

HYDROLOGIC DATA FOR URBAN STUDIES IN THE AUSTIN, TEXAS, METROPOLITAN AREA, 1981

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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	0.3048	meter
mile	1.609	kilometer
square mile (mi ²)	2.590	square kilometer
cubic foot per second (ft ³ /s)	0.02832	cubic meter per second
foot per mile (ft/mi)	0.189	meter per kilometer
acre-foot	1233	cubic meter
	0.001233	cubic hectometer

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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 Resources, 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 under various types of urban development.
4. To quantitatively appraise the ground-water resources along the Balcones Fault Zone, the effect of urbanization on the quality and quantity of recharge and discharge, and the extent of contamination in the Edwards aquifer that is hydrologic circulation with Barton Springs.

This report presents the basic hydrologic data collected in the Austin urban area for the 1981 water year (Oct. 1, 1980 to Sept. 30, 1981).

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-81-3, 1981.

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 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 mean sea level in the northwest to about 420 feet above mean 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 can be found in Soil Survey of Travis County, 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 (21.5°C); the mean maximum temperature for July is 95°F (35.0°C); and the mean minimum temperature for January is 41°F (5.0°C). The average growing season is about 270 days.

The average rainfall (based on the period 1941-70) is 32.49 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.

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 hydrologic instruments and data-collection sites in the individual drainage basins are shown on figures 6-16.

Precipitation Data

Precipitation data are based on 26 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 on figure 1.

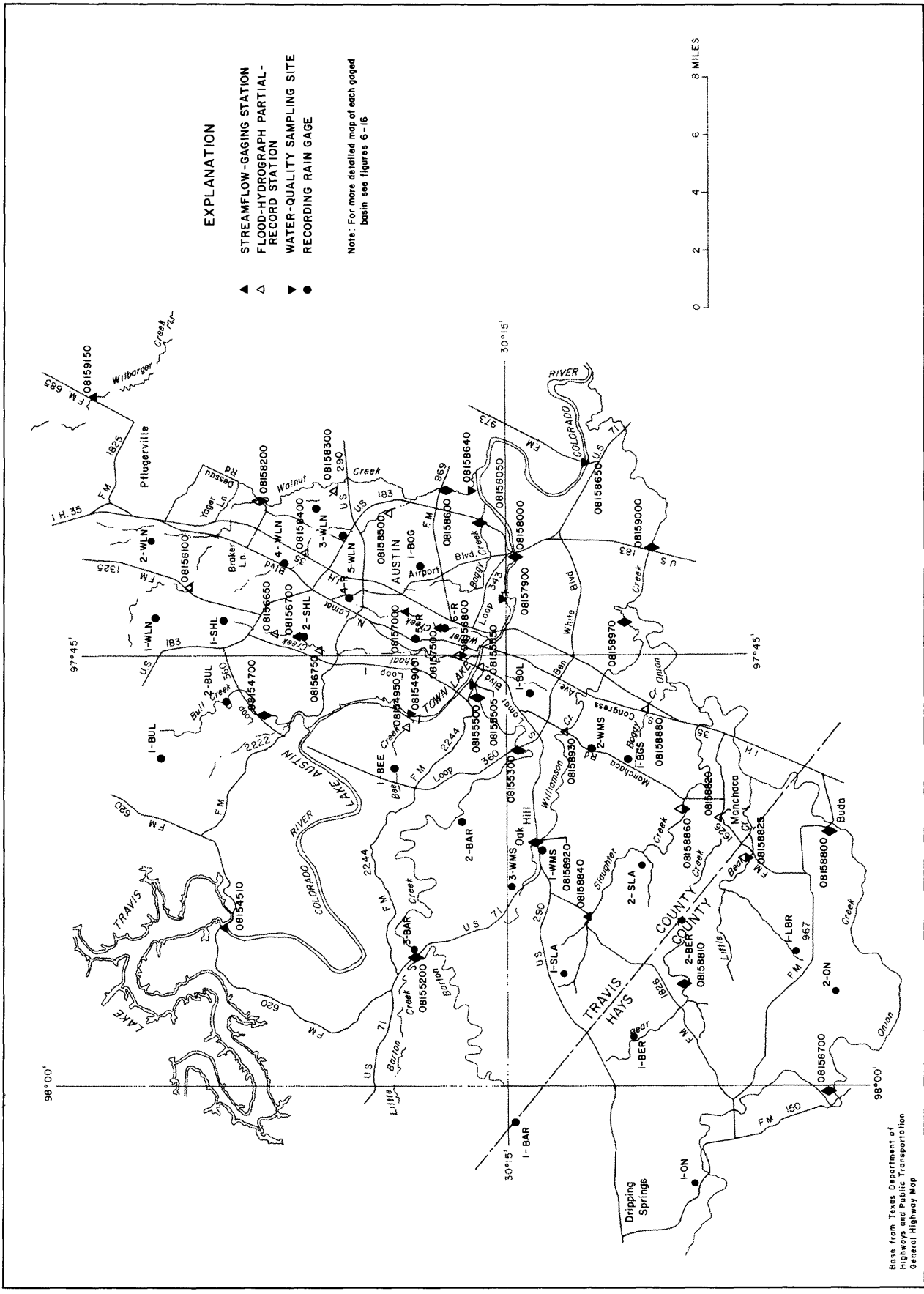
Precipitation at individual gages and weighted precipitation in each basin is given in the section "Compilation of data." Weighted-mean precipitation factors are shown in table 2. Weighted mean precipitation for a study area is determined by the Thiessen method described by Linsley, Kohler, and Paulhus (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 water year was unevenly distributed over the area. Individual station totals ranged from 22.86 inches at gage 2-ON in the Onion Creek basin to 56.09 inches at gage 1-WLN in the Walnut Creek basin. The mean water-year total of all the rain gages is 46.89 inches as compared with the 30-year average (1941-70) of 32.49 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 16 and 17 in the section "Compilation of data".

Storm Data

Several large runoff producing storms occurred during the year. The most significant storm occurred on May 24, with rainfall totals ranging from 0.31 to 9.85 inches. This storm was analyzed for all stations except for those where rainfall distribution was uneven or where the quality of recorded data was poor. The maximum incremental rainfall for this storm is shown in table 13.

The areal distribution of rainfall totals for May 24-25 throughout the entire north Austin is shown in figure 17. These totals do not include the rainfall that fell on May 23. A report was prepared for the May 24-25 flood in



Base from Texas Department of Highways and Public Transportation General Highway Map

Figure 1.- Locations of surface-water hydrologic-instrument installations and surface-water quality sampling sites in the Austin urban study area

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

Rain gage	Location
1-BUL	Lat 30°25'23", long 97°48'41", at Jack Rainer residence, 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-BEE	Lat 30°18'36", long 97°48'40", on Mr. Bailey's property about 300 ft north of the Koock's residence, 500 ft northwest of the intersection of Petticoat Lane and Wild Basin Ledge. Elevation, 830 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°17'46", long 97°55'31", at Barton Creek at Hwy. 71 stream-flow gaging station, 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).

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

Rain gage	Location
2-SHL	Lat 30°20'50", long 97°44'41", at Shoal Creek at Northwest Park streamflow gaging station, 400 ft upstream from Shoal Creek Blvd. bridge, 0.5 mile west of the intersection of Burnet Road and Justin Lane. Elevation, 671 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 Billie Harrel's residence, 200 ft east of Dorsett Road, 0.5 mile north of the intersection of Duval and Dorsett Roads. Elevation, 835 ft (approximate).
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 Loreda 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).
2-ON	Lat 30°03'56", long 97°56'38", at Mrs. Hoskins' Ranch, 5.3 miles southeast of Driftwood and 3.0 miles northeast of junction of FM 150 and FM 3237 and 2.5 miles south of Farm Road 967. Elevation, 885 ft (approximate).

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

Rain gage	Location
1-BER	Lat 30°11'08", long 97°58'11", at Ms. Guyn's residence 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).
2-BER	Lat 30°09'17", long 97°54'20", at Spiller Ranch, 4.6 miles northwest of the Marbridge School and FM 1626. Gage location on right of ranch road just before where ranch barns are located. Elevation, 855 ft (approximate).
1-LBR	Lat 30°06'01", long 97°55'22", approximately 300 ft northwest of main ranch house at the Rutherford Ranch on FM 967, 4.8 miles west of Buda. Elevation, 875 ft (approximate).
1-SLA	Lat 30°13'10", long 97°56'09", at the entrance of Mrs. 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).
2-SLA	Lat 37°10'34", long 97°52'06", at the entrance of the Circle C Ranch on Wyldwood Road, 0.8 mile from the intersection of Wyldwood Road and Brodie Lane, and 5.2 miles southwest of the intersection of Brodie Lane and U.S. Hwy. 290. Elevation, 773 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).
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).

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

Station number	Station name (abbreviated)	Rain gage <u>1/</u>	Weighted-mean precipitation factor <u>2/</u>
08154700	Bull Creek at Loop 360	1-BUL 2-BUL	0.57 .43
08154950	Bee Creek at West Lake Drive	1-BEE	1.00
08155200	Barton Creek at State Highway 71 near Oak Hill	1-BAR 3-BAR	.76 .24
08155300	Barton Creek at Loop 360	1-BAR 2-BAR 3-BAR	.59 .15 .26
08155550	West Bouldin Creek at Riverside Drive	1-BOL	1.00
08156650	Shoal Creek at Steck Avenue	1-SHL	1.00
08156700	Shoal Creek at Northwest Park	1-SHL 2-SHL	.45 .55
08156750	Shoal Creek at White Rock Drive	1-SHL 2-SHL	.42 .58
08156800	Shoal Creek at 12th Street	1-SHL 2-SHL	.24 .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 2-WLN	.51 .49
08158300	Ferguson Branch at Springdale Road	3-WLN	1.00
08158400	Little Walnut Creek at Interstate Highway 35	1-SHL 4-WLN	.34 .66

See footnotes at end of table.

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

Station number	Station name (abbreviated)	Rain gage <u>1/</u>	Weighted-mean precipitation factor <u>2/</u>
08158500	Little Walnut Creek at Manor Road	1-SHL	0.15
		4-WLN	.43
		5-WLN	.42
08158600	Walnut Creek at Webberville Road	1-WLN	.25
		2-WLN	.21
		3-WLN	.28
		4-WLN	.15
		5-WLN	.11
08158700	Onion Creek near Driftwood	1-ON	1.00
0815800	Onion Creek at Buda	1-ON	.73
		2-ON	.27
08158810	Bear Creek below Farm Road 1826	1-BER	1.00
08158820	Bear Creek at Farm Road 1626	1-BER	.66
		2-BER	.34
08158825	Little Bear Creek at Farm Road 1626	1-LBR	1.00
08158840	Slaughter Creek at Farm Road 1826	1-SLA	1.00
08158860	Slaughter Creek at Farm Road 2304	1-SLA	.48
		2-SLA	.52
08158880	Boggy Creek (South) at Circle S Road	1-BGS	1.00
08158920	Williamson Creek at Oak Hill	1-WMS	.16
		3-WMS	.84
08158930	Williamson Creek at Manchaca Road	1-WMS	.46
		2-WMS	.25
		3-WMS	.29

See footnotes at end of table.

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

Station number	Station name (abbreviated)	Rain gage <u>1/</u>	Weighted-mean precipitation factor <u>2/</u>
08158970	Williamson Creek at Jimmy Clay Road	1-WMS	0.31
		2-WMS	.49
		3-WMS	.20

1/ Rain gage designations are: BUL-Bull Creek; BEE-Bee Creek; BAR-Barton Creek; BOL-Bouldin Creek; SHL-Shoal Creek; BOG-Boggy Creek; WLN-Walnut Creek; ON-Onion Creek; BER-Bear Creek; LBR-Little Bear Creek; SLA-Slaughter Creek; BGS-Boggy Creek (South); and WMS-Williamson Creek. See locations of rain gages on figure 1.

2/ See section on "Precipitation of data" for explanation of use of weighted-mean precipitation factors

Austin (Massey and others, 1982). The report shows the approximate areas inundated by the flood of May 24-25, 1981 on Shoal Creek and in urban areas along a portion of Walnut and Little Walnut Creeks.

Widespread showers also fell on March 3, June 11, and June 13. These storms produced rainfall totals ranging from 0.16 to 3.35 inches, 1.67 to 10.01 inches, and 0.63 to 7.02 inches respectively. Data for these and other storms were analyzed for incremental values of rainfall and runoff in various watersheds and are presented in the section "Compilation of data".

Runoff Data

Runoff data are based on discharge measurements and stage records at 14 continuous-record streamflow stations and 15 flood-hydrograph partial-record streamflow gaging stations. Streamflow data for continuous-record gaging stations, and for flood-hydrograph partial-record stations for the 1981 water year are presented in downstream order in the section "Compilation of data."

Rainfall and runoff for the 1981 water year for the continuous-record gaging stations in the Austin urban study area are summarized in table 14. Runoff varied from 7.95 inches for the Onion Creek at Buda gage to 21.96 inches for the Williamson Creek at Oak Hill gage, which was 19 percent and 41 percent of the basin's 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 20 streamflow locations during the 1980 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. Four of these water-quality data-collection sites are equipped with automated samplers that collect discrete samples during storms. These four automated samplers are located at the gaging stations; Barton Creek at Loop 360, Shoal Creek at 12th Street, Boggy Creek at Highway 183, and Bull Creek at Loop 360. The peak discharges associated with the water-quality samples collected during storms at all the gaging stations are shown in table 15.

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 Data

Ground-water data for the Austin urban study area consist of well and spring inventories, water-quality sampling, and water-level measurements. The locations of all these ground-water sites in Travis and Hays Counties are shown

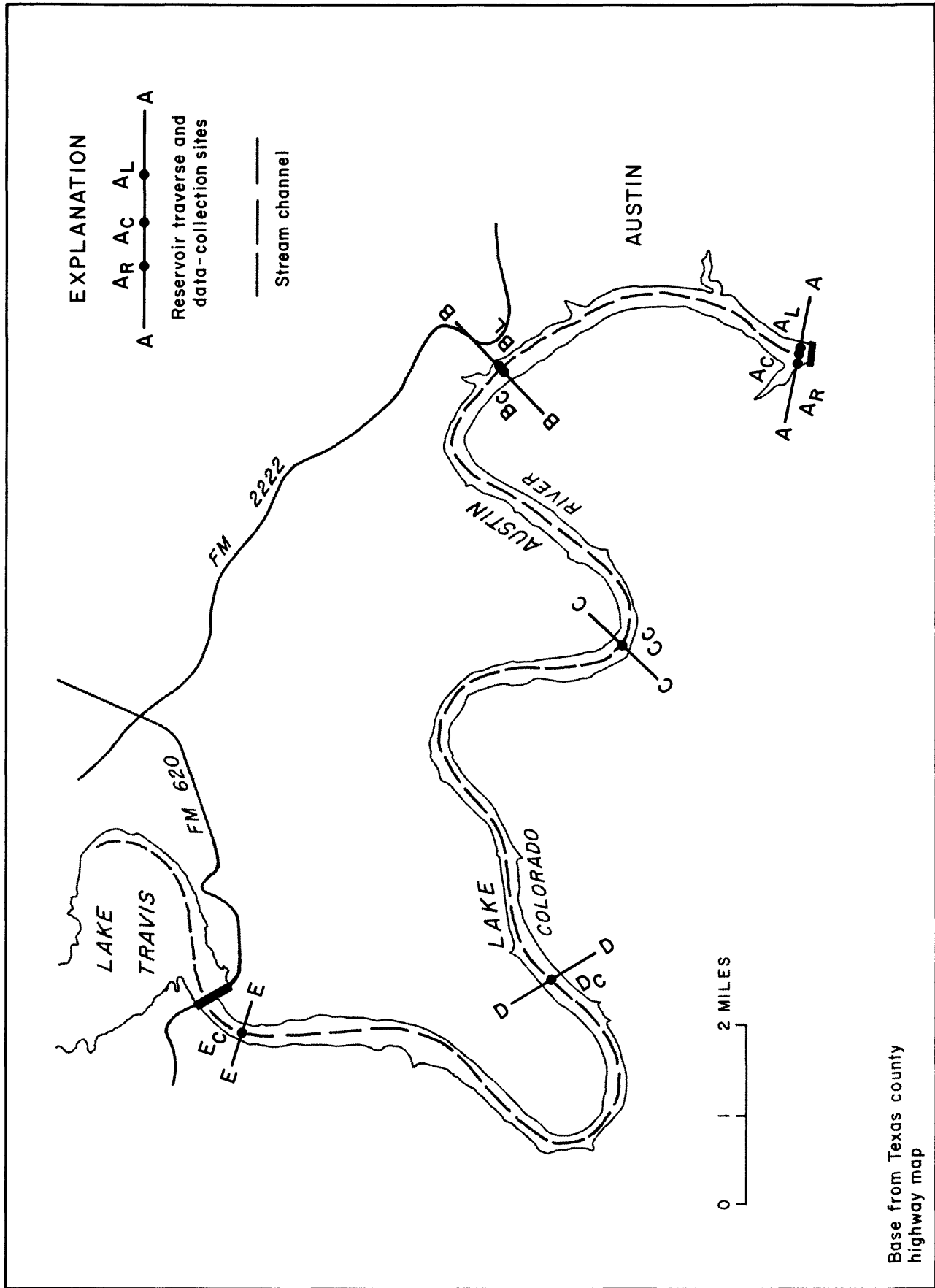


Figure 2.- Locations of the water-quality data-collection sites on Lake Austin

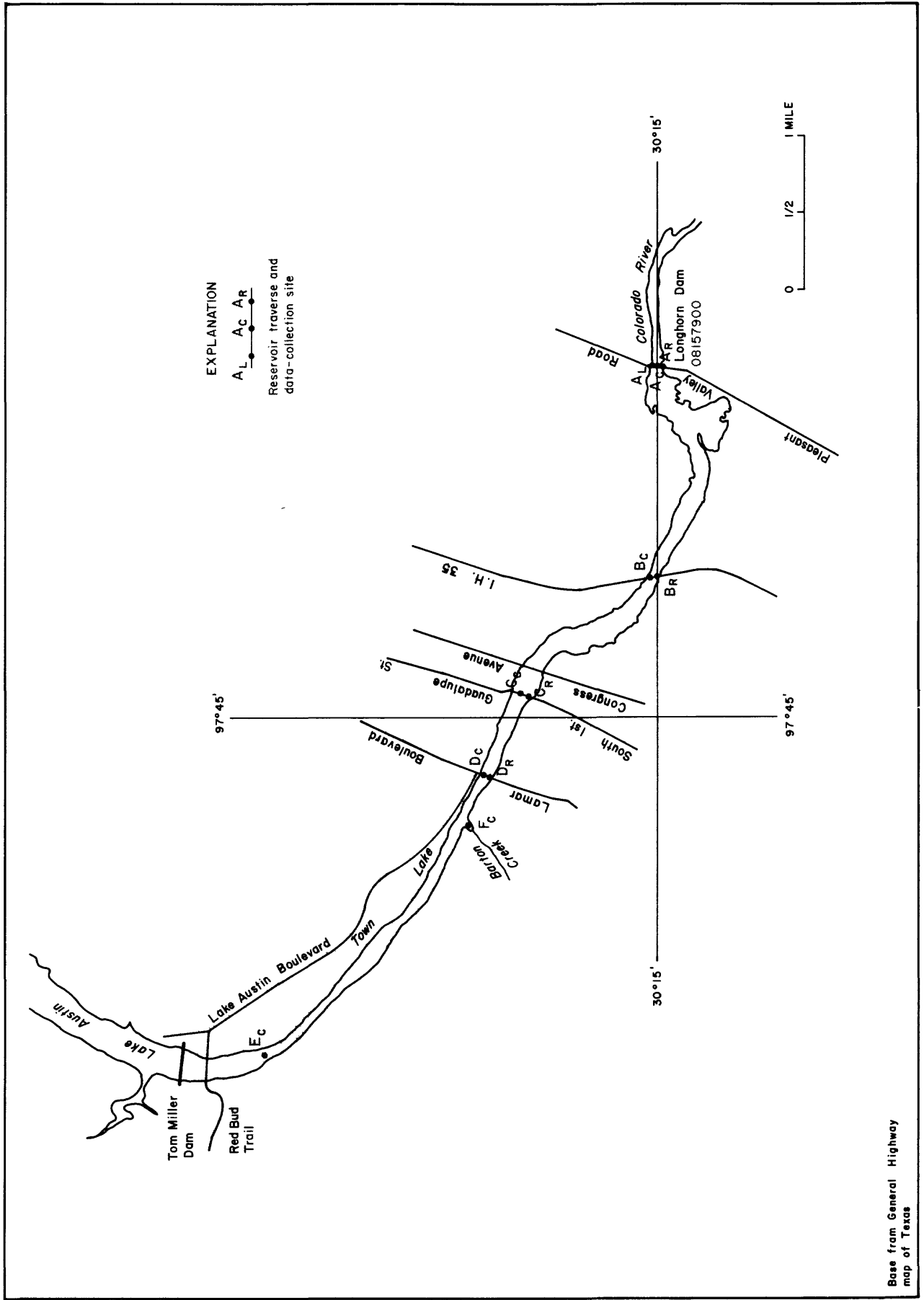


Figure 3.- Locations of the water-quality data-collection sites on Town Lake

in figures 4 and 5 respectively. The descriptions and characteristics of the wells and springs inventoried by the U.S. Geological Survey and the water-level measurements from the annual water-level survey are presented in table 18. Water-quality data collected from 33 wells in Travis County and 12 wells in Hays County are presented in table 19. Monthly water-level measurements made at 31 observation wells are presented in table 20. Other ground-water data for Travis and Hays Counties are in reports by Gunnar Brune and Gail L. Duffin, 1983, "Occurrence, availability, and quality of ground water in Travis County, Texas": Texas Department of Water Resources Report, (in press); and DeCook (1960).

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 1-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 was 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.

The ground-water portion of this urban-hydrology project is composed of a study of that part of the Edwards aquifer in hydrologic circulation with Barton Springs. Cold and Deep Eddy Springs also discharge this portion of the aquifer. The Edwards aquifer in this area is composed of the Edwards Limestone and Georgetown Limestone. In order to appraise the quantity and quality of the water in this portion of the Edwards aquifer, the inflow (recharge) to the aquifer and outflow (springflow and pumpage) from the aquifer must be defined.

During the calendar year 1981, the total ground-water pumpage from the part of the Edwards aquifer in hydrologic circulation with Barton Springs was about 3,600 acre-feet. About 2,700 acre-feet of this pumpage represents the usage of approximately 25 major users (public supply, commercial, and industrial) as reported to the Texas Department of Water Resources. The remaining 900 acre-feet of pumpage is composed of domestic usage (760 acre-feet) and livestock usage (140 acre-feet). The estimated total discharge as springflow from the aquifer was 57,000 acre-feet, of which about 54,100 acre-feet was from Barton Springs and the remaining 2,900 acre-feet was from Cold and Deep Eddy Springs.

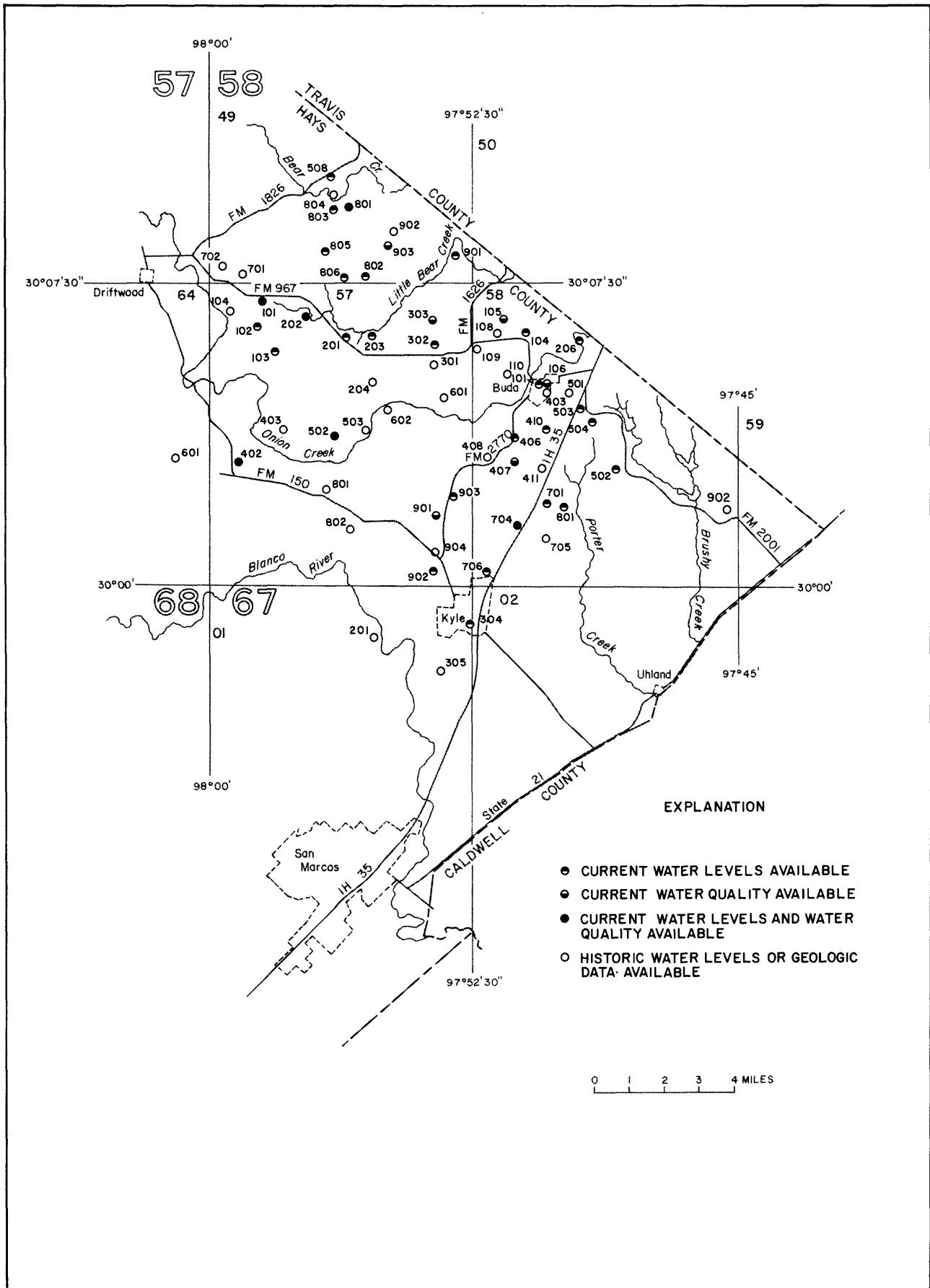


Figure 5.-Ground-water data-collection sites in Hays County

The majority of the recharge to the aquifer occurs through faults associated with the Balcones Fault Zone. These faults cross several creeks southwest of Austin, and some of the flow in these creeks enters the Edwards aquifer through these faults. The six major creeks that provide the majority of the recharge are Barton, Williamson, Slaughter, Bear, Little Bear, and Onion Creeks.

Except for Little Bear Creek, studies were conducted on these creeks to determine the quantity and location of flow losses. From this study, the two points on each creek that make up the upstream and downstream border of the flow-loss zones were determined, and thus the "recharge zone" was identified. The locations, descriptions, and data for the flow-loss study are given in the report by Slade and others (1982).

A progress report on the ground-water portion of the urban-hydrology project is presently being prepared and will be available in the near future. This report will include a section on the flow-loss studies and will offer interpretations regarding the ground-water hydrology of the Edwards aquifer that supplies water to Barton Springs. Baker and others are preparing a progress report that describes the geologic and hydrologic framework of the Edwards aquifer in Hays, Travis, Williamson, and Bell Counties between the cities of Kyle and Belton.

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COMPI LATION OF DATA

COLORADO RIVER BASIN

The surface-water hydrologic data for the Colorado River for the 1981 water year are given in the following pages:

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COLORADO RIVER BASIN

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 (20.8 km) northwest of the State Capitol at Austin, and at mile 318.0 (511.7 km).

DRAINAGE AREA (revised).--38,755 mi² (100,375 km²), approximately, of which 11,403 mi² (29,534 km²) 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.--Water-discharge records fair.

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

AVERAGE DISCHARGE.--7 years, 1,711 ft³/s (48.46 m³/s), 1,240,000 acre-ft/yr (1.53 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 25,300 ft³/s (716 m³/s) Apr. 17-19, 1977; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 22,700 ft³/s (643 m³/s) June 18; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	457	565	883	.00	451	.00	1890	2850	2480	4180	2090	1440
2	692	866	891	246	.00	.00	1170	1660	1610	3570	1680	1530
3	601	.00	962	.00	652	1860	1230	1500	2120	3540	2480	744
4	504	.00	352	129	1110	2950	1010	2120	2120	3170	2060	1850
5	571	303	63	698	663	3090	1080	1090	4640	3130	2160	1790
6	527	.00	224	178	269	3090	1440	1200	5530	3340	1900	1560
7	773	.00	.00	1340	.00	3010	1990	1580	5530	3230	1850	1170
8	603	.00	293	2350	.00	3090	1900	1480	5400	3230	2480	1830
9	.00	112	1840	1630	66	1730	1990	1390	5530	3230	2110	1880
10	.00	837	1220	1360	822	.00	1740	563	5320	3230	2050	2000
11	.00	.00	488	1540	1280	1620	2280	1620	4320	3230	2050	2190
12	.00	19	404	988	753	1810	2090	1660	5530	3420	2230	2090
13	521	214	.00	719	.00	2240	1930	1990	4630	3240	2170	2020
14	.00	.00	.00	622	.00	3290	1700	1650	5530	3240	2560	2060
15	.00	.00	688	666	14	3160	1820	1800	11200	3440	2560	1890
16	.00	336	219	408	44	3460	1730	1900	14200	3090	2240	1630
17	.00	1340	260	.00	.00	3110	1860	2040	20300	1670	2450	1840
18	.00	528	1000	.00	223	3000	1950	2030	22700	1310	1940	1500
19	.00	378	633	375	825	2080	1720	1550	20300	1970	2340	1380
20	176	89	64	684	254	2080	2630	2580	15300	1320	2480	1510
21	.00	565	.00	387	470	1960	2930	1930	15300	1660	2290	1600
22	.00	129	98	570	157	2000	1900	2220	13300	1780	2230	1210
23	131	.00	71	1020	683	2000	2980	2490	8360	1500	2460	1280
24	.00	22	.00	487	38	2180	1930	2240	5530	1930	2290	1320
25	.00	488	.00	27	.00	2050	1840	484	5530	1990	2400	943
26	447	1740	.00	160	.00	2060	1990	1900	5530	1820	2350	921
27	1830	81	.00	419	.00	1230	1950	2310	5530	1800	2320	889
28	907	.00	.00	488	.00	1230	2020	2280	5530	1720	2410	1040
29	434	.00	1150	120	---	1350	2230	2040	5530	1640	2110	986
30	800	175	1640	232	---	1210	2090	1800	5530	1760	2120	426
31	610	---	845	430	---	1850	---	2040	---	1910	688	---
TOTAL	10584.00	8787.00	14288.00	18273.00	8774.00	63790.00	57010	55987	239960	79290	67548	44519
MEAN	341	293	461	589	313	2058	1900	1806	7999	2558	2179	1484
MAX	1830	1740	1840	2350	1280	3460	2980	2850	22700	4180	2560	2190
MIN	.00	.00	.00	.00	.00	.00	1010	484	1610	1310	688	426
AC-FT	20990	17430	28340	36240	17400	126500	113100	111100	476000	157300	134000	88300
CAL YR 1980	TOTAL	374511.00	MEAN	1023	MAX	3840	MIN	.00	AC-FT	742800		
WTR YR 1981	TOTAL	668810.00	MEAN	1832	MAX	22700	MIN	.00	AC-FT	1327000		

COLORADO RIVER BASIN

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

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L CaCO3)
APR 13...	1200	3100	511	7.8	13.0	8.8	85	1.2	180	43
JUN 09...	0945	5570	504	7.7	16.5	9.8	102	2.0	190	50
JUN 17...	0950	5600	527	7.2	16.0	9.1	93	.3	190	40

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 (MG/L AS CaCO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS Cl)	FLUORIDE, DISSOLVED (MG/L AS F)
APR 13...	42	19	29	.9	3.6	140	37	51	.3
JUN 09...	43	20	30	.9	3.7	140	40	54	.2
JUN 17...	43	20	29	.9	4.0	150	37	53	.2

DATE	SILICA, DISSOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (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)
APR 13...	8.3	274	.34	.000	.34	.060	.56	.62	.020
JUN 09...	8.5	284	.29	.010	.30	.040	.63	.67	.020
JUN 17...	7.3	284	.30	.000	.30	.030	.59	.62	.020

COLORADO RIVER BASIN

08154900 LAKE AUSTIN AT AUSTIN, TX

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

301739097471601 LAKE AUSTIN SITE AR

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAR							
02...	1135	1.00	496	8.3	15.5	8.7	88
02...	1137	10.0	496	8.3	15.5	8.7	88
02...	1139	20.0	496	8.2	15.5	8.6	87
02...	1142	32.0	496	8.2	15.5	8.5	86
JUL							
28...	1050	1.00	464	7.4	27.5	5.5	70
28...	1052	10.0	464	7.2	26.5	4.2	52
28...	1054	20.0	471	7.2	26.0	3.5	43
28...	1056	34.0	474	7.1	26.0	3.0	37

301739097471201 LAKE AUSTIN SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (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)
MAR										
02...	1145	1.00	498	8.3	15.5	3.00	0	.90	9.1	92
02...	1147	10.0	499	8.3	15.5	--	--	--	9.1	92
02...	1149	20.0	499	8.3	15.5	--	--	--	9.0	91
02...	1151	30.0	502	8.3	15.5	--	--	--	8.9	90
02...	1153	35.0	499	8.2	14.0	--	--	--	9.3	91
02...	1155	40.0	502	8.2	12.5	--	--	--	9.4	89
02...	1157	53.0	502	8.1	12.0	--	5	1.5	9.5	89
JUL										
28...	1100	1.00	476	7.4	27.5	1.20	5	2.0	5.3	67
28...	1102	10.0	476	7.2	26.5	--	--	--	4.1	51
28...	1104	20.0	476	7.2	26.0	--	--	--	3.9	48
28...	1106	30.0	480	7.1	26.0	--	--	--	3.3	41
28...	1108	40.0	482	7.1	26.0	--	--	--	3.1	38
28...	1110	52.0	485	7.0	26.0	--	5	12	1.7	21

DATE	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	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
MAR										
02...	.7	93	88	130	190	47	42	20	31	1.0
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	.4	--	--	--	190	51	42	21	32	1.0
JUL										
28...	.8	K56	K10	K7	180	23	42	19	24	.8
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	.8	--	--	--	180	32	43	18	25	.9

COLORADO RIVER BASIN
LAKE AUSTIN AT AUSTIN, TX--Continued

301739097471201 LAKE AUSTIN SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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)	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)
MAR										
02...	3.4	140	39	55	.2	5.5	280	3	1	.08
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	.10
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	3.5	140	41	55	.2	6.7	286	3	2	.12
JUL										
28...	3.4	160	22	41	.2	8.5	256	9	4	.60
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	.64
28...	3.5	150	22	41	.2	8.9	252	19	19	.16

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)
MAR									
02...	.020	.10	.000	.55	.55	.65	.030	<10	<1
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	.000	.10	.000	.54	.54	.64	.030	50	10
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	.010	.13	.000	.68	.68	.81	.030	40	10
JUL									
28...	.000	.60	.610	.16	.77	1.4	.010	<10	2
28...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
28...	.000	.64	.590	.10	.69	1.3	.020	40	30
28...	.040	.20	.240	.58	.82	1.0	.020	<10	95

301739097470901 LAKE AUSTIN SITE AL

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAR							
02...	1125	1.00	496	8.3	15.5	8.3	84
02...	1130	14.0	496	8.3	15.5	8.0	81
JUL							
28...	1135	1.00	470	7.8	28.5	7.1	91
28...	1140	9.00	474	7.2	26.0	3.7	46

COLORADO RIVER BASIN

LAKE AUSTIN AT AUSTIN, TX--Continued

302043097472401 LAKE AUSTIN SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
MAR									
02...	1220	1.00	496	8.3	15.5	2.70	9.9	100	.13
02...	1222	10.0	496	8.3	15.5	--	9.9	100	--
02...	1224	20.0	496	8.2	15.5	--	9.9	100	--
02...	1226	32.0	496	8.2	14.0	--	9.9	97	.12
JUL									
28...	1150	1.00	475	7.6	29.0	1.50	6.2	81	.13
28...	1153	10.0	475	7.5	28.5	--	5.8	74	--
28...	1155	20.0	470	7.2	26.0	--	4.1	51	--
28...	1158	32.0	470	7.2	26.0	--	4.3	53	.19

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)
MAR									
02...	.000	.13	.000	.62	.62	.75	.030	30	0
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	.000	.12	.000	.56	.56	.68	.040	30	0
JUL									
28...	.030	.16	.150	.53	.68	.84	.010	40	0
28...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
28...	.020	.21	.150	.59	.74	.95	.030	20	10

302044097472301 LAKE AUSTIN SITE BL

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION
MAR							
02...	1230	1.00	497	8.3	16.0	10.0	102
02...	1232	10.0	497	8.3	15.5	10.0	101
02...	1235	18.0	497	8.2	15.5	10.0	101
JUL							
28...	1210	1.00	480	7.6	29.0	6.3	82
28...	1213	10.0	480	7.6	28.5	6.1	78
28...	1215	15.0	477	7.2	27.0	4.0	50

COLORADO RIVER BASIN

LAKE AUSTIN AT AUSTIN, TX--Continued

301926097502201 LAKE AUSTIN SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (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)
MAR										
02...	1250	1.00	490	8.3	16.5	3.6	0	.90	9.7	100
02...	1252	10.0	490	8.3	16.0	--	--	--	9.8	100
02...	1254	20.0	495	8.2	15.0	--	--	--	10.0	100
02...	1256	28.0	497	8.0	14.0	--	0	.70	10.3	101
JUL										
28...	1235	1.00	468	7.3	26.5	2.00	5	1.8	4.9	61
28...	1237	10.0	468	7.3	26.0	--	--	--	4.5	55
28...	1239	20.0	468	7.3	25.5	--	--	--	4.5	55
28...	1242	25.0	468	7.4	26.0	--	5	2.2	4.6	57

DATE	OXYGEN DEMAND BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	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 AS 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
MAR										
02...	.7	31	K1	K5	180	42	40	20	30	1.0
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	.9	--	--	--	180	45	41	20	31	1.0
JUL										
28...	.6	160	K140	20	180	17	41	18	23	.8
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	1.2	--	--	--	180	17	41	18	23	.8

DATE	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, VOLA- TILE, SUS- PENDE (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
MAR										
02...	3.5	140	39	56	.2	5.7	279	1	0	.07
02...	--	--	--	--	--	--	--	--	--	.11
02...	--	--	--	--	--	--	--	--	--	--
02...	3.5	140	39	55	.2	6.7	281	1	1	.11
JUL										
28...	3.2	160	20	40	.2	8.1	250	7	6	.63
28...	--	--	--	--	--	--	--	--	--	.61
28...	--	--	--	--	--	--	--	--	--	--
28...	3.5	160	19	42	.2	8.0	251	3	0	.19

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)
MAR									
02...	.020	.09	.000	.49	.49	.58	.040	<10	<1
02...	.000	.11	.000	.55	.55	.66	.040	20	0
02...	--	--	--	--	--	--	--	--	--
02...	.010	.12	.000	.57	.57	.69	.030	<10	3
JUL									
28...	.000	.63	.630	.10	.73	1.4	.020	<10	14
28...	.000	.61	.500	.12	.62	1.2	.010	30	10
28...	--	--	--	--	--	--	--	--	--
28...	.030	.22	.220	.41	.63	.85	<.010	<10	16

COLORADO RIVER BASIN

LAKE AUSTIN AT AUSTIN, TX--Continued

302021097540001 LAKE AUSTIN SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
MAR									
02...	1325	1.00	489	8.4	16.0	3.2	9.8	100	.12
02...	1328	10.0	497	8.0	14.5	--	8.4	83	--
02...	1330	15.0	497	8.0	14.5	--	8.5	84	.14
JUL									
28...	1315	1.00	464	7.3	25.5	2.60	4.7	57	.63
28...	1317	10.0	464	7.3	25.0	--	4.4	53	--
28...	1320	17.0	464	7.3	25.0	--	4.3	52	.20

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)
MAR									
02...	.000	.12	.000	.82	.82	.94	.030	20	0
02...	--	--	--	--	--	--	--	--	--
02...	.000	.14	.000	1.2	1.20	1.3	.030	20	20
JUL									
28...	.000	.63	.510	.19	.70	1.3	.010	20	20
28...	--	--	--	--	--	--	--	--	--
28...	.030	.23	.180	.30	.48	.71	.020	30	10

302314097544901 LAKE AUSTIN SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (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)
MAR										
02...	1400	1.00	494	8.2	13.5	2.10	5	1.7	10.3	100
02...	1402	7.00	494	8.2	13.0	--	5	1.3	10.3	99
JUL										
28...	1350	1.00	464	7.2	24.0	2.60	5	.50	3.4	40
28...	1355	7.00	464	7.3	24.5	--	5	.00	3.5	42

DATE	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	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
MAR										
02...	.6	28	18	<1	190	47	42	20	31	1.0
02...	.6	--	--	--	180	45	41	20	32	1.0
JUL										
28...	.4	K10	<1	K3	170	24	40	18	22	.8
28...	.5	--	--	--	170	24	40	18	22	.8

COLORADO RIVER BASIN

LAKE AUSTIN AT AUSTIN, TX--Continued

302314097544901 LAKE AUSTIN SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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 SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, VOLA- TILE, SUS- PENDE (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
MAR										
02...	3.5	140	40	56	.2	7.2	284	1	1	.19
02...	3.5	140	40	56	.2	7.3	284	1	0	.19
JUL										
28...	3.3	150	15	39	.2	7.9	236	7	7	.22
28...	3.4	150	16	39	.2	7.8	237	5	5	.23

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)
MAR									
02...	.010	.20	.000	.51	.51	.71	.030	<10	3
02...	.010	.20	.000	.46	.46	.66	.030	<10	2
JUL									
28...	.030	.25	.150	.46	.61	.86	<.010	<10	18
28...	.030	.26	.160	.40	.56	.82	<.010	<10	18

301739097471201 LAKE AUSTIN SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	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)
MAR							
02...	1145	1.00	2	70	<1	0	<10
02...	1151	30.0	--	--	--	--	--
02...	1157	53.0	1	70	<1	0	<10
JUL							
28...	1100	1.00	2	70	<1	10	<10
28...	1108	40.0	--	--	--	--	--
28...	1110	52.0	1	60	<1	10	<10

DATE	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)
MAR							
02...	<10	<10	<1	.0	0	0	<3
02...	50	--	10	--	--	--	--
02...	40	<10	10	.0	0	0	5
JUL							
28...	<10	<10	2	.1	0	0	<3
28...	40	--	30	--	--	--	--
28...	<10	17	95	.0	0	0	<3

COLORADO RIVER BASIN
LAKE AUSTIN AT AUSTIN, TX--Continued

301926097502201 LAKE AUSTIN SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	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)
MAR							
02...	1250	1.00	2	70	1	0	<10
02...	1252	10.0	--	--	--	--	--
02...	1256	28.0	2	70	<1	0	<10
JUL							
28...	1235	1.00	2	60	<1	10	<10
28...	1237	10.0	--	--	--	--	--
28...	1242	25.0	2	60	<1	10	<10

DATE	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)
MAR							
02...	<10	<10	<1	.0	0	0	<3
02...	20	--	0	--	--	--	--
02...	<10	<10	3	.0	0	0	<3
JUL							
28...	<10	<10	14	.7	1	0	<3
28...	30	--	10	--	--	--	--
28...	<10	<10	16	.0	0	0	<3

302314097544901 LAKE AUSTIN SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	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)
MAR							
02...	1400	1.00	2	80	<1	10	<10
02...	1402	7.00	2	70	<1	0	<10
JUL							
28...	1350	1.00	2	60	<1	10	<10
28...	1355	7.00	1	60	<1	10	<10

DATE	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)
MAR							
02...	<10	19	3	.0	0	0	30
02...	<10	<10	2	.3	0	0	<3
JUL							
28...	<10	<10	18	.0	0	0	<3
28...	<10	<10	18	.0	0	0	<3

COLORADO RIVER BASIN

LAKE AUSTIN AT AUSTIN, TX--Continued

301739097471201 LAKE AUSTIN SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)
MAR									
02...	1145	1.00	.00	.00	.00	.00	.00	.00	.00
02...	1157	53.0	.00	.00	.00	.00	.00	.00	.00
JUL									
28...	1100	1.00	.00	.00	.00	.00	.00	.00	.00
28...	1110	52.0	.00	.00	.00	.00	.00	.00	.00

DATE	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
MAR									
02...	.00	.00	.00	.00	.00	.00	.00	.00	.00
02...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL									
28...	.00	.00	.00	.00	.00	.00	.00	.00	.00
28...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAR								
02...	.00	.00	.00	.00	.00	.22	.00	.00
02...	.00	.00	.00	.00	.00	.08	.00	.00
JUL								
28...	.00	.00	.00	.00	.00	.32	.00	.00
28...	.00	.00	.00	.00	.00	.19	.01	.00

301926097502201 LAKE AUSTIN SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)
MAR									
02...	1250	1.00	.00	.00	.00	.00	.00	.00	.00
02...	1256	28.0	.00	.00	.00	.00	.00	.00	.00
JUL									
28...	1235	1.00	.00	.00	.00	.00	.00	.00	.00
28...	1242	25.0	.00	.00	.00	.00	.00	.00	.00

DATE	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
MAR									
02...	.00	.00	.00	.00	.00	.00	.00	.00	.00
02...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL									
28...	.00	.00	.00	.00	.00	.00	.00	.00	.00
28...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAR								
02...	.00	.00	.00	.00	.00	.91	.00	.00
02...	.00	.00	.00	.00	.00	.81	.00	.00
JUL								
28...	.00	.00	.00	.00	.00	.06	.00	.00
28...	.00	.00	.00	.00	.00	--	--	--

COLORADO RIVER BASIN
LAKE AUSTIN AT AUSTIN, TX--Continued

302314097544901 LAKE AUSTIN SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)
MAR									
02...	1400	1.00	.00	.00	.00	.00	.00	.00	.00
02...	1402	7.00	.00	.00	.00	.00	.00	.00	.00
JUL									
28...	1350	1.00	.00	.00	.00	.00	.00	.00	.00
28...	1355	7.00	.00	.00	.00	.00	.00	.00	.00

DATE	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
MAR									
02...	.00	.00	.00	.00	.00	.00	.00	.00	.00
02...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL									
28...	.00	.00	.00	.00	.00	.00	.00	.00	.00
28...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAR								
02...	.00	.00	.00	.00	.00	.00	.00	.00
02...	.00	.00	.00	.00	.00	.00	.00	.00
JUL								
28...	.00	.00	.00	.00	.00	.02	.01	.00
28...	.00	.00	.00	.00	.00	>.01	.00	.00

COLORADO RIVER BASIN

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 (2.4 km) downstream from Interstate Highway 35, and 2.3 mi (3.7 km) southeast of the State Capitol in Austin.

DRAINAGE AREA.--38,390 mi² (99,430 km²), approximately, of which 12,880 mi² (33,360 km²) probably is noncontributing.

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

301559097424801 TOWN LAKE SITE AR

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAR							
04...	1130	1.00	454	7.9	16.5	8.3	86
04...	1132	10.0	456	7.9	16.5	8.3	86
04...	1135	20.0	458	7.9	16.5	8.3	86
APR							
27...	1050	1.00	509	8.0	18.5	8.9	96
27...	1053	10.0	509	8.0	18.0	8.9	95
27...	1056	23.0	509	8.0	18.0	8.7	93
MAY							
26...	1120	1.00	353	7.7	22.0	7.8	90
26...	1122	10.0	358	7.8	20.5	8.2	91
26...	1125	24.0	381	7.8	20.0	8.2	91

301500097424801 TOWN LAKE SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (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)
MAR										
04...	1100	1.00	447	7.9	16.5	.20	10	57	8.0	83
04...	1102	10.0	447	7.9	16.5	--	--	--	8.1	84
04...	1104	20.0	447	7.9	16.5	--	--	--	8.0	83
04...	1106	28.0	447	7.9	16.5	--	10	66	9.2	96
APR										
27...	1015	1.00	508	8.2	18.0	3.1	5	1.2	9.2	98
27...	1020	10.0	508	8.2	18.0	--	--	--	9.1	97
27...	1030	22.0	508	8.3	18.0	--	5	2.8	9.2	98
MAY										
26...	1054	1.00	331	7.7	22.5	.20	35	56	7.5	87
26...	1056	10.0	350	7.7	20.5	--	--	--	8.1	90
26...	1058	20.0	372	7.8	20.0	--	--	--	8.2	91
26...	1100	25.0	372	7.6	20.5	--	35	72	7.9	88

DATE	OXYGEN DEMAND, BIO-CHEMICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	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 AS 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
MAR										
04...	1.0	18000	3700	12000	180	37	43	17	24	.8
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	1.1	--	--	--	190	47	47	17	25	.8
APR										
27...	.9	170	96	19	190	45	45	20	29	.9
27...	--	--	--	--	--	--	--	--	--	--
27...	.4	--	--	--	190	35	45	20	29	.9
MAY										
26...	1.5	60000	14000	8300	150	26	43	9.4	12	.4
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	1.0	--	--	--	140	34	36	13	19	.7

COLORADO RIVER BASIN
TOWN LAKE AT AUSTIN, TX--Continued

301500097424801 TOWN LAKE SITE AC--Continued
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDEDED (MG/L)	SOLIDS, VOLA- TILE, SUS- PENDEDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
MAR										
04...	3.0	140	37	45	.2	5.5	259	60	5	.25
04...	--	--	--	--	--	--	--	--	--	.03
04...	--	--	--	--	--	--	--	--	--	--
04...	3.0	140	36	44	.2	5.8	262	52	5	.02
APR										
27...	3.6	150	37	50	.3	7.3	282	1	0	--
27...	--	--	--	--	--	--	--	--	--	--
27...	3.5	160	37	46	.3	7.5	285	--	--	.27
MAY										
26...	1.7	120	3.4	18	.1	7.0	167	50	30	.59
26...	--	--	--	--	--	--	--	--	--	.41
26...	--	--	--	--	--	--	--	--	--	--
26...	3.4	110	12	33	.2	6.3	189	53	14	.31

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)
MAR									
04...	.020	.27	.040	.66	.70	.97	.100	20	2
04...	.240	.27	.030	1.1	1.10	1.4	.120	30	10
04...	--	--	--	--	--	--	--	--	--
04...	.240	.26	.050	.67	.72	.98	.100	130	40
APR									
27...	--	.32	.040	1.6	1.60	1.9	.030	50	7
27...	--	--	--	--	--	--	--	--	--
27...	.010	.28	.070	.42	.49	.77	.040	40	10
MAY									
26...	.020	.61	.120	.83	.95	1.6	.060	120	3
26...	.010	.42	.140	.74	.88	1.3	.060	20	10
26...	--	--	--	--	--	--	--	--	--
26...	.010	.32	.160	.94	1.10	1.4	.080	40	4

301503097424701 TOWN LAKE SITE AL
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAR							
04...	1042	1.00	435	8.1	16.5	9.1	95
04...	1045	10.0	440	8.1	16.0	9.1	94
04...	1050	22.0	447	8.1	16.0	9.0	93
APR							
27...	1100	1.00	509	8.0	18.5	9.1	98
27...	1105	10.0	509	8.0	18.0	9.0	96
27...	1110	16.0	509	8.0	18.0	9.0	96

COLORADO RIVER BASIN
TOWN LAKE AT AUSTIN, TX--Continued

301500097440801 TOWN LAKE SITE BR

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAR							
04...	1155	1.00	429	8.0	16.5	8.3	86
04...	1157	10.0	429	8.0	16.5	8.3	86
04...	1158	20.0	429	8.0	16.0	8.2	85
04...	1200	25.0	429	8.0	16.5	8.0	83
APR							
27...	1126	1.00	507	8.2	17.5	9.0	95
27...	1130	13.0	507	8.2	17.5	8.9	94
MAY							
26...	1210	1.00	362	7.6	21.5	7.1	81
26...	1212	10.0	360	7.6	21.5	7.0	80
26...	1214	16.0	360	7.6	21.5	7.0	80

301504097440901 TOWN LAKE SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAR							
04...	1205	1.00	426	8.0	16.5	8.7	91
04...	1207	10.0	426	8.0	16.5	9.0	94
04...	1209	20.0	426	8.0	16.5	9.0	94
04...	1210	28.0	426	8.0	16.5	8.9	93
APR							
27...	1115	1.00	507	8.2	18.0	9.0	96
27...	1118	10.0	507	8.2	17.5	9.0	95
27...	1120	20.0	507	8.2	17.5	8.9	94
27...	1122	30.0	507	8.2	17.5	8.8	93
MAY							
26...	1200	1.00	362	7.5	22.0	7.0	80
26...	1202	10.0	368	7.5	21.5	7.0	80
26...	1204	20.0	368	7.5	21.5	7.0	80
26...	1206	25.0	368	7.5	21.5	6.8	77

301544097445201 TOWN LAKE SITE CR

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAR							
04...	1220	1.00	401	8.0	17.0	8.4	88
04...	1222	11.0	407	8.0	17.0	8.2	86
APR							
27...	1150	1.00	509	8.1	17.0	8.6	90
27...	1155	8.00	509	8.1	17.0	8.6	90
MAY							
26...	1235	1.00	397	7.6	21.0	7.6	85
26...	1238	7.00	397	7.6	21.0	7.5	84

COLORADO RIVER BASIN
TOWN LAKE AT AUSTIN, TX--Continued

301546097445101 TOWN LAKE SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAR							
04...	1230	1.00	465	8.1	16.5	8.4	88
04...	1232	10.0	452	8.1	16.5	8.4	88
04...	1235	18.0	445	8.1	16.5	8.4	88
APR							
27...	1140	1.00	508	8.2	17.0	8.6	90
27...	1145	13.0	507	8.2	17.0	8.7	91
MAY							
26...	1229	1.00	402	7.5	21.5	7.2	82
26...	1231	11.0	402	7.5	21.5	7.1	81

301556097452301 TOWN LAKE SITE DR

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAR							
04...	1240	1.00	322	7.9	17.5	8.3	88
04...	1242	10.0	322	7.9	17.5	8.3	88
04...	1245	14.0	322	7.9	17.5	8.2	87
APR							
27...	1216	1.00	510	8.0	17.5	8.8	93
27...	1218	13.0	510	8.0	17.0	8.9	93
MAY							
26...	1314	1.00	406	7.5	21.5	7.2	82
26...	1316	10.0	406	7.5	21.5	6.9	78

301558097452201 TOWN LAKE SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (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)
MAR										
04...	1250	1.00	479	8.2	16.5	.20	5	44	8.7	91
04...	1252	10.0	479	8.1	16.5	--	--	--	8.6	90
04...	1254	18.0	398	8.0	17.0	--	10	92	8.8	93
APR										
27...	1200	1.00	508	8.0	17.5	2.70	5	1.2	8.7	92
27...	1205	10.0	508	8.1	17.0	--	--	--	8.7	91
27...	1210	21.0	508	8.1	17.0	--	5	1.7	8.6	90
MAY										
26...	1245	1.00	385	7.7	21.0	.20	30	69	8.2	92
26...	1247	10.0	382	7.7	21.0	--	--	--	8.2	92
26...	1249	20.0	382	7.6	21.0	--	30	66	8.2	92

DATE	OXYGEN DEMAND BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, TOTAL, IMMED. ICAL, (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOGOCOCI 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
MAR										
04...	.9	3800	K2400	K5000	180	43	42	19	28	.9
04...	--	--	--	--	--	--	--	--	--	--
04...	1.7	--	--	--	170	35	42	17	24	.8
APR										
27...	1.0	62	57	18	190	42	44	20	28	.9
27...	--	--	--	--	--	--	--	--	--	--
27...	.6	--	--	--	190	45	45	20	28	.9
MAY										
26...	1.0	29000	7800	5600	160	21	43	13	18	.6
26...	--	--	--	--	--	--	--	--	--	--
26...	1.2	--	--	--	160	28	42	13	18	.6

COLORADO RIVER BASIN

TOWN LAKE AT AUSTIN, TX--Continued

301558097452201 TOWN LAKE SITE DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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 SI02)	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)
MAR										
04...	3.2	140	38	49	.2	6.0	270	65	8	.14
04...	--	--	--	--	--	--	--	--	--	.12
04...	2.9	140	32	36	.2	6.4	245	121	14	.15
APR										
27...	3.5	150	37	49	.3	7.3	279	0	0	.00
27...	--	--	--	--	--	--	--	--	--	--
27...	3.4	150	36	47	.3	7.3	277	6	4	--
MAY										
26...	3.4	140	19	32	.2	.4	213	35	12	.39
26...	--	--	--	--	--	--	--	--	--	.38
26...	3.8	130	22	32	.2	6.8	216	52	14	.37

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 (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)
MAR									
04...	.010	.15	.000	.71	.71	.86	.070	30	3
04...	.010	.13	.000	.86	.86	.99	.040	40	10
04...	.020	.17	.000	1.0	1.00	1.2	.080	40	4
APR									
27...	--	.29	.060	.43	.49	.78	.050	10	6
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	1.10	--	.020	10	6
MAY									
26...	.010	.40	.150	.77	.92	1.3	.050	30	4
26...	.010	.39	.150	.81	.96	1.4	.050	120	10
26...	.010	.38	.110	.75	.86	1.2	.050	50	5

301712097470701 TOWN LAKE SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (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 SATUR- ATION
MAR										
04...	1325	1.00	492	8.3	16.0	1.80	5	2.0	8.7	90
04...	1327	14.0	492	8.2	16.0	--	5	2.0	8.4	87
APR										
27...	1220	1.00	496	8.4	17.0	2.30	5	1.5	9.1	95
27...	1223	10.0	496	8.4	17.0	--	--	--	9.1	95
27...	1226	17.0	504	8.4	17.0	--	5	1.5	8.8	92
MAY										
26...	1345	1.00	375	7.8	20.0	.20	30	66	6.9	77
26...	1347	10.0	374	7.8	20.0	--	--	--	7.0	78
26...	1349	18.0	374	7.8	21.0	--	30	62	6.8	76

DATE	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 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 AS 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
MAR										
04...	.7	820	290	640	190	47	42	20	30	1.0
04...	.7	--	--	--	--	--	--	--	--	--
APR										
27...	1.4	36	K14	K14	190	52	44	20	29	.9
27...	--	--	--	--	--	--	--	--	--	--
27...	1.0	--	--	--	190	52	44	20	29	.9
MAY										
26...	.8	3300	1600	8100	150	36	37	13	19	.7
26...	--	--	--	--	--	--	--	--	--	--
26...	.8	--	--	--	150	26	37	13	19	.7

COLORADO RIVER BASIN
TOWN LAKE AT AUSTIN, TX--Continued

301712097470701 TOWN LAKE SITE EC--Continued
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLATILE, SUS-PENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
MAR 04...	3.4	140	39	55	.2	5.8	280	1	0	.13
04...	--	--	--	--	--	--	--	19	3	.10
APR 27...	3.6	140	40	47	.3	7.4	276	3	2	--
27...	--	--	--	--	--	--	--	--	--	--
27...	3.7	140	37	50	.3	7.4	276	2	2	--
MAY 26...	3.2	110	31	34	.2	6.3	210	133	13	.34
26...	--	--	--	--	--	--	--	--	--	--
26...	1.5	120	18	34	.2	6.4	201	32	14	.34

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, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
MAR 04...	.010	.14	.000	.69	.69	.83	.050	10	1
04...	.020	.12	.000	.59	.59	.71	.030	--	--
APR 27...	--	--	--	--	.45	--	.030	20	4
27...	--	--	--	--	--	--	--	--	--
27...	--	.19	.040	.71	.75	.94	.030	20	3
MAY 26...	.010	.35	.140	.75	.89	1.2	.050	50	2
26...	--	--	--	--	--	--	--	--	--
26...	.010	.35	.150	.75	.90	1.3	.050	40	1

301601097454001 TOWN LAKE SITE FC
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PERCENT SATURATION)
MAR 04...	1310	1.00	276	7.8	18.0	8.5	91
04...	1315	5.00	280	7.8	18.0	8.3	89
APR 27...	1236	1.00	554	7.2	21.5	11.7	133
MAY 26...	1322	1.00	447	7.5	24.5	8.4	101

COLORADO RIVER BASIN

TOWN LAKE AT AUSTIN, TX--Continued

301500097424801 TOWN LAKE SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	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)
MAR							
04...	1100	1.00	2	60	<1	10	<10
04...	1102	10.0	--	--	--	--	--
04...	1106	28.0	2	60	<1	0	<10
APR							
27...	1015	1.00	--	--	--	--	--
27...	1030	22.0	--	--	--	--	--
MAY							
26...	1054	1.00	2	200	<1	0	<10
26...	1056	10.0	--	--	--	--	--
26...	1100	25.0	2	200	<1	0	<10

DATE	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)
MAR							
04...	20	<10	2	.0	0	0	5
04...	30	--	10	--	--	--	--
04...	130	31	40	.0	0	0	20
APR							
27...	50	--	7	--	--	--	--
27...	40	--	10	--	--	--	--
MAY							
26...	120	<10	3	.0	0	0	4
26...	20	--	10	--	--	--	--
26...	40	<10	4	.0	0	0	<3

301712097470701 TOWN LAKE SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	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)
MAR							
04...	1325	1.00	2	70	1	10	10
APR							
27...	1220	1.00	--	--	--	--	--
27...	1226	17.0	--	--	--	--	--
MAY							
26...	1345	1.00	1	200	<1	0	<10
26...	1349	18.0	1	200	<1	0	<10

DATE	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)
MAR							
04...	10	10	1	.0	0	0	3
APR							
27...	20	--	4	--	--	--	--
27...	20	--	3	--	--	--	--
MAY							
26...	50	<10	2	.0	0	0	<3
26...	40	<10	1	.4	0	0	<3

COLORADO RIVER BASIN
TOWN LAKE AT AUSTIN, TX--Continued

301500097424801 TOWN LAKE SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)
MAR									
04...	1100	1.00	.00	.00	.00	.00	.00	.00	.00
04...	1106	28.0	.00	.00	.00	.00	.01	.01	.00
MAY									
26...	1054	1.00	.00	.00	.00	.00	.00	.00	.00
26...	1100	25.0	.00	.00	.00	.00	.00	.00	.00

DATE	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
MAR									
04...	.04	.00	.00	.00	.01	.00	.00	.01	.00
04...	.03	.00	.00	.00	.01	.00	.00	.00	.00
MAY									
26...	.07	.00	.00	.00	.00	.00	.00	.01	.00
26...	.07	.00	.00	.00	.00	.00	.00	.02	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAR								
04...	.00	.00	.00	.00	.00	.22	.00	.00
04...	.00	.00	.00	.00	.00	.16	.00	.00
MAY								
26...	.00	.00	.00	.00	.00	.05	.01	.00
26...	.00	.00	.00	.00	.00	.14	.01	.00

301712097470701 TOWN LAKE SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP- LING DEPTH (FT)	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)
MAR									
04...	1325	1.00	.00	.00	.00	.00	.00	.00	.00
04...	1327	14.0	.00	.00	.00	.00	.00	.00	.00
MAY									
26...	1345	1.00	.00	.00	.00	.00	.00	.00	.00
26...	1349	18.0	.00	.00	.00	.00	.00	.00	.00

DATE	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
MAR									
04...	.00	.00	.00	.00	.00	.00	.00	.00	.00
04...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY									
26...	.07	.00	.00	.00	.00	.00	.00	.00	.00
26...	.06	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAR								
04...	.00	.00	.00	.00	.00	.62	.00	.00
04...	.00	.00	.00	.00	.00	.71	.00	.00
MAY								
26...	.00	.00	.00	.00	.00	.12	.01	.00
26...	.00	.00	.00	.00	.00	.12	.01	.00

COLORADO RIVER BASIN

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 (305 m) upstream from upstream bridge on U.S. Highway 183 in Austin, 1.4 mi (2.3 km) downstream from Longhorn Dam, and at mile 290.3 (467.1 km).

DRAINAGE AREA (revised).--39,009 mi² (101,033 km²), approximately, of which 11,403 mi² (29,534 km²) 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 (122.612 m) National Geodetic Vertical Datum of 1929. Prior to June 19, 1939, all records collected at or near Congress Avenue Bridge 3.9 mi (6.3 km) upstream at datum 19.6 ft (5.97 m) higher; prior to June 18, 1915, nonrecording gages, recording gages thereafter; June 20, 1939, to Oct. 16, 1963, at site 1,000 ft (305 m) downstream from present site at datum 5.0 ft (1.52 m) higher.

REMARKS.--Water-discharge records fair. Since 1937, at least 10 percent of drainage area regulated by reservoirs. Flow largely regulated by Lake Travis (station 08154500). The city of Austin reported that 80,380 acre-ft (99.1 hm³) was diverted for municipal use above station and 48,660 acre-ft (60.0 hm³) of treated sewage was returned below station. 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 ft³/s (76.78 m³/s), 1,964,000 acre-ft/yr (2.42 km³/yr); 45 years (water years 1937-81) regulated, 2,013 ft³/s (57.01 m³/s), 1,458,000 acre-ft/yr (1.80 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 481,000 ft³/s (13,600 m³/s) June 15, 1935, gage height, 50 ft (15.2 m), present site and datum, from floodmark; minimum daily, 10 ft³/s (0.28 m³/s) Dec. 17, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1833, 51 ft (15.5 m) 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, 27,100 ft³/s (767 m³/s) May 25 at 0300 hours, gage height, 25.76 ft (7.852 m); minimum daily, 52 ft³/s (1.47 m³/s) Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	694	789	906	110	511	122	1530	2640	2950	5090	2580	2240
2	776	683	1050	379	123	52	1630	2580	2450	3810	2450	1420
3	895	122	1090	105	771	1880	1420	1870	2610	3780	2490	1770
4	771	95	515	157	1180	5050	1180	2260	2650	3800	2210	1730
5	758	86	228	911	862	4160	1180	1470	5210	4740	2670	2180
6	746	61	102	509	391	3780	1350	1360	6370	3980	2440	1860
7	748	73	95	1360	97	3760	1780	1350	6000	3900	2520	1810
8	755	81	565	1840	94	3250	2100	1550	6070	3810	3230	1830
9	106	83	2040	2050	149	2380	2100	1870	5970	3780	2470	2140
10	94	943	1310	1230	1160	369	1650	762	5790	3780	2370	2110
11	84	106	523	1420	1630	2170	2130	1670	19600	3750	2940	2490
12	77	71	526	1020	447	2430	2100	1830	10200	3590	2670	2750
13	191	91	118	997	87	2670	2120	1870	12600	3780	2720	2510
14	78	79	118	727	86	3850	2140	1870	14900	3800	2720	2550
15	88	62	880	554	80	3840	2030	1990	12100	3770	2990	2300
16	605	839	429	452	124	3820	1920	2800	19100	3730	2800	2070
17	259	1890	979	94	74	3810	1910	2230	22100	2640	2930	2130
18	221	811	1120	83	267	3680	1930	2240	21300	1840	2940	1790
19	120	443	772	686	471	2980	1900	2290	19600	1730	2950	1740
20	292	157	196	554	500	2010	2350	2230	16700	1700	2940	1760
21	103	607	116	498	443	2180	3420	2500	16700	2000	2760	1750
22	99	95	130	556	219	2210	2080	2440	15300	1970	2690	1480
23	271	100	178	1010	594	1710	3090	2830	9340	1980	2700	1480
24	118	281	119	676	322	2200	2330	3370	6130	2270	2710	1470
25	116	796	115	174	68	2160	2080	9950	6260	2340	2690	1120
26	116	2130	128	267	64	2290	2110	2800	6160	2380	2670	1110
27	2020	155	109	495	57	1460	2130	3100	6070	2350	2670	1100
28	1110	107	109	600	56	1440	2130	2740	5990	2440	2670	1080
29	732	102	1200	212	---	1390	2340	2650	5980	2170	2690	1080
30	1140	105	1620	324	---	1480	2380	3120	5860	2200	2780	574
31	873	---	943	541	---	2130	---	2490	---	2420	994	---
TOTAL	15056	12043	18329	20591	10927	76713	60540	76722	298060	95320	82054	53424
MEAN	486	401	591	664	390	2475	2018	2475	9935	3075	2647	1781
MAX	2020	2130	2040	2050	1630	5050	3420	9950	22100	5090	3230	2750
MIN	77	61	95	83	56	52	1180	762	2450	1700	994	574
AC-FT	29860	23890	36360	40840	21670	152200	120100	152200	591200	189100	162800	106000
CAL YR 1980	TOTAL	437734	MEAN	1196	MAX	2890	MIN	30	AC-FT	868200		
WTR YR 1981	TOTAL	819779	MEAN	2246	MAX	22100	MIN	52	AC-FT	1626000		

COLORADO RIVER BASIN

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, 737 micromhos Jan. 12, 1964; minimum daily, 243 micromhos Dec. 2, 1953. WATER TEMPERATURES: Maximum daily, 33.0°C July 25, 1979; minimum daily, 6.0°C Jan. 28, 1948, Feb. 4, 1949.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 566 micromhos Nov. 10; minimum daily, 300 micromhos Oct. 17.

