Potassium, dissolved (mg/L as K)	Alkalinity field (mg/L as $CaCO_3$)	Sulfate dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as C)
				Travis County--Continued						
YD-58-42-814	--	--	--	--	--	--	--	--	--	--
	310	43	86	22	8.9	0.2	1.1	262	30	18
YD-58-50-211	--	--	--	--	--	--	--	--	--	--
	320	36	89	24	14	.4	1.1	285	23	31
YD-58-50-215	--	--	--	--	--	--	--	--	--	--
	300	7	73	29	9.3	.2	1.3	295	6.3	12
YD-58-50-216	--	--	--	--	--	--	--	--	--	--
	400	120	97	38	44	1	3.8	275	160	46
YD-58-50-217	--	--	--	--	--	--	--	--	--	--
	250	14	69	18	7.4	.2	1.3	232	22	14
YD-58-50-406	--	--	--	--	--	--	--	--	--	--
	310	50	86	24	14	.4	.9	264	35	19
YD-58-50-408	350	62	80	37	8.3	.2	1.9	290	52	55
YD-58-50-412	--	--	--	--	--	--	--	--	--	--
	300	8	82	22	5.7	.1	.6	287	5.8	9.8
YD-58-50-502	--	--	--	--	--	--	--	--	--	--
	310	21	89	21	7.8	.2	1.1	288	22	13
YD-58-50-704	--	--	--	--	--	--	--	--	--	--
	270	24	80	18	6.6	.2	1.0	250	15	12

Table 9.--Water-quality data from wells in the Austin urban study area, 1985--Continued

Well number	Fluoride, dissolved (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Solids sum of constituents dissolved (mg/L)	Nitrogen, nitrite total (mg/L as N)	Nitrogen, NO_2+NO_3 total (mg/L as N)	Nitrogen, ammonia total (mg/L as N)	Nitrogen, organic total (mg/L as N)	Nitrogen, ammonia + organic total (mg/L as N)	Phosphorus, total (mg/L as P)	Carbon, organic total (mg/L as C)
				Travis County--Continued						
YD-58-42-814	--	--	--	<0.01	1.10	0.02	0.28	0.3	<0.01	0.5
	0.2	10	330	< .01	1.20	.02	.18	.2	< .01	2.0
YD-58-50-211	--	--	--	< .01	1.30	.03	.47	.5	< .01	.8
	.2	11	360	< .01	1.80	.01	.29	.3	< .01	2.0
YD-58-50-215	--	--	--	< .01	3.90	.01	.19	.2	.01	< .1
	.2	15	320	< .01	2.70	.01	.39	.4	.01	2.1
YD-58-50-216	--	--	--	< .01	1.60	.04	.36	.4	.06	4.2
	.7	12	570	< .01	1.60	.05	.55	.6	< .01	2.0
YD-58-50-217	--	--	--	< .01	.20	.03	.27	.3	.05	4.1
	.2	9.3	280	< .01	.40	.03	.27	.3	.01	20
YD-58-50-406	--	--	--	< .01	4.30	.04	.46	.5	.01	.9
	.3	13	350	< .01	4.40	.02	.28	.3	< .01	1.9
YD-58-50-408	.4	14	380	< .01	.70	.02	--	< .2	< .01	2.1
YD-58-50-412	--	--	--	< .01	1.80	.02	.28	.3	< .01	< .1
	.1	12	310	< .01	1.70	.03	.17	.2	< .01	2.0
YD-58-50-502	--	--	--	< .01	1.10	.03	.17	.2	< .01	.8
	.2	12	340	< .01	1.60	.02	.38	.4	< .01	1.9
YD-58-50-704	--	--	--	< .01	.70	.02	.18	.2	< .01	.9
	.2	11	290	< .01	.80	.02	.28	.3	< .01	1.9

Table 9.--Water-quality data from wells in the Austin urban study area, 1985--Continued

Well number	Dichlorobromomethane total (µg/L)	Carbon tetrachloride total (µg/L)	1,2-Dichloroethane total (µg/L)	Bromoform total (µg/L)	Chlorodibromomethane total (µg/L)	Chloroform total (µg/L)	Toluene total (µg/L)	Benzene total (µg/L)	Chlorobenzene total (µg/L)	Chloroethane total (µg/L)
					Travis County--Continued					
YD-58-42-814	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-211	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-215	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-216	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-217	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-406	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-408	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-412	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-502	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-704	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Table 9.--Water-quality data from wells in the Austin urban study area, 1985--Continued

Well number	Ethyl-benzene total (µg/L)	Methyl-bromide total (µg/L)	Methyl-ene chlo-ride total (µg/L)	Tetra-chloro-ethyl-ene total (µg/L)	Tri-chloro-flouro-methane total (µg/L)	1,1-Di-chloro-ethane total (µg/L)	1,1-Di-chloro-ethyl-ene total (µg/L)	1,1,1-Tri-chloro-thanne total (µg/L)	1,1,2-Tri-chloro-ethane total (µg/L)
				Travis County--Continued					
YD-58-42-814	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-211	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-215	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-216	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-217	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-406	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-408	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-412	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-502	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
YD-58-50-704	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Table 9.--Water-quality data from wells in the Austin urban study area, 1985--Continued