WATER TEMPERATURES: Maximum daily, 26.5°C Sept. 7, 9; minimum daily, 10.5°C Feb. 12-14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DEMAND, (PER-CENT SATURATION)	OXYGEN, BIO-CHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)
OCT 20...	0920	357	514	7.4	23.5	2.0	6.2	73	.6	200	130
NOV 17...	1230	1860	497	7.3	16.0	2.0	5.0	51	.9	2500	760
DEC 15...	1000	241	526	7.6	17.0	2.0	9.4	97	1.1	620	2100
JAN 12...	1215	1580	535	7.8	11.0	.30	11.4	103	.1	1000	K11
FEB 26...	0930	45	530	7.6	16.5	1.0	8.9	92	1.4	49	230
MAR 16...	1030	3820	511	7.2	14.0	1.4	10.9	106	.5	65	41
APR 20...	0930	2810	515	7.1	18.0	1.5	9.8	104	.3	230	71
MAY 11...	1040	1000	514	7.9	18.0	.70	12.8	135	.5	26	24
JUN 08...	0930	6530	514	7.7	19.0	4.1	6.6	73	.6	500	140
JUL 13...	1145	3750	491	7.3	26.5	4.7	6.4	80	1.1	140	64
AUG 17...	1100	3670	463	8.2	27.0	1.3	5.4	68	.9	K270	120
SEP 21...	1145	3190	504	7.1	23.0	2.4	7.9	92	1.1	620	100

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM, DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, FIELD (MG/L AS CACO3)	SULFATE, DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
OCT 20...	200	36	48	19	28	.9	3.6	162	33	47	.3
NOV 17...	200	39	49	18	26	.8	3.4	157	31	48	.3
DEC 15...	180	41	41	19	26	.8	3.3	140	35	48	.2
JAN 12...	200	56	44	21	30	.9	3.0	140	36	56	.3
FEB 26...	210	47	50	20	29	.9	3.0	160	40	49	.2
MAR 16...	200	57	46	20	29	.9	3.2	140	41	54	.2
APR 20...	200	49	45	21	29	.9	3.4	150	37	48	.3
MAY 11...	200	42	48	20	30	.9	3.7	160	39	55	.2
JUN 08...	200	57	46	20	28	.9	3.5	140	41	54	.2
JUL 13...	200	48	48	19	26	.8	1.7	150	43	34	.2
AUG 17...	180	32	45	17	21	.7	3.3	150	21	37	.2
SEP 21...	180	32	45	17	21	.7	3.2	150	17	41	.2

COLORADO RIVER BASIN

08158000 COLORADO RIVER AT AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
OCT 20...	9.3	284	286	--	--	.24	.22	.060	.050	.49	.50
NOV 17...	9.6	286	280	--	--	.39	.40	.050	.050	.44	.34
DEC 15...	7.6	281	265	--	--	.26	.25	.070	.060	.08	.08
JAN 12...	7.2	280	282	--	--	.32	.30	.070	.020	.53	.50
FEB 26...	5.2	297	294	--	--	.24	.26	.020	.050	1.1	.91
MAR 16...	7.3	308	286	--	--	.27	.30	.080	.060	.60	.75
APR 20...	7.3	295	281	--	--	.29	.18	.070	.050	.69	.44
MAY 11...	5.8	302	298	--	--	.14	.35	.100	.070	.57	.58
JUN 08...	8.5	302	288	--	--	.28	.68	.040	.060	.68	.53
JUL 13...	8.1	279	272	--	--	.57	.41	.130	.080	.49	.48
AUG 17...	9.5	255	244	.15	.010	.16	.15	.070	.090	.68	.44
SEP 21...	10	213	245	--	--	.15	.16	.140	.140	.40	.36

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 20...	.55	.55	.120	.090	13	--	--	458	441	41
NOV 17...	.49	.39	.040	.020	--	11	.3	5	25	83
DEC 15...	.15	.14	.090	.090	3.7	--	--	33	21	47
JAN 12...	.60	.52	.060	.020	3.7	--	--	3	13	95
FEB 26...	1.10	.96	.040	.030	--	3.6	1.0	7	.85	52
MAR 16...	.68	.81	.030	.040	4.0	--	--	9	93	98
APR 20...	.76	.49	.020	.020	6.7	--	--	10	76	80
MAY 11...	.67	.65	.040	.060	--	6.5	.5	12	32	87
JUN 08...	.72	.59	.020	.010	3.4	--	--	26	458	81
JUL 13...	.62	.56	.000	.010	2.7	--	--	19	192	75
AUG 17...	.75	.53	.010	.020	--	3.9	1.7	5	50	77
SEP 21...	.54	.50	.010	.010	3.9	--	--	4	34	41

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)
NOV 17...	1230	1	0	1	0	0	70	4	<1	0	0
FEB 26...	0930	1	0	1	100	30	70	1	<1	10	0
MAY 11...	1040	1	0	1	100	20	80	1	<1	10	0
AUG 17...	1100	1	0	2	200	100	60	0	<1	0	0

COLORADO RIVER BASIN

08158000 COLORADO RIVER AT AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUS-PENDE RECOVERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUS-PENDE RECOVERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
NOV 17...	0	1	<3	4	1	3	110	--	<10	10
FEB 26...	10	0	<1	3	1	2	170	150	20	4
MAY 11...	10	2	<3	4	0	4	10	0	30	6
AUG 17...	0	2	<3	9	5	4	3000	3000	11	12

DATE	LEAD, SUS-PENDE RECOVERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUS-PENDE RECOVERABLE (UG/L AS MN)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUS-PENDE RECOVERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUS-PENDE RECOVERABLE (UG/L AS NI)
NOV 17...	8	2	10	6	4	.1	.1	.0	2	0
FEB 26...	3	1	10	1	9	.1	.1	.0	5	0
MAY 11...	4	2	10	1	9	.2	.2	.0	12	12
AUG 17...	12	0	200	200	5	.1	.1	.0	7	5

DATE	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUS-PENDE TOTAL (UG/L AS SE)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUS-PENDE RECOVERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUS-PENDE RECOVERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 17...	2	0	0	0	0	0	0	130	110	20
FEB 26...	7	0	0	0	0	0	0	10	0	10
MAY 11...	0	0	0	0	0	0	0	0	--	<3
AUG 17...	2	0	0	0	1	1	0	30	--	<3

COLORADO RIVER BASIN

08158000 COLORADO RIVER AT AUSTIN, TX--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 17, 80 1230	MAR 16, 81 1030	MAY 11, 81 1040	JUN 8, 81 0930
TOTAL CELLS/ML	390	130	180	90
DIVERSITY: DIVISION	1.6	0.5	1.1	0.9
..CLASS	1.6	0.5	1.1	0.9
..ORDER	2.1	0.9	1.8	0.9
...FAMILY	2.5	0.9	1.8	0.9
....GENUS	2.5	0.9	2.3	0.9

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
BACILLARIOPHYTA (DIATOMS)								
.BACILLARIOPHYCEAE								
..ACHNANTHALES								
...ACHNANTHACEAE								
....ACHNANTHES	13	3	13	10	--	--	--	--
....COCCONEIS	--	--	--	--	26	14	--	--
....RHOICOSPHENIA	--	--	--	--	77#	43	--	--
..BACILLARIALES								
...NITZSCHIAEAE								
....NITZSCHIA	64#	17	--	--	--	--	--	--
..EUPODISCALES								
...COSCINODISCAEAE								
....CYCLOTELLA	13	3	100#	80	26	14	64#	71
..FRAGILARIALES								
...FRAGILARIAEAE								
....SYNEDRA	--	--	--	--	--	--	--	--
..NAVICULALES								
...GOMPHONEMACEAE								
....GOMPHONEMA	--	--	--	--	--	--	--	--
...NAVICULACEAE								
....NAVICULA	--	--	--	--	--	--	--	--
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....TETRAEDRON	--	--	--	--	--	--	--	--
...MIRACTINIACEAE								
....MIRACTINIUM	--	--	--	--	--	--	--	--
...OOCYSTACEAE								
....ANKISTRODESMUS	--	--	--	--	13	7	--	--
....OOCYSTIS	51	13	--	--	--	--	--	--
...SCENEDESMACEAE								
....SCENEDESMUS	130#	33	--	--	--	--	26#	29
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	--	--	--	--	--	--	--
....CHLAMYDOMONAS	13	3	--	--	26	14	--	--
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	13	3	13	10	--	--	--	--
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	--	--	--	13	7	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	90#	23	--	--	--	--	--	--
....COCCOCHLORIS	--	--	--	--	--	--	--	--
..OSCILLATORIALES								
...OSCILLATORIAEAE								
....OSCILLATORIA	--	--	--	--	--	--	--	--
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	--	--	--	--	--	--	--

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

COLORADO RIVER BASIN

08158000 COLORADO RIVER AT AUSTIN, TX--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	JUL 13, 81 1145	AUG 17, 81 1100	SEP 21, 81 1145
TOTAL CELLS/ML	190	3300	300
DIVERSITY: DIVISION	1.4	1.0	0.9
..CLASS	1.4	1.0	0.9
...ORDER	1.7	1.8	1.3
...FAMILY	2.0	2.0	1.3
....GENUS	2.0	2.2	1.3

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
BACILLARIOPHYTA (DIATOMS)						
.BACILLARIOPHYCEAE						
..ACHNANTHALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	* 0	--	-	--
....COCCONEIS	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-
..BACILLARIALES						
...NITZSCHIAEAE	--	-	* 0	--	-	--
....NITZSCHIA	--	-	* 0	--	-	--
..EUPODISCALES						
...COSCINODISCAEAE	--	-	* 0	--	-	72# 24
....CYCLOTELLA	--	-	* 0	--	-	72# 24
..FRAGILARIALES						
...FRAGILARIAEAE	--	-	27	1	14	5
....SYNEDRA	--	-	27	1	14	5
..NAVICULALES						
...GOMPHONEMACEAE	--	-	* 0	--	-	14 5
....GOMPHONEMA	--	-	* 0	--	-	14 5
...NAVICULACEAE	39#	20	* 0	--	-	--
....NAVICULA	39#	20	* 0	--	-	--
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHLOROCOCCACEAE	13	7	82	2	--	--
....TETRAEDRON	13	7	82	2	--	--
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	55	2	--	--
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	27	1	--	--
....OOCYSTIS	--	-	* 0	--	-	--
...SCENEDESMACEAE						
....SCENEDESMUS	100#	53	55	2	--	--
..VOLVOCALES						
...CHLAMYDOMONADACEAE	--	-	--	-	200#	67
....CARTERIA	--	-	--	-	200#	67
....CHLAMYDOMONAS	13	7	150	5	--	--
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE	--	-	--	-	--	--
....CHROOMONAS	--	-	--	-	--	--
...CRYPTOMONADACEAE	13	7	150	5	--	--
....CRYPTOMONAS	13	7	150	5	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE	13	7	1900#	57	--	--
....ANACYSTIS	13	7	1900#	57	--	--
....COCCOCHLORIS	--	-	110	3	--	--
..OSCILLATORIALES						
...OSCILLATORIAEAE	--	-	660#	20	--	--
....OSCILLATORIA	--	-	660#	20	--	--
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE	--	-	27	1	--	--
....TRACHELOMONAS	--	-	27	1	--	--

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

COLORADO RIVER BASIN

08158000 COLORADO RIVER AT AUSTIN, TX--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1980 TO SEPTEMBER 1981

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.	1980	15056	517	282	11500	45	1840	33	1320	200
NOV.	1980	12043	524	286	9300	46	1490	33	1080	210
DEC.	1980	18329	525	286	14200	46	2280	33	1640	210
JAN.	1981	20591	525	286	15900	46	2560	33	1840	210
FEB.	1981	10927	520	284	8370	45	1340	33	966	200
MAR.	1981	76713	508	278	57500	44	9160	32	6610	200
APR.	1981	60540	510	279	45500	44	7260	32	5240	200
MAY	1981	76722	485	265	55000	42	8660	30	6270	190
JUNE	1981	298060	482	263	212000	41	33400	30	24200	190
JULY	1981	95320	489	267	68800	42	10900	31	7860	190
AUG.	1981	82054	468	256	56800	40	8860	29	6430	180
SEPT	1981	53424	436	239	34400	37	5290	27	3850	170
TOTAL		819779	**	**	589000	**	93000	**	67300	**
WTD. AVG.		2246	487	266	**	42	**	30	**	190

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	522	522	498	509	537	535	517	508	362	507	472	436
2	534	521	529	530	513	545	513	506	509	498	469	438
3	531	516	520	543	499	543	516	499	507	497	471	438
4	533	540	517	544	520	518	490	506	506	495	464	420
5	530	550	518	535	513	490	515	519	498	495	476	431
6	524	540	525	529	516	488	506	521	507	492	470	435
7	522	524	524	528	512	494	513	508	509	491	462	430
8	523	513	528	522	516	512	508	502	513	493	430	426
9	525	517	522	513	527	510	510	511	510	491	467	432
10	531	566	520	518	532	509	506	510	510	490	460	429
11	536	514	519	519	505	516	508	520	478	489	467	436
12	482	531	525	511	548	507	510	510	447	485	458	428
13	511	537	526	523	511	506	515	512	449	476	472	455
14	493	534	527	526	534	506	511	510	448	483	455	462
15	528	553	524	527	529	509	508	511	495	481	472	446
16	451	539	519	536	531	511	512	505	504	485	449	430
17	300	511	513	537	513	512	510	508	354	486	479	434
18	397	517	515	543	535	508	503	505	450	499	482	432
19	423	519	517	549	530	513	505	508	509	486	474	434
20	437	529	519	512	526	519	509	515	514	485	449	396
21	506	539	524	523	514	512	508	506	515	482	476	436
22	468	540	531	527	518	507	513	510	514	489	477	441
23	511	553	543	532	520	508	503	513	517	483	477	438
24	540	543	553	521	519	512	510	490	518	495	466	441
25	545	530	552	527	505	507	512	450	515	514	470	434
26	502	501	551	523	520	505	511	425	506	504	482	449
27	546	516	543	535	523	507	513	400	502	467	481	441
28	531	535	555	538	529	504	509	425	499	473	471	435
29	526	551	558	515	---	509	515	448	503	469	474	440
30	524	544	535	536	---	508	519	477	501	470	480	446
31	522	---	523	524	---	512	---	460	---	485	474	---
WTR YR 1981	MEAN	500	MAX	566	MIN	300						

COLORADO RIVER BASIN

08158000 COLORADO RIVER AT AUSTIN, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	18.0	13.5	11.5	13.0	15.0	15.5	17.0	21.0	23.0	25.5	25.5
2	24.0	---	13.0	11.5	12.0	16.5	16.0	18.0	---	22.0	26.0	25.0
3	23.5	---	---	11.5	12.0	14.5	16.0	18.0	19.0	23.0	26.0	25.5
4	23.5	19.0	13.0	12.0	11.5	15.5	16.0	16.5	18.5	23.0	26.0	25.0
5	23.5	19.0	13.5	13.5	11.5	15.5	16.5	17.0	19.5	23.5	25.5	25.5
6	24.0	18.5	13.5	12.0	11.5	15.5	16.0	17.0	19.0	23.0	26.0	26.0
7	24.0	18.5	14.0	12.0	11.5	15.5	16.0	17.0	18.5	23.0	26.0	26.5
8	24.0	19.0	15.0	11.5	13.0	14.5	16.5	17.0	18.5	---	26.0	26.0
9	23.5	19.5	15.5	11.5	12.0	14.5	16.5	17.0	18.0	23.5	26.0	26.5
10	23.5	19.5	14.5	11.5	13.0	13.5	16.5	18.0	18.5	23.5	26.0	26.0
11	23.5	19.5	14.0	11.5	---	14.0	16.0	18.0	21.0	24.0	26.0	25.5
12	23.0	19.5	14.0	11.5	10.5	13.5	16.5	18.5	21.5	24.0	25.5	25.5
13	23.5	19.0	14.0	11.5	10.5	14.0	16.5	---	20.5	24.0	25.0	26.0
14	23.5	19.0	14.5	11.5	10.5	13.5	16.5	18.5	20.5	24.5	25.5	25.5
15	23.0	18.5	14.5	11.5	11.0	14.5	17.0	18.5	20.5	25.0	26.0	25.5
16	23.0	18.0	14.5	11.5	12.0	14.5	20.5	18.5	21.0	24.5	26.0	25.5
17	23.0	15.5	14.5	11.5	11.5	14.0	17.0	18.5	20.5	24.5	25.5	25.5
18	22.0	---	14.5	11.5	11.5	14.0	16.5	18.5	20.5	24.5	25.5	24.5
19	21.5	15.0	14.5	11.5	13.5	14.0	16.5	19.0	19.5	24.5	25.5	24.5
20	20.5	14.0	13.5	11.5	14.0	13.5	16.5	19.0	19.5	25.0	25.5	23.5
21	21.0	14.5	12.0	11.5	14.0	13.5	17.0	18.5	19.5	25.5	25.5	24.0
22	21.0	14.5	---	11.5	14.0	13.5	16.5	18.5	20.0	25.5	25.0	24.0
23	20.5	14.5	13.0	11.5	14.0	14.0	18.0	18.5	20.5	26.0	25.0	24.0
24	19.5	14.5	13.0	11.0	13.5	14.0	17.0	18.5	20.5	26.0	25.0	24.0
25	21.0	14.5	13.0	11.0	16.0	14.0	16.5	18.5	21.0	26.0	25.5	25.0
26	19.5	13.0	14.0	11.5	14.5	14.0	16.5	18.5	21.5	25.5	25.5	24.0
27	20.5	14.5	11.5	12.0	14.5	14.5	16.5	18.5	21.5	26.0	25.0	24.5
28	19.0	14.5	11.5	12.0	15.5	15.5	16.5	18.5	22.0	25.5	25.0	24.5
29	19.0	13.0	12.0	12.0	---	15.5	17.0	18.5	22.0	26.0	25.5	24.5
30	---	13.5	11.0	13.5	---	15.5	16.5	21.0	23.0	26.0	25.0	24.5
31	18.0	---	11.0	13.0	---	15.5	---	19.5	---	25.5	25.5	---
WTR YR 1981	MEAN	18.5		MAX	26.5		MIN	10.5				

COLORADO RIVER BASIN

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 (0.5 km) northeast of intersection of State Highway 71 and Farm Road 973, 8.8 mi (14.2 km) downstream from Govalle Sewage Treatment Plant outfall, and 9.6 mi (15.4 km) downstream from gaging station at Austin.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMEDIATE PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT 20...	1145	1000	560	7.4	21.0	5	1.8	6.8	76	1.2	100	84
NOV 17...	1445	1800	520	7.1	15.0	10	--	7.8	77	1.6	2500	220
JAN 12...	1350	1500	552	7.7	10.5	5	.50	12.1	108	1.0	580	52
FEB 26...	1330	50	592	7.3	18.0	--	--	8.4	89	2.9	K29	K1
MAR 16...	1320	3800	514	7.2	15.0	5	8.0	11.1	110	1.3	160	57
MAY 11...	1350	3000	523	8.0	21.0	10	.70	13.2	148	.9	80	K10
JUN 08...	1130	6000	515	7.9	20.0	5	15	9.0	100	1.0	K11000	3200
JUL 13...	1350	3800	498	7.4	27.5	5	7.0	8.0	101	1.2	130	120
SEP 21...	1330	3000	484	7.2	24.0	10	3.1	9.5	112	1.5	2400	520

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS 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 (MG/L AS CaCO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS Cl)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 20...	K18	--	--	--	--	--	--	--	140	--	--	--
NOV 17...	100	200	37	48	19	28	.9	3.8	161	34	46	.3
JAN 12...	K3	190	61	42	21	35	1.1	3.4	140	39	55	.3
FEB 26...	22	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	K17	190	41	45	19	29	.9	3.3	150	36	51	.2
MAY 11...	70	200	50	47	20	32	1.0	4.0	150	38	58	.3
JUN 08...	330	--	--	--	--	--	--	--	150	--	--	--
JUL 13...	64	200	41	49	19	26	.8	3.3	160	42	48	.2
SEP 21...	92	180	35	46	17	24	.8	3.7	150	30	45	.3

COLORADO RIVER BASIN

08158650 COLORADO RIVER BELOW AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, VOLA- TILE, SUS- PENDE (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 20...	--	--	14	27	2.5	.400	2.9	.230	1.2	1.4	2.000	16
NOV 17...	10	276	15	10	.55	.070	.62	.200	.79	.99	.310	5.5
JAN 12...	7.8	282	4	8	1.1	.030	1.1	.170	.72	.89	.380	17
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	7.3	281	10	3	.42	.020	.44	.270	.59	.86	.190	4.1
MAY 11...	6.1	296	0	0	.75	.100	.85	.210	.58	.79	.410	3.6
JUN 08...	--	--	45	28	.35	.010	.36	.100	.85	.95	.060	20
JUL 13...	8.0	292	24	13	.34	.010	.35	.140	.40	.54	.110	3.3
SEP 21...	11	267	0	0	.55	.040	.59	.390	.59	.98	.060	4.1

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)
NOV 17...	1445	1	70	<1	0	<10	<10
MAR 16...	1320	1	70	<1	10	<10	<10
MAY 11...	1350	2	80	<1	0	<10	20
JUL 13...	1350	2	70	<1	0	<10	10

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)
NOV 17...	19	4	.0	0	0	5
MAR 16...	<10	6	.1	0	0	4
MAY 11...	22	8	.0	0	0	9
JUL 13...	<10	7	.0	0	0	4

DATE	TIME	PCB TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
JAN 12...	1350	.00	.0	.00	.0	.00	.00	.00	.01
JUL 13...	1350	.00	.0	.00	.0	.00	.00	.00	.00

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
JAN 12...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL 13...	.00	.00	.00	.00	.00	.00	.00	.00	.00

COLORADO RIVER BASIN

08158650 COLORADO RIVER BELOW AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JAN 12...	.00	.00	.00	.00	0	.00	.04	.01	.00
JUL 13...	.00	.00	.00	.00	0	.00	--	--	--

BULL CREEK DRAINAGE BASIN

The surface-water hydrologic data for the Bull Creek drainage basin for the 1981 water year are given in the following pages:

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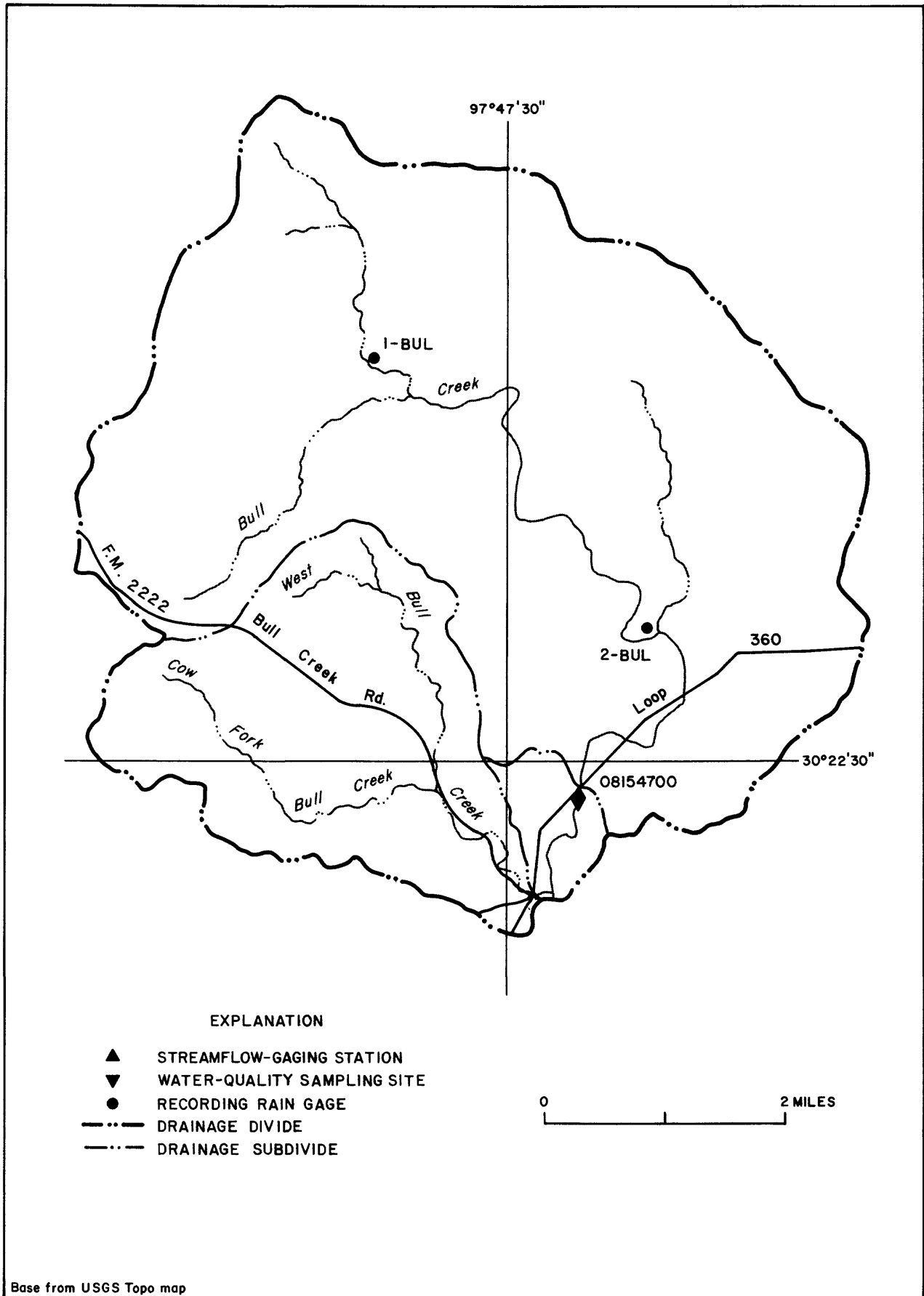


Figure 6.-Locations of surface-water data-collection sites in the Bull Creek drainage basin

Table 3.--Storm rainfall-runoff data, 1981 water year, Bull Creek drainage basin

Date of Storm	Duration (hours)	Total	Rainfall (inches)			Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
			15-minute	30-minute	60-minute			
Bull Creek at Loop 360, Austin, Texas (Drainage area.--22.3 mi ²)								
Oct. 16	4	2.61	1.40	1.96	2.61	0.21	0.08	1,760
March 3-4, 1981	17	3.01	0.54	0.72	1.03	0.55	0.18	1,590
May 23-25, 1981	26	6.09	0.81	1.46	2.45	2.02	0.33	12,200
June 10-15, 1981	5 days	8.29	0.55	0.95	1.25	3.45	0.42	4,320

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 (1.6 km) upstream from West Fork Bull Creek and Farm Road 2222, and 7.1 mi (11.4 km) northwest of the State Capitol Building in Austin.

DRAINAGE AREA.--22.3 mi² (57.8 km²).

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 (162.788 m) National Geodetic Vertical Datum of 1929 (levels from city of Austin bench mark).

REMARKS.--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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft³/s (348 m³/s) May 24, 1981, gage height, 11.50 ft (3.505 m); minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Oct. 16	0600	1,760	49.8	6.40	1.951	June 10	2345	224	6.34	4.03	1.228
Mar. 3	2400	1,590	45.0	6.25	1.905	June 11	1145	4,320	122	8.12	2.475
May 24	2315	*12,300	348	11.50	3.505	June 13	2100	1,560	44.2	6.22	1.896
June 4	1600	367	10.8	4.49	1.369	June 16	0600	1,830	51.8	6.46	1.969

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	3.7	5.5	3.7	4.9	6.3	6.3	3.6	19	17	2.8	2.6
2	2.4	4.6	4.9	3.5	4.0	5.3	6.1	3.8	18	15	2.7	2.8
3	1.8	2.6	4.5	3.4	3.7	82	6.1	4.4	19	14	2.5	5.6
4	1.6	1.9	4.5	3.4	4.5	207	6.1	4.3	80	13	2.1	3.3
5	1.6	2.0	4.9	3.4	6.9	37	6.0	3.6	55	41	1.9	2.4
6	1.5	2.0	4.7	3.4	5.9	27	5.4	2.9	42	21	1.8	2.0
7	1.5	2.2	4.4	3.4	5.6	28	5.4	2.7	33	19	1.7	2.0
8	1.3	2.2	7.8	3.1	5.1	22	5.4	2.4	27	26	1.9	1.8
9	1.3	2.0	8.0	3.4	5.0	18	5.2	2.4	23	21	2.0	1.6
10	1.2	2.0	6.3	3.4	9.5	16	5.6	2.3	26	17	2.0	1.6
11	1.0	2.0	5.8	3.4	5.7	15	5.5	1.9	760	15	2.0	1.5
12	1.0	1.8	5.7	3.1	5.2	18	5.2	1.6	168	13	3.4	1.4
13	1.0	1.9	5.4	3.0	5.0	19	4.6	1.6	481	11	3.0	1.3
14	1.0	1.8	5.4	3.0	5.0	16	3.1	1.6	419	11	2.6	2.2
15	1.0	1.8	5.7	3.0	5.0	15	2.5	1.5	177	9.4	2.3	6.8
16	110	12	6.0	2.9	5.0	14	3.0	14	504	8.0	2.1	3.0
17	15	7.6	5.6	2.7	5.0	13	4.3	4.3	172	7.7	4.6	1.9
18	11	4.2	5.3	2.7	5.0	12	5.0	3.0	97	7.2	4.6	1.6
19	14	3.8	4.9	7.0	5.0	10	4.5	2.4	71	6.7	3.2	1.6
20	10	3.6	4.5	6.9	4.7	10	4.0	2.2	59	6.1	3.0	1.6
21	7.7	3.4	4.4	4.9	4.7	9.5	3.6	2.2	49	5.7	2.6	1.6
22	7.0	3.4	4.4	4.5	4.6	8.8	3.4	2.2	42	5.1	2.0	1.6
23	5.7	3.5	4.4	4.4	4.2	7.9	5.3	2.3	35	5.0	1.2	1.5
24	5.4	3.6	4.4	4.4	4.1	7.7	4.4	624	31	4.7	1.0	1.5
25	5.1	6.7	4.1	4.4	4.1	7.2	3.7	540	30	4.7	1.0	1.3
26	5.0	11	4.1	4.4	4.1	7.2	3.3	38	28	3.8	.96	1.2
27	4.4	7.9	4.1	4.2	4.1	6.8	3.0	25	24	4.7	.92	1.2
28	4.6	7.0	4.1	4.1	4.1	6.8	3.0	19	22	4.6	.88	1.1
29	4.4	6.3	4.1	4.1	---	8.1	2.7	16	20	3.9	1.0	.99
30	4.1	5.9	3.8	3.9	---	6.8	2.7	31	19	3.4	2.2	.92
31	3.7	---	3.7	3.7	---	6.4	---	27	---	3.3	3.3	---
TOTAL	239.8	124.4	155.4	118.8	139.7	673.8	134.4	1393.2	3550	348.0	69.26	61.51
MEAN	7.74	4.15	5.01	3.83	4.99	21.7	4.48	44.9	118	11.2	2.23	2.05
MAX	110	12	8.0	7.0	9.5	207	6.3	624	760	41	4.6	6.8
MIN	1.0	1.8	3.7	2.7	3.7	5.3	2.5	1.5	18	3.3	.88	.92
CFSM	.35	.19	.23	.17	.22	.97	.20	2.01	5.29	.50	.10	.09
IN.	.40	.21	.26	.20	.23	1.12	.22	2.32	5.92	.58	.12	.10
AC-FT	476	247	308	236	277	1340	267	2760	7040	690	137	122
(††)	3.45	3.25	1.11	1.29	1.35	4.88	1.29	9.73	12.64	2.98	1.60	1.84

CAL YR 1980 TOTAL 2984.19 MEAN 8.15 MAX 135 MIN .12 CFSM .37 IN 4.98 AC-FT 5920 †† 34.80
WTR YR 1981 TOTAL 7008.27 MEAN 19.2 MAX 760 MIN .88 CFSM .86 IN 11.69 AC-FT 13900 †† 45.41

†† Weighted-mean rainfall on watershed, in inches, based on two rain gages.

COLORADO RIVER BASIN

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

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 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMED. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT												
16...	0600	1760	385	--	--	40	3800	--	--	27	290000	98000
16...	0610	1430	255	7.6	--	120	220	--	--	20	210000	60000
16...	1135	70	405	7.9	22.5	60	300	8.5	99	3.7	44000	34000
JAN												
27...	0850	4.2	651	8.3	12.0	0	.60	10.6	97	.5	120	K100
JUN												
04...	1635	337	503	--	--	5	330	--	--	3.1	--	--
16..	1530	337	519	7.5	21.0	20	20	8.6	97	1.0	12000	5200
AUG												
24...	0940	1.0	583	7.7	26.0	0	.80	6.2	78	.8	780	110

DATE	TIME	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
OCT													
16...	55000	--	--	--	--	--	--	--	--	--	--	--	--
16...	50000	120	21	35	6.9	6.5	.3	3.8	95	24	14	.2	
16...	29000	--	--	--	--	--	--	--	--	--	--	--	
JAN													
27...	23	280	68	75	22	32	.8	1.4	210	65	48	.2	
JUN													
04...	--	--	--	--	--	--	--	--	--	--	--	--	
16...	8000	260	18	82	13	9.1	.2	2.0	240	15	14	.1	
AUG													
24...	260	240	52	64	20	30	.9	2.1	190	55	48	.2	

DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (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													
16...	--	--	4150	386	.38	.040	.42	.280	5.6	5.9	.080	170	
16...	8.3	156	4210	132	.45	.030	.48	.210	16	16	.560	210	
16...	--	--	324	145	.61	.020	.63	.110	2.2	2.3	.070	21	
JAN													
27...	5.7	376	2	0	.04	.000	.04	.060	.30	.36	.030	11	
JUN													
04...	--	--	482	48	.41	.030	.44	.140	.48	.62	.130	8.5	
16...	11	290	36	6	.75	.000	.75	.040	.76	.80	.040	4.5	
AUG													
24...	13	347	2	3	.01	.000	.01	.010	.25	.26	.010	2.5	

DATE	TIME	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT							
16...	0600	1	40	<1	0	<10	110
16...	0610	1	30	1	0	<10	50
16...	1135	1	0	0	0	0	60
AUG							
24...	0940	1	50	<1	0	<10	<10

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT						
16...	<10	3	.0	0	1	<3
16...	<10	<1	.0	0	0	6
16...	0	10	.0	0	0	10
AUG						
24...	<10	7	.0	0	0	<3

COLORADO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
OCT									
16...	0600	.00	.0	.00	.1	.01	.01	.00	.12
16...	1135	.00	.0	.00	.0	.00	.00	.00	.13
JUN									
04...	1635	.00	.0	.00	.0	.00	.00	.00	.01
AUG									
24...	0940	.00	.0	.00	.0	.00	.00	.00	.02

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
OCT									
16...	.00	.00	.00	.00	.00	.00	.00	.00	.00
16...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUN									
04...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG									
24...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT									
16...	.00	.00	.00	.00	0	.00	.00	.00	.00
16...	.00	.00	.00	.00	0	.00	.00	.00	.00
JUN									
04...	.00	.00	.00	.00	0	.00	.01	.00	.00
AUG									
24...	.00	.00	.00	.00	0	.00	.00	.00	.00

STORM MAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
BULL CREEK AT LUMP CREEK POSITIVE LEADS									
SIGN OF CULVERT IN 1980									
DATE & TIME	1801	2801	3801	4801	5801	6801	7801	8801	9801
	IN.	PRECIP.	ACCUM.	DISCHARGE	IN.	IN.	IN.	IN.	IN.
UCL. 1b									
0000	0.0	0.0	0.0000	1.0	0.0000				
0030	0.10	0.01	0.0001	1.0	0.0001				
0200	0.21	0.06	0.0015	1.2	0.0002				
0230	0.89	0.52	0.0057	10.0	0.0005				
0300	1.54	0.51	0.0108	13.0	0.0009				
0315	2.94	1.10	0.0218	13.0	0.0011				
0330	3.50	1.40	0.0358	13.0	0.0013				
0345	3.51	1.41	0.0359	12.0	0.0016				
0415	3.51	1.42	0.0360	21.0	0.0022				
0430	3.51	1.42	0.0361	32.0	0.0027				
0445	3.52	1.42	0.0362	35.0	0.0036				
0530	3.52	1.42	0.0362	36.0	0.0046				
0545	3.52	1.42	0.0362	30.0	0.0051				
0600	3.52	1.42	0.0362	244.0	0.0093				
0615	3.52	1.42	0.0362	1760.0	0.0399				
0630	3.52	1.42	0.0362	1260.0	0.0618				
0645	3.52	1.42	0.0362	902.0	0.0775				
0700	3.52	1.42	0.0362	649.0	0.0887				
0800	3.52	1.42	0.0362	496.0	0.1103				
0900	3.52	1.42	0.0362	262.0	0.1285				
1000	3.52	1.42	0.0362	143.0	0.1384				
1400	3.53	1.42	0.0362	98.0	0.1555				
1800	3.53	1.43	0.0363	60.0	0.1721				
2400	3.53	1.43	0.0363	34.0	0.1839				
UCL. 1f									
0000	3.53	1.43	0.0363	21.0	0.1912				
0600	3.53	1.43	0.0363	16.0	0.2030				
1800	3.53	1.43	0.0363	13.0	0.2103				
2400	3.53	1.43	0.0363	11.0	0.2133				

STATION NO. 0154700		STORM RAINFALL AND RUNOFF RECORD										1961 WATER YEAR					
BULL CREEK AT LOOP 300, AUSTIN, TEXAS		STORM OF MARCH 3-4, 1961										DISCHARGE ACCUM.					
DATE & TIME	10UL	20UL	U A G E N U M B E R										WEIGHTED PRECIP. IN.	CFS	IN.		
MAK. 3																	
0000	0.0	0.0														0.0	0.0010
0500	0.01	0.01														0.01	0.0024
0800	0.08	0.08														0.07	0.0030
0900	0.10	0.08														0.09	0.0032
0915	0.22	0.13														0.18	0.0033
0945	0.36	0.33														0.37	0.0038
1030	0.36	0.38														0.37	0.0043
1115	0.37	0.38														0.37	0.0051
1200	0.37	0.39														0.38	0.0061
1315	0.37	0.39														0.38	0.0085
1415	0.51	0.48														0.50	0.0103
2000	1.00	0.74														0.89	0.0111
2030	1.23	1.11														1.35	0.0120
2045	1.87	1.85														1.78	0.0139
2100	1.89	1.88														1.80	0.0156
2115	1.98	1.62														1.87	0.0187
2130	2.17	1.90														2.05	0.0246
2145	2.58	2.25														2.43	0.0356
2230	2.94	2.70														2.84	0.0477
2300	2.94	2.76														2.89	0.0641
2315	2.99	2.77														2.90	0.0789
2330	3.00	2.78														2.91	0.0996
2345	3.00	2.78														2.91	0.1249
2400	3.03	2.79														2.93	0.1457
MAK. 4																	
0000	3.03	2.79														2.93	0.1457
0015	3.05	2.83														2.96	0.1791
0030	3.07	2.84														2.97	0.2036
0045	3.07	2.84														2.97	0.2240
0100	3.07	2.85														2.98	0.2413
0115	3.07	2.86														2.98	0.2560
0130	3.08	2.86														2.99	0.2686
0145	3.08	2.86														2.99	0.2795
0200	3.08	2.86														2.99	0.2943
0230	3.08	2.86														2.99	0.3106
0300	3.08	2.86														2.99	0.3319
0400	3.08	2.86														2.99	0.3647
0600	3.08	2.87														2.99	0.3958
0800	3.08	2.87														2.99	0.4172
1000	3.09	2.90														3.01	0.4283

STORM MAINFALL AND RUNOFF RECORD									
1901 WATER YEAR									
STATION NO. 06154700									
MULL CREEK AT LUMP SPRING AUSTIN TEXAS									
STORM OF MARCH 3-5, 1901									
DATE & TIME	1601	2601	3601	4601	5601	6601	7601	8601	9601
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
MAR. 4									
1100	3.04	2.70					3.01	74.0	0.4349
1200	3.04	2.70					3.01	83.0	0.4406
1300	3.04	2.70					3.01	69.0	0.4454
1400	3.04	2.70					3.01	69.0	0.4502
1500	3.10	2.70					3.01	66.0	0.4546
1600	3.10	2.70					3.01	57.0	0.4608
1800	3.10	2.70					3.01	55.0	0.4684
2000	3.10	2.70					3.01	54.0	0.4759
2200	3.10	2.70					3.01	50.0	0.4828
2400	3.10	2.70					3.01	46.0	0.4908
MAR. 5									
0000	3.10	2.70					3.01	46.0	0.4908
0600	3.10	2.70					3.01	41.0	0.5127
1200	3.10	2.70					3.01	35.0	0.5273
1800	3.10	2.70					3.01	33.0	0.5411
2400	3.10	2.70					3.01	31.0	0.5475

STORM RAINFALL AND RUNOFF RECORD										
1981 WATER YEAR										
STA. NO. 08154700										
BULL CREEK AT LOOP 360, AUSTIN, TEXAS										
STORM OF MAY 23-25, 1981										
DATE & TIME	18UI	28UI	GA	LE	NUM	BE	EM	WEIGHTED PRECIP. IN.	DISCHARGE IN CFS	ACCUM. RUNOFF IN.
MAY 23										
0000	0.0	0.0						0.0	2.2	0.0012
1550	0.01	0.0						0.01	2.2	0.0026
1800	0.01	0.0						0.01	2.2	0.0032
2315	0.01	0.0						0.01	2.2	0.0036
2330	0.06	0.0						0.03	2.2	0.0036
2345	0.47	0.39						0.44	6.8	0.0037
2400	0.79	0.70						0.75	18.0	0.0040
MAY 24										
0000	0.79	0.70						0.75	18.0	0.0040
0015	0.98	0.86						0.93	25.0	0.0047
0045	1.09	0.91						1.01	18.0	0.0052
0100	1.10	0.94						1.03	41.0	0.0059
0115	1.10	0.94						1.03	60.0	0.0100
0300	1.10	0.95						1.04	18.0	0.0127
0600	1.10	0.96						1.04	8.9	0.0155
1200	1.11	0.97						1.05	7.2	0.0185
1800	1.12	0.97						1.06	5.4	0.0197
1830	1.17	1.01						1.10	5.4	0.0198
1845	1.43	1.10						1.29	5.4	0.0199
1900	1.89	1.26						1.62	5.4	0.0200
1915	1.92	1.40						1.70	5.4	0.0201
1930	2.07	1.52						1.83	5.7	0.0204
2045	2.22	1.77						2.03	8.9	0.0209
2100	2.64	2.27						2.48	43.0	0.0210
2115	2.93	2.48						2.74	44.0	0.0224
2130	2.97	3.21						3.07	66.0	0.0235
2145	3.17	3.86						3.47	241.0	0.0277
2200	3.38	4.53						3.87	438.0	0.0353
2215	3.59	4.85						4.13	838.0	0.0499
2230	4.00	5.66						4.71	3750.0	0.1150
2245	4.43	6.31						5.24	7440.0	0.2443
2300	4.67	6.55						5.48	8990.0	0.4005
2315	4.79	6.75						5.63	12300.0	0.6124
2330	4.87	6.79						5.70	11400.0	0.8104
2345	4.91	6.82						5.73	9000.0	0.9772
2400	4.96	6.89						5.79	7850.0	1.0795
MAY 25										
0000	4.96	6.89						5.79	7850.0	1.0795
0015	5.03	6.97						5.86	6590.0	1.2281
0030	5.10	7.04						5.93	5240.0	1.3191
0045	5.15	7.09						5.98	4930.0	1.4047

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STORM OF MAY 23-25, 1981									
BULL CREEK AT LOOP 360, AUSTIN, TEXAS									
DATE & TIME	1801	2801	AGE	NUMBER	WEIGHTED PRECIP.	ACCUM. IN.	DISCHARGE IN.	ACCUM. IN.	RUNOFF IN.
MAY 25									
0100	5.19	7.14			0.03	4700.0	0.03	1.4864	
0115	5.22	7.17			0.06	3660.0	0.06	1.5500	
0130	5.23	7.18			0.07	2560.0	0.07	1.6167	
0200	5.23	7.18			0.07	1680.0	0.07	1.6750	
0230	5.23	7.18			0.07	1180.0	0.07	1.7160	
0300	5.23	7.18			0.07	881.0	0.07	1.7619	
0400	5.23	7.18			0.07	552.0	0.07	1.8003	
0500	5.23	7.18			0.07	402.0	0.07	1.8282	
0600	5.23	7.18			0.07	295.0	0.07	1.8590	
0800	5.23	7.18			0.07	174.0	0.07	1.8832	
1000	5.24	7.19			0.08	113.0	0.08	1.9067	
1400	5.25	7.20			0.09	66.0	0.09	1.9251	
1800	5.25	7.20			0.09	57.0	0.09	1.9449	
2400	5.25	7.20			0.09	48.0	0.09	1.9599	
MAY 26									
0000	5.25	7.20			0.09	48.0	0.09	1.9599	
0600	5.25	7.20			0.09	42.0	0.09	1.9824	
1200	5.25	7.20			0.09	40.0	0.09	1.9991	
1800	5.25	7.20			0.09	33.0	0.09	2.0128	
2400	5.25	7.20			0.09	29.0	0.09	2.0189	

STA. NO. 00154700		STORM MAINFALL AND RUNOFF RECORD										1981 WATER YEAR							
HULL GREEN AT LOOP 3000 AUSTIN, TEXAS		STORM OF JUNE 10-13, 1981										DISCHARGE							
DATE & TIME		G A G E										IN		ACCUM. WEIGHTE		RUNOFF			
		I N U M B E R										CFS		MUNOFF		ACCUM.			
JUNE 10		C H O U L										I N		I N		I N			
0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0910	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1200	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
1915	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
1930	0.01	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
1945	0.56	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
2000	0.95	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
2030	1.13	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
2045	1.20	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
2100	1.21	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
2130	1.24	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
2215	1.24	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
2230	1.24	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
2245	1.24	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
2300	1.24	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
2400	1.24	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
JUNE 11																			
0000	1.24	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
0030	1.24	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
0100	1.24	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
0300	1.32	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
0600	1.61	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
0800	2.02	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83
0830	2.28	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13
0900	2.78	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08
0930	3.06	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32
1000	3.61	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59
1015	3.74	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
1030	3.83	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29
1045	3.90	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40
1100	3.99	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49
1115	4.03	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53	4.53
1130	4.08	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60
1145	4.08	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62
1200	4.13	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62
1230	4.18	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71
1300	4.18	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
1400	4.25	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92
1600	4.41	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95

STATION NO. 081D4700		STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR			
BULL CREEK AT LUMP SPRING, AUSTIN, TEXAS		SUMM OF JUNE 10-15, 1981										DISCHARGE		ACCUM.	
DATE & TIME	1981	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	IN.	ACCUM. PRECIP.	IN.	ACCUM. RUNOFF
JUNE 11															
2000	4.42	4.97										391.0	4.06	1.3120	1.3120
2400	4.42	4.97										259.0	4.06	1.3750	1.3750
JUNE 12															
0000	4.42	4.97										259.0	4.06	1.3750	1.3750
0600	4.47	4.97										157.0	4.06	1.4674	1.4674
1200	4.41	5.32										219.0	5.03	1.5588	1.5588
1800	4.82	5.33										127.0	5.04	1.6117	1.6117
2400	4.42	5.33										100.0	5.04	1.6430	1.6430
JUNE 13															
0000	4.42	5.33										100.0	5.04	1.6430	1.6430
0600	5.04	5.36										86.0	5.19	1.6617	1.6617
0915	5.14	5.53										92.0	5.31	1.6945	1.6945
1000	5.23	5.64										102.0	5.41	1.6989	1.6989
1030	5.34	5.76										133.0	5.52	1.7035	1.7035
1100	5.86	5.55										292.0	6.07	1.7137	1.7137
1130	5.96	5.47										472.0	6.19	1.7342	1.7342
1215	5.96	5.50										743.0	6.19	1.7707	1.7707
1255	5.97	5.53										690.0	6.21	1.7947	1.7947
1315	5.97	5.53										680.0	6.21	1.8203	1.8203
1400	6.00	5.57										585.0	6.25	1.8762	1.8762
1600	6.09	5.75										438.0	6.37	1.9142	1.9142
1630	6.10	5.84										484.0	6.42	1.9310	1.9310
1700	6.15	5.88										465.0	6.46	1.9472	1.9472
1730	6.36	7.36										563.0	6.79	1.9668	1.9668
1800	6.39	7.44										655.0	6.84	1.9838	1.9838
1815	6.40	7.44										620.0	6.85	1.9946	1.9946
1830	6.67	7.65										692.0	7.09	2.0126	2.0126
1900	6.87	8.02										1090.0	7.36	2.0505	2.0505
1930	6.88	8.04										1370.0	7.36	2.0981	2.0981
2000	6.91	8.10										1490.0	7.42	2.1369	2.1369
2015	6.92	8.12										1440.0	7.44	2.1619	2.1619
2030	6.93	8.16										1410.0	7.46	2.1864	2.1864
2045	6.94	8.17										1560.0	7.47	2.2123	2.2123
2115	6.94	8.19										1500.0	7.48	2.2665	2.2665
2130	6.94	8.19										1430.0	7.48	2.3038	2.3038
2200	6.99	8.19										1140.0	7.51	2.3632	2.3632
2300	6.99	8.19										824.0	7.51	2.4205	2.4205
2400	6.99	8.22										643.0	7.52	2.5098	2.5098
JUNE 14															
0000	6.99	8.22										643.0	7.52	2.5098	2.5098
0600	7.07	8.43										388.0	7.65	2.6712	2.6712

BEE CREEK DRAINAGE BASIN

The surface-water hydrologic data for the Bee Creek drainage basin for the 1981 water year are given in the following pages:

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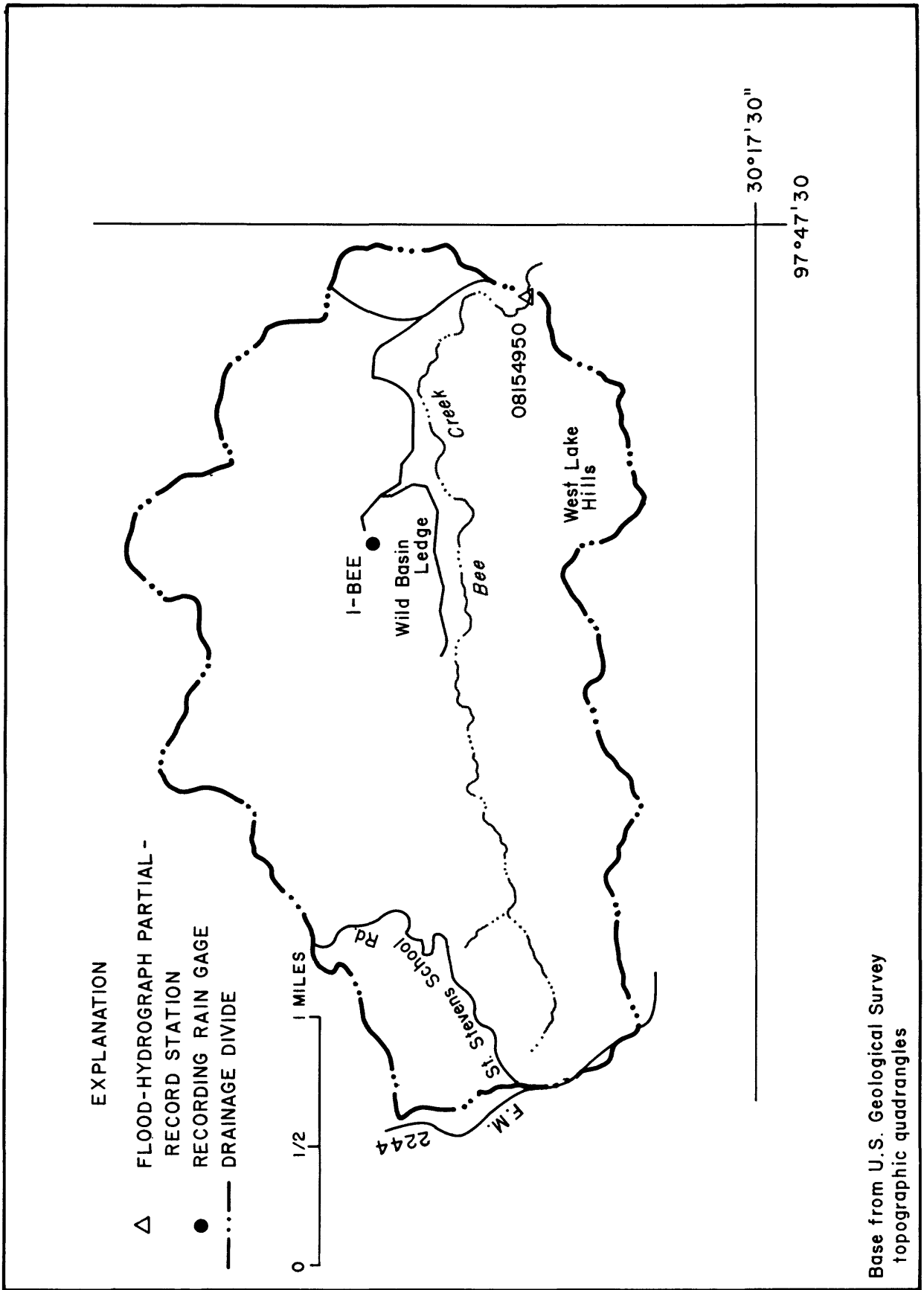
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Base from U.S. Geological Survey topographic quadrangles

Figure 7.-Locations of surface -water data-collection sites in the Bee Creek drainage basin

08154950 BEE CREEK AT WEST LAKE DRIVE NEAR AUSTIN, TEX.
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°18'11", long 94°47'43", Travis County, on downstream side of the culvert on West Lake Drive and 3.8 mi northwest of the State Capitol Building in Austin.

DRAINAGE AREA.--3.28 mi.

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

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 499.72 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, 11,000 ft³/s, May 24, 1981 (gage height, 23.20 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft³/s, May 24 (gage height, 23.20 ft).

BARTON CREEK AND BARTON SPRINGS DRAINAGE BASINS

The surface-water hydrologic data for the Barton Creek and Barton Springs drainage basins for the 1981 water year are given in the following pages:

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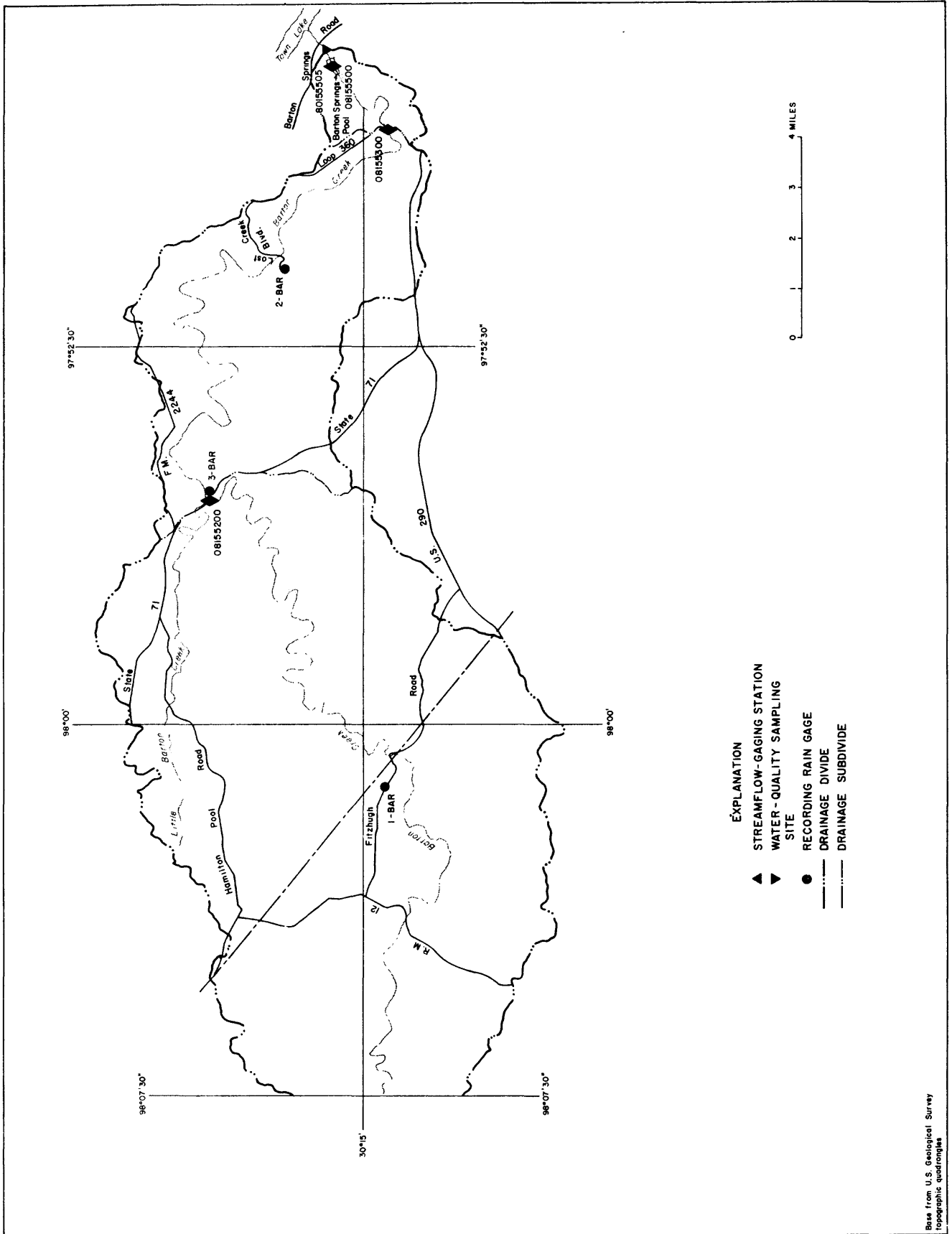
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Base from U.S. Geological Survey topographic quadrangles

Figure 8. Locations of surface-water data-collection sites in the Barton Creek drainage basin

Table 4.--Storm rainfall-runoff data, 1981 water year, Barton Creek drainage basin

Date of Storm	Duration (hours)	Rainfall (inches)			Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
		Total	15-minute	30-minute			
March 3-4, 1981	16	2.55	0.43	0.83	1.29	0.59	3,270

Barton Creek at State Hwy. 71 near Oak Hill, Tex.
(Drainage area.--89.7 mi²)

COLORADO RIVER BASIN

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

LOCATION.--Lat 30°17'46", long 97°55'31", Travis County, Hydrologic Unit 12090205, at downstream side of bridge on State Highway 71, 0.1 mi (0.2 km) downstream from Little Barton Creek, and 5.8 mi (9.3 km) northwest of Oak Hill.

DRAINAGE AREA.--89.7 mi² (232.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1975 to February 1978 (periodic gage heights and discharge measurements only), February 1978 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 737.04 ft (224.650 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair above 15.0 ft³/s (0.42 m³/s) and poor below. No known regulation or diversions. There are two recording rain gages in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,120 ft³/s (230 m³/s) June 11, 1981, gage height, 15.64 ft (4.767 m); no flow for many days each year except 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Oct. 16	0845	5,750	163	12.82	3.908	June 12	1445	5,500	156	12.50	3.810
Mar. 4	0315	3,270	92.6	9.52	2.902	June 13	1300	3,860	109	10.37	3.161
May 25	0030	1,720	48.7	6.87	2.094	June 14	1000	7,040	199	14.41	4.392
June 11	1445	*8,120	230	15.64	4.767	June 16	1000	3,900	110	10.42	3.176

Minimum daily discharge, 0.59 ft³/s (0.017 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	14	35	26	20	24	61	16	37	79	11	6.5
2	18	14	32	25	21	26	56	16	38	66	11	4.8
3	14	13	30	24	19	87	56	16	51	59	11	13
4	13	13	30	24	19	913	49	17	154	56	10	8.3
5	11	12	31	23	24	228	34	16	243	205	10	5.2
6	11	12	31	23	26	187	35	14	162	115	9.6	3.8
7	9.5	11	30	23	25	192	34	12	114	72	9.0	2.9
8	8.8	11	39	22	25	171	33	12	93	68	8.7	2.2
9	8.6	11	61	22	24	148	33	11	76	62	8.0	1.8
10	8.0	11	48	22	28	138	31	10	170	56	7.3	1.4
11	7.3	10	45	21	29	141	29	9.3	3000	48	7.3	1.3
12	7.0	9.9	45	19	26	166	28	8.4	2310	46	7.3	1.3
13	6.3	9.5	44	19	26	214	26	8.4	1920	44	6.8	1.2
14	6.0	9.6	44	19	27	177	25	7.8	2930	42	5.8	1.3
15	5.8	9.6	51	18	27	163	23	7.3	1100	40	5.4	3.8
16	785	15	51	18	27	146	23	13	1950	38	4.8	4.4
17	59	30	45	17	28	140	23	12	941	36	5.4	2.9
18	40	19	44	16	28	126	23	7.5	607	34	16	2.1
19	43	15	40	21	26	115	22	6.3	446	32	35	1.5
20	28	14	37	33	26	111	21	5.6	356	30	21	1.3
21	25	13	37	27	26	106	21	5.0	288	28	11	1.1
22	23	14	37	23	25	94	21	5.0	247	26	8.7	.94
23	21	15	37	22	24	89	23	5.2	204	29	5.4	.84
24	20	17	35	22	24	86	25	90	176	23	2.6	.79
25	18	19	32	21	24	81	21	296	182	22	2.2	.79
26	18	44	32	21	24	77	20	36	163	21	2.1	.71
27	18	44	31	20	24	75	19	24	121	20	1.8	.66
28	17	39	30	19	24	72	17	20	117	16	1.5	.66
29	16	37	29	19	---	103	17	18	106	13	1.4	.66
30	16	36	27	19	---	78	16	36	88	13	2.0	.59
31	15	---	27	19	---	65	---	51	---	12	4.7	---
TOTAL	1327.3	541.6	1167	667	696	4539	865	811.8	18390	1451	253.8	78.74
MEAN	42.8	18.1	37.6	21.5	24.9	146	28.8	26.2	613	46.8	8.19	2.62
MAX	785	44	61	33	29	913	61	296	3000	205	35	13
MIN	5.8	9.5	27	16	19	24	16	5.0	37	12	1.4	.59
CFSM	.48	.20	.42	.24	.28	1.63	.32	.29	6.83	.52	.09	.03
IN.	.55	.22	.48	.28	.29	1.88	.36	.34	7.63	.60	.11	.03
AC-FT	2630	1070	2310	1320	1380	9000	1720	1610	36480	2880	503	156
(††)	3.08	3.20	1.23	1.50	1.17	4.72	.85	6.02	13.99	2.57	3.27	2.14
CAL YR 1980 TOTAL	7815.19		MEAN 21.4	MAX 785	MIN .00	CFSM .24	IN 3.24	AC-FT 15500	†† 34.63			
WTR YR 1981 TOTAL	30788.24		MEAN 84.4	MAX 3000	MIN .59	CFSM .94	IN 12.77	AC-FT 61070	†† 43.74			

†† Weighted-mean rainfall on watershed, in inches, based on two rain gages.

COLORADO RIVER BASIN

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

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 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
JAN 21...	1430	26	456	7.7	10.0	0	.30	12.8	112	.4	K10	K6
APR 08...	0852	33	468	8.0	19.5	5	.60	8.2	89	.8	K320	80
JUN 16...	1340	2630	357	8.0	22.0	30	130	8.4	97	1.6	28000	6200
AUG 19...	1000	41	391	7.8	26.0	10	.40	7.0	89	.5	740	240

DATE	TIME	STREP-TOGOCOCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JAN 21...	K14	220	25	62	17	7.7	.2	.7	200	26	12	.2	
APR 08...	110	230	14	64	18	8.0	.2	.9	220	23	13	.3	
JUN 16...	26000	170	0	52	10	3.9	.1	2.2	180	2.2	5.6	.1	
AUG 19...	220	200	18	53	16	7.1	.2	1.3	180	15	11	.2	

DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (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)
JAN 21...	6.5	252	0	0	.17	.000	.17	.030	.31	.34	.030	6.3	
APR 08...	7.5	267	1	0	.12	.000	.12	.040	.57	.61	.030	3.9	
JUN 16...	11	195	314	44	.10	.020	.12	.080	1.6	1.7	.060	35	
AUG 19...	11	223	4	6	.02	.000	.02	.010	.14	.15	.010	.9	

DATE	TIME	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
APR 08...	0852	0	30	1	10	<10	<10
AUG 19...	1000	0	20	<1	0	<10	<10

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
APR 08...	25	2	.0	0	0	<3
AUG 19...	<10	2	.0	0	0	<3

COLORADO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
APR 08...	0852	.00	.0	.00	.0	.00	.00	.00	.00
AUG 19...	1000	.00	.0	.00	.0	.00	.00	.00	.00

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
APR 08...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG 19...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
APR 08...	.00	.00	.00	.00	0	.00	.00	.00	.00
AUG 19...	.00	.00	.00	.00	0	.00	.00	.00	.00

STA. NO. 06155200

STORM MAINFALL AND RUNOFF RECORD

1961 WATER YEAR

BARTON CREEK AT STAFF HWY. 71 NEAR OAK MILL, TEXAS

STORM OF MARCH 3-4, 1961

ACCUM. DISCHARGE | ACCUM. |

WEIGHTED | IN. |

PRECIP. |

CFS |

IN. |

DATE & TIME

10AM

5AM

10AM

5AM

10AM

5AM

10AM

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2015

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2020

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1.74

2.00

2115

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2.00

2120

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0.74

1.19

1.74

2.00

2125

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2130

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2135

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1.19

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2140

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1.19

1.74

2.00

2145

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1.74

2.00

2200

0.54

0.54

0.63

0.74

1.19

1.74

2.00

2205

0.54

0.54

0.63

0.74

1.19

1.74

2.00

2210

0.54

0.54

0.63

0.74

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1.74

2.00

2215

0.54

0.54

0.63

0.74

1.19

1.74

2.00

2220

0.54

0.54

0.63

0.74

1.19

1.74

2.00

2225

0.54

0.54

0.63

0.74

1.19

1.74

2.00

2230

0.54

0.54

0.63

0.74

1.19

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 (1.4 km) west of the intersection of Ben White and Lamar Boulevards, and 4.3 mi (6.9 km) southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--116 mi² (300 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 510.32 ft (155.546 m) National Geodetic Vertical Datum of 1929 (State Department of Highways and Public Transportation bench mark).

REMARKS.--Records fair. No known regulation or diversions. There are three recording rain gages located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,100 ft³/s (513 m³/s) May 25, 1981, gage height, 15.03 ft (4.581 m); 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 (1,120 m³/s), based on a slope-area measurement of peak flow at a site about 2 mi (3 km) upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Oct. 16	1300	5,250	149	8.57	2.612	June 12	1815	6,560	186	9.24	2.816
Mar. 4	0900	2,800	79.3	7.15	2.179	June 13	2000	8,150	231	10.03	3.057
May 25	0015	*18,100	513	15.03	4.581	June 14	1315	9,350	265	10.70	3.261
June 11	1200	14,100	399	13.29	4.051	June 16	1400	5,160	146	8.52	2.597

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	7.6	5.7	13	19	56	1.6	88	174	.00	.00
2	.00	.00	4.9	5.3	12	19	51	1.2	81	152	.00	.00
3	.00	.00	3.5	4.8	11	18	49	1.9	82	142	.00	.00
4	.00	.00	2.9	4.4	9.4	570	573	2.1	129	122	.00	.00
5	.00	.00	3.1	4.1	9.3	207	40	2.0	263	286	.00	.00
6	.00	.00	3.1	3.8	13	152	35	.81	196	269	.00	.00
7	.00	.00	2.9	3.7	17	144	34	.00	148	174	.00	.00
8	.00	.00	7.4	3.4	18	147	33	.00	142	169	.00	.00
9	.00	.00	33	3.2	17	125	31	.00	132	145	.00	.00
10	.00	.00	31	2.9	24	111	29	.00	151	120	.00	.00
11	.00	.00	24	2.6	27	108	28	.00	6430	98	.00	.00
12	.00	.00	22	2.4	27	121	28	.00	3410	73	.00	.00
13	.00	.00	18	2.2	24	164	26	.00	3440	63	.00	.00
14	.00	.00	16	2.0	25	144	24	.00	4620	49	.00	.00
15	.00	.00	25	1.8	26	141	24	.00	1540	41	.00	.00
16	683	.03	31	1.6	27	137	25	1.5	2720	38	.00	.00
17	94	.03	25	1.4	27	131	26	.00	1300	29	.00	.00
18	28	2.4	22	1.3	24	122	23	.00	747	27	.00	.00
19	28	.21	19	7.5	24	109	22	.00	513	23	.00	.00
20	13	.00	16	17	23	103	20	.00	366	19	.00	.00
21	4.1	.00	15	25	22	101	18	.00	269	16	.00	.00
22	1.6	.00	15	24	22	90	16	.00	216	12	.00	.00
23	.68	.00	15	22	22	83	12	.00	172	7.1	.00	.00
24	.17	.00	14	22	22	80	11	254	140	6.0	.00	.00
25	.04	.00	12	21	22	77	9.4	1950	130	4.9	.00	.00
26	.00	1.4	11	19	21	75	7.4	116	169	3.8	.00	.00
27	.00	25	8.7	18	20	70	6.3	73	114	2.7	.00	.00
28	.00	19	8.0	17	20	67	5.7	54	138	1.6	.00	.00
29	.00	14	7.4	15	---	77	4.1	44	207	.50	.00	.00
30	.00	10	6.8	15	---	86	2.6	68	194	.00	.00	.00
31	.00	---	6.3	14	---	63	---	107	---	.00	.00	---
TOTAL	852.59	72.07	436.6	293.1	568.7	3661	1269.5	2677.11	28247	2267.60	.00	.00
MEAN	27.5	2.40	14.1	9.45	20.3	118	42.3	86.4	942	73.1	.000	.000
MAX	683	25	33	25	27	570	573	1950	6430	286	.00	.00
MIN	.00	.00	2.9	1.3	9.3	18	2.6	.00	81	.00	.00	.00
CFSM	.24	.02	.12	.08	.18	1.02	.37	.75	8.12	.63	.000	.000
IN.	.27	.02	.14	.09	.18	1.17	.41	.86	9.06	.73	.00	.00
AC-FT	1690	143	866	581	1130	7260	2520	5310	56030	4500	.00	.00
(††)	2.78	3.22	1.29	1.52	1.16	4.74	.92	6.49	14.95	2.72	2.88	2.32

CAL YR 1980	TOTAL	5353.43	MEAN	14.6	MAX	683	MIN	.00	CFSM	.13	IN	1.72	AC-FT	10620	††	33.99
WTR YR 1981	TOTAL	40345.27	MEAN	111	MAX	6430	MIN	.00	CFSM	.96	IN	12.94	AC-FT	80020	††	44.99

†† Weighted-mean rainfall on watershed, in inches, based on three rain gages.

COLORADO RIVER BASIN

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 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMED. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT												
16...	1240	4300	398	--	--	15	2200	--	--	15	32000	20000
16...	1520	1500	175	7.9	--	120	18	--	--	7.4	100000	42000
16...	1600	1190	163	--	--	--	--	--	--	7.0	--	--
16...	1605	1100	156	7.8	22.0	--	--	8.4	--	5.6	--	--
17...	0810	105	263	8.1	23.0	30	8.3	7.9	93	1.7	15000	8800
JAN												
21...	1330	25	420	7.7	8.5	0	.70	13.8	117	.2	K17	K8
MAR												
04...	0910	2590	266	7.7	16.5	50	630	--	--	4.9	54000	K37000
APR												
08...	0942	33	423	8.1	19.5	0	.80	9.1	99	.7	140	K9
JUN												
16...	1450	5050	378	8.1	22.5	15	180	8.4	98	1.3	20000	8400
DATE	STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
OCT												
16...	22000	--	--	--	--	--	--	--	--	--	--	--
16...	25000	77	5	24	4.2	1.9	.1	2.5	72	5.2	3.9	.2
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	11000	--	--	--	--	--	--	--	--	--	--	--
JAN												
21...	K14	210	27	55	17	8.2	.2	.8	180	29	12	.2
MAR												
04...	96000	130	11	38	8.7	3.7	.1	2.0	120	15	5.7	.2
APR												
08...	120	210	16	53	18	8.1	.2	.9	190	22	11	.2
JUN												
16...	18000	200	0	63	11	4.2	.1	2.1	210	1.6	6.0	.1
DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (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												
16...	--	--	3080	291	.18	.010	.19	.030	7.4	7.4	.060	190
16...	6.7	--	1290	80	.11	.020	.13	.050	5.9	5.9	.400	170
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	246	112	.46	.030	.49	.040	3.0	3.0	.130	14
JAN												
21...	6.1	237	0	0	.21	.000	.21	.030	.33	.36	.040	1.6
MAR												
04...	7.2	153	1050	131	.17	.050	.22	.040	3.3	3.3	.240	45
APR												
08...	6.7	234	4	4	.08	.000	.08	.010	.50	.51	.020	6.8
JUN												
16...	10	224	362	58	.16	.010	.17	.050	1.3	1.3	.060	83

COLORADO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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							
16...	1240	1	40	<1	0	<10	20
16...	1520	1	20	<1	0	<10	50
17...	0810	1	0	10	0	20	140
MAR							
04...	0910	0	20	2	0	<10	20
APR							
08...	0942	0	20	<1	10	<10	<10

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						
16...	<10	<1	.0	0	0	<3
16...	<10	4	.0	0	0	5
17...	0	10	.0	0	0	10
MAR						
04...	<10	1	.1	0	0	<3
APR						
08...	<10	<1	.0	0	0	<3

DATE	TIME	PCB TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
OCT									
16...	1240	.00	.0	.00	.0	.00	.00	.00	.01
17...	0810	.00	.0	.00	.0	.00	.00	.00	.00
APR									
08...	0942	.00	.0	.00	.0	.00	.00	.00	.00

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
OCT									
16...	.00	.00	.00	.00	.00	.00	.00	.00	.00
17...	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR									
08...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT									
16...	.00	.00	.00	.00	0	.00	.00	.00	.00
17...	.00	.00	.00	.00	0	.00	.00	.00	.00
APR									
08...	.00	.00	.00	.00	0	.00	.00	.00	.00

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 (0.6 km) upstream from Barton Springs Road bridge over Barton Creek, 0.7 mi (1.1 km) upstream from mouth, and 1.8 mi (2.9 km) southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--Not applicable. Only flow from springs 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 (140.92 m) National Geodetic Vertical Datum of 1929. May 1917 to September 1918, nonrecording gage at site 1,000 ft (305 m) downstream at different datum.

REMARKS.--Water-discharge records fair. Entire flow published is springflow from the Edwards and associated limestones in the Balcones Fault Zone. This station is part of an urban hydrologic project to study the ground-water resources in the Austin urban area.

EXTREMES FOR PERIOD OF RECORD (DISCHARGE MEASUREMENTS ONLY).--Maximum measured discharge, 166 ft³/s (4.70 m³/s) May 10, 1941; minimum measured, 9.6 ft³/s (0.27 m³/s) Mar. 29, 1956.

EXTREMES FOR PERIOD OF RECORD (1917-18 AND SINCE MARCH 1978).--Maximum daily discharge, 108 ft³/s (3.06 m³/s) June 9-11, 16, 20, 21, 1979; minimum daily, 12 ft³/s (0.34 m³/s) Feb. 25, 1918.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 105 ft³/s (2.97 m³/s) July 12; minimum daily, 39 ft³/s (1.10 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	45	47	51	49	55	67	61	66	99	99	90
2	42	44	47	50	49	55	66	61	67	100	99	90
3	45	44	47	50	49	55	66	61	67	101	98	90
4	46	44	48	50	49	59	66	61	68	101	98	90
5	47	43	48	50	49	63	65	60	69	101	98	89
6	48	43	48	50	50	67	65	60	70	102	97	89
7	48	43	48	49	51	69	65	59	71	102	96	88
8	48	43	48	49	51	70	65	59	72	102	97	88
9	47	42	49	49	52	71	65	58	73	102	96	88
10	47	42	49	49	52	70	65	57	73	102	96	87
11	47	42	49	48	53	70	65	56	74	104	95	87
12	46	42	50	48	53	71	64	56	76	105	95	86
13	46	42	50	47	53	70	63	56	77	104	94	86
14	46	42	50	47	54	70	63	56	78	104	94	86
15	46	41	51	46	54	69	63	56	80	104	93	86
16	48	43	52	46	54	69	63	56	81	103	93	86
17	48	43	52	46	55	68	63	55	83	103	92	86
18	47	43	51	46	55	67	63	55	84	103	92	85
19	47	43	51	46	55	67	63	54	86	103	92	85
20	47	42	51	48	55	66	63	53	87	102	92	85
21	47	42	51	48	55	66	63	53	88	102	92	84
22	47	42	51	48	54	66	62	53	90	103	92	84
23	47	42	51	49	54	66	62	53	91	103	92	84
24	46	42	51	49	54	66	62	53	92	102	91	84
25	46	43	51	49	54	66	62	55	94	102	91	83
26	46	44	50	49	54	67	62	57	94	102	91	83
27	46	45	50	49	54	67	61	59	95	101	91	83
28	45	46	50	49	55	67	61	61	95	100	91	82
29	45	46	50	49	---	67	61	62	96	100	91	82
30	45	51	51	49	---	67	61	63	98	99	91	82
31	45	---	51	49	---	67	---	65	---	99	90	---
TOTAL	1430	1299	1543	1502	1476	2053	1905	1784	2435	3160	2909	2578
MEAN	46.1	43.3	49.8	48.5	52.7	66.2	63.5	57.5	81.2	102	93.8	85.9
MAX	48	51	52	51	55	71	67	65	98	105	99	90
MIN	39	41	47	46	49	55	61	53	66	99	90	82
AC-FT	2840	2580	3060	2980	2930	4070	3780	3540	4830	6270	5770	5110

CAL YR 1980 TOTAL 17111 MEAN 46.8 MAX 78 MIN 34 AC-FT 33940
WTR YR 1981 TOTAL 24074 MEAN 66.0 MAX 105 MIN 39 AC-FT 47750

COLORADO RIVER BASIN

08155500 BARTON SPRINGS AT AUSTIN, TX--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)	OXYGEN DEMAND, BIO-CHEMICAL, 5 DAY (MG/L)	COLIFORM, TOTAL, IMMEDIATE PER 100 ML	COLIFORM, FECAL, UM-MF (COLS./100 ML)
OCT												
17...	0850	48	600	7.1	22.0	0	.40	6.4	74	.1	440	34
18...	1700	47	583	7.0	22.0	0	.30	5.9	69	.3	110	23
20...	1340	47	539	7.0	22.0	0	.50	6.3	72	.4	120	41
JAN												
13...	0830	47	604	7.1	19.5	0	.70	--	--	.1	K44	K1
28...	1310	51	593	7.0	19.5	0	.60	--	--	.3	160	<1
APR												
08...	1315	65	552	7.1	20.0	0	1.1	6.8	74	.6	K47	K7
MAY												
27...	1000	66	552	7.0	21.5	0	.80	6.5	72	.1	720	170
JUL												
17...	0930	103	561	6.9	22.0	--	--	7.2	81	.4	200	K9
AUG												
03...	0940	98	590	7.1	22.0	--	--	6.8	76	--	--	K3
11...	0830	94	590	7.1	22.0	--	--	9.5	109	--	--	K7
17...	0840	92	608	7.4	23.0	--	--	7.3	85	--	--	<1
19...	1340	84	600	7.1	21.5	--	--	6.6	75	--	--	2600
24...	0845	91	582	7.3	22.0	0	.40	6.9	79	.1	120	K7
31...	0840	90	584	6.8	22.0	--	--	8.0	93	--	--	160
SEP												
08...	0845	88	586	6.7	21.5	--	--	7.2	82	--	--	K11
14...	0830	86	582	6.8	22.0	--	--	7.4	86	--	--	K3
21...	1445	84	562	7.4	24.0	--	--	9.5	112	--	--	24
28...	0830	82	578	6.7	22.0	--	--	6.5	75	--	--	K3

DATE	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM, DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY, FIELD AS CaCO3 (MG/L AS CaCO3)	SULFATE, DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
OCT												
17...	120	280	27	78	20	17	.4	1.1	250	29	24	.3
18...	K8	--	--	--	--	--	--	--	--	--	--	--
20...	39	--	--	--	--	--	--	--	--	--	--	--
JAN												
13...	<1	270	24	75	21	18	.5	1.3	250	33	28	.3
28...	K8	290	36	80	21	18	.5	10	250	32	28	.2
APR												
08...	22	270	18	76	19	14	.4	1.2	250	26	21	.3
MAY												
27...	400	270	31	77	19	13	.3	1.2	240	25	20	.2
JUL												
17...	260	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	K3	--	--	--	--	--	--	--	--	--	--	--
11...	K2	--	--	--	--	--	--	--	--	--	--	--
17...	K5	--	--	--	--	--	--	--	--	--	--	--
19...	2100	--	--	--	--	--	--	--	--	--	--	--
24...	33	290	25	85	20	11	.3	1.2	270	21	14	.2
31...	72	--	--	--	--	--	--	--	--	--	--	--
SEP												
08...	K17	--	--	--	--	--	--	--	--	--	--	--
14...	K6	--	--	--	--	--	--	--	--	--	--	--
21...	260	--	--	--	--	--	--	--	--	--	--	--
28...	K1	--	--	--	--	--	--	--	--	--	--	--

COLORADO RIVER BASIN

08155500 BARTON SPRINGS AT AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, VOLA- TILE, SUS- PENDE (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 17...	11	330	0	0	1.4	.000	1.4	.020	.37	.39	.010	2.4
18...	--	--	8	0	1.3	.000	1.3	.000	.38	.38	.010	4.8
20...	--	--	4	0	1.1	.000	1.1	.000	.39	.39	.010	9.8
JAN 13...	9.8	336	3	3	1.3	.010	1.3	.050	1.2	1.20	.010	7.4
28...	10	350	0	0	1.1	.000	1.1	.030	.60	.63	.020	13
APR 08...	9.7	318	4	1	.95	.000	.95	.010	.51	.52	.020	5.0
MAY 27...	11	311	8	6	1.0	.000	1.0	.060	.61	.67	.020	--
JUL 17...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 03...	--	--	3	--	1.4	.030	1.4	.170	.40	.57	.010	.3
11...	--	--	11	--	1.3	.000	1.3	.070	.48	.55	.020	.7
17...	--	--	13	--	1.3	.010	1.3	.070	.53	.60	.020	<.1
19...	--	--	11	--	1.4	.000	1.4	.010	.22	.23	.020	<.1
24...	12	327	6	0	1.3	.000	1.3	.060	.53	.59	.030	<.1
31...	--	--	4	--	1.6	.020	1.6	.080	.58	.66	<.010	.9
SEP 08...	--	--	5	--	1.4	.000	1.4	.050	.58	.63	.020	1.3
14...	--	--	11	--	1.2	.000	1.2	.050	.51	.56	.010	<.1
21...	--	--	0	--	1.1	.010	1.1	.030	.51	.54	.010	.6
28...	--	--	0	--	--	<.020	1.4	<.070	--	.61	.020	.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 17...	0850	1	50	<1	10	<10	<10
APR 08...	1315	0	40	<1	10	<10	<10
MAY 27...	1000	0	100	<1	10	<10	<10
AUG 24...	0845	0	50	<1	0	<10	87

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 17...	12	<1	.0	0	0	<3
APR 08...	<10	2	.0	0	1	7
MAY 27...	<10	<1	.0	0	0	<3
AUG 24...	<10	1	.0	0	0	<3

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
OCT 17...	0850	.00	.00	.00	.00	.00	.00	.00	.00
APR 08...	1315	.00	.00	.00	.00	.00	.00	.00	.00
MAY 27...	1000	.00	.00	.00	.00	.00	.00	.00	.00
AUG 24...	0845	.00	.00	.00	.00	.00	.00	.00	.00

COLORADO RIVER BASIN

08155500 BARTON SPRINGS AT AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
OCT 17...	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR 08...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY 27...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG 24...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT 17...	.00	.00	.00	.00	0	.00	.00	.00	.00
APR 08...	.00	.00	.00	.00	0	.00	.00	.00	.00
MAY 27...	.00	.00	.00	.00	0	.00	.00	.00	.00
AUG 24...	.00	.00	.00	.00	0	.00	.00	.00	.00

COLORADO RIVER BASIN

08155505 BARTON CREEK BELOW BARTON SPRINGS AT AUSTIN, TX
(Reconnaissance partial-record station)

LOCATION.--Lat 30°15'50", long 97°46'03", Travis County, Hydrologic Unit 12090205, 800 ft (240 m) upstream from bridge on Barton Springs Road and 1.8 mi (2.9 km) southwest of State Capitol at Austin.

DRAINAGE AREA.--125.3 mi² (324.5 km²).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	
JAN 28...	1330	50	587	7.3	19.5	0	.50	10.6	115	.4	84	K3
APR 08...	1240	85	497	7.3	20.5	0	.90	7.8	85	.3	120	28
JUN 16...	1540	4000	397	8.1	22.5	15	160	7.9	92	1.1	37000	8000
AUG 24...	1300	91	588	6.9	22.5	0	.70	7.4	86	.1	130	24

DATE	TIME	STREP-TOCOCCELLI, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JAN 28...	K11	280	31	78	21	18	.5	1.6	250	32	26	.2	
APR 08...	88	250	16	67	19	12	.3	1.1	230	24	17	.2	
JUN 16...	22000	210	12	65	12	4.7	.1	2.0	200	11	6.2	.1	
AUG 24...	64	290	25	85	20	11	.3	1.2	270	20	19	.2	

DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (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)
JAN 28...	9.7	337	0	0	1.1	.000	1.1	.050	.59	.64	.020	9.0	
APR 08...	8.5	287	4	0	.64	.000	.64	.020	.72	.74	.020	13	
JUN 16...	10	231	414	52	.23	.010	.24	.070	1.5	1.6	.080	30	
AUG 24...	12	331	7	2	1.4	.000	1.4	.020	.33	.35	.010	.3	

DATE	TIME	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
APR 08...	1240	0	40	<1	10	<10	<10
AUG 24...	1300	0	50	<1	0	<10	<10

DATE	TIME	LEAD, DIS-SOLVED (UG/L AS Pb)	MANGANESE, DIS-SOLVED (UG/L AS Mn)	MERCURY, DIS-SOLVED (UG/L AS Hg)	SELENIUM, DIS-SOLVED (UG/L AS Se)	SILVER, DIS-SOLVED (UG/L AS Ag)	ZINC, DIS-SOLVED (UG/L AS Zn)
APR 08...	10	2	.0	0	0	<3	
AUG 24...	<10	1	.0	0	0	<3	

COLORADO RIVER BASIN

08155505 BARTON CREEK BELOW BARTON SPRINGS AT AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
APR 08...	1240	.00	.0	.00	.0	.00	.00	.00	.00
AUG 24...	1300	.00	.0	.00	.0	.00	.00	.00	.00

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
APR 08...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG 24...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
APR 08...	.00	.00	.00	.00	0	.00	.00	.00	.00
AUG 24...	.00	.00	.00	.00	0	.00	.00	.00	.00

WEST BOULDIN CREEK DRAINAGE BASIN

The surface-water hydrologic data for the West Bouldin Creek drainage basin for the 1981 water year are given in the following pages:

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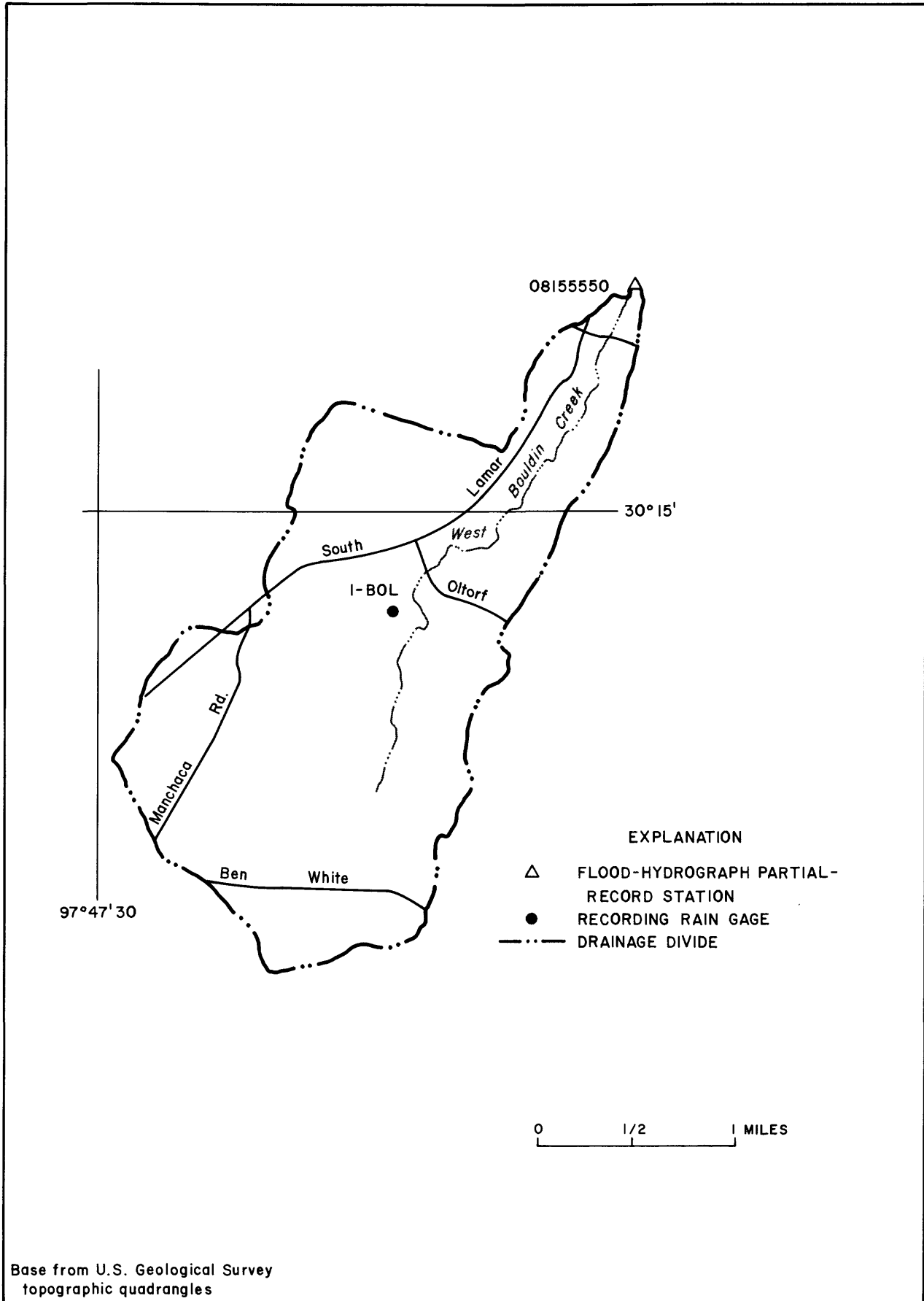


Figure 9.-Locations of surface-water data-collection sites in the West Bouldin Creek drainage basin

Table 5.--Storm rainfall-runoff data, 1981 water year, West Bouldin Creek drainage basin

Date of Storm	Duration (hours)	Rainfall (inches)			Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
		Total	15-minute	30-minute			
West Bouldin Creek at Riverside Drive, Austin, Texas (Drainage area.--3.12 mi ²)							
March 3--4, 1981	17	2.40	0.90	1.00	1.06	0.32	248
May 23--24, 1981	12	3.39	0.81	1.09	1.38	0.58	529

08155550 WEST BOULDIN CREEK AT RIVERSIDE DRIVE, AUSTIN, TEX.
(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 mi².

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

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.--Reords fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,640 ft³/s June 13 (gage height, 6.12 ft).

STATION NO. 08155500		STORM MAINFALL AND RUNOFF RECORD				1961 WATER YEAR			
WEST BOULDER CREEK AT RIVERSIDE DRIVE, AUSTIN, TEXAS		STORM OF MARCH 3-4, 1961				DISCHARGE ACCUM.			
DATE & TIME	RAINFALL	IN.	PRECIP.	IN.	PRECIP.	IN.	CFS	IN.	IN.
MARK. 3									
0000	0.0					0.0	0.0	0.0	0.0002
0900	0.09					0.09	0.1	0.1	0.0002
0915	0.11					0.11	0.2	0.2	0.0003
0920	0.13					0.13	0.5	1.0	0.0003
0925	0.14					0.14	1.0	2.0	0.0004
0930	0.36					0.36	10.0	10.0	0.0008
0935	0.52					0.52	25.0	25.0	0.0018
0940	0.55					0.55	45.0	45.0	0.0037
0945	0.56					0.56	55.0	55.0	0.0094
0950	0.56					0.56	28.0	28.0	0.0125
1010	0.56					0.56	75.0	75.0	0.0175
1020	0.57					0.57	81.0	81.0	0.0209
1025	0.57					0.57	71.0	71.0	0.0268
1030	0.57					0.57	46.0	46.0	0.0325
1045	0.57					0.57	47.0	47.0	0.0471
1100	0.57					0.57	43.0	43.0	0.0684
1200	0.57					0.57	24.0	24.0	0.0803
1300	0.58					0.58	14.0	14.0	0.0908
1400	0.58					0.58	4.0	4.0	0.0947
1600	0.59					0.59	0.5	0.5	0.0952
1800	0.59					0.59	0.5	0.5	0.0955
1935	0.59					0.59	1.0	1.0	0.0958
2035	0.86					0.86	2.0	2.0	0.0959
2040	0.86					0.86	10.0	10.0	0.0963
2045	1.24					1.24	62.0	62.0	0.0988
2050	1.55					1.55	72.0	72.0	0.1063
2055	1.64					1.64	199.0	199.0	0.1269
2115	1.66					1.66	248.0	248.0	0.1371
2120	1.70					1.70	224.0	224.0	0.1603
2125	1.70					1.70	105.0	105.0	0.1755
2145	1.71					1.71	77.0	77.0	0.1819
2200	1.79					1.79	74.0	74.0	0.1865
2205	1.88					1.88	68.0	68.0	0.1935
2215	1.95					1.95	56.0	56.0	0.2005
2230	2.14					2.14	72.0	72.0	0.2094
2245	2.18					2.18	64.0	64.0	0.2213
2300	2.20					2.20	50.0	50.0	0.2338
2330	2.23					2.23	40.0	40.0	0.2487
2400	2.26					2.26			
MARK. 4									

STA. NO. 06155500		STORM RAINFALL AND RUNOFF RECORD		1961 WATER YEAR	
WEST BUULDIN CREEK AT RIVERSIDE DRIVE, AUSTIN, TEXAS		STORM OF MARCH 3-4, 1961		DISCHARGE	ACCUM.
DATE & TIME	GAGE	NUMBER	IN.	IN	RUNOFF
				CFS	IN.
0000	1801				
0200			2.26	40.0	0.2487
0600			2.35	22.0	0.2914
1200			2.37	8.0	0.3112
1800			2.39	2.0	0.3172
2400			2.40	1.0	0.3202
			2.40	0.0	0.3202

STORM RAINFALL AND RUNOFF RECORD													
STORM OF MAY 23-24, 1961													
WEST BOULDER CREEK AT RIVERSIDE DRIVE, AUSTIN, TEXAS													
DATE & TIME	1800						GAUGE	NUMBER	PRECIP.	DISCHARGE	ACCUM.	IN	IN.
									IN.	CFS	PRECIP.	IN.	IN.
MAY 23													
0000	0.0								0.0	0.0	0.0	0.0	0.0
1300	0.01								0.01	0.0	0.01	0.0	0.0
1800	0.01								0.01	0.1	0.02	0.0003	0.0
2400	0.07								0.07	0.1	0.09	0.0004	0.0
MAY 24													
0000	0.07								0.07	0.1	0.16	0.0004	0.0
0015	0.16								0.16	2.0	0.32	0.0007	0.0
0030	0.25								0.25	6.0	0.57	0.0014	0.0
0045	0.34								0.34	12.0	0.91	0.0024	0.0
0050	0.45								0.45	16.0	1.36	0.0031	0.0
0055	0.65								0.65	20.0	2.01	0.0039	0.0
0100	0.99								0.99	26.0	3.00	0.0050	0.0
0105	1.26								1.26	37.0	4.26	0.0065	0.0
0110	1.31								1.31	60.0	5.57	0.0090	0.0
0115	1.33								1.33	48.0	6.90	0.0120	0.0
0125	1.36								1.36	64.0	8.26	0.0159	0.0
0130	1.37								1.37	93.0	9.63	0.0198	0.0
0135	1.38								1.38	165.0	11.01	0.0266	0.0
0140	1.38								1.38	144.0	12.39	0.0326	0.0
0145	1.36								1.36	122.0	13.75	0.0427	0.0
0200	1.38								1.38	105.0	15.13	0.0557	0.0
0215	1.38								1.38	92.0	16.51	0.0671	0.0
0230	1.38								1.38	75.0	17.89	0.1044	0.0
0415	1.38								1.38	26.0	19.27	0.1270	0.0
0600	1.38								1.38	5.0	20.65	0.1441	0.0
1800	1.40								1.40	0.2	22.05	0.1447	0.0
1910	1.42								1.42	0.2	23.47	0.1448	0.0
1935	1.59								1.59	1.0	24.86	0.1450	0.0
2000	1.60								1.60	2.0	26.26	0.1457	0.0
2100	1.67								1.67	1.0	27.63	0.1461	0.0
2130	1.88								1.88	8.0	29.01	0.1481	0.0
2200	1.88								1.88	24.0	30.89	0.1525	0.0
2215	1.88								1.88	34.0	32.27	0.1561	0.0
2225	1.88								1.88	32.0	33.65	0.1587	0.0
2235	2.15								2.15	85.0	35.00	0.1627	0.0
2240	2.40								2.40	159.0	36.36	0.1693	0.0
2245	2.62								2.62	248.0	37.71	0.1796	0.0
2250	2.83								2.83	280.0	39.06	0.1970	0.0
2300	3.11								3.11	406.0	40.17	0.2306	0.0
2310	3.17								3.17	529.0	41.34	0.2744	0.0

STORM RAINFALL AND RUNOFF RECORD										1961 WATER YEAR		
STORM OF MAY 23-24, 1961										DISCHARGE		
STORM OF MAY 23-24, 1961										IN		
STORM OF MAY 23-24, 1961										ACCUM.		
STORM OF MAY 23-24, 1961										WEIGHTED		
STORM OF MAY 23-24, 1961										PRECIP.		
STORM OF MAY 23-24, 1961										IN.		
STORM OF MAY 23-24, 1961										CFS		
STORM OF MAY 23-24, 1961										IN.		
STA. NO. 08155500												
WEST BULLDIN CREEK AT RIVERSIDE DRIVE, AUSTIN, TEXAS												
DATE & TIME	1801											
MAY 24												
2320	3.26									386.0	0.3063	
2330	3.31									342.0	0.3417	
2345	3.36									275.0	0.3759	
2400	3.34									244.0	0.4061	
MAY 25												
0000	3.34									244.0	0.4061	
0030	3.34									167.0	0.4628	
0100	3.34									40.0	0.4985	
0200	3.34									61.0	0.5288	
0300	3.34									37.0	0.5495	
0415	3.34									25.0	0.5805	
0600	3.34									0.5	0.5820	
1600	3.34									0.2	0.5828	
2400	3.34									0.1	0.5830	

SHOAL CREEK DRAINAGE BASIN

The surface-water hydrologic data for the Shoal Creek drainage basin for the 1981 water year are given in the following pages:

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Table 6.--Storm rainfall-runoff data, 1981 water year, Shoal Creek drainage basin

Date of Storm	Duration (hours)	Rainfall (inches)			Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
		Total	15-minute	30-minute			
Shoal Creek at Northwest Park, Austin, Tex. (Drainage area.--6.52 mi ²)							
March 3-4, 1981	15	3.08	0.73	1.04	1.28	0.41	1,110
May 23-25, 1981	26	8.43	1.42	2.62	4.47	6.69	14,600
June 10-15, 1981	5 days	7.05	0.6	1.06	1.26	5.44	1,700
Shoal Creek at 12th Street, Austin, Tex. (Drainage area.--12.3 mi ²)							
March 3-4, 1981	18	3.08	0.44	0.89	1.19	1.12	2,300
May 23-25, 1981	26	8.30	1.42	2.62	4.45	4.41	16,000
June 10-15, 1981	5 days	6.42	0.64	1.06	1.26	5.75	4,760

08156650 SHOAL CREEK AT STECK AVENUE, AUSTIN, TEX.
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°21'55", long 97°44'11", Travis County, on downstream side of bridge on Steck Avenue, 0.5 mi west of the intersection of Burnet Road and Steck Avenue, and 6.3 mi north of the State Capitol Building in Austin.

DRAINAGE AREA.--2.79 mi² (revised).

PERIOD OF RECORD.--April 1975 to current year. Periodic measurements only, November 1974 to April 1975.

REVISED RECORDS.--Open-file report 82-506: 1976-79 maximum discharges.

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 703.00 ft NGVD.

REMARKS.--Records poor. No storms analyzed for 1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,100 ft³/s May 24, 1981 (gage height, 10.63 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,100 ft³/s May 24 (gage height, 10.63 ft).

COLORADO RIVER BASIN

08156700 SHOAL CREEK AT NORTHWEST PARK, AUSTIN, TX

LOCATION.--Lat 30°20'50", long 97°44'41", Travis County, Hydrologic Unit 12090205, at Northwest Park in Austin, 400 ft (122 m) upstream from Shoal Creek Boulevard bridge, 0.5 mi (0.8 km) west of intersection of Burnet Road and Justin Lane, and 5.0 mi (8.0 km) north of State Capitol Building in Austin.

DRAINAGE AREA.--6.52 mi² (16.9 km²) (revised)

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

GAGE.--Water-stage recorder. Datum of gage is 661.34 ft (201.576 m) National Geodetic Vertical Datum of 1929 (city of Austin bench mark).

REMARKS.--Records fair. The city of Austin diverts water into the channel above gage during the summer months from a swimming pool at Northwest Park. There is some diversion into and out of the drainage area by storm sewers. This station is part of a hydrologic project to study the rainfall-runoff relationship for the Austin urban area. There are two recording rain gages in the watershed. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 3.16 ft³/s (0.0895 m³/s), 6.10 in/yr (155 mm/yr), 2,290 acre-ft/yr (2.82 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,600 ft³/s (413 m³/s) May 24, 1981, gage height, 18.00 ft (5.486 m); no flow for several days each year except 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1885, occurred Apr. 22, 1915, stage and discharge unknown. Flood on Sept. 9, 1921, probably lower than the 1915 flood.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s (21.2 m³/s), revised, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Mar. 3	2110	1,110	31.4	9.55	2.911	June 11	1105	1,700	48.1	8.57	2.612
May 1	1235	1,120	31.7	7.03	2.143	June 13	1905	1,660	47.0	8.47	2.582
May 16	0255	1,380	39.1	7.74	2.359	June 16	0445	1,640	46.4	8.42	2.566
May 24	0040	1,280	36.2	7.47	2.277	Sept. 3	0540	755	21.4	5.90	1.798
May 24	2310	*14,600	413	18.00	5.486	Sept. 15	0855	997	28.2	6.66	2.030
May 30	1540	1,230	34.8	7.32	2.231						

Minimum daily discharge, 0.01 ft³/s (0.0003 m³/s) Oct. 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.02	.90	.52	3.0	1.5	.22	60	7.7	.77	.06	.10
2	.05	.02	.88	.52	.22	.18	.18	12	19	.60	.10	.10
3	.04	.02	.84	.52	.22	.66	.18	3.1	32	.31	.10	.46
4	.04	.02	1.3	.52	4.5	4.5	.18	.28	32	.30	.10	.20
5	.04	.02	1.9	.52	5.3	1.2	.14	.08	24	51	.10	.10
6	.09	.02	1.6	.76	1.4	.93	.14	.05	3.2	1.1	.16	.08
7	.03	.02	1.5	.58	.72	2.1	.12	.05	1.7	13	.20	.06
8	.02	.02	7.5	1.7	.52	.90	.15	.05	1.2	1.1	.19	.05
9	.02	.03	3.1	.45	.45	.78	.17	.05	.94	.51	.17	.26
10	.02	.03	.74	.20	4.8	1.1	.16	.05	2.1	.29	.14	.10
11	.02	.03	.52	.16	.54	1.2	.15	.05	383	.15	.12	.08
12	.02	.03	.47	.17	.59	2.7	.13	.08	46	.10	2.4	.06
13	.03	.02	.47	.17	.45	1.1	.14	.05	387	.08	.37	.04
14	.03	.02	.88	.15	.39	.81	.11	.05	100	.07	.10	13
15	.03	.08	3.3	.14	.30	.75	.11	.04	21	.05	.08	46
16	2.7	10	.68	.14	.27	.70	.23	99	238	.06	.07	.45
17	.05	3.9	.64	.14	.22	.67	.70	.44	14	.05	17	.10
18	.67	1.1	.62	.14	.19	.67	.41	.34	7.1	.04	2.8	.08
19	.06	.78	.49	9.7	.78	.59	.13	.10	4.9	.04	.25	.05
20	.03	.69	.43	2.9	.27	.59	.09	.07	3.8	.03	.14	.04
21	.02	.64	.43	.58	.41	.62	.09	.09	3.1	.03	.13	.04
22	.02	2.4	.43	.33	.47	.62	.11	.14	2.5	.03	.11	.04
23	.02	1.1	.43	.29	.37	.59	.97	.23	2.1	.03	.10	.04
24	.01	1.3	.66	.27	1.0	.67	.10	803	1.7	.03	.16	.04
25	.01	8.3	.47	.22	.49	.54	.09	343	7.0	.03	.03	.04
26	.02	6.9	.47	.22	.43	.47	.07	17	1.5	2.2	.03	.04
27	.02	2.0	.47	.21	.31	.45	.06	11	1.1	1.8	.03	.04
28	.12	1.2	.47	.19	.27	.45	.08	6.1	.92	.10	.03	.12
29	.03	1.0	.52	.19	---	.92	.08	12	.80	.04	1.1	.07
30	.02	.92	.52	.19	---	.23	.09	78	1.1	.04	7.4	.05
31	.02	---	.52	.38	---	.23	---	8.9	---	.04	4.3	---
TOTAL	4.43	42.63	34.15	23.17	28.88	94.76	5.58	1455.39	1350.46	74.02	38.07	107.47
MEAN	.14	1.42	1.10	.75	1.03	3.06	.19	46.9	45.0	2.39	1.23	3.58
MAX	2.7	10	7.5	9.7	5.3	66	.97	803	387	51	17	46
MIN	.01	.02	.43	.14	.19	.18	.06	.04	.80	.03	.03	.04
CFSM	.02	.22	.17	.12	.16	.47	.03	7.19	6.90	.37	.19	.55
IN.	.03	.24	.19	.13	.16	.54	.03	8.30	7.70	.42	.22	.61
AC-FT	8.8	85	68	46	57	188	11	2890	2680	147	76	213
(††)	1.14	3.45	1.14	1.45	1.25	5.02	1.02	12.45	11.36	2.31	2.00	3.31

CAL YR 1980 TOTAL 538.10 MEAN 1.47 MAX 112 MIN .00 CFSM .23 IN 3.07 AC-FT 1070 †† 31.25
WTR YR 1981 TOTAL 3259.01 MEAN 8.93 MAX 803 MIN .01 CFSM 1.37 IN 18.59 AC-FT 6460 †† 45.90

†† Weighted-mean rainfall on watershed, in inches, based on two rain gages.

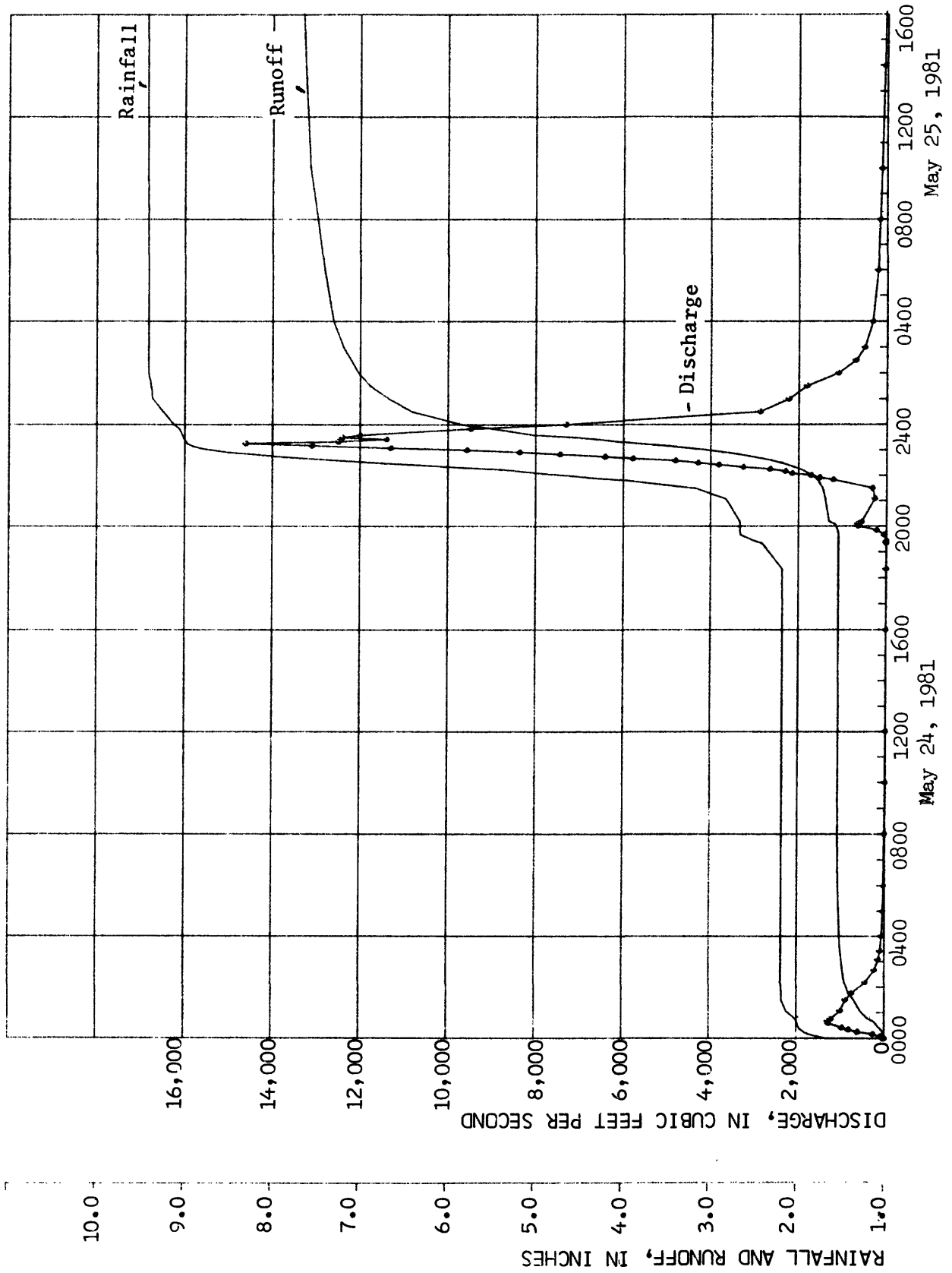
STATION NO. 08156700									
STORM MAINFALL AND RUNOFF RECORD									
SMUAL CREEK AT NORTHWEST PARK, AUSTIN, TEXAS									
STORM OF MARCH 3-4, 1961									
DATE & TIME	INCH	PRECIP.	IN.	WEIGHTED PRECIP.	ACCUM. IN.	DISCHARGE IN	DISCHARGE CFS	ACCUM. RUNOFF IN.	1961 WATER YEAR
0000	0.0				0.0			0.0001	
0540	0.01				0.01			0.0002	
0920	0.16				0.16			0.0008	
0925	0.21				0.21			0.0009	
0930	0.28				0.28			0.0010	
0950	0.37				0.37			0.0014	
0955	0.37				0.37			0.0020	
1000	0.37				0.37			0.0033	
1005	0.37				0.37			0.0047	
1010	0.37				0.37			0.0056	
1015	0.37				0.37			0.0065	
1025	0.37				0.37			0.0071	
1035	0.37				0.37			0.0076	
1050	0.38				0.38			0.0085	
1130	0.38				0.38			0.0099	
1600	0.40				0.40			0.0111	
1700	0.42				0.42			0.0118	
1710	0.51				0.51			0.0120	
1750	0.51				0.51			0.0122	
1800	0.51				0.51			0.0124	
1915	0.51				0.51			0.0134	
2000	0.68				0.68			0.0148	
2020	0.88				0.88			0.0156	
2025	0.99				0.99			0.0159	
2030	1.05				1.05			0.0162	
2035	1.21				1.21			0.0168	
2040	1.45				1.45			0.0184	
2045	1.78				1.78			0.0212	
2050	1.92				1.92			0.0266	
2055	1.94				1.94			0.0361	
2100	1.94				1.94			0.0490	
2105	1.97				1.97			0.0647	
2110	1.97				1.97			0.0861	
2115	1.98				1.98			0.1081	
2120	1.98				1.98			0.1245	
2130	2.00				2.00			0.1483	
2140	2.13				2.13			0.1691	
2150	2.19				2.19			0.1840	
								0.1974	

STORM RAINFALL AND RUNOFF RECORD											
1981 WATER YEAR											
STORM AT NORTHWEST PARK, AUSTIN, TEXAS											
STORM OF MARCH 3-4, 1981											
DATE & TIME	ISHI	U	A	B	E	R	K	PRECIP.	ACCUM.	DISCHARGE	ACCUM.
								IN.	IN.	IN	IN.
								PRECIP.	PRECIP.	CFS	IN.
MAR. 3											
2205	2.56							2.56	2.56	236.0	0.2114
2220	2.78							2.78	466.0	466.0	0.2345
2230	2.81							2.81	621.0	621.0	0.2529
2235	2.90							2.90	795.0	795.0	0.2687
2240	2.92							2.92	713.0	713.0	0.2828
2245	2.93							2.93	735.0	735.0	0.2974
2250	2.93							2.93	696.0	696.0	0.3249
2305	2.98							2.98	444.0	444.0	0.3513
2320	2.99							2.99	268.0	268.0	0.3699
2340	3.00							3.00	144.0	144.0	0.3813
2400	3.01							3.01	69.0	69.0	0.3851
MAR. 4											
0000	3.01							3.01	69.0	69.0	0.3851
0015	3.05							3.05	41.0	41.0	0.3885
0030	3.07							3.07	30.0	30.0	0.3912
0100	3.07							3.07	18.0	18.0	0.3944
0200	3.07							3.07	6.5	6.5	0.3982
0600	3.07							3.07	4.8	4.8	0.4039
1200	3.06							3.06	2.4	2.4	0.4073
1800	3.06							3.06	1.8	1.8	0.4098
2400	3.06							3.06	1.5	1.5	0.4109

STORM RAINFALL AND RUNOFF RECORD									
STORM OF MAY 23-25, 1961									
SHUAL CREEK AT NORTHWEST PARK, AUSTIN, TEXAS									
1961 WATER YEAR									
DATE & TIME	15H	25H	GAGE	NUMBER	PRECIP. IN.	ACCUM. WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. DISCHARGE IN	RUNOFF IN.
MAY 23									
0000	0.0	0.0			0.0	0.0	0.0	0.0006	0.0006
2350	0.0	0.0			0.03	0.03	0.1	0.0008	0.0008
2345	0.57	0.19			0.30	0.30	0.1	0.0008	0.0008
2400	0.74	0.57			0.65	0.65	27.0	0.0018	0.0018
MAY 24									
0000	0.74	0.57			0.65	0.65	27.0	0.0018	0.0018
0005	0.84	0.68			0.75	0.75	99.0	0.0039	0.0039
0010	0.92	0.81			0.86	0.86	258.0	0.0090	0.0090
0015	1.00	0.84			0.91	0.91	601.0	0.0209	0.0209
0020	1.01	0.90			0.95	0.95	810.0	0.0369	0.0369
0025	1.04	0.92			0.97	0.97	960.0	0.0655	0.0655
0035	1.07	0.93			0.99	0.99	1280.0	0.1029	0.1029
0040	1.07	0.94			1.00	1.00	1280.0	0.1282	0.1282
0045	1.08	0.96			1.01	1.01	1210.0	0.1681	0.1681
0100	1.14	1.11			1.12	1.12	1000.0	0.2773	0.2773
0130	1.17	1.18			1.18	1.18	882.0	0.3471	0.3471
0145	1.17	1.18			1.18	1.18	746.0	0.4062	0.4062
0210	1.16	1.16			1.18	1.18	432.0	0.4533	0.4533
0240	1.18	1.18			1.18	1.18	220.0	0.4773	0.4773
0305	1.18	1.18			1.18	1.18	138.0	0.4896	0.4896
0325	1.18	1.18			1.18	1.18	101.0	0.5006	0.5006
0400	1.18	1.18			1.18	1.18	68.0	0.5134	0.5134
0500	1.18	1.18			1.18	1.18	40.0	0.5229	0.5229
0600	1.18	1.18			1.18	1.18	27.0	0.5325	0.5325
0800	1.18	1.18			1.18	1.18	12.0	0.5382	0.5382
1000	1.18	1.18			1.18	1.18	4.6	0.5405	0.5405
1200	1.18	1.18			1.18	1.18	2.6	0.5423	0.5423
1600	1.18	1.18			1.18	1.18	1.0	0.5431	0.5431
1620	1.18	1.19			1.19	1.19	0.5	0.5433	0.5433
1920	1.53	1.32			1.41	1.41	1.3	0.5435	0.5435
1925	1.60	1.39			1.48	1.48	1.7	0.5435	0.5435
1940	1.81	1.54			1.66	1.66	46.0	0.5458	0.5458
1950	1.82	1.54			1.67	1.67	226.0	0.5548	0.5548
2000	1.82	1.54			1.67	1.67	641.0	0.5738	0.5738
2005	1.82	1.54			1.67	1.67	648.0	0.5866	0.5866
2010	1.82	1.54			1.67	1.67	564.0	0.6536	0.6536
2105	2.08	1.62			1.83	1.83	265.0	0.6956	0.6956
2130	2.43	1.95			2.17	2.17	319.0	0.7241	0.7241
2150	3.07	2.96			3.01	3.01	1210.0	0.7840	0.7840
2155	3.37	3.31			3.34	3.34	1520.0	0.8141	0.8141

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR		
SHOAL CREEK AT NORTHWEST PARK, AUSTIN, TEXAS										ACCUM.	DISCHARGE	ACCUM.
STORM OF MAY 23-25, 1981										WEIGHTED	IN	RUNOFF
DATE & TIME	15MI	25MI	GAGE	NUM	BEK	PRECIP.	CFS	IN.	IN.			
MAY 24												
2200	3.67	3.56				3.01	1710.0			0.8480		
2205	3.94	3.87				3.90	2150.0			0.8905		
2210	4.32	4.03				4.16	2310.0			0.9363		
2215	4.54	4.23				4.39	2660.0			0.9890		
2220	5.03	4.73				4.86	3260.0			1.0535		
2225	5.47	5.19				5.32	3820.0			1.1292		
2230	5.92	5.61				5.75	4290.0			1.2142		
2235	6.37	5.98				6.16	4810.0			1.3094		
2240	6.89	6.28				6.55	5780.0			1.4239		
2245	7.21	6.72				6.94	6410.0			1.5509		
2250	7.54	6.95				7.22	7440.0			1.6982		
2300	7.82	7.23				7.50	8360.0			1.8638		
2305	8.00	7.44				7.69	9560.0			2.0531		
2310	8.14	7.57				7.83	11300.0			2.2769		
2315	8.26	7.64				7.92	13100.0			2.5364		
2320	8.35	7.69				7.99	12500.0			3.0731		
2325	8.37	7.71				8.01	11400.0			3.2989		
2330	8.39	7.71				8.02	12400.0			3.5445		
2335	8.39	7.73				8.03	12000.0			4.0198		
2350	8.42	7.77				8.06	9470.0			4.4887		
2400	8.51	7.81				8.12	7310.0			4.8507		
MAY 25												
0000	8.51	7.81				8.12	7310.0			4.8507		
0030	8.57	7.98				8.25	2880.0			5.4101		
0100	8.73	8.07				8.37	2230.0			5.6751		
0130	8.75	8.08				8.38	1810.0			5.8901		
0200	8.77	8.12				8.41	1100.0			6.0209		
0230	8.77	8.12				8.41	700.0			6.1040		
0300	8.77	8.12				8.41	505.0			6.1941		
0400	8.77	8.12				8.41	327.0			6.3106		
0600	8.77	8.12				8.41	208.0			6.4095		
0800	8.77	8.12				8.41	159.0			6.4851		
1000	8.78	8.12				8.42	121.0			6.5714		
1400	8.79	8.12				8.42	62.0			6.6303		
1800	8.79	8.13				8.43	35.0			6.6719		
2400	8.79	8.14				8.43	24.0			6.6890		

HYDROGRAPH AND MASS CURVES FOR THE STORM OF MAY 23-25, 1981 AT SHOAL CREEK AT NORTHWEST PARK



STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STORM OF JUNE 10-15, 1981									
DATE & TIME	15ml	25ml	GAUGE	NUMBER	WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. WEIGHTED PRECIP. IN.	DISCHARGE ACCUM. IN	RUNOFF IN.
JUNE 10									
0000	0.0	0.0			0.0	0.0	0.0	0.0	0.0018
1900	0.00	0.0			0.03	1.0	0.03	1.0	0.0042
2000	0.30	0.0			0.16	1.0	0.16	1.0	0.0047
2300	0.40	0.00			0.21	12.0	0.21	12.0	0.0104
2400	0.40	0.00			0.21	8.1	0.21	8.1	0.0122
JUNE 11									
0000	0.40	0.00			0.21	8.1	0.21	8.1	0.0122
0145	0.41	0.00			0.22	5.0	0.22	5.0	0.0142
0200	0.01	0.07			0.31	4.8	0.31	4.8	0.0146
0230	0.62	0.09			0.33	4.8	0.33	4.8	0.0151
0245	0.62	0.12			0.34	32.0	0.34	32.0	0.0170
0300	0.65	0.04			0.59	82.0	0.59	82.0	0.0210
0310	0.69	0.09			0.82	220.0	0.82	220.0	0.0297
0320	0.75	0.08			0.91	550.0	0.91	550.0	0.0518
0330	0.81	1.00			0.95	622.0	0.95	622.0	0.0703
0335	0.81	1.00			0.95	651.0	0.95	651.0	0.0832
0340	0.82	1.11			0.98	645.0	0.98	645.0	0.1151
0400	0.87	1.15			1.01	530.0	1.01	530.0	0.1786
0440	0.88	1.18			1.05	245.0	1.05	245.0	0.2271
0540	1.01	1.20			1.16	116.0	1.16	116.0	0.2501
0620	1.08	1.35			1.23	138.0	1.23	138.0	0.2774
0720	1.11	1.37			1.25	94.0	1.25	94.0	0.2979
0810	1.29	1.40			1.35	66.0	1.35	66.0	0.3051
0815	1.44	1.50			1.47	70.0	1.47	70.0	0.3065
0820	1.60	1.68			1.67	107.0	1.67	107.0	0.3086
0825	1.95	1.77			1.85	208.0	1.85	208.0	0.3148
0835	2.15	1.87			2.00	719.0	2.00	719.0	0.3504
0850	2.34	1.92			2.11	1100.0	2.11	1100.0	0.3940
0855	2.34	1.92			2.11	1080.0	2.11	1080.0	0.4153
0900	2.35	1.92			2.11	1170.0	2.11	1170.0	0.4385
0905	2.35	1.93			2.12	1190.0	2.12	1190.0	0.4621
0910	2.36	1.94			2.13	1170.0	2.13	1170.0	0.4853
0915	2.38	1.95			2.14	987.0	2.14	987.0	0.5048
0920	2.40	1.96			2.16	888.0	2.16	888.0	0.5312
0930	2.43	2.02			2.20	806.0	2.20	806.0	0.5551
0935	2.46	2.03			2.22	746.0	2.22	746.0	0.5995
1000	2.48	2.14			2.29	683.0	2.29	683.0	0.6400
1005	2.73	2.27			2.48	667.0	2.48	667.0	0.6532
1010	2.95	2.45			2.67	723.0	2.67	723.0	0.6676
1015	3.04	2.66			2.85	853.0	2.85	853.0	0.7014

STATION NO. 08156700									
STORM RAINFALL AND RUNOFF RECORD									
SHUAL CREEK AT NORTHWEST PARK, AUSTIN, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	15HL	25HL	GAGE	NUMBER	PRECIP.	ACCUM. WEIGHTED PRECIP.	DISCHARGE IN	CFS	IN.
JUNE 11									
1030	3.54	2.83			3.15	1400.0			0.7568
1035	3.59	2.95			3.24	1630.0			0.7891
1040	3.62	3.07			3.32	1590.0			0.8206
1045	3.67	3.12			3.37	1360.0			0.8610
1055	3.73	3.27			3.48	1610.0			0.9089
1100	3.74	3.37			3.54	1570.0			0.9400
1105	3.75	3.42			3.57	1700.0			0.9736
1110	3.78	3.45			3.60	1660.0			1.0229
1120	3.81	3.53			3.66	1420.0			1.0792
1130	3.84	3.58			3.70	1540.0			1.2774
1135	4.13	3.87			3.99	1060.0			1.4244
1225	4.27	3.87			4.05	1210.0			1.4723
1245	4.30	3.87			4.06	1260.0			1.4973
1250	4.32	3.88			4.08	1240.0			1.5832
1320	4.38	3.93			4.13	1080.0			1.7330
1400	4.43	3.93			4.15	700.0			1.8716
1500	4.53	3.93			4.20	470.0			1.9647
1540	4.55	3.94			4.21	395.0			2.0077
1555	4.55	4.34			4.43	349.0			2.1045
1800	4.55	4.35			4.44	147.0			2.1758
2000	4.55	4.35			4.44	85.0			2.2364
2400	4.55	4.35			4.44	41.0			2.2656
JUNE 12									
0000	4.55	4.35			4.44	41.0			2.2656
0400	4.55	4.35			4.44	24.0			2.2932
0615	4.57	4.36			4.45	20.0			2.2990
0625	4.60	4.45			4.52	20.0			2.3005
0655	4.67	4.48			4.55	35.0			2.3033
0705	4.67	4.48			4.57	83.0			2.3082
0725	4.85	4.58			4.70	106.0			2.3156
0740	4.88	4.63			4.74	220.0			2.3243
0745	4.90	4.63			4.75	233.0			2.3289
0750	4.91	4.64			4.76	229.0			2.3357
0800	4.92	4.66			4.79	202.0			2.3437
0810	4.95	4.69			4.81	193.0			2.3533
0825	4.98	4.70			4.83	206.0			2.3737
0900	5.01	4.71			4.83	154.0			2.4179
1050	5.01	4.71			4.84	79.0			2.4461
1200	5.01	4.71			4.84	54.0			2.4664
1400	5.01	4.71			4.84	35.0			2.4830

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR			
SHUAL CREEK AT NORTHWEST PARK, AUSTIN, TEXAS										STORM OF JUNE 10-15, 1981			
DATE & TIME	1SH	2SHL	GAUGE	NUMBER	PRECIP.	WEIGHTED PRECIP.	DISCHARGE IN	ACCUM. DISCHARGE IN	ACCUM. RUNOFF				
JUNE 12													
1600	5.01	4.71			4.84	25.0	2.5008						
2000	5.01	4.72			4.85	19.0	2.5189						
2400	5.01	4.72			4.85	14.0	2.5276						
JUNE 13													
0000	5.01	4.72			4.85	14.0	2.5276						
0230	5.01	4.72			4.85	13.0	2.5349						
0320	5.03	4.80			4.90	19.0	2.5381						
0355	5.03	4.80			4.90	32.0	2.5482						
0600	5.03	4.81			4.91	18.0	2.5580						
0830	5.03	4.83			4.92	13.0	2.5624						
0850	5.08	4.87			4.96	13.0	2.5632						
0900	5.13	4.88			4.99	17.0	2.5640						
0915	5.20	4.88			5.02	33.0	2.5663						
0935	5.26	4.88			5.05	127.0	2.5738						
0945	5.27	4.88			5.06	142.0	2.5851						
1015	5.34	4.88			5.09	158.0	2.6007						
1035	5.40	4.88			5.11	189.0	2.6157						
1055	5.41	4.90			5.13	278.0	2.6295						
1100	5.43	4.98			5.18	335.0	2.6361						
1105	5.62	4.98			5.27	457.0	2.6452						
1110	5.72	4.98			5.31	651.0	2.6645						
1120	5.75	4.98			5.33	901.0	2.7002						
1130	5.77	4.98			5.34	944.0	2.7281						
1140	5.77	4.98			5.34	914.0	2.7649						
1145	5.77	4.98			5.34	869.0	2.7993						
1200	5.77	4.98			5.34	635.0	2.8308						
1210	5.77	4.98			5.34	517.0	2.8615						
1230	5.77	4.98			5.34	352.0	2.8963						
1300	5.79	4.98			5.34	241.0	2.9679						
1500	5.81	4.98			5.35	90.0	2.9938						
1525	5.82	4.99			5.36	88.0	2.9990						
1530	5.82	5.22			5.49	130.0	3.0016						
1535	5.09	5.22			5.61	278.0	3.0071						
1540	5.42	5.22			5.76	508.0	3.0172						
1545	5.46	5.22			5.78	791.0	3.0328						
1550	5.46	5.22			5.78	944.0	3.0515						
1555	5.46	5.22			5.78	1060.0	3.0830						
1605	5.48	5.22			5.79	1000.0	3.1226						
1615	5.56	5.22			5.82	1080.0	3.1547						

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR		
SMALL CREEK AT NORTHWEST PARK, AUSTIN, TEXAS										ACCUM.	DISCHARGE	ACCUM.
STORM OF JUNE 10-15, 1981										WEIGHTED	IN	RUNOFF
DATE & TIME	15ML	25ML	U A C	N U M B E R	P R E C I P .	P R E C I P .	P R E C I P .	P R E C I P .	P R E C I P .	P R E C I P .	CFS	IN.
JUNE 13												
1620	0.66	0.22								0.87	1100.0	3.1765
1625	0.67	0.22								0.87	1020.0	3.2068
1635	0.71	0.22								0.89	1060.0	3.2803
1700	0.76	0.23								0.92	960.0	3.3373
1705	0.76	0.30								0.96	904.0	3.3552
1710	0.80	0.30								0.97	914.0	3.3733
1715	0.82	0.30								0.98	967.0	3.3925
1720	0.82	0.30								0.98	983.0	3.5093
1815	0.84	0.30								0.99	019.0	3.5890
1825	0.89	0.30								0.99	597.0	3.6126
1835	0.89	0.30								0.99	716.0	3.6410
1845	0.89	0.30								0.99	987.0	3.6703
1850	0.89	0.30								0.99	1210.0	3.7062
1900	0.89	0.30								0.99	1490.0	3.7505
1905	0.89	0.30								0.99	1660.0	3.7834
1910	0.89	0.30								0.99	1410.0	3.8253
1920	0.89	0.30								0.99	1470.0	3.8689
1925	0.89	0.30								0.99	1500.0	3.8986
1930	0.89	0.30								0.99	1420.0	3.9549
1945	0.89	0.30								0.99	1260.0	4.0173
1955	0.89	0.30								0.99	1170.0	4.0752
2010	0.89	0.30								0.99	1110.0	4.1961
2050	0.89	0.30								0.99	1000.0	4.2952
2100	0.89	0.30								0.99	944.0	4.4821
2230	0.89	0.30								0.99	546.0	4.6768
2400	0.89	0.30								0.99	255.0	4.7525
JUNE 14												
0000	0.89	0.30								0.99	255.0	4.7525
0200	0.89	0.30								0.99	140.0	4.8494
0400	0.89	0.30								0.99	90.0	4.8779
0440	0.89	0.30								0.99	84.0	4.8870
0455	0.89	0.30								0.99	89.0	4.8923
0510	0.89	0.30								0.99	130.0	4.8988
0520	0.89	0.30								0.99	137.0	4.9042
0530	0.89	0.30								0.99	130.0	4.9222
0630	0.89	0.30								0.99	96.0	4.9365
0645	0.89	0.30								0.99	109.0	4.9527
0745	0.89	0.30								0.99	298.0	4.9910
0750	0.89	0.30								0.99	306.0	5.0001
0800	0.89	0.30								0.99	295.0	5.0176

08156750 SHOAL CREEK AT WHITE ROCK DRIVE, AUSTIN, TEX.
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°20'21", long 97°44'50", Travis County, on downstream side of bridge on White Rock Drive, 0.6 mi west of intersection of Burnet Road and Koenig Lane, and 4.5 mi north of the State Capitol Building in Austin.

DRAINAGE AREA.--6.97 mi² (revised).

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

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 642.60 ft NGVD.

REMARKS.--Records fair. Not storms analyzed for the 1981 water year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s May 24, 1981 (gage height, 18.69 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,700 ft³/s May 24 (gage height, 18.69 ft).

COLORADO RIVER BASIN

08156800 SHOAL CREEK AT 12TH STREET, AUSTIN, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 30°16'35", long 97°45'00", Travis County, Hydrologic Unit 12090205, at downstream aide of bridge on 12th Street and 0.6 mi (1.0 km) west of the State Capitol Building in Austin.

DRAINAGE AREA.--12.3 mi² (31.9 km²) (revised).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1975 to current year. Periodic discharge measurements only: November 1974 to current year.

GAGE.--Flood-hydrograph recorder and crest-stage gage. Datum of gage is 455.33 ft (138.785 m) 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, 1980." Two recording rain gages are located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s (453 m³/s) May 24, 1981, gage height, 23.22 ft (7.077 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,000 ft³/s (453 m³/s) May 24, gage height, 23.22 ft (7.077 m).

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 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, (PER-CENT UNINHIB 5 DAY SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
MAR											
03...	2130	498	178	--	--	150	450	--	--	6.4	--
03...	2145	500	154	--	--	--	--	--	--	>44	--
03...	2200	2300	168	--	--	200	2700	--	--	46	--
03...	2215	2220	163	--	--	--	--	--	--	--	--
03...	2230	1810	146	8.0	--	--	--	--	--	--	--
03...	2245	1560	138	--	--	--	--	--	--	15	--
03...	2300	1550	125	--	--	250	1800	--	--	13	--
MAY											
24...	0100	314	252	--	--	--	--	--	--	12	--
24...	0130	1040	180	7.8	--	--	--	--	--	--	--
24...	0145	1050	208	--	--	--	--	--	--	14	--
24...	0200	907	179	--	--	--	--	--	--	6.8	--
24...	0215	763	156	--	--	--	--	--	--	6.7	--
JUN											
16...	0420	385	473	--	--	35	250	--	--	3.3	--
16...	0430	405	455	--	--	--	--	--	--	--	--
16...	0445	708	438	--	--	--	--	--	--	5.5	230000
16...	0500	1460	263	7.9	--	--	--	--	--	7.5	78000
16...	0515	2410	249	--	--	45	2600	--	--	10	--
16...	0530	3230	219	--	--	--	--	--	--	7.5	--
16...	0545	3310	181	--	--	140	1400	--	--	7.2	350000
16...	0900	609	263	7.8	21.0	50	290	7.9	89	2.4	210000

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L AS 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 (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)
MAR												
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	2.1	3.6	--	2.7	56	19	3.1	.1
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	79	3	29	1.5	4.7	.2	3.3	76	2.6	6.7	.1
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	120000	--	--	--	--	--	--	--	--	--	--	--
16...	--	120	44	43	2.9	10	.4	3.1	75	40	13	.1
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	320000	--	--	--	--	--	--	--	--	--	--	--
16...	100000	110	16	39	2.5	6.5	.3	3.3	92	19	8.2	.1

COLORADO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, VOLA- TILE, SUS- PENDE (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)
MAR												
03...	--	--	1320	69	.51	.050	.56	.090	5.2	5.3	1.100	66
03...	--	--	--	--	.34	.040	.38	.240	17	17	3.700	190
03...	--	--	4060	32	.37	.030	.40	.200	14	14	3.400	250
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	4.3	--	--	--	.65	.030	.68	.240	11	11	.600	--
03...	--	--	--	--	.42	.050	.47	.270	9.7	10	1.300	149
03...	--	--	2780	23	--	--	--	--	--	--	--	150
MAY												
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	3.1	97	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	.26	.040	.30	.120	.78	.90	.110	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	.34	.030	.37	.100	.76	.86	.130	18
JUN												
16...	--	--	604	162	2.3	.110	2.4	.190	1.1	1.3	.410	19
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	2.0	.130	2.1	.190	1.2	1.4	.670	26
16...	6.8	164	--	--	2.0	.130	2.1	.190	.91	1.1	.490	3.1
16...	--	--	2460	230	1.0	.100	1.1	.140	1.3	1.4	1.700	15
16...	--	--	--	--	--	--	--	--	--	--	--	9.4
16...	--	--	2340	208	.44	.120	.56	.250	1.7	1.9	2.000	26
16...	7.3	141	542	68	.77	.040	.81	.110	1.7	1.8	.300	7.0

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)
MAR							
03...	2145	3	20	1	0	<10	100
MAY							
24...	0100	3	200	<1	0	<10	70

DATE	TIME	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)
MAR							
03...		13	2	.0	0	0	7
MAY							
24...		<10	2	.0	0	0	10

DATE	TIME	PCB TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
MAR									
03...	2215	.30	.0	.00	1.4	.38	.40	.97	.14
MAY									
23...	0115	.00	.0	.00	.0	.00	.00	.00	.46
23...	0230	.00	.0	.00	.1	.00	.03	.00	.84
JUN									
16...	0430	.00	.0	.00	.1	.00	.07	.17	.09

DATE	TIME	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
MAR										
03...		.12	.00	.00	.00	.03	.03	.00	.04	.00
MAY										
23...		.00	.00	.00	.00	.00	.00	.04	.02	.00
23...		.00	.00	.00	.00	.00	.01	.00	.07	.00
JUN										
16...		.00	.00	.00	.00	.00	.00	.00	.02	.00

COLORADO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAR 03...	.00	.00	.00	.00	0	.00	.15	.00	.00
MAY 23...	.00	.00	.00	.00	0	.00	.08	.03	.00
MAY 23...	.00	.00	.00	.00	0	.00	.13	.02	.00
JUN 16...	.00	.00	.00	.00	0	.00	--	--	--

SIA. NO.08156800		STORM RAINFALL AND RUNOFF RECORD		1981 WATER YEAR		
SMUAL CREEK AT 12TH. ST. AUSTIN, TEXAS		STORM OF MARCH 3-4, 1981		ACCUM. DISCHARGE ACCUM.		
DATE & TIME	LSH	G A G E	N U M B E R	IN.	IN	KUNOFF
				PRECIP.	CFS	IN.
MAK. 3						
0000	0.0			0.0	0.0	0.0023
0615	0.04			0.04	3.4	0.0038
0700	0.06			0.06	13.0	0.0061
0900	0.10			0.10	17.0	0.0085
0915	0.13			0.13	17.0	0.0089
0925	0.21			0.21	24.0	0.0094
0935	0.33			0.33	43.0	0.0110
1000	0.37			0.37	76.0	0.0142
1015	0.37			0.37	102.0	0.0174
1030	0.37			0.37	170.0	0.0228
1045	0.37			0.37	152.0	0.0268
1055	0.38			0.38	241.0	0.0306
1100	0.38			0.38	286.0	0.0336
1105	0.38			0.38	284.0	0.0380
1115	0.38			0.38	280.0	0.0454
1130	0.38			0.38	260.0	0.0522
1140	0.38			0.38	279.0	0.0566
1145	0.38			0.38	286.0	0.0596
1150	0.38			0.38	273.0	0.0639
1200	0.38			0.38	242.0	0.0817
1300	0.38			0.38	141.0	0.0995
1400	0.39			0.39	102.0	0.1187
1600	0.40			0.40	68.0	0.1452
2010	0.76			0.76	47.0	0.1577
2015	0.81			0.81	47.0	0.1587
2030	1.05			1.05	50.0	0.1598
2035	1.21			1.21	77.0	0.1622
2100	1.94			1.94	167.0	0.1692
2115	1.98			1.98	292.0	0.1784
2130	2.00			2.00	498.0	0.1941
2145	2.18			2.18	500.0	0.2046
2150	2.19			2.19	1100.0	0.2161
2155	2.24			2.24	1700.0	0.2340
2200	2.46			2.46	2300.0	0.2581
2205	2.56			2.56	2270.0	0.2820
2210	2.62			2.62	2250.0	0.3056
2215	2.74			2.74	2220.0	0.3522
2230	2.81			2.81	1810.0	0.4282
2255	2.97			2.97	1550.0	0.5014

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STA. NO. 08156800									
SHUAL CREEK AT 12TH ST., AUSTIN, TEXAS									
STORM OF MARCH 3-4, 1981									
DATE & TIME	15ML	AVERAGE	NUMBER	WEIGHTED	ACCUM. WEIGHTED	DISCHARGE	ACCUM.	RUNOFF	
				PRECIP. IN.	PRECIP. IN.	IN	IN	IN	CFS
MAR. 3									
2315	2.99				2.99	1900.0	0.5613		
2325	2.99				2.99	2070.0	0.5939		
2330	3.00				3.00	2160.0	0.6166		
2335	3.00				3.00	2100.0	0.6496		
2345	3.00				3.00	1970.0	0.7013		
2400	3.01				3.01	1540.0	0.7377		
MAR. 4									
0000	3.01				3.01	1540.0	0.7377		
0015	3.05				3.05	1170.0	0.7867		
0030	3.07				3.07	893.0	0.8289		
0100	3.07				3.07	612.0	0.8867		
0200	3.07				3.07	392.0	0.9361		
0300	3.07				3.07	284.0	0.9719		
0400	3.07				3.07	201.0	1.0099		
0600	3.07				3.07	123.0	1.0486		
0900	3.07				3.07	77.0	1.0777		
1200	3.08				3.08	50.0	1.1060		
1800	3.08				3.08	20.0	1.1212		
2400	3.08				3.08	5.0	1.1230		

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 08156800									
SHUAL CREEK AT 12TH. ST. AUSTIN, TEXAS									
STORM OF MAY 23-25, 1981									
DATE & TIME	1SHL	2SHL	GAGE	NUMBER	WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. IN	DISCHARGE ACCUM. IN	HUNOFF IN.
MAY 23									
0000	0.0	0.0			0.0	1.0	0.0015		0.0015
2330	0.07	0.0			0.02	1.0	0.0030		0.0030
2345	0.57	0.19			0.28	1.0	0.0030		0.0030
2400	0.74	0.57			0.61	4.0	0.0031		0.0031
MAY 24									
0000	0.74	0.57			0.61	4.0	0.0031		0.0031
0030	1.04	0.92			0.95	96.0	0.0092		0.0092
0100	1.13	1.07			1.08	314.0	0.0241		0.0241
0115	1.14	1.16			1.16	738.0	0.0473		0.0473
0130	1.17	1.18			1.18	1040.0	0.0801		0.0801
0145	1.17	1.18			1.18	1050.0	0.1297		0.1297
0215	1.18	1.18			1.18	763.0	0.1657		0.1657
0230	1.18	1.18			1.18	649.0	0.1964		0.1964
0300	1.18	1.18			1.18	482.0	0.2268		0.2268
0330	1.18	1.18			1.18	365.0	0.2497		0.2497
0400	1.18	1.18			1.18	298.0	0.2779		0.2779
0500	1.18	1.18			1.18	228.0	0.3066		0.3066
0600	1.18	1.18			1.18	188.0	0.3658		0.3658
1000	1.18	1.18			1.18	134.0	0.4165		0.4165
1200	1.18	1.18			1.18	122.0	0.4626		0.4626
1600	1.18	1.18			1.18	86.0	0.4978		0.4978
1830	1.19	1.23			1.22	77.0	0.5136		0.5136
1915	1.27	1.32			1.31	74.0	0.5241		0.5241
2045	1.90	1.61			1.68	98.0	0.5349		0.5349
2100	2.08	1.62			1.73	143.0	0.5401		0.5401
2120	2.25	1.78			1.89	179.0	0.5458		0.5458
2130	2.43	1.95			2.07	206.0	0.5490		0.5490
2135	2.53	2.12			2.22	299.0	0.5521		0.5521
2140	2.63	2.38			2.44	392.0	0.5562		0.5562
2145	2.82	2.68			2.71	485.0	0.5639		0.5639
2155	3.37	3.31			3.32	574.0	0.5729		0.5729
2200	3.67	3.56			3.59	618.0	0.5794		0.5794
2205	3.94	3.87			3.89	712.0	0.5869		0.5869
2210	4.32	4.03			4.10	806.0	0.5954		0.5954
2215	4.59	4.23			4.32	900.0	0.6048		0.6048
2220	5.03	4.73			4.80	1060.0	0.6161		0.6161
2225	5.47	5.19			5.26	1250.0	0.6293		0.6293
2230	5.92	5.61			5.68	1430.0	0.6443		0.6443
2235	6.37	5.98			6.07	2560.0	0.6711		0.6711
2240	6.89	6.28			6.43	3690.0	0.7099		0.7099

STORM RAINFALL AND RUNOFF RECORD										
1981 WATER YEAR										
STORM OF MAY 23-25, 1981										
STA. NO.	SHUAL CREEK AT 12TH. ST., AUSTIN, TEXAS		G A G E		S T O R M		D I S C H A R G E		A C C U M .	
NO.	1 S H L	2 S H L	1	2	1	2	1	2	1	2
DATE & TIME			N U M B E R		K		I N		P R E C I P .	
							I N		I N	
							C F S		I N	
MAY 24										
2245	7.21	6.72						4820.0	6.84	0.7605
2250	7.54	6.95						5830.0	7.09	0.8217
2255	7.82	7.23						6840.0	7.37	0.8935
2300	8.00	7.44						7850.0	7.57	1.0583
2315	8.33	7.68						* 9250.0	7.84	1.3497
2330	8.39	7.71						* 13000.0	7.87	1.6909
2340	8.40	7.74						* 15100.0	7.90	1.9287
2345	8.41	7.76						* 16000.0	7.92	2.0966
2350	8.42	7.77						* 15200.0	7.93	2.3360
2400	8.51	7.81						* 13400.0	7.98	2.5822
MAY 25										
0000	8.51	7.81						* 13400.0	7.98	2.5822
0015	8.51	7.88						* 11600.0	8.03	3.0594
0030	8.57	7.98						* 8050.0	8.12	3.3129
0045	8.65	8.02						* 4400.0	8.17	3.4515
0100	8.73	8.07						* 3600.0	8.23	3.6216
0130	8.75	8.08						* 2500.0	8.24	3.7790
0200	8.77	8.12						* 2000.0	8.28	3.9680
0300	8.77	8.12						* 800.0	8.28	4.0688
0400	8.77	8.12						* 500.0	8.28	4.1633
0500	8.77	8.12						* 300.0	8.28	4.2389
0600	8.77	8.12						* 180.0	8.28	4.2842
1000	8.78	8.12						*	8.28	4.3195
1200	8.79	8.12						102.0	8.28	4.3452
1400	8.79	8.12						79.0	8.28	4.3751
1800	8.79	8.13						47.0	8.29	4.4047
2400	8.79	8.14						27.0	8.30	4.4149

* ESTIMATED DISCHARGE. STREAMFLOW NOT RECORDED FROM 2513 HOURS MAY 24 TO 1200 HOURS MAY 25.

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STA. NO. 08156800									
SHOAL CREEK AT 12TH. ST., AUSTIN, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	1SHL	2SHL	G A G E	N U M B E R	ACCUM. WEIGHTED PRECIP. IN.	DISCHARGE IN	CFS	ACCUM. RUNOFF IN.	
JUNE 10									
0000	0.0	0.0			0.0	0.7		0.0008	
1900	0.06	0.0			0.01	0.5		0.0015	
2000	0.36	0.0			0.09	0.7		0.0015	
2015	0.37	0.0			0.09	21.0		0.0032	
2115	0.38	0.03			0.11	7.7		0.0038	
2130	0.39	0.06			0.14	25.0		0.0065	
2300	0.40	0.06			0.14	15.0		0.0084	
2330	0.40	0.06			0.14	30.0		0.0103	
2400	0.40	0.06			0.14	24.0		0.0128	
JUNE 11									
0000	0.40	0.06			0.14	24.0		0.0128	
0215	0.62	0.08			0.21	9.5		0.0161	
0245	0.62	0.12			0.24	78.0		0.0198	
0300	0.65	0.54			0.57	59.0		0.0217	
0315	0.73	0.78			0.77	149.0		0.0264	
0330	0.81	1.00			0.95	443.0		0.0473	
0400	0.87	1.13			1.07	1090.0		0.1159	
0430	0.88	1.17			1.10	900.0		0.1726	
0500	0.91	1.20			1.13	598.0		0.2291	
0600	1.05	1.33			1.26	312.0		0.2586	
0630	1.08	1.36			1.29	243.0		0.2892	
0800	1.22	1.39			1.35	222.0		0.3207	
0845	2.33	1.92			2.02	521.0		0.3535	
0900	2.35	2.02			2.02	495.0		0.3769	
0945	2.43	2.04			2.12	935.0		0.4211	
1000	2.48	2.14			2.15	1340.0		0.4633	
1015	3.09	2.66			2.22	1380.0		0.5067	
1030	3.54	2.83			2.76	1240.0		0.5458	
1045	3.67	3.12			3.00	1260.0		0.5855	
1100	3.74	3.37			3.25	1570.0		0.6349	
1115	3.80	3.48			3.46	2330.0		0.7083	
1130	3.84	3.58			3.56	3630.0		0.8226	
1140	3.87	3.62			3.64	4540.0		0.9418	
1145	3.87	3.64			3.68	4690.0		1.0157	
1150	3.87	3.68			3.70	4760.0		1.0656	
1200	3.92	3.76			3.73	4660.0		1.1390	
1215	4.03	3.80			3.80	4460.0		1.2561	
1245	4.30	3.87			3.86	3910.0		1.4408	
1300	4.34	3.90			3.97	2580.0		1.5627	
					4.01	2280.0		1.6704	

STORM RAINFALL AND RUNOFF RECORD										
1981 WATER YEAR										
STA. NO. 08156800										
SMUAL CREEK AT 12TH. ST, AUSTIN, TEXAS										
STORM OF JUNE 10-15, 1981										
DATE & TIME	15HL	25HL	GAGE	NUM	BE	PRECIP.	WEIGHTED	DISCHARGE	ACCUM.	MUNOFF
						IN.	PRECIP.	IN	IN	IN.
JUNE 11										
1330	4.41	3.93				4.05		2200.0		1.7743
1345	4.41	3.93				4.05		2070.0		1.8395
1400	4.43	3.93				4.05		1800.0		1.8962
1415	4.45	3.93				4.05		1390.0		1.9400
1430	4.46	3.93				4.06		1100.0		1.9746
1445	4.48	3.93				4.06		914.0		2.0178
1515	4.54	3.93				4.08		696.0		2.0507
1530	4.55	3.93				4.08		626.0		2.0803
1600	4.55	4.34				4.39		528.0		2.1135
1630	4.55	4.34				4.39		448.0		2.1559
1730	4.55	4.35				4.40		294.0		2.1837
1800	4.55	4.35				4.40		243.0		2.1990
1830	4.55	4.35				4.40		211.0		2.2156
1915	4.55	4.35				4.40		164.0		2.2336
2015	4.55	4.35				4.40		124.0		2.2571
2215	4.55	4.35				4.40		79.0		2.2757
2400	4.55	4.35				4.40		62.0		2.2865
JUNE 12										
0000	4.55	4.35				4.40		62.0		2.2865
0200	4.55	4.35				4.40		45.0		2.3017
0400	4.55	4.35				4.40		35.0		2.3093
0525	4.56	4.35				4.40		30.0		2.3135
0615	4.57	4.36				4.41		37.0		2.3164
0640	4.66	4.40				4.51		34.0		2.3191
0730	4.87	4.58				4.65		62.0		2.3233
0745	4.90	4.63				4.69		65.0		2.3254
0800	4.92	4.68				4.74		76.0		2.3302
0845	4.98	4.70				4.77		153.0		2.3414
0910	4.98	4.71				4.77		223.0		2.3484
0915	4.98	4.71				4.77		236.0		2.3509
0920	4.98	4.71				4.77		230.0		2.3581
0945	4.98	4.71				4.77		197.0		2.3664
1000	4.98	4.71				4.77		191.0		2.3845
1115	5.01	4.71				4.78		109.0		2.4119
1400	5.01	4.71				4.78		51.0		2.4336
1800	5.01	4.71				4.78		27.0		2.4506
2400	5.01	4.72				4.79		19.0		2.4593
JUNE 13										
0000	5.01	4.72				4.79		19.0		2.4593
0230	5.01	4.72				4.79		17.0		2.4644
0320	5.03	4.80				4.86		23.0		2.4731

STA. NO. 08150800		STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR	
SHUAL CREEK AT 12TH. ST. AUSTIN, TEXAS		STORM OF JUNE 10-15, 1981										ACCUM. DISCHARGE	
DATE & TIME	ISHL	2SHL	GAUGE	NUMBER	IN.	WEIGHTED PRECIP.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
JUNE 13													
0830	5.03	4.83				4.88	19.0				2.4796		
0850	5.08	4.87				4.92	24.0				2.4804		
0900	5.13	4.88				4.94	27.0				2.4815		
0930	5.24	4.88				4.97	34.0				2.4847		
1030	5.40	4.88				5.00	74.0				2.4906		
1045	5.41	4.88				5.01	122.0				2.4944		
1100	5.43	4.98				5.09	258.0				2.4998		
1105	5.62	4.98				5.13	288.0				2.5028		
1110	5.72	4.98				5.16	318.0				2.5112		
1130	5.77	4.98				5.17	453.0				2.5278		
1145	5.77	4.98				5.17	477.0				2.5504		
1215	5.77	4.98				5.17	859.0				2.5864		
1225	5.77	4.98				5.17	900.0				2.6006		
1230	5.77	4.98				5.17	921.0				2.6103		
1235	5.77	4.98				5.17	881.0				2.6242		
1245	5.78	4.98				5.17	802.0				2.6452		
1300	5.79	4.98				5.17	477.0				2.6648		
1315	5.79	4.98				5.17	389.0				2.6798		
1330	5.79	4.98				5.17	222.0				2.7043		
1415	5.79	4.98				5.17	222.0				2.7229		
1450	5.79	4.98				5.17	193.0				2.7321		
1500	5.81	4.98				5.18	194.0				2.7371		
1515	5.82	4.98				5.18	263.0				2.7454		
1530	5.82	5.22				5.36	394.0				2.7537		
1535	5.04	5.22				5.43	406.0				2.7580		
1540	5.42	5.22				5.51	419.0				2.7624		
1545	5.46	5.22				5.52	431.0				2.7714		
1600	5.47	5.22				5.54	632.0				2.7913		
1615	5.56	5.22				5.57	970.0				2.8117		
1620	5.66	5.22				5.57	1130.0				2.8295		
1630	5.67	5.22				5.57	1440.0				2.8673		
1645	5.73	5.22				5.60	1760.0				2.9227		
1710	5.76	5.23				5.66	1980.0				2.9747		
1715	5.80	5.30				5.66	2010.0				3.0063		
1720	5.82	5.30				5.66	2020.0				3.0275		
1730	5.83	5.30				5.66	1960.0				3.0584		
1800	5.84	5.30				5.67	1850.0				3.1361		
1815	5.84	5.30				5.67	1520.0				3.2079		
						5.67	1400.0				3.2446		

STA. NO. 08156800		STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR	
SHOAL CREEK AT 12TH ST., AUSTIN, TEXAS		STORM OF JUNE 10-15, 1981										DISCHARGE ACCUM.	
DATE & TIME	15ML	25ML	GAUGE	NUMBER	PRECIP.	WEIGHTED	IN	IN	CFS	IN	IN.	IN	IN.
JUNE 13													
1825	6.89	5.38			5.74	1370.0	3.2662						
1830	7.10	5.41			5.82	1350.0	3.2804						
1835	7.15	5.43			5.84	1440.0	3.2955						
1840	7.24	5.43			5.88	1530.0	3.3116						
1845	7.47	5.43			5.92	1620.0	3.3456						
1900	7.67	5.43			5.97	1680.0	3.3985						
1915	7.76	5.44			6.00	1850.0	3.4568						
1930	7.87	5.44			6.02	2370.0	3.5563						
1955	7.91	5.47			6.06	3150.0	3.6555						
2000	7.94	5.48			6.06	3240.0	3.6895						
2005	7.94	5.48			6.07	3180.0	3.7396						
2100	8.08	5.53			6.14	3060.0	3.9163						
2115	8.14	5.58			6.19	2250.0	4.1675						
2145	8.22	5.58			6.21	1750.0	4.3604						
2300	8.22	5.58			6.21	895.0	4.4447						
2315	8.22	5.58			6.21	757.0	4.4924						
2400	8.22	5.58			6.21	513.0	4.5813						
JUNE 14													
0000	8.22	5.58			6.21	513.0	4.5813						
0400	8.22	5.58			6.21	247.0	4.7704						
0800	8.51	5.68			6.36	348.0	4.9458						
1200	8.59	5.70			6.39	254.0	5.0738						
1600	8.59	5.70			6.39	212.0	5.1806						
2000	8.59	5.70			6.39	199.0	5.2809						
2400	8.59	5.70			6.39	186.0	5.3746						
JUNE 15													
0000	8.59	5.70			6.39	186.0	5.3746						
0800	8.59	5.70			6.39	159.0	5.5817						
1600	8.69	5.70			6.42	120.0	5.7027						
2400	8.69	5.70			6.42	100.0	5.7531						

BOGGY CREEK DRAINAGE BASIN

The surface-water hydrologic data for the Boggy Creek drainage basin for the 1981 water year are given in the following pages:

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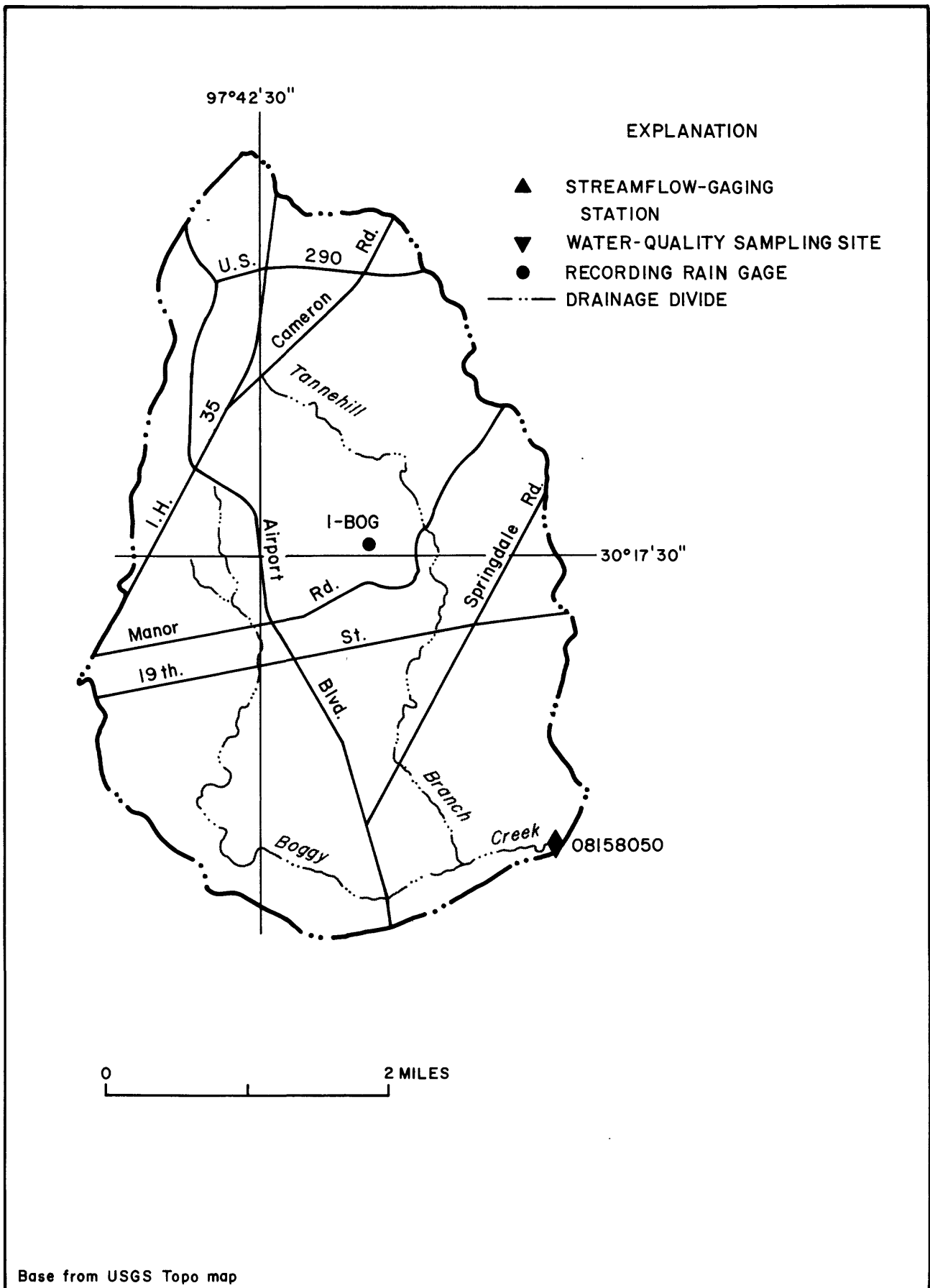


Figure 11.-Locations of surface-water data-collection sites in the Boggy Creek drainage basin -120-

Table 7.--Storm rainfall-runoff data, 1981 water year, Boggy Creek drainage basin

Date of Storm	Duration (hours)	Total	Rainfall (inches)		Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
			15-minute	30-minute			
Boggy Creek at U.S. Hwy. 183, Austin, Tex. (Drainage area.--13.1 mi ²)							
March 3-4, 1981	19	1.65	0.30	0.37	0.49	0.30	791
May 23-25, 1981	26	4.82	1.45	1.85	2.04	1.03	939

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 (2.6 km) south of the intersection of Webberville Road and U.S. Highway 183, and 4.1 mi (6.6 km) east of the State Capitol Building in Austin.

DRAINAGE AREA.--13.1 mi² (33.9 km²).

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 (125.361 m) National Geodetic Vertical Datum of 1929 (levels from city of Austin bench mark).

REMARKS.-- Water-discharge records fair. No known regulation or diversions. There is a recording rain gage in the watershed. The station is part of a hydrologic research project to study the rainfall-runoff relationship for the Austin urban area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,100 ft³/s (173 m³/s) May 23, 1975, gage height, 17.03 ft (5.191 m), from floodmark, from rating curve extended above 500 ft³/s (14.2 m³/s) on basis of slope-area measurement of peak flow; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 939 ft³/s (26.6 m³/s) May 24 at 0215 hours, gage height, 9.12 ft (2.780 m), no peak above base of 1,500 ft³/s (42.5 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.00	.35	.21	1.4	7.3	.15	11	33	1.9	1.1	1.5
2	.03	.00	.12	.23	.36	.51	.11	1.8	8.5	1.9	1.1	1.9
3	.00	.00	.11	.16	.22	65	.11	1.2	21	1.5	.93	73
4	.00	.00	.25	.15	1.5	40	.11	.38	5.3	1.5	.77	4.9
5	.00	.00	.30	.15	3.8	1.2	.11	.10	8.6	97	1.3	3.3
6	.00	.00	.09	.24	.86	.93	.11	.05	2.0	9.4	1.3	2.5
7	.00	.00	16	.33	.48	2.6	.11	.04	2.1	13	1.2	1.5
8	.00	.00	1.7	.33	.38	.73	.11	.04	1.1	15	1.1	1.0
9	.00	.00	.51	.90	.38	.60	.11	.03	.92	11	1.1	.80
10	.00	.00	.37	.28	5.7	.55	.11	.00	.87	5.0	.89	.60
11	.00	.00	.35	.16	.40	1.2	.13	.00	360	2.9	.71	.45
12	.00	.00	.34	.08	.37	3.2	.20	.00	86	3.4	2.2	.35
13	.00	.00	.34	.06	.36	1.3	.27	.00	242	3.8	2.4	.30
14	.09	.00	2.7	.06	.31	.66	.36	.00	229	3.0	1.3	8.9
15	.15	.00	.51	.13	.18	.58	.41	.00	34	2.3	2.2	39
16	1.7	29	.38	.27	.21	.51	.59	67	200	1.7	1.9	2.0
17	.02	1.3	.25	.08	.21	.51	1.0	.55	38	1.9	.98	1.5
18	17	.42	.25	.14	.26	.40	.87	.16	51	1.7	2.0	1.0
19	.11	.34	.24	18	.33	.40	.37	.08	296	1.5	.93	.80
20	.02	.24	.20	1.8	.21	.40	.23	.05	5.7	1.2	.82	.60
21	.00	.16	.15	.51	.21	.40	.18	.05	4.5	1.2	.48	.40
22	.02	.30	.15	.43	.21	.32	.17	.05	3.9	1.3	.49	.20
23	.00	.41	.15	.38	.21	.31	4.5	.05	3.8	1.4	.40	.10
24	.00	.18	.15	.26	.21	.31	.50	128	3.8	1.4	.42	.06
25	.00	20	.15	.33	.23	.31	.12	232	3.0	1.4	.56	.04
26	.00	2.2	.15	.34	.25	.31	.11	7.9	2.8	4.1	.24	.02
27	.02	.55	.15	.36	.25	.31	.09	5.8	2.6	6.7	.11	.01
28	.00	.43	.15	.34	.24	.21	.08	4.2	2.3	1.6	.03	.00
29	.00	.40	.15	.34	---	1.4	.08	5.5	2.4	1.5	.47	.00
30	.00	.40	.15	.28	---	.45	.07	85	2.5	1.4	7.2	.00
31	.00	---	.15	.22	---	.23	---	7.8	---	1.8	6.0	---
TOTAL	19.21	56.33	27.01	27.55	19.73	133.14	11.47	558.83	1656.69	204.4	42.63	146.73
MEAN	.62	1.88	.87	.89	.70	4.29	.38	18.0	55.2	6.59	1.38	4.89
MAX	17	29	16	18	5.7	65	4.5	232	360	97	7.2	73
MIN	.00	.00	.09	.06	.18	.21	.07	.00	.87	1.2	.03	.00
CFSM	.05	.14	.07	.07	.05	.33	.03	1.37	4.21	.50	.11	.37
IN.	.05	.16	.08	.08	.06	.38	.03	1.59	4.70	.58	.12	.42
AC-FT	38	112	54	55	39	264	23	1110	3290	405	85	291
(††)	.96	3.25	1.21	1.62	1.15	3.03	.80	8.92	14.85	3.42	.96	2.66

CAL YR 1980 TOTAL 975.27 MEAN 2.66 MAX 207 MIN .00 CFSM .20 IN 2.77 AC-FT 1930 †† 27.82
WTR YR 1981 TOTAL 2903.72 MEAN 7.96 MAX 360 MIN .00 CFSM .61 IN 8.25 AC-FT 5760 †† 42.83

†† Rainfall on watershed, in inches, based on one rain gage.