Well number	Date	Time	Depth below land surface (water level) (feet)	Pump or flow period prior to sampling (min)	Depth of well, total (feet)	Specific conductance (µs/cm)	PH (standard units)	Temperature (deg C)
			Hays County					
LR-58-49-801	06-18-85	1015	36.60	30	100.00	674	7.10	21.5
	08-13-85	1000	38.00	30	100.00	700	7.10	22.0
LR-58-57-202	06-19-85	0930	18.90	30	200.00	659	7.20	23.5
	08-09-85	1245	20.00	30	200.00	648	7.10	25.5
LR-58-57-303	06-19-85	1045	248.00	60	315.00	588	7.20	23.0
	08-09-85	1145	238.50	30	315.00	604	7.10	24.0
LR-58-57-402	06-18-85	0930	89.30	60	380.00	680	7.20	22.5
	08-12-85	1345	90.60	30	380.00	1,480	7.20	23.5
LR-58-58-403	06-19-85	0830	93.40	30	390.00	580	7.30	22.5
	08-09-85	1345	91.40	180	390.00	598	7.40	23.0

Table 9.--Water-quality data from wells in the Austin urban study area, 1985--Continued

Well number	Hardness (mg/L as $CaCO_3$)	Hardness noncarbonate (mg/L as $CaCO_3$)	Calcium dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sodium adsorption ratio	Potassium, dissolved (mg/L as K)	Alkalinity field (mg/L as $CaCO_3$)	Sulfate dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as C)
					Hays County--Continued					
LR-58-49-801	--	--	--	--	--	--	--	--	--	--
	370	33	99	29	6.4	0.2	1.6	334	33	12
LR-58-57-202	--	--	--	--	--	--	--	--	--	--
	330	8	75	35	6.5	.2	1.5	323	19	10
LR-58-57-303	--	--	--	--	--	--	--	--	--	--
	320	16	82	27	6.9	.2	.8	300	20	14
LR-58-57-402	--	--	--	--	--	--	--	--	--	--
	780	460	130	110	18	.3	10	313	480	19
LR-58-58-403	--	--	--	--	--	--	--	--	--	--
	290	15	74	25	6.1	.2	1.2	273	25	11

Table 9.--Water-quality data from wells in the Austin urban study area, 1985--Continued

Well number	Fluoride, dissolved (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Solids sum of constituents dissolved (mg/L)	Nitrogen, nitrite total (mg/L as N)	Nitrogen, NO_2+NO_3 total (mg/L as N)	Nitrogen, ammonia total (mg/L as N)	Nitrogen, organic total (mg/L as N)	Nitrogen, ammonia + organic total (mg/L as N)	Phosphorus, total (mg/L as P)	Carbon, organic total (mg/L as C)
				Hays County--Continued						
LR-58-49-801	--	--	--	<0.01	1.10	0.03	0.27	0.3	<0.01	0.7
	0.3	11	390	< .01	.90	.03	.17	.2	< .01	2.8
LR-58-57-202	--	--	--	< .01	.80	.01	.19	.2	< .01	.1
	.2	12	350	< .01	.90	.02	--	< .2	< .01	2.0
LR-58-57-303	--	--	--	< .01	1.20	.02	.28	.3	.02	.4
	.1	12	340	< .01	1.20	.03	.17	.2	< .01	1.9
LR-58-57-402	--	--	--	< .01	< .10	.06	--	< .2	< .01	.3
	2.9	13	970	< .01	< .10	.42	.18	.6	< .01	2.0
LR-58-58-403	--	--	--	< .01	1.40	.02	.18	.2	< .01	.2
	.5	11	320	< .01	1.40	.02	--	< .2	< .01	2.0

Table 9.--Water-quality data from wells in the Austin urban study area, 1985--Continued

Well number	Dichlorobromomethane total (µg/L)	Carbon tetrachloride total (µg/L)	1,2-Dichloroethane total (µg/L)	Bromoform total (µg/L)	Chlorodibromomethane total (µg/L)	Chloroform total (µg/L)	Toluene total (µg/L)	Benzene total (µg/L)	Chlorobenzene total (µg/L)	Chlorethane total (µg/L)
					Hays County--Continued					
LR-58-49-801	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
LR-58-57-202	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
LR-58-57-303	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
LR-58-57-402	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
LR-58-58-403	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Table 9.--Water-quality data from wells in the Austin urban study area, 1985--Continued

Well number	Ethyl-benzene total (µg/L)	Methyl-bromide total (µg/L)	Methyl-ene chlo-ride total (µg/L)	Tetra-chloro-ethyl-ene total (µg/L)	Tri-chloro-flouro-methane total (µg/L)	1,1-Di-chloro-ethane total (µg/L)	1,1-Di-chloro-ethyl-ene total (µg/L)	1,1,1-Tri-chloro-ethane total (µg/L)	1,1,2-Tri-chloro-ethane total (µg/L)
				Hays County--Continued					
LR-58-49-801	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
LR-58-57-202	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
LR-58-57-303	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
LR-58-57-402	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
LR-58-58-403	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0