COLORADO RIVER BASIN

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 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMEDIATE (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	
OCT													
18...	1425	380	188	--	--	--	--	--	--	16	--	--	
18...	1430	357	198	--	--	--	--	--	--	35	--	--	
18...	1445	304	225	7.9	--	--	--	--	--	--	--	--	
18...	1500	223	195	--	--	80	31	--	--	19	--	--	
18...	1830	3.0	187	7.8	20.0	--	--	--	--	10	--	--	
JAN													
27...	1145	.36	655	8.4	14.0	0	.40	14.4	138	.3	1300	30	
MAR													
03...	2145	373	232	--	--	150	1400	--	--	19	--	--	
03...	2200	409	264	--	--	--	--	--	--	25	--	--	
03...	2215	348	281	--	--	--	--	--	--	29	--	--	
MAY													
16...	0300	263	276	--	--	--	--	--	--	23	--	--	
16...	0315	406	265	--	--	--	--	--	--	22	--	--	
16...	0330	563	251	--	--	60	370	--	--	17	--	--	
16...	0345	734	206	--	--	120	650	--	--	26	--	--	
16...	0400	919	174	--	--	--	--	--	--	17	--	--	
16...	0415	745	158	--	--	--	--	--	--	15	--	--	
16...	0430	583	142	--	--	--	--	--	--	15	--	--	
JUN													
16...	1005	399	274	7.9	23.0	30	1000	3.2	37	2.5	240000	78000	
AUG													
24...	1045	1.9	550	7.9	27.5	5	1.3	12.0	154	.7	5900	1500	
DATE	TIME	STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS 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 (MG/L AS CaCO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS Cl)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	88	16	30	3.1	12	.6	2.9	72	21	14	.3	
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
27...	84	250	30	82	11	36	1.0	2.5	220	59	45	.3	
MAR													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
16...	210000	110	19	39	3.0	7.0	.3	4.5	91	25	6.4	.1	
AUG													
24...	620	230	37	71	12	32	1.0	2.8	190	43	44	.0	

COLORADO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, VOLA- TILE, SUS- PENDE (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 18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	.38	.030	.41	.020	5.0	5.0	2.100	60
18...	7.8	134	--	--	.35	.030	.38	.030	5.8	5.8	1.100	73
18...	--	--	143	115	--	--	--	--	--	--	--	--
18...	--	--	--	--	.38	.030	.41	.140	1.4	1.5	.560	20
JAN 27...	8.2	376	0	0	.06	.000	.06	.030	.35	.38	.050	13
MAR 03...	--	--	2380	23	.35	.050	.40	.040	6.1	6.1	1.800	99
03...	--	--	--	--	.34	.030	.37	.040	7.5	7.5	2.000	150
03...	--	--	--	--	--	--	--	--	--	--	--	110
MAY 16...	--	--	--	--	.88	.090	.97	.430	3.0	3.4	2.300	32
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	2890	310	.85	.090	.94	.440	2.7	3.1	2.100	37
16...	--	--	2580	250	--	--	--	--	--	--	--	25
16...	--	--	--	--	.72	.090	.81	.480	1.8	2.3	.690	22
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	.53	.060	.59	.380	2.5	2.9	2.600	2.8
JUN 16...	11	151	1670	148	.57	.050	.62	.080	1.5	1.6	.390	28
AUG 24...	13	332	98	28	--	.020	<.10	.120	.49	.61	.080	5.1

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIIUM, 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 18...	1430	2	0	10	0	20	20
18...	1445	2	40	<1	0	<10	40
18...	1830	3	0	0	0	0	10
MAR 03...	2200	3	50	<1	0	<10	130
AUG 24...	1045	3	83	<1	0	<10	<10

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 18...	0	0	.0	0	0	0
18...	<10	<1	.0	0	0	<3
18...	0	0	.0	0	0	0
MAR 03...	<10	6	.0	0	0	10
AUG 24...	<10	22	.0	0	0	<3

DATE	TIME	PCB TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
OCT 18...	1830	.00	.0	.00	.1	.04	.03	.09	.19
AUG 24...	1045	.00	.0	.00	.0	.00	.01	.00	.01

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOKIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
OCT 18...	.02	.00	.00	.00	.00	.00	.00	.10	.00
AUG 24...	.01	.00	.00	.00	.00	.00	.00	.00	.00

STA. NO. 08150050		STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR					
BUGGY CREEK AT U.S. HWY. 163, AUSTIN, TEXAS		STORM OF MARCH 3-4, 1961										DISCHARGE		ACCUM.			
DATE & TIME		G A L L O N S										IN		RUNOFF			
		P R E C I P I T A T I O N										C F S		I N			
0000	0000	0.0												0.0	0.4	0.0001	
0555	0555	0.01												0.01	0.4	0.0003	
0800	0800	0.07												0.07	0.4	0.0004	
0920	0920	0.09												0.09	0.4	0.0004	
0925	0925	0.12												0.12	0.4	0.0004	
0930	0930	0.17												0.17	0.4	0.0005	
0935	0935	0.28												0.28	0.4	0.0005	
0940	0940	0.42												0.42	0.5	0.0005	
0945	0945	0.44												0.44	0.6	0.0005	
1025	1025	0.46												0.46	1.6	0.0006	
1045	1045	0.46												0.46	4.0	0.0007	
1100	1100	0.46												0.46	34.0	0.0017	
1115	1115	0.46												0.46	52.0	0.0033	
1130	1130	0.46												0.46	153.0	0.0070	
1140	1140	0.46												0.46	207.0	0.0101	
1145	1145	0.46												0.46	234.0	0.0124	
1150	1150	0.46												0.46	213.0	0.0187	
1215	1215	0.46												0.46	114.0	0.0232	
1230	1230	0.46												0.46	79.0	0.0255	
1245	1245	0.46												0.46	51.0	0.0271	
1300	1300	0.46												0.46	36.0	0.0286	
1410	1410	0.46												0.46	16.0	0.0299	
1500	1500	0.47												0.47	10.0	0.0308	
1600	1600	0.47												0.47	5.6	0.0314	
1800	1800	0.47												0.47	2.2	0.0325	
2000	2000	0.49												0.49	1.5	0.0328	
2030	2030	0.54												0.54	1.4	0.0328	
2040	2040	0.55												0.55	1.4	0.0328	
2045	2045	0.73												0.73	1.4	0.0329	
2050	2050	0.81												0.81	1.5	0.0329	
2055	2055	0.85												0.85	1.6	0.0329	
2100	2100	0.88												0.88	1.7	0.0329	
2110	2110	0.92												0.92	4.0	0.0330	
2115	2115	0.96												0.96	5.1	0.0330	
2120	2120	1.00												1.00	42.0	0.0336	
2130	2130	1.03												1.03	116.0	0.0365	
2145	2145	1.05												1.05	373.0	0.0475	
2200	2200	1.07												1.07	409.0	0.0556	

STA. NO. 08158050		STORM RAINFALL AND RUNOFF RECORD										1961 WATER YEAR	
BUGGY CREEK AT U.S. HWY. 183, AUSTIN, TEXAS		STORM OF MARCH 3-4, 1961										DISCHARGE	
DATE & TIME	1961	PRECIP.	AVERAGE	NUMBER	PERCENT	ACCUM. WEIGHTED PRECIP.	IN.	CFS	IN.	ACCUM. RUNOFF	IN.	ACCUM. RUNOFF	
MAR. 3													
2205	1.11					1.11		309.0			0.0594		
2210	1.23					1.23		368.0			0.0631		
2215	1.28					1.28		348.0			0.0699		
2230	1.31					1.31		527.0			0.0829		
2240	1.44					1.44		554.0			0.0911		
2245	1.46					1.46		567.0			0.1023		
2300	1.49					1.49		474.0			0.1163		
2315	1.51					1.51		480.0			0.1305		
2330	1.51					1.51		604.0			0.1454		
2340	1.52					1.52		729.0			0.1561		
2345	1.52					1.52		791.0			0.1639		
2350	1.53					1.53		788.0			0.1756		
2400	1.54					1.54		783.0			0.1949		
MAR. 4													
0000	1.54					1.54		783.0			0.1949		
0030	1.60					1.60		547.0			0.2307		
0045	1.62					1.62		416.0			0.2492		
0115	1.63					1.63		271.0			0.2652		
0145	1.63					1.63		137.0			0.2713		
0200	1.63					1.63		124.0			0.2805		
0300	1.63					1.63		64.0			0.2880		
0400	1.63					1.63		19.0			0.2903		
0500	1.64					1.64		10.0			0.2915		
0600	1.64					1.64		6.6			0.2930		
0900	1.64					1.64		3.1			0.2941		
1200	1.65					1.65		2.2			0.2953		
1800	1.65					1.65		1.7			0.2965		
2400	1.65					1.65		1.1			0.2969		

STA. NO. 08158050		STORM RAINFALL AND RUNOFF RECORD				1981 WATER YEAR			
BUGGY CREEK AT U.S. HWY. 183, AUSTIN, TEXAS		STORM OF MAY 23-25, 1981				DISCHARGE ACCUM.			
DATE & TIME	1806	1807	1808	1809	WEIGHTED PRECIP. IN.	CFS	IN	ACCUM. IN	RUNOFF IN.
MAY 23									
0000	0.0				0.0		0.1	0.0000	
0345	0.01				0.01		0.1	0.0001	
1200	0.02				0.02		0.1	0.0002	
2345	0.02				0.02		0.1	0.0003	
2400	0.31				0.31		0.1	0.0003	
MAY 24									
0000	0.31				0.31		0.1	0.0003	
0005	0.44				0.44		0.1	0.0003	
0010	0.52				0.52		0.1	0.0003	
0015	0.57				0.57		0.1	0.0003	
0030	0.61				0.61		0.6	0.0003	
0055	0.77				0.77		0.7	0.0003	
0100	0.87				0.87		0.8	0.0003	
0105	1.04				1.04		1.3	0.0004	
0110	1.30				1.30		1.8	0.0004	
0115	1.43				1.43		2.3	0.0004	
0130	1.46				1.46		255.0	0.0080	
0145	1.46				1.46		780.0	0.0310	
0200	1.46				1.46		911.0	0.0535	
0210	1.46				1.46		930.0	0.0672	
0215	1.46				1.46		939.0	0.0765	
0220	1.46				1.46		930.0	0.1040	
0245	1.46				1.46		864.0	0.1381	
0300	1.46				1.46		621.0	0.1564	
0315	1.46				1.46		440.0	0.1694	
0330	1.46				1.46		287.0	0.1779	
0345	1.46				1.46		195.0	0.1837	
0400	1.46				1.46		148.0	0.1881	
0415	1.46				1.46		81.0	0.1928	
0500	1.46				1.46		26.0	0.1948	
0600	1.46				1.46		15.0	0.1957	
0630	1.46				1.46		9.5	0.1962	
0700	1.47				1.47		6.8	0.1966	
0800	1.47				1.47		5.1	0.1971	
0900	1.47				1.47		3.8	0.1975	
1200	1.47				1.47		2.7	0.1981	
1800	1.48				1.48		1.7	0.1990	
1850	1.48				1.48		0.9	0.1994	
1920	1.83				1.83		0.9	0.1995	

STA. NO. 08158050		STORM RAINFALL AND RUNOFF RECORD				1981 WATER YEAR			
BUGGY CREEK AT U.S. HWY. 183, AUSTIN, TEXAS		STORM OF MAY 23-25, 1981				DISCHARGE ACCUM.			
DATE & TIME	1806	G A G E	N U M B E R	WEIGHTED PRECIP. IN.	IN	CFS	IN	ACCUM. RUNOFF	IN.
MAY 24									
1930	1.93			1.93	1.1			0.1995	
1945	2.03			2.03	4.6			0.1997	
2000	2.08			2.08	42.0			0.2009	
2015	2.09			2.09	124.0			0.2064	
2045	2.10			2.10	253.0			0.2164	
2055	2.17			2.17	308.0			0.2209	
2100	2.18			2.18	336.0			0.2242	
2105	2.22			2.22	335.0			0.2292	
2115	2.25			2.25	333.0			0.2374	
2130	2.28			2.28	273.0			0.2455	
2145	2.35			2.35	195.0			0.2512	
2200	2.40			2.40	161.0			0.2560	
2215	2.44			2.44	124.0			0.2597	
2230	2.52			2.52	126.0			0.2628	
2245	2.61			2.61	157.0			0.2651	
2250	2.73			2.73	176.0			0.2668	
2255	3.04			3.04	214.0			0.2689	
2300	3.59			3.59	256.0			0.2714	
2305	4.18			4.18	298.0			0.2744	
2315	4.41			4.41	482.0			0.2815	
2330	4.48			4.48	849.0			0.3024	
2400	4.52			4.52	888.0			0.3418	
MAY 25	4.60			4.60	787.0			0.3884	
0000	4.60			4.60	787.0			0.3884	
0100	4.75			4.75	711.0			0.4852	
0145	4.79			4.79	656.0			0.5240	
0200	4.79			4.79	674.0			0.5539	
0230	4.79			4.79	707.0			0.6375	
0400	4.79			4.79	671.0			0.7764	
0600	4.79			4.79	632.0			0.8886	
0700	4.79			4.79	471.0			0.9443	
0800	4.79			4.79	144.0			0.9698	
1000	4.80			4.80	90.0			0.9911	
1200	4.81			4.81	60.0			1.0053	
1400	4.81			4.81	39.0			1.0146	
1600	4.82			4.82	27.0			1.0241	
2000	4.82			4.82	13.0			1.0303	
2400	4.82			4.82	10.0			1.0327	

WALNUT CREEK, FERGUSON CREEK, AND LITTLE WALNUT CREEK DRAINAGE BASINS

The surface-water hydrologic data for the Walnut Creek, Ferguson Creek, and Little Walnut Creek drainage basins for the 1981 water year are given in the following pages:

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WALNUT CREEK, FERGUSON CREEK, AND LITTLE WALNUT CREEK
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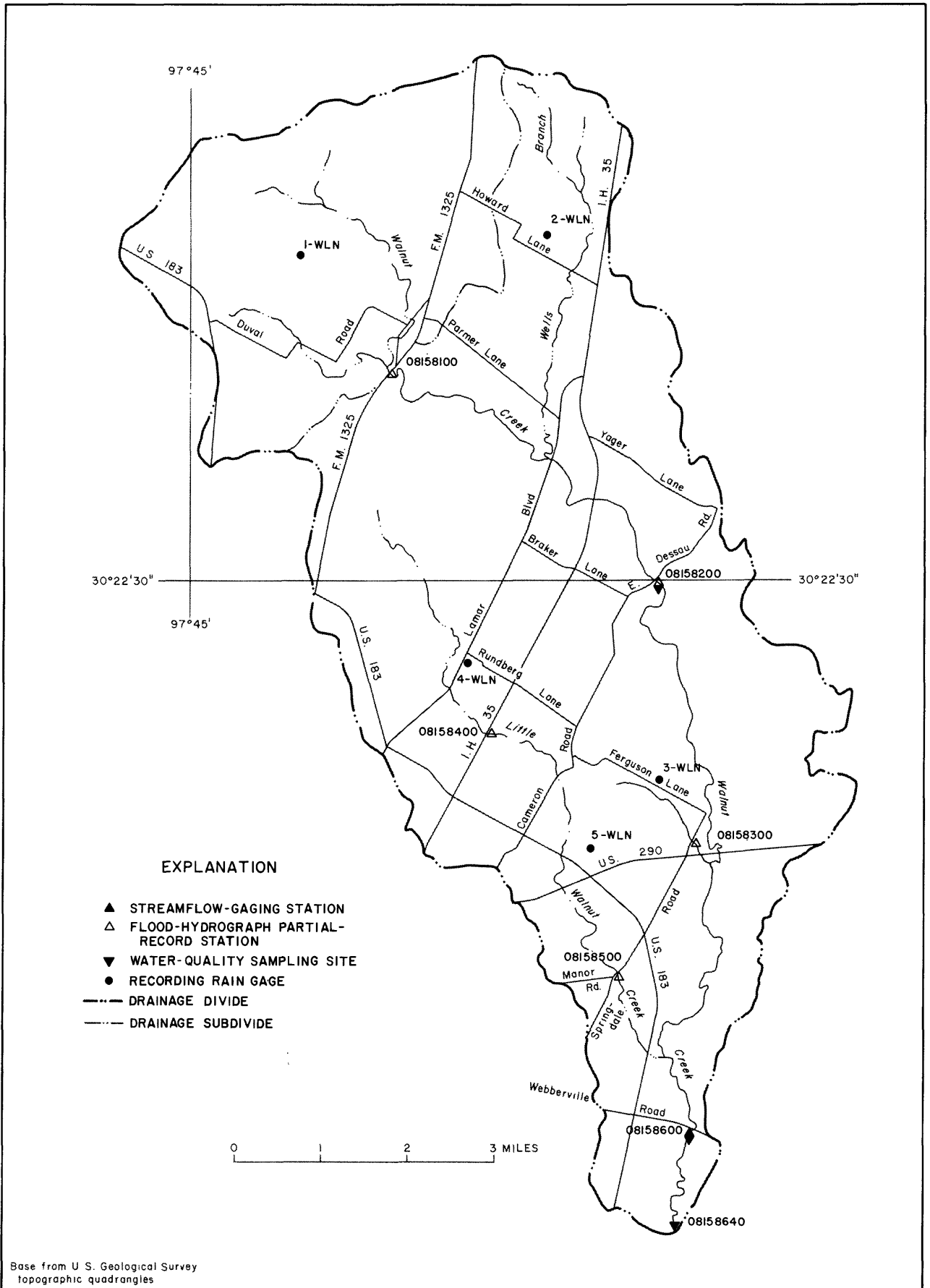


Figure 12 .-Locations of surface-water data-collection sites in the Walnut Creek drainage basin

Table 8.--Storm rainfall-runoff data, 1981 water year, Walnut Creek drainage basin

Date of Storm	Duration (hours)	Total	Rainfall (inches)		Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
			15-minute	Maximum increment 60-minute			
Walnut Creek at Farm Road 1325 near Austin, Tex. (Drainage area.--12.6 mi ²)							
March 3-4, 1981	20	3.47	0.52	0.83	1.10	0.33	533
June 10-15, 1981	5 days	7.78	0.70	1.21	1.79	3.00	1,480
Walnut Creek at Dessau Road, Austin, Tex. (Drainage area.--26.2 mi ²)							
March 3-4, 1981	19	3.47	0.64	0.90	1.17	0.55	2,160
June 10-14, 1981	5 days	8.23	0.72	1.21	1.80	3.80	5,470
Little Walnut Creek at I.H. 35, Austin, Tex. (Drainage area.--5.57 mi ²)							
March 3-4, 1981	19	3.07	0.89	1.01	1.29	1.66	2,180
May 23-25, 1981	26	7.49	1.42	2.62	4.47	5.12	7,900

Table 8.--Storm rainfall-runoff data, 1981 water year, Walnut Creek drainage basin--Continued

Date of Storm	Duration (hours)	Total	Rainfall (inches)		Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
			15-minute	Maximum increment 30-minute			
Little Walnut Creek at Manor Road, Austin, Texas (Drainage area.--12.1 mi ²)							
March 3-4, 1981	19	2.68	0.86	1.04	1.29	0.83	1,810
May 23-25, 1981	26	6.70	1.50	2.62	4.47	5.37	14,500
June 10-15, 1981	5 days	11.42	0.77	1.47	2.39	7.64	6,870
Walnut Creek at Webberville Road, Austin, Tex. (Drainage area.--51.3 mi ²)							
March 3-4, 1981	19	2.88	0.86	1.00	1.32	0.70	3,140
June 10-15, 1981	5 days	9.77	0.81	1.21	1.79	6.54	13,300

08158100 WALNUT CREEK AT FARM ROAD 1325 NEAR AUSTIN, TEX.
(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 mi².

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s May 24, 1981 (gage height, 19.46 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,000 ft³/s May 24 (gage height, 19.36 ft).

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 0815B100									
WALNUT CREEK AT FARM ROAD 1325 NEAR AUSTIN, TEXAS									
STORM OF MARCH 3-4, 1981									
DATE & TIME	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
	PRECIP.	WEIGHTED	DISCHARGE	ACCUM.	PRECIP.	WEIGHTED	DISCHARGE	ACCUM.	PRECIP.
	IN.	PRECIP.	CFS	PRECIP.	IN.	PRECIP.	CFS	PRECIP.	IN.
MAR. 3									
0000	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0004	0.0004
0555	0.11	0.01	1.0	0.01	0.01	0.01	1.0	0.0009	0.0009
0955	0.41	0.11	1.0	0.11	0.11	0.11	1.0	0.0011	0.0011
1030	0.43	0.41	1.0	0.41	0.41	0.41	1.0	0.0012	0.0012
1400	0.47	0.43	20.0	0.43	0.43	20.0	20.0	0.0067	0.0067
1600	0.53	0.47	10.0	0.47	0.47	10.0	10.0	0.0113	0.0113
1910	0.54	0.53	5.0	0.53	0.53	5.0	5.0	0.0129	0.0129
2020	1.16	0.54	5.5	0.54	0.54	5.5	5.5	0.0137	0.0137
2045	1.95	1.16	24.0	1.16	1.16	24.0	24.0	0.0160	0.0160
2100	2.08	1.95	38.0	1.95	1.95	38.0	38.0	0.0176	0.0176
2115	2.10	2.08	141.0	2.08	2.08	141.0	141.0	0.0219	0.0219
2130	2.25	2.10	195.0	2.10	2.10	195.0	195.0	0.0279	0.0279
2145	2.76	2.25	191.0	2.25	2.25	191.0	191.0	0.0338	0.0338
2200	3.03	2.76	277.0	2.76	2.76	277.0	277.0	0.0423	0.0423
2230	3.24	3.03	315.0	3.03	3.03	315.0	315.0	0.0568	0.0568
2245	3.28	3.24	477.0	3.24	3.24	477.0	477.0	0.0788	0.0788
2300	3.32	3.28	526.0	3.28	3.28	526.0	526.0	0.0950	0.0950
2315	3.33	3.32	533.0	3.32	3.32	533.0	533.0	0.1114	0.1114
2330	3.34	3.33	497.0	3.33	3.33	497.0	497.0	0.1266	0.1266
2400	3.35	3.34	438.0	3.34	3.34	438.0	438.0	0.1468	0.1468
MAR. 4									
0000	3.35	3.35	355.0	3.35	3.35	355.0	355.0	0.1605	0.1605
0015	3.39	3.35	355.0	3.35	3.35	355.0	355.0	0.1605	0.1605
0030	3.42	3.39	337.0	3.39	3.39	337.0	337.0	0.1999	0.1999
0130	3.44	3.42	260.0	3.42	3.42	260.0	260.0	0.2279	0.2279
0215	3.44	3.44	186.0	3.44	3.44	186.0	186.0	0.2421	0.2421
0245	3.44	3.44	148.0	3.44	3.44	148.0	148.0	0.2535	0.2535
0330	3.44	3.44	109.0	3.44	3.44	109.0	109.0	0.2636	0.2636
0415	3.44	3.44	85.0	3.44	3.44	85.0	85.0	0.2714	0.2714
0500	3.44	3.44	71.0	3.44	3.44	71.0	71.0	0.2791	0.2791
0600	3.44	3.44	61.0	3.44	3.44	61.0	61.0	0.2853	0.2853
0640	3.44	3.44	53.0	3.44	3.44	53.0	53.0	0.2918	0.2918
0800	3.44	3.44	40.0	3.44	3.44	40.0	40.0	0.3049	0.3049
1200	3.47	3.47	26.0	3.47	3.47	26.0	26.0	0.3209	0.3209
1800	3.47	3.47	15.0	3.47	3.47	15.0	15.0	0.3320	0.3320
2400	3.47	3.47	8.0	3.47	3.47	8.0	8.0	0.3350	0.3350

STATION NO. 08158100									
STORM RAINFALL AND RUNOFF RECORD									
WALNUT CREEK AT FARM ROAD 1325 NEAR AUSTIN, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	INLN	GAUGE	NUMBER	WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. DISCHARGE IN	WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. DISCHARGE IN
					CFS			CFS	
JUNE 10									
0000	0.0			0.0	0.0	0.0006	0.0	0.0	0.0006
0015	0.02			0.02	0.5	0.0012	0.02	0.5	0.0012
0115	0.12			0.12	0.5	0.0012	0.12	0.5	0.0012
0215	0.27			0.27	1.0	0.0012	0.27	1.0	0.0012
0330	0.40			0.40	2.0	0.0012	0.40	2.0	0.0012
0445	0.68			0.68	4.0	0.0013	0.68	4.0	0.0013
0515	0.85			0.85	8.0	0.0013	0.85	8.0	0.0013
0645	1.00			1.00	33.0	0.0017	1.00	33.0	0.0017
0755	1.23			1.23	56.0	0.0022	1.23	56.0	0.0022
0805	1.46			1.46	80.0	0.0031	1.46	80.0	0.0031
0810	1.61			1.61	91.0	0.0040	1.61	91.0	0.0040
0815	1.83			1.83	103.0	0.0066	1.83	103.0	0.0066
0820	2.03			2.03	133.0	0.0114	2.03	133.0	0.0114
0825	2.17			2.17	142.0	0.0158	2.17	142.0	0.0158
0830	2.64			2.64	168.0	0.0209	2.64	168.0	0.0209
0835	2.75			2.75	177.0	0.0264	2.75	177.0	0.0264
0840	2.75			2.75	178.0	0.0319	2.75	178.0	0.0319
0845	2.76			2.76	198.0	0.0400	2.76	198.0	0.0400
0850	2.76			2.76	206.0	0.0463	2.76	206.0	0.0463
0855	2.76			2.76	210.0	0.0485	2.76	210.0	0.0485
0900	2.76			2.76	208.0	0.0517	2.76	208.0	0.0517
0905	2.76			2.76	204.0	0.0600	2.76	204.0	0.0600
0910	2.76			2.76	184.0	0.0742	2.76	184.0	0.0742
0915	2.76			2.76	172.0	0.0874	2.76	172.0	0.0874
0920	2.76			2.76	172.0	0.0940	2.76	172.0	0.0940
JUNE 11									
0000	2.76			2.76	172.0	0.0940	2.76	172.0	0.0940
0015	2.76			2.76	181.0	0.1148	2.76	181.0	0.1148
0145	2.77			2.77	105.0	0.1309	2.77	105.0	0.1309
0245	2.77			2.77	82.0	0.1398	2.77	82.0	0.1398
0330	2.89			2.89	70.0	0.1441	2.89	70.0	0.1441
0345	2.90			2.90	82.0	0.1466	2.90	82.0	0.1466
0400	2.93			2.93	84.0	0.1517	2.93	84.0	0.1517
0445	3.00			3.00	102.0	0.1583	3.00	102.0	0.1583
0515	3.20			3.20	85.0	0.1708	3.20	85.0	0.1708
0645	3.21			3.21	86.0	0.1848	3.21	86.0	0.1848
0755	3.36			3.36	86.0	0.1918	3.36	86.0	0.1918
0805	3.54			3.54	87.0	0.1931	3.54	87.0	0.1931
0810	3.74			3.74	87.0	0.1940	3.74	87.0	0.1940
0815	3.74			3.74	87.0	0.1949	3.74	87.0	0.1949

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 08158100									
WALNUT CREEK AT FARM ROAD 1325 NEAR AUSLIN, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	INLN	GAUGE	NUMBER	WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. IN	CFS	ACCUM. RUNOFF IN.	IN.
JUNE 11									
0620	3.86			3.86	97.0	3.86		0.1959	
0625	3.89			3.89	107.0	7.75		0.1970	
0630	4.10			4.10	117.0	11.85		0.1988	
0640	4.23			4.23	194.0	16.08		0.2018	
0645	4.35			4.35	232.0	19.73		0.2042	
0650	4.53			4.53	288.0	24.26		0.2067	
0655	4.81			4.81	284.0	29.07		0.2094	
0900	5.05			5.05	280.0	34.12		0.2152	
0915	5.15			5.15	421.0	39.27		0.2281	
0930	5.22			5.22	473.0	44.42		0.2426	
0945	5.28			5.28	561.0	49.57		0.2599	
1000	5.32			5.32	602.0	54.72		0.2784	
1015	5.95			5.95	611.0	60.87		0.2972	
1030	6.35			6.35	802.0	67.02		0.3342	
1100	6.50			6.50	1330.0	83.17		0.3955	
1115	6.55			6.55	1320.0	89.32		0.4293	
1125	6.55			6.55	1430.0	95.47		0.4513	
1130	6.57			6.57	1480.0	101.62		0.4665	
1135	6.57			6.57	1450.0	107.77		0.4888	
1145	6.57			6.57	1380.0	113.92		0.5453	
1215	6.57			6.57	1400.0	120.07		0.6099	
1230	6.57			6.57	1260.0	126.22		0.6486	
1245	6.57			6.57	1310.0	132.37		0.6889	
1300	6.57			6.57	1130.0	138.52		0.7237	
1315	6.57			6.57	1040.0	144.67		0.7556	
1330	6.57			6.57	908.0	150.82		0.8394	
1445	6.59			6.59	578.0	157.07		0.8927	
1500	6.59			6.59	558.0	163.22		0.9184	
1530	6.59			6.59	457.0	169.37		0.9957	
1745	6.59			6.59	226.0	175.52		1.0409	
1845	6.59			6.59	193.0	181.67		1.0617	
1930	6.59			6.59	163.0	187.82		1.0817	
2045	6.59			6.59	129.0	193.97		1.1055	
2230	6.59			6.59	103.0	200.12		1.1261	
2400	6.59			6.59	89.0	206.27		1.1507	
JUNE 12									
0000	6.59			6.59	89.0	212.42		1.1507	
0600	6.59			6.59	56.0	218.57		1.1904	
0645	6.62			6.62	54.0	224.72		1.1945	
0715	6.62			6.62	56.0	230.87		1.2023	

STA. NO. 06158100		STORM RAINFALL AND RUNOFF RECORD				1981 WATER YEAR			
WALNUT CREEK AT FARM ROAD 1325 NEAR AUSTIN, TEXAS		STORM OF JUNE 10-15, 1981				DISCHARGE ACCUM.			
DATE & TIME	INLN	GAUGE	NUMBER	PRECIP. IN.	PRECIP. IN.	CFS	IN	ACCUM. PRECIP. IN.	DISCHARGE ACCUM. RUNOFF
JUNE 12									
0900	0.70			0.70	0.70	124.0		1.2194	
0930	0.70			0.70	0.70	126.0		1.2252	
0945	0.70			0.70	0.70	114.0		1.2307	
1015	0.70			0.70	0.70	108.0		1.2457	
1200	0.70			0.70	0.70	97.0		1.2829	
1630	0.71			0.71	0.71	74.0		1.3193	
2000	0.71			0.71	0.71	56.0		1.3452	
2400	0.71			0.71	0.71	45.0		1.3614	
JUNE 13									
0000	0.71			0.71	0.71	45.0		1.3614	
0345	0.72			0.72	0.72	40.0		1.3875	
0830	0.73			0.73	0.73	39.0		1.4013	
0930	0.92			0.92	0.92	44.0		1.4054	
1000	0.99			0.99	0.99	54.0		1.4137	
1200	1.03			1.03	1.03	91.0		1.4305	
1300	1.03			1.03	1.03	183.0		1.4445	
1315	1.03			1.03	1.03	185.0		1.4502	
1330	1.03			1.03	1.03	176.0		1.4637	
1430	1.03			1.03	1.03	128.0		1.4775	
1515	1.03			1.03	1.03	115.0		1.4881	
1600	1.09			1.09	1.09	252.0		1.5075	
1630	1.09			1.09	1.09	252.0		1.5191	
1645	1.30			1.30	1.30	299.0		1.5559	
1830	1.31			1.31	1.31	386.0		1.6034	
1845	1.31			1.31	1.31	482.0		1.6182	
1900	1.31			1.31	1.31	636.0		1.6377	
1915	1.31			1.31	1.31	634.0		1.6572	
1930	1.46			1.46	1.46	726.0		1.6795	
1945	1.46			1.46	1.46	826.0		1.7049	
2000	1.46			1.46	1.46	882.0		1.7321	
2015	1.50			1.50	1.50	882.0		1.7592	
2030	1.50			1.50	1.50	1060.0		1.7918	
2045	1.50			1.50	1.50	1120.0		1.8262	
2100	1.50			1.50	1.50	1060.0		1.8588	
2115	1.50			1.50	1.50	977.0		1.8888	
2130	1.50			1.50	1.50	937.0		1.9176	
2145	1.50			1.50	1.50	838.0		1.9434	
2200	1.50			1.50	1.50	710.0		2.0416	
2400	1.52			1.52	1.52	450.0		2.1039	
JUNE 14									
0000	1.52			1.52	1.52	450.0		2.1039	

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 08158100									
WALNUT CREEK AT FARM ROAD 1325 NEAR AUSTIN, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	IWLN	AVERAGE	NUMBER	WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. RUNOFF	IN.
JUNE 14									
0030	7.52			7.52	386.0	7.52	386.0	2.1583	
0200	7.52			7.52	259.0	7.52	259.0	2.2459	
0600	7.64			7.64	197.0	7.64	197.0	2.3670	
1200	7.72			7.72	193.0	7.72	193.0	2.5094	
1800	7.72			7.72	149.0	7.72	149.0	2.6194	
2400	7.72			7.72	122.0	7.72	122.0	2.7094	
JUNE 15									
0000	7.72			7.72	122.0	7.72	122.0	2.7094	
1200	7.78			7.78	114.0	7.78	114.0	2.9226	
2400	7.78			7.78	106.0	7.78	106.0	3.0009	

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 (13.5 km) northeast of the State Capitol Building in Austin.

DRAINAGE AREA.--26.2 mi² (67.9 km²).

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 (168.689 m) 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, 1980". Two recording rain gages are located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,600 ft³/s (612 m³/s) May 25, 1981, gage height, 26.20 ft (7.986 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,600 ft³/s (612 m³/s) May 25, gage height, 26.20 ft (7.986 m).

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	
JAN 27...	1010	2.2	628	8.3	12.0	0	1.4	15.6	143	.7	100	.96
JUN 17...	1340	60	634	7.6	22.0	5	8.0	9.1	105	.3	8800	2700
AUG 24...	0930	2.0	543	7.5	23.5	0	.90	5.1	61	.3	2500	660

DATE	TIME	STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JAN 27...	K72	270	40	100	4.8	31	.8	2.0	230	54	44	.3	
JUN 17...	2000	320	55	120	6.1	14	.3	3.0	270	52	23	.2	
AUG 24...	2400	220	54	80	5.8	25	.7	2.1	170	45	41	.0	

DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (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)
JAN 27...	3.5	378	--	--	1.4	.010	1.4	.050	.57	.62	.080	9.2	
JUN 17...	13	394	18	6	2.6	.010	2.6	.050	1.1	1.1	.080	2.8	
AUG 24...	7.0	308	157	33	.57	.030	.60	.110	.60	.71	.050	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)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
AUG 24...	0930	1	63	<1	0	<10	<10

COLORADO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)			
AUG 24...	<10	7	.0	0	0	7			
DATE	TIME	PCB TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
AUG 24...	0930	.00	.0	.00	.0	.00	.00	.00	.04
DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
AUG 24...	.00	.00	.00	.00	.00	.00	.00	.00	.00
DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
AUG 24...	.00	.00	.00	.00	0	.00	.00	.00	.00

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 08158200									
WALNUT CREEK AT DESSAU ROAD, AUSTIN, TEXAS									
STORM OF MARCH 3-4, 1981									
DATE & TIME	WLN	GAGE	NUMBER	PRECIP.	ACCUM. WEIGHTED	DISCHARGE IN	CFS	ACCUM. RUNOFF	IN.
MAR. 3									
0000	0.0			0.0	0.0007	4.0		0.0007	
0555	0.01			0.01	0.0017	3.8		0.0017	
0900	0.11			0.11	0.0021	3.8		0.0021	
0935	0.41			0.41	0.0023	4.0		0.0023	
1010	0.43			0.43	0.0025	4.0		0.0025	
1120	0.44			0.44	0.0081	50.0		0.0081	
1400	0.47			0.47	0.0131	25.0		0.0131	
1600	0.53			0.53	0.0149	12.0		0.0149	
1910	0.54			0.54	0.0158	13.0		0.0158	
2020	1.16			1.16	0.0164	15.0		0.0164	
2035	1.42			1.42	0.0167	21.0		0.0167	
2050	2.06			2.06	0.0173	30.0		0.0173	
2115	2.10			2.10	0.0222	249.0		0.0222	
2130	2.25			2.25	0.0272	334.0		0.0272	
2145	2.76			2.76	0.0337	442.0		0.0337	
2200	3.03			3.03	0.0408	481.0		0.0408	
2215	3.20			3.20	0.0494	583.0		0.0494	
2230	3.24			3.24	0.0752	1160.0		0.0752	
2300	3.32			3.32	0.1426	1610.0		0.1426	
2355	3.35			3.35	0.2053	2120.0		0.2053	
2400	3.35			3.35	0.2133	2160.0		0.2133	
MAR. 4									
0000	3.35			3.35	0.2133	2160.0		0.2133	
0005	3.36			3.36	0.2319	2150.0		0.2319	
0015	3.39			3.39	0.2582	2140.0		0.2582	
0030	3.42			3.42	0.2885	2050.0		0.2885	
0045	3.43			3.43	0.3296	1850.0		0.3296	
0115	3.44			3.44	0.3591	1330.0		0.3591	
0130	3.44			3.44	0.3846	1150.0		0.3846	
0200	3.44			3.44	0.4309	896.0		0.4309	
0315	3.44			3.44	0.4565	494.0		0.4565	
0345	3.44			3.44	0.4702	371.0		0.4702	
0430	3.44			3.44	0.4792	243.0		0.4792	
0500	3.44			3.44	0.4876	190.0		0.4876	
0600	3.44			3.44	0.4941	126.0		0.4941	
0645	3.44			3.44	0.5003	104.0		0.5003	
0800	3.44			3.44	0.5143	90.0		0.5143	
1200	3.47			3.47	0.5320	60.0		0.5320	
1800	3.47			3.47	0.5480	45.0		0.5480	
2400	3.47			3.47	0.5515	20.0		0.5515	

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 06158200									
WALNUT CREEK AT DESSAU ROAD, AUSTIN, TEXAS									
STORM OF JUNE 10-14, 1981									
DATE & TIME	1 IN.	2 IN.	3 IN.	4 IN.	5 IN.	6 IN.	7 IN.	8 IN.	9 IN.
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
	PRECIP.	ACCUM.	WEIGHTED	DISCHARGE	ACCUM.	DISCHARGE	ACCUM.	DISCHARGE	ACCUM.
	IN.	IN.	IN.	CFS	IN.	CFS	IN.	CFS	IN.
JUNE 10									
0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0003
0115	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.0008
1905	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.0009
1910	0.12	0.03	0.03	0.08	0.08	0.08	0.08	0.08	0.0009
1915	0.27	0.05	0.05	0.16	0.16	0.16	0.16	0.16	0.0009
1920	0.40	0.10	0.10	0.25	0.25	0.25	0.25	0.25	0.0009
1925	0.68	0.19	0.19	0.44	0.44	0.44	0.44	0.44	0.0009
1930	0.85	0.45	0.45	0.65	0.65	0.65	0.65	0.65	0.0009
1935	1.00	0.54	0.54	0.77	0.77	0.77	0.77	0.77	0.0010
1940	1.23	0.56	0.56	0.90	0.90	0.90	0.90	0.90	0.0010
1945	1.46	0.59	0.59	1.03	1.03	1.03	1.03	1.03	0.0010
1950	1.61	0.63	0.63	1.13	1.13	1.13	1.13	1.13	0.0011
1955	1.83	0.67	0.67	1.26	1.26	1.26	1.26	1.26	0.0012
2015	2.03	0.75	0.75	1.40	1.40	1.40	1.40	1.40	0.0015
2030	2.17	0.76	0.76	1.48	1.48	1.48	1.48	1.48	0.0018
2045	2.69	0.77	0.77	1.75	1.75	1.75	1.75	1.75	0.0025
2100	2.75	0.78	0.78	1.78	1.78	1.78	1.78	1.78	0.0042
2150	2.76	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0066
2210	2.76	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0100
2215	2.76	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0124
2220	2.76	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0134
2230	2.76	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0149
2245	2.76	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0173
2300	2.76	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0201
2350	2.76	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0242
2400	2.76	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0299
JUNE 11									
0000	2.76	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0343
0045	2.77	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0411
0115	2.77	0.78	0.78	1.79	1.79	1.79	1.79	1.79	0.0513
0330	2.89	0.95	0.95	1.94	1.94	1.94	1.94	1.94	0.0591
0500	2.95	1.04	1.04	2.01	2.01	2.01	2.01	2.01	0.0672
0615	3.15	1.22	1.22	2.20	2.20	2.20	2.20	2.20	0.0745
0745	3.21	1.30	1.30	2.27	2.27	2.27	2.27	2.27	0.0795
0800	3.28	1.30	1.30	2.31	2.31	2.31	2.31	2.31	0.0803
0805	3.36	1.30	1.30	2.35	2.35	2.35	2.35	2.35	0.0809
0810	3.54	1.32	1.32	2.45	2.45	2.45	2.45	2.45	0.0815
0815	3.74	1.35	1.35	2.57	2.57	2.57	2.57	2.57	0.0821

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 08158200									
WALNUT CREEK AT DESSAU ROAD, AUSTIN, TEXAS									
STORM OF JUNE 10-14, 1981									
DATE & TIME	IN. MN	CM LN	G A G E	N U M B E R	W E I G H T E D P R E C I P .	I N .	C F S	D I S C H A R G E I N	A C C U M . R U N O F F I N .
JUNE 11									
0620	3.86	1.50			2.63		128.0		0.0834
0825	3.89	1.57			2.66		128.0		0.0840
0830	4.10	1.42			2.79		129.0		0.0862
0900	5.05	1.61			3.48		294.0		0.0927
0915	5.15	1.82			3.52		296.0		0.0971
0930	5.22	1.84			3.58		255.0		0.1009
0945	5.28	1.90			3.62		283.0		0.1051
1000	5.32	1.93			3.66		417.0		0.1092
1005	5.59	1.93			3.80		543.0		0.1119
1010	5.83	2.04			3.97		668.0		0.1151
1015	5.95	2.04			4.19		794.0		0.1191
1020	6.11	2.62			4.40		879.0		0.1234
1025	6.27	2.76			4.55		965.0		0.1281
1030	6.35	2.90			4.88		1050.0		0.1463
1100	6.50	3.20			4.96		1680.0		0.1959
1130	6.57	3.29			4.98		2670.0		0.2552
1145	6.57	3.33			5.00		3320.0		0.3043
1200	6.57	3.36			5.02		3540.0		0.3566
1215	6.57	3.40			5.07		4270.0		0.4197
1230	6.57	3.51			5.26		4500.0		0.5417
1310	6.57	3.69			5.27		4900.0		0.6504
1315	6.57	3.91			5.27		4950.0		0.6748
1320	6.57	3.94			5.28		4940.0		0.7113
1330	6.57	3.97			5.30		4930.0		0.7721
1345	6.58	4.05			5.34		4830.0		0.9149
1430	6.59	4.11			5.37		4210.0		1.0705
1500	6.59	4.16			5.40		3570.0		1.2025
1545	6.59	4.17			5.40		2360.0		1.2723
1600	6.59	4.17			5.40		2120.0		1.3350
1645	6.59	4.18			5.41		1530.0		1.3915
1715	6.59	4.16			5.41		1230.0		1.4279
1745	6.59	4.19			5.41		984.0		1.4934
1930	6.59	4.19			5.41		469.0		1.5248
2000	6.59	4.19			5.41		385.0		1.5388
2045	6.59	4.19			5.41		305.0		1.5501
2115	6.59	4.19			5.41		272.0		1.5621
2215	6.59	4.19			5.41		228.0		1.5807
2400	6.59	4.19			5.41		176.0		1.5950
JUNE 12									
0000	6.59	4.19			5.41		176.0		1.5950

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STORM OF JUNE 10-14, 1981									
WALNUT CREEK AT DESSAU ROAD, AUSTIN, TEXAS									
DATE & TIME	IN	2IN	4IN	6IN	8IN	10IN	PRECIP. IN.	DISCHARGE IN	ACCUM. RUNOFF
JUNE 12									
0200	0.59	4.19					5.41	157.0	1.6245
0500	0.59	4.24					5.44	60.0	1.6334
0700	0.62	4.34					5.50	100.0	1.6378
0730	0.70	4.65					5.70	146.0	1.6432
0815	0.70	4.71					5.72	216.0	1.6560
0930	0.70	4.73					5.73	373.0	1.6725
0945	0.70	4.74					5.74	381.0	1.6782
1000	0.70	4.74					5.74	378.0	1.6866
1030	0.70	4.74					5.74	361.0	1.6999
1115	0.70	4.74					5.74	294.0	1.7129
1200	0.70	4.75					5.74	241.0	1.7236
1245	0.70	4.75					5.74	205.0	1.7418
1500	0.70	4.76					5.75	152.0	1.7575
1615	0.70	4.76					5.75	136.0	1.7777
2000	0.71	4.76					5.75	85.0	1.7971
2400	0.71	4.76					5.75	65.0	1.8083
JUNE 13									
0000	0.71	4.76					5.75	65.0	1.8083
0340	0.72	4.76					5.76	50.0	1.8244
0630	0.73	4.76					5.76	44.0	1.8320
0930	0.92	4.96					5.96	48.0	1.8342
1000	0.99	5.04					6.03	65.0	1.8382
1135	1.03	5.09					6.08	131.0	1.8459
1200	1.03	5.10					6.08	152.0	1.8568
1400	1.03	5.11					6.09	176.0	1.8685
1415	1.03	5.11					6.09	190.0	1.8713
1430	1.03	5.11					6.09	216.0	1.8777
1515	1.03	5.47					6.27	226.0	1.8844
1530	1.03	5.47					6.27	262.0	1.8882
1545	1.03	5.68					6.37	241.0	1.8916
1600	1.09	5.77					6.44	247.0	1.8973
1630	1.09	5.96					6.54	376.0	1.9056
1645	1.30	6.27					6.80	677.0	1.9156
1700	1.30	6.30					6.81	1300.0	1.9445
1730	1.31	6.41					6.87	2290.0	1.9952
1745	1.31	6.42					6.87	2500.0	2.0322
1800	1.31	6.42					6.87	2590.0	2.0705
1815	1.31	6.46					6.89	2590.0	2.1088
1830	1.31	6.51					6.92	2530.0	2.1462
1845	1.31	6.76					7.04	2350.0	2.1810

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR		
STATION NO. 08158200												
WALNUT CREEK AT DESSAU ROAD, AUSTIN, TEXAS												
STORM OF JUNE 10-14, 1981												
DATE & TIME	1WLN	2WLN	GA	BE	NUM	BE	PRECIP.	ACCUM.	WEIGHTED	DISCHARGE	ACCUM.	RUNOFF
							IN.			IN		IN.
JUNE 13												
1900	7.31	7.17					7.24			2160.0		2,2129
1915	7.31	7.61					7.46			2310.0		2,2641
1945	7.46	7.69					7.57			3360.0		2,4297
2055	7.50	7.93					7.71			5450.0		2,6312
2105	7.50	7.97					7.71			5470.0		2,6581
2115	7.50	8.05					7.73			5410.0		2,6981
2130	7.50	8.18					7.77			5300.0		2,7635
2145	7.50	8.18					7.83			5030.0		2,8378
2200	7.50	8.18					7.83			4520.0		2,9764
2215	7.51	8.19					7.83			4110.0		3,0675
2245	7.52	8.19					7.85			3610.0		3,2010
2330	7.52	8.20					7.85			2420.0		3,2904
2400	7.52	8.20					7.85			1870.0		3,3457
JUNE 14												
0000	7.52	8.20					7.85			1870.0		3,3457
0100	7.52	8.20					7.85			1110.0		3,4144
0115	7.52	8.21					7.86			991.0		3,4364
0145	7.52	8.21					7.86			811.0		3,4664
0230	7.52	8.21					7.86			593.0		3,5014
0345	7.52	8.21					7.86			381.0		3,5183
0400	7.52	8.21					7.86			364.0		3,5237
0415	7.52	8.21					7.86			322.0		3,5309
0445	7.59	8.29					7.93			294.0		3,5504
0630	7.65	8.34					7.99			277.0		3,5682
0655	7.66	8.35					8.00			305.0		3,5727
0700	7.66	8.35					8.00			311.0		3,5742
0705	7.66	8.36					8.00			310.0		3,5811
0745	7.67	8.37					8.01			285.0		3,5930
0830	7.67	8.37					8.01			251.0		3,6171
1100	7.72	8.71					8.21			247.0		3,6372
1115	7.72	8.72					8.21			264.0		3,6450
1200	7.72	8.73					8.21			376.0		3,6608
1240	7.72	8.73					8.21			422.0		3,6702
1245	7.72	8.73					8.21			425.0		3,6722
1250	7.72	8.73					8.21			422.0		3,6878
1400	7.72	8.73					8.21			338.0		3,7195
1600	7.72	8.74					8.22			224.0		3,7592
2000	7.72	8.76					8.23			131.0		3,7902
2400	7.72	8.76					8.23			96.0		3,8016

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

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

DRAINAGE AREA.--1.63 mi².

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 ft³/s May 21, 1979 (gage height, 8.60 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 906 ft³/s May 25 (gage height, 7.29 ft).

08158400 LITTLE WALNUT CREEK AT INTERSTATE HIGHWAY 35, AUSTIN, TEX.
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°20'57", long 97°41'34", Travis County, on downstream front-age road bridge on Interstate Highway 35 and 5.9 mi north of the State Capitol Building in Austin.

DRAINAGE AREA.--5.57 mi².

PERIOD OF RECORD.--May 1975 to current year. Periodic measurements only, November 1974 to May 1975.

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 628.75 ft NGVD.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,900 ft³/s May 24, 1981 (gage height, 12.00 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,900 ft³/s May 24 (gage height 12.00 ft).

STORM RAINFALL AND RUNOFF RECORD									
STORM OF MARCH 3-4, 1961									
STA. NO.	DATE & TIME	15PL	4WLN	GAUGE	NUMBER	STORM OF MARCH 3-4, 1961	ACCUM. WEIGHTEU PRECIP. IN.	DISCHARGE IN	WATER YEAR
							IN.	CFS	IN.
0000		0.0	0.0				0.0	0.0	0.0004
0540		0.01	0.0				0.00	0.0	0.0010
0800		0.09	0.08				0.08	0.0	0.0013
0915		0.13	0.08				0.10	1.2	0.0016
0930		0.26	0.28				0.28	3.0	0.0018
0945		0.37	0.54				0.48	12.0	0.0026
1000		0.37	0.55				0.49	67.0	0.0073
1015		0.37	0.55				0.49	93.0	0.0127
1025		0.37	0.55				0.49	145.0	0.0177
1030		0.37	0.55				0.49	148.0	0.0212
1035		0.37	0.55				0.49	132.0	0.0258
1045		0.37	0.55				0.49	89.0	0.0433
1200		0.38	0.55				0.49	20.0	0.0482
1230		0.38	0.55				0.50	10.0	0.0550
1635		0.40	0.58				0.51	2.0	0.0563
1710		0.51	0.58				0.54	2.0	0.0572
2000		0.68	0.89				0.69	10.0	0.0617
2025		0.99	0.99				0.99	20.0	0.0631
2030		1.05	1.05				1.05	35.0	0.0639
2035		1.21	1.08				1.12	50.0	0.0650
2040		1.45	1.09				1.21	70.0	0.0667
2045		1.78	1.54				1.62	78.0	0.0685
2050		1.92	1.94				1.93	202.0	0.0732
2055		1.94	1.98				1.97	850.0	0.0929
2100		1.94	1.98				1.97	1420.0	0.1258
2105		1.97	2.03				2.01	1780.0	0.1670
2110		1.97	2.06				2.03	2050.0	0.2146
2115		1.98	2.06				2.03	2180.0	0.2647
2120		1.98	2.06				2.04	2090.0	0.3636
2125		1.99	2.06				2.05	1930.0	0.4084
2130		2.00	2.07				2.10	1810.0	0.5133
2135		2.07	2.11				2.21	1640.0	0.6083
2155		2.24	2.19				2.31	1570.0	0.6447
2200		2.46	2.23				2.51	1530.0	0.6802
2205		2.56	2.48				2.53	1530.0	0.7157
2210		2.62	2.48				2.63	1540.0	0.8228
2215		2.74	2.57				2.87	1520.0	0.9814
2240		2.92	2.85				2.92	1500.0	1.0857
2300		2.97	2.89						

STORM RAINFALL AND RUNOFF RECORD										
1961 WATER YEAR										
LITTLE WALNUT CREEK AT I.M. 35, AUSTIN, TEXAS										
STORM OF MARCH 3-4, 1961										
DATE & TIME	15MI	4WLN	GAUGE	NUMBER	WIND	PRECIP. IN.	CFS	DISCHARGE IN	ACCUM. WELSHED	ACCUM. RUNOFF
MAR. 3										
2310	2.98	2.91				2.93	1470.0		2.93	1.1709
2325	2.99	2.93				2.95	1360.0		2.95	1.3285
2400	3.01	2.95				2.97	832.0		2.97	1.4105
MAR. 4										
0000	3.01	2.95				2.97	832.0		2.97	1.4105
0015	3.05	2.98				3.00	612.0		3.00	1.4675
0030	3.07	3.01				3.03	452.0		3.03	1.5147
0100	3.07	3.03				3.04	280.0		3.04	1.5601
0140	3.07	3.03				3.04	153.0		3.04	1.5885
0220	3.07	3.04				3.05	91.0		3.05	1.6086
0315	3.07	3.04				3.05	54.0		3.05	1.6361
0600	3.07	3.04				3.05	15.0		3.05	1.6481
0900	3.07	3.04				3.05	5.0		3.05	1.6523
1200	3.08	3.06				3.07	2.0		3.07	1.6564
2400	3.08	3.06				3.07	1.0		3.07	1.6581

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR	
STORM OF MAY 23-25, 1981										DISCHARGE	ACCUM.
STA. NO.	DATE & TIME	ISRN	4WLN	U A B E	N U M B E R	PRECIP.	IN.	CFS	IN.	IN.	ACCUM.
08158400											
	MAY 23										
	0000	0.0	0.0				0.0	0.5	0.0008		0.0008
	1200	0.0	0.01				0.01	0.5	0.0025		0.0025
	2300	0.0	0.01				0.01	0.5	0.0033		0.0033
	2345	0.07	0.11				0.10	1.5	0.0034		0.0034
	2400	0.57	0.73				0.68	5.0	0.0036		0.0036
	MAY 24										
	0000	0.57	0.73				0.68	5.0	0.0036		0.0036
	0005	0.74	0.85				0.81	35.0	0.0044		0.0044
	0010	0.84	0.98				0.93	70.0	0.0077		0.0077
	0025	1.01	1.17				1.12	370.0	0.0291		0.0291
	0035	1.07	1.20				1.16	901.0	0.0605		0.0605
	0040	1.07	1.23				1.18	1010.0	0.0839		0.0839
	0045	1.07	1.25				1.19	1030.0	0.1076		0.1076
	0050	1.08	1.26				1.20	983.0	0.1305		0.1305
	0055	1.09	1.27				1.21	924.0	0.1520		0.1520
	0100	1.12	1.28				1.23	850.0	0.1717		0.1717
	0105	1.13	1.34				1.27	804.0	0.2369		0.2369
	0135	1.17	1.41				1.33	769.0	0.2993		0.2993
	0140	1.17	1.41				1.33	755.0	0.3168		0.3168
	0145	1.17	1.41				1.33	729.0	0.3422		0.3422
	0155	1.17	1.42				1.34	630.0	0.3860		0.3860
	0215	1.18	1.42				1.34	374.0	0.4120		0.4120
	0225	1.18	1.42				1.34	269.0	0.4245		0.4245
	0235	1.18	1.42				1.34	184.0	0.4351		0.4351
	0250	1.18	1.42				1.34	109.0	0.4427		0.4427
	0305	1.15	1.42				1.34	65.0	0.4533		0.4533
	0400	1.18	1.42				1.34	25.0	0.4634		0.4634
	0500	1.18	1.42				1.34	5.0	0.4690		0.4690
	1200	1.18	1.43				1.35	2.0	0.4723		0.4723
	1800	1.18	1.43				1.35	2.0	0.4743		0.4743
	1915	1.23	1.58				1.46	3.0	0.4749		0.4749
	1930	1.60	1.70				1.67	4.0	0.4752		0.4752
	1945	1.81	1.73				1.76	5.0	0.4761		0.4761
	2045	1.82	1.75				1.77	15.0	0.4787		0.4787
	2100	2.05	1.78				1.88	25.0	0.4804		0.4804
	2115	2.09	1.88				1.95	35.0	0.4833		0.4833
	2135	2.43	2.02				2.16	62.0	0.4890		0.4890
	2155	3.07	2.37				2.61	318.0	0.5075		0.5075
	2200	3.37	2.50				2.80	483.0	0.5187		0.5187
	2205	3.67	2.63				2.98	742.0	0.5359		0.5359

STORM RAINFALL AND RUNOFF RECORD										1961 WATER YEAR	
STATION NO. 08158400											
LITTLE WALNUT CREEK AT I.M. 35, AUSTIN, TEXAS											
STORM OF MAY 23-25, 1961											
DATE & TIME	15HL	4WLN	AVERAGE	NUMBER	PRECIP.	ACCUM. WGTGHTD PRECIP.	DISCHARGE IN	CFS	IN.	ACCUM. RUNOFF	
MAY 24											
2210	3.94	2.08			3.11		1070.0		0.5607		
2215	4.32	2.71			3.26		1420.0		0.5936		
2220	4.59	2.73			3.36		1780.0		0.6348		
2225	5.03	2.92			3.64		2090.0		0.6833		
2230	5.47	3.40			4.10		2420.0		0.7394		
2235	5.92	3.83			4.54		2700.0		0.8020		
2240	6.37	4.06			4.86		3070.0		0.8732		
2245	6.89	4.32			5.19		3480.0		0.9539		
2250	7.21	4.64			5.51		4180.0		1.0508		
2255	7.54	5.00			5.86		5030.0		1.1674		
2300	7.82	5.40			6.22		5860.0		1.5070		
2305	8.33	6.40			7.06		7430.0		1.9376		
2325	8.35	6.42			7.08		7900.0		2.1208		
2330	8.37	6.44			7.10		7700.0		2.4778		
2345	8.40	6.47			7.13		7640.0		3.0092		
2400	8.44	6.51			7.17		6840.0		3.3660		
MAY 25											
0000	8.44	6.51			7.17		6840.0		3.3660		
0015	8.51	6.60			7.25		6220.0		4.1338		
0045	8.65	6.71			7.37		2960.0		4.4426		
0100	8.69	6.75			7.41		1990.0		4.5810		
0115	8.73	6.76			7.44		1460.0		4.6826		
0130	8.75	6.78			7.45		1140.0		4.7619		
0145	8.76	6.79			7.46		933.0		4.8592		
0215	8.77	6.79			7.46		594.0		4.9418		
0245	8.77	6.79			7.46		374.0		4.9939		
0315	8.77	6.79			7.46		205.0		5.0295		
0400	8.77	6.80			7.47		111.0		5.0604		
0515	8.77	6.80			7.47		53.0		5.0899		
0600	8.77	6.80			7.47		20.0		5.1086		
1200	8.79	6.80			7.48		5.0		5.1198		
2400	8.79	6.82			7.49		2.0		5.1231		

08158500 LITTLE WALNUT CREEK AT MANOR ROAD, AUSTIN, TEX.
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°18'34", long 97°40'04", Travis County, on downstream side of bridge on Manor Road and 4.9 mi northeast of the State Capitol Building in Austin.

DRAINAGE AREA.--12.1 mi².

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

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 473.82 ft NGVD.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft³/s May 25, 1981 (gage height, 19.60 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,500 ft³/s May 25 (gage height 19.60 ft).

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR		
LITTLE WALNUT CREEK AT MANOK ROAD, AUSLIN, TEXAS.										ACCUM. DISCHARGE ACCUM.		
STORM OF MARCH 3-4, 1981										WEIGHTED IN RUNOFF		
DATE & TIME	1.5H	4MLN	5MLN	6MLN	7MLN	8MLN	9MLN	10MLN	11MLN	CFS	IN.	IN.
MAR. 3												
0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0003
0540	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0007
0800	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	1.0	0.0009	0.0009
0915	0.13	0.08	0.12	0.12	0.12	0.12	0.12	0.12	0.12	2.0	0.0011	0.0011
0930	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	5.0	0.0013	0.0013
0945	0.37	0.54	0.45	0.45	0.45	0.45	0.45	0.45	0.45	20.0	0.0026	0.0026
1030	0.37	0.55	0.47	0.47	0.47	0.47	0.47	0.47	0.47	152.0	0.0123	0.0123
1045	0.37	0.55	0.47	0.47	0.47	0.47	0.47	0.47	0.47	199.0	0.0187	0.0187
1100	0.38	0.55	0.48	0.48	0.48	0.48	0.48	0.48	0.48	163.0	0.0239	0.0239
1115	0.38	0.55	0.48	0.48	0.48	0.48	0.48	0.48	0.48	176.0	0.0286	0.0286
1125	0.38	0.55	0.48	0.48	0.48	0.48	0.48	0.48	0.48	201.0	0.0318	0.0318
1130	0.38	0.55	0.48	0.48	0.48	0.48	0.48	0.48	0.48	214.0	0.0341	0.0341
1135	0.38	0.55	0.48	0.48	0.48	0.48	0.48	0.48	0.48	210.0	0.0374	0.0374
1145	0.38	0.55	0.48	0.48	0.48	0.48	0.48	0.48	0.48	202.0	0.0428	0.0428
1200	0.38	0.55	0.48	0.48	0.48	0.48	0.48	0.48	0.48	145.0	0.0498	0.0498
1230	0.38	0.56	0.48	0.48	0.48	0.48	0.48	0.48	0.48	95.0	0.0559	0.0559
1300	0.38	0.56	0.48	0.48	0.48	0.48	0.48	0.48	0.48	80.0	0.0610	0.0610
1330	0.38	0.56	0.48	0.48	0.48	0.48	0.48	0.48	0.48	65.0	0.0773	0.0773
1655	0.40	0.56	0.54	0.54	0.54	0.54	0.54	0.54	0.54	5.0	0.0785	0.0785
1710	0.51	0.56	0.54	0.54	0.54	0.54	0.54	0.54	0.54	5.0	0.0792	0.0792
1915	0.51	0.57	0.54	0.54	0.54	0.54	0.54	0.54	0.54	8.0	0.0805	0.0805
1945	0.54	0.62	0.61	0.61	0.61	0.61	0.61	0.61	0.61	8.0	0.0811	0.0811
2025	0.68	0.56	0.78	0.78	0.78	0.78	0.78	0.78	0.78	12.0	0.0816	0.0816
2030	0.94	0.59	0.81	0.81	0.81	0.81	0.81	0.81	0.81	16.0	0.0818	0.0818
2035	1.05	1.05	0.84	0.84	0.84	0.84	0.84	0.84	0.84	28.0	0.0821	0.0821
2040	1.21	1.06	0.85	0.85	0.85	0.85	0.85	0.85	0.85	38.0	0.0825	0.0825
2045	1.45	1.09	0.86	0.86	0.86	0.86	0.86	0.86	0.86	45.0	0.0830	0.0830
2050	1.78	1.54	0.86	0.86	0.86	0.86	0.86	0.86	0.86	60.0	0.0836	0.0836
2100	1.92	1.74	1.06	1.06	1.06	1.06	1.06	1.06	1.06	80.0	0.0862	0.0862
2115	1.98	2.06	1.34	1.34	1.34	1.34	1.34	1.34	1.34	97.0	0.0903	0.0903
2130	2.00	2.06	1.57	1.57	1.57	1.57	1.57	1.57	1.57	661.0	0.1115	0.1115
2145	2.18	2.18	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1120.0	0.1414	0.1414
2155	2.24	2.19	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1450.0	0.1646	0.1646
2200	2.46	2.23	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1610.0	0.1818	0.1818
2205	2.56	2.48	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1680.0	0.1997	0.1997
2210	2.62	2.48	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1740.0	0.2183	0.2183
2215	2.74	2.57	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1810.0	0.2376	0.2376
2220	2.78	2.62	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1750.0	0.2656	0.2656
2230	2.81	2.70	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1630.0	0.3091	0.3091

STORM MAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
LITTLE WALNUT CREEK AT MAJOR ROAD, AUSTIN, TEXAS									
STORM OF MARCH 3-4, 1981									
DATE & TIME	13MI	4WLN	5WLN	AGE	NUMBER	PRECIP. IN.	ACCUM. WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. RUNOFF
MAK. 3									
2245	2.93	2.80	1.92			2.48		1550.0	0.3835
2315	2.99	2.93	1.97			2.54		1510.0	0.4802
2345	3.00	2.93	1.99			2.55		1320.0	0.5436
2400	3.01	2.95	2.01			2.56		1250.0	0.5736
MAK. 4									
0000	3.01	2.95	2.01			2.56		1250.0	0.5736
0015	3.05	2.98	2.03			2.59		1100.0	0.6188
0030	3.07	3.01	2.05			2.62		989.0	0.6505
0045	3.07	3.03	2.10			2.65		891.0	0.6790
0100	3.07	3.03	2.11			2.65		764.0	0.7157
0130	3.07	3.03	2.11			2.65		487.0	0.7391
0145	3.07	3.03	2.11			2.65		386.0	0.7515
0200	3.07	3.04	2.11			2.65		337.0	0.7677
0230	3.07	3.04	2.11			2.65		235.0	0.7827
0300	3.07	3.04	2.11			2.65		157.0	0.7928
0330	3.07	3.04	2.11			2.65		117.0	0.8152
0600	3.07	3.04	2.11			2.65		20.0	0.8223
0900	3.07	3.04	2.12			2.66		10.0	0.8261
1200	3.08	3.06	2.14			2.68		5.0	0.8309
2400	3.08	3.06	2.14			2.68		2.0	0.8325

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR	
STA. NO. 08158500											
LITTLE WALNUT CREEK AT MANOR ROAD, AUSTIN, TEXAS											
STORM OF MAY 23-25, 1981											
DATE & TIME	15ML	4WLN	5WLN	G A G E	N U M B E R	ACCUM. WEIGHTED PRECIP. IN.	DISCHARGE IN	CFS	ACCUM. RUNOFF IN.		
MAY 23											
0000	0.0	0.0	0.0	0.0		0.0	1.0		0.0008		
1200	0.0	0.01	0.02	0.02		0.01	1.0		0.0022		
2245	0.0	0.01	0.03	0.03		0.02	2.0		0.0036		
2300	0.0	0.01	0.09	0.09		0.04	3.0		0.0037		
2315	0.0	0.01	0.98	0.98		0.42	5.0		0.0039		
2330	0.0	0.01	1.20	1.20		0.51	10.0		0.0042		
2345	0.07	0.11	1.25	1.25		0.58	20.0		0.0049		
2400	0.57	0.73	1.32	1.32		0.95	50.0		0.0061		
MAY 24											
0000	0.57	0.73	1.32	1.32		0.95	50.0		0.0061		
0015	0.92	1.08	1.46	1.46		1.22	84.0		0.0091		
0030	1.04	1.19	1.57	1.57		1.33	278.0		0.0180		
0045	1.07	1.25	1.60	1.60		1.37	571.0		0.0363		
0100	1.12	1.28	1.60	1.60		1.39	645.0		0.0570		
0115	1.14	1.37	1.60	1.60		1.43	805.0		0.0785		
0125	1.15	1.41	1.60	1.60		1.45	843.0		0.0919		
0130	1.17	1.41	1.60	1.60		1.45	862.0		0.1011		
0135	1.17	1.41	1.60	1.60		1.45	847.0		0.1147		
0145	1.17	1.41	1.60	1.60		1.45	816.0		0.1365		
0200	1.17	1.42	1.60	1.60		1.46	723.0		0.1596		
0215	1.18	1.42	1.60	1.60		1.46	645.0		0.1803		
0230	1.18	1.42	1.60	1.60		1.46	583.0		0.2083		
0300	1.18	1.42	1.60	1.60		1.46	364.0		0.2316		
0330	1.18	1.42	1.60	1.60		1.46	218.0		0.2420		
0345	1.18	1.42	1.60	1.60		1.46	170.0		0.2475		
0400	1.18	1.42	1.60	1.60		1.46	135.0		0.2518		
0415	1.18	1.42	1.60	1.60		1.46	109.0		0.2588		
0500	1.18	1.42	1.60	1.60		1.46	80.0		0.2780		
0600	1.18	1.42	1.60	1.60		1.46	10.0		0.2825		
1200	1.18	1.43	1.61	1.61		1.47	4.0		0.2850		
1800	1.18	1.43	1.62	1.62		1.47	3.0		0.2866		
2000	1.82	1.73	2.00	2.00		1.86	67.0		0.2959		
2010	1.82	1.73	2.18	2.18		1.93	193.0		0.2990		
2015	1.82	1.73	2.26	2.26		1.97	256.0		0.3017		
2020	1.82	1.73	2.26	2.26		1.97	213.0		0.3051		
2030	1.82	1.73	2.29	2.29		1.98	126.0		0.3085		
2045	1.82	1.75	2.34	2.34		2.01	85.0		0.3112		
2100	2.06	1.78	2.49	2.49		2.12	76.0		0.3136		
2115	2.09	1.88	2.64	2.64		2.23	77.0		0.3161		
2130	2.35	1.98	2.67	2.67		2.33	161.0		0.3212		

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR		
LITTLE WALNUT CREEK AT MANOR ROAD, AUSTIN, TEXAS										STORM OF MAY 23-25, 1981		
DATE & TIME	15HL	4WLN	5WLN	GA	GE	NUM	B	E	M	ACCUM. WEGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. RUNOFF IN.
MAY 24												
2145	6.63	2.22	2.98							2.60	131.0	0.3247
2155	3.07	2.37	3.12							2.79	165.0	0.3274
2200	3.37	2.50	3.36							2.99	162.0	0.3293
2205	3.67	2.63	3.68							3.23	201.0	0.3315
2210	3.94	2.68	4.15							3.49	219.0	0.3338
2215	4.32	2.71	4.78							3.82	238.0	0.3363
2220	4.59	2.73	5.18							4.04	307.0	0.3396
2225	5.03	2.92	5.42							4.29	377.0	0.3436
2230	5.47	3.40	5.46							4.58	446.0	0.3484
2235	5.92	3.83	5.49							4.84	506.0	0.3538
2240	6.37	4.08	5.52							5.03	566.0	0.3598
2245	6.89	4.32	5.53							5.21	626.0	0.3665
2250	7.21	4.64	5.54							5.40	784.0	0.3749
2255	7.54	5.00	5.55							5.61	942.0	0.3849
2300	7.82	5.40	5.56							5.83	1100.0	0.4084
2315	8.26	6.37	5.62							6.34	3720.0	0.5275
2330	8.37	6.44	5.68							6.41	7820.0	0.7779
2345	8.40	6.47	5.74							6.45	10900.0	1.1269
2400	8.44	6.51	5.75							6.48	13200.0	1.4438
MAY 25												
0000	8.44	6.51	5.75							6.48	13200.0	1.4438
0015	8.51	6.60	5.78							6.54	14500.0	2.0137
0030	8.57	6.68	5.80							6.59	*13800.0	2.8974
0115	8.73	6.78	5.82							6.67	*11300.0	3.9827
0200	8.76	6.79	5.82							6.68	*5500.0	4.4229
0230	8.77	6.79	5.82							6.68	*3800.0	4.8663
0300	8.77	6.79	5.82							6.68	*2700.0	4.8392
0330	8.77	6.79	5.82							6.68	*1900.0	5.0216
0430	8.77	6.80	5.82							6.68	*1200.0	5.1561
0515	8.77	6.80	5.82							6.68	*900.0	5.2426
0600	8.77	6.80	5.82							6.68	*600.0	5.3098
0700	8.77	6.80	5.82							6.68	*200.0	5.3386
0815	8.77	6.80	5.82							6.68	*	5.3594
1200	8.79	6.80	5.83							6.69	10.0	5.3695
2400	8.79	6.82	5.83							6.70	4.0	5.3726

* ESTIMATED DISCHARGE. STREAMFLOW NOT RECORDED FROM 0300 HOURS TO 1400 HOURS MAY 25.

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR				
STA. NO. 08158500														
LITTLE WALNUT CREEK AT MANOR ROAD, AUSTIN, TEXAS														
SUMM OF JUNE 10-15, 1981														
DATE & TIME	ISHI	4WLN	5WLN	6WLN	7WLN	8WLN	9WLN	10WLN	11WLN	PRECIP. IN.	ACCUM. PRECIP. IN.	DISCHARGE IN	CFS	IN.
JUNE 10														
0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0006	0.0006
0145	0.02	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.5	0.0012	0.0012
1905	0.06	0.07	0.10	0.10	0.07	0.10	0.10	0.10	0.10	0.08	0.08	0.5	0.0012	0.0012
1935	0.23	0.14	0.10	0.10	0.14	0.10	0.14	0.10	0.14	0.14	0.14	2.0	0.0014	0.0014
2005	0.37	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.20	0.20	10.0	0.0042	0.0042
2400	0.40	0.19	0.22	0.22	0.19	0.22	0.22	0.19	0.22	0.23	0.23	2.0	0.0046	0.0046
JUNE 11														
0000	0.40	0.19	0.22	0.22	0.19	0.22	0.22	0.19	0.22	0.23	0.23	2.0	0.0048	0.0048
0145	0.41	0.19	0.23	0.23	0.19	0.23	0.23	0.19	0.23	0.24	0.24	3.0	0.0053	0.0053
0200	0.61	0.19	0.25	0.25	0.19	0.25	0.25	0.19	0.25	0.27	0.27	5.0	0.0057	0.0057
0250	0.62	0.19	0.25	0.25	0.19	0.25	0.25	0.19	0.25	0.28	0.28	12.0	0.0067	0.0067
0320	0.75	0.53	1.03	1.03	0.53	1.03	1.03	0.53	1.03	0.77	0.77	20.0	0.0083	0.0083
0405	0.87	0.79	1.23	1.23	0.79	1.23	1.23	0.79	1.23	0.99	0.99	50.0	0.0139	0.0139
0505	0.91	0.84	1.31	1.31	0.84	1.31	1.31	0.84	1.31	1.05	1.05	450.0	0.1195	0.1195
0745	1.11	1.10	1.65	1.65	1.10	1.65	1.65	1.10	1.65	1.33	1.33	120.0	0.1432	0.1432
0810	1.29	1.34	1.91	1.91	1.34	1.91	1.91	1.34	1.91	1.57	1.57	120.0	0.1471	0.1471
0815	1.44	1.37	1.93	1.93	1.37	1.93	1.93	1.37	1.93	1.62	1.62	120.0	0.1483	0.1483
0820	1.66	1.52	2.00	2.00	1.52	2.00	2.00	1.52	2.00	1.74	1.74	120.0	0.1496	0.1496
0825	1.95	1.80	2.17	2.17	1.80	2.17	2.17	1.80	2.17	1.98	1.98	120.0	0.1509	0.1509
0830	2.08	1.92	2.21	2.21	1.92	2.21	2.21	1.92	2.21	2.07	2.07	120.0	0.1528	0.1528
0840	2.22	1.98	2.33	2.33	1.98	2.33	2.33	1.98	2.33	2.16	2.16	150.0	0.1568	0.1568
0855	2.34	2.04	2.34	2.34	2.04	2.34	2.34	2.04	2.34	2.21	2.21	300.0	0.1808	0.1808
0925	2.48	2.21	2.44	2.44	2.21	2.44	2.44	2.21	2.44	2.35	2.35	2000.0	0.3303	0.3303
1005	2.73	2.26	2.48	2.48	2.26	2.48	2.48	2.26	2.48	2.42	2.42	1700.0	0.3575	0.3575
1010	2.95	2.36	2.53	2.53	2.36	2.53	2.53	2.36	2.53	2.52	2.52	1550.0	0.3740	0.3740
1015	3.09	2.48	2.50	2.50	2.48	2.50	2.50	2.48	2.50	2.62	2.62	1400.0	0.3889	0.3889
1020	3.30	2.64	2.68	2.68	2.64	2.68	2.68	2.64	2.68	2.76	2.76	1450.0	0.4044	0.4044
1025	3.46	2.68	2.70	2.70	2.68	2.70	2.70	2.68	2.70	2.83	2.83	1500.0	0.4364	0.4364
1040	3.62	2.88	3.29	3.29	2.88	3.29	3.29	2.88	3.29	3.16	3.16	1600.0	0.5133	0.5133
1110	3.78	3.33	3.76	3.76	3.33	3.76	3.76	3.33	3.76	3.66	3.66	1200.0	0.5965	0.5965
1145	3.87	3.58	4.22	4.22	3.58	4.22	4.22	3.58	4.22	4.02	4.02	3370.0	0.7763	0.7763
1200	3.92	3.77	4.80	4.80	3.77	4.80	4.80	3.77	4.80	4.23	4.23	3850.0	0.8791	0.8791
1210	3.98	3.86	4.94	4.94	3.86	4.94	4.94	3.86	4.94	4.33	4.33	3930.0	0.9420	0.9420
1215	4.03	3.91	5.05	5.05	3.91	5.05	5.05	3.91	5.05	4.41	4.41	3970.0	0.9843	0.9843
1220	4.07	3.96	5.12	5.12	3.96	5.12	5.12	3.96	5.12	4.47	4.47	3780.0	1.0449	1.0449
1230	4.16	4.20	5.28	5.28	4.20	5.28	5.28	4.20	5.28	4.65	4.65	3410.0	1.1358	1.1358
1245	4.30	4.48	5.50	5.50	4.48	5.50	5.50	4.48	5.50	4.88	4.88	3320.0	1.2421	1.2421
1300	4.34	4.77	5.70	5.70	4.77	5.70	5.70	4.77	5.70	5.10	5.10	3130.0	1.3423	1.3423
1315	4.38	4.84	5.80	5.80	4.84	5.80	5.80	4.84	5.80	5.17	5.17	3310.0	1.4483	1.4483
1330	4.41	4.87	5.82	5.82	4.87	5.82	5.82	4.87	5.82	5.20	5.20	3320.0	1.5192	1.5192

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR		
LITTLE WALNUT CREEK AT MANOR ROAD, AUSTIN, TEXAS										DISCHARGE	ACCUM.	
STORM OF JUNE 10-15, 1981										IN	ACCUM.	
DATE & TIME	15MI	4*MLN	5*MLN	6*MLN	7*MLN	8*MLN	9*MLN	10*MLN	11*MLN	12*MLN	IN	ACCUM.
JUNE 11												
1335	4.41	4.87	5.84								5.21	3320.0
1445	4.41	4.90	5.86								5.23	3320.0
1515	4.48	4.98	5.97								5.32	1790.0
1530	4.54	5.04	6.00								5.37	1410.0
1545	4.55	5.05	6.02								5.38	1280.0
1615	4.55	5.05	6.03								5.39	1180.0
1630	4.55	5.06	6.03								5.39	993.0
1645	4.55	5.06	6.03								5.39	859.0
1700	4.55	5.06	6.03								5.39	771.0
1715	4.55	5.06	6.03								5.39	713.0
1730	4.55	5.06	6.04								5.39	623.0
1745	4.55	5.06	6.04								5.40	568.0
1830	4.55	5.06	6.04								5.40	532.0
1945	4.55	5.06	6.04								5.40	400.0
2000	4.55	5.06	6.04								5.40	289.0
2200	4.55	5.06	6.04								5.40	283.0
2300	4.55	5.06	6.04								5.40	194.0
2315	4.55	5.06	6.04								5.40	189.0
2400	4.55	5.06	6.04								5.40	170.0
JUNE 12												
0000	4.55	5.06	6.04								5.40	156.0
0015	4.55	5.06	6.04								5.40	156.0
0600	4.57	5.06	6.04								5.40	148.0
0615	4.57	5.12	6.04								5.42	99.0
0700	4.67	5.20	6.33								5.60	97.0
0730	4.87	5.43	6.38								5.74	99.0
0745	4.90	5.45	6.40								5.77	182.0
0800	4.92	5.47	6.42								5.79	258.0
0815	4.97	5.47	6.43								5.79	364.0
0830	4.98	5.48	6.43								5.80	408.0
0855	4.98	5.48	6.43								5.80	425.0
0900	4.98	5.48	6.43								5.80	440.0
0930	4.98	5.48	6.43								5.80	443.0
0935	4.98	5.48	6.43								5.80	443.0
1000	4.98	5.48	6.43								5.80	439.0
1100	5.01	5.48	6.43								5.81	408.0
1130	5.01	5.48	6.43								5.81	270.0
1200	5.01	5.48	6.43								5.81	223.0
1230	5.01	5.48	6.43								5.81	196.0
											5.81	176.0

STORM MAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STA. NO. 08158500									
LITTLE WALNUT CREEK AT MAINOR ROAD, AUSTIN, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	15MI	4MIN	5MIN	GAUGE	NUMBER	PRECIP.	ACCUM.	DISCHARGE	ACCUM.
						IN.	PRECIP.	IN	IN.
JUNE 12									
1300	5.01	5.49	0.43			5.81		148.0	2.9004
1500	5.01	5.49	0.43			5.81		109.0	2.9353
1800	5.01	5.49	0.44			5.82		86.0	2.9849
2400	5.01	5.49	0.44			5.82		68.0	3.0284
JUNE 13									
0000	5.01	5.49	0.44			5.82		68.0	3.0284
0800	5.03	5.52	0.47			5.85		59.0	3.0779
0830	5.03	5.53	0.51			5.88		60.0	3.0818
0900	5.13	5.65	0.84			5.99		68.0	3.0872
0945	5.27	5.80	0.82			6.15		123.0	3.0971
1015	5.34	5.88	0.87			6.21		240.0	3.1086
1030	5.40	5.89	0.87			6.23		283.0	3.1222
1100	5.43	5.89	0.88			6.24		328.0	3.1362
1110	5.72	5.90	0.88			6.28		337.0	3.1416
1115	5.75	5.90	0.88			6.29		341.0	3.1452
1120	5.75	5.90	0.88			6.29		340.0	3.1506
1130	5.77	5.90	0.88			6.29		339.0	3.1705
1215	5.77	5.90	0.89			6.30		302.0	3.1899
1230	5.77	5.90	0.89			6.30		295.0	3.2040
1300	5.79	5.90	0.89			6.30		302.0	3.2282
1345	5.79	5.90	0.89			6.30		227.0	3.2497
1400	5.79	5.90	0.89			6.30		218.0	3.2428
1415	5.79	5.90	0.89			6.30		196.0	3.2560
1430	5.79	5.90	0.89			6.30		185.0	3.2619
1445	5.79	5.90	0.99			6.34		178.0	3.2676
1500	5.81	6.08	7.14			6.48		244.0	3.2754
1515	5.82	6.09	7.15			6.49		289.0	3.2847
1530	5.82	6.37	7.52			6.77		391.0	3.2972
1545	6.48	6.82	7.84			7.19		795.0	3.3227
1600	6.47	6.84	7.88			7.22		1160.0	3.3598
1615	6.56	6.90	8.01			7.32		1340.0	3.4242
1645	6.73	7.29	8.55			7.74		2220.0	3.5308
1700	6.76	7.34	8.67			7.81		2430.0	3.5956
1710	6.80	7.43	8.75			7.90		2510.0	3.6358
1715	6.82	7.45	8.75			7.90		2550.0	3.6630
1720	6.82	7.45	8.79			7.92		2510.0	3.7032
1730	6.83	7.45	8.80			7.92		2420.0	3.7677
1745	6.84	7.45	8.80			7.93		2110.0	3.8353
1800	6.84	7.45	8.80			7.93		1930.0	3.8971
1815	6.84	7.45	8.82			7.93		1700.0	3.9515

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR		
STA. NO. 08158500												
LITTLE WALNUT CREEK AT MAINUR ROAD, AUSTIN, TEXAS												
STORM OF JUNE 10-15, 1981												
DATE & TIME	ISHI	4WLN	5WLN	6WLN	7WLN	8WLN	9WLN	10WLN	11WLN	ACCUM. WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. RUNOFF
JUNE 13												
1830	7.10	7.70			8.90					8.14	1510.0	3.9999
1845	7.47	8.47			9.08					8.83	1740.0	4.0556
1900	7.67	9.10			10.43					9.44	2460.0	4.1343
1915	7.76	9.84			11.00					10.02	3800.0	4.2560
1930	7.87	9.87			11.05					10.07	5850.0	4.4121
1940	7.88	9.87			11.05					10.07	6530.0	4.5166
1945	7.88	9.87			11.05					10.07	6870.0	4.5899
1950	7.90	9.87			11.05					10.07	6780.0	4.6984
2000	7.91	10.03			11.14					10.18	6590.0	4.8743
2015	7.98	10.13			11.18					10.25	5600.0	5.0536
2030	8.01	10.21			11.32					10.35	4790.0	5.2069
2045	8.06	10.26			11.43					10.42	4440.0	5.3491
2100	8.08	10.27			11.47					10.45	3730.0	5.5282
2130	8.22	10.61			11.74					10.73	2500.0	5.6483
2145	8.22	10.61			11.74					10.73	2290.0	5.7216
2200	8.22	10.61			11.74					10.73	2210.0	5.8277
2230	8.22	10.61			11.74					10.73	1790.0	5.9423
2300	8.22	10.62			11.74					10.73	1370.0	6.0300
2330	8.22	10.62			11.74					10.73	1120.0	6.1018
2400	8.22	10.62			11.75					10.73	906.0	6.1743
JUNE 14												
0000	8.22	10.62			11.75					10.73	906.0	6.1743
0130	8.22	10.62			11.75					10.73	487.0	6.3191
0315	8.22	10.62			11.75					10.73	341.0	6.3846
0430	8.22	10.62			11.78					10.75	297.0	6.4227
0515	8.33	10.78			11.93					10.90	339.0	6.5746
1130	8.59	11.14			12.41					11.29	592.0	6.8210
1145	8.59	11.15			12.41					11.30	664.0	6.8423
1200	8.59	11.15			12.41					11.30	651.0	6.8840
1245	8.59	11.16			12.42					11.30	527.0	6.9261
1315	8.59	11.16			12.42					11.30	476.0	6.9566
1345	8.59	11.16			12.42					11.30	400.0	6.9886
1430	8.59	11.16			12.42					11.30	328.0	7.0937
1645	8.59	11.17			12.43					11.31	189.0	7.2086
2400	8.59	11.17			12.43					11.31	147.0	7.2957
JUNE 15												
0000	8.59	11.17			12.43					11.31	147.0	7.2957
0800	8.59	11.18			12.45					11.32	110.0	7.4108
1100	8.67	11.25			12.51					11.39	163.0	7.5152
1800	8.69	11.28			12.52					11.41	94.0	7.5934
2400	8.69	11.28			12.54					11.42	85.0	7.6261

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 (58 m) downstream from bridge on Farm Road 969, 0.8 mi (1.3 km) downstream from Little Walnut Creek, 2.8 mi (4.5 km) upstream from Colorado River, and 5.2 mi (8.4 km) east of the State Capitol Building in Austin.

DRAINAGE AREA.--51.3 mi² (132.9 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 425.96 ft (129.833 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. No known regulation or diversion. Station is part of 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.--15 years, 25.2 ft³/s (0.714 m³/s), 6.67 in/yr (169 mm/yr), 18,260 acre-ft/yr (22.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/s (405 m³/s) May 25, 1981, gage height, 27.24 ft (8.303 m); no flow at times in 1967 and 1971. 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 (7.3 m), backwater from Colorado River. A flood in 1919 reached a stage of 22 ft (6.7 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Mar. 4	0045	3,140	88.9	15.40	4.694	June 13	2100	13,400	379	26.65	8.123
May 25	0415	*14,300	405	27.24	8.303	June 16	0800	6,080	172	20.53	6.258
May 30	1715	1,560	44.2	11.62	3.542	July 5	1200	2,460	69.7	13.91	4.240
June 11	1415	11,700	331	25.87	7.885						

Minimum daily discharge, 1.4 ft³/s (0.040 m³/s) Oct. 15, Nov. 13-15.

REVISIONS.--The maximum discharges for some water years have been revised as shown in the the following table. They supersede figures published in the reports for 1974-75 and 1979.

Water year	Date	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
1974	Oct. 13, 1973	10,400	295	25.56	7.791
1975	Nov. 23, 1974	12,600	357	26.16	7.974
1979	May 21, 1979	12,400	351	26.02	7.931

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	2.1	7.2	7.0	18	32	13	31	201	29	11	8.2
2	4.6	2.0	5.9	6.5	8.1	14	12	13	82	28	11	7.1
3	3.4	1.7	7.1	6.4	7.0	223	12	12	188	25	10	75
4	2.9	1.7	5.9	6.4	17	672	11	6.9	329	25	9.5	10
5	2.5	1.7	5.7	6.4	34	52	10	5.9	213	476	9.1	6.8
6	2.4	1.7	5.4	7.3	19	38	9.4	4.8	86	46	8.1	5.5
7	2.1	1.7	4.9	7.4	13	62	9.4	4.4	61	54	7.9	5.1
8	2.0	1.7	5.4	8.3	11	35	9.1	4.2	51	57	7.2	4.7
9	2.0	1.7	26	12	11	29	8.9	4.1	43	33	7.0	3.8
10	1.7	1.7	14	7.7	34	27	7.8	3.5	41	34	6.4	3.8
11	1.7	1.7	10	7.3	13	29	7.5	3.5	3350	27	5.9	3.8
12	1.7	1.7	9.5	7.2	12	54	6.8	3.8	488	25	8.4	3.6
13	1.7	1.4	9.0	7.2	12	44	6.7	3.8	3080	24	8.9	3.5
14	1.5	1.4	8.5	7.2	11	31	6.0	3.7	1830	23	5.6	6.0
15	1.4	1.4	15	6.9	11	28	5.1	3.2	285	22	5.0	71
16	31	96	10	6.8	11	24	5.5	147	1820	21	4.4	9.0
17	7.2	30	8.7	6.8	10	23	17	13	222	20	11	5.9
18	24	8.0	8.7	6.8	9.3	23	9.6	10	123	19	9.2	4.7
19	6.9	5.5	8.7	62	9.2	21	6.5	7.4	87	19	7.0	3.9
20	4.2	4.5	8.0	31	9.8	21	5.5	6.4	67	18	5.4	3.8
21	3.4	4.0	8.0	12	9.1	20	5.1	6.8	56	18	4.3	3.5
22	3.0	5.0	7.9	9.3	9.1	19	5.1	6.7	49	17	3.8	3.2
23	3.0	4.9	7.4	8.3	8.7	18	21	6.4	44	16	3.5	3.0
24	2.7	3.0	11	8.0	8.7	18	10	291	40	15	3.1	2.7
25	2.5	45	7.5	8.0	10	18	6.8	4100	41	15	3.0	2.7
26	2.5	52	7.2	8.0	9.8	17	5.4	94	36	14	2.7	2.7
27	2.5	16	7.2	7.3	8.5	17	5.1	60	33	16	2.5	2.7
28	3.7	11	7.2	7.2	8.3	16	5.1	47	38	14	2.4	2.5
29	3.5	8.9	7.2	6.8	---	25	4.8	47	31	13	7.2	2.3
30	2.5	7.9	6.9	6.5	---	15	4.8	254	30	13	12	2.3
31	2.5	---	7.6	6.5	---	14	---	61	---	12	11	---
TOTAL	143.8	327.0	317.3	312.5	352.6	1679	252.0	5265.5	13045	1188	213.5	272.8
MEAN	4.64	10.9	10.2	10.1	12.6	54.2	8.40	170	435	38.3	6.89	9.09
MAX	31	96	54	62	34	672	21	4100	3350	476	12	75
MIN	1.4	1.4	4.9	6.4	7.0	14	4.8	3.2	30	12	2.4	2.3
CFSM	.09	.21	.20	.20	.25	1.06	.16	3.31	8.48	.75	.13	.18
IN.	.10	.24	.23	.23	.26	1.22	.18	3.82	9.46	.86	.15	.20
AC-FT	285	649	629	620	699	3330	500	10440	25870	2360	423	541
(††)	1.71	3.50	1.14	1.57	1.35	4.41	1.07	11.02	16.16	3.36	1.31	2.24

CAL YR 1980 TOTAL 6728.06 MEAN 18.4 MAX 673 MIN .02 CFSM .36 IN 4.88 AC-FT 13350 †† 34.45
WTR YR 1981 TOTAL 23369.00 MEAN 64.0 MAX 4100 MIN 1.4 CFSM 1.25 IN 16.95 AC-FT 46350 †† 48.84

†† Weighted-mean rainfall on watershed, in inches, based on five rain gages.

COLORADO RIVER BASIN

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 current year. Radiochemical analyses: October 1979 to September 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEMICAL, 5 DAY (MG/L)	COLIFORM, TOTAL, IMMEDIATE (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	
JAN 27...	1205	7.3	594	8.3	13.5	0	.60	12.7	121	1.0	760	96
JUN 16...	1110	4320	246	8.0	22.5	40	930	3.2	37	2.7	130000	58000
AUG 24...	1015	3.5	653	7.8	25.0	0	2.6	7.0	85	.3	2500	240

DATE	TIME	STREP-TOCOCOCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD AS (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JAN 27...	96	240	69	86	5.8	28	.8	2.0	170	65	45	.3	
JUN 16...	170000	110	9	40	2.3	4.5	.2	3.6	100	21	5.7	.1	
AUG 24...	1300	280	88	98	8.0	29	.8	3.0	190	80	49	.5	

DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, 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)
JAN 27...	.9	335	0	0	.28	.000	.28	.050	.46	.51	.030	8.9	
JUN 16...	11	148	1590	132	.49	.040	.53	.080	1.6	1.70	.320	27	
AUG 24...	9.9	392	12	9	.47	.030	.50	.140	.34	.48	.020	3.4	

DATE	TIME	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
AUG 24...	1015	1	76	<1	0	<10	<10

DATE	TIME	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
AUG 24...		<10	22	.0	0	0	<3

DATE	TIME	PCB, TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)
AUG 24...	1015	.00	.00	.00	.00	.00	.00	.00	.02

COLORADO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENBRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)
AUG 24...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
AUG 24...	.00	.00	.00	.00	0	.00	.00	.00	.00

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR		
STATION NO. 08158600												
WALNUT CREEK AT WEBBERVILLE ROAD, AUSTIN, TEXAS												
STORM OF MARCH 3-4, 1981												
DATE & TIME	1 MLN	3 MLN	4 MLN	5 MLN	6 MLN	7 MLN	8 MLN	9 MLN	10 MLN	ALCUM. UNWEIGHTED	DISCHARGE IN	ACCUM. RUNOFF
MAR. 3												
2100	2.87	1.94	2.18	1.42					2.35	176.0	0.0308	
2200	3.03	1.96	2.23	1.44					2.44	431.0	0.0335	
2215	3.20	1.97	2.27	1.73					2.60	1130.0	0.0420	
2230	3.24	1.98	2.70	1.82					2.66	1710.0	0.0549	
2245	3.28	2.01	2.86	1.92					2.71	2100.0	0.0867	
2300	3.34	2.10	2.93	1.98					2.78	2800.0	0.1289	
2345	3.35	2.10	2.93	1.99					2.79	2940.0	0.1512	
2400	3.35	2.10	2.95	2.01					2.79	3000.0	0.1700	
MAR. 4												
0000	3.35	2.10	2.95	2.01					2.79	3000.0	0.1700	
0020	3.41	2.10	2.98	2.04					2.83	3060.0	0.2084	
0040	3.43	2.10	3.02	2.10					2.85	3130.0	0.2281	
0045	3.43	2.10	3.03	2.10					2.85	3140.0	0.2439	
0100	3.44	2.10	3.03	2.11					2.86	3130.0	0.2912	
0145	3.44	2.10	3.03	2.11					2.86	3040.0	0.3715	
0245	3.44	2.10	3.04	2.11					2.86	2690.0	0.4629	
0400	3.44	2.10	3.04	2.11					2.86	1620.0	0.5424	
0600	3.44	2.11	3.04	2.11					2.86	698.0	0.5846	
0800	3.44	2.12	3.04	2.12					2.87	342.0	0.6053	
1000	3.46	2.12	3.05	2.13					2.88	201.0	0.6174	
1200	3.47	2.12	3.06	2.14					2.88	144.0	0.6305	
1600	3.47	2.12	3.06	2.14					2.88	99.0	0.6424	
2000	3.47	2.12	3.06	2.14					2.88	80.0	0.6521	
2400	3.47	2.12	3.06	2.14					2.88	68.0	0.6624	
MAR. 5												
0000	3.47	2.12	3.06	2.14					2.88	68.0	0.6624	
1200	3.47	2.12	3.06	2.14					2.88	60.0	0.6903	
2400	3.47	2.12	3.06	2.14					2.88	42.0	0.6979	

STATION NO. 06158800										
STATION RAINFALL AND RUNOFF RECORD										
1961 WATER YEAR										
WALNUT CREEK AT WOODRIDGE ROAD, AUSLINGS LEADS										
START OF JUNE 10-15, 1961										
DATE & TIME	14LN	24LN	34LN	44LN	54LN	64LN	74LN	84LN	94LN	IN.
JUNE 10										
0000	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0112
1810	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0221
1835	0.04	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.0228
1905	0.04	0.02	0.03	0.07	0.10	0.10	0.10	0.10	0.10	0.0228
1910	0.10	0.03	0.03	0.13	0.13	0.13	0.13	0.13	0.13	0.0229
1920	0.40	0.10	0.24	0.14	0.10	0.10	0.10	0.10	0.10	0.0230
1925	0.05	0.19	0.24	0.14	0.10	0.10	0.10	0.10	0.10	0.0232
1935	1.00	0.34	0.24	0.14	0.10	0.10	0.10	0.10	0.10	0.0234
1945	1.46	0.34	0.20	0.16	0.15	0.15	0.15	0.15	0.15	0.0235
1950	1.01	0.63	0.20	0.17	0.16	0.16	0.16	0.16	0.16	0.0236
1955	1.03	0.57	0.20	0.17	0.17	0.17	0.17	0.17	0.17	0.0244
2115	2.15	0.78	0.20	0.17	0.19	0.19	0.19	0.19	0.19	0.0263
2330	2.75	0.78	0.20	0.19	0.22	0.22	0.22	0.22	0.22	0.0288
2400	2.78	0.78	0.20	0.19	0.22	0.22	0.22	0.22	0.22	0.0296
JUNE 11										
0000	2.78	0.78	0.20	0.19	0.22	0.22	0.22	0.22	0.22	0.0296
0015	2.76	0.78	0.20	0.19	0.23	0.23	0.23	0.23	0.23	0.0316
0100	2.77	0.78	0.20	0.19	0.23	0.23	0.23	0.23	0.23	0.0354
0115	2.77	0.78	0.20	0.19	0.23	0.23	0.23	0.23	0.23	0.0374
0130	2.77	0.78	0.20	0.19	0.23	0.23	0.23	0.23	0.23	0.0391
0145	2.77	0.78	0.20	0.19	0.23	0.23	0.23	0.23	0.23	0.0421
0215	2.77	0.78	0.20	0.19	0.23	0.23	0.23	0.23	0.23	0.0469
0300	2.40	0.78	0.20	0.19	0.24	0.24	0.24	0.24	0.24	0.0504
0315	2.34	0.89	0.20	0.40	0.20	0.20	0.20	0.20	0.20	0.0524
0330	2.34	0.95	1.00	0.80	1.10	1.10	1.10	1.10	1.10	0.0546
0345	2.30	0.97	1.09	0.70	1.17	1.17	1.17	1.17	1.17	0.0602
0430	2.93	1.02	1.19	0.81	1.28	1.28	1.28	1.28	1.28	0.0710
0440	2.93	1.02	1.19	0.82	1.29	1.29	1.29	1.29	1.29	0.0740
0445	2.93	1.02	1.20	0.82	1.29	1.29	1.29	1.29	1.29	0.0761
0450	2.94	1.03	1.20	0.83	1.29	1.29	1.29	1.29	1.29	0.0790
0500	2.95	1.04	1.20	0.83	1.29	1.29	1.29	1.29	1.29	0.0867
0530	3.04	1.07	1.22	0.86	1.34	1.34	1.34	1.34	1.34	0.0994
0615	3.16	1.22	1.31	0.95	1.44	1.44	1.44	1.44	1.44	0.1078
0630	3.20	1.25	1.33	0.98	1.45	1.45	1.45	1.45	1.45	0.1114
0645	3.20	1.28	1.33	0.98	1.45	1.45	1.45	1.45	1.45	0.1163
0715	3.20	1.30	1.34	1.01	1.46	1.46	1.46	1.46	1.46	0.1204
0730	3.21	1.30	1.35	1.01	1.47	1.47	1.47	1.47	1.47	0.1230
0745	3.21	1.30	1.40	1.01	1.47	1.47	1.47	1.47	1.47	0.1255
0800	3.24	1.30	1.51	1.32	1.49	1.49	1.49	1.49	1.49	0.1270
0805	3.36	1.30	1.54	1.32	1.49	1.49	1.49	1.49	1.49	0.1278

STORM MAINFALL AND RUNOFF RECORD												1961 WATER YEAR					
WALNUT CREEK AT WEBSTERVILLE ROAD, AUGUSTINE LEAS												ACCU. WEIGHED PRECIP.		DISCHARGE IN		ACCU. RUNOFF	
DATE & TIME	14LN	24LN	34LN	44LN	54LN	64LN	74LN	84LN	94LN	104LN	114LN	IN.	CFS	IN.			
JUNE 11																	
0810	3.54	1.32	1.04	1.34	1.04	1.04	1.04	1.04	1.04	1.04	1.04	2.09	310.0	0.1286			
0815	3.74	1.35	1.08	1.37	1.08	1.08	1.08	1.08	1.08	1.08	1.08	2.10	322.0	0.1303			
0830	4.10	1.42	1.15	1.42	1.15	1.15	1.15	1.15	1.15	1.15	1.15	2.46	352.0	0.1325			
0845	4.23	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	2.38	373.0	0.1339			
0855	4.53	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	2.62	384.0	0.1348			
0900	4.21	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	2.68	430.0	0.1359			
0915	3.05	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	2.77	475.0	0.1371			
1000	3.32	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	2.84	521.0	0.1397			
1005	3.54	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	3.00	705.0	0.1513			
1010	3.53	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	3.08	1830.0	0.1743			
1025	3.27	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	3.20	1900.0	0.1791			
1045	3.45	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	3.60	1980.0	0.1891			
1100	3.50	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	4.03	2140.0	0.2079			
1115	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	4.26	2270.0	0.2279			
1130	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	4.26	2480.0	0.2467			
1145	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	4.37	2810.0	0.2679			
1200	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	4.44	3500.0	0.2948			
1230	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	4.54	4690.0	0.3302			
1315	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	4.65	6090.0	0.3762			
1330	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	4.76	7240.0	0.4308			
1345	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	4.91	8100.0	0.5532			
1415	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.22	9650.0	0.6989			
1425	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.28	10300.0	0.7767			
1500	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.32	11100.0	0.9024			
1530	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.36	11700.0	1.0055			
1645	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.36	11700.0	1.0350			
1630	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.38	11200.0	1.2066			
1645	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.39	10500.0	1.3256			
1715	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.40	9090.0	1.5451			
1730	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.40	9100.0	1.7169			
1800	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.40	9000.0	1.6188			
1915	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.41	8480.0	1.9149			
1945	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.41	8080.0	2.0064			
2000	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.41	6700.0	2.1888			
2030	3.57	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	5.41	3480.0	2.2808			
												5.41	2480.0	2.5089			
												5.41	2130.0	2.3330			
												5.41	1600.0	2.3511			

STORM MAINFALL AND RUNOFF RECORD										
1961 WATER YEAR										
STATION NO. 08158600										
WALNUT CREEK AT WEBBERVILLE ROAD, MOUNTAIN LEAS										
STORM OF JUNE 10-15, 1961										
DATE & TIME	1/4LN	1/2LN	3/4LN	4LN	5LN	6LN	7LN	8LN	9LN	10LN
	PRECIP.	ACCUM.	DISCHARGE	IN.	PRECIP.	ACCUM.	DISCHARGE	IN.	PRECIP.	ACCUM.
JUNE 11										
2045	0.59	0.19	0.20	0.06	0.04	0.41	1470.0	2.3900		
2115	0.59	4.19	0.20	0.06	0.04	0.41	981.0	2.4270		
2315	0.59	4.19	0.20	0.06	0.04	0.41	792.0	2.4450		
2345	0.59	4.19	0.20	0.06	0.04	0.41	700.0	2.4530		
2400	0.59	4.19	0.20	0.06	0.04	0.41	720.0	2.4672		
JUNE 12										
0000	0.59	4.19	0.20	0.06	0.04	0.41	720.0	2.4672		
0200	0.59	4.19	0.20	0.06	0.04	0.41	557.0	2.5117		
0400	0.59	4.19	0.20	0.06	0.04	0.41	450.0	2.5440		
0645	0.62	4.33	0.34	0.20	0.14	0.51	352.0	2.5626		
0730	0.70	4.65	0.46	0.43	0.36	0.70	336.0	2.5753		
0915	0.70	4.73	0.50	0.48	0.43	0.74	655.0	2.6099		
1100	0.70	4.74	0.50	0.48	0.43	0.74	882.0	2.6365		
1115	0.70	4.74	0.50	0.48	0.43	0.74	882.0	2.6432		
1130	0.70	4.75	0.51	0.49	0.43	0.74	882.0	2.6765		
1345	0.71	4.75	0.51	0.49	0.43	0.75	644.0	2.7251		
1630	0.71	4.76	0.51	0.49	0.44	0.75	429.0	2.7526		
1800	0.71	4.76	0.51	0.49	0.44	0.75	348.0	2.7710		
2000	0.71	4.76	0.51	0.49	0.44	0.75	300.0	2.7982		
2400	0.71	4.76	0.51	0.49	0.44	0.75	225.0	2.8186		
JUNE 13										
0000	0.71	4.76	0.51	0.49	0.44	0.75	225.0	2.8186		
0400	0.72	4.76	0.52	0.52	0.47	0.76	194.0	2.8493		
0810	0.72	4.76	0.52	0.52	0.47	0.76	173.0	2.8624		
0900	0.83	4.84	0.66	0.65	0.64	0.89	173.0	2.8678		
1015	1.01	5.07	0.88	0.88	0.87	1.10	234.0	2.8785		
1200	1.03	5.10	0.89	0.90	0.88	1.12	372.0	2.8957		
1215	1.03	5.10	0.89	0.90	0.89	1.12	595.0	2.9025		
1245	1.03	5.10	0.89	0.90	0.89	1.12	607.0	2.9078		
1250	1.03	5.10	0.89	0.90	0.89	1.12	607.0	2.9101		
1300	1.03	5.10	0.89	0.90	0.89	1.12	607.0	2.9185		
1345	1.03	5.11	0.89	0.90	0.89	1.13	595.0	2.9465		
1500	1.03	5.22	0.89	0.88	1.14	1.14	536.0	2.9486		
1515	1.03	5.47	0.89	0.88	1.15	1.15	533.0	2.9547		
1545	1.03	5.68	0.89	0.82	1.04	1.04	620.0	2.9617		
1600	1.09	5.77	0.84	0.84	1.06	1.06	733.0	2.9672		
1615	1.09	5.78	0.84	0.84	1.01	1.01	1090.0	2.9755		
1630	1.09	5.78	0.84	1.14	0.86	1.10	1500.0	2.9672		
1645	1.30	7.49	1.29	1.29	1.25	1.27	2230.0	3.0125		
1715	1.31	8.36	1.45	1.45	1.45	1.59	3870.0	3.0709		
1745	1.31	8.42	1.45	1.45	1.45	1.41	3470.0	3.1536		

COLORADO RIVER BASIN

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 (1.9 km) south of Webberville Road, and 5.0 mi (8.0 km) east of the State Capitol in Austin.

DRAINAGE AREA.--53.5 mi² (138.6 km²).

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 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMEDIATE (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
JAN 27...	1245	10	769	7.1	19.5	5	4.1	9.2	99	1.8	1700	43
JUN 16...	1330	1900	373	7.9	21.0	100	900	8.1	91	3.8	290000	42000
AUG 24...	1400	28	689	7.1	30.0	0	2.1	7.6	103	1.0	2100	350

DATE	TIME	STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JAN 27...	29	180	81	47	15	76	2.5	8.3	98	91	81	2.6	
JUN 16...	38000	160	22	59	3.5	9.1	.3	4.0	140	30	11	.2	
AUG 24...	1300	150	64	38	13	74	2.9	9.4	84	67	99	1.1	

DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, TILE, 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 + 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)
JAN 27...	9.1	389	9	2	13	.010	13	.130	1.3	1.4	4.500	10
JUN 16...	12	213	2640	196	1.1	.060	1.2	.220	2.4	2.6	.950	34
AUG 24...	12	364	20	9	13	.030	13	.140	2.0	2.1	6.400	7.1

DATE	TIME	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
AUG 24...	1400	2	19	<1	10	10	<10

DATE	TIME	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
AUG 24...	1400	<10	13	.0	0	0	12

DATE	TIME	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)
AUG 24...	1400	.00	.0	.00	.1	.00	.00	.00	.00

COLORADO RIVER BASIN

08158640 WALNUT CREEK AT SOUTHERN PACIFIC RAILROAD BRIDGE, AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
AUG 24...	.01	.00	.00	.00	.01	.06	.07	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
AUG 24...	.00	.00	.00	.00	0	.00	.01	.00	.00

ONION CREEK BASIN

The surface-water hydrologic data for Onion Creek for the 1981 water year are given in the following pages:

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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 crossing on Farm Road 150, 3.2 mi (5.1 km) southeast of Driftwood, and 10 mi (16 km) west of Buda.

DRAINAGE AREA.--124 mi² (321 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1958, November 1961 to June 1979 (periodic discharge measurements only), July to September 1979.

GAGE.--Water-stage recorder. Datum of gage is 878.13 ft (267.654 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Station is part of hydrologic research project to study rainfall-runoff relationship in the Austin urban-rural areas. There is a recording rain gage located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,010 ft³/s (227 m³/s) June 11, 1981, gage height, 15.24 ft (4.645 m); minimum daily, 0.27 ft³/s (0.008 m³/s) Sept. 5, 1980.

Flood of Mar. 20, 1979, reached a stage of 11.48 ft (3.499 m), discharge, 4,980 ft³/s (141 m³/s), on basis of peak flow over dam, 1.5 mi (2.4 km) downstream. Flood of June 11, 1981, peaked at a depth of 5 ft (1.5 m) over this dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 16	0830	1,680 47.6	6.90 2.103	June 12	1545	5,700 161	12.39 3.776
Mar. 4	0230	2,860 81.0	8.44 2.573	June 13	1930	5,520 156	12.16 3.706
May 24	0745	768 21.7	6.06 1.847	June 14	1300	2,790 79.0	8.32 2.536
June 11	1530	*8,010 22.7	15.24 4.645	June 16	1145	6,480 184	13.35 4.069

Minimum daily discharge, 1.6 ft³/s (0.045 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	15	37	23	23	38	77	28	42	173	20	12
2	37	15	37	23	23	38	74	27	46	163	19	12
3	30	15	37	23	22	57	73	28	52	154	17	14
4	26	14	37	24	22	765	69	28	93	148	15	15
5	22	13	39	25	22	139	63	27	101	154	13	13
6	14	13	38	25	23	117	61	25	72	139	11	10
7	18	12	37	26	23	116	61	23	63	123	8.4	9.8
8	18	13	39	26	24	112	60	22	59	119	7.0	12
9	17	11	45	27	24	103	58	21	55	114	6.2	12
10	15	11	41	27	39	100	57	20	53	105	6.1	12
11	15	12	39	26	38	102	50	20	1990	97	6.2	10
12	13	13	39	26	37	114	53	20	1840	91	6.7	8.7
13	12	9.8	39	26	38	142	50	19	1730	87	8.0	7.6
14	12	9.8	38	27	38	122	49	18	1390	81	6.5	6.5
15	12	9.0	38	27	38	120	48	17	225	76	6.5	31
16	198	13	37	26	39	113	47	21	1810	71	6.1	19
17	38	22	35	26	39	111	46	21	238	65	7.9	14
18	27	17	34	26	38	106	44	19	551	62	14	11
19	28	14	31	26	37	99	41	17	486	58	39	10
20	24	11	29	26	37	98	38	16	352	54	23	9.0
21	22	11	28	26	37	96	37	14	307	50	16	8.3
22	21	13	27	26	36	91	36	15	276	47	13	7.8
23	19	17	27	25	34	87	43	15	238	42	12	8.0
24	16	15	27	26	34	85	43	139	204	39	9.8	6.0
25	14	14	27	25	34	84	38	124	203	37	8.6	5.2
26	14	37	27	25	34	83	35	46	198	38	8.6	4.4
27	15	40	25	24	34	81	32	34	193	35	8.3	3.6
28	15	38	24	23	34	80	32	31	176	33	7.9	3.1
29	15	36	24	24	---	97	30	30	164	29	8.6	1.8
30	16	35	23	23	---	85	29	34	171	25	9.8	1.6
31	16	---	23	21	---	79	---	45	---	22	13	---
TOTAL	810	518.6	1028	779	901	3660	1474	964	13378	2531	362.2	298.4
MEAN	26.1	17.3	33.2	25.1	32.2	118	49.1	31.1	446	81.6	11.7	9.95
MAX	198	40	45	27	39	765	77	139	1990	173	39	31
MIN	12	9.0	23	21	22	38	29	14	42	22	6.1	1.6
CFSM	.21	.14	.27	.20	.26	.95	.40	.25	3.60	.66	.09	.08
IN.	.24	.16	.31	.23	.27	1.10	.44	.29	4.01	.76	.11	.09
AC-FT	1610	1030	2040	1550	1790	7260	2920	1910	26540	5020	718	592
(††)	1.03	3.41	.83	1.69	1.41	4.47	1.27	6.47	12.33	1.54	4.35	2.51

CAL YR 1980 TOTAL 6656.00 MEAN 18.2 MAX 255 MIN .27 CFSM .15 IN 2.00 AC-FT 13200 †† 24.78
WTR YR 1981 TOTAL 26704.20 MEAN 73.2 MAX 1990 MIN 1.6 CFSM .59 IN 8.01 AC-FT 52970 †† 41.31

†† Rainfall on watershed, in inches, based on one rain gage.

COLORADO RIVER BASIN

08158700 ONION CREEK NEAR DRIFTWOOD, TX--Continued

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 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMEDIATE PER 100 ML	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	
JAN 27...	1000	24	472	8.1	13.5	5	.80	11.4	109	.5	600	37
JUN 17...	0950	238	492	7.8	--	5	22	8.4	97	.0	2700	640
AUG 18...	1215	7.9	430	7.7	27.0	0	.50	7.0	91	.5	220	190

DATE	TIME	STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JAN 27...	51	250	32	73	17	9.0	.2	1.0	220	31	12	.2	
JUN 17...	1500	260	7	83	12	5.5	.2	2.0	250	1.0	7.7	.1	
AUG 18...	160	230	31	66	16	8.5	.3	1.2	200	31	15	.2	

DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (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)
JAN 27...	6.8	282	0	0	.26	.000	.26	.050	.42	.47	.190	9.2	
JUN 17...	11	273	35	11	.44	.000	.44	.070	.71	.78	.020	4.0	
AUG 18...	11	269	7	3	.06	.000	.06	.030	.09	.12	<.010	.5	

DATE	TIME	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
AUG 18...	1215	1	30	<1	0	<10	<10

DATE	TIME	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
AUG 18...		<10	2	.0	0	0	3

DATE	TIME	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)
AUG 18...	1215	.00	.0	.00	.0	.00	.00	.00	.00

COLORADO RIVER BASIN

08158700 ONION CREEK NEAR DRIFTWOOD, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)
AUG 18...	.00	.00	.00	.00	.00	.00	.00	.00	.00
DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
AUG 18...	.00	.00	.00	.00	0	.00	.00	.00	.00

COLORADO RIVER BASIN

08158800 ONION CREEK AT BUDA, TX

LOCATION.--Lat 30°05'09", long 97°50'52", Hays County, Hydrologic Unit 12090205, on left bank at downstream side of bridge on Farm Road 967 and 0.4 mi (0.6 km) northwest of Buda.

DRAINAGE AREA.--166 mi² (430 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- November 1961 to September 1973, January 1978 to July 1979 (periodic discharge measurements only), July 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 657.39 ft (200.372 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. The station is part of a hydrologic-research project to study rainfall-runoff relation for the Austin urban-rural areas. There are two recording rain gages located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,400 ft³/s (493 m³/s) June 13, 1981, gage height, 17.59 ft (5.361 m); no flow at times each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 28, 1929, reached a stage of about 36.2 ft (11.03 m), present datum, discharge, 53,200 ft³/s (1,510 m³/s), from slope-area indirect measurement of peak flow. This is probably the highest flood since that date.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)			(ft ³ /s)	(m ³ /s)	(ft)	(m)
Mar. 4	0730	3,740	106	8.69	2.649	June 12	1900	6,920	196	11.39	3.472
June 3	1630	2,770	78.4	7.72	2.353	June 13	2100	*17,400	493	17.59	5.361
June 11	1800	10,700	303	14.00	4.267	June 16	1500	7,640	216	11.92	3.633

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.08	.00	.00	.00	13	.00	.83	186	.00	.00
2	.00	.00	.04	.00	.00	.00	10	.00	2.3	159	.00	.00
3	.00	.00	.00	.00	.00	.00	9.9	.00	384	134	.00	.00
4	.00	.00	.00	.00	.00	941	9.3	.00	82	110	.00	.00
5	.00	.00	.00	.00	.00	271	6.3	.00	232	132	.00	.00
6	.00	.00	.00	.00	.00	162	4.2	.00	82	130	.00	.00
7	.00	.00	.00	.00	.00	129	3.7	.00	20	94	.00	.00
8	.00	.00	.04	.00	.00	122	3.5	.00	7.1	80	.00	.00
9	.00	.00	.25	.00	.00	77	2.3	.00	3.5	68	.00	.00
10	.00	.00	.25	.00	.08	58	1.7	.00	2.1	49	.00	.00
11	.00	.00	.22	.00	.00	50	1.2	.00	3910	36	.00	.00
12	.00	.00	.17	.00	.58	74	.85	.00	3040	24	.00	.00
13	.00	.00	.16	.00	.83	179	.60	.00	5400	16	.00	.00
14	.00	.00	.08	.00	.92	164	.43	.00	4180	13	.00	.00
15	.00	.00	.08	.00	.92	141	.32	.00	1620	10	.00	.00
16	69	.00	.08	.00	.50	114	.22	.00	3400	8.4	.00	.00
17	34	.07	.06	.00	.00	98	.16	.00	1670	6.6	.00	.00
18	1.2	.00	.00	.00	.00	86	.11	.00	1170	5.6	.00	.00
19	.29	.00	.00	.00	.00	63	.00	.03	895	4.8	.00	.00
20	.19	.00	.00	.16	.00	56	.00	.00	719	4.0	.00	.00
21	.13	.00	.00	.17	.00	50	.00	.00	599	3.2	.00	.00
22	.06	.00	.00	.13	.00	44	.00	.00	518	2.4	.00	.00
23	.00	.00	.00	.08	.00	32	.00	.00	456	1.8	.00	.00
24	.00	.00	.00	.08	.00	31	.00	4.3	397	1.2	.00	.00
25	.00	.00	.00	.01	.00	25	.00	262	372	.65	.00	.00
26	.00	.22	.00	.00	.00	25	.00	33	362	.37	.00	.00
27	.00	.25	.00	.00	.00	17	.00	2.8	319	.24	.00	.00
28	.00	.20	.00	.00	.00	15	.00	1.1	276	.09	.00	.00
29	.00	.17	.00	.00	---	34	.00	.23	239	.00	.00	.00
30	.00	.15	.00	.00	---	69	.00	.00	208	.00	.00	.00
31	.00	---	.00	.00	---	19	---	.00	---	.00	.00	---
TOTAL	104.87	1.06	1.51	.63	3.83	3146.00	67.79	303.46	30565.83	1280.35	.00	.00
MEAN	3.38	.035	.049	.020	.14	101	2.26	9.79	1019	41.3	.000	.000
MAX	69	.25	.25	.17	.92	941	13	262	5400	186	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.83	.00	.00	.00
CFSM	.02	.000	.000	.000	.001	.61	.01	.06	6.14	.25	.000	.000
IN.	.02	.00	.00	.00	.00	.71	.02	.07	6.85	.29	.00	.00
AC-FT	208	2.1	3.0	1.2	7.6	6240	134	602	60630	2540	.00	.00
(++)	.86	3.28	.83	1.50	1.24	3.60	1.35	5.48	16.86	1.33	3.72	2.16

CAL YR 1980	TOTAL	1678.26	MEAN	4.59	MAX	568	MIN	.00	CFSM	.03	IN	.38	AC-FT	3330	++	29.98
WTR YR 1981	TOTAL	35475.33	MEAN	97.2	MAX	5400	MIN	.00	CFSM	.59	IN	7.95	AC-FT	70370	++	42.21

++ Weighted-mean rainfall on watershed, in inches, based on two rain gages.

COLORADO RIVER BASIN

08158800 ONION CREEK AT BUDA, TX--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMEDIATE (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	
JUN 16...	1058	4980	377	8.1	22.5	25	90	8.8	102	1.1	35000 12000	
DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS 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 (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JUN 16...	56000	200	9	65	8.8	4.1	.1	2.3	190	4.8	6.2	.1
DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF TUENTS, 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)
JUN 16...	12	218	363	30	.28	.020	.30	.040	1.4	1.4	.060	24

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 (3.9 km) downstream from Williamson Creek, 3.2 mi (5.1 km) southwest of Del Valle, and 7.5 mi (11.7 km) southeast of the State Capitol Building in Austin.

DRAINAGE AREA.--321 mi² (831 km²).

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 (134.981 m) State Department of Highways and Public Transportation datum. May 15, 1924, to Mar. 15, 1930, nonrecording gage at highway bridge 1,700 ft (518 m) upstream at 6.42-foot (1.957 m) higher datum.

REMARKS.--Water-discharge records fair. Flow is slightly regulated by several small ponds on main channel and tributaries above station. There are eleven recording rain gages located in the watershed.

AVERAGE DISCHARGE.--10 years (water years 1925-29, 1977-81), 89.1 ft³/s (2.523 m³/s), 3.77 in/yr (96 mm/yr), 64,550 acre-ft/yr (79.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,000 ft³/s (2,150 m³/s) May 28, 1929, gage height, 30.5 ft (9.30 m), present datum; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1869 occurred about July 3, 1869, stage about 38 ft (11.6 m) from newspaper accounts, and Sept. 9, 1921, stage 38.0 ft (11.58 m) from floodmark, present site and datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft³/s (70.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Mar. 4	1245	3,180	90.1	11.04	3.365	June 13	2330	*46,200	1,310	31.27	9.531
May 25	0515	2,910	82.4	10.63	3.240	June 16	2015	8,580	243	18.02	5.492
June 11	1830	26,100	739	25.96	7.913	July 5	1400	2,550	72.2	10.10	3.078
June 12	1800	8,930	253	18.30	5.578						

Minimum daily discharge, 0.41 ft³/s (0.012 m³/s) Oct. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	12	.76	6.0	6.8	11	19	21	3.3	133	316	15	13		
2	7.0	.76	5.8	6.8	28	16	17	3.4	98	285	15	10		
3	4.9	.76	5.8	6.8	7.9	49	15	4.4	262	264	14	36		
4	4.3	.76	5.8	7.2	8.5	916	13	5.2	395	246	14	21		
5	3.3	.76	5.8	7.2	25	333	11	5.3	292	550	14	14		
6	2.7	.76	6.1	7.2	19	171	9.4	4.8	208	296	13	10		
7	2.3	.76	6.3	7.2	13	125	7.3	4.4	78	255	12	8.2		
8	2.0	.63	27	7.2	12	111	6.6	3.9	37	261	12	7.2		
9	2.0	.73	33	7.9	11	78	6.2	3.2	20	234	11	6.7		
10	1.7	.93	14	8.2	22	58	5.7	2.6	15	177	10	5.8		
11	1.7	.64	9.5	8.2	9.6	52	5.2	2.3	10900	156	10	5.7		
12	1.4	1.1	9.1	7.8	10	65	4.5	2.0	6530	138	9.7	4.9		
13	1.7	1.0	15	7.7	9.5	124	4.2	2.0	13200	124	9.3	4.4		
14	1.7	.99	6.8	7.7	9.1	147	3.7	1.7	14500	113	8.4	4.4		
15	1.7	1.1	14	7.7	10	115	3.3	1.5	3170	102	7.6	30		
16	1.7	42	13	7.7	11	94	3.3	25	5840	90	6.9	15		
17	22	38	9.6	7.7	11	74	3.3	10	3320	79	6.6	7.5		
18	24	11	8.5	7.7	12	70	12	4.5	2140	68	10	5.5		
19	7.4	6.7	8.7	48	12	61	6.6	2.2	1470	57	30	4.6		
20	3.8	5.1	8.7	55	11	51	5.3	1.1	1070	46	17	3.7		
21	2.4	4.4	8.4	20	11	48	4.3	.99	844	34	15	3.3		
22	1.7	4.1	8.2	13	10	46	3.9	.99	717	31	11	3.0		
23	1.4	4.1	8.1	11	9.7	39	23	.99	627	28	8.0	3.0		
24	1.2	3.7	7.7	9.9	10	32	12	76	584	24	5.5	2.3		
25	.90	6.8	7.7	9.2	9.4	32	6.4	508	553	21	3.5	2.3		
26	.72	50	7.2	9.3	9.5	30	5.8	128	535	21	3.1	2.0		
27	.56	14	7.2	8.9	9.5	28	5.3	25	467	34	2.8	1.7		
28	.41	8.6	7.2	9.1	9.8	25	4.6	9.7	423	26	2.4	1.4		
29	.41	6.7	7.2	8.9	---	23	4.1	6.4	372	20	2.1	1.2		
30	.45	6.3	7.2	8.7	---	41	4.0	11	337	18	34	1.0		
31	.57	---	7.1	8.2	---	35	---	34	---	17	36	---		
TOTAL	120.02	223.94	301.7	353.9	341.5	3108	237.0	893.87	69137	4131	368.9	238.8		
MEAN	3.87	7.46	9.73	11.4	12.2	100	7.90	28.8	2305	133	11.9	7.96		
MAX	24	50	33	55	28	916	23	508	14500	550	36	36		
MIN	.41	.63	5.8	6.8	7.9	16	3.3	.99	15	17	2.1	1.0		
CFSM	.01	.02	.03	.04	.04	.31	.03	.09	7.18	.41	.04	.03		
IN.	.01	.03	.03	.04	.04	.36	.03	.10	8.01	.48	.04	.03		
AC-FT	238	444	598	702	677	6160	470	1770	137100	8190	732	474		
CAL YR 1980	TOTAL	7558.18	MEAN	20.7	MAX	1010	MIN	.00	CFSM	.06	IN	.88	AC-FT	14990
WTR YR 1981	TOTAL	79455.63	MEAN	218	MAX	14500	MIN	.41	CFSM	.68	IN	9.21	AC-FT	157600

COLORADO RIVER BASIN

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

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION (%)	OXYGEN DEMAND, BIO-CHEMICAL, 5 DAY (MG/L)	COLIFORM, TOTAL, IMMEDIATE (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
JAN 28...	1100	8.7	565	8.1	12.5	0	1.0	14.4	135	.8	460	K2
JUN 17...	1225	3060	453	8.1	21.5	20	70	9.8	111	1.5	26000	9200
AUG 19...	1340	23	330	7.4	26.5	30	65	6.1	78	3.6	110000	36000

DATE	TIME	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD AS (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JAN 28...	K9	230	30	74	11	31	.9	2.1	200	50	34	.3	
JUN 17...	14000	220	1	72	10	8.1	.2	3.0	220	2.7	11	.1	
AUG 19...	16000	140	23	47	6.1	12	.5	2.5	120	24	16	.2	

DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (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)
JAN 28...	2.3	325	13	2	1.5	.010	1.5	.050	.48	.53	.040	7.6	
JUN 17...	12	251	145	24	.60	.010	.61	.080	1.4	1.50	.240	5.0	
AUG 19...	7.6	188	72	34	.60	.010	.61	.040	.66	.70	.090	5.6	

DATE	TIME	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
AUG 19...	1340	2	40	<1	0	<10	17

DATE	TIME	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
AUG 19...		<10	2	.0	0	0	3

DATE	TIME	PCB, TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)
AUG 19...	1340	.00	.00	.00	.00	.00	.01	.00	.24

COLORADO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)
AUG 19...	.00	.00	.00	.00	.00	.00	.00	.04	.00

DATE	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
AUG 19...	.00	.00	.00	.00	0	.00	.02	.00	.00

BEAR CREEK AND LITTLE BEAR CREEK DRAINAGE BASINS

The surface-water hydrologic data for the Bear Creek and Little Bear Creek drainage basins for the 1981 water year are given in the following pages:

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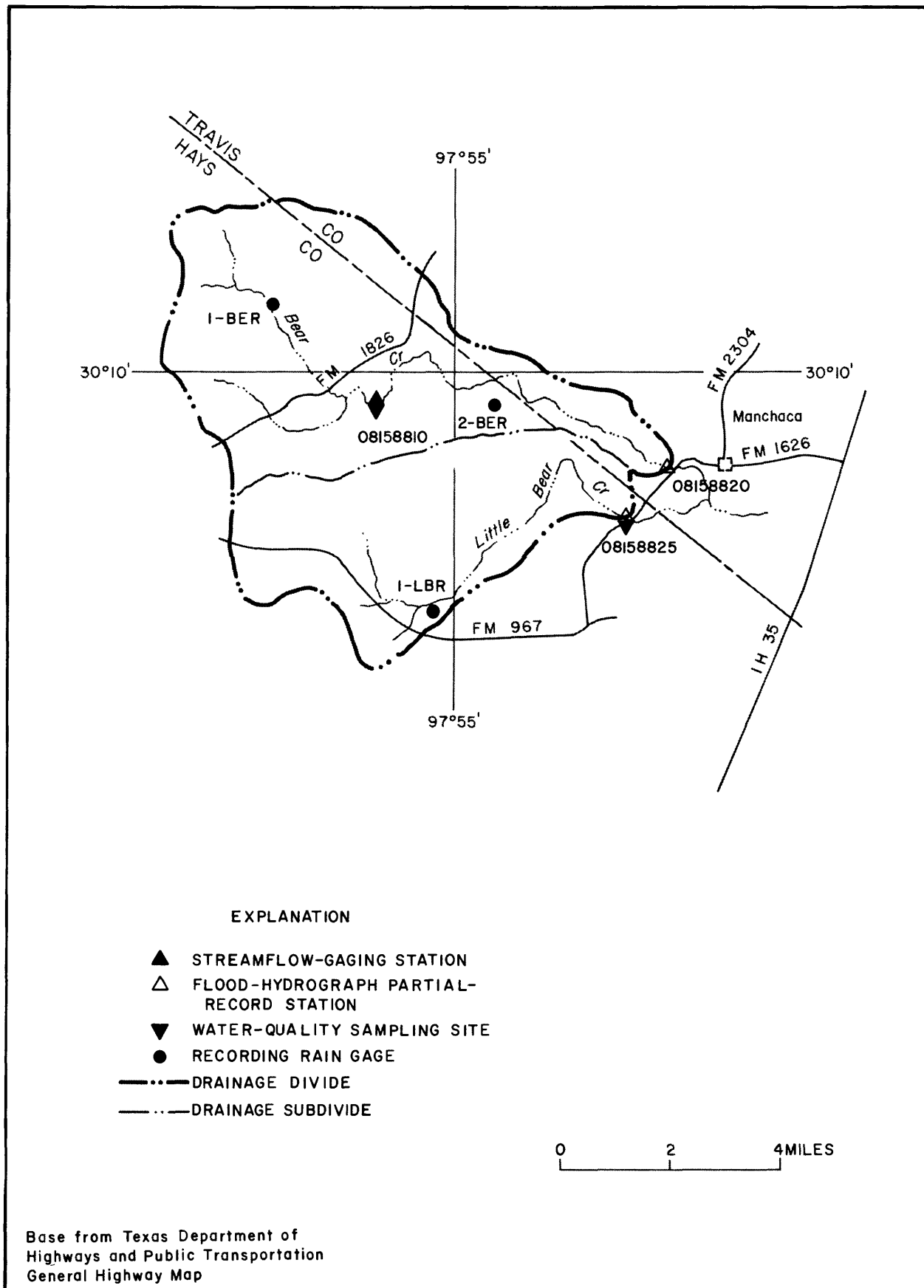


Figure 13 .-Locations of surface-water data-collection sites in the Bear Creek drainage basin

Table 9.--Storm rainfall-runoff data, 1981 water year, Bear Creek drainage basin

Date of Storm	Duration (hours)	Rainfall (inches)		Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
		Total	Maximum increment 15-minute 30-minute 60-minute			
June 10-15, 1981	5 days	14.69	0.73 1.15 1.76	9.52	0.65	8,330

Bear Creek below Farm Road 1826 near Driftwood, Tex.
(Drainage area.--12.2 mi²)

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 (1.3 km) southeast of Farm Road 1826 and 5.9 mi (9.5 km) northeast of Driftwood.

DRAINAGE AREA.--12.2 mi² (31.6 km²).

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. Altitude of gage is 860 ft (262.1 m), from topographic map.

REMARKS.--Water-discharge records fair. Station is part of a hydrologic research project to study rainfall-runoff relation for the Austin urban-rural areas. There is a recording rain gage located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,330 ft³/s (236 m³/s) June 11, 1981, gage height, 13.05 ft (3.978 m) from floodmarks, from slope-area measurements of peak flow; no flow Aug. 28 to Sept. 5, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 9, 1939, reached a stage of 16.2 ft (4.938 m), discharge unknown, and was the highest since at least 1924, from information by local resident. A flood in 1915 was 2 ft (0.6 m) higher than the 1939 flood; from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Mar. 3	2400	570	16.1	5.43	1.655	June 13	1900	6,120	173	11.81	3.600
June 10	2315	780	22.1	5.92	1.804	June 14	0900	2,710	76.7	8.82	2.688
June 11	1130	*8,330	236	13.05	3.978	June 16	0630	1,490	42.2	7.17	2.185
June 12	1130	4,090	116	10.30	3.139						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	1.3	4.6	3.1	3.8	6.3	8.7	3.4	7.4	16	2.3	1.2
2	13	1.2	4.3	2.7	3.1	5.7	8.4	3.5	6.8	14	2.2	1.2
3	11	1.1	4.1	2.8	3.1	30	8.4	3.5	12	13	2.1	2.6
4	10	.99	4.2	2.7	3.9	66	8.0	3.5	43	12	2.0	1.3
5	9.5	.91	4.6	2.7	5.4	19	7.4	3.3	41	18	1.9	1.2
6	8.6	.91	4.3	2.7	5.7	18	7.2	2.8	27	13	1.7	1.1
7	7.6	.91	4.1	2.5	5.7	19	7.1	2.6	24	11	1.7	1.1
8	7.0	.80	5.4	2.5	5.7	18	6.9	2.5	21	11	1.5	1.8
9	6.4	.78	6.3	2.7	5.7	17	6.5	2.5	18	10	1.4	1.1
10	5.5	.80	6.3	2.4	7.1	16	6.3	2.2	55	9.3	1.4	1.0
11	5.0	.91	6.3	2.3	6.1	17	6.2	2.1	915	8.8	1.4	.91
12	4.5	.91	6.3	2.1	6.1	19	6.0	2.1	586	8.3	1.6	.88
13	4.3	.91	6.2	2.1	6.3	23	5.6	2.1	684	7.5	1.4	.84
14	4.3	.91	6.0	2.1	6.4	21	5.4	1.9	696	7.0	1.4	6.3
15	4.3	.80	5.9	2.0	6.6	20	5.2	1.8	172	6.5	1.3	4.0
16	4.6	2.3	5.9	1.9	6.6	19	5.1	3.1	350	5.9	1.3	2.2
17	4.0	3.3	5.4	1.8	6.5	18	4.8	2.2	131	5.6	1.2	1.6
18	3.5	2.1	5.4	1.7	6.5	17	6.0	1.8	98	5.2	4.3	1.4
19	3.8	1.8	5.1	4.2	6.4	15	5.4	1.5	78	4.7	2.8	1.3
20	3.9	1.7	4.8	6.1	6.0	15	4.9	1.4	64	4.0	1.6	1.3
21	3.0	1.6	4.6	4.6	6.1	14	4.8	1.2	50	3.8	1.4	1.3
22	2.7	1.7	4.6	4.1	5.7	13	4.4	1.3	41	3.7	1.3	1.3
23	2.4	1.9	4.6	4.1	5.5	13	6.8	1.3	35	3.3	1.3	1.2
24	1.9	1.7	4.4	3.9	5.4	12	5.2	6.8	30	3.0	1.3	1.2
25	1.8	2.9	4.1	3.7	5.4	11	4.8	24	27	2.9	1.3	1.1
26	1.7	5.5	4.1	3.5	5.3	11	4.5	5.4	25	3.9	1.3	1.1
27	1.7	5.3	3.8	3.5	5.4	11	3.9	4.1	22	4.2	1.1	1.1
28	1.7	4.7	3.8	3.3	5.2	10	3.8	3.4	20	3.3	1.1	1.0
29	1.6	4.6	3.7	3.3	---	10	3.8	3.4	19	2.8	1.3	1.0
30	1.5	4.6	3.3	3.3	---	9.4	3.5	8.7	18	2.6	1.7	1.0
31	1.4	---	3.3	3.4	---	9.0	---	8.5	---	2.4	1.9	---
TOTAL	157.2	59.84	149.8	93.8	156.7	522.4	175.0	117.9	4316.2	226.7	51.5	45.63
MEAN	5.07	1.99	4.83	3.03	5.60	16.9	5.83	3.80	144	7.31	1.66	1.52
MAX	15	5.5	6.3	6.1	7.1	66	8.7	24	915	18	4.3	6.3
MIN	1.4	.78	3.3	1.7	3.1	5.7	3.5	1.2	6.8	2.4	1.1	.84
CFSM	.42	.16	.40	.25	.46	1.39	.48	.31	11.8	.60	.14	.13
IN.	.48	.18	.46	.29	.48	1.59	.53	.36	13.16	.69	.16	.14
AC-FT	312	119	297	186	311	1040	347	234	8560	450	102	91
(††)	.95	3.37	.88	1.67	1.42	4.39	1.66	6.14	19.86	1.92	4.17	2.52

CAL YR 1980 TOTAL 1334.02 MEAN 3.64 MAX 73 MIN .00 CFSM .30 IN 4.07 AC-FT 2650 †† 36.53
WTR YR 1981 TOTAL 6072.67 MEAN 16.6 MAX 915 MIN .78 CFSM 1.36 IN 18.52 AC-FT 12050 †† 48.95

†† Rainfall on watershed, in inches, based on one rain gage.

COLORADO RIVER BASIN

08158810 BEAR CREEK BELOW FARM ROAD 1826 NEAR DRIFTWOOD, TX--Continued

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 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	
JAN 28...	0850	3.6	513	7.9	13.0	0	.50	10.6	100	.6	560	120
JUN 17...	1230	132	523	8.1	22.0	10	5.0	8.5	97	.0	2100	440
AUG 19...	0920	2.5	476	7.8	24.5	5	1.8	--	--	.6	6200	1200

DATE	TIME	STREP-TOCOCCHI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS 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 (MG/L AS CaCO3)	SULFATE, DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS Cl)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 28...	72	260	31	78	16	9.2	.2	.7	230	28	14	.2	
JUN 17...	2300	270	3	88	13	5.9	.2	1.8	270	1.0	12	.1	
AUG 19...	1400	240	22	72	15	7.3	.2	1.1	220	22	18	.3	

DATE	TIME	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)	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)
JAN 28...	6.7	291	0	0	.25	.000	.25	.050	.30	.35	.020	7.2	
JUN 17...	11	295	11	11	.42	.000	.42	.060	.69	.75	.080	3.8	
AUG 19...	11	279	9	6	.16	.000	.16	.050	.50	.55	.010	1.2	

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)
AUG 19...	0920	1	30	<1	0	<10	<10

DATE	TIME	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)
AUG 19...	0920	<10	<1	.0	0	0	3

DATE	TIME	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)
AUG 19...	0920	.00	.0	.00	.0	.00	.00	.00	.00

COLORADO RIVER BASIN

08158810 BEAR CREEK BELOW FARM ROAD 1826 NEAR DRIFTWOOD, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
AUG 19...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
AUG 19...	.00	.00	.00	.00	0	.00	.00	.00	.00

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR				
STATION NO. 08158810										DISCHARGE		ACCUM.		
BEAR CREEK BELOW FARMROAD 1826 NEAR DRIFTWOOD, TEXAS										IN		IN		
STORM OF JUNE 10-15, 1981										IN		IN		
DATE & TIME	WAVE	NUMBER	PRECIP.	IN.	ACCUM.	WEIGHTED	PRECIP.	IN.	CFS	IN.	ACCUM.	WEIGHTED	PRECIP.	IN.
JUNE 10														
0000			0.0					0.0	17.0		0.0220			
2025			0.01					0.01	15.0		0.0425			
2130			0.66					0.66	28.0		0.0449			
2145			1.39					1.39	76.0		0.0485			
2215			1.98					1.98	142.0		0.0575			
2245			1.98					1.98	369.0		0.0761			
2300			1.98					1.98	645.0		0.0965			
2315			1.98					1.98	780.0		0.1213			
2330			1.98					1.98	670.0		0.1532			
2400			1.98					1.98	437.0		0.1706			
JUNE 11														
0000			1.98					1.98	437.0		0.1706			
0015			1.98					1.98	370.0		0.1860			
0030			1.99					1.99	218.0		0.1929			
0045			1.99					1.99	266.0		0.2098			
0130			1.99					1.99	181.0		0.2290			
0225			1.99					1.99	135.0		0.2397			
0245			2.62					2.62	131.0		0.2459			
0310			3.19					3.19	137.0		0.2546			
0345			3.22					3.22	134.0		0.2617			
0400			3.22					3.22	156.0		0.2667			
0415			3.23					3.23	201.0		0.2730			
0430			3.23					3.23	230.0		0.2840			
0500			3.23					3.23	230.0		0.2986			
0530			3.23					3.23	186.0		0.3134			
0615			3.23					3.23	146.0		0.3250			
0645			3.23					3.23	129.0		0.3311			
0700			3.23					3.23	127.0		0.3351			
0715			3.46					3.46	136.0		0.3394			
0730			4.03					4.03	164.0		0.3525			
0830			4.35					4.35	399.0		0.3905			
0900			4.65					4.65	653.0		0.4319			
0930			4.80					4.80	674.0		0.4640			
0945			4.89					4.89	752.0		0.4879			
1000			5.13					5.13	879.0		0.5158			
1015			5.75					5.75	1050.0		0.5492			
1030			6.28					6.28	1820.0		0.6070			
1045			6.59					6.59	3910.0		0.7311			
1100			6.89					6.89	6900.0		0.9502			
1115			7.25					7.25	8040.0		1.2055			

STORM RAINFALL AND RUNOFF RECORD									
STORM OF JUNE 10-15, 1981									
STATION NO. 08158810									
BEAR CREEK BELOW FARM ROAD 1826 NEAR DRIFTWOOD, TEXAS									
DATE & TIME	18ER	G A G E	N U M B E R	P H E L I P	W E I G H T	A C C U M .	1981 WATER YEAR		A C C U M .
							IN	CFS	
JUNE 11									
1130	7.50					7.50	8330.0		1.3819
1135	7.56					7.56	7840.0		1.6308
1200	7.69					7.69	6530.0		1.9073
1215	7.70					7.70	5630.0		2.1755
1245	7.75					7.75	3060.0		2.3212
1300	7.77					7.77	2210.0		2.4265
1330	7.79					7.79	1240.0		2.4855
1345	7.81					7.81	996.0		2.5330
1415	7.87					7.87	757.0		2.5690
1430	7.89					7.89	734.0		2.5923
1445	7.89					7.89	695.0		2.6144
1500	7.89					7.89	616.0		2.6340
1515	7.90					7.90	587.0		2.6712
1600	7.90					7.90	451.0		2.7142
1645	7.90					7.90	386.0		2.7387
1700	7.90					7.90	379.0		2.7507
1715	7.91					7.91	357.0		2.7848
1830	7.91					7.91	289.0		2.8260
1930	7.91					7.91	253.0		2.8502
2000	7.91					7.91	238.0		2.8842
2145	7.91					7.91	211.0		2.9378
2400	7.91					7.91	192.0		2.9896
JUNE 12									
0000	7.91					7.91	192.0		2.9896
0400	7.91					7.91	173.0		3.0826
0615	7.92					7.92	168.0		3.1120
0645	8.06					8.06	168.0		3.1226
0715	8.07					8.07	173.0		3.1309
0730	8.18					8.18	190.0		3.1369
0745	8.46					8.46	253.0		3.1449
0800	8.63					8.63	465.0		3.1597
0815	8.79					8.79	894.0		3.1881
0830	9.00					9.00	1250.0		3.2675
0915	9.09					9.09	1540.0		3.3653
0930	9.09					9.09	1640.0		3.4174
0945	9.12					9.12	1580.0		3.4675
1000	9.20					9.20	1450.0		3.5136
1015	9.33					9.33	1270.0		3.5741
1045	9.95					9.95	2160.0		3.6769
1100	9.99					9.99	2850.0		3.7674

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 08158810									
BEAR CREEK BELOW FARM ROAD 1826 NEAR URIFWOOD, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	IBER	GAGE	NUMBER	WEIGHTED PRECIP. IN.	ACCUM. PRECIP. IN.	DISCHARGE IN	ACCUM. DISCHARGE IN	CFS	IN.
JUNE 12									
1115	9.99			9.99	9.99	3930.0	3.8922		
1130	9.99			9.99	9.99	4090.0	4.0221		
1145	9.99			9.99	9.99	3610.0	4.1367		
1200	9.99			9.99	9.99	2590.0	4.2190		
1215	9.99			9.99	9.99	1840.0	4.2774		
1230	9.99			9.99	9.99	1350.0	4.3203		
1245	9.99			9.99	9.99	1030.0	4.3530		
1300	10.00			10.00	10.00	807.0	4.3914		
1330	10.00			10.00	10.00	600.0	4.4391		
1415	10.00			10.00	10.00	426.0	4.4932		
1530	10.00			10.00	10.00	323.0	4.5444		
1645	10.00			10.00	10.00	269.0	4.6170		
1945	10.00			10.00	10.00	208.0	4.7128		
2400	10.01			10.01	10.01	186.0	4.7822		
JUNE 13									
0000	10.01			10.01	10.01	186.0	4.7822		
0315	10.04			10.04	10.04	177.0	4.8464		
0400	10.15			10.15	10.15	179.0	4.9345		
1100	10.28			10.28	10.28	181.0	5.0207		
1130	10.48			10.48	10.48	213.0	5.0308		
1145	10.52			10.52	10.52	266.0	5.0393		
1200	10.55			10.55	10.55	357.0	5.0506		
1215	10.60			10.60	10.60	382.0	5.1537		
1615	10.91			10.91	10.91	386.0	5.2640		
1645	11.02			11.02	11.02	430.0	5.2845		
1700	11.09			11.09	11.09	465.0	5.3140		
1745	11.15			11.15	11.15	739.0	5.3610		
1800	11.45			11.45	11.45	1270.0	5.4013		
1815	12.10			12.10	12.10	2770.0	5.4893		
1830	12.37			12.37	12.37	4780.0	5.6410		
1845	12.50			12.50	12.50	5720.0	5.8227		
1900	12.56			12.56	12.56	6120.0	6.0170		
1915	12.61			12.61	12.61	5830.0	6.2021		
1930	12.61			12.61	12.61	4530.0	6.3460		
1945	12.61			12.61	12.61	2950.0	6.4396		
2000	12.61			12.61	12.61	2170.0	6.5085		
2015	12.61			12.61	12.61	1550.0	6.5578		
2030	12.64			12.64	12.64	1190.0	6.5956		
2045	12.66			12.66	12.66	1010.0	6.6437		
2115	12.67			12.67	12.67	784.0	6.6934		

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 08158810									
BEAR CREEK BELOW FARM ROAD 1826 NEAR DRIFTWOOD, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	RAIN	GAGE	NUMBER	PRECIP.	ACCUM. WEIGHED	DISCHARGE	ACCUM.	MUNOFF	IN.
	IN.			IN.	PRECIP.	IN.	IN.	IN.	IN.
JUNE 13									
2145	12.67			12.67		649.0		6.7450	
2230	12.67			12.67		492.0		6.7996	
2330	12.67			12.67		269.0		6.8210	
2345	12.67			12.67		373.0		6.8328	
2400	12.67			12.67		357.0		6.8725	
JUNE 14									
0000	12.67			12.67		357.0		6.8725	
0300	12.69			12.69		283.0		6.9694	
0330	12.73			12.73		311.0		6.9842	
0345	12.75			12.75		347.0		6.9953	
0400	12.76			12.76		507.0		7.0114	
0415	12.80			12.80		612.0		7.0308	
0430	12.91			12.91		695.0		7.0529	
0445	13.02			13.02		914.0		7.0819	
0500	13.17			13.17		1220.0		7.1594	
0545	13.39			13.39		2630.0		7.3264	
0600	13.44			13.44		2690.0		7.4118	
0615	13.45			13.45		2430.0		7.4890	
0630	13.45			13.45		2040.0		7.5537	
0645	13.47			13.47		1560.0		7.6033	
0700	13.61			13.61		1290.0		7.6442	
0715	13.81			13.81		1220.0		7.7024	
0745	14.02			14.02		1210.0		7.7600	
0800	14.28			14.28		1440.0		7.8057	
0815	14.47			14.47		2070.0		7.8714	
0830	14.53			14.53		2600.0		7.9540	
0845	14.57			14.57		2650.0		8.0381	
0900	14.61			14.61		2710.0		8.1242	
0915	14.61			14.61		2390.0		8.2760	
1000	14.61			14.61		1330.0		8.3816	
1030	14.61			14.61		924.0		8.4843	
1145	14.62			14.62		546.0		8.5709	
1300	14.62			14.62		402.0		8.6731	
1545	14.63			14.63		294.0		8.8784	
2400	14.63			14.63		206.0		9.0649	
JUNE 15									
0000	14.63			14.63		206.0		9.0649	
1200	14.63			14.63		173.0		9.4071	
2400	14.69			14.69		146.0		9.5183	

08158820 BEAR CREEK AT FARM ROAD 1626 NEAR MANCHACA, TEX.
(Flood-hydrograph partial-record gage)

LOCATION.--Lat 30°08'25", long 97°50'50", Travis County, at culvert on Farm Road 1626, 1 mile west of Manchaca, Texas.

DRAINAGE AREA.--24.0 mi².

PERIOD OF RECORD.--July 1979 to current year.

GAGE.--Digital water-stage recorder and crest-stage gage. Datum of gage is 643.63 ft NGVD.

REMARKS.--Records fair. No storms analyzed for the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft³/s June 11, 1981 (gage height, 15.60 ft).

COLORADO RIVER BASIN

08158825 LITTLE BEAR CREEK AT FARM ROAD 1626 NEAR MANCHACA, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 30°07'31", long 97°51'43", Hays County, Hydrologic Unit 12090205, at downstream side of culvert on Farm Road 1626 and 2.1 mi (3.4 km) southwest of Manchaca.

DRAINAGE AREA.--21.0 mi² (54.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1979 to current year.

GAGE.--Flood-hydrograph recorder and crest-stage gage. Datum of gage is 668.67 ft (203.811 m) 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, 1980." A recording rain gage is located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,530 ft³/s (157 m³/s) June 11, 1981, gage height, 12.30 ft (3.749 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,530 ft³/s (157 m³/s) June 11, gage height, 12.30 ft (3.749 m).

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMEDIATE PER 100 ML	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)		
JUN 17...	1102	4.2	328	8.0	22.5	30	5.2	7.5	88	.3	9200 K590		
DATE	TIME	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JUN 17...	1700	170	9	57	6.4	3.3	.1	3.2	160	10	5.1	.1	
DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE (MG/L AS N)	NITROGEN, NITRITE (MG/L AS N)	NITROGEN, NO2+NO3 (MG/L AS N)	NITROGEN, AMMONIA (MG/L AS N)	NITROGEN, ORGANIC (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JUN 17...	17	199	13	8	.11	.000	.11	.060	1.0	1.1	.040	6.1	

SLAUGHTER CREEK DRAINAGE BASIN

The surface-water hydrologic data for the Slaughter Creek drainage basin for the 1981 water year are given in the following pages:

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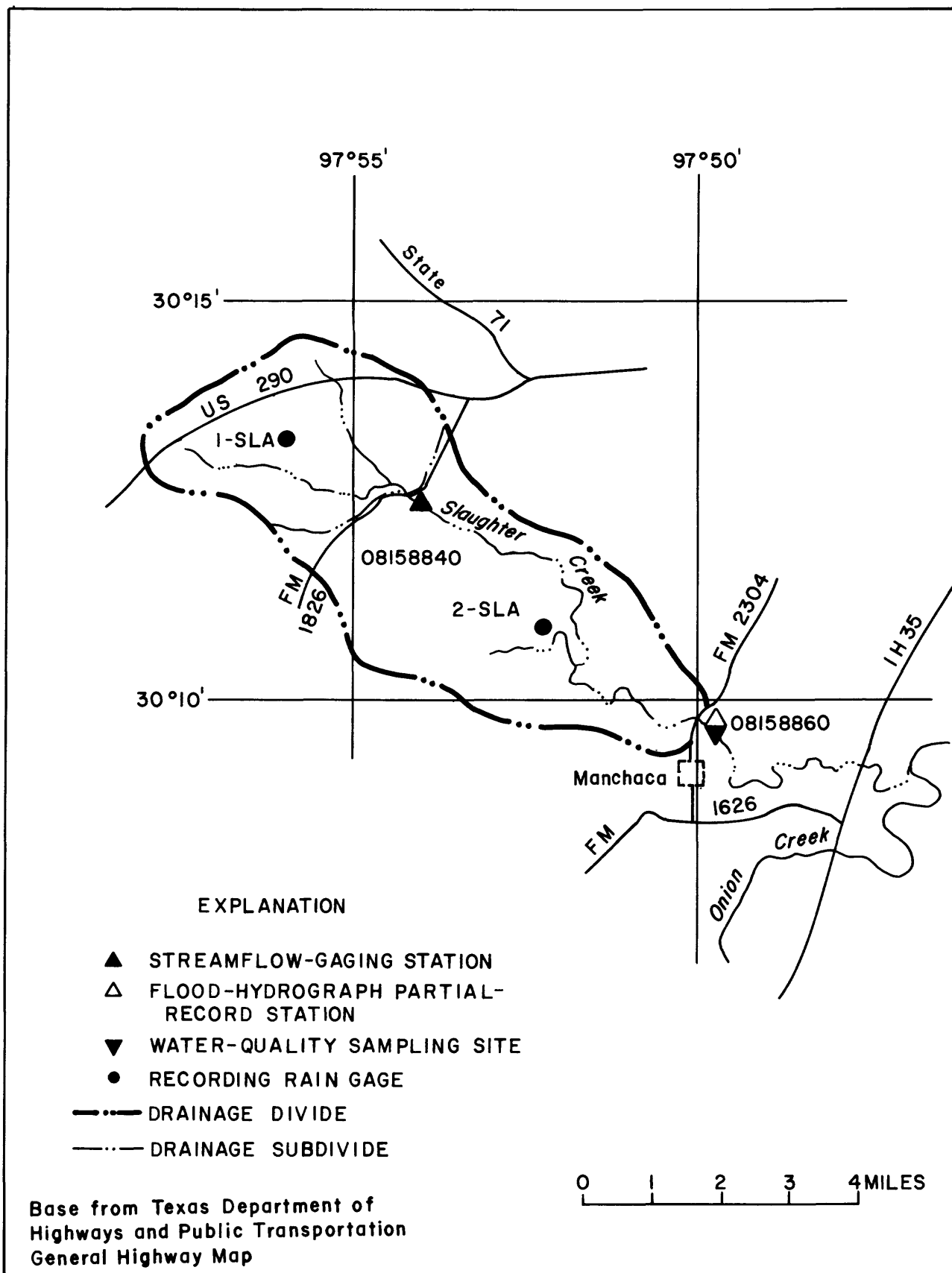


Figure 14.—Locations of surface-water data-collection sites in the Slaughter Creek drainage basin

Table 10.--Storm rainfall-runoff data, 1981 water year, Slaughter Creek drainage basin

Date of Storm	Duration (hours)	Rainfall (inches)			Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
		Total	15-minute	Maximum increment 30-minute			
Slaughter Creek at Farm Road 1826 near Austin, Tex. (Drainage area.--8.24 mi ²)							
March 3-4, 1981	16	3.07	0.69	1.03	1.42	0.67	997
June 10-15, 1981	5 days	14.71	0.62	0.98	1.71	11.16	4,080
Slaughter Creek at Farm Road 2304 near Austin, Tex. (Drainage area.--23.1 mi ²)							
June 10-15, 1981	5 days	13.19	0.63	1.04	1.40	7.63	8,340

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 12090205, 1.7 mi (2.7 km) south of the intersection of U.S. Highway 290 and Farm Road 1826 and 11.9 mi (19.1 km) southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--8.24 mi² (21.3 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 876.14 ft (267.047 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. No known regulation or diversion. There is a recording rain gage in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,080 ft³/s (116 m³/s) June 11, 1981, gage height, 10.79 ft (3.289 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Mar. 3	2315	997	28.2	7.00	2.134	June 13	1300	3,150	89.2	9.85	3.002
May 25	0015	679	19.2	6.38	1.945	June 14	0900	1,640	46.4	8.00	2.438
June 11	1130	*4,080	116	10.79	3.289	June 16	0645	892	25.3	6.80	2.073
June 12	0900	2,340	66.3	8.93	2.722						

Minimum daily discharge, 0.05 ft³/s (0.001 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	.27	1.6	1.6	2.5	2.3	3.1	1.1	3.4	5.5	.56	.09
2	.45	.27	1.4	1.6	1.7	2.0	2.9	1.1	3.3	4.8	.51	.09
3	.32	.27	1.2	1.6	1.6	.79	2.9	1.1	3.7	4.6	.41	.35
4	.30	.30	1.3	1.6	2.1	57	2.9	1.2	52	4.1	.34	.21
5	.27	.30	1.6	1.6	2.5	13	2.6	1.1	75	17	.33	.20
6	.27	.30	1.6	1.6	2.6	10	2.4	.89	23	7.8	.30	.18
7	.27	.30	1.6	1.6	2.6	11	2.4	.82	13	5.8	.30	.18
8	.27	.30	2.6	1.7	2.6	9.0	2.4	.82	9.8	5.4	.25	.18
9	.26	.30	3.3	2.0	2.6	8.3	2.4	.80	7.5	4.8	.22	.15
10	.24	.30	3.1	1.6	3.1	7.9	2.4	.72	27	4.3	.21	.15
11	.24	.30	3.1	1.5	2.5	8.9	2.2	.66	901	3.6	.21	.14
12	.24	.30	3.1	1.2	2.4	15	2.2	.66	423	3.1	.21	.12
13	.24	.30	3.1	1.2	2.4	20	2.0	.66	681	2.8	.20	.10
14	.24	.27	3.1	1.2	2.4	16	2.0	.65	336	2.6	.18	.42
15	.24	.27	4.4	1.2	2.5	14	1.8	.59	61	2.3	.17	.20
16	.42	.99	3.8	1.1	2.6	12	1.8	.99	191	2.1	.15	.15
17	.33	.62	3.1	.95	2.6	12	1.8	.80	54	1.8	.13	.13
18	.30	.45	3.1	.91	2.6	11	2.0	.72	32	1.6	.25	.13
19	.30	.42	2.7	2.4	2.5	9.1	2.0	.60	25	1.6	.19	.10
20	.30	.42	2.4	3.2	2.4	9.1	1.6	.59	18	1.4	.17	.10
21	.30	.42	2.4	2.7	2.4	9.1	1.6	.59	11	1.3	.15	.10
22	.30	.42	2.4	2.4	2.0	7.2	1.5	.59	12	1.2	.15	.09
23	.30	.42	2.4	2.4	2.0	5.7	2.6	.59	11	1.1	.15	.09
24	.30	.42	2.2	2.6	2.0	5.7	1.6	12	9.5	.98	.10	.08
25	.30	.82	1.7	2.6	2.0	5.7	1.5	57	8.4	.89	.10	.08
26	.30	1.2	1.6	2.6	2.0	4.8	1.5	2.4	7.8	1.0	.10	.07
27	.30	1.5	1.6	2.4	2.0	4.8	1.3	1.6	7.8	1.4	.08	.07
28	.28	1.6	1.6	2.0	1.8	4.8	1.3	1.3	7.5	1.1	.07	.06
29	.27	1.6	1.6	2.0	---	4.8	1.2	1.1	6.5	.81	.15	.06
30	.27	1.6	1.5	1.7	---	4.1	1.1	4.4	6.1	.71	.10	.05
31	.27	---	1.6	1.6	---	3.7	---	5.1	---	.63	.11	---
TOTAL	9.38	17.25	71.8	56.36	65.0	387.0	61.0	103.24	3027.3	98.12	6.55	4.12
MEAN	.30	.58	2.32	1.82	2.32	12.5	2.03	3.33	101	3.17	.21	.14
MAX	.69	1.6	4.4	3.2	3.1	.79	3.1	.57	901	17	.56	.42
MIN	.24	.27	1.2	.91	1.6	2.0	1.1	.59	3.3	.63	.07	.05
CFSM	.04	.07	.28	.22	.28	1.52	.25	.40	12.3	.39	.03	.02
IN.	.04	.08	.32	.25	.29	1.75	.28	.47	13.67	.44	.03	.02
AC-FT	.19	.34	1.42	1.12	1.29	768	121	205	6000	195	13	8.2
(††)	1.40	3.75	1.16	1.82	1.42	5.26	1.57	6.50	18.02	2.28	2.73	4.16

CAL YR 1980	TOTAL	1051.13	MEAN	2.87	MAX	134	MIN	.00	CFSM	.35	IN	4.74	AC-FT	2080	††	35.36
WTR YR 1981	TOTAL	3907.12	MEAN	10.7	MAX	901	MIN	.05	CFSM	1.30	IN	17.64	AC-FT	7750	††	50.07

†† Rainfall on watershed, in inches, based on one rain gage.

STATION NO. 08158840		STORM RAINFALL AND RUNOFF RECORD				1981 WATER YEAR			
SLAUGHTER CREEK AT FARM ROAD 1026 NEAR AUSTIN, TEXAS		STORM OF MARCH 3-4, 1981				DISCHARGE ACCUM.			
DATE & TIME	G A G E	I N U M B E R	P R E C I P .	W E I G H T E D	I N	C F S	I N	I N	R U N O F F
MAR. 3									
0000	0.0		0.0	0.0	2.0	0.0009			
0435	0.01		0.01	0.01	2.0	0.0026			
0900	0.16		0.16	0.16	2.0	0.0034			
0905	0.21		0.21	0.21	2.4	0.0034			
0910	0.34		0.34	0.34	2.8	0.0035			
0915	0.51		0.51	0.51	3.1	0.0036			
0925	0.59		0.59	0.59	3.3	0.0039			
1015	0.61		0.61	0.61	7.8	0.0050			
1100	0.61		0.61	0.61	7.8	0.0063			
1200	0.61		0.61	0.61	4.4	0.0076			
1400	0.61		0.61	0.61	4.1	0.0103			
1915	0.62		0.62	0.62	3.4	0.0123			
2000	0.83		0.83	0.83	3.4	0.0126			
2010	1.00		1.00	1.00	4.3	0.0127			
2015	1.21		1.21	1.21	4.8	0.0127			
2020	1.60		1.60	1.60	6.0	0.0129			
2030	1.86		1.86	1.86	9.1	0.0132			
2045	2.18		2.18	2.18	35.0	0.0149			
2100	2.20		2.20	2.20	121.0	0.0206			
2115	2.21		2.21	2.21	171.0	0.0286			
2130	2.26		2.26	2.26	180.0	0.0371			
2145	2.31		2.31	2.31	267.0	0.0496			
2200	2.67		2.67	2.67	400.0	0.0684			
2215	2.91		2.91	2.91	494.0	0.0917			
2230	2.92		2.92	2.92	648.0	0.1221			
2245	2.93		2.93	2.93	819.0	0.1606			
2300	2.97		2.97	2.97	954.0	0.1980			
2310	2.99		2.99	2.99	980.0	0.2210			
2315	2.99		2.99	2.99	997.0	0.2367			
2320	2.99		2.99	2.99	980.0	0.2597			
2330	2.99		2.99	2.99	960.0	0.2973			
2345	3.01		3.01	3.01	855.0	0.3375			
2400	3.03		3.03	3.03	725.0	0.3631			
MAR. 4									
0000	3.03		3.03	3.03	725.0	0.3631			
0015	3.04		3.04	3.04	554.0	0.3976			
0030	3.05		3.05	3.05	437.0	0.4182			
0045	3.05		3.05	3.05	368.0	0.4355			
0100	3.06		3.06	3.06	253.0	0.4533			
0130	3.06		3.06	3.06	132.0	0.4626			

STA. NO. 081588+0 STORM RAINFALL AND RUNOFF RECORD 1981 WATER YEAR

DATE & TIME	ISLA	GAGE	NUMBER	STORM OF MARCH 3-4, 1981	ACCUM. WEIGHTED PRECIP.		DISCHARGE IN		ACCUM. RUNOFF	
					IN.	PRECIP.	CFS	IN.	IN.	IN.
MAR. 4										
0145	3.06				3.06	3.06	115.0	0.4680		
0200	3.06				3.06	3.06	81.0	0.4738		
0230	3.06				3.06	3.06	81.0	0.4795		
0245	3.06				3.06	3.06	99.0	0.4841		
0300	3.06				3.06	3.06	99.0	0.4888		
0315	3.06				3.06	3.06	95.0	0.4932		
0330	3.06				3.06	3.06	86.0	0.4973		
0345	3.06				3.06	3.06	86.0	0.5013		
0400	3.06				3.06	3.06	70.0	0.5046		
0415	3.06				3.06	3.06	70.0	0.5096		
0600	3.06				3.06	3.06	56.0	0.5188		
1000	3.07				3.07	3.07	45.0	0.5410		
1200	3.07				3.07	3.07	35.0	0.5607		
1600	3.07				3.07	3.07	28.0	0.5765		
2000	3.07				3.07	3.07	23.0	0.5938		
2400	3.07				3.07	3.07	17.0	0.6066		
MARK 5							17.0	0.6194		
0000	3.07				3.07	3.07	17.0	0.6194		
0600	3.07				3.07	3.07	14.0	0.6469		
1600	3.07				3.07	3.07	12.0	0.6649		
2400	3.07				3.07	3.07	11.0	0.6732		

STA. NO. 08158840		STORM RAINFALL AND RUNOFF RECORD				1981 WATER YEAR			
SLAUGHTER CREEK AT FARM ROAD 1826 NEAR AUSTIN, TEXAS		STORM OF JUNE 10-15, 1981				DISCHARGE ACCUM.			
DATE & TIME	ISLA	U A G E	N U M B E R	P R E C I P .	ACCUM. PRECIP. IN.	CFS	IN	IN.	RUNOFF
JUNE 10									
0000	0.0			0.0	0.0		0.7	0.0126	
2000	0.01			0.01	0.01		5.3	0.0227	
2015	0.04			0.04	0.04		5.3	0.0229	
2030	0.36			0.36	0.36		5.3	0.0232	
2045	0.49			0.49	0.49		5.3	0.0234	
2100	0.80			0.80	0.80		5.7	0.0237	
2115	1.23			1.23	1.23		7.8	0.0241	
2130	1.47			1.47	1.47		11.0	0.0269	
2400	1.53			1.53	1.53		271.0	0.0938	
JUNE 11									
0000	1.53			1.53	1.53		271.0	0.0938	
0015	1.53			1.53	1.53		220.0	0.1073	
0030	1.53			1.53	1.53		220.0	0.1435	
0200	1.68			1.68	1.68		158.0	0.1683	
0215	1.77			1.77	1.77		158.0	0.1720	
0230	2.23			2.23	2.23		158.0	0.1770	
0245	2.34			2.34	2.34		185.0	0.1857	
0315	2.41			2.41	2.41		231.0	0.2020	
0325	2.64			2.64	2.64		1060.0	0.2684	
0330	2.66			2.66	2.66		1220.0	0.2971	
0335	2.66			2.66	2.66		1300.0	0.3174	
0345	2.67			2.67	2.67		1290.0	0.3478	
0400	2.69			2.69	2.69		1260.0	0.3971	
0430	2.74			2.74	2.74		1060.0	0.4719	
0500	2.74			2.74	2.74		760.0	0.5434	
0515	2.74			2.74	2.74		575.0	0.5839	
0545	2.74			2.74	2.74		575.0	0.6245	
0615	2.77			2.77	2.77		592.0	0.6801	
0630	2.78			2.78	2.78		463.0	0.7128	
0645	2.83			2.83	2.83		429.0	0.7329	
0700	3.09			3.09	3.09		326.0	0.7483	
0745	4.07			4.07	4.07		271.0	0.7674	
0800	4.08			4.08	4.08		238.0	0.7842	
0815	4.09			4.09	4.09		372.0	0.8016	
0830	4.32			4.32	4.32		954.0	0.8465	
0845	4.42			4.42	4.42		1570.0	0.9203	
0900	4.70			4.70	4.70		1920.0	1.0106	
0930	4.91			4.91	4.91		2140.0	1.1112	
							2200.0	1.2663	
							2010.0	1.4081	

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR	
STATION NO. 08158840											
SLAUGHTER CREEK AT FARM ROAD 1826 NEAR AUSTIN, TEXAS											
STORM OF JUNE 10-15, 1981											
DATE & TIME	ISLA	GAUGE	NUMBER	PRECIP.	WEIGHTED	ACCUM.	DISCHARGE	IN	ACCUM.	DISCHARGE	IN
				IN.	PRECIP.	PRECIP.	IN	IN	PRECIP.	IN	IN.
JUNE 11											
0945	5.04			5.04		5.04	1890.0				1.4969
1000	5.54			5.54		5.54	1800.0				1.5844
1015	5.90			5.90		5.90	2100.0				1.6831
1030	6.31			6.31		6.31	2570.0				1.8644
1100	6.72			6.72		6.72	3540.0				2.1140
1115	6.88			6.88		6.88	3880.0				2.2964
1130	7.00			7.00		7.00	4080.0				2.4882
1145	7.02			7.02		7.02	3970.0				3.1415
1315	7.11			7.11		7.11	1530.0				3.5371
1430	7.28			7.28		7.28	819.0				3.6911
1515	7.29			7.29		7.29	733.0				3.7945
1600	7.30			7.30		7.30	622.0				3.8676
1630	7.30			7.30		7.30	498.0				3.9613
1800	7.30			7.30		7.30	264.0				4.0047
1815	7.30			7.30		7.30	235.0				4.0268
1900	7.30			7.30		7.30	185.0				4.0442
1915	7.30			7.30		7.30	180.0				4.0527
1930	7.30			7.30		7.30	158.0				4.0750
2045	7.30			7.30		7.30	149.0				4.1380
2400	7.30			7.30		7.30	132.0				4.1970
JUNE 12											
0000	7.30			7.30		7.30	132.0				4.1970
0300	7.30			7.30		7.30	104.0				4.2547
0400	7.30			7.30		7.30	99.0				4.2710
0445	7.30			7.30		7.30	99.0				4.2911
0610	7.32			7.32		7.32	99.0				4.3051
0615	7.50			7.50		7.50	99.0				4.3152
0715	7.75			7.75		7.75	99.0				4.3292
0745	8.30			8.30		8.30	139.0				4.3390
0800	8.59			8.59		8.59	338.0				4.3548
0815	8.90			8.90		8.90	1070.0				4.4051
0830	9.05			9.05		9.05	1780.0				4.4888
0845	9.05			9.05		9.05	2130.0				4.5723
0855	9.05			9.05		9.05	2270.0				4.6256
0900	9.05			9.05		9.05	2340.0				4.6623
0905	9.05			9.05		9.05	2320.0				4.7169
0915	9.05			9.05		9.05	2290.0				4.8066
0930	9.05			9.05		9.05	2250.0				5.0181
1015	9.33			9.33		9.33	1350.0				5.1451
1030	9.58			9.58		9.58	1230.0				5.2029

STORM RAINFALL AND RUNOFF RECORD										
STORM UP JUNE 10-15, 1981										
SLAUGHTER CREEK AT FARM ROAD 1820 NEAR AUSTIN, TEXAS										
DATE & TIME	ISLA	U	A	B	E	R	PRECIP.	ACCUM. PRECIP.	DISCHARGE IN	ACCUM. RUNOFF
							IN.		CFS	IN.
JUNE 12										
1045	7.59						7.59	1500.0	1500.0	5.2640
1100	7.59						7.59	1470.0	1470.0	5.3331
1115	7.59						7.59	1590.0	1590.0	5.4079
1130	7.59						7.59	1600.0	1600.0	5.5207
1200	7.59						7.59	1390.0	1390.0	5.6841
1245	7.59						7.59	923.0	923.0	5.7926
1315	7.59						7.59	683.0	683.0	5.8407
1330	7.59						7.59	607.0	607.0	5.8835
1400	7.59						7.59	433.0	433.0	5.9548
1515	7.59						7.59	231.0	231.0	5.9874
1530	7.59						7.59	228.0	228.0	5.9981
1545	7.59						7.59	194.0	194.0	6.0072
1600	7.59						7.59	185.0	185.0	6.0159
1615	7.59						7.59	158.0	158.0	6.0382
1730	7.59						7.59	121.0	121.0	6.0894
2045	7.59						7.59	128.0	128.0	6.1664
2400	7.61						7.61	95.0	95.0	6.2155
JUNE 13										
0000	7.61						7.61	95.0	95.0	6.2155
0430	7.80						7.80	95.0	95.0	6.2937
0630	7.82						7.82	121.0	121.0	6.3563
1000	7.90						7.90	99.0	99.0	6.3982
1100	7.97						7.97	104.0	104.0	6.4153
1145	11.22						11.22	888.0	888.0	6.4988
1200	11.68						11.68	1770.0	1770.0	6.5820
1215	11.72						11.72	2420.0	2420.0	6.6957
1230	11.72						11.72	2910.0	2910.0	6.8326
1245	11.72						11.72	2980.0	2980.0	6.9493
1255	11.72						11.72	3090.0	3090.0	7.0219
1300	11.72						11.72	3150.0	3150.0	7.0713
1305	11.72						11.72	3150.0	3150.0	7.3675
1400	11.77						11.77	1220.0	1220.0	7.5013
1415	11.78						11.78	997.0	997.0	7.5716
1445	11.83						11.83	803.0	803.0	7.6283
1500	11.84						11.84	725.0	725.0	7.6794
1530	11.93						11.93	626.0	626.0	7.7235
1545	11.93						11.93	592.0	592.0	7.7792
1630	12.05						12.05	592.0	592.0	7.8488
1700	12.13						12.13	641.0	641.0	7.8940
1715	12.24						12.24	660.0	660.0	7.9250

STORM RAINFALL AND RUNOFF RECORD									
STATION NO. 06158040									
SLAUGHTER CREEK AT FARM ROAD 1826 NEAR AUSTIN, TEXAS									
STORM OF JUNE 10-15, 1961									
DATE & TIME	ISLA	AVERAGE	NUMBER	PRECIP.	ACCUM.	DISCHARGE	ACCUM.	IN	IN.
				IN.	IN.	IN	IN	CFS	IN.
=====									
JUNE 13									
1730	12.24			12.24		671.0		7.9566	
1745	12.33			12.33		675.0		7.9883	
1800	12.95			12.95		679.0		8.0202	
1815	13.13			13.13		872.0		8.0612	
1830	13.19			13.19		1380.0		8.1261	
1845	13.20			13.20		2020.0		8.2211	
1900	13.21			13.21		2370.0		8.3325	
1915	13.24			13.24		2570.0		8.4533	
1930	13.25			13.25		2590.0		8.5751	
1945	13.25			13.25		2420.0		8.6889	
2000	13.26			13.26		2110.0		8.8377	
2030	13.34			13.34		1400.0		8.9364	
2045	13.36			13.36		1180.0		8.9919	
2100	13.36			13.36		1040.0		9.0652	
2130	13.36			13.36		855.0		9.1657	
2215	13.36			13.36		630.0		9.2249	
2230	13.36			13.36		542.0		9.2547	
2250	13.36			13.36		396.0		9.2826	
2315	13.36			13.36		338.0		9.3117	
2345	13.36			13.36		275.0		9.3311	
2400	13.36			13.36		209.0		9.3409	
=====									
JUNE 14									
0000	13.36			13.36		209.0		9.3409	
0030	13.36			13.36		126.0		9.3725	
0215	13.37			13.37		50.0		9.3975	
0515	13.70			13.70		53.0		9.4137	
0530	13.72			13.72		132.0		9.4199	
0545	13.91			13.91		334.0		9.4356	
0600	13.91			13.91		784.0		9.4725	
0615	13.91			13.91		954.0		9.5398	
0645	13.93			13.93		949.0		9.6290	
0715	14.25			14.25		897.0		9.7344	
0800	14.53			14.53		1000.0		9.8990	
0900	14.60			14.60		1600.0		10.0870	
0915	14.60			14.60		1640.0		10.1641	
0930	14.60			14.60		1580.0		10.2755	
1000	14.60			14.60		1170.0		10.3856	
1030	14.62			14.62		876.0		10.6327	
1300	14.65			14.65		271.0		10.7218	
1400	14.65			14.65		126.0		10.7485	
=====									

STA. NO. 08158840		STORM RAINFALL AND RUNOFF RECORD				1981 WATER YEAR			
SLAUGHTER CREEK AT FARM ROAD 1020 NEAR AUSTIN, TEXAS		STORM OF JUNE 14-15, 1981				DISCHARGE ACCUM. RUNOFF			
DATE & TIME	ISLA	AVERAGE	NUMBER	WEIGHTED PRECIP. IN.	CFS	IN.	IN.	IN.	IN.
JUNE 14									
1515	14.65			14.65	56.0	10.7630			
1645	14.65			14.65	53.0	10.7767			
1800	14.67			14.67	53.0	10.7891			
1915	14.67			14.67	77.0	10.8072			
2030	14.67			14.67	53.0	10.8197			
2145	14.67			14.67	90.0	10.8493			
2400	14.67			14.67	53.0	10.8730			
JUNE 15									
0000	14.67			14.67	53.0	10.8730			
0500	14.67			14.67	81.0	11.0682			
2400	14.71			14.71	53.0	11.1629			

COLORADO RIVER BASIN

08158860 SLAUGHTER CREEK AT FARM ROAD 2304 NEAR AUSTIN, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 30°09'43", long 97°49'55", Travis County, Hydrologic Unit 12090205, at downstream side of bridge on Farm Road 2304 and 9.4 mi (15.1 km) southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--23.1 mi² (59.8 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Flood-hydrograph recorder and crest-stage gage. Datum of gage is 654.80 ft (199.583 m) 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, 1980." Two recording rain gages are located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,340 ft³/s (236 m³/s) June 11, 1981, gage height, 12.40 ft (3.780 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,340 ft³/s (236 m³/s) June 11, gage height, 12.40 ft (3.780 m).

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	
MAR 04...	0743	84	229	7.7	15.5	60	160	--	--	4.6	76000	66000	
JUN 16...	0853	734	456	8.2	23.5	25	67	8.6	102	1.0	44000	14000	
DATE	TIME	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	HARDNESS, CARBONATE (MG/L AS CaCO3)	CALCIUM, DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CaCO3)	SULFATE, DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
MAR 04...	100000	100	17	30	6.4	5.7	.2	2.4	84	20	11	.1	
JUN 16...	41000	240	27	72	14	11	.3	2.5	210	29	17	.1	
DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (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)
MAR 04...	7.1	133	176	19	.18	.030	.21	.060	3.5	3.6	.120	14	
JUN 16...	10	282	174	22	.19	.000	.19	.040	1.1	1.1	.070	6.8	
DATE	TIME	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)						
MAR 04...	0743	0	20	<1	0	<10	40						

COLORADO RIVER BASIN

08158860 SLAUGHTER CREEK AT FARM ROAD 2304 NEAR AUSTIN, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)				
MAR 04...	<10	1	.0	0	0	<3				
DATE	TIME	PCB TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	
MAR 04...	0743	.00	.0	.00	.1	.01	.01	.01	.00	.01
DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	
MAR 04...	.00	.00	.00	.00	.00	.00	.00	.00	.00	
DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	
MAR 04...	.00	.00	.00	.00	0	.00	.02	.00	.00	

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR	
STA. NO. 08158660											
SLAUGHTER CREEK AT FARM ROAD 2304 NEAR AUSTIN, TEXAS											
STORM OF JUNE 10-15, 1981											
DATE & TIME	15LA	25LA	G A G E				N U M B E R		ACCUM. WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. RUNOFF
JUNE 10											
0000	0.0	0.0						0.0	1.0	0.0007	
2015	0.04	0.0						0.02	1.0	0.0014	
2030	0.36	0.0						0.17	1.0	0.0014	
2045	0.49	0.01						0.24	1.0	0.0014	
2100	0.80	0.01						0.39	1.0	0.0014	
2115	1.23	0.30						0.75	1.0	0.0014	
2130	1.47	0.47						0.95	1.0	0.0015	
2200	1.52	0.71						1.10	2.0	0.0016	
2400	1.53	0.72						1.11	2.0	0.0018	
JUNE 11											
0000	1.53	0.72						1.11	2.0	0.0018	
0145	1.54	0.73						1.12	5.0	0.0022	
0210	1.77	0.80						1.27	10.0	0.0024	
0215	2.23	0.80						1.49	12.0	0.0029	
0325	2.66	1.66						2.14	50.0	0.0071	
0445	2.74	1.84						2.27	100.0	0.0124	
0500	2.74	1.87						2.29	2950.0	0.0619	
0515	2.74	1.87						2.29	4410.0	0.1235	
0525	2.74	1.87						2.29	4460.0	0.1609	
0530	2.74	1.87						2.29	4490.0	0.1860	
0535	2.74	1.87						2.29	4300.0	0.2221	
0545	2.74	1.87						2.29	3920.0	0.2769	
0600	2.74	1.87						2.29	3170.0	0.3300	
0615	2.77	1.88						2.31	2570.0	0.3731	
0630	2.78	1.88						2.31	2110.0	0.4085	
0645	2.83	1.88						2.34	1770.0	0.4530	
0715	3.87	1.88						2.84	1290.0	0.4855	
0730	4.07	1.90						2.94	1150.0	0.5144	
0800	4.08	2.20						3.10	962.0	0.5386	
0815	4.09	2.21						3.11	853.0	0.5672	
0900	4.70	2.73						3.68	603.0	0.5874	
0915	4.72	2.76						3.71	557.0	0.5968	
0930	4.91	2.88						3.85	523.0	0.6056	
0945	5.04	3.18						4.07	523.0	0.6143	
1000	5.54	3.24						4.34	702.0	0.6261	
1015	5.90	3.45						4.63	1460.0	0.6506	
1030	6.31	3.86						5.04	2390.0	0.7107	
1100	6.72	4.53						5.58	3640.0	0.8023	
1115	6.88	4.81						5.80	4360.0	0.8754	
1130	7.00	5.09						6.01	5260.0	0.9636	

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR		
STA. NO. 08158860												
SLAUGHTER CREEK AT FARM ROAD 2304 NEAR AUSTIN, TEXAS												
STORM OF JUNE 10-15, 1981												
DATE & TIME	ISLA	2SLA	GA	GE	NUM	BE	ER	WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. IN	RUNOFF IN	ACCUM. RUNOFF
JUNE 11												
1145	7.02	5.12						6.03	6000.0	6000.0	1.1145	1.1145
1215	7.06	5.12						6.05	6730.0	12730.0	1.2838	1.2838
1230	7.07	5.12						6.06	7320.0	19750.0	1.4066	1.4066
1245	7.09	5.12						6.07	7610.0	27360.0	1.5342	1.5342
1300	7.10	5.12						6.07	7980.0	35340.0	1.6457	1.6457
1310	7.11	5.12						6.08	8050.0	43390.0	1.7132	1.7132
1315	7.11	5.12						6.08	8340.0	51730.0	1.7599	1.7599
1320	7.12	5.12						6.08	8010.0	59740.0	1.8270	1.8270
1330	7.15	5.13						6.10	7850.0	67590.0	1.9367	1.9367
1345	7.19	5.13						6.12	7430.0	75020.0	2.0613	2.0613
1400	7.22	5.13						6.13	6730.0	81750.0	2.1742	2.1742
1415	7.27	5.13						6.16	5930.0	87680.0	2.2736	2.2736
1430	7.28	5.13						6.16	5040.0	92720.0	2.4004	2.4004
1500	7.29	5.13						6.17	3480.0	96200.0	2.4880	2.4880
1515	7.29	5.13						6.17	2780.0	98980.0	2.5346	2.5346
1530	7.30	5.13						6.17	2260.0	101240.0	2.5725	2.5725
1545	7.30	5.13						6.17	1920.0	103160.0	2.6208	2.6208
1615	7.30	5.13						6.17	1490.0	104650.0	2.6583	2.6583
1630	7.30	5.13						6.17	1320.0	105970.0	2.6915	2.6915
1700	7.30	5.13						6.17	1090.0	107060.0	2.7463	2.7463
1800	7.30	5.13						6.17	778.0	107838.0	2.7789	2.7789
1815	7.30	5.13						6.17	740.0	108578.0	2.8162	2.8162
1930	7.30	5.13						6.17	486.0	109064.0	2.8528	2.8528
2030	7.30	5.13						6.17	371.0	109435.0	2.8684	2.8684
2045	7.30	5.13						6.17	336.0	109771.0	2.8797	2.8797
2130	7.30	5.13						6.17	281.0	110052.0	2.9103	2.9103
2400	7.30	5.13						6.17	202.0	110254.0	2.9481	2.9481
JUNE 12												
0000	7.30	5.13						6.17	202.0	110456.0	2.9481	2.9481
0610	7.32	5.13						6.16	169.0	110625.0	3.0044	3.0044
0615	7.50	5.13						6.27	169.0	110794.0	3.0092	3.0092
0700	7.55	5.20						6.33	167.0	110961.0	3.0143	3.0143
0710	7.60	5.38						6.45	167.0	111128.0	3.0185	3.0185
0720	7.90	5.51						6.66	167.0	111295.0	3.0185	3.0185
0735	8.03	5.94						6.94	167.0	111462.0	3.0213	3.0213
0750	8.48	6.01						7.20	167.0	111629.0	3.0236	3.0236
0800	8.59	6.01						7.25	167.0	111796.0	3.0264	3.0264
0820	9.03	6.02						7.46	167.0	111963.0	3.0362	3.0362
0945	9.07	6.02						7.48	169.0	112132.0	3.0457	3.0457
1000	9.21	6.10						7.59	697.0	112829.0	3.0574	3.0574

STA. NO. 00158860

STORM RAINFALL AND MOUNOFF RECORD

1981 WATER YEAR

SLAUGHTER CREEK AT FARM ROAD 2304 NEAR AUSTIN, TEXAS STORM OF JUNE 10-15, 1981

DATE & TIME	1SLA	2SLA	GAGE	NUMBER	WEIGHTED PRECIP. IN.	DISCHARGE IN CFS	ACCUM. MOUNOFF	
							IN.	IN.
JUNE 12								
1015	9.33	6.32			7.76	2670.0	3.1021	
1030	9.58	6.33			7.89	3750.0	3.1650	
1045	9.59	6.33			7.89	4130.0	3.2228	
1055	9.59	6.33			7.89	4170.0	3.2577	
1100	9.59	6.33			7.89	4190.0	3.2811	
1105	9.59	6.33			7.89	4130.0	3.3158	
1115	9.59	6.33			7.89	4020.0	3.4057	
1145	9.59	6.33			7.89	3050.0	3.5080	
1215	9.59	6.33			7.89	2240.0	3.5831	
1245	9.59	6.33			7.89	2170.0	3.6554	
1315	9.59	6.33			7.89	2180.0	3.7107	
1330	9.59	6.33			7.89	2110.0	3.7638	
1400	9.59	6.33			7.89	1830.0	3.8098	
1415	9.59	6.33			7.89	1560.0	3.8360	
1430	9.59	6.33			7.89	1370.0	3.8704	
1500	9.59	6.33			7.89	1090.0	3.8979	
1515	9.59	6.34			7.90	919.0	3.9210	
1545	9.59	6.34			7.90	745.0	3.9397	
1600	9.59	6.34			7.90	665.0	3.9620	
1645	9.59	6.34			7.90	472.0	3.9937	
1800	9.59	6.34			7.90	336.0	4.0190	
1900	9.59	6.34			7.90	274.0	4.0535	
2145	9.59	6.34			7.90	191.0	4.0807	
2315	9.59	6.34			7.90	164.0	4.0931	
2400	9.61	6.34			7.91	156.0	4.1075	
JUNE 13								
0000	9.61	6.34			7.91	156.0	4.1075	
0400	9.78	6.47			8.06	110.0	4.1475	
0800	9.82	6.50			8.09	80.0	4.1643	
1015	9.92	6.92			8.36	149.0	4.1792	
1100	9.97	7.17			8.51	208.0	4.1862	
1115	10.41	7.48			8.89	214.0	4.1952	
1215	11.72	7.73			9.65	202.0	4.2070	
1300	11.72	7.73			9.65	196.0	4.2136	
1315	11.72	7.73			9.65	205.0	4.2171	
1330	11.72	7.83			9.70	1340.0	4.2395	
1345	11.74	7.90			9.74	3930.0	4.3054	
1400	11.77	7.93			9.77	4930.0	4.3881	
1415	11.78	7.93			9.78	5370.0	4.4632	
1425	11.79	7.96			9.80	5480.0	4.5091	

STORM RAINFALL AND RUNOFF RECORD									
STORM OF JUNE 10-15, 1981									
DATE & TIME	15LA	25LA	GAGE	NUMBER	WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. DISCHARGE IN	ACCUM. RUNOFF	1981 WATER YEAR
=====									
STA. NO. 06158860									
SLAUGHTER CREEK AT FARM ROAD 2304 NEAR AUSTIN, TEXAS									
=====									
JUNE 13									
1430	11.79	7.97			9.80	5540.0	4.5401		
1435	11.80	7.98			9.81	5480.0	4.6320		
1500	11.84	8.55			10.13	5140.0	4.7469		
1515	11.91	8.65			10.21	4880.0	4.8288		
1530	11.93	8.66			10.23	4390.0	4.9392		
1600	12.01	8.73			10.30	3180.0	5.0192		
1615	12.02	8.73			10.31	2750.0	5.0884		
1645	12.11	8.91			10.45	2170.0	5.1611		
1715	12.24	9.02			10.57	1740.0	5.2049		
1730	12.24	9.02			10.57	1640.0	5.2324		
1745	12.33	9.21			10.71	1480.0	5.2572		
1800	12.95	9.58			11.20	1420.0	5.2811		
1815	13.13	10.21			11.61	1760.0	5.3106		
1830	13.19	10.34			11.71	2610.0	5.3543		
1845	13.20	10.45			11.77	3550.0	5.4139		
1900	13.21	10.53			11.82	3700.0	5.4759		
1915	13.24	10.58			11.86	4060.0	5.5440		
1930	13.25	10.64			11.89	4190.0	5.6143		
1945	13.25	10.73			11.94	4550.0	5.6906		
2000	13.26	10.76			11.96	4760.0	5.7704		
2015	13.31	10.85			12.03	5170.0	5.8571		
2030	13.34	10.92			12.08	5190.0	5.9732		
2055	13.36	11.01			12.14	5290.0	6.0619		
2100	13.36	11.02			12.14	5310.0	6.0916		
2105	13.36	11.02			12.14	5210.0	6.1789		
2130	13.36	11.02			12.14	4770.0	6.2856		
2145	13.36	11.02			12.14	4280.0	6.3933		
2215	13.36	11.02			12.14	3060.0	6.4959		
2245	13.36	11.03			12.15	2100.0	6.5663		
2315	13.36	11.03			12.15	1680.0	6.6086		
2330	13.36	11.03			12.15	1420.0	6.6443		
2400	13.36	11.03			12.15	1170.0	6.6688		
=====									
JUNE 14									
0000	13.36	11.03			12.15	1170.0	6.6688		
0015	13.36	11.04			12.15	1020.0	6.6908		
0030	13.36	11.04			12.15	907.0	6.7061		
0045	13.37	11.05			12.16	836.0	6.7201		
0100	13.37	11.05			12.16	784.0	6.7332		
0115	13.37	11.05			12.16	697.0	6.7449		
0130	13.37	11.06			12.17	623.0	6.7554		
=====									

STORM RAINFALL AND RUNOFF RECORD									
STA. NO. 08158860									
SLAUGHTER CREEK AT FARM ROAD 2304 NEAR AUSTIN, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	15LA	25LA	GAGE	NUMBER	PRECIP. IN.	DISCHARGE IN	ACCUM. WEIGHTED PRECIP. IN.	CFS	ACCUM. RUNOFF IN.
JUNE 14									
0145	13.37	11.06			12.17	567.0	12.17		6.7649
0200	13.37	11.17			12.23	528.0	12.23		6.7870
0300	13.38	11.28			12.29	383.0	12.29		6.8031
0315	13.44	11.29			12.32	387.0	12.32		6.8096
0330	13.44	11.29			12.32	347.0	12.32		6.8183
0400	13.44	11.29			12.32	328.0	12.32		6.8375
0515	13.70	11.33			12.47	248.0	12.47		6.8542
0600	13.91	11.42			12.62	258.0	12.62		6.8671
0645	13.93	11.49			12.66	248.0	12.66		6.8755
0700	14.17	11.49			12.78	245.0	12.78		6.8837
0745	14.40	11.51			12.90	264.0	12.90		6.8925
0800	14.53	11.51			12.96	379.0	12.96		6.8989
0815	14.56	11.51			12.97	623.0	12.97		6.9093
0830	14.57	11.51			12.98	762.0	12.98		6.9221
0845	14.57	11.51			12.98	778.0	12.98		6.9352
0900	14.60	11.51			12.99	813.0	12.99		6.9488
0915	14.60	11.53			13.00	836.0	13.00		6.9698
0945	14.60	11.59			13.03	962.0	13.03		7.0021
1015	14.62	11.67			13.09	1260.0	13.09		7.0338
1030	14.62	11.73			13.12	1450.0	13.12		7.0581
1045	14.63	11.73			13.12	1500.0	13.12		7.0833
1100	14.65	11.73			13.13	1670.0	13.13		7.1113
1115	14.65	11.73			13.13	1640.0	13.13		7.1388
1130	14.65	11.73			13.13	1460.0	13.13		7.1633
1145	14.65	11.73			13.13	1460.0	13.13		7.1877
1200	14.65	11.74			13.14	1260.0	13.14		7.2089
1215	14.65	11.74			13.14	1060.0	13.14		7.2266
1230	14.65	11.74			13.14	901.0	13.14		7.2493
1300	14.65	11.74			13.14	818.0	13.14		7.2699
1315	14.65	11.74			13.14	729.0	13.14		7.2821
1330	14.65	11.74			13.14	691.0	13.14		7.3169
1445	14.65	11.74			13.14	450.0	13.14		7.3471
1530	14.65	11.74			13.14	355.0	13.14		7.3709
1645	14.65	11.74			13.14	274.0	13.14		7.4053
1915	14.67	11.74			13.15	191.0	13.15		7.4518
2400	14.67	11.74			13.15	130.0	13.15		7.4987
JUNE 15									
0000	14.67	11.74			13.15	130.0	13.15		7.4987
1200	14.67	11.77			13.16	100.0	13.16		7.6053
2400	14.71	11.78			13.19	70.0	13.19		7.6335

BOGGY CREEK (SOUTH) DRAINAGE BASIN

The surface-water hydrologic data for the Boggy Creek (South) drainage basin for the 1981 water year are given in the following pages:

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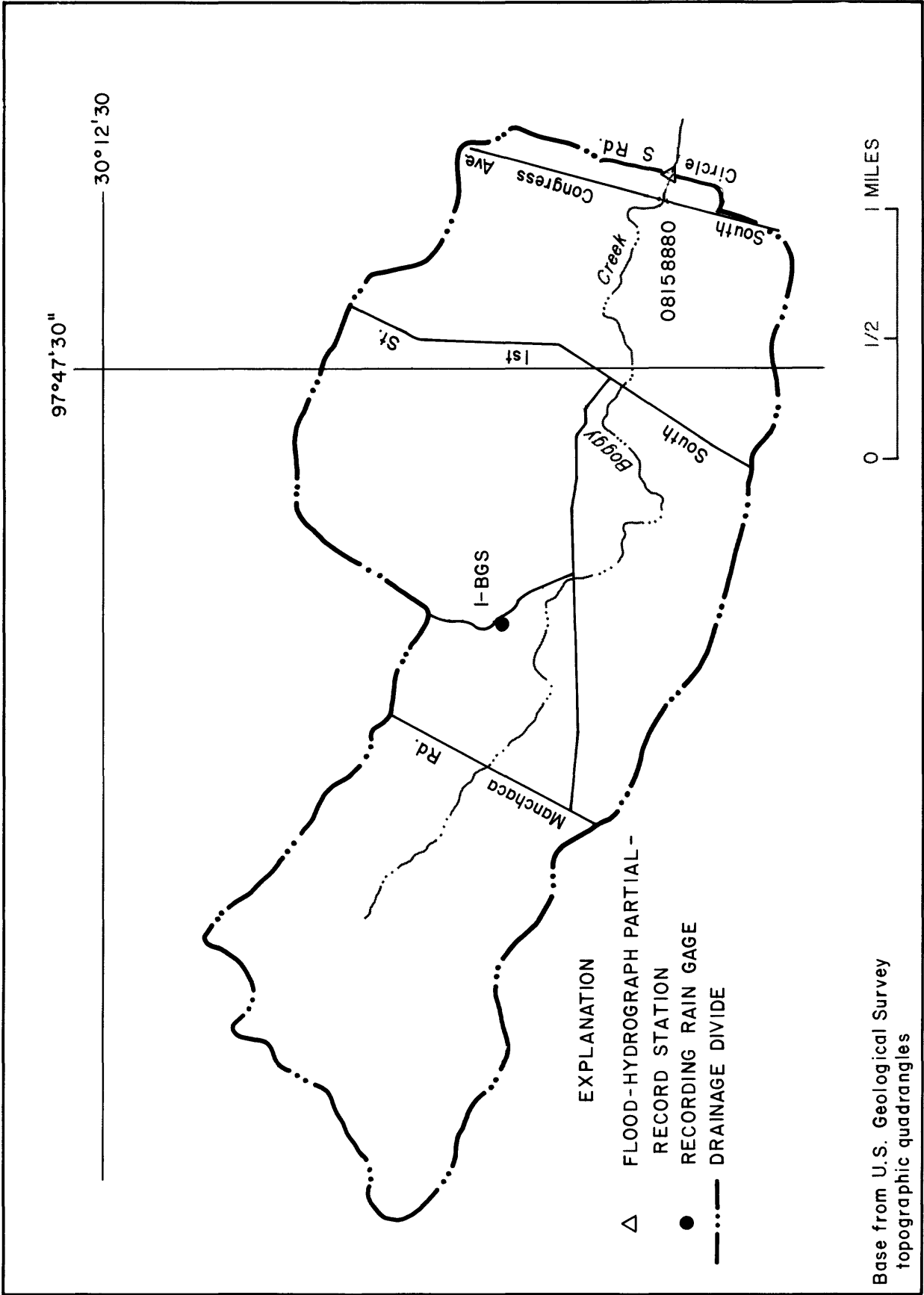


Figure 15.—Locations of surface-water data-collection sites in the Bogy Creek (south) drainage basin

Table 11.--Storm rainfall-runoff data, 1981 water year, Boggy Creek drainage basin

Date of Storm	Duration (hours)	Total	Rainfall (inches)		Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
			15-minute	Maximum increment 60-minute			
Boggy Creek (South) at Circle "S" Road, Austin, Tex. (Drainage area.--3.58 mi ²)							
March 3, 1981	4	0.66	0.52	0.53	0.54	0.18	144
May 24-25, 1981	25	2.37	0.56	0.86	1.04	0.56	287
June 10-14, 1981	4 days	12.76	1.03	1.52	1.93	8.32	2,920

08158880 BOGGY CREEK (SOUTH) AT CIRCLE S ROAD, AUSTIN, TEX.
(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 mi².

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,920 ft³/s (gage height, 10.56 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,920 June 13 (gage height 10.56 ft).

STORM RAINFALL AND RUNOFF RECORD										1961 WATER YEAR		
STATION NO. 08158880												
BOGGY CREEK (SOUTH) AT CIRCLE 51 ROAD AUSTIN, TEXAS												
STORM OF MARCH 3, 1961												
DATE & TIME	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	ACCUM. PRECIP. IN.	DISCHARGE IN	ACCUM. RUNOFF IN.
MAR. 3												
0000	0.0									0.0	0.2	0.0002
0435	0.01									0.01	0.2	0.0006
0815	0.09									0.09	0.5	0.0010
0820	0.24									0.24	0.5	0.0010
0825	0.50									0.50	0.5	0.0010
0830	0.61									0.61	1.0	0.0013
0930	0.63									0.63	137.0	0.0433
0955	0.63									0.63	144.0	0.0485
1000	0.63									0.63	138.0	0.0535
1005	0.63									0.63	138.0	0.0609
1015	0.63									0.63	142.0	0.0686
1020	0.63									0.63	144.0	0.0738
1025	0.63									0.63	141.0	0.0891
1050	0.63									0.63	89.0	0.1003
1100	0.63									0.63	73.0	0.1095
1125	0.63									0.63	51.0	0.1160
1155	0.63									0.63	48.0	0.1666
1630	0.65									0.65	5.0	0.1751
1930	0.66									0.66	1.0	0.1768

STORM MAINFALL AND MUDOFF RECORD									
STORM OF MAY 24-25, 1901									
CIRCLE 151 ROAD AUSTIN, TEXAS									
BOGGY CREEK (SOUTH) AT									
DATE & TIME	1895	1896	1897	1898	1899	1900	1901	1902	1903
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
MAY 24									
0000	0.01						0.01		0.0000
0040	0.06						0.06		0.0001
0045	0.15						0.15		0.0001
0050	0.38						0.38		0.0001
0100	0.71						0.71		0.0004
0105	0.84						0.84		0.0011
0110	0.92						0.92		0.0054
0115	0.96						0.96		0.0154
0125	1.00						1.00		0.0276
0130	1.08						1.08		0.0402
0140	1.10						1.10		0.0526
0145	1.10						1.10		0.0609
0150	1.10						1.10		0.0695
0155	1.10						1.10		0.0775
0200	1.10						1.10		0.0846
0205	1.10						1.10		0.0905
0210	1.10						1.10		0.0981
0220	1.10						1.10		0.1105
0240	1.10						1.10		0.1224
0300	1.10						1.10		0.1321
0325	1.10						1.10		0.1516
0500	1.10						1.10		0.1714
0600	1.10						1.10		0.1779
1100	1.11						1.11		0.1799
1700	1.12						1.12		0.1810
2100	1.13						1.13		0.1814
2105	1.21						1.21		0.1816
2235	1.23						1.23		0.1833
2240	1.30						1.30		0.1836
2245	1.45						1.45		0.1842
2250	1.65						1.65		0.1849
2255	1.77						1.77		0.1859
2300	1.85						1.85		0.1872
2305	1.89						1.89		0.1934
2310	1.97						1.97		0.2096
2325	2.07						2.07		0.2302
2330	2.09						2.09		0.2405
2335	2.10						2.10		0.2558
2345	2.11						2.11		0.2806

SIA. NO. 08158880		STORM MAINFALL AND RUNOFF RECORD				1981 WATER YEAR		
BUGGY CREEK (SOUTH) AT CIRCLE 151 ROAD AUSTIN, TEXAS		STORM OF MAY 24-25, 1981		ACCU.	DISCHARGE	ACCUM.	IN.	IN.
DATE & TIME	INCHES	GAUGE	NUMBER	PRECIP.	PRECIP.	PRECIP.	CFS	IN.
				IN.	IN.	IN.		
MAY 24	2.14			2.14	2.14	2.14	214.0	0.2980
2400								
MAY 25	2.14			2.14	2.14	2.14	214.0	0.2980
0000								
0015	2.19			2.19	2.19	2.19	155.0	0.3317
0050	2.27			2.27	2.27	2.27	99.0	0.3460
0055	2.28			2.28	2.28	2.28	96.0	0.3495
0100	2.29			2.29	2.29	2.29	108.0	0.3534
0105	2.31			2.31	2.31	2.31	132.0	0.3582
0110	2.32			2.32	2.32	2.32	145.0	0.3634
0115	2.33			2.33	2.33	2.33	151.0	0.3688
0120	2.34			2.34	2.34	2.34	154.0	0.3744
0125	2.34			2.34	2.34	2.34	152.0	0.4073
0220	2.35			2.35	2.35	2.35	97.0	0.4825
0500	2.35			2.35	2.35	2.35	45.0	0.5280
0700	2.35			2.35	2.35	2.35	20.0	0.5496
1000	2.36			2.36	2.36	2.36	5.0	0.5561
1300	2.36			2.36	2.36	2.36	1.0	0.5591
2400	2.37			2.37	2.37	2.37	0.5	0.5603

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STA. NO. 08158880	STORM OF JUNE 10-14, 1981				DISCHARGE ACCUM.				
BOGGY CREEK (SOUTH) AT CIRCLE S ROAD AUSTIN, TEXAS									
DATE & TIME	IBGS	GAGE	NUMBER	WEIGHTED PRECIP. IN.	IN	CFS	IN	ACCUM. PRECIP. IN.	RUNOFF IN.
JUNE 10									
0000	0.0			0.0	0.2			0.0	0.0008
0100	0.01			0.01	0.2			0.01	0.0017
0200	0.10			0.10	0.2			0.10	0.0018
0300	0.10			0.10	5.0			0.10	0.0036
0400	0.15			0.15	10.0			0.15	0.0039
0500	0.25			0.25	18.0			0.25	0.0046
0600	0.39			0.39	25.0			0.39	0.0055
0700	0.45			0.45	30.0			0.45	0.0076
0800	0.53			0.53	80.0			0.53	0.0134
0900	0.55			0.55	107.0			0.55	0.0173
1000	0.56			0.56	105.0			0.56	0.0211
1100	0.56			0.56	96.0			0.56	0.0245
1200	0.57			0.57	94.0			0.57	0.0279
1300	0.57			0.57	105.0			0.57	0.0317
1400	0.57			0.57	109.0			0.57	0.0356
1500	0.57			0.57	107.0			0.57	0.0311
1600	0.57			0.57	69.0			0.57	0.0760
1700	0.57			0.57	10.0			0.57	0.0812
JUNE 11									
0000	0.57			0.57	10.0			0.57	0.0812
0100	0.62			0.62	5.0			0.62	0.0871
0200	0.78			0.78	8.0			0.78	0.0875
0300	0.95			0.95	10.0			0.95	0.0884
0400	1.00			1.00	81.0			1.00	0.0972
0500	1.01			1.01	116.0			1.01	0.1055
0600	1.01			1.01	134.0			1.01	0.1152
0700	1.01			1.01	164.0			1.01	0.1270
0800	1.02			1.02	171.0			1.02	0.1332
0900	1.02			1.02	164.0			1.02	0.1509
1000	1.05			1.05	105.0			1.05	0.1642
1100	1.06			1.06	96.0			1.06	0.1763
1200	1.09			1.09	87.0			1.09	0.1920
1300	1.11			1.11	96.0			1.11	0.2024
1400	1.20			1.20	99.0			1.20	0.2060
1500	1.38			1.38	101.0			1.38	0.2096
1600	1.60			1.60	113.0			1.60	0.2137
1700	1.60			1.60	135.0			1.60	0.2259
1800	1.60			1.60	445.0			1.60	0.2820
1900	1.63			1.63	454.0			1.63	0.3721
2000	1.63			1.63	235.0			1.63	0.4441

STA. NO. 08158880		STORM RAINFALL AND RUNOFF RECORD				1981 WATER YEAR					
BUGGY CREEK (SOUTH) AT CIRCLE 'S' ROAD AUSTIN, TEXAS		STORM OF JUNE 10-14, 1981				ACCUM. DISCHARGE					
DATE & TIME	1981	G A G E	N U M B E R	P R E C I P .	W E I G H T E D	I N	I N	C F S	I N	A C C U M .	M U N O F F
				I N .							
JUNE 11											
0740	1.64			1.64		142.0			0.4698		
0745	1.74			1.74		132.0			0.4745		
0750	2.02			2.02		130.0			0.4792		
0755	2.18			2.18		137.0			0.4842		
0800	2.24			2.24		175.0			0.4905		
0805	2.25			2.25		216.0			0.5022		
0815	2.25			2.25		254.0			0.5205		
0825	2.25			2.25		258.0			0.5437		
0840	2.27			2.27		250.0			0.5933		
0920	2.27			2.27		182.0			0.6229		
0925	2.27			2.27		187.0			0.6330		
0935	2.32			2.32		239.0			0.6502		
0945	2.41			2.41		258.0			0.6968		
1025	2.59			2.59		187.0			0.7271		
1030	2.82			2.82		187.0			0.7372		
1105	3.66			3.66		212.0			0.7640		
1110	3.82			3.82		403.0			0.8076		
1120	4.06			4.06		487.0			0.8340		
1135	4.43			4.43		891.0			0.9143		
1150	4.77			4.77		1720.0			1.1004		
1155	4.84			4.84		2110.0			1.2526		
1200	4.88			4.88		2100.0			1.3284		
1210	4.91			4.91		2130.0			1.4052		
1215	4.95			4.95		2090.0			1.4806		
1235	5.00			5.00		2120.0			1.5571		
1240	5.00			5.00		2120.0			1.7483		
1245	5.00			5.00		1800.0			1.9106		
1250	5.01			5.01		1780.0			1.9748		
1255	5.01			5.01		1650.0			2.0343		
1300	5.01			5.01		1420.0			2.0855		
1305	5.02			5.02		1290.0			2.1320		
1310	5.03			5.03		1360.0			2.1811		
1315	5.04			5.04		1130.0			2.2219		
1320	5.04			5.04		998.0			2.2579		
1325	5.05			5.05		959.0			2.2924		
1330	5.06			5.06		851.0			2.3231		
1400	5.15			5.15		769.0			2.3509		
						649.0			2.4328		
						397.0			2.5330		

STA. NO. 08158880		STORM RAINFALL AND KUNOFF RECORD									
BOGGY CREEK (SOUTH) AT CIRCLE S ROAD AUSTIN, TEXAS		STORM OF JUNE 10-14, 1981									
DATE & TIME	18GS	GAGE	NUMBER	ACCUM. WEIGHTED PRECIP. IN.	DISCHARGE IN CFS	ACCUM. KUNOFF					
JUNE 11											
1440	5.30			5.30	287.0	2.6262					
1530	5.37			5.37	210.0	2.7095					
1630	5.38			5.38	138.0	2.7792					
1750	5.39			5.39	72.0	2.8493					
2100	5.40			5.40	5.0	2.8560					
2400	5.40			5.40	2.0	2.8586					
JUNE 12											
0000	5.40			5.40	2.0	2.8586					
0500	5.40			5.40	1.0	2.8616					
0800	5.72			5.72	10.0	2.8706					
1000	5.76			5.76	1.0	2.8741					
2400	5.78			5.78	0.5	2.8760					
JUNE 13											
0000	5.78			5.78	0.5	2.8760					
0755	6.01			6.01	1.0	2.8785					
0945	6.15			6.15	1.0	2.8790					
0955	6.23			6.23	5.0	2.8796					
1020	6.79			6.79	83.0	2.8901					
1030	7.37			7.37	139.0	2.9001					
1040	7.44			7.44	281.0	2.9153					
1045	7.44			7.44	397.0	2.9296					
1050	7.45			7.45	490.0	2.9473					
1055	7.53			7.53	543.0	2.9669					
1100	7.62			7.62	649.0	2.9903					
1105	7.63			7.63	728.0	3.0166					
1110	7.64			7.64	851.0	3.0472					
1115	7.64			7.64	851.0	3.0779					
1120	7.64			7.64	887.0	3.1099					
1125	7.64			7.64	944.0	3.1440					
1130	7.64			7.64	963.0	3.1961					
1140	7.64			7.64	780.0	3.2383					
1145	7.64			7.64	752.0	3.2790					
1155	7.64			7.64	636.0	3.3134					
1200	7.64			7.64	546.0	3.3331					
1205	7.64			7.64	511.0	3.3699					
1220	7.65			7.65	241.0	3.3960					
1235	7.65			7.65	266.0	3.4488					
1315	7.65			7.65	157.0	3.5026					
1410	7.72			7.72	110.0	3.5383					
1445	7.77			7.77	99.0	3.5526					
1450	8.03			8.03	109.0	3.5565					

STA. NO. 08158880		STORM RAINFALL AND RUNOFF RECORD				1981 WATER YEAR			
BUGGY CREEK (SOUTH) AT CIRCLE 'S' ROAD AUSTIN, TEXAS		STORM OF JUNE 10-14, 1981				DISCHARGE ACCUM.			
DATE & TIME	IBS	GAGE	NUMBER	PRECIP.	WEIGHTED	IN	CFS	IN.	RUNOFF
JUNE 13									
1455	8.30			8.30		146.0		3.5668	
1510	8.68			8.68		400.0		3.6245	
1535	8.89			8.89		1050.0		3.7570	
1545	8.98			8.98		1190.0		3.8214	
1550	9.06			9.06		1250.0		3.8891	
1600	9.10			9.10		1510.0		3.9707	
1605	9.11			9.11		1510.0		4.1069	
1625	9.11			9.11		1340.0		4.3244	
1650	9.34			9.34		1080.0		4.4608	
1700	9.45			9.45		1180.0		4.5246	
1705	9.45			9.45		1380.0		4.6242	
1720	9.46			9.46		1450.0		4.7288	
1725	9.46			9.46		1250.0		4.8197	
1740	9.46			9.46		1060.0		4.8961	
1745	9.46			9.46		858.0		4.9580	
1800	9.83			9.83		797.0		5.0155	
1805	10.15			10.15		826.0		5.0453	
1810	10.51			10.51		895.0		5.0776	
1815	10.86			10.86		1120.0		5.1180	
1820	11.10			11.10		1480.0		5.1714	
1825	11.17			11.17		2000.0		5.3157	
1840	11.37			11.37		2500.0		5.4960	
1845	11.39			11.39		2550.0		5.5880	
1850	11.40			11.40		2920.0		5.6933	
1855	11.44			11.44		2490.0		6.0975	
1935	11.78			11.78		1880.0		6.4366	
1945	11.92			11.92		1870.0		6.5715	
1955	11.99			11.99		1710.0		6.6948	
2005	12.11			12.11		1720.0		6.7879	
2010	12.14			12.14		1630.0		6.9055	
2025	12.25			12.25		1690.0		7.0274	
2030	12.25			12.25		1480.0		7.1075	
2040	12.27			12.27		1510.0		7.2164	
2050	12.31			12.31		1360.0		7.2900	
2055	12.31			12.31		1420.0		7.3412	
2100	12.31			12.31		1300.0		7.3881	
2105	12.31			12.31		1320.0		7.5071	
2125	12.31			12.31		998.0		7.5971	
2130	12.31			12.31		947.0		7.6313	

STORM RAINFALL AND MUDOFF RECORD																			
STATION NO. 08158800																			
BUGGY CREEK (SOUTH) AT CIRCLE 59 ROAD AUSTIN, TEXAS																			
STORM OF JUNE 10-14, 1961																			
DATE & TIME	1865	1870	1875	1880	1885	1890	1895	1900	1905										
	PRECIP.	PRECIP.	PRECIP.	PRECIP.	PRECIP.	PRECIP.	PRECIP.	PRECIP.	PRECIP.										
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.										
	ACCUM.	ACCUM.	ACCUM.	ACCUM.	ACCUM.	ACCUM.	ACCUM.	ACCUM.	ACCUM.										
	WEIGHTED	WEIGHTED	WEIGHTED	WEIGHTED	WEIGHTED	WEIGHTED	WEIGHTED	WEIGHTED	WEIGHTED										
	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE	DISCHARGE										
	IN	IN	IN	IN	IN	IN	IN	IN	IN										
	CFS	CFS	CFS	CFS	CFS	CFS	CFS	CFS	CFS										
	ACCUM.	ACCUM.	ACCUM.	ACCUM.	ACCUM.	ACCUM.	ACCUM.	ACCUM.	ACCUM.										
	MUDOFF	MUDOFF	MUDOFF	MUDOFF	MUDOFF	MUDOFF	MUDOFF	MUDOFF	MUDOFF										
JUNE 13																			
2135	12.31	12.31								12.31	869.0	7.6626							
2140	12.31	12.31								12.31	711.0	7.8293							
2240	12.31	12.31								12.31	309.0	7.9129							
2255	12.31	12.31								12.31	218.0	7.9326							
2305	12.31	12.31								12.31	205.0	7.9473							
2315	12.31	12.31								12.31	160.0	7.9653							
2335	12.31	12.31								12.31	141.0	7.9857							
2355	12.32	12.32								12.32	104.0	7.9950							
2400	12.32	12.32								12.32	111.0	8.0060							
JUNE 14																			
0000	12.32	12.32								12.32	111.0	8.0060							
0045	12.32	12.32								12.32	76.0	8.0685							
0315	12.33	12.33								12.33	20.0	8.0804							
0330	12.47	12.47								12.47	15.0	8.0901							
0615	12.54	12.54								12.54	20.0	8.1042							
0645	12.73	12.73								12.73	96.0	8.1198							
0700	12.73	12.73								12.73	139.0	8.1348							
0715	12.73	12.73								12.73	144.0	8.1582							
0745	12.73	12.73								12.73	137.0	8.2990							
1400	12.75	12.75								12.75	15.0	8.3193							
1400	12.76	12.76								12.76	1.0	8.3219							
2400	12.76	12.76								12.76	0.5	8.3230							

WILLIAMSON CREEK DRAINAGE BASIN

The surface-water hydrologic data for the Williamson Creek drainage basin for the 1981 water year are given in the following pages:

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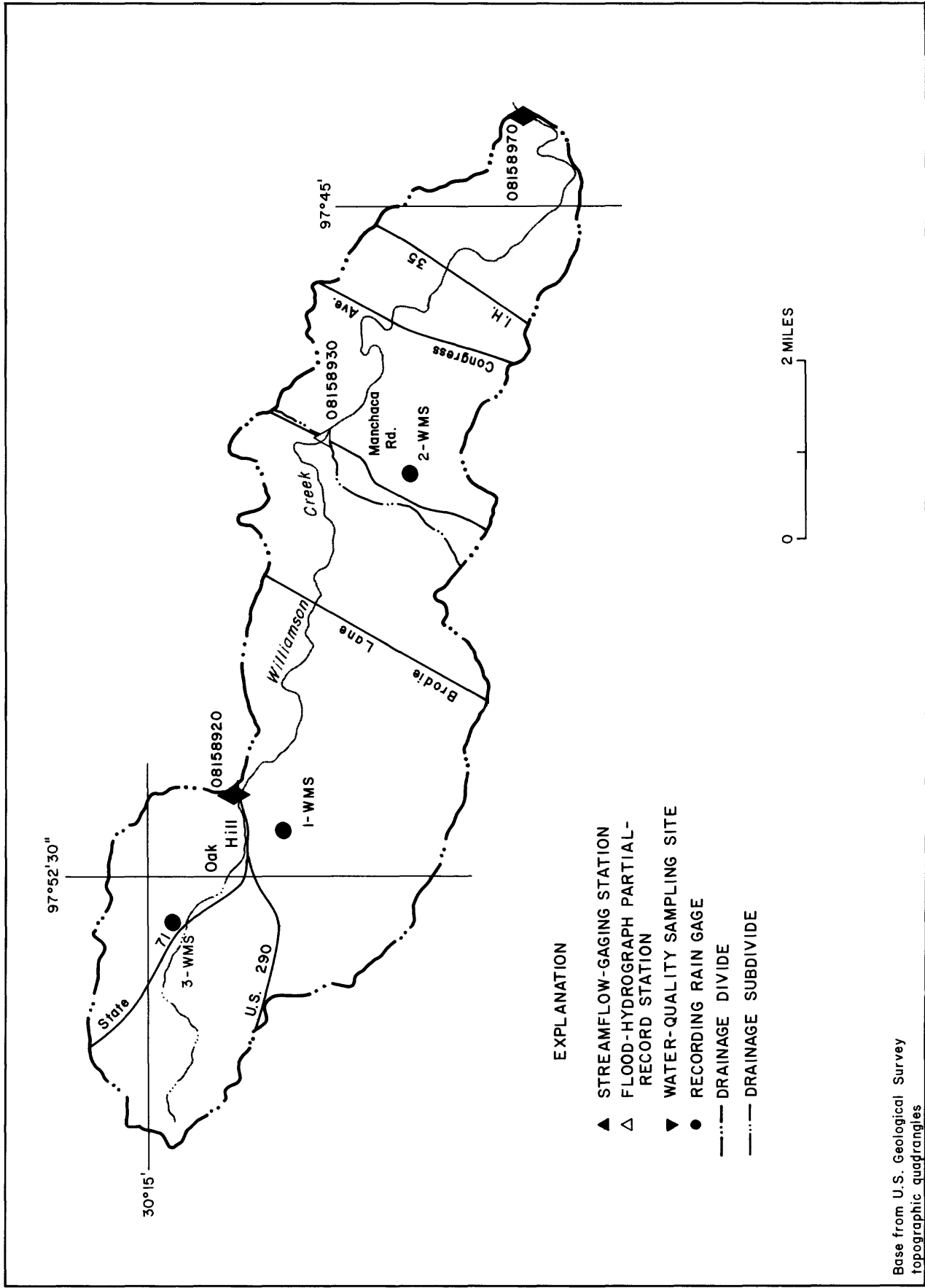
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Base from U.S. Geological Survey topographic quadrangles

Figure 16.—Locations of surface-water data-collection sites in the Willamson Creek drainage basin

Table 12.--Storm rainfall-runoff data, 1981 water year, Williamson Creek drainage basin

Date of Storm	Duration (hours)	Rainfall (inches)			Runoff (inches)	Ratio of runoff to rainfall	Maximum discharge (ft ³ /s)
		Total	15-minute	30-minute			
Williamson Creek at Oak Hill, Tex. (Drainage area.--6.30 mi ²)							
March 3-4, 1981	16	2.90	0.64	0.87	1.07	0.34	772
May 23-25, 1981	26	6.31	1.12	1.93	2.98	0.29	3,740
June 10-15, 1981	5 days	16.75	1.19	1.97	3.39	0.76	4,170
Williamson Creek at Manchaca Road, Austin, Tex. (Drainage area.--19.0 mi ²)							
March 3-4, 1981	19	2.20	0.54	0.84	1.05	0.21	1,330
May 23-25, 1981	26	4.54	1.12	1.93	2.98	0.22	4,850
June 10-15, 1981	5 days	17.16	1.19	1.93	3.52	0.60	8,490
Williamson Creek at Jimmy Clay Road, Austin, Tex. (Drainage area.--27.6 mi ²)							
June 10-15, 1981	5 days	16.83	1.19	1.97	3.52	0.57	14,100

COLORADO RIVER BASIN

08158920 WILLIAMSON CREEK AT OAK HILL, TX

LOCATION.--Lat 30°14'06", long 97°51'36", Travis County, Hydrologic Unit 12090205, on downstream side of bridge on U.S. Highway 290 in Oak Hill, 0.8 mi (1.3 km) east of the intersection of U.S. Highway 290 and State Highway 71, and 7.7 mi (12.4 km) southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--6.30 mi² (16.32 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 798.68 ft (243.438 m) National Geodetic Vertical Datum of 1929 (levels from city of Austin bench mark).

REMARKS.--Water-discharge records fair. Station is part of a hydrologic-research project to study rainfall-runoff relation for the Austin urban-rural areas. Two recording rain gages are located in the watershed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,170 ft³/s (118 m³/s) June 11, 1981, gage height, 8.55 ft (2.606 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)			(ft ³ /s)	(m ³ /s)	(ft)	(m)
Mar. 3	2245	772	21.9	4.39	1.338	June 12	0900	1,760	49.8	5.94	1.811
May 24	2330	3,740	106	8.17	2.490	June 13	1845	2,240	63.4	6.61	2.015
June 10	2200	726	20.6	4.30	1.311	June 16	0730	516	14.6	3.86	1.177
June 11	0315	*4,170	118	8.55	2.606	July 5	1030	647	18.3	4.14	1.262

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	.00	.17	.57	1.2	2.9	1.2	1.3	5.8	4.2	.06	.00
2	.46	.00	.17	.57	.32	1.1	1.2	2.5	4.1	3.8	.03	.00
3	.41	.00	.17	.57	.23	80	1.0	5.2	4.0	3.4	.04	5.8
4	.20	.00	.21	.51	1.3	67	1.0	2.5	40	3.3	.01	.16
5	.17	.00	.22	.46	3.1	21	.85	2.0	65	61	.00	.00
6	.17	.00	.17	.46	2.1	14	1.1	2.1	18	16	.00	.00
7	.17	.00	.16	.46	2.0	17	1.6	2.2	9.2	11	.00	.00
8	.15	.00	2.4	.56	1.9	11	2.0	2.1	5.7	7.7	.00	.00
9	.10	.00	1.3	.51	1.7	8.3	2.3	2.2	4.0	9.3	.00	.00
10	.07	.00	.75	.37	3.7	6.3	2.3	2.0	71	5.4	.00	.00
11	.06	.00	.70	.37	1.5	8.0	2.3	1.3	977	4.0	.00	.00
12	.04	.00	.70	.37	1.5	14	2.7	1.3	299	3.7	.00	.00
13	.04	.00	.58	.37	1.5	17	2.5	1.1	489	2.6	.00	.00
14	.05	.00	.57	.37	1.5	12	2.1	.56	233	2.4	.00	4.6
15	.03	.00	3.5	.37	1.5	9.8	2.0	.53	63	2.0	.00	1.6
16	.58	3.2	1.5	.37	1.5	7.9	2.3	10	156	1.7	.00	.00
17	.11	.27	1.2	.37	1.5	6.7	2.3	.13	54	1.5	.00	.00
18	.14	.01	1.1	.35	1.7	5.1	2.4	.07	35	1.4	.27	.00
19	.14	.00	.91	4.9	2.0	4.3	2.4	.05	26	.92	.02	.00
20	.12	.00	.75	.60	2.0	3.9	1.7	.04	19	.80	.00	.00
21	.12	.00	.70	.17	1.9	3.3	2.1	.04	15	.60	.00	.00
22	.12	.00	.70	.17	1.4	2.4	2.3	.04	12	.36	.00	.00
23	.12	.00	.70	.20	1.2	2.3	7.4	.04	9.4	.26	.00	.00
24	.10	.00	.63	.20	1.3	2.1	.33	175	8.1	.18	.00	.00
25	.07	2.1	.57	.20	1.7	2.0	.34	130	8.6	.16	.00	.00
26	.07	1.0	.57	.20	1.6	1.8	.35	6.5	7.1	1.0	.00	.00
27	.04	.20	.57	.20	1.5	1.7	.37	3.7	8.0	.45	.00	.00
28	.01	.17	.57	.24	1.3	1.6	.42	2.7	6.5	.21	.00	.00
29	.01	.17	.57	.37	---	2.2	.63	2.1	5.3	.16	.00	.00
30	.01	.17	.57	.35	---	1.5	.70	33	4.4	.11	.00	.00
31	.00	---	.57	.29	---	1.2	---	13	---	.10	.00	---
TOTAL	4.52	7.29	23.95	16.07	45.65	339.4	52.19	405.30	2662.2	149.71	.43	12.16
MEAN	.15	.24	.77	.52	1.63	10.9	1.74	13.1	88.7	4.83	.014	.41
MAX	.64	3.2	3.5	4.9	3.7	80	7.4	175	977	61	.27	5.8
MIN	.00	.00	.16	.17	.23	1.1	.33	.04	4.0	.10	.00	.00
CFSM	.02	.04	.12	.08	.26	1.73	.28	2.08	14.1	.77	.002	.07
IN.	.03	.04	.14	.09	.27	2.00	.31	2.39	15.72	.88	.00	.07
AC-FT	9.0	14	48	32	91	673	104	804	5280	297	.9	24
(††)	.64	3.70	1.71	1.76	1.54	4.69	1.25	9.85	20.90	2.98	1.36	2.86

CAL YR 1980	TOTAL	844.38	MEAN	2.31	MAX	63	MIN	.00	CFSM	.37	IN	4.99	AC-FT	1670	††	33.86
WTR YR 1981	TOTAL	3718.87	MEAN	10.2	MAX	977	MIN	.00	CFSM	1.62	IN	21.96	AC-FT	7380	††	53.24

†† Weighted-mean rainfall on watershed, in inches, based on two rain gages.

COLORADO RIVER BASIN

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 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMEDIATE (COLS. PER 100 ML)	COLIFORM, FECAL, UM-MF (COLS./100 ML)	
JAN 21...	1410	.17	600	7.9	13.0	5	.40	14.8	140	.6	120	33
JUN 16...	1250	160	469	8.0	22.5	15	11	8.4	98	.4	35000	11000

DATE	STREP-TOCOCOCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CAC03)	HARDNESS, NONCARBONATE (MG/L CAC03)	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 (MG/L AS CAC03)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 21...	40	300	32	83	23	15	.4	1.1	270	39	22	.2
JUN 16...	16000	240	14	73	15	6.9	.2	2.0	230	20	8.9	.1

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, 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)
JAN 21...	3.6	349	0	0	.08	.010	.09	.030	.48	.51	.110	4.0
JUN 16...	9.3	273	22	14	.47	.000	.47	.040	.82	.86	.060	4.8

STORM RAINFALL AND RUNOFF RECORD										1961 WATER YEAR				
STORM RAINFALL AND RUNOFF RECORD										DISCHARGE	ACCUM.			
STORM RAINFALL AND RUNOFF RECORD										IN	PRECIP.	IN	ACCUM.	
DATE & TIME	3AMS	6AM	9AM	12PM	3PM	6PM	9PM	12AM	12AM	PRECIP.	DISCHARGE	ACCUM.	IN	ACCUM.
										IN.	IN	PRECIP.	CFS	IN.
STA. NO. 08158920														
WILLIAMSON CREEK AT OAK HILL, LEAS														
MARK. 3														
0000	0.0									0.0		0.0	0.0	0.0000
0535	0.01									0.01		0.01	0.0	0.0016
0855	0.13									0.13		0.13	0.0	0.0020
0910	0.26									0.26		0.26	0.0	0.0020
0915	0.43									0.43		0.43	1.0	0.0021
0920	0.61									0.61		0.61	4.0	0.0022
0930	0.68									0.68		0.68	10.0	0.0027
0945	0.69									0.69		0.69	5.5	0.0030
1000	0.69									0.69		0.69	29.0	0.0045
1010	0.69									0.69		0.69	68.0	0.0066
1015	0.69									0.69		0.69	88.0	0.0084
1020	0.69									0.69		0.69	83.0	0.0161
1100	0.69									0.69		0.69	34.0	0.0199
1115	0.69									0.69		0.69	25.0	0.0291
1400	0.71									0.71		0.71	11.0	0.0356
1600	0.72									0.72		0.72	6.1	0.0396
1920	0.72									0.72		0.72	3.9	0.0412
1930	0.78									0.78		0.78	3.9	0.0417
2015	1.08									1.08		1.08	5.5	0.0423
2030	1.72									1.72		1.72	14.0	0.0432
2045	1.95									1.95		1.95	145.0	0.0506
2055	1.96									1.96		1.96	536.0	0.0671
2100	1.96									1.96		1.96	731.0	0.0821
2105	1.96									1.96		1.96	697.0	0.1035
2115	1.96									1.96		1.96	628.0	0.1357
2130	2.05									2.05		2.05	452.0	0.1635
2145	2.10									2.10		2.10	400.0	0.2004
2215	2.66									2.66		2.66	372.0	0.2347
2230	2.73									2.73		2.73	497.0	0.2602
2240	2.74									2.74		2.74	680.0	0.2811
2245	2.75									2.75		2.75	772.0	0.2969
2250	2.75									2.75		2.75	753.0	0.3201
2300	2.77									2.77		2.77	715.0	0.3567
2315	2.80									2.80		2.80	623.0	0.4142
2345	2.81									2.81		2.81	507.0	0.4609
2400	2.84									2.84		2.84	426.0	0.4806
MARK. 4														
0000	2.84									2.84		2.84	426.0	0.4806
0015	2.85									2.85		2.85	345.0	0.5083
0030	2.87									2.87		2.87	291.0	0.5352

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STA. NO.	STORM OF MAY 23-25, 1981				DISCHARGE ACCUM.				
NO.	STATION				IN				
DATE & TIME	IN.	PRECIP.	ACCUM.	IN.	PRECIP.	ACCUM.	IN.	PRECIP.	ACCUM.
	IN.	PRECIP.	ACCUM.	IN.	PRECIP.	ACCUM.	IN.	PRECIP.	ACCUM.
MAY 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0045	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0055	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2225	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2230	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2240	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2315	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2325	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2335	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2345	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY 25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STA. NO. UB150420		STORM RAINFALL AND RUNOFF RECORD										1961 WATER YEAR	
WILLIAMSON CREEK AT DAN HILL, LEAS		STORM UP MAY 23-25, 1961										DISCHARGE	
DATE & TIME	INMS	SWMS	GA	BE	IN	MB	ER	PRECIP.	ACCUM.	IN	ACCUM.	IN	RUNOFF
MAY 23													
0000	3.44	0.01						0.03		2330.0	1.0779		1.0779
0015	3.56	0.00						0.10		1510.0	1.2066		1.2066
0030	3.65	0.00						0.10		1080.0	1.2730		1.2730
0045	3.67	0.04						0.21		868.0	1.3264		1.3264
0100	3.72	0.73						0.25		720.0	1.3706		1.3706
0115	3.75	0.75						0.27		595.0	1.4072		1.4072
0130	3.76	0.70						0.28		559.0	1.4416		1.4416
0145	3.77	0.70						0.28		483.0	1.4862		1.4862
0215	3.77	0.70						0.28		350.0	1.5409		1.5409
0300	3.77	0.70						0.28		230.0	1.5833		1.5833
0345	3.77	0.70						0.28		164.0	1.6388		1.6388
0445	3.77	0.70						0.28		101.0	1.6791		1.6791
0700	3.77	0.70						0.28		74.0	1.6951		1.6951
0730	3.77	0.70						0.28		66.0	1.7154		1.7154
0930	3.77	0.70						0.28		46.0	1.7408		1.7408
1200	3.79	0.70						0.30		35.0	1.7774		1.7774
1800	3.80	0.74						0.31		16.0	1.8010		1.8010
2400	3.80	0.74						0.31		9.6	1.8081		1.8081

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 08158920									
WILLIAMSON CREEK AT OAK HILL, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	1WMS	3WMS	GAGE	NUMBER	WEIGHTED PRECIP. IN.	DISCHARGE IN	ACCUM. DISCHARGE IN	ACCUM. RUNOFF	
JUNE 10									
0000	0.0	0.0			0.0	3.4	0.0083		
1445	0.0	0.01			0.01	4.4	0.0191		
2000	0.15	0.30			0.28	4.4	0.0194		
2015	0.50	0.56			0.55	8.1	0.0198		
2030	0.68	0.82			0.80	12.0	0.0206		
2045	0.82	1.15			1.10	36.0	0.0228		
2100	1.08	1.50			1.43	143.0	0.0316		
2115	1.27	1.69			1.62	470.0	0.0605		
2130	1.36	1.84			1.76	586.0	0.0965		
2145	1.44	1.88			1.81	623.0	0.1348		
2200	1.48	1.89			1.82	726.0	0.1795		
2215	1.48	1.89			1.82	715.0	0.2234		
2230	1.48	1.89			1.82	686.0	0.2867		
2300	1.48	1.89			1.82	526.0	0.3352		
2315	1.48	1.89			1.82	430.0	0.3881		
2400	1.48	1.89			1.82	242.0	0.4142		
JUNE 11									
0000	1.48	1.89			1.82	242.0	0.4142		
0015	1.48	1.89			1.82	198.0	0.4301		
0030	1.48	1.89			1.82	169.0	0.4405		
0045	1.48	1.89			1.82	150.0	0.4681		
0200	1.61	2.42			2.29	113.0	0.4890		
0215	2.23	3.28			3.11	192.0	0.5008		
0230	3.42	4.00			3.91	1460.0	0.5906		
0245	4.20	4.52			4.47	3040.0	0.8086		
0305	5.21	4.78			4.85	3810.0	1.0039		
0310	5.32	4.83			4.91	3990.0	1.0857		
0315	5.35	4.86			4.94	4170.0	1.2566		
0330	5.37	4.90			4.98	3220.0	1.4546		
0345	5.38	4.91			4.99	2380.0	1.6010		
0400	5.41	5.06			5.12	1460.0	1.6907		
0415	5.60	5.16			5.23	1190.0	1.7639		
0430	5.61	5.16			5.23	1080.0	1.8303		
0445	5.86	5.40			5.47	976.0	1.8903		
0500	6.07	6.08			6.08	1070.0	1.9561		
0515	6.15	6.26			6.24	1570.0	2.0366		
0525	6.15	6.27			6.25	1810.0	2.0922		
0530	6.15	6.27			6.25	1930.0	2.1318		
0535	6.15	6.27			6.25	1890.0	2.1899		
0545	6.15	6.27			6.25	1820.0	2.2832		

DATE & TIME	STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR						
	WILLIAMSON CREEK AT OAK HILL, TEXAS										DISCHARGE IN	ACCUM. WEIGHTED PRECIP. IN.	ACCUM. RUNOFF IN.				
	1WMS	3WMS	GAGE	NUM	BE	R-	PRECIP.	CFS	IN.	IN.							
JUNE 11																	
0600	6.15	6.28									6.26	1790.0	2.3932				
0615	6.42	6.41									6.41	1250.0	2.4707				
0630	6.45	6.43									6.43	1050.0	2.5359				
0645	6.46	6.43									6.43	1010.0	2.5980				
0700	6.46	6.43									6.43	777.0	2.6458				
0715	6.46	6.60									6.58	666.0	2.6867				
0730	6.48	6.74									6.70	609.0	2.7242				
0745	6.58	6.90									6.85	614.0	2.7619				
0800	6.69	6.91									6.87	958.0	2.8208				
0815	6.85	6.93									6.92	1400.0	2.9069				
0830	7.08	7.02									7.03	1380.0	2.9918				
0845	7.18	7.28									7.26	1520.0	3.1320				
0915	7.45	7.40									7.41	1680.0	3.2869				
0930	7.62	7.46									7.49	1540.0	3.3816				
0945	8.05	7.69									7.75	1490.0	3.4733				
1000	8.41	8.23									8.26	1610.0	3.5723				
1015	8.92	8.55									8.61	2550.0	3.7291				
1030	9.33	8.97									9.03	3240.0	3.9283				
1045	9.65	9.28									9.34	3280.0	4.0964				
1055	9.83	9.36									9.44	3370.0	4.2000				
1100	9.95	9.43									9.51	3420.0	4.2701				
1105	10.01	9.50									9.58	3370.0	4.3737				
1115	10.17	9.61									9.70	3280.0	4.5418				
1130	10.33	9.65									9.76	2980.0	4.7250				
1145	10.69	9.70									9.86	2760.0	4.8947				
1200	10.75	9.74									9.90	2260.0	5.0337				
1215	10.81	9.77									9.94	1860.0	5.1481				
1230	10.86	9.80									9.97	1360.0	5.2317				
1245	10.89	9.82									9.99	1100.0	5.3670				
1300	11.02	9.89									10.07	686.0	5.4724				
1415	11.22	10.02									10.15	582.0	5.5261				
1430	11.30	10.07									10.21	564.0	5.5608				
1445	11.34	10.08									10.27	559.0	5.5952				
1500	11.38	10.09									10.30	573.0	5.6307				
1630	11.50	10.11									10.33	352.0	5.8514				
1715	11.50	10.11									10.33	284.0	5.9038				
1800	11.50	10.11									10.33	239.0	5.9552				
1900	11.50	10.11									10.33	206.0	6.0439				

STA. NO. 08158920		STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR					
WILLIAMSON CREEK AT OAK HILL, TEXAS		STORM OF JUNE 10-15, 1981										DISCHARGE		ACCUM.			
DATE & TIME	1WMS	3WMS	G A G E N U M B E R								WEIGHTED	IN	CFS	IN.	IN.	RUNOFF	
JUNE 11																	
2130	11.50	10.11											10.33	154.0	6.1386		
	11.50	10.11											10.33	127.0	6.1932		
JUNE 12																	
0000	11.50	10.11											10.33	127.0	6.1932		
0200	11.50	10.11											10.33	113.0	6.2644		
0400	11.50	10.11											10.33	105.0	6.3290		
0700	11.50	10.12											10.34	95.0	6.3865		
0855	12.41	11.49											11.64	1650.0	6.7923		
0900	12.41	11.49											11.64	1760.0	6.8284		
0905	12.41	11.49											11.64	1700.0	6.8806		
0915	12.41	11.49											11.64	1590.0	7.0599		
1000	12.42	11.49											11.64	787.0	7.1567		
1015	12.57	11.63											11.78	731.0	7.2016		
1030	12.78	11.86											12.01	647.0	7.2414		
1045	12.81	11.87											12.02	803.0	7.2908		
1100	12.82	11.87											12.02	890.0	7.3455		
1115	12.83	11.87											12.02	952.0	7.4041		
1130	12.84	11.87											12.03	935.0	7.4615		
1145	12.85	11.87											12.03	852.0	7.5663		
1230	12.86	11.87											12.03	540.0	7.6327		
1245	12.86	11.87											12.03	465.0	7.6756		
1315	12.87	11.87											12.03	368.0	7.7322		
1400	12.87	11.87											12.03	277.0	7.7918		
1500	12.87	11.87											12.03	215.0	7.8447		
1600	12.87	11.88											12.04	184.0	7.8900		
1700	12.87	11.88											12.04	154.0	7.9278		
1800	12.87	11.88											12.04	134.0	7.9937		
2100	12.87	11.88											12.04	107.0	8.0727		
2400	12.87	11.88											12.04	93.0	8.1242		
JUNE 13																	
0000	12.87	11.88											12.04	93.0	8.1242		
0300	12.93	12.04											12.18	86.0	8.1916		
0445	13.00	12.13											12.27	117.0	8.2203		
0500	13.00	12.13											12.27	117.0	8.2275		
0515	13.00	12.13											12.27	117.0	8.2635		
0730	13.00	12.14											12.28	99.0	8.3153		
0930	13.08	12.20											12.34	88.0	8.3423		
1000	13.14	12.27											12.41	93.0	8.3623		
1115	13.55	12.67											12.81	164.0	8.3926		
1130	13.72	13.09											13.19	206.0	8.4052		
1145	13.81	13.64											13.67	510.0	8.4370		

STA. NO. 08158920		STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR								
WILLIAMSON CREEK AT OAK HILL, TEXAS		STORM OF JUNE 10-15, 1981										DISCHARGE		ACCUM.						
DATE & TIME	1WMS	3WMS	G A G E N U M B E R										IN	CFS	IN.	PRECIP.	IN.	IN.		
JUNE 13																				
1200	13.83	13.81																1080.0	13.81	8.5034
1215	13.84	13.83																1860.0	13.83	8.6178
1230	13.84	13.83																2150.0	13.83	8.7279
1245	13.85	13.84																2170.0	13.84	8.7946
1250	13.85	13.84																2180.0	13.84	8.8393
1300	13.86	13.84																2180.0	13.84	8.9064
1330	13.86	13.84																2170.0	13.84	9.0843
1345	13.92	13.86																825.0	13.87	9.2374
1400	13.94	13.88																666.0	13.89	9.2783
1415	13.97	13.89																559.0	13.90	9.3127
1430	13.99	13.90																479.0	13.91	9.3422
1445	14.03	13.92																443.0	13.94	9.3694
1500	14.43	14.09																421.0	14.14	9.4730
1645	14.91	14.25																443.0	14.36	9.5819
1700	15.04	14.38																452.0	14.49	9.6097
1715	15.08	14.40																479.0	14.51	9.6392
1730	15.12	14.41																526.0	14.52	9.6877
1800	15.59	14.81																568.0	14.93	9.7692
1840	16.70	15.46																2120.0	15.66	9.9647
1845	16.72	15.46																2240.0	15.66	10.0106
1850	16.74	15.46																2190.0	15.66	10.0780
1900	16.77	15.46																2090.0	15.67	10.2493
1930	16.87	15.51																1400.0	15.73	10.3785
1945	16.95	15.53																1120.0	15.76	10.4473
2000	16.97	15.54																976.0	15.77	10.5674
2045	17.15	15.64																661.0	15.88	10.6486
2100	17.17	15.64																586.0	15.88	10.6847
2115	17.20	15.64																564.0	15.89	10.7194
2130	17.22	15.64																511.0	15.89	10.7508
2145	17.23	15.64																474.0	15.89	10.7799
2200	17.25	15.64																439.0	15.90	10.8069
2215	17.25	15.64																396.0	15.90	10.8313
2230	17.26	15.64																356.0	15.90	10.8751
2315	17.27	15.65																287.0	15.91	10.9103
2330	17.27	15.65																274.0	15.91	10.9356
2400	17.29	15.65																267.0	15.91	10.9561
JUNE 14																				
0000	17.29	15.65																267.0	15.91	10.9561
0015	17.29	15.66																236.0	15.92	10.9893

STORM RAINFALL AND RUNOFF RECORD									
1981 WATER YEAR									
STATION NO. 08158920									
WILLIAMSON CREEK AT OAK HILL, TEXAS									
STORM OF JUNE 10-15, 1981									
DATE & TIME	1WMS	3WMS	GAGE NUMBER	PRECIP. IN.	ACCUM. WEIGHED PRECIP. IN.	DISCHARGE IN	CFS	IN.	ACCUM. RUNOFF IN.
JUNE 14									
0100	17.30	15.00		15.92	206.0	11.0399			
0215	17.34	15.74		16.00	179.0	11.0840			
0300	17.37	15.79		16.04	230.0	11.1264			
0345	17.45	15.82		16.08	254.0	11.1811			
0445	17.47	15.86		16.12	227.0	11.2369			
0545	17.56	16.00		16.25	206.0	11.2749			
0615	17.60	16.06		16.31	242.0	11.3121			
0700	17.66	16.18		16.42	398.0	11.3973			
0800	17.69	16.26		16.51	483.0	11.5013			
0845	17.71	16.29		16.52	559.0	11.5872			
0915	17.74	16.33		16.56	488.0	11.6472			
0945	17.81	16.37		16.60	380.0	11.7056			
1030	17.99	16.44		16.69	461.0	11.8332			
1200	18.05	16.46		16.71	341.0	12.0639			
1600	18.05	16.47		16.72	147.0	12.2085			
2000	18.05	16.47		16.72	111.0	12.3177			
2400	18.05	16.47		16.72	86.0	12.4235			
JUNE 15									
0000	18.05	16.47		16.72	86.0	12.4235			
1200	18.13	16.48		16.74	62.0	12.6699			
2400	18.14	16.48		16.75	40.0	12.7289			

08158930 WILLIAMSON CREEK AT MANCHACA ROAD, AUSTIN, TEX.
(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 mi².

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,490 ft³/s June 11, 1981 (gage height, 16.00 ft).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,490 ft³/s June 11 (gage height, 16.00 ft).

STATION NO. 06150500									
STORM RAINFALL AND RUNOFF RECORD									
WILLIAMSON CREEK AT MANCHACA ROAD, AUSTIN, TEXAS									
STORM OF MARCH 3-4, 1961									
DATE & TIME	CMS	JMS	UAVE	NUMBER	STORM OF	WEIGHTED	DISCHARGE	ACCUM.	1961 WATER YEAR
					MARCH 3-4,	PRECIP.	IN	RUNOFF	
					1961	IN.	CFS	IN.	
MAR. 3									
0000	0.0	0.0				0.0	0.1	0.0000	
0535	0.0	0.01				0.01	0.1	0.0000	
0600	0.01	0.03				0.02	0.1	0.0001	
0910	0.08	0.20				0.16	0.1	0.0001	
0920	0.06	0.61				0.37	4.4	0.0001	
0930	0.09	0.68				0.41	13.0	0.0003	
0935	0.19	0.68				0.46	13.0	0.0004	
0940	0.52	0.68				0.61	18.0	0.0005	
0945	0.63	0.69				0.67	18.0	0.0007	
1000	0.65	0.69				0.67	18.0	0.0025	
1005	0.65	0.69				0.67	267.0	0.0044	
1015	0.66	0.69				0.67	237.0	0.0068	
1030	0.66	0.69				0.68	177.0	0.0098	
1100	0.66	0.69				0.68	203.0	0.0160	
1115	0.67	0.69				0.68	91.0	0.0188	
1130	0.67	0.69				0.68	50.0	0.0199	
1230	0.67	0.69				0.68	39.0	0.0219	
1415	0.68	0.71				0.70	10.0	0.0230	
1600	0.68	0.72				0.70	5.6	0.0243	
1920	0.68	0.72				0.70	2.1	0.0247	
2020	0.73	1.15				0.96	1.5	0.0249	
2025	0.74	1.56				1.19	1.7	0.0249	
2045	0.74	1.75				1.19	1.6	0.0250	
2100	0.77	1.96				1.41	9.5	0.0252	
2110	0.79	1.90				1.42	451.0	0.0328	
2115	0.80	1.96				1.43	454.0	0.0375	
2120	0.81	1.96				1.44	455.0	0.0406	
2130	0.81	2.05				1.45	375.0	0.0444	
2145	0.82	2.10				1.49	214.0	0.0480	
2200	0.83	2.37				1.52	100.0	0.0501	
2215	0.89	2.68				1.68	74.0	0.0516	
2230	0.96	2.73				1.68	81.0	0.0532	
2245	1.06	2.75				1.93	180.0	0.0569	
2300	1.11	2.77				1.99	309.0	0.0632	
2315	1.12	2.80				2.02	622.0	0.0759	
2330	1.15	2.80				2.04	911.0	0.0945	
2400	1.18	2.84				2.06	908.0	0.1222	
MAR. 4						2.09	911.0	0.1454	
0000	1.18	2.84				2.09	911.0	0.1454	

SIA. NO. 08158730		STORM MAINFALL AND MOUNOFF RECORD				1961 WATER YEAR			
WILLIAMSON CREEK AT MANCHACA ROAD, AUSTIN, TEXAS		STORM OF MARCH 3-4, 1961				DISCHARGE		ACCUM.	
DATE & TIME	ZMS	JMS	DATE	NUMBER	PRECIP. IN.	IN	CFS	IN.	MOUNOFF
MAR. 4									
0015	1.19	2.85			2.10	1180.0	0.1701	0.1701	
0025	1.21	2.87			2.12	1280.0	0.1831	0.1831	
0030	1.22	2.87			2.13	1330.0	0.1922	0.1922	
0035	1.24	2.87			2.14	1310.0	0.2055	0.2055	
0045	1.27	2.87			2.15	1260.0	0.2526	0.2526	
0130	1.28	2.87			2.15	873.0	0.2971	0.2971	
0200	1.28	2.87			2.15	640.0	0.3167	0.3167	
0215	1.28	2.87			2.15	538.0	0.3331	0.3331	
0245	1.28	2.87			2.15	398.0	0.3453	0.3453	
0300	1.28	2.87			2.15	348.0	0.3580	0.3580	
0330	1.28	2.87			2.15	280.0	0.3645	0.3645	
0345	1.28	2.87			2.15	258.0	0.3882	0.3882	
0545	1.32	2.88			2.18	137.0	0.4050	0.4050	
0845	1.32	2.88			2.18	95.0	0.4146	0.4146	
0815	1.32	2.88			2.18	67.0	0.4249	0.4249	
1030	1.34	2.90			2.20	49.0	0.4404	0.4404	
1600	1.35	2.90			2.20	29.0	0.4516	0.4516	
2000	1.35	2.90			2.20	21.0	0.4585	0.4585	
2400	1.35	2.90			2.20	13.0	0.4606	0.4606	

STA. NO. 015B930		STORM MAINFALL AND RUNOFF RECORD										1961 WATER YEAR	
WILLIAMSON CREEK AT MANGHALA ROAD, AUSTIN, TEXAS		STORM OF MAY 23-25, 1961										DISCHARGE ACCUM.	
DATE & TIME	1WMS	2WMS	3WMS	4	5	6	7	8	9	10	PRECIP. IN.	CFS	IN.
MAY 23													
0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0002
0330	0.0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.2	0.0004
2345	0.0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.2	0.0004
2400	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.2	0.0004
MAY 24													
0000	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.2	0.0004
0040	0.25	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.2	0.0004
0045	0.34	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.2	0.0004
0050	0.62	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.1	0.0004
0055	0.88	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	12.0	0.0005
0100	0.97	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	18.0	0.0008
0115	1.15	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	49.0	0.0014
0120	1.19	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	179.0	0.0033
0130	1.21	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	440.0	0.0152
0200	1.21	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	444.0	0.0288
0215	1.21	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	405.0	0.0412
0245	1.21	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	177.0	0.0466
0300	1.21	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	114.0	0.0489
0315	1.21	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	78.0	0.0505
0330	1.21	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	52.0	0.0548
0515	1.21	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	22.0	0.0579
0700	1.22	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	9.0	0.0598
1000	1.23	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	3.1	0.0611
1800	1.23	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.2	0.0617
2100	1.26	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	0.3	0.0617
2120	1.84	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	5.5	0.0618
2125	1.87	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	8.3	0.0620
2200	1.87	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	6.6	0.0623
2215	1.94	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	31.0	0.0627
2220	1.96	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	37.0	0.0631
2230	1.97	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	50.0	0.0636
2255	2.01	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	54.0	0.0639
2240	2.19	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	57.0	0.0643
2245	2.79	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	61.0	0.0652
2300	3.22	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	290.0	0.0712
2315	3.37	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	1040.0	0.0924
2330	3.42	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	1080.0	0.1071
2335	3.44	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	1030.0	0.1176
2345	3.46	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	945.0	0.1336
2400	3.49	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	852.0	0.1467
MAY 25													

STORM MAINFALL AND RUNOFF RECORD										1961 WATER YEAR			
STATION NO. 08158930										WILLIAMSON CREEK AT MANHACA ROAD, AUSTIN, TEXAS			
STORM OF MAY 23-25, 1961										DISCHARGE ACCUM.			
DATE & TIME	1WMS	2WMS	3WMS	4WMS	5WMS	6WMS	7WMS	8WMS	9WMS	10WMS	PRECIP. IN.	CFS	IN.
MAY 23													
0000	3.49	2.99	0.51								4.24	852.0	0.1467
0015	3.56	2.99	0.58								4.25	609.0	0.1634
0030	3.65	3.11	0.60								4.39	1720.0	0.1985
0045	3.67	3.14	0.69								4.41	3810.0	0.2762
0100	3.72	3.18	0.73								4.48	4770.0	0.3572
0115	3.74	3.21	0.75								4.48	4770.0	0.4059
0130	3.75	3.22	0.75								4.49	4850.0	0.4388
0145	3.76	3.23	0.76								4.50	4610.0	0.4858
0200	3.76	3.23	0.76								4.50	4290.0	0.5587
0215	3.77	3.24	0.76								4.50	3500.0	0.6301
0230	3.77	3.24	0.76								4.50	2520.0	0.6815
0245	3.77	3.24	0.76								4.50	1810.0	0.7184
0300	3.77	3.24	0.76								4.50	1200.0	0.7716
0315	3.77	3.24	0.76								4.50	1020.0	0.7924
0345	3.77	3.25	0.76								4.51	884.0	0.8194
0400	3.77	3.25	0.76								4.51	706.0	0.8410
0430	3.77	3.25	0.76								4.51	600.0	0.8593
0500	3.77	3.25	0.76								4.51	459.0	0.8781
0515	3.77	3.25	0.76								4.51	362.0	0.8891
0630	3.77	3.25	0.76								4.51	325.0	0.8991
1100	3.77	3.25	0.76								4.51	273.0	0.9130
1200	3.79	3.26	0.76								4.51	217.0	0.9395
1600	3.80	3.26	0.76								4.52	137.0	0.9647
2000	3.80	3.29	0.79								4.53	87.0	0.9903
2400	3.80	3.29	0.79								4.54	40.0	1.0033
											4.54	27.0	1.0121
												5.6	1.0130

STA. NO. 00158930		STORM MAINFALL AND RUNOFF RECORD										1981 WATER YEAR	
WILLIAMSON CREEK AT MANGHALA ROAD, AUSTINS, TEXAS		STORM OF JUNE 10-15, 1981										ACCUM. DISCHARGE/ ACCUM. RUNOFF	
DATE & TIME	1 WMS	2 WMS	3 WMS	4 WMS	5 WMS	6 WMS	7 WMS	8 WMS	9 WMS	10 WMS	PRECIP. IN.	CFS	IN.
JUNE 10													
0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0001
0100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0002
0200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0003
0300	0.15	0.43	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.26	40.0	0.0011
0400	0.50	0.51	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.52	38.0	0.0021
0500	0.68	0.55	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.69	38.0	0.0090
0600	0.82	0.58	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.86	27.0	0.0152
0700	1.08	0.58	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	1.08	23.0	0.0200
0800	1.27	0.57	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	1.32	50.0	0.0302
0900	1.36	1.35	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	1.30	112.0	0.0531
1000	1.44	1.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.56	115.0	0.0765
1100	1.48	1.44	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	77.0	0.0923
1200	1.48	1.44	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	62.0	0.1051
1300	1.48	1.44	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	47.0	0.1148
1400	1.48	1.44	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	36.0	0.1260
1500	1.48	1.44	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	80.0	0.1524
1600	1.48	1.44	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	110.0	0.1761
1700	1.48	1.44	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	125.0	0.2016
1800	1.48	1.44	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	119.0	0.2258
JUNE 11													
0000	1.48	1.44	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	119.0	0.2258
0100	1.48	1.45	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	100.0	0.2787
0200	1.48	1.45	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.59	74.0	0.3093
0300	1.48	1.45	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.60	53.0	0.3256
0400	1.53	1.45	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.64	40.0	0.3334
0500	1.54	1.45	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24	1.72	42.0	0.3378
0600	1.61	1.45	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	1.80	40.0	0.3419
0700	1.94	1.48	2.89	2.89	2.89	2.89	2.89	2.89	2.89	2.89	2.10	38.0	0.3458
0800	2.23	1.47	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	2.34	37.0	0.3483
0900	2.64	1.47	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67	2.65	37.0	0.3521
1000	3.42	1.47	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.10	36.0	0.3571
1100	3.87	1.48	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	3.41	42.0	0.3628
1200	4.51	1.84	4.58	4.58	4.58	4.58	4.58	4.58	4.58	4.58	3.80	48.0	0.3694
1300	5.13	1.89	4.74	4.74	4.74	4.74	4.74	4.74	4.74	4.74	4.23	53.0	0.3785
1400	5.35	2.00	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.37	108.0	0.4005
1500	5.37	2.30	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.47	158.0	0.4327
1600	5.38	2.30	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.47	191.0	0.4717
1700	5.41	2.30	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.53	364.0	0.5459
1800	5.60	2.30	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	4.65	473.0	0.6424

STA. NO. 08158930		STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR																
WILLIAMSON CREEK AT MANCHALA ROAD, AUSTIN, TEXAS		STORM OF JUNE 10-13, 1981										DISCHARGE		ACCUM.														
DATE & TIME	1WMS	2WMS	3WMS	4WMS	5WMS	6WMS	7WMS	8WMS	9WMS	10WMS	11WMS	12WMS	13WMS	14WMS	15WMS	16WMS	17WMS	18WMS	19WMS	20WMS	21WMS	22WMS	23WMS	24WMS	IN.	IN.		
JUNE 11																												
0430	5.61	2.31	5.10																								0.7518	
0445	5.86	2.47	5.40																								0.8701	
0500	6.07	2.50	5.68																								0.9935	
0515	6.15	2.53	5.82																								1.1176	
0530	6.15	2.59	5.82																								1.2926	
0600	6.15	2.68	5.82																								1.4732	
0630	6.45	2.70	5.43																								1.6192	
0700	6.46	2.70	5.43																								1.7738	
0730	6.48	2.70	5.74																								1.8852	
0750	6.58	2.96	5.91																								1.9419	
0800	6.69	3.27	6.91																								2.0128	
0830	7.08	3.66	7.02																								2.1230	
0900	7.40	3.66	7.36																								2.2139	
0930	7.62	3.68	7.46																								2.2894	
0945	8.05	3.85	7.89																								2.3441	
1000	8.41	3.95	8.23																								2.4034	
1015	8.92	3.99	8.55																								2.4658	
1030	9.33	4.99	8.97																								2.5349	
1045	9.65	4.99	9.28																								2.6171	
1100	9.95	5.52	9.43																								2.7624	
1130	10.33	6.33	9.85																								2.9602	
1145	10.69	6.63	9.70																								3.1823	
1215	10.81	6.97	9.77																								3.4389	
1230	10.86	7.03	9.80																								3.6120	
1245	10.89	7.09	9.82																								3.7812	
1300	10.93	7.13	9.83																								4.0216	
1330	11.02	7.25	9.89																								4.2818	
1400	11.14	7.42	9.96																								4.4734	
1430	11.30	7.68	10.07																								4.6125	
1500	11.38	7.83	10.09																								4.7193	
1530	11.43	7.93	10.10																								4.8062	
1600	11.48	8.03	10.10																								4.9157	
1700	11.50	8.03	10.11																								5.0225	
1800	11.50	8.03	10.11																								5.0968	
1900	11.50	8.03	10.11																								5.1479	
2000	11.50	8.03	10.11																								5.1854	
2100	11.50	8.06	10.11																								5.2146	
2200	11.50	8.06	10.11																								5.2512	
2400	11.50	8.06	10.11																								5.2788	
JUNE 12																												

STORM MAINFALL AND RUNOFF RECORD											
1981 WATER YEAR											
WILLIAMSON CREEK AT MANCHAÇA ROAD, AUSTIN, TEXAS											
STORM OF JUNE 10-13, 1981											
DATE & TIME	1AMS	2AMS	3AMS	4AMS	5AMS	6AMS	7AMS	8AMS	9AMS	10AMS	11AMS
	PRECIP. IN.	PRECIP. IN.	PRECIP. IN.	PRECIP. IN.	PRECIP. IN.	PRECIP. IN.	PRECIP. IN.	PRECIP. IN.	PRECIP. IN.	PRECIP. IN.	PRECIP. IN.
	CFS	CFS	CFS	CFS	CFS	CFS	CFS	CFS	CFS	CFS	CFS
	ACCUM. WEIGHTED	ACCUM. WEIGHTED	ACCUM. WEIGHTED	ACCUM. WEIGHTED	ACCUM. WEIGHTED	ACCUM. WEIGHTED	ACCUM. WEIGHTED	ACCUM. WEIGHTED	ACCUM. WEIGHTED	ACCUM. WEIGHTED	ACCUM. WEIGHTED
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
JUNE 12											
0000	11.50	0.00	10.11							10.24	225.0
0200	11.50	0.06	10.11							10.24	174.0
0400	11.50	0.06	10.11							10.24	146.0
0600	11.50	0.13	10.12							10.26	129.0
0700	11.50	0.20	10.12							10.27	146.0
0750	11.82	0.28	10.49							10.55	168.0
0800	12.32	0.33	10.78							10.93	183.0
0930	12.41	0.33	11.49							11.12	211.0
0945	12.41	0.33	11.49							11.12	725.0
1000	12.42	0.34	11.49							11.13	1740.0
1015	12.57	0.38	11.03							11.25	2170.0
1030	12.78	0.38	11.86							11.41	2300.0
1045	12.81	0.38	11.87							11.43	2190.0
1115	12.83	0.39	11.87							11.44	1510.0
1130	12.84	0.39	11.87							11.44	1240.0
1200	12.86	0.39	11.87							11.46	1480.0
1230	12.86	0.39	11.87							11.46	1680.0
1300	12.86	0.39	11.87							11.46	1540.0
1400	12.87	0.39	11.87							11.46	1010.0
1500	12.87	0.39	11.87							11.46	663.0
1700	12.87	0.40	11.88							11.47	338.0
1900	12.87	0.40	11.88							11.47	237.0
2100	12.87	0.40	11.88							11.47	177.0
2400	12.87	0.40	11.88							11.47	132.0
JUNE 13											
0000	12.87	0.40	11.88							11.47	132.0
0230	12.91	0.47	11.91							11.51	116.0
0345	12.98	0.58	12.12							11.63	190.0
0500	13.00	0.59	12.13							11.65	135.0
0600	13.00	0.59	12.13							11.65	135.0
0700	13.00	0.59	12.13							11.65	157.0
0900	13.06	0.71	12.17							11.71	143.0
0945	13.09	0.76	12.20							11.75	171.0
1015	13.35	0.23	12.31							12.02	225.0
1030	13.39	10.01	12.32							12.23	463.0
1045	13.39	10.26	12.32							12.30	1250.0
1100	13.44	10.44	12.37							12.38	1760.0
1115	13.55	10.46	12.57							12.52	1510.0
1130	13.72	10.47	13.09							12.72	1240.0
1200	13.83	10.47	13.61							12.98	945.0
											6.2326
											6.2571
											6.2765
											6.2888
											6.2999
											6.3191
											6.3351
											6.3438
											6.3507
											6.3601
											6.3656
											6.4215
											6.4523
											6.4902
											6.5287

STORM RAINFALL AND RUNOFF RECORD										1981 WATER YEAR								
WILLIAMSON CREEK AT MANCHACA ROAD, AUSTIN, TEXAS										WILLIAMSON CREEK AT MANCHACA ROAD, AUSTIN, TEXAS								
STORM OF JUNE 10-13, 1981										STORM OF JUNE 10-13, 1981								
DATE & TIME	1WMS	2WMS	3WMS	4WMS	5WMS	6WMS	7WMS	8WMS	9WMS	10WMS	PRECIP. IN.	DISCHARGE IN	ACCUM. PRECIP. IN.	DISCHARGE IN	ACCUM. PRECIP. IN.	DISCHARGE IN	ACCUM. PRECIP. IN.	
JUNE 13																		
1230	13.84	10.47	13.83								12.99	634.0	12.99	634.0	6.5556			
1300	13.85	10.47	13.84								13.01	533.0	13.01	533.0	6.5719			
1315	13.86	10.47	13.84								13.01	1010.0	13.01	1010.0	6.5925			
1330	13.86	10.59	13.84								13.04	2140.0	13.04	2140.0	6.6361			
1345	13.92	10.60	13.88								13.07	2700.0	13.07	2700.0	6.6912			
1400	13.94	10.60	13.88								13.09	3010.0	13.09	3010.0	6.7526			
1415	13.97	10.60	13.89								13.10	3100.0	13.10	3100.0	6.8158			
1430	13.99	10.60	13.90								13.12	2910.0	13.12	2910.0	6.9046			
1500	14.43	10.65	14.09								13.39	2570.0	13.39	2570.0	7.0096			
1530	14.64	10.65	14.14								13.50	2470.0	13.50	2470.0	7.0851			
1545	14.67	10.90	14.14								13.59	2770.0	13.59	2770.0	7.1416			
1600	14.70	11.50	14.18								13.75	3100.0	13.75	3100.0	7.2048			
1615	14.74	11.50	14.18								13.81	2960.0	13.81	2960.0	7.3255			
1700	15.04	12.04	14.36								14.10	2530.0	14.10	2530.0	7.4545			
1730	15.12	12.08	14.41								14.15	2440.0	14.15	2440.0	7.5540			
1800	15.59	12.45	14.61								14.58	2100.0	14.58	2100.0	7.6398			
1830	16.60	14.10	15.44								15.64	3390.0	15.64	3390.0	7.7778			
1900	16.77	14.32	15.46								15.78	4680.0	15.78	4680.0	7.9687			
1930	16.87	14.67	15.51								15.93	4920.0	15.93	4920.0	8.2195			
2015	17.07	15.26	15.55								16.15	5600.0	16.15	5600.0	8.4503			
2030	17.15	15.38	15.64								16.21	5480.0	16.21	5480.0	8.5675			
2115	17.20	15.41	15.64								16.27	4470.0	16.27	4470.0	8.7351			
2200	17.25	15.41	15.64								16.30	2910.0	16.30	2910.0	8.9630			
2300	17.27	15.42	15.65								16.34	1810.0	16.34	1810.0	9.1706			
2400	17.29	15.42	15.65								16.35	1180.0	16.35	1180.0	9.3182			
JUNE 14																		
0000	17.29	15.42	15.65								16.35	1180.0	16.35	1180.0	9.3904			
0100	17.30	15.42	15.66								16.35	759.0	16.35	759.0	9.4764			
0200	17.32	15.42	15.70								16.38	504.0	16.38	504.0	9.5175			
0300	17.37	15.42	15.79								16.42	383.0	16.42	383.0	9.5448			
0345	17.45	15.54	15.82								16.50	348.0	16.50	348.0	9.5732			
0500	17.47	15.59	15.87								16.54	380.0	16.54	380.0	9.6081			
0600	17.59	15.60	16.05								16.65	362.0	16.65	362.0	9.6302			
0630	17.60	15.79	16.07								16.70	345.0	16.70	345.0	9.6513			
0730	17.67	15.90	16.19								16.80	424.0	16.80	424.0	9.6945			
0900	17.72	15.90	16.29								16.85	649.0	16.85	649.0	9.7607			
1000	17.93	15.97	16.38								16.99	785.0	16.99	785.0	9.8007			
1015	17.95	15.97	16.38								17.00	826.0	17.00	826.0	9.8176			
1030	17.99	15.97	16.44								17.04	820.0	17.04	820.0	9.8426			

STA. NO. 06150830		STORM RAINFALL AND RUNOFF RECORD										1901 WATER YEAR			
WILLIAMS CREEK AT MANCHACA ROAD, AUSTIN, TEXAS		STORM OF JUNE 10-15, 1901										DISCHARGE	ACCUM.		
DATE & TIME	IWS	2WS	3WS	4WS	5WS	6WS	7WS	8WS	9WS	10WS	11WS	PRECIP.	WEIGHTED	IN	IN.
JUNE 14															
1100	10.04	15.57	16.46									17.06		631.0	9.9070
1300	10.05	15.98	16.47									17.07		510.0	9.9806
1430	10.05	15.98	16.47									17.07		355.0	10.0240
1600	10.05	15.98	16.47									17.07		277.0	10.0636
1800	10.05	15.98	16.47									17.07		214.0	10.0985
2000	10.05	15.98	16.47									17.07		168.0	10.1259
2200	10.05	15.99	16.47									17.08		143.0	10.1492
2400	10.05	15.99	16.47									17.08		126.0	10.1749
JUNE 15															
0000	10.05	15.99	16.47									17.08		126.0	10.1749
0600	10.05	15.99	16.47									17.08		95.0	10.2407
1300	10.13	16.01	16.48									17.12		71.0	10.2638
1400	10.13	16.05	16.48									17.13		71.0	10.2696
1500	10.14	16.15	16.48									17.16		146.0	10.2815
1600	10.14	16.15	16.48									17.16		111.0	10.2951
1800	10.14	16.15	16.48									17.16		65.0	10.3163
2400	10.14	16.15	16.48									17.16		40.0	10.3261

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 (0.8 km) southeast of the intersection of Jimmy Clay and Nuckles Crossing Roads, and 5.9 mi (9.5 km) south of the State Capitol in Austin.

DRAINAGE AREA.--27.6 mi² (71.5 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 497.18 ft (151.540 m) National Geodetic Vertical Datum of 1929 (city of Austin bench mark).

REMARKS.--Water-discharge records fair. No known regulation or diversion in watershed. There are three recording rain gages located in the watershed. The station is part of a hydrologic research project to study the rainfall-runoff relationships for the Austin urban-rural areas.

AVERAGE DISCHARGE.--6 years, 10.5 ft³/s (0.297 m³/s), 5.17 in/yr (131 mm/yr), 7,610 acre-ft/yr (9.38 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft³/s (399 m³/s) June 11, 1981, gage height, 17.25 ft (5.258 m); minimum daily, 0.03 ft³/s (0.001 m³/s) Sept. 16, 24, 1977.

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 above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Mar. 4	0330	635	18.0	5.63	1.716	June 12	1245	1,380	39.1	7.45	2.271
May 25	0400	2,810	79.6	9.66	2.944	June 13	2130	11,360	322	15.89	4.843
June 1	1800	616	17.4	5.57	1.698	June 16	0730	1,450	41.1	7.59	2.313
June 11	1415	*14,100	399	17.25	5.258	July 5	1330	1,520	43.0	7.72	2.353

Minimum daily discharge, 0.08 ft³/s (0.002 m³/s) Sept. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	.72	1.8	1.7	4.3	11	2.4	1.3	63	7.0	1.3	2.7
2	1.3	.63	1.9	1.7	3.9	7.0	2.5	1.4	20	6.0	1.3	2.2
3	1.1	.72	1.9	1.7	3.4	19	2.5	2.0	25	4.8	1.3	4.4
4	1.1	.63	1.9	1.7	5.2	107	2.5	1.9	12	4.8	1.3	.99
5	.84	.63	2.2	1.7	13	12	2.2	1.5	44	147	1.3	.44
6	.82	.63	2.2	1.8	8.5	6.6	2.2	1.6	16	9.7	1.2	.23
7	.72	.56	2.2	1.9	5.3	5.6	2.2	1.8	7.8	13	1.2	.17
8	.72	.66	14	2.0	4.5	5.7	2.1	1.2	3.7	15	1.1	.15
9	.72	.63	9.2	2.9	4.2	3.2	2.1	1.0	2.9	8.3	1.0	.13
10	.88	.63	3.5	2.3	12	2.5	2.2	1.2	19	5.2	1.0	.13
11	.93	.54	2.2	2.1	5.7	4.2	2.0	1.2	3260	4.9	1.0	.13
12	.82	.54	2.0	1.9	4.5	9.2	1.7	1.4	354	4.1	1.0	.13
13	.82	.54	1.9	1.9	4.4	9.8	1.7	1.4	2800	3.3	1.1	.13
14	.82	.59	1.7	1.9	4.4	5.2	1.8	1.5	588	3.3	1.2	.23
15	.82	.66	8.1	1.9	4.2	3.3	2.0	1.6	77	3.1	1.2	6.5
16	.92	25	3.6	1.9	4.2	2.4	1.9	13	391	3.1	1.2	.99
17	1.0	11	2.2	1.9	4.5	2.3	3.9	3.1	44	2.9	1.3	.18
18	1.3	2.7	1.9	1.9	4.4	2.5	9.3	1.5	17	2.7	23	.14
19	.73	1.7	1.9	20	4.4	2.2	3.6	1.2	12	2.8	5.3	.09
20	.72	1.4	1.9	12	4.4	2.2	2.0	1.2	9.2	2.6	2.3	.08
21	.63	1.2	1.7	5.3	4.4	2.5	1.4	1.2	8.1	2.4	1.6	.08
22	.63	1.2	1.7	4.3	4.4	2.2	1.4	1.2	8.3	2.1	1.3	.09
23	.60	1.2	1.7	4.0	4.4	2.2	13	1.3	7.7	2.2	1.3	.13
24	.82	1.3	1.7	3.7	4.4	2.2	4.0	30	9.2	2.0	1.3	.24
25	.82	14	1.7	3.7	4.4	2.4	1.7	338	13	2.2	1.5	.35
26	.73	16	1.7	3.5	4.4	2.5	1.6	22	10	2.3	1.8	.53
27	.82	4.1	1.7	3.6	4.4	2.5	1.3	12	7.7	6.2	1.6	.54
28	.85	2.3	1.7	3.7	4.4	2.7	1.2	9.7	7.4	3.0	1.7	.54
29	.98	1.9	1.7	3.7	---	3.6	1.2	11	7.2	2.0	2.6	.54
30	.82	1.7	1.7	3.6	---	3.1	1.3	24	6.9	1.7	3.0	.54
31	.72	---	1.7	3.5	---	2.6	---	21	---	1.4	5.8	---
TOTAL	27.80	96.01	86.9	109.4	144.6	251.4	80.9	513.4	7851.1	281.1	74.1	23.72
MEAN	.90	3.20	2.80	3.53	5.16	8.11	2.70	16.6	262	9.07	2.39	.79
MAX	2.3	25	14	20	13	107	13	338	3260	147	23	6.5
MIN	.60	.54	1.7	1.7	3.4	2.2	1.2	1.0	2.9	1.4	1.0	.08
CFSM	.03	.12	.10	.13	.19	.29	.10	.60	9.49	.33	.09	.03
IN.	.04	.13	.12	.15	.19	.34	.11	.69	10.58	.38	.10	.03
AC-FT	.55	190	172	217	287	499	160	1020	15570	558	147	47
(††)	.66	3.20	1.95	1.90	1.67	3.98	1.58	7.10	22.05	4.13	2.07	2.57

CAL YR 1980	TOTAL	1431.40	MEAN	3.91	MAX	173	MIN	.13	CFSM	.14	IN	1.93	AC-FT	2840	††	33.73
WTR YR 1981	TOTAL	9540.43	MEAN	26.1	MAX	3260	MIN	.08	CFSM	.95	IN	12.86	AC-FT	18920	††	52.86

†† Weighted-mean rainfall on watershed, in inches, based on three rain gages.

COLORADO RIVER BASIN

08158970 WILLIAMSON CREEK AT JIMMY CLAY ROAD, 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 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DEMAND, 5 DAY UNINHIB (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	
JAN 27...	1325	3.6	614	7.9	15.0	20	3.3	12.6	124	1.5	540	180
JUN 17...	1125	44	625	7.9	21.5	25	12	8.3	94	9.9	330000	63000
AUG 19...	1245	3.5	354	7.3	25.0	10	110	5.3	65	3.1	350000	170000

DATE	TIME	STREP-TOCOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JAN 27...	120	260	31	89	9.4	29	.8	2.3	230	44	35	.3	
JUN 17...	12000	300	57	99	12	20	.5	4.1	240	65	30	.2	
AUG 19...	110000	160	27	55	4.8	12	.4	3.2	130	36	14	.3	

DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, TILE, 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)
JAN 27...	5.6	353	1	0	.38	.040	.42	.720	.38	1.1	.030	9.5	
JUN 17...	11	386	20	9	1.3	.080	1.4	.730	1.6	2.3	.990	6.2	
AUG 19...	7.6	211	94	44	.45	.030	.48	.290	.71	1.0	.130	4.4	

DATE	TIME	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
AUG 19...	1245	2	60	<1	0	<10	<10

DATE	TIME	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
AUG 19...		<10	18	.0	0	0	<3

DATE	TIME	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)
AUG 19...	1245	.00	.0	.00	.0	.00	.00	.00	.55

COLORADO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
AUG 19...	.00	.00	.00	.00	.00	.00	.00	.03	.00

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
AUG 19...	.00	.00	.00	.00	0	.00	.02	.01	.00

STORM MAINFALL AND RUNOFF RECORD										1961 WATER YEAR		
STATION NO. 06158970										DISCHARGE ACCUM.		
WILLIAMSON CREEK AT JIMMY CLAY ROAD, AUSTIN, TEXAS										IN		
SUMM OF JUNE 10-15, 1961										PRECIP.		
DATE & TIME										IN.		
1961										CFS		
1961										IN.		
JUNE 10												
0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0007
0100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0019
0200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0025
0300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0027
0400	0.15	0.43	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	7.9	0.0028
0500	0.50	0.51	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	6.0	0.0030
0600	0.82	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	40.0	0.0039
0700	1.08	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	40.0	0.0046
0800	1.27	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	43.0	0.0052
0900	1.36	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	39.0	0.0063
1000	1.48	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	24.0	0.0073
1100	1.48	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	61.0	0.0090
1200	1.48	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	122.0	0.0107
1300	1.48	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	316.0	0.0152
1400	1.48	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	476.0	0.0218
1500	1.48	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	554.0	0.0277
JUNE 11												
0000	1.48	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	554.0	0.0277
0100	1.48	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	545.0	0.0411
0200	1.48	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	381.0	0.0518
0300	1.48	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	253.0	0.0589
0400	1.53	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	330.0	0.0658
0500	1.61	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	400.0	0.0715
0600	2.23	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	440.0	0.0776
0700	3.42	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	458.0	0.0841
0800	4.20	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	460.0	0.0905
0900	5.13	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	430.0	0.0996
1000	5.37	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	362.0	0.1097
1100	5.41	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	320.0	0.1187
1200	5.61	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	366.0	0.1295
1300	5.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	595.0	0.1463
1400	5.07	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	899.0	0.1715
1500	6.15	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	1770.0	0.2212
1600	6.45	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2820.0	0.3003
1700	6.46	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	3910.0	0.4375
1800	6.58	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79	4240.0	0.6161
1900	7.08	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66	4650.0	0.7466
2000	7.18	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66	4680.0	0.8123
2100	7.40	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66	4580.0	0.9067
2200	7.62	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3760.0	0.9879

STA. NO. 04158970		STORM RAINFALL AND RUNOFF RECORD										1961 WATER YEAR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
WILLIAMSON CREEK AT JIMMY CLAY ROAD, AUSLINS, TEXAS		STORM OF JUNE 10-15, 1961										DISCHARGE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
DATE & TIME	11MS	21MS	31MS	41MS	51MS	61MS	71MS	81MS	91MS	101MS	111MS	121MS	131MS	141MS	151MS	161MS	171MS	181MS	191MS	201MS	211MS	221MS	231MS	241MS	251MS	261MS	271MS	281MS	291MS	301MS	311MS	321MS	331MS	341MS	351MS	361MS	371MS	381MS	391MS	401MS	411MS	421MS	431MS	441MS	451MS	461MS	471MS	481MS	491MS	501MS	511MS	521MS	531MS	541MS	551MS	561MS	571MS	581MS	591MS	601MS	611MS	621MS	631MS	641MS	651MS	661MS	671MS	681MS	691MS	701MS	711MS	721MS	731MS	741MS	751MS	761MS	771MS	781MS	791MS	801MS	811MS	821MS	831MS	841MS	851MS	861MS	871MS	881MS	891MS	901MS	911MS	921MS	931MS	941MS	951MS	961MS	971MS	981MS	991MS	1001MS	1011MS	1021MS	1031MS	1041MS	1051MS	1061MS	1071MS	1081MS	1091MS	1101MS	1111MS	1121MS	1131MS	1141MS	1151MS	1161MS	1171MS	1181MS	1191MS	1201MS	1211MS	1221MS	1231MS	1241MS	1251MS	1261MS	1271MS	1281MS	1291MS	1301MS	1311MS	1321MS	1331MS	1341MS	1351MS	1361MS	1371MS	1381MS	1391MS	1401MS	1411MS	1421MS	1431MS	1441MS	1451MS	1461MS	1471MS	1481MS	1491MS	1501MS	1511MS	1521MS	1531MS	1541MS	1551MS	1561MS	1571MS	1581MS	1591MS	1601MS	1611MS	1621MS	1631MS	1641MS	1651MS	1661MS	1671MS	1681MS	1691MS	1701MS	1711MS	1721MS	1731MS	1741MS	1751MS	1761MS	1771MS	1781MS	1791MS	1801MS	1811MS	1821MS	1831MS	1841MS	1851MS	1861MS	1871MS	1881MS	1891MS	1901MS	1911MS	1921MS	1931MS	1941MS	1951MS	1961MS	1971MS	1981MS	1991MS	2001MS	2011MS	2021MS	2031MS	2041MS	2051MS	2061MS	2071MS	2081MS	2091MS	2101MS	2111MS	2121MS	2131MS	2141MS	2151MS	2161MS	2171MS	2181MS	2191MS	2201MS	2211MS	2221MS	2231MS	2241MS	2251MS	2261MS	2271MS	2281MS	2291MS	2301MS	2311MS	2321MS	2331MS	2341MS	2351MS	2361MS	2371MS	2381MS	2391MS	2401MS	2411MS	2421MS	2431MS	2441MS	2451MS	2461MS	2471MS	2481MS	2491MS	2501MS	2511MS	2521MS	2531MS	2541MS	2551MS	2561MS	2571MS	2581MS	2591MS	2601MS	2611MS	2621MS	2631MS	2641MS	2651MS	2661MS	2671MS	2681MS	2691MS	2701MS	2711MS	2721MS	2731MS	2741MS	2751MS	2761MS	2771MS	2781MS	2791MS	2801MS	2811MS	2821MS	2831MS	2841MS	2851MS	2861MS	2871MS	2881MS	2891MS	2901MS	2911MS	2921MS	2931MS	2941MS	2951MS	2961MS	2971MS	2981MS	2991MS	3001MS	3011MS	3021MS	3031MS	3041MS	3051MS	3061MS	3071MS	3081MS	3091MS	3101MS	3111MS	3121MS	3131MS	3141MS	3151MS	3161MS	3171MS	3181MS	3191MS	3201MS	3211MS	3221MS	3231MS	3241MS	3251MS	3261MS	3271MS	3281MS	3291MS	3301MS	3311MS	3321MS	3331MS	3341MS	3351MS	3361MS	3371MS	3381MS	3391MS	3401MS	3411MS	3421MS	3431MS	3441MS	3451MS	3461MS	3471MS	3481MS	3491MS	3501MS	3511MS	3521MS	3531MS	3541MS	3551MS	3561MS	3571MS	3581MS	3591MS	3601MS	3611MS	3621MS	3631MS	3641MS	3651MS	3661MS	3671MS	3681MS	3691MS	3701MS	3711MS	3721MS	3731MS	3741MS	3751MS	3761MS	3771MS	3781MS	3791MS	3801MS	3811MS	3821MS	3831MS	3841MS	3851MS	3861MS	3871MS	3881MS	3891MS	3901MS	3911MS	3921MS	3931MS	3941MS	3951MS	3961MS	3971MS	3981MS	3991MS	4001MS	4011MS	4021MS	4031MS	4041MS	4051MS	4061MS	4071MS	4081MS	4091MS	4101MS	4111MS	4121MS	4131MS	4141MS	4151MS	4161MS	4171MS	4181MS	4191MS	4201MS	4211MS	4221MS	4231MS	4241MS	4251MS	4261MS	4271MS	4281MS	4291MS	4301MS	4311MS	4321MS	4331MS	4341MS	4351MS	4361MS	4371MS	4381MS	4391MS	4401MS	4411MS	4421MS	4431MS	4441MS	4451MS	4461MS	4471MS	4481MS	4491MS	4501MS	4511MS	4521MS	4531MS	4541MS	4551MS	4561MS	4571MS	4581MS	4591MS	4601MS	4611MS	4621MS	4631MS	4641MS	4651MS	4661MS	4671MS	4681MS	4691MS	4701MS	4711MS	4721MS	4731MS	4741MS	4751MS	4761MS	4771MS	4781MS	4791MS	4801MS	4811MS	4821MS	4831MS	4841MS	4851MS	4861MS	4871MS	4881MS	4891MS	4901MS	4911MS	4921MS	4931MS	4941MS	4951MS	4961MS	4971MS	4981MS	4991MS	5001MS	5011MS	5021MS	5031MS	5041MS	5051MS	5061MS	5071MS	5081MS	5091MS	5101MS	5111MS	5121MS	5131MS	5141MS	5151MS	5161MS	5171MS	5181MS	5191MS	5201MS	5211MS	5221MS	5231MS	5241MS	5251MS	5261MS	5271MS	5281MS	5291MS	5301MS	5311MS	5321MS	5331MS	5341MS	5351MS	5361MS	5371MS	5381MS	5391MS	5401MS	5411MS	5421MS	5431MS	5441MS	5451MS	5461MS	5471MS	5481MS	5491MS	5501MS	5511MS	5521MS	5531MS	5541MS	5551MS	5561MS	5571MS	5581MS	5591MS	5601MS	5611MS	5621MS	5631MS	5641MS	5651MS	5661MS	5671MS	5681MS	5691MS	5701MS	5711MS	5721MS	5731MS	5741MS	5751MS	5761MS	5771MS	5781MS	5791MS	5801MS	5811MS	5821MS	5831MS	5841MS	5851MS	5861MS	5871MS	5881MS	5891MS	5901MS	5911MS	5921MS	5931MS	5941MS	5951MS	5961MS	5971MS	5981MS	5991MS	6001MS	6011MS	6021MS	6031MS	6041MS	6051MS	6061MS	6071MS	6081MS	6091MS	6101MS	6111MS	6121MS	6131MS	6141MS	6151MS	6161MS	6171MS	6181MS	6191MS	6201MS	6211MS	6221MS	6231MS	6241MS	6251MS	6261MS	6271MS	6281MS	6291MS	6301MS	6311MS	6321MS	6331MS	6341MS	6351MS	6361MS	6371MS	6381MS	6391MS	6401MS	6411MS	6421MS	6431MS	6441MS	6451MS	6461MS	6471MS	6481MS	6491MS	6501MS	6511MS	6521MS	6531MS	6541MS	6551MS	6561MS	6571MS	6581MS	6591MS	6601MS	6611MS	6621MS	6631MS	6641MS	6651MS	6661MS	6671MS	6681MS	6691MS	6701MS	6711MS	6721MS	6731MS	6741MS	6751MS	6761MS	6771MS	6781MS	6791MS	6801MS	6811MS	6821MS	6831MS	6841MS	6851MS	6861MS	6871MS	6881MS	6891MS	6901MS	6911MS	6921MS	6931MS	6941MS	6951MS	6961MS	6971MS	6981MS	6991MS	7001MS	7011MS	7021MS	7031MS	7041MS	7051MS	7061MS	7071MS	7081MS	7091MS	7101MS	7111MS	7121MS	7131MS	7141MS	7151MS	7161MS	7171MS	7181MS	7191MS	7201MS	7211MS	7221MS	7231MS	7241MS	7251MS	7261MS	7271MS	7281MS	7291MS	7301MS	7311MS	7321MS	7331MS	7341MS	7351MS	7361MS	7371MS	7381MS	7391MS	7401MS	7411MS	7421MS	7431MS	7441MS	7451MS	7461MS	7471MS	7481MS	7491MS	7501MS	7511MS	7521MS	7531MS	7541MS	7551MS	7561MS	7571MS	7581MS	7591MS	7601MS	7611MS	7621MS	7631MS	7641MS	7651MS	7661MS	7671MS	7681MS	7691MS	7701MS	7711MS	7721MS	7731MS	7741MS	7751MS	7761MS	7771MS	7781MS	7791MS	7801MS	7811MS	7821MS	7831MS	7841MS	7851MS	7861MS	7871MS	7881MS	7891MS	7901MS	7911MS	7921MS	7931MS	7941MS	7951MS	7961MS	7971MS	7981MS	7991MS	8001MS	8011MS	8021MS	8031MS	8041MS	8051MS	8061MS	8071MS	8081MS	8091MS	8101MS	8111MS	8121MS	8131MS	8141MS	8151MS	8161MS	8171MS	8181MS	8191MS	8201MS	8211MS	8221MS	8231MS	8241MS	8251MS	8261MS	8271MS	8281MS	8291MS	8301MS	8311MS	8321MS	8331MS	8341MS	8351MS	8361MS	8371MS	8381MS	8391MS	8401MS	8411MS	8421MS	8431MS	8441MS	8451MS	8461MS	8471MS	8481MS	8491MS	8501MS	8511MS	8521MS	8531MS	8541MS	8551MS	8561MS	8571MS	8581MS	8591MS	8601MS	8611MS	8621MS	8631MS	8641MS	8651MS	8661MS	8671MS	8681MS	8691MS	8701MS	8711MS	8721MS	8731MS	8741MS	8751MS	8761MS	8771MS	8781MS

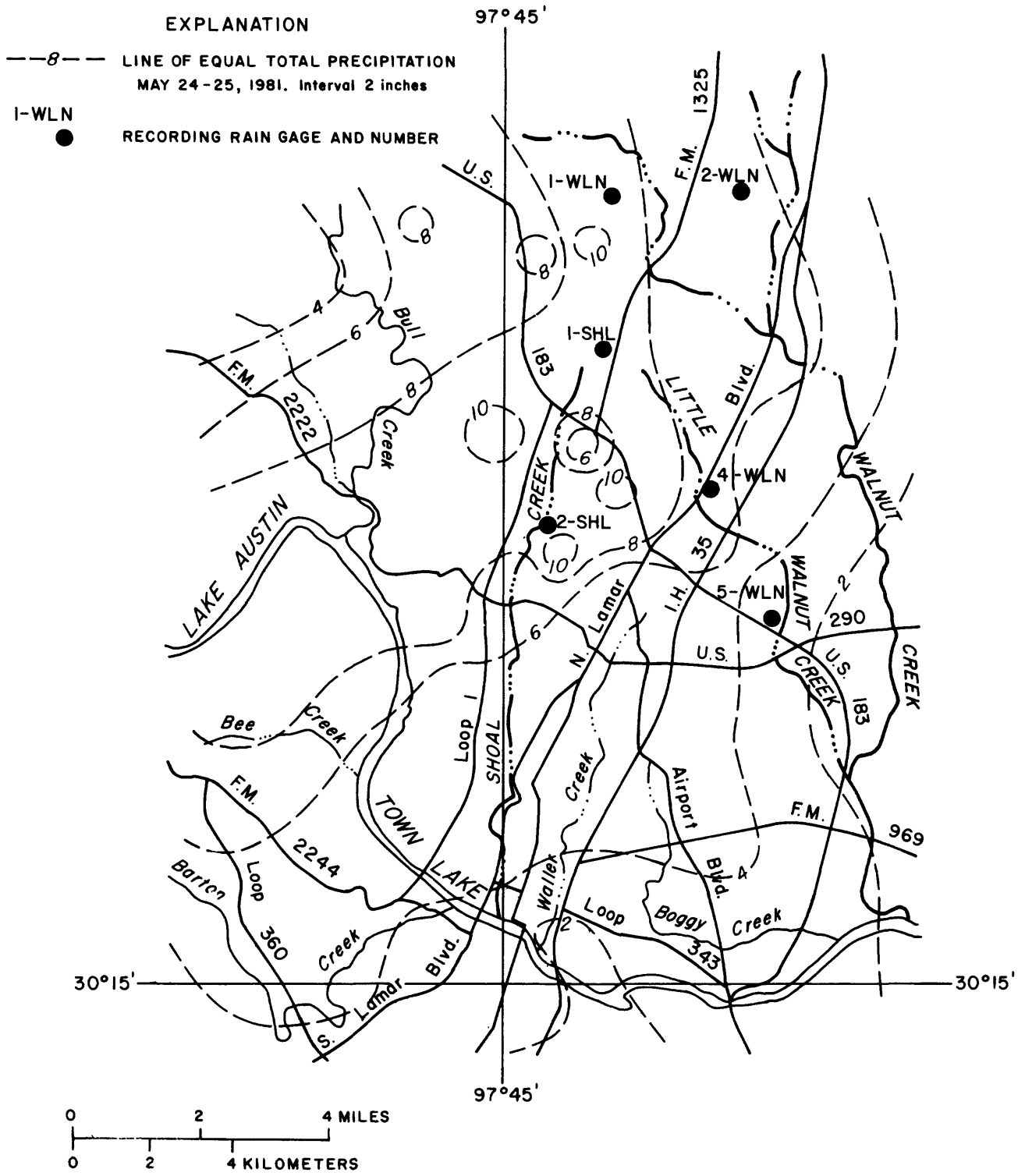
STA. NO. 08158970
 WILLIAMSON CREEK AT JIMMY CLAY ROAD, AUSTIN, TEXAS
 STORM RAINFALL AND RUNOFF RECORD
 STORM OF JUNE 10-13, 1981
 1981 WATER YEAR

DATE & TIME	G A U G E		P R E C I P I T A T I O N		R U N O F F		A C C U M .		D I S C H A R G E		A C C U M .	
	1 W M S	2 W M S	3 W M S	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
JUNE 12												
1230	12.86	0.39	11.07				10.47		1240.0			4.5883
1245	12.86	0.39	11.07				10.47		1360.0			4.6076
1300	12.86	0.39	11.07				10.47		1350.0			4.6361
1330	12.87	0.39	11.07				10.47		1080.0			4.6664
1400	12.87	0.39	11.07				10.47		962.0			4.6934
1430	12.87	0.39	11.07				10.47		1030.0			4.7223
1500	12.87	0.39	11.07				10.48		1020.0			4.7652
1600	12.87	0.40	11.08				10.48		697.0			4.8044
1700	12.87	0.40	11.08				10.48		495.0			4.8461
1900	12.87	0.40	11.08				10.48		265.0			4.8758
2100	12.87	0.40	11.08				10.48		185.0			4.9018
2400	12.87	0.40	11.08				10.48		128.0			4.9171
JUNE 13												
0000	12.87	0.40	11.08				10.48		128.0			4.9171
0230	12.91	0.47	11.91				10.53		105.0			4.9363
0500	13.00	0.59	12.13				10.50		105.0			4.9488
0645	13.00	0.59	12.13				10.07		126.0			4.9630
0900	13.05	0.71	12.17				10.75		103.0			4.9724
1000	13.14	0.01	12.27				10.94		123.0			4.9775
1030	13.39	10.01	12.52				11.52		138.0			4.9833
1130	13.72	10.47	13.07				12.00		318.0			4.9967
1200	13.83	10.47	13.01				12.18		557.0			5.0124
1230	13.84	10.47	13.03				12.19		1000.0			5.0404
1300	13.86	10.47	13.04				12.19		1500.0			5.0720
1315	13.86	10.47	13.04				12.19		1610.0			5.0946
1330	13.86	10.59	13.04				12.25		1540.0			5.1270
1400	13.94	10.60	13.08				12.29		1160.0			5.1596
1430	13.99	10.60	13.70				12.31		720.0			5.1748
1445	14.03	10.64	13.72				12.35		626.0			5.1879
1515	14.62	10.65	14.15				12.58		1060.0			5.2177
1545	14.67	10.90	14.14				12.75		2490.0			5.2701
1600	14.70	11.54	14.16				13.04		3350.0			5.3407
1630	14.82	11.61	14.21				13.13		5350.0			5.4908
1700	15.04	12.04	14.30				13.44		6260.0			5.6666
1730	15.12	12.08	14.41				13.49		6690.0			5.8544
1800	15.59	12.45	14.51				13.70		6490.0			5.9910
1815	16.24	13.45	15.12				14.05		6290.0			6.0793
1830	16.60	14.10	15.44				13.14		6120.0			6.2082
1900	16.77	14.32	15.46				13.31		5850.0			6.3724
1930	16.87	14.67	15.51				13.52		6070.0			6.5428

STORM RAINFALL AND RUNOFF RECORD										1961 WATER YEAR		
STATION NO. 08150470										DISCHARGE		
WILLIAMSON CREEK AT JIMMY CLAY ROAD, AUSTIN, TEXAS										ACCUM. PRECIP.		
STORM OF JUNE 10-15, 1961										IN		
DATE & TIME										PRECIP. IN.		
G A G E										CFS		
I WMS										IN.		
J WMS										IN.		
J WMS										IN.		
JUNE 13												
2000	16.47	15.02	15.54							15.73	6980.0	6.7387
2030	17.07	15.33	15.60							15.92	8800.0	6.9858
2100	17.17	15.41	15.64							16.00	10600.0	7.2833
2130	17.22	15.41	15.64							16.02	11400.0	7.6033
2200	17.25	15.41	15.64							16.03	11000.0	7.9121
2230	17.26	15.42	15.64							16.03	10000.0	8.1929
2300	17.27	15.42	15.65							16.04	8480.0	8.4309
2330	17.27	15.42	15.65							16.04	6410.0	8.6109
2400	17.29	15.42	15.65							16.05	4760.0	8.7111
JUNE 14												
0000	17.29	15.42	15.65							16.05	4760.0	8.7111
0030	17.30	15.42	15.66							16.05	2970.0	8.8279
0100	17.30	15.42	15.66							16.05	2070.0	8.9150
0200	17.32	15.42	15.70							16.06	1140.0	8.9790
0300	17.37	15.42	15.79							16.10	730.0	9.0200
0400	17.45	15.55	15.82							16.19	525.0	9.0568
0530	17.50	15.60	15.88							16.24	428.0	9.0869
0630	17.60	15.79	16.07							16.41	388.0	9.1087
0730	17.67	15.90	16.19							16.51	528.0	9.1309
0800	17.69	15.90	16.28							16.53	620.0	9.1483
0830	17.71	15.90	16.29							16.54	674.0	9.1672
0900	17.72	15.90	16.29							16.54	500.0	9.1991
1015	17.95	15.97	16.38							16.67	500.0	9.2341
1130	18.04	15.97	16.48							16.71	677.0	9.2674
1200	18.05	15.98	16.48							16.72	734.0	9.2880
1230	18.05	15.98	16.47							16.72	727.0	9.3288
1400	18.05	15.98	16.47							16.72	498.0	9.3778
1600	18.05	15.98	16.47							16.72	359.0	9.4181
1800	18.05	15.98	16.47							16.72	239.0	9.4516
2100	18.05	15.99	16.47							16.72	153.0	9.4774
2400	18.05	15.99	16.47							16.72	116.0	9.5067
JUNE 15												
0000	18.05	15.99	16.47							16.72	116.0	9.5067
1200	18.13	16.01	16.48							16.76	70.0	9.5774
2400	18.14	16.15	16.48							16.83	55.0	9.5960

Table 13.--Total and maximum incremental rainfall for the May 24, 1981 storm

Rain gage	Maximum incremental rainfall						Daily total (inches)
	15-minute		30-minute		60-minute		
	inches	time	inches	time	inches	time	
1-BUL	0.56	1840-1855	0.84	2215-2245	1.30	2205-2305	4.17
2-BUL	0.91	2120-2135	1.48	2210-2240	2.45	2130-2230	6.19
1-BEE	1.81	2220-2235	3.07	2200-2230	5.56	2135-2235	9.01
1-BAR	0.35	2215-2230	0.70	2215-2245	0.90	2215-2315	2.48
2-BAR	1.24	2115-2130	1.99	2145-2215	3.55	2115-2215	4.57
3-BAR	0.90	2145-2200	1.67	2145-2215	2.63	2145-2245	4.37
1-BOL	0.81	0050-0105	1.16	2230-2300	1.42	2225-2325	3.32
1-SHL	1.42	2225-2240	2.62	2215-2245	4.47	2150-2250	7.87
2-SHL	1.38	2215-2230	2.49	2215-2245	4.04	2145-2245	7.24
1-BOG	1.45	2245-2300	1.86	2235-2305	2.00	2230-2330	4.29
1-WLN	2.02	2225-2240	3.24	2215-2245	5.43	2200-2300	9.85
2-WLN	1.27	2240-2255	2.36	2240-2310	3.54	2215-2315	7.21
3-WLN	1.69	2255-2310	2.21	2240-2310	2.39	2215-2315	4.34
4-WLN	1.36	2250-2305	2.20	2240-2310	3.67	2220-2320	5.78
5-WLN	1.50	2255-2310	2.30	2245-2315	2.79	2220-2320	4.83
1-SLA	0.68	2220-2235	1.11	2215-2245	1.45	2220-2300	3.46
2-SLA	0.82	0035-0050	1.14	0030-0100	1.35	0020-0120	2.47
1-BGS	0.56	0045-0100	0.86	0040-0110	1.04	0040-0140	2.12
1-WMS	1.04	2235-2250	1.28	2235-2305	1.45	2230-2330	3.39
2-WMS	0.85	2300-2315	0.93	0030-0100	1.30	0020-0120	2.98
2-WMS	1.12	2220-2235	1.93	2215-2245	2.98	2200-2300	6.16



Base from Texas Department of
Highways and Public Transportation
General Highway Map

Total precipitation (inches) May 24-25,
1981, based on U.S. Geological Survey,
City of Austin network and by unofficial
precipitation reports. Map furnished by
National Weather Service

**Figure 17.-Rainfall for the storm of May 24-25, 1981 in the
north Austin area**

Table 14.--Rainfall and runoff data for selected continuous-record gaging stations in the Austin urban study area, 1981 water year

Station	Weighted-mean rainfall (inches)	Total runoff (inches)	Ratio of runoff to rainfall
Bull Creek at Loop 360, near Austin, Tex. (08154700)	45.41	11.69	0.26
Barton Creek at State Highway 71 near Oak Hill, Tex. (08155200)	43.74	12.77	.29
Barton Creek at Loop 360, Austin, TX (08155300)	44.99	12.94	.29
Shoal Creek at Northwest Park, Austin, TX (08156700)	45.90	17.24	.38
Boggy Creek at U.S. Hwy. 183, Austin, TX (08158050)	42.83	8.25	.19
Walnut Creek at Webberville Road, Austin, TX (08158600)	48.84	16.95	.35
Onion Creek near Driftwood, TX (08158700)	41.31	8.01	.19
Onion Creek at Buda, TX (08158800)	42.21	7.95	.19
Bear Creek at Farm Road 1826 near Driftwood, TX (08158810)	48.95	18.52	.38
Slaughter Creek at Farm Road 1826 near Austin, Tex. (08158840)	50.07	17.64	.35

Table 14.--Rainfall and runoff data for selected continuous-record gaging stations in the Austin urban study area, 1981 water year--Continued

Station	Weighted-mean rainfall (inches)	Total runoff (inches)	Ratio of runoff to rainfall
Williamson Creek at Oak Hill, Austin, Tex. (08158920)	53.24	21.96	0.41
Williamson Creek at Jimmy Clay Road, Austin, TX (08158970)	52.86	12.86	.24

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

Table 15.--Peak discharges associated with water-quality samples collected during storms

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. 16	(3 samples)	--	Oct. 16	0600	1,760
		June 4		377	June 4	1600	367
		June 16		337	June 16	0600	1,830
08155200	Barton Creek at S.H. 71 near Oak Hill, Tex.	Jan. 21	1430	26	Jan. 20	1230	36
		June 16	1340	2,630	June 16	1000	3,900
		Aug. 19	1000	41	Aug. 19		
08155300	Barton Creek at Loop 360, Austin, Tex.	Oct. 16-17	(5 samples)	--	Oct. 16	1300	5,250
		Mar. 4	0910	2,590	Mar. 4	0900	2,800
		June 16	1450	5,050	June 16	1400	5,160
08156800	Shoal Creek at 12th Street, Austin, Tex.	Mar. 3	(7 samples)	--	Mar. 3	2200	2,300
		May 23	(5 samples)	--	May 24	2345a/	16,000
		June 16	(8 samples)	--	June 16	0715	1,620
08158050	Boggy Creek at U.S. Hwy. 183, Austin, Tex.	Oct. 18	(5 samples)	--	Oct. 18	1445	304
		Mar. 3	(3 samples)	--	Mar. 3	2345	791
		May 16	(7 samples)	--	May 16	0400	919
		June 16	1005	399	June 16	0430	639
08158200	Walnut Creek at Dessau Road Austin, Tex.	June 17	1340	60	June 16	<u>b/</u>	<u>b/</u>
08158600	Walnut Creek at Webberville Road, Austin, Tex.	June 16	1110	4,320	June 16	0800	6,080

See footnotes at end of table.

Table 15.--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)
08158700	Onion Creek near Driftwood, Tex.	June 17	0950	238	June 16	1145	6,480
08158800	Onion Creek at Buda, Tex.	June 16	1058	4,980	June 16	1500	7,640
08158810	Bear Creek below F.M. Road 1826 near Driftwood, Tex.	June 17	1230	132	June 16	0630	1,490
08158825	Little Bear Creek at F.M. Road 1626 near Driftwood, Tex.	June 17	1102	4.2	June 16	1200	628
08158860	Slaughter Creek at F.M. Road 2304 near Austin, Tex.	March 4 June 16	0743 0853	84 734	March 4 June 16	0230 <u>b/</u>	286 <u>b/</u>
08158920	Williamson Creek at Oak Hill, Tex.	June 16	1250	160	June 16	0730	416

See footnotes at end of table.

Table 15.--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)
08158970	Williamson Creek at Jimmy Clay Road, Austin, Tex.	June 17	1125	44	June 16	0730	1,450
		Aug. 19	1245	3.5	Aug. 18	1915	272
08159000	Onion Creek at U.S. Hwy. 183 near Austin, Tex.	June 17	1225	3,060	June 16	2015	8,580

a/ Estimated.

b/ Unknown.

AUSTIN URBAN HYDROLOGY STUDY

PERIOD: 1981 WATER YEAR

TABLE 16. DAILY AND MONTHLY RAINFALL SUMMARY FOR GAGES NORTH OF THE COLORADO RIVER

GAGE NUMBER

DATE	1BUL	2BUL	1SHL	2SHL	1BOG	1WLN	2WLN	3WLN	4WLN	5WLN
OCT										
1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
15	0.05	0.01	0.00	0.00	0.00	0.04	0.06	0.00	0.00	0.00
16	3.53	1.43	0.84	0.60	*0.25	1.82	1.08	0.47	0.64	0.59
17	0.00	0.01	0.01	0.02	*0.02	0.00	0.02	0.02	0.04	0.04
18	0.84	0.28	0.28	0.26	*0.50	0.30	0.39	0.91	0.21	0.71
19	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00
20	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00
28	0.20	0.15	0.13	0.12	0.17	0.17	0.15	0.15	0.16	0.14
29	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
MTOT	4.63	1.89	1.27	1.03	0.96	2.36	1.71	1.56	1.05	1.49
NOV										
6	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
15	0.28	0.27	0.31	0.28	0.34	0.32	0.26	0.33	0.27	0.30
16	1.56	1.63	1.72	1.79	1.59	1.91	1.68	1.72	1.88	1.54
17	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
18	0.01	0.00	0.01	0.00	0.00	0.02	0.01	0.00	0.00	0.00
20	0.00	0.00	*0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
22	0.17	0.18	*0.17	0.17	0.11	0.22	0.17	0.06	0.15	0.11
23	0.01	0.01	*0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.01
25	0.85	0.74	*0.75	0.74	0.98	0.84	0.97	0.80	1.03	0.90
26	0.42	0.33	*0.44	0.44	0.17	0.61	0.16	0.47	0.28	0.16
27	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00
28	0.00	0.00	*0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00
MTOT	3.31	3.18	3.43	3.46	3.25	3.94	3.27	3.40	3.65	3.03

MTOT = Monthly totals

* = Estimated

AUSTIN URBAN HYDROLOGY STUDY

TABLE 16. DAILY AND MONTHLY RAINFALL SUMMARY FOR GAGES NORTH OF THE COLORADO RIVER--CON. PERIOD: 1981 WATER YEAR

DATE	IBUL	2RUL	1SHL	2SHL	IBOG	1WLN	2WLN	3WLN	4WLN	5WLN
DEC										
3	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
4	0.17	0.15	0.06	0.06	0.07	0.07	0.05	0.04	0.06	0.05
5	0.04	0.02	0.02	0.03	0.01	0.04	0.00	0.02	0.01	0.01
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
7	0.04	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
8	0.57	0.47	*0.66	0.76	0.60	0.72	0.55	0.71	0.93	0.58
9	0.08	0.06	*0.10	0.11	0.14	0.09	0.09	0.09	0.09	0.09
10	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01
11	*0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
13	*0.02	0.01	*0.01	0.03	0.01	0.07	0.03	0.00	0.00	0.00
14	*0.11	0.07	*0.02	0.03	0.01	0.06	0.06	0.03	0.06	0.05
15	*0.21	0.14	*0.14	0.22	0.38	0.17	0.15	0.16	0.23	0.21
16	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
MTOT	1.25	0.93	1.01	1.25	1.21	1.25	0.96	1.08	1.40	1.01
CTOT	35.99	33.27	32.46	30.26	27.83	40.03	33.76	32.97	32.35	29.97
JAN										
5	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.01	0.02	0.02	0.16	0.19	0.14	*0.03	*0.08	0.06	0.08
8	0.11	0.11	0.03	0.02	0.08	0.01	*0.14	*0.20	0.18	0.19
9	0.01	0.01	0.00	0.01	0.02	0.01	*0.01	0.00	0.01	0.00
11	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.01	0.00
18	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00
19	1.12	*1.06	*1.20	1.24	1.26	1.29	1.25	1.24	1.29	1.24
20	0.01	*0.01	*0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02
31	0.05	*0.05	*0.04	0.04	0.06	0.07	0.06	0.04	0.08	*0.07
MTOT	1.32	1.26	1.42	1.48	1.62	1.57	1.50	1.58	1.65	1.60
FEB										
1	0.22	*0.21	*0.19	0.20	0.15	0.30	0.16	0.22	0.22	*0.20
2	0.00	0.00	*0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.66	0.57	0.56	0.40	0.47	0.79	0.75	0.40	0.47	0.42
5	0.13	0.15	0.20	0.15	0.26	0.16	0.18	0.17	0.19	0.18
6	0.01	0.01	0.00	0.01	0.00	0.02	0.01	0.01	0.00	0.00
7	0.00	0.01	0.02	0.00	0.01	0.02	0.00	0.01	0.02	0.02
9	0.03	0.04	0.08	0.03	0.02	0.02	0.05	0.01	0.02	0.03
10	0.23	0.34	0.29	0.32	0.21	0.34	0.21	0.35	0.23	0.34
11	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
25	0.03	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.02	0.01
26	0.02	0.02	0.01	0.01	0.00	0.02	0.01	0.00	0.02	0.02
27	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
28	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MTOT	1.34	1.37	1.37	1.16	1.15	1.69	1.38	1.17	1.19	1.22

MTOT = Monthly totals
 CTOT = Calendar year totals
 * = Estimated

AUSTIN URBAN HYDROLOGY STUDY

TABLE 16. DAILY AND MONTHLY RAINFALL SUMMARY FOR GAGES NORTH OF THE COLORADO RIVER--CON. PERIOD: 1981 WATER YEAR

DATE	1BUL	2BUL	1SHL	2SHL	1BOG	1WLN	2WLN	3WLN	4WLN	5WLN
GAGE NUMBER										
MAR										
1	0.46	0.44	0.48	*0.48	0.49	0.49	*0.50	0.51	0.52	0.46
3	3.03	2.79	3.01	*3.01	1.54	3.35	*2.86	2.10	2.95	2.01
4	0.05	0.10	0.06	*0.06	0.10	0.11	*0.10	0.00	0.10	0.11
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
7	0.42	0.58	*0.45	*0.45	0.20	0.50	*0.31	0.10	0.32	0.31
10	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
11	0.24	0.23	*0.21	*0.21	0.22	0.24	*0.17	*0.18	0.18	0.19
12	0.42	0.43	*0.48	*0.48	0.34	*0.48	*0.50	*0.37	0.52	0.39
13	0.00	0.00	*0.01	*0.01	0.00	*0.01	*0.02	*0.02	0.02	0.02
14	0.00	0.01	*0.01	*0.01	0.00	*0.01	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
19	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.01	*0.01	0.00	0.00	0.00
29	0.30	0.23	0.24	0.30	0.12	0.20	*0.19	0.28	0.16	0.18
30	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	0.00	0.00	0.00	0.00	0.01	*0.01	0.00	0.00	0.00
MTOT	4.94	4.81	4.96	5.06	3.03	5.41	4.67	3.78	4.77	3.67
APR										
2	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
4	0.34	0.04	0.00	0.01	0.00	0.06	*0.05	0.01	0.02	0.02
8	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.02	0.04
10	0.00	0.01	0.01	0.01	0.00	0.02	0.00	0.01	0.00	0.00
15	0.01	0.01	0.00	0.00	0.04	0.03	0.03	0.02	0.00	0.02
16	0.04	0.03	0.02	0.01	0.03	0.04	0.04	0.04	0.04	0.02
17	0.33	0.54	0.41	0.34	0.10	0.49	0.20	0.22	0.40	0.27
18	0.05	0.08	0.08	0.12	0.01	0.10	0.06	0.01	0.05	0.01
19	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
21	0.03	0.03	0.04	0.04	0.06	0.03	0.03	0.04	0.04	0.04
22	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01
23	0.46	0.48	0.49	0.39	0.52	0.50	0.43	0.71	0.41	0.43
25	0.03	0.02	0.03	0.02	0.03	0.03	0.02	0.01	0.03	0.03
26	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
MTOT	1.30	1.27	1.08	0.98	0.80	1.31	0.86	1.10	1.02	0.92

MTOT = Monthly totals
* = Estimated

AUSTIN URBAN HYDROLOGY STUDY

TABLE 16. DAILY AND MONTHLY RAINFALL SUMMARY FOR GAGES NORTH OF THE COLORADO RIVER--CON. PERIOD: 1981 WATER YEAR

DATE	1BUL	2BUL	1SHL	2SHL	IBOG	1WLN	2WLN	3WLN	4WLN	5WLN
GAGE NUMBER										
MAY										
1	0.15	0.23	0.44	0.67	0.70	0.35	0.38	0.10	1.05	0.12
2	0.33	0.33	0.29	0.51	0.14	0.22	0.17	0.36	0.20	0.12
3	0.23	0.14	0.13	0.14	0.16	0.15	0.13	0.13	0.13	0.13
4	0.02	0.01	0.02	0.01	0.01	0.02	0.00	0.00	0.00	0.00
5	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.13	0.00	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00
15	0.15	1.09	0.14	0.12	0.17	0.18	0.20	0.12	0.33	0.19
16	1.30	0.00	1.25	1.27	1.36	1.29	1.21	1.51	1.40	1.32
17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.02	0.00	0.00
23	0.79	0.70	0.57	0.57	0.31	0.50	0.42	0.58	0.73	0.77
24	4.17	6.19	7.87	7.24	4.29	9.85	7.21	*4.34	5.78	4.83
25	0.29	0.31	0.35	0.33	0.22	0.36	0.35	*0.23	0.31	0.23
28	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.12	0.24	0.16	0.18	0.22	0.19	0.27	0.20	0.18	0.21
30	1.04	1.47	1.45	1.05	1.32	0.66	1.00	1.31	1.15	1.04
31	0.09	0.05	0.05	0.09	0.02	0.03	0.01	0.01	0.05	0.02
MTOT	8.84	10.91	12.75	12.20	8.92	13.82	11.36	8.91	11.31	8.98
JUNE										
1	0.01	0.00	0.08	0.14	0.59	0.27	0.44	0.97	0.20	0.49
2	0.33	0.11	*0.34	0.29	0.25	0.13	0.19	0.15	0.24	0.20
3	0.03	0.18	*0.71	0.60	0.58	0.57	0.80	0.70	0.71	0.73
4	1.61	1.36	*0.09	0.08	0.06	1.78	1.00	0.79	0.84	0.57
5	0.09	0.27	*0.40	0.34	0.18	0.49	0.65	0.27	0.28	0.26
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
10	1.24	0.44	0.40	0.06	0.03	2.75	0.78	0.28	0.00	0.22
11	3.18	4.52	4.15	4.29	*5.66	4.03	3.41	4.92	4.87	5.72
12	0.40	0.36	0.46	0.37	*0.21	*0.46	0.57	0.31	0.43	0.40
13	2.17	2.89	3.20	*3.01	*4.50	3.21	3.54	4.33	5.13	5.31
14	0.63	0.94	0.37	*0.35	*0.75	*0.62	0.56	0.40	0.55	0.68
15	0.02	0.17	0.10	*0.09	0.05	0.07	0.14	0.08	0.11	0.11
16	1.63	1.96	2.25	*2.00	1.96	3.32	1.79	1.55	1.42	2.01
17	0.01	0.01	0.00	0.00	0.00	0.02	0.00	0.01	0.01	0.01
25	0.43	*0.14	0.00	0.52	0.03	0.13	0.61	0.05	0.00	0.00
26	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.06	0.02	0.00	0.64	0.58	0.00	0.07	0.02
28	0.16	*0.05	0.00	0.00	0.00	0.02	0.04	0.00	0.00	0.00
29	0.07	*0.03	0.05	0.01	0.00	0.01	0.02	0.02	0.00	0.19
30	0.02	*0.01	0.12	0.00	0.00	0.00	0.00	0.14	0.18	0.14
MTOT	12.04	13.44	12.79	12.17	14.85	18.52	15.12	14.99	15.23	17.06

MTOT = Monthly totals
* = Estimated

AUSTIN URBAN HYDROLOGY STUDY

TABLE 16. DAILY AND MONTHLY RAINFALL SUMMARY FOR GAGES NORTH OF THE COLORADO RIVER--CON. PERIOD: 1981 WATER YEAR :

DATE :	IBUL :	2BUL :	1SHL :	2SHL :	1BOG :	1WLN :	2WLN :	3WLN :	4WLN :	5WLN :
GAGE NUMBER										
JULY										
1 :	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 :	0.01	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.01	0.00
5 :	0.91	2.08	1.46	1.69	*2.14	2.33	2.40	2.96	2.04	2.52
6 :	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00
7 :	0.40	0.39	0.52	0.30	*0.15	0.56	0.40	0.16	0.38	0.05
8 :	0.87	0.84	0.03	0.05	*0.30	0.07	0.23	0.33	0.27	0.50
9 :	0.00	0.01	0.01	0.05	*0.33	0.39	0.08	0.05	0.00	0.05
13 :	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 :	0.00	0.00	0.02	0.00	0.00	0.01	0.03	0.00	0.00	0.00
26 :	0.28	0.09	0.01	0.18	0.36	0.01	0.00	0.00	0.00	0.03
27 :	0.09	0.09	0.08	0.16	0.14	0.08	0.14	0.02	0.19	0.22
MTOT :	2.58	3.50	2.22	2.39	3.42	3.46	3.34	3.53	2.89	3.37
AUG										
12 :	0.07	0.31	0.25	0.10	0.00	0.00	0.01	0.23	0.30	0.53
13 :	0.00	0.00	0.08	0.00	0.00	0.00	0.03	0.00	0.00	0.00
17 :	0.26	0.24	0.43	0.63	0.02	0.22	0.13	0.18	0.30	0.16
18 :	0.15	0.31	0.29	0.14	0.04	0.39	0.27	0.03	0.10	0.04
19 :	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
24 :	0.09	0.00	0.00	0.00	0.00	0.17	0.33	0.00	0.00	0.00
25 :	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
29 :	0.54	0.19	0.58	0.34	0.12	0.08	0.05	0.06	0.44	0.37
30 :	0.30	0.26	0.35	0.39	0.48	0.37	0.12	0.39	0.32	0.49
31 :	0.24	0.20	0.29	0.18	0.30	0.29	0.07	0.12	0.15	0.13
MTOT :	1.66	1.51	2.27	1.78	0.96	1.53	1.01	1.01	1.62	1.72
SEPT										
1 :	0.31	0.35	*0.02	0.02	0.14	0.30	0.12	0.18	0.08	*0.18
2 :	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
3 :	0.95	0.56	*1.53	1.53	1.65	0.43	0.66	1.46	1.12	*1.46
4 :	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
14 :	0.40	0.60	*0.66	0.66	0.38	0.42	0.48	0.43	0.49	*0.43
15 :	0.02	0.53	*1.09	1.09	0.48	0.08	0.12	1.17	0.77	*1.23
22 :	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
MTOT :	1.69	2.05	3.30	3.31	2.66	1.23	1.39	3.24	2.46	3.30
WTOT :	44.90	46.12	47.87	46.27	42.83	56.09	46.57	45.35	48.24	47.37

MTOT = Monthly totals
 WTOT = Water year totals
 * = Estimated

AUSTIN URBAN HYDROLOGY STUDY

PERIOD: 1981 WATER YEAR

TABLE 17. DAILY AND MONTHLY RAINFALL SUMMARY FOR GAGES SOUTH OF THE COLORADO RIVER

G A G E N U M B E R

DATE	1BEE	1BAR	2BAR	3BAR	1BOL	1-ON	2-ON	1BER	2BER	1LBR	1SLA	2SLA	1BGS	2WMS	3WMS
OCT															
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
14	0.00	0.00	0.00	0.04	0.00	0.00	0.03	0.03	0.01	0.00	0.11	0.00	0.00	0.00	0.00
15	0.00	0.04	0.01	0.04	0.00	0.06	0.01	0.07	0.01	0.00	0.05	0.00	0.01	0.02	0.00
16	0.53	2.20	0.59	1.88	*0.17	0.43	0.04	0.48	0.13	0.07	0.56	0.10	0.05	0.40	0.09
17	0.02	0.01	0.04	0.02	*0.02	0.01	0.02	0.03	0.01	0.02	0.06	0.02	0.02	0.03	0.01
18	0.46	0.73	0.44	*0.59	*0.12	0.39	0.07	0.16	0.04	0.06	0.43	0.04	0.06	0.10	0.06
19	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.00	0.02	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.03	0.11	0.00	0.04	0.02	0.00	0.00
28	0.17	0.20	0.13	0.18	0.15	0.13	0.10	0.17	0.22	0.11	0.18	0.19	0.15	0.12	0.46
29	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
30	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MTOT	1.19	3.18	1.21	2.76	0.46	1.03	0.35	0.95	0.47	0.38	1.40	0.41	0.33	0.68	0.65
NOV															
14	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.04
15	0.30	0.06	0.19	0.20	0.36	*0.23	0.56	0.22	0.07	*0.58	0.31	0.31	0.39	0.32	0.15
16	1.72	*1.78	1.78	1.58	1.87	*1.82	1.56	1.73	1.90	*1.62	1.86	1.76	1.74	1.76	*1.32
17	0.00	*0.01	0.01	0.01	0.01	*0.01	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.00	*0.01
18	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
22	0.20	0.18	0.22	0.17	0.14	0.17	0.08	0.25	0.08	0.18	0.26	0.14	0.16	0.21	*0.12
23	0.02	0.01	0.01	0.01	0.02	0.00	0.01	0.01	0.09	0.01	0.01	0.02	0.00	0.01	0.00
25	0.63	0.84	0.88	1.00	1.09	0.96	0.52	0.91	1.06	1.03	0.88	1.00	1.06	1.04	*0.81
26	0.41	0.36	0.30	0.11	0.37	0.22	0.11	0.23	0.20	0.26	0.40	0.24	0.35	0.28	*0.27
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00
28	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	*0.01
MTOT	3.29	3.24	3.40	3.09	3.90	3.41	2.86	3.37	3.40	3.69	3.75	3.50	3.73	3.62	2.73
DEC															
3	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01
4	0.12	0.03	0.13	0.11	0.12	0.07	0.10	0.11	0.17	0.20	0.17	0.16	0.16	0.21	0.17
5	0.01	0.14	0.01	0.00	0.02	0.06	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.00
6	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00
7	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
8	0.63	0.53	0.47	0.59	0.84	0.53	0.38	0.46	0.85	0.65	0.47	0.77	0.71	0.84	0.96
9	0.13	0.05	0.09	0.07	0.16	0.10	0.10	0.13	0.13	0.19	0.14	0.13	0.23	0.16	0.27
10	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00
11	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
13	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
14	0.05	0.06	0.03	0.07	0.07	0.01	0.05	0.04	0.04	0.09	0.05	0.04	0.08	0.04	0.11
15	0.36	0.29	0.70	0.61	0.60	0.04	0.01	0.09	0.14	0.04	0.30	0.18	0.30	0.49	0.63
16	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00
MTOT	1.34	1.16	1.46	1.47	1.83	0.83	0.66	0.88	1.39	1.21	1.16	1.32	1.52	1.78	2.16
CTOT	31.44	35.80	32.04	30.96	31.49	30.11	29.63	36.59	32.53	34.00	35.38	31.49	29.73	33.63	33.73

MTOT = Monthly totals
 CTOT = Calendar year totals
 * = Estimated

AUSTIN URBAN HYDROLOGY STUDY

TABLE 17. DAILY AND MONTHLY RAINFALL SUMMARY FOR GAGES SOUTH OF THE COLORADO RIVER--FTW. PERIOD: 1981 WATER YEAR

G A G E N U M B E R																
DATE	1BEE	1BAR	2BAR	3BAR	1B0L	1-ON	2-ON	IBER	2BER	1LBR	1SLA	2SLA	1BRS	2WMS	3WMS	
JAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	*0.02	0.00
5	0.02	0.01	0.02	0.02	0.05	0.03	0.04	0.03	0.05	0.06	0.04	0.04	0.06	0.05	*0.06	0.04
6	0.19	0.16	0.23	0.15	0.19	0.21	0.11	0.23	0.04	0.23	0.26	0.17	0.22	0.26	*0.22	0.25
8	0.01	0.02	0.01	0.00	0.02	0.01	0.01	0.01	0.00	0.02	0.01	0.01	0.01	0.00	*0.01	0.01
9	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.03	0.01	0.01	0.01	0.06	0.04	0.03	0.26	0.08	0.02	0.01	0.02	0.02	0.01	0.00
13	0.00	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.00	0.00	0.00	0.01
14	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.04	0.01	0.00	0.04	0.00	0.01	0.03	*0.01	0.03
18	0.24	0.69	1.31	1.18	1.35	1.33	0.67	1.28	0.04	1.53	1.37	1.38	1.34	1.34	*1.61	1.29
19	0.01	0.57	0.02	0.01	0.03	0.02	0.02	0.01	1.39	0.01	0.01	0.01	0.02	0.01	*0.03	0.02
20	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.10	0.00	0.06	0.04	0.06	0.01	0.01	0.04	0.04	0.04	0.05	0.03	0.05	0.06	0.06	0.10
MTOT	1.59	1.52	1.68	1.44	1.73	1.69	0.90	1.67	1.84	1.99	1.82	1.67	1.75	1.77	2.03	1.76
FEB	0.22	0.26	0.30	0.18	0.20	0.25	0.07	0.12	0.14	0.13	0.16	0.19	0.15	0.25	0.24	0.30
1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
3	0.39	0.29	0.47	0.55	0.49	0.60	0.29	0.63	0.63	0.66	0.53	0.52	0.56	0.65	0.63	0.53
4	0.15	0.46	0.12	0.11	0.28	0.15	0.15	0.23	0.26	0.27	0.22	0.22	0.28	0.30	0.33	0.22
5	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.01
6	0.01	0.02	0.02	0.00	0.02	0.02	0.01	0.02	0.01	0.01	0.02	0.03	0.01	0.02	0.02	0.02
7	0.01	0.00	0.02	0.02	0.02	0.00	0.00	0.03	0.02	0.02	0.03	0.00	0.03	0.01	0.04	0.03
9	0.01	0.00	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.28	0.10	0.07	0.29	0.35	0.31	0.14	0.27	0.37	0.30	0.26	0.25	0.30	0.18	0.45	0.24
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.08	0.00	0.02	0.03	0.01	0.02
25	0.05	0.02	0.03	0.02	0.00	0.02	0.02	0.06	0.04	0.04	0.06	0.03	0.01	*0.07	0.02	0.08
26	0.02	0.02	0.03	0.01	0.02	0.00	0.02	0.03	0.03	0.02	0.03	0.02	0.00	*0.04	0.03	0.04
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.01	0.00	0.00	*0.02	0.01	0.02
28	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	*0.01	0.01
MTOT	1.16	1.17	1.06	1.19	1.39	1.41	0.72	1.42	1.54	1.58	1.42	1.28	1.37	1.58	1.79	1.53
MAR	0.56	0.35	0.53	0.39	0.57	0.52	0.25	0.44	0.49	0.92	0.55	0.49	0.53	*0.49	0.58	0.55
1	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2.83	2.47	2.77	2.64	2.26	2.39	0.16	2.33	1.19	0.81	3.03	0.91	1.02	*2.53	1.18	2.84
3	0.06	0.04	0.06	0.05	0.12	0.03	0.04	0.04	0.09	0.20	0.04	0.11	0.04	*0.04	0.16	0.05
4	0.37	0.45	0.46	0.39	0.22	0.29	0.03	*0.30	0.14	0.18	0.39	0.19	0.26	*0.37	0.20	0.41
10	0.02	0.02	0.02	0.02	0.02	0.08	0.00	*0.08	0.00	0.00	0.03	0.00	0.02	*0.04	0.00	0.05
11	0.15	0.35	0.26	0.29	0.29	0.36	0.11	*0.37	0.34	0.35	0.40	0.33	0.33	*0.31	0.34	0.34
12	*0.02	0.59	0.51	0.53	0.02	0.51	0.20	*0.53	0.56	0.52	0.59	0.51	0.48	*0.24	0.63	0.26
13	0.00	0.02	0.01	0.01	0.00	0.02	0.01	*0.02	0.01	0.01	0.01	0.02	0.00	0.00	0.04	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.03	0.21	0.06	0.00	0.06	0.16	0.08	0.20	0.26	0.03	0.00	0.00	0.03	0.01	0.03
29	0.27	0.41	0.00	0.31	0.28	0.21	0.02	0.13	0.04	0.19	*0.27	0.18	0.28	0.29	0.22	0.22
MTOT	4.28	4.73	4.84	4.69	3.78	4.47	0.99	4.39	3.16	3.30	5.26	2.83	2.87	4.33	3.43	4.76

MTOT = Monthly totals
* = Estimated

A U S T I N U R B A N H Y D R O L O G Y S T U D Y

TABLE 17. DAILY AND MONTHLY RAINFALL SUMMARY FOR GAGES SOUTH OF THE COLORADO RIVER--CON. PERIOD: 1981 WATER YEAR

G A G E N U M B E R

DATE	1BEE	1BAR	2BAR	3BAR	1BOL	1-ON	2-ON	1BER	2BER	1LBR	1SLA	2SLA	1BGS	1WMS	2WMS	3WMS
JUNE																
1	0.07	0.16	0.10	0.11	0.54	0.29	1.23	0.14	0.38	1.28	0.15	0.21	1.24	0.12	1.53	0.08
2	0.41	0.02	0.29	0.30	0.36	0.08	0.04	0.23	0.39	0.30	0.07	0.41	0.36	0.22	0.21	0.14
3	0.08	0.79	0.03	0.31	0.35	0.56	0.98	0.42	0.90	1.87	0.29	0.42	0.40	0.18	0.38	0.13
4	0.22	0.45	0.11	1.04	0.14	0.39	0.39	1.28	0.94	0.87	1.06	0.05	0.02	0.04	0.04	0.75
5	0.67	0.37	0.90	0.52	0.39	0.31	0.32	0.59	0.62	0.76	0.63	0.57	0.65	0.55	0.74	0.82
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.08	0.00	0.02	0.01	0.00
10	0.34	2.01	1.34	1.44	1.12	1.26	1.22	1.98	1.25	1.30	1.53	0.72	0.56	1.48	1.44	1.89
11	*8.00	3.25	*6.46	*5.37	5.16	3.93	1.67	5.89	6.56	4.05	5.36	4.40	4.83	10.01	6.62	8.22
12	0.27	1.42	*1.02	*2.32	0.28	1.05	0.57	2.14	1.89	1.21	2.31	1.21	0.38	1.37	0.34	1.77
13	3.95	0.63	3.29	*3.75	*6.00	1.56	2.03	2.66	4.88	5.41	3.75	4.73	6.53	4.41	7.02	3.77
14	0.62	1.87	0.53	*1.31	0.24	0.66	0.67	2.33	*0.64	1.44	1.31	0.71	0.44	0.76	0.57	0.82
15	0.22	0.03	0.11	*0.04	0.04	0.01	0.02	0.06	*0.01	0.09	0.04	0.04	0.22	0.09	0.16	0.01
16	2.11	1.54	2.30	*1.16	0.34	1.95	0.42	1.82	0.74	0.95	1.16	1.62	1.87	1.42	1.97	1.51
17	0.00	0.00	0.01	0.00	0.00	0.05	0.01	0.02	0.02	*0.02	0.00	0.00	0.02	0.01	0.03	0.02
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
24	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.04	*0.05	0.00	0.00	0.50	0.03	0.08	0.00
25	0.10	0.00	0.78	0.00	0.25	0.00	0.04	0.00	0.00	0.00	0.00	0.45	0.77	0.79	0.88	0.09
26	0.01	0.21	0.02	0.00	0.00	0.22	0.00	0.25	0.02	*0.02	0.08	0.06	0.32	0.01	0.26	0.45
27	0.00	0.03	1.07	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.01	0.27	0.02	0.12
28	0.00	0.00	0.04	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.04
29	0.07	0.00	0.10	0.05	0.02	0.01	0.02	0.05	0.02	*0.02	0.15	0.04	0.22	0.23	0.21	0.05
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	*0.01	0.04	0.00	0.06	0.00	0.01	0.00
MTOT	17.14	12.78	18.50	17.81	15.30	12.33	8.63	19.86	19.35	19.65	18.02	15.72	19.41	22.07	22.59	20.68
JULY																
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
4	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1.56	2.36	2.47	1.58	*2.40	1.15	0.54	0.20	1.32	*1.62	1.13	2.25	1.74	1.58	3.05	2.06
6	0.00	0.00	0.00	0.00	*0.01	0.01	0.00	0.00	0.01	*0.01	0.00	0.00	0.01	0.01	0.01	0.00
7	0.40	0.01	0.15	0.05	*0.51	0.01	0.00	0.00	0.29	*0.36	0.19	0.15	0.43	0.13	0.59	0.12
8	0.65	0.09	0.34	0.25	*0.94	0.08	0.13	0.17	0.07	*0.09	0.11	0.19	1.12	0.12	0.77	0.14
9	0.00	0.00	0.00	0.05	*0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
13	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.02	*0.02	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	*0.01	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
26	0.33	*0.15	0.55	0.15	*0.47	0.08	0.00	1.48	0.68	0.01	0.76	0.56	*0.27	0.77	0.67	0.53
27	0.31	*0.07	0.11	0.07	*0.31	0.21	0.02	0.07	0.08	0.03	0.09	0.22	*0.29	0.18	0.34	0.16
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00
MTOT	3.25	2.70	3.74	2.17	4.65	1.54	0.69	1.92	2.52	2.17	2.28	3.37	3.87	2.79	5.44	3.02

MTOT = Monthly totals
 * = Estimated

A U S T I N U R B A N H Y D R O L O G Y S T U D Y

TABLE 17. DAILY AND MONTHLY RAINFALL SUMMARY FOR GAGES SOUTH OF THE COLORADO RIVER--CON. PERIOD: 1981 WATER YEAR

G A G E N U M B E R

DATE	1BAR	2BAR	3BAR	1BOL	1-ON	2-ON	1BER	2BER	1LBR	1SLA	2SLA	1BGS	1WMS	2WMS	3WMS
AUG															
7	0.13	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
17	0.59	1.34	0.35	0.03	0.02	0.04	0.72	0.05	0.14	0.24	0.00	0.16	0.03	0.06	0.00
18	0.26	1.29	0.74	0.62	1.42	0.39	1.35	2.45	2.67	0.78	2.63	0.95	0.48	1.90	0.79
19	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.01	0.02	0.01	0.00	0.02	0.01
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.04	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.10	0.44	0.23	0.11	0.05	1.20	0.31	0.58	0.94	0.84	1.10	0.28	0.13	0.11	0.16
30	0.25	0.43	0.37	0.20	0.00	1.12	0.75	0.87	0.56	0.31	1.70	0.29	0.26	0.30	0.18
31	0.21	0.32	0.22	0.20	0.00	0.00	0.31	0.61	0.42	0.55	0.59	0.43	0.22	0.56	0.27
MTOT	1.56	3.83	1.57	1.48	1.61	4.35	1.84	4.17	3.81	4.74	2.73	5.05	2.17	1.12	2.95

SEPT

1	0.11	0.00	0.06	0.04	0.01	0.00	0.09	0.00	0.22	0.02	0.27	0.00	0.04	0.02	0.02
2	0.02	0.00	0.01	0.10	0.00	1.43	0.01	0.23	0.02	0.39	0.12	0.01	0.01	0.01	0.02
3	0.68	0.29	1.52	2.50	0.79	0.22	0.55	0.60	1.54	2.37	1.42	0.31	0.86	1.00	1.44
4	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.08	0.01
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.19	0.00	0.00	0.00	0.00
14	0.63	1.08	0.98	*0.61	0.61	0.84	0.45	1.52	1.56	1.76	1.98	1.23	0.96	1.09	1.27
15	0.31	0.38	0.19	*0.11	0.30	0.02	0.17	0.18	0.11	0.35	0.22	0.16	0.33	0.45	0.17
MTOT	1.75	1.75	2.77	3.37	1.71	2.51	1.12	2.52	4.67	4.77	4.16	2.34	2.01	2.48	2.93
WTOT	53.27	42.51	50.03	47.68	44.44	41.31	22.86	48.95	48.91	49.74	50.07	44.69	44.77	50.95	53.69

MTOT = Monthly totals
 WTOT = Water year totals
 * = Estimated

Table 18.--Records of wells, test holes, and springs in the Austin urban study area

Water-bearing units: Kea, Edwards and associated limestones; Kgru, Upper Glen Rose; Kgrl, 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		Water-bearing unit	Altitude of land surface (ft)	Below land surface datum (ft)	Date of latest measurement for annual water-level survey	Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)							
Travis County													
YD-58-34-503	Lemens	--	1964	206	7	--	Kgru	740	30.7	Jan. 20, 1981	N	N	Abandoned well.
601	J. R. McElroy	--	1935	85	6	30	Kgru	950	40.4	Jan. 20, 1981	N	N	2/
613	Dr. Mitchell Wong	--	1945	175	6	--	Kea	920	25.0	Jan. 20, 1981	N	N	2/ 3/
902	S. D. Williams	--	--	53	--	--	Kea	902	31.2	Mar. 1, 1978	N	N	4/
904	Great Hills	J. M. Wright	1971	1,122	8-1/2	3	Kgru Kgrl	910	193.0	--	--	N	Reported yield 50 gal/min. Caved in to 932 feet before Oct. 31, 1972. 5/
35-201	Lorene Bolt	A. Z. Daniels	1939	270	6	90	Kea	904	227.7	Mar. 15, 1978	S, E	D, S	2/
206	Joe Bailey	Glass	1945	700	6	650	Kea	820	209.7	Jan. 20, 1981	N	N	--
210	Vernon Turner	Robertson & McBride	1894	362	5	318	Kea	860	268.0	Jan. 20, 1981	S, E	D, S	6/
212	Stuckey Candy Co.	C. T. Sterzing	1962	320	5	147	Kea	825	120	--	S, E	D	Reported yield 10 gal/min. 1/
309	Edward Burkland	W. H. Glass	Aug. 8, 1970	515	7	377	Kea	810	249.8	Jan. 20, 1981	S, E	D, Irr	6/ 1/
407	Austin White Lime	Taylor Virdeell	1952	396	10	15	Kea Kgru	845	79.3	Jan. 20, 1981	S, E	P	6/
413	M. F. Morrow	L. Daniels	1929	336	5	3	Kea	855	74.15	Aug. 24, 1978	S, E	N	Pump inoperative.
415	Austin White Lime	--	--	112	6	12	Kea	830	95.6	Jan. 20, 1981	S, E	S, Irr	6/
418	Parker	Glass	1966	88	7	88	Kea	770	70.28	Mar. 1, 1978	S, E	D	Reported yield, 15 gal/min. 4/
420	Albert Paul	Sterzing	1964	280	7	90	Kea	767	57.75	Jan. 20, 1981	S, E	D	1/
501	L. Robinson	--	1889	276	5	--	Kea	831	231.8	Mar. 1, 1978	C, W	S	4/
506	Capital Memorial Park	--	--	533	7	408	Kea	795	--	--	S, E	Irr, D	Reported yield, 250 gal/min. 6/

See footnotes at end of table.

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Water level		Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)			Below land surface datum (ft)	Date of latest measurement for annual water-level survey			
<u>Travis County--Continued</u>													
YD-56-35-508	Mrs. Karl B. Wagner	Hunter	1939	465	6	165	Kea	740	173.6	Jan. 20, 1981	S, E	S	6/ 3/
509	Pamela Subdivision	--	1960	550	8	180	Kea	853	278	1971	S, E	P	Supplies 34 homes. 5/ 7/
510	Tim's Airpark	Dick Sanders	1965	459	7	298	Kea	760	159.45	Jan. 20, 1981	S, E	N	Only water.
511	Austin White Lime	C. T. Sterzing	1963	200	7	50	Kea	822	149.3	Jan. 20, 1981	S, E	D	Parmlee well. 6/ 3/
513	Lamplighter Village	Thomas Arnold	1977	540	6	400	Kea	760	210	--	S, E	P	7/
514	C M. Diseker	Thomas Arnold	1976	420	4	220	Kea	875	189.69	Feb. 23, 1978	S, E	D	Water level questionable. 4/
607	William Kuempel	Cribbs & Davidson	1935	609	10	420	Kea	750	176.8	Jan. 20, 1981	N	N	Supplied CCC Camp; drawdown, 130 feet when pumped at 40 gal/min. 2/ 3/ 5/
701	Balcones Research Center	Texas Water Wells, Inc.	1942	610	4	320	Kea	790	--	--	S, E	Ind, Irr	7/
702	Mrs. Tom Williams	Martin	1935	49	6	22	Kea	873	13.0	Jan. 20, 1981	N	N	2/ 3/
710	Koenig	--	--	272	6	--	Kgru	875	36.7	Jan. 20, 1981	N	N	Depth before 1949 was 100 feet.
713	Harold Strickland	Dick Sanders	1967	314	7	63	Kgru	880	118.4	Jan. 24, 1979	S, E	Ind	Cemented from 0-63 feet. Reported yield, 200 gal/min. 6/
802	Anton Von Berg	W. H. Glass	1948	465	7	307	Kea	715	--	--	N	N	Filled to 10 feet before Feb. 16, 1973. 4/ 1/
804	G. F. Roberts	Robert Crouch	1970	416	4	--	Kea	735	161.45	Jan. 20, 1981	S, E	Irr	5/ 6/ 7/
806	John Mus	--	1932	459	6	203	Kea	690	122.5	Jan. 20, 1981	S, E	D	6/
808	Mrs. Richard Gracy	Roggenkamp	1976	460	5	300	Kea	762	185.6	Jan. 20, 1981	S, E	D	3/ 6/ 7/
809	Mrs. Richard Gracy	A. C. Clements	1933	445	6	--	Kea	772	205	Jan. 20, 1980	N	N	Well destroyed June 6, 1980.
906	Baker	Arnold	1976	600	4	500	Kea	750	166.5	Jan. 20, 1981	S, E	D	3/ 5/ 3/ 6/

See footnotes at end of table.

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Below land surface datum (ft)	Date of latest measurement for annual water-level survey	Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)							
<u>Travis County--Continued</u>													
YD-58-36-205	G. Pruitt	Jimmy Calhoun	1950	800	8	600	Kea	652	75.66	May 8, 1978	N	N	4/
206	G. Pruitt	Jimmy Calhoun	1950	614	8	400	Kea	692	114.85	May 8, 1978	N	N	4/
402	George Pfluger	H. Robertson	1925	610	5	400	Kea	755	173.7	Jan. 20, 1981	S, E	S, Irr	2/ 6/
41-907	Helen Rice	Dick Sanders	1967	640	8	5	Kgr1, Kgru	970	200	--	S, E	D	Reported drawdown, 100 feet after bailing for 1.5 hours at 200 gal/min. 1/
42-306	W. H. Peterson	E. W. Glass	1970	431	7	6	Kgru, Kgr1	590	85.5	Jan. 11, 1980	S, E	Irr	No drawdown when pumped at 20 gal/min. 6/
608	F. M. Pearce	J. R. Johnson	1939	145	10	--	Kea	565	101.0	Jan. 20, 1981	S, E	Pool	3/ 6/
703	Lost Creek Development Co.	Central Texas Drilling	1972	620	6-5/8	510	Kho	680	164.1	--	S, E	P	Measured yield, 75 gal/min. 5/
805	Eanes School	S. W. Glass	1954	876	7	705	Kgr1	770	229.0	Jan. 21, 1981	N	N	Reported drawdown, 190 feet at 22 gal/min in Nov. 1954. 3/ 5/ 1/
809	Carlisle Schnelle	Glass	1949	340	6	98	Kea	720	285.75	Mar. 10, 1978	S, E	D	6/
810	Swenson	Boston Furr	1912	295	6	80	Kea	700	188.2	Jan. 21, 1981	N	N	--
812	M. F. Guyton	C. T. Sterzing	1958	375	7	140	Kea	745	284.0	Aug. 29, 1978	S, E	D	Cemented from 0-140 feet slotted from 237-236 feet. Measured drawdown, 1.5 feet after pumping one hour at 20 gal/min on June 5, 1969. 1/
813	G & J Water Co.	C. T. Sterzing	--	300	8	--	Kea	660	221.9	Jan. 21, 1981	S, E	P	This well supplies 15 families.
814	Dellano Hills	C. T. Sterzing	--	300	10	--	Kea	660	213.9	Mar. 15, 1978	S, E	P	This well supplies 24 families. 6/
817	U.S. Geological Survey	Tex. Dept. of Water Resources	1978	257	6	30	Kea	762	218.1	Jan. 11, 1980	N	N	U.S. Geological Survey test well #1. 5/ 3/ 1/
818	Swenson	C. T. Sterzing	1953	300	6	--	Kea	700	227.91	Mar. 8, 1978	S, E	D	6/
903	City of Austin	--	1920's	45	5	10	Kea	460	28.35	Jan. 20, 1981	S, E	N	Open hole below casing. Water-level recorder on this well.

See footnotes at end of table.

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Below land surface datum (ft)	Water level	Date of latest measurement for annual water-level survey	Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)								
YD-58-42-911	Bee Caves Properties	Charles Dellana	1920's	135	6	90	Kea	517	78.4	Jan. 21, 1981	S, E	D, Irr	Originally dug to 90 feet then drilled to 135 feet. <u>4/</u>	
913	Park Hills Baptist Church	Richard Bible	1969	180	7	165	Kea	540	105.2	Jan. 21, 1981	S, E	D	<u>6/</u>	
914	City of Austin	--	--	Spring	--	--	Kea	435	--	--	Flow	P	Barton Springs, main springs 1 and 2. <u>6/</u>	
921	City of Austin	--	--	Spring	--	--	Kea	450	--	--	Flow	P	Elina or Park Springs near bathhouse. <u>6/</u>	
922	City of Austin	--	--	Spring	--	--	Kea	465	--	--	Flow	P	Wash or Old Mill Springs. <u>6/</u>	
925	Jimmy Shipwash	Richard Bible	1975	180	5	180	Kea	575	140.2	Jan. 21, 1981	S, E	Irr	<u>2/ 3/</u>	
926	Eugene Jacobs	Hugh Glass	1963	190	6	--	Kea	600	159.0	Jan. 21, 1981	S, E	Irr	<u>6/</u>	
43-101	Jefferson Chem. Co.	Layne-Tex. Co.	1940	458	10-3/4	406	Kea	721	--	--	N	N	<u>4/ 7/</u>	
106	W. F. Robinson	W. Watson	1927	395	5	248	Kea	733	--	--	C, W	D	<u>7/</u>	
205	Houston Instruments	Thomas Arnold	1976	563	411	520	Kea	630	82.0	Jan. 20, 1981	N	N	<u>3/ 5/ 6/</u>	
206	H. M. Reese	E. A. Glass	1970	400	7	220	Kea	700	118.5	Jan. 20, 1981	S, E	D	<u>6/</u>	
303	B. F. Payton	B. F. Payton	1940	1,456	6	1,076	Kgr	633	60.15	Jan. 20, 1981	N	N	<u>5/ 7/</u>	
401	North Austin State Hospital	Hugh McGilluray	1895	1,975	--	--	Kho Kgrl	635	--	--	N	N	<u>7/</u>	
403	Tex. Dept. of Public Safety	Tex. Water Wells, Inc.	1962	353	10-3/4	300	Kea	680	--	--	S, E	Ind.	<u>7/</u>	
705	University of Texas	Glass & Tucker	1972	445	7	205	Kea	599	52.9	Jan. 20, 1981	N	N	<u>3/ 5/</u>	
49-309	Jack Mann	Richard Bible	1969	260	7	155	Kea	975	133.50	Mar. 24, 1978	S, E	D	Reported 0 drawdown when bailed at 20 gal/min. <u>2/ 5/</u>	
314	W. E. McCullough	S. W. Glass	1967	375	7	178	Kgrl	850	--	--	S, E	D, S	Reported drawdown 15 feet when bailed at 40 gal/min for 1 hour. <u>7/</u>	

Travis County--Continued

See footnotes at end of table.

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Below land surface datum (ft)	Water level measurement of latest annual water-level survey	Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)							
Travis County--Continued													
YD-56-49-316	Cecil Herrin	Richard Bible	1968	340	7	18	Kgrl Kgru	940	240.0	Jan. 21, 1981	S, E	D	--
321	S. V. Water Corp.	Central Tex. Drilling	1977	440	5	--	Kgru Kgrl	920	287.2	Jan. 26, 1981	S, E	P	--
322	W. L. Harris	Frankie Glass	1972	480	7	42	Kgru Kgrl	970	164.3	Feb. 3, 1981	S, E	D	--
507	Appaloosa Run	Red Sanders	1973	575	7	43	Kgru Kgrl	983	227.7	Feb. 8, 1979	N	N	Reported yield, 30 gal/min with 80 feet drawdown on Aug. 3, 1973. <u>5/</u>
603	O. B. McKown, Jr.	Dick Sanders	1949	92	8-6	92	Kgru	890	26.78	Jan. 23, 1909	S, E	D	--
604	O. B. McKown, Jr.	C. T. Sterzing	1957	565	7	450	Kgrl	898	100.00	Feb. 3, 1981	S, E	Irr	Reported yield 28 gal/min. <u>2/ 6/ 7/</u>
605	Circle C Ranch	Hutchins	1922	1,000	5	1,000	Kgrl	785	151.45	June 9, 1978	S, E	S	<u>4/</u>
606	Circle C Ranch	Glass	1977	400	6	400	Kgru	881	131.70	Aug. 22, 1978	S, E	D	<u>4/</u>
50-101	T. A. Beckett, Jr.	Will Beckett	1921	217	7	12	Kea	810	167.7	Jan. 23, 1981	S, E	D	<u>6/</u>
102	T. A. Beckett, Jr.	T. A. Beckett, Sr.	1902	250	6	10	Kea	850	141.35	Jan. 23, 1981	S, E	S	--
105	L. L. Hart	A. C. Clements	--	325	10	--	Kea	810	144.61	Mar. 14, 1978	C, E	N	<u>4/</u>
106	Payne Lewis	--	1898	100	6	12	Kgru	850	82.0	Jan. 23, 1981	N	N	--
107	Elmo Pearson	C. T. Sterzing	--	615	7	155	Kgru	790	170	--	S, E	S, Irr	Reported yield, 10 gal/min. <u>7/</u>
110	--	Will Beckett	1901	217	6	10	Kea	755	136.5	Jan. 23, 1981	S, E	N	--
117	Dahlstrom Corp	Electro Mechanics Co.	1972	767	9-5/8	207	Kgru	763	176.83	May 15, 1978	N	N	Well capped. <u>4/ 5/ 7/</u>
201	Elizabeth Jentsch	Gus Sanders	1917	290	4	--	Kea	655	197.45	Jan. 23, 1981	S, E	Irr	--
206	Kenneth Wingfield	W. H. Glass	1968	257	7	53	Kea	680	208.5	Jan. 23, 1981	S, E	D	Reported yield, 10 gal/min. Cemented from 0-53 feet. <u>6/ 7/</u>

See footnotes at end of table.

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Below land surface datum (ft)	Date of latest measurement for annual water-level survey	Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)							
Travis County--Continued													
YD-58-50-209	H. E. Brodie	--	1915	330	8	300	Kea	710	272.60	May 17, 1978	S, E	D	4/
211	Travis Country Estates	Richard Bible	1973	282	7	265	Kea	670	196.7	Jan. 23, 1981	S, E	Irr	3/ 6/
212	City of Sunset Valley	C. T. Sterzing	1955	336	7	--	Kea	672	256.25	May 16, 1978	S, E	P	Reported yield, 70 gal/min. 4/
213	Bill Ashbaugh	--	--	300	7	--	Kea	705	218.2	Jan. 26, 1981	S, E	D	--
214	Ray Brownlea	A. C. Clements	1935	302	5	--	Kea	710	247.7	Jan. 23, 1981	S, E	N	Pump inoperative.
215	City of Sunset Valley	Tom Arnold	1976	360	6-5/8	200	Kea	675	--	--	S, E	P	6/
216	U.S. Geological Survey	Texas Dept. of Water Resources	1978	582	4	580	Kea	692	242.7	Jan. 22, 1981	N	N	U.S. Geol. Survey test well #3. 3/ 5/ 7/
217	U.S. Geological Survey	Texas Dept. of Water Resources	1978	214	4	144	Kea	567	85.9	Jan. 23, 1981	N	N	U.S. Geol. Survey test well #2A. 3/ 5/ 7/
218	U.S. Geological Survey	Texas Dept. of Water Resources	1978	214	4	136	Kea	567	126	Aug. 1978	N	N	U.S. Geol. Survey test well #2. 5/
219	Travis Country Estates	--	--	252	7	--	Kea	732	226.75	Dec. 22, 1980	N	N	3/ 5/
301	John Lovelady	Gus Sanders	1949	388	5	296	Kea	640	176.2	Jan. 23, 1981	N	N	2/ 3/ 5/
305	Ralph Lowry	Nance & Bailey	1923	780	--	--	--	640	--	--	N	N	Abandoned oil test. 7/
401	Mrs. Travis Howard	Glass	1967	404	7	252	Kea	750	247.7	Jan. 23, 1981	S, E	D, S	6/ 7/
402	John Rehm	S. W. Glass	1967	355	7	198	Kea	750	213.9	Jan. 23, 1981	S, E	D	Reported drawdown 60 feet, when bailed for one hour at 45 gal/min. 7/
406	George Slaughter	John Glass	1946	360	5	100	Kea	820	298.26	Aug. 11, 1978	S, E	D	6/
408	Donald Rogers	E. W. Glass	1971	439	7	125	Kea	772	181.4	Jan. 23, 1981	S, E	D	Reported drawdown 0 foot when pumped at 25 gal/min for one hour on Mar. 18, 1971. 5/

See footnotes at end of table.

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Below land surface datum (ft)	Water level	Date of latest measurement for annual water-level survey	Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)								
Travis County--Continued														
YD-58-50-409	Circle C Ranch	W. H. Glass	1972	450	7	450	Kgru	796	182.15	Jan. 23, 1981	S, E	Irr	6/	
411	Circle C Ranch	Glass	1940's	380	6	772	Kea	772	227.75	Jan. 26, 1981	S, E	D	--	
412	Circle C Ranch	Glass	1972	295	7	194	Kea	809	159.55	Jan. 23, 1981	N	N	3/ 5/	
502	Mrs. R. W. Herndon	Glass	1937	300	5-5/16	168	Kea	740	244.1	Jan. 23, 1981	S, E	Irr, S	4/ 6/	
505	Ted Swanson, Jr.	C. T. Sterzine	1963	390	4	290	Kea	710	--	--	S, E	D	Reported drawdown, 50 feet after bailing at 8 gal/min on Feb. 9, 1963. 1/	
517	Ted Swanson, Jr.	Central Tex. Drilling	1973	430	6-3/8	290	Kea	695	174.9	Jan. 23, 1981	S, E	Irr	Reported yield, 300 gal/min.	
518	NHS Homes	--	1951	431	4	--	Kea	725	240.75	Jan. 23, 1981	N	N	3/	
703	Marbridge Foundation	C. T. Sterzine	1966	455	7	232	Kea	680	189.90	Apr. 5, 1978	S, E	Irr	Reported 0 drawdown when bailed at 15 gal/min.	
704	Marbridge Foundation	Central Tex. Drilling	1968	345	16 14	68 40	Kea	727	180.55	Jan. 26, 1981	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. 3/ 5/ 1/	
706	R. W. Wallace	C. T. Sterzine	1962	305	7	160	Kea	700	205	Nov. 9, 1962	N, N		Reported yield 10 gpm. 1/	
714	T. T. Denham	W. H. Glass	1969	190	7	188	Kea	710	160.5	Feb. 8, 1979	S, E	D	Cemented from 0-120 feet. 1/	
720	Robert Hejl	Hugh Glass	1968	230	7	125	Kea	660	111.35	Feb. 6, 1981	S, E	S	--	
801	C. H. Bird	Williamson & Adair	1939	277	5-1/4	200	Kea	662	94.4	Jan. 23, 1981	S, E	N	Reported yield, 10 gal/min. 2/ 3/	
810	A. L. Wunneburger	Emmett Glass	1969	359	7	205	Kea	625	49.4	Jan. 30, 1981	S, E	D	Reported drawdown, 20 feet after bailing 1 hour at 40 gal/min. 2/ 6/ 1/	
817	Manchaca Methodist Church	C. T. Sterzine	1956	400	7	167	Kea	700	160.8	Jan. 26, 1981	S, E	D	Reported yield, 30 gal/min. 1/	

See footnotes at end of table.

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Below land surface datum (ft)	Water level	Date of latest measurement for annual water-level survey	Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)								
Travis County--Continued														
YD-58-50-822	Max Ladusch	Owens	1970	356	7	187	Kea	655	130.95	Jan. 23, 1981	S, E	N		Reported drawdown, 70 feet when bailed at 40 gal/min.
836	Onion Creek Golf Course	Central Tex. Drilling	1973	500	8	222	Kea	660	117.3	Jan. 26, 1981	S, E	Irr		Estimated yield, 220 gal/min.
839	Maha Water Supply	Frank Glass	1977	450	12	160	Kea	625	77.36	Aug. 14, 1978	E, T	P		4/
903	R. B. Gault	S. W. Glass	--	302	--	--	Kea	631	--	--	C, E	Irr		7/
58-202	Mystic Oaks Estates	Central Tex. Drilling	1969	405	6-5/8	310	Kea	660	--	--	S, E	P		5/
203	Raymond Canyon	W. H. Glass	1967	263	7	131	Kea	630	51.9	Feb. 5, 1981	S, E	D		2/ 1/
301	United Gas Pipeline	--	1943	703	6	639	Kea	734	149.7	Jan. 23, 1981	N	N		U.S. Geol Survey observation well. 2/ 3/
304	R. C. Brown	Wells	1947	720	8	500	Kea	660	55.4	Jan. 30, 1981	S, E	N		
59-105	Arthur Johnson	Dixie Oil Co.	1925	745	--	--	--	655	--	--	N	N		Abandoned oil test. 1/

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Below land surface datum (ft)	Water level	Date of latest measurement for annual water-level survey	Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)								
<u>Hays County</u>														
LR-57-64-601	Joe Gonzales	Davis Drilling Co.	1976	192	6	20	Kgru	995	90.65	Nov. 30, 1977	S, E	D		Cemented 0-20 feet.
LR-58-49-508	Clara Calhoun	Richard Bible	1960	416	6	20	Kgru	901	161.75	Feb. 10, 1981	C, W	S	--	--
701	Mike Rutherford	--	--	300	7	20	Kgru	1,079	115.17	Aug. 24, 1978	C, W	S	--	--
702	Mike Rutherford	--	--	195	7	20	Kgru	1,020	52.34	Aug. 24, 1978	C, W	S	--	--
801	Clara Calhoun	Tyler	1942	100	6	20	Kea	856	36.05	Feb. 9, 1981	S, E	S	3/ 6/	--
802	Mrs. Bliss Spillar	--	1940's	200	6	--	Kea	930	136.2	Jan. 26, 1981	C, E	S	--	--
803	Clara Calhoun	--	1954	135	6	9	Kgru	920	82.7	Jan. 24, 1980	C, W	S	--	--
804	Clara Calhoun	--	--	243	6	20	Kgru	880	36.41	May 15, 1978	S, E	D	--	--
805	Mike Rutherford	--	--	315	7	315	Kgru	1,055	142.75	Jan. 30, 1981	C, W	S	--	--
806	Mike Rutherford	--	--	200	7	--	Kgru	935	74.8	Jan. 30, 1981	C, W	N	--	--
901	P. J. Brewington	Thomas Arnold	1972	400	4	200	Kea	790	187.9	Jan. 26, 1981	S, E	D	7/	--
902	Mrs. Bliss Spillar	--	--	200	4	--	Kea	865	92.69	Apr. 25, 1978	C, W	S	--	--
903	Mrs. Bliss Spillar	--	--	200	4	--	Kea	830	--	--	C, E	S	6/	--
57-101	M. O. Rogers	Harvey Harmon	1930's	125	6	120	Kgru	992.7	51.8	Jan. 29, 1981	S, E	D	6/	--
102	Rutherford Ranch	--	--	200	4	--	Kea	1,055	136.85	Jan. 29, 1981	C, W	S	--	--
103	Rutherford Ranch	--	--	200	4	--	Kea	1,015	139.4	Jan. 29, 1981	C, W	S	--	--
104	Joe Rogers	James Tucker, Jr.	1976	527	6	62	Kgru	1,020	260	--	S, E	D	7/	--
201	Mike Rutherford	--	1945	320	6	--	Kea	925	163.05	Jan. 23, 1980	C, W	S	2/ 3/	--
202	Farris	Scarly Glass	--	200	7	200	Kea	905	21.2	Jan. 29, 1981	S, E	S	6/	--
203	Jack Dahlstrom	Raymond Whisenant	1970	225	7	25	Kea	835	80.4	Jan. 23, 1980	C, W	S	7/	--
204	Cecil Ruby	Hugh Glass	1950	245	6	--	Kea	800	136.2	Jan. 10, 1978	S, E	S	--	--
301	Cecil Ruby	T. E. Owens	1937	312	6	83	Kea	882.4	259.20	Jan. 9, 1978	S, E	S	2/	--

See footnotes at end of table.

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Below land surface datum (ft)	Date of latest measurement for annual water-level survey	Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)							
LR-56-57-302	Jack Dahlstrom	W. H. Glass	1973	415	12	158	Kea	809	202.0	Feb. 6, 1981	S, E	S	5/ 7/
303	W. D. Turner	W. H. Glass	1973	315	7	315	Kea	870	242.12	May 25, 1978	S, E	D	6/ 7/
402	Tom Fairey	James B. Tucker	1976	380	6	55	Kea	880	93.6	Jan. 30, 1981	S, E	D	3/ 6/
403	Rutherford Ranch	--	1952	350	10	--	Kea	982	232.29	Nov. 28, 1977	S, E	D	--
502	Hoskins	Smith	1938	385	5	--	Kea	885	198.55	Jan. 29, 1981	S, E	D	Deepened to 385 feet by Ed Weigel in 1963. 6/
503	Michaelis Ranch	--	Before 1900	180	4	--	Kea	812	141.10	Aug. 30, 1978	C, W	S	--
601	Cecil Ruby	E. B. Kutscher	1971	390	8-5/8	160	Kea	792	157.49	Apr. 20, 1978	S, E	S	7/
602	Cecil Ruby	--	--	150	6-1/2	--	Kea	792	127.00	Jan. 10, 1978	S, E	S	2/
801	J. C. Ruby, Jr.	C. L. Tyler	1941	365	6	260	Kea	938.2	235.89	Jan. 11, 1978	S, E	D	Deepened from 300-365 feet in 1969 by Kutscher. 7/
802	Tom Johnson Estate	--	--	242	6	--	Kea	838	164.70	Jan. 11, 1978	C, E	S	2/
901	Hays Consolidated School District	E. A. Glass	1968	575	10	235	Kea	821	--	--	S, E		6/ 7/
902	Gregg Ranch	--	Before 1943	450	6	--	Kea	821.55	221.55	Jan. 30, 1981	N	N	Originally an oil test well. 2/ 5/
903	Mountain City Ranch	C. L. Tyler	1943	400	6	--	Kea	822	232.75	Jan. 30, 1981	C, W	S	2/ 3/
904	Pedernales Electric	James B. Tucker	1975	428	5-5/8	290	Kgru	825	235.06	Aug. 21, 1978	S, E	Ind	7/
58-101	Franklin	--	1907	243	5	230	Kea	707.2	119.45	Jan. 29, 1981	N	N	2/ 3/ 5/
104	Henry Armbruster	T. E. Owens	1937	248	6	--	Kea	730.3	149.04	Jan. 29, 1981	N	N	2/ 5/
105	Joe Lowke	Tom Arnold	1978	477	4	480	Kea	773	227	Jan. 7, 1978	S, E	D	5/ 6/
106	City of Buda	Tom Arnold	1977	450	8	--	Kea	706	115.3	Feb. 5, 1981	S, E	P	6/
108	Jim Ruby	Kutscher	1971	548	10-3/4	271	Kgru	757	217.25	Aug. 17, 1978	N	N	5/

Hays County--Continued

See footnotes at end of table.

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Below land surface datum (ft)	Water level measurement for annual water-level survey	Method of lift	Use of water	Remarks
					Diameter (in)	Depth (ft)							
Hays County--Continued													
LR-58-58-109	Jack Giberson	Frankie A. Glass	1971	270	7	215	Kea	755	--	--	S, E	D	<u>7/</u>
110	Julius Eddleman	Thomas Arnold	1976	280	4	200	Kea	745	--	--	S, E	D	<u>7/</u>
206	H. B. Granberry	E. A. Glass	1971	415	12	190	Kea	668	86.6	Jan. 21, 1980	N	N	Cemented 0-45 feet. <u>5/ 7/</u>
211	Don Rylander		1979	462	5	418	Kea	702	108.4	Feb. 5, 1981	N	N	
403	City of Buda	J. B. Virdell	1954	390	10	222	Kea	710	120.5	Feb. 5, 1981	T, E	P	<u>6/</u>
406	Texas Cement	F. S. Tatum	1966	525	10	310	Kea	743	154.7	Jan. 30, 1981	S, E	P	Cemented 0-310 feet. <u>2/ 7/</u>
407	Texas Cement	J. T. Johnson	1960	634	12	153	Kea	750	--	--	T, E	Ind	<u>6/</u>
408	Texas Cement	Forrest S. Tatum	1966	565	7	375	Kea	786	--	--	S, E	D	<u>7/</u>
410	D. J. Simon	Sanders Drilling Co.	1978	584	10	--	Kea	762	167.8	Jan. 25, 1980	N	N	<u>5/</u>
411	W. I. Dismukes	E. B. Kutscher	1971	510	7	435	Kea	735	150.7	Feb. 5, 1981	S, E	D	Cemented, 0-435 feet.
501	Goforth Water Supply	J. M. Wright	1970	649	8	500	Kea	721	--	--	S, E	P	<u>7/</u>
502	D. J. Simon	C. L. Tyler	1944	650	6	562	Kea	742	144.45	Jan. 22, 1980	N	N	<u>3/ 5/ 7/</u>
503	Paul Keller	Dick Sanders	1966	540	7	481.5	Kea	745	148.0	Feb. 5, 1981	N	N	<u>5/ 7/</u>
504	Elmer Israel	C. T. Sterzing	1962	640	7	514	Kea	778	182.6	Jan. 30, 1981	S, E	N	--
701	D. A. Dacy	--	1950	492	8	--	Kea	711	120.25	Feb. 5, 1981	S, E	S	--
704	O. H. Cullen	E. R. Ownes	1972	532	7	368	Kea	746	156.4	Feb. 5, 1981	S, E	D	<u>2/ 6/ 7/</u>
705	Ted Edwards	C. T. Sterzing	1964	667	7	548	Kea	725	127.98	Jan. 9, 1978	S, E	D	<u>7/</u>
706	Lex Word	Glass	1959	520	7	300	Kea	695	111.75	Feb. 5, 1981	S, E	N	Pump inoperative.
801	A. W. Whitten	C. L. Tyler	1943	502	7	431	Kea	712	128.0	Feb. 5, 1981	S, E	N	--
902	David Shubert	Woodward & Co.	1955	3,338	6	--	--	--	--	--	N	N	Oil test. <u>5/ 7/</u>
LR-67-01-201	David Allen	Kutscher	--	300	--	--	Kea	672	--	--	--	--	<u>5/</u>

See footnotes at end of table.

Table 18.--Records of wells, test holes, and springs in the Austin urban study area--Continued

No.	Owner	Driller	Date completed	Depth of well (ft)	Casing		Water-bearing unit	Altitude of land surface (ft)	Water level		Method of lift	Use of water	Remarks	
					Diameter (in)	Depth (ft)			Below land surface datum (ft)	Date of latest measurement for annual water-level survey				
<u>Hays County--Continued</u>														
LR-67-01-304	R. Selvera	Fleming Adair	1934	372	5	340	Kea	718	151.6		Feb. 5, 1981	N	N	--
305	A. A. Hale	J. W. Glass	1959	500	8	310	Kea	705.32	133.99		Aug. 21, 1978	C, E	D, S	<u>2/</u>

1/ Selected wells are included in monthly water-level surveys (see table 20).

2/ Texas Department of Water Resources observation well.

3/ Monthly water-level measurements available in table 20.

4/ Discontinued observation well.

5/ Geophysical log (radioactivity or electric log).

6/ Well or spring sampled for quality of water.

7/ Driller's log, sample log, or core data.

Table 19.--Water-quality data from wells and springs in the Austin urban study area

LOCAL WELL ID FILTER	DATE OF SAMPLE	TIME	PUMP	DEPTH OF WELL, TOTAL (FEET) (72004)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPECI- FIC CON- DUCT- ANCE (UMHUS) (00095)	PH	TEMPER- ATURE (DEG C) (00010)	CULI- FORM, TOTAL, IMMUNO- (COLS. PER 100 ML) (31501)
			OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)							
			IMAVIS							
YU 58-35-210	01-08-03	1245	--	--	--	--	--	--	--	--
	01-08-05	0830	20	302	--	182.50	1220	7.0	24.0	K330000
	01-08-10	0830	20	--	15	--	555	7.1	24.0	68000
YU 58-35-309	01-08-03	1245	20	--	15	163.50	199	7.3	25.5	4
YU 58-35-407	01-08-10	0900	20	376	--	--	820	7.5	24.0	210
YU 58-35-415	01-08-04	1330	20	112	--	88.95	775	6.9	23.0	K200
YU 58-35-500	01-08-03	1130	120	533	40	--	150	7.2	24.0	K220
YU 58-35-500	01-08-03	1415	00	465	40	70.00	695	7.4	25.0	2900
YU 58-35-701	01-08-10	1130	20	610	--	132.50	121	7.2	25.5	K48
YU 58-35-804	01-08-05	1035	00	416	15	78.75	172	7.2	24.0	K48
YU 58-35-803	01-08-10	0950	20	400	--	105.00	174	7.2	24.0	K2
YU 58-35-900	01-08-05	1000	20	600	15	64.00	1110	7.2	25.0	K2
YU 58-36-402	01-08-04	1410	10	610	15	68.90	562	7.4	24.0	K18
YU 58-42-306	01-08-05	1150	20	431	15	88.00	5820	7.3	25.5	24
YU 58-42-608	01-08-05	1415	20	145	--	--	544	7.5	20.5	420
YU 58-42-809	01-08-04	1045	--	340	--	--	462	7.6	22.0	K5
YU 58-42-814	01-08-04	0915	20	300	--	211.50	528	7.5	22.0	K8
YU 58-42-815	01-08-04	1105	20	300	--	187.00	687	7.5	22.5	92
YU 58-42-913	01-08-04	0620	20	160	15	--	608	7.0	23.5	K110
YU 58-42-926	01-08-04	0955	20	190	--	158.00	570	7.3	22.5	1100
YU 58-43-200	01-01-13	0930	--	--	--	--	--	--	--	--
	01-08-10	1050	20	400	15	--	855	7.5	25.0	<1
YU 58-49-604	01-08-12	1030	15	565	15	115.60	616	7.3	23.5	460
YU 58-50-101	01-08-11	0830	--	217	15	--	538	7.2	25.0	K4
YU 58-50-206	01-08-10	1315	20	257	15	209.60	537	7.4	23.5	<1
YU 58-50-211	01-08-10	1340	00	282	--	--	569	7.2	24.0	<1
YU 58-50-215	01-08-10	1407	00	360	--	--	585	7.3	24.5	<1
YU 58-50-216	01-08-19	1310	--	582	--	211.40	638	7.3	24.0	920
YU 58-50-217	01-08-19	1210	--	140	--	96.16	517	7.2	22.0	K900
YU 58-50-401	01-08-18	1415	20	404	15	194.60	551	7.2	24.0	<1
YU 58-50-406	01-08-11	0925	20	300	15	--	621	7.2	25.0	<1
YU 58-50-408	01-08-11	1055	20	439	15	--	595	7.2	25.0	2100
YU 58-50-412	01-08-11	0950	15	295	--	152.30	531	7.2	25.0	K1
YU 58-50-502	01-08-11	1440	20	300	--	187.60	589	7.2	24.0	K8
YU 58-50-704	01-08-11	1345	15	455	--	--	537	7.1	24.0	K17
YU 58-50-810	01-08-11	1305	60	359	--	--	788	7.3	25.0	K4

Table 19.--Water-quality data from wells and springs in the Austin urban study area--Continued

WELL IDENTIFICATION	DATE OF SAMPLE	COLI-FORMS PER 100 ML (31025)	FECAL COLS. PER 100 ML (31073)	HARDNESS (MG/L CALCS) (00900)	HARDNESS, NONCARBONATE (MG/L CALCS) (00902)	CALCIUM SOLVED (MG/L AS CA) (00915)	MAGNESIUM SOLVED (MG/L AS MG) (00925)	SODIUM SOLVED (MG/L AS NA) (00930)	SODIUM SUKPFION (MG/L AS NA) (00931)	POTASSIUM SOLVED (MG/L AS K) (00935)
		IN P.P.T.S								
YU 58-35-210	01-08-03	--	--	--	--	--	--	--	--	--
	01-08-05	400	720	470	140	141	29	42	0.9	5.9
	01-08-10	00	4000	--	--	--	--	--	--	--
YU 58-35-309	01-08-03	<1	100	250	0	55	27	04	2.0	3.0
YU 58-35-407	01-08-10	<1	100	300	80	00	30	34	0.8	11
YU 58-35-415	01-08-04	N10	300	390	0	120	23	00.0	0.2	0.0
YU 58-35-506	01-08-03	K4	K9	340	20	95	25	31	0.0	1.4
YU 58-35-505	01-08-03	230	N15000	340	19	90	24	18	0.5	1.1
YU 58-35-701	01-08-10	<1	K0	320	28	01	20	37	1.0	1.0
YU 58-35-804	01-08-05	K1	K1	310	7	05	23	59	1.0	3.0
YU 58-35-805	01-08-10	<1	<1	270	0	07	20	06	1.9	2.0
YU 58-35-800	01-08-05	<1	K5	320	3	08	25	120	2.9	3.0
YU 58-36-402	01-08-04	K1	K7	200	54	110	2.3	14	0.4	0.0
YU 58-42-300	01-08-05	<1	<1	1100	770	200	140	1100	15	55
YU 58-42-608	01-08-05	20	420	230	40	54	22	31	1.0	3.0
YU 58-42-809	01-08-04	<1	23	240	11	05	19	7.9	0.2	1.0
YU 58-42-814	01-08-04	K1	K4	200	30	70	22	7.9	0.2	1.0
YU 58-42-814	01-08-04	<1	<1	310	39	01	30	13	0.4	4.0
YU 58-42-913	01-08-04	N100	K2	320	25	97	20	5.9	0.2	0.0
YU 58-42-920	01-08-04	20	1700	300	41	00	21	0.0	0.2	1.1
YU 58-43-200	01-01-13	--	--	--	--	--	--	--	--	2.5
	01-08-10	<1	N10	270	0	04	27	05	2.5	2.5
YU 58-49-604	01-08-12	<1	310	330	22	00	32	7.0	0.2	3.0
YU 58-50-101	01-08-11	<1	54	300	0	70	30	4.0	0.1	1.0
YU 58-50-200	01-08-10	<1	N200	200	15	74	22	9.7	0.3	1.4
YU 58-50-211	01-08-10	<1	<1	290	17	77	23	9.0	0.2	0.9
YU 58-50-215	01-08-10	<1	49	300	24	77	27	9.9	0.3	1.2
YU 58-50-210	01-08-19	N40	500	300	34	74	29	11	0.3	2.2
YU 58-50-217	01-08-19	K0	K14	200	17	70	20	0.2	0.2	1.3
YU 58-50-401	01-08-18	<1	K3	290	12	79	25	0.9	0.2	1.1
YU 58-50-400	01-08-11	<1	39	310	30	02	25	10	0.4	0.9
YU 58-50-408	01-08-11	<1	K4	320	15	75	31	7.5	0.2	0.0
YU 58-50-50-412	01-08-11	<1	<1	200	3	02	19	4.0	0.1	0.0
YU 58-50-502	01-08-11	<1	K1	300	22	00	20	0.1	0.2	1.1
YU 58-50-704	01-08-11	<1	N10	200	9	02	10	0.5	0.2	0.0
YU 58-50-N10	01-08-11	<1	K4	300	59	02	35	45	1.3	3.0

Table 19.--Water-quality data from wells and springs in the Austin urban study area--Continued

LOCAL WELL- I- FILE	DATE OF SAMPLE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00613)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
LEAVIS					
YU 58-35-210	81-08-03	--	--	--	--
	81-08-05	.450	.250	1.2	.210
	81-08-10	1.30	.160	1.5	.020
YU 58-35-309	81-08-03	.020	.330	.03	<.010
YU 58-35-407	81-08-10	.200	.120	.52	.010
YU 58-35-415	81-08-04	.020	.100	.66	.010
YU 58-35-506	81-08-03	.020	.070	.58	.030
YU 58-35-508	81-08-03	.030	.120	.58	<.010
YU-58-35-701	81-08-10	.000	.060	.27	.010
YU 58-35-804	81-08-05	.020	.120	.48	.220
YU 58-35-808	81-08-10	.000	.110	.41	.010
YU-58-35-906	81-08-05	.020	.310	.59	.190
YU 58-36-402	81-08-04	.030	.120	.66	<.010
YU 58-42-306	81-08-05	.020	3.70	.00	.010
YU-58-42-808	81-08-05	.030	.150	.48	.200
YU 58-42-809	81-08-04	.020	.130	.30	<.010
YU 58-42-814	81-08-04	.030	.130	.44	<.010
YU 58-42-818	81-08-04	.020	.160	.46	<.010
YU 58-42-913	81-08-04	.030	.080	.40	<.010
YU 58-42-926	81-08-04	.030	.120	.57	<.010
YU-58-43-206	81-01-13	--	--	--	--
	81-08-10	.000	.120	.70	.010
YU 58-49-804	81-08-12	.000	.070	.36	.010
YU 58-50-101	81-08-11	.000	.110	.40	.010
YU 58-50-206	81-08-10	.000	.070	.92	.010
YU 58-50-211	81-08-10	.000	.030	.78	.010
YU 58-50-215	81-08-10	.000	.030	.51	.020
YU 58-50-216	81-08-19	.010	.110	.62	.040
YU 58-50-217	81-08-19	.000	.090	.36	.020
YU 58-50-401	81-08-18	.000	.040	.62	.010
YU 58-50-406	81-08-11	.000	.060	.94	.010
YU 58-50-408	81-08-11	.000	.120	.88	.010
YU-58-50-412	81-08-11	.000	.110	.87	.010
YU 58-50-502	81-08-11	.000	.070	1.4	.010
YU 58-50-704	81-08-11	.000	.070	.46	.010
YU 58-50-810	81-08-11	.000	.140	.79	.010

Table 19.--Water-quality data from wells and springs in the Austin urban study area--Continued

LOCAL IDENTIFICATION	DATE OF SAMPLE	TIME	ALUMINUM TOTAL (UG/L) (39330)	CHLORIDE TOTAL (UG/L) (39350)	ODOR TOTAL (UG/L) (39360)	DOSE TOTAL (UG/L) (39365)	DDI TOTAL (UG/L) (39370)	DI-AZINON TOTAL (UG/L) (39570)	DI-ELORIN TOTAL (UG/L) (39380)	ENDU-SULFAN TOTAL (UG/L) (39388)
TRAVIS										
YU 58-35-415	81-08-04	1330	.00	.00	.00	.00	.00	.00	.00	.00
YU 58-36-402	81-08-04	1410	.00	.00	.00	.00	.00	.00	.00	.00
YU-58-42-608	81-08-05	1415	.00	.00	.00	.00	.00	.00	.00	.00
YU-58-43-206	81-08-10	1050	.00	.00	.00	.00	.00	.00	.00	.00
YU 58-50-211	81-08-10	1340	.00	.00	.00	.00	.00	.00	.00	.00
YU 58-50-215	81-08-10	1407	.00	.00	.00	.00	.00	.00	.00	.00
YU 58-50-408	81-08-11	1055	.00	.00	.00	.00	.00	.00	.00	.00
YU 58-50-810	81-08-11	1305	.00	.00	.00	.00	.00	.00	.00	.00

LOCAL IDENTIFICATION	DATE OF SAMPLE	METHYL THION, TOTAL (UG/L) (39790)	MIREX, TOTAL (UG/L) (39755)	PCB, TOTAL (UG/L) (39516)	NAPP-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	PER-THANE TOTAL (UG/L) (39034)	SILVER, TOTAL (UG/L) (39700)	TOX-APRENE, TOTAL (UG/L) (39400)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)
TRAVIS										
YU 58-35-415	81-08-04	.00	.00	.00	.00	.00	.00	.00	.00	.00
YU 58-36-402	81-08-04	.00	.00	.00	.00	.00	.00	.00	.00	.00
YU-58-42-608	81-08-05	.00	.00	.00	.00	.00	.00	.00	.00	.00
YU-58-43-206	81-08-10	.00	.00	.00	.00	.00	.00	.00	.00	.00
YU 58-50-211	81-08-10	.00	.00	.00	.00	.00	.00	.00	.00	.00
YU 58-50-215	81-08-10	.00	.00	.00	.00	.00	.00	.00	.00	.00
YU 58-50-408	81-08-11	.00	.00	.00	.00	.00	.00	.00	.00	.00
YU 58-50-810	81-08-11	.00	.00	.00	.00	.00	.00	.00	.00	.00

LOCAL IDENTIFICATION	DATE OF SAMPLE	ENDURIN, TOTAL (UG/L) (39390)	PARA-THION, TOTAL (UG/L) (39540)	TOTAL THIO-THION (UG/L) (39786)	HEPTA-CHLOR. EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR. TOTAL (UG/L) (39410)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METHYL PARA-THION, TOTAL (UG/L) (39600)	
TRAVIS										
YU 58-35-415	81-08-04	.00	.00	.00	.00	.00	.00	.00	.00	
YU 58-36-402	81-08-04	.00	.00	.00	.00	.00	.00	.00	.00	
YU-58-42-608	81-08-05	.00	.00	.00	.00	.00	.00	.00	.00	
YU-58-43-206	81-08-10	.00	.00	.00	.00	.00	.00	.00	.00	
YU 58-50-211	81-08-10	.00	.00	.00	.00	.00	.00	.00	.00	
YU 58-50-215	81-08-10	.00	.00	.00	.00	.00	.00	.00	.00	
YU 58-50-408	81-08-11	.00	.00	.00	.00	.00	.00	.00	.00	
YU 58-50-810	81-08-11	.00	.00	.00	.00	.00	.00	.00	.00	

Table 19.--Water-quality data from wells and springs in the Austin urban study area--Continued

LOCAL IDENT- I- FILE#	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	PUMP	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
					OR FLOW PERIOD TO SAM-PLING (MIN) (72004)					
TRAVIS										
YU 58-35-415	01-08-04	1330	112	--	20	1	<1	10	<10	<10
YU 58-36-402	01-08-04	1410	610	15	30	0	<1	0	<10	<10
YU-58-42-608	01-08-05	1415	145	--	20	1	<1	0	<10	<10
YU-58-43-206	01-08-10	1050	400	15	20	0	<1	0	<10	11
YU 58-50-211	01-08-10	1340	282	--	60	0	<1	0	<10	<10
YU 58-50-215	01-08-10	1407	360	--	60	0	<1	0	<10	<10
YU 58-50-408	01-08-11	1055	434	15	20	0	<1	20	<10	<10

LOCAL IDENT- I- FILE#	DATE OF SAMPLE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
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TRAVIS

YU 58-35-415	01-08-04	<10	<1	.0	3
YU 58-36-402	01-08-04	<10	<1	.0	62
YU-58-42-608	01-08-05	<10	<1	.0	20
YU-58-43-206	01-08-10	<10	2	.0	34
YU 58-50-211	01-08-10	<10	1	.1	95
YU 58-50-215	01-08-10	<10	3	.0	17
YU 58-50-408	01-08-11	<10	<1	.0	270

LOCAL IDENT- I- FILE#	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT) (01515)	GROSS ALPHA, SUSP. (PCI/L AS U-NAT) (01516)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (00030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (00040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR-90) (00050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR-90) (00060)
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TRAVIS

YU-58-35-701	01-08-10	1130	5.4	--	7.9	.4	<4.5	.4	4.2	.4
YU 58-35-804	01-08-05	1035	--	--	<15	<.5	<6.1	.9	<5.9	.8
YU-58-43-206	01-01-13	0930	9.5	.3	14	<.4	<4.0	<.4	<3.9	<.4

LOCAL IDENT- I- FILE#	DATE OF SAMPLE	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL, DIS-SOLVED (UG/L AS U) (22703)	URANIUM, DIS-SOLVED, EXTRACTION (UG/L) (80020)
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TRAVIS

YU-58-35-701	01-08-10	1.2	--	.43
YU 58-35-804	01-08-05	2.5	6.9	--
YU-58-43-206	01-01-13	2.6	--	.02

Table 19.--Water-quality data from wells and springs in the Austin urban study area--Continued

LOCAL IDENT-IF FILE#	DATE OF SAMPLE	TIME	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	DEPTH OF WELL, TOTAL (FEET) (72000)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPECIFIC CONDUCTANCE (UMHUS) (00075)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	CULIFORMS, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
			MAYS	MAYS	MAYS	MAYS	MAYS			
KA-58-49-801	81-08-19	0850	20	100	15	37.50	663	7.1	21.5	780
KA-58-49-903	81-08-18	0830	30	200	10	--	583	7.1	23.0	85
KA-58-57-101	81-08-12	0950	15	125	15	56.00	624	7.2	23.0	4400
KA-58-57-202	81-08-12	0905	15	200	15	27.00	650	7.2	23.0	<1
KA-58-57-303	81-08-18	0920	20	315	15	--	576	7.1	23.0	84
KA-58-57-402	81-08-18	1210	30	380	--	93.00	596	7.2	24.0	810
KA-58-57-502	81-08-18	1110	30	365	--	173.20	575	7.1	23.5	82
KA-58-57-901	81-08-12	1340	60	575	--	--	482	7.3	25.0	82
KA-58-58-105	81-08-18	1020	30	477	15	--	499	7.3	23.0	300
KA-58-58-403	81-08-12	0810	45	590	--	81.70	568	7.3	23.0	<1
KA-58-58-407	81-08-12	1320	60	634	--	--	640	7.3	26.0	816
KA-58-58-704	81-08-12	1230	10	532	15	155.60	996	7.8	25.5	<1
LOCAL IDENT-IF FILE#	DATE OF SAMPLE	CULIFORMS, FECALES, UM-MF (COLS./100 ML) (31625)	SINCEP-TUOCOCCI, FECALES, KF-MGAK (COLS. PER 100 ML) (31673)	MANU-NESS, (MG/L AS CACU3) (00900)	MANU-NESS, NONCAL-BUNATE (MG/L AS CACU3) (00902)	CALCIUM, DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM, SU-M, SURP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
			MAYS	MAYS	MAYS	MAYS	MAYS	MAYS	MAYS	MAYS
KA-58-49-801	81-08-19	330	620	360	31	100	27	5.9	.1	1.5
KA-58-49-903	81-08-18	82	21	320	10	97	19	5.7	.1	.6
KA-58-57-101	81-08-12	<1	130	330	13	92	25	8.1	.2	3.0
KA-58-57-202	81-08-12	<1	83	350	7	78	37	6.6	.2	1.7
KA-58-57-303	81-08-18	<1	77	300	4	79	20	7.0	.2	.8
KA-58-57-402	81-08-18	<1	86	310	15	58	39	6.8	.2	2.8
KA-58-57-502	81-08-18	<1	83	310	30	96	17	5.7	.1	.9
KA-58-57-901	81-08-12	<1	8100	250	9	55	27	5.5	.2	1.1
KA-58-58-105	81-08-18	<1	100	250	10	62	23	6.8	.2	1.3
KA-58-58-403	81-08-12	<1	811	290	8	74	25	5.9	.2	1.3
KA-58-58-407	81-08-12	<1	8150	300	39	67	32	7.1	.2	1.3
KA-58-58-704	81-08-12	<1	<1	300	74	59	36	92	2.0	8.2
LOCAL IDENT-IF FILE#	DATE OF SAMPLE	ALKA-LINIFY FIELD (MG/L AS CACU3) (00410)	SULFATE, DIS-SOLVED (MG/L AS SU4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIUM, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE, TOTAL (MG/L AS N) (00620)		
			MAYS	MAYS	MAYS	MAYS	MAYS	MAYS	MAYS	
KA-58-49-801	81-08-19	--	24	11	.3	12	379	.93		
KA-58-49-903	81-08-18	310	<1.0	8.9	.1	13	331	.45		
KA-58-57-101	81-08-12	320	22	11	.3	15	369	.80		
KA-58-57-202	81-08-12	340	1.0	16	.3	13	358	.73		
KA-58-57-303	81-08-18	300	<1.0	14	.1	13	321	1.2		
KA-58-57-402	81-08-18	290	23	9.6	.7	13	327	.82		
KA-58-57-502	81-08-18	280	1.0	19	.2	13	321	4.1		
KA-58-57-901	81-08-12	240	15	8.9	.4	12	269	.42		
KA-58-58-105	81-08-18	240	9.1	11	.3	11	269	1.6		
KA-58-58-403	81-08-12	280	25	10	.4	11	321	1.2		
KA-58-58-407	81-08-12	260	81	10	1.6	12	368	.83		
KA-58-58-704	81-08-12	230	170	92	2.6	13	613	.80		

Table 19.--Water-quality data from wells and springs in the Austin urban study area--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS- PHORUS, TOTAL (MG/L AS P) (00605)
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HAYS

LK-58-49-801	81-08-19	.000	.090	.46	<.010
LK 58-49-903	81-08-18	.000	.040	.23	<.010
LK 58-57-101	81-08-12	.000	.110	.49	.010
LK 58-57-202	81-08-12	.000	.060	.51	.000
LK 58-57-303	81-08-18	.000	.050	.38	.010
LK-58-57-402	81-08-18	.000	.050	.20	<.010
LK 58-57-502	81-08-18	.000	.060	1.6	.010
LK-58-57-901	81-08-12	.000	.090	.87	.010
LK 58-58-105	81-08-18	.000	.040	.63	.010
LK 58-58-403	81-08-12	.000	.060	.88	.010
LK 58-58-407	81-08-12	.000	.100	.27	.010
LK-58-58-704	81-08-12	.000	.530	.52	.000

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CAUDIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)

HAYS

LK-58-49-801	81-08-19	0850	100	15	20	0	<1	0	<10	<10
LK 58-57-202	81-08-12	0905	200	15	15	0	<1	10	<10	<10
LK 58-57-502	81-08-18	1110	385	--	30	0	<1	0	<10	30
LK 58-58-403	81-08-12	0810	390	--	45	0	<1	10	<10	<10
LK-58-58-704	81-08-12	1230	532	15	10	0	<1	0	<10	37

LOCAL IDENT- I- FIER	DATE OF SAMPLE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
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HAYS

LK-58-49-801	81-08-19	<10	1	.0	15
LK 58-57-202	81-08-12	<10	<1	.0	180
LK 58-57-502	81-08-18	<10	1	.0	71
LK 58-58-403	81-08-12	<10	<1	.0	<3
LK-58-58-704	81-08-12	<10	2	.1	<3

Table 19.--Water-quality data from wells and springs in the Austin urban study area--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDO, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39370)	DI-ELDRIN, TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39385)
MAYS										
LR-58-49-801	81-08-19	0850	.00	.00	.00	.00	.00	.00	.00	.00
LR 58-57-202	81-08-12	0905	.00	.00	.00	.00	.00	.00	.00	.00
LR 58-57-502	81-08-18	1110	.00	.00	.00	.00	.00	.00	.00	.00
LR 58-58-403	81-08-12	0810	.00	.00	.00	.00	.00	.00	.00	.00
LR-58-58-704	81-08-12	1230	.00	.00	.00	.00	.00	.00	.00	.00

LOCAL IDENTIFIER	DATE OF SAMPLE	ENDRIN, TOTAL (UG/L) (39390)	PARA-THION, TOTAL (UG/L) (39540)	TOTAL TRI-THION (UG/L) (39780)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METHYL PARA-THION, TOTAL (UG/L) (39600)
MAYS										
LR-58-49-801	81-08-19	.00	.00	.00	.00	.00	.00	.00	.00	.00
LR 58-57-202	81-08-12	.00	.00	.00	.00	.00	.00	.00	.00	.00
LR 58-57-502	81-08-18	.00	.00	.00	.00	.00	.00	.00	.00	.00
LR 58-58-403	81-08-12	.00	.00	.00	.00	.00	.00	.00	.00	.00
LR-58-58-704	81-08-12	.00	.00	.00	.00	.00	.00	.00	.00	.00

LOCAL IDENTIFIER	DATE OF SAMPLE	METHYL TRI-THION, TOTAL (UG/L) (39790)	MIREX, TOTAL (UG/L) (39755)	PCB, TOTAL (UG/L) (39516)	NAPH-THA-LENES, POLY-CHLOR, TOTAL (UG/L) (39250)	PER-THANE TOTAL (UG/L) (39034)	SILVEX, TOTAL (UG/L) (39760)	TOX-APHENE, TOTAL (UG/L) (39400)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)
MAYS										
LR-58-49-801	81-08-19	.00	.00	.00	.00	.00	.00	.00	.00	.00
LR 58-57-202	81-08-12	.00	.00	.00	.00	.00	.00	.00	.00	.00
LR 58-57-502	81-08-18	.00	.00	.00	.00	.00	.00	.00	.00	.00
LR 58-58-403	81-08-12	.00	.00	.00	.00	.00	.00	.00	.00	.00
LR-58-58-704	81-08-12	.00	.00	.00	.00	.00	.00	.00	.00	.00

Table 20.--Monthly water-level measurements of observation wells in the Austin urban study area, 1981 water year 1/

Well number	Distance below land-surface datum (feet)											
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
YD-58-34-613	29.35	28.40	26.00	25.00	26.35	24.95	23.90	26.90	24.85	22.50	27.05	30.10
35-508	165.50	166.25	165.20	<u>b/</u> 173.60	173.65	--	141.90	--	67.90	65.20	71.50	75.50
511	150.90	149.60	150.70	149.30	149.60	149.85	149.00	153.85	140.75	--	120.90	126.55
607	171.00	173.00	173.90	176.80	178.75	150.20	156.40	158.55	77.00	74.75	78.55	82.10
702	12.70	13.00	12.90	13.00	14.10	11.95	11.65	12.00	6.80	12.90	9.40	9.80
808	179.80	181.70	183.45	185.60	187.90	164.80	165.65	170.60	104.50	100.70	105.75	108.50
906	160.65	162.70	161.95	166.50	168.70	138.60	141.00	148.30	65.50	64.02	68.05	71.90
42-608	102.85	100.50	101.05	101.00	101.20	101.10	100.95	101.00	101.65	100.15	--	100.80
805	235.25	239.90	231.65	229.00	228.10	226.80	231.55	228.75	221.95	221.85	229.35	225.50
810	--	--	--	--	--	--	190.00	187.75	187.25	187.35	187.65	187.80
817	--	216.40	--	--	--	<u>a/</u> --	--	--	--	--	--	--
903	28.26	28.52	28.05	28.35	31.47	27.18	27.44	27.91	27.99	25.09	25.85	26.24
925	141.50	141.65	140.60	140.20	140.40	139.20	139.30	139.70	134.45	135.00	136.30	137.10
43-205	81.44	83.00	83.70	82.00	86.25	85.45	80.60	78.20	72.52	57.02	45.95	44.00
705	52.10	52.80	52.45	52.90	53.85	52.75	40.40	47.97	36.65	29.52	25.60	25.70
LR-58-49-801	40.50	40.20	36.00	36.05	38.70	35.05	43.10	36.90	22.47	36.30	37.00	36.50
YD-58-50-211	--	--	--	196.70	--	--	--	203.30	163.40	--	--	204.00
216	245.30	247.60	241.80	242.70	242.25	229.15	230.75	238.90	210.47	203.73	215.35	220.00
217	96.95	98.40	82.00	85.90	83.60	78.30	86.00	113.00	61.67	71.62	103.30	108.80
219	--	--	226.75	--	--	--	<u>a/</u> --	--	--	--	--	--
301	176.60	177.70	176.70	176.20	175.15	169.65	163.45	166.30	156.35	144.35	137.80	138.00
412	158.05	158.85	159.30	159.55	159.70	158.70	158.00	158.80	148.70	151.40	152.10	152.95
518	242.40	--	239.40	240.75	241.20	219.80	226.40	231.90	171.31	167.88	179.00	181.85
704	186.50	184.90	179.90	180.55	177.85	175.10	171.00	175.60	165.10	136.00	--	146.15
801	102.35	103.00	95.80	94.40	99.40	79.30	77.85	82.50	52.85	66.90	69.65	68.95
LR-58-57-201	--	164.00	--	165.00	--	165.90	162.30	165.70	157.85	160.10	159.40	160.25
402	94.70	93.60	94.00	93.60	93.10	93.00	93.25	93.00	90.25	91.00	93.00	97.30
903	235.25	225.25	222.65	232.75	229.75	212.75	219.30	--	183.05	194.10	188.05	189.85
58-101	110.20	118.80	114.50	119.45	124.05	98.00	94.95	<u>b/</u> 101.25	77.55	96.90	87.95	90.10
301	153.20	149.00	149.40	149.70	151.40	149.60	149.65	148.80	142.85	139.90	134.45	133.85
502	<u>a/</u> --	--	--	--	--	--	--	--	--	--	--	--
504	--	157.00	178.40	182.60	182.65	178.40	172.80	171.20	164.65	156.90	156.65	163.15

1/ All measurements were made during the last week of the month. See table 18 for a listing of water-level measurements of additional wells made for the annual water-level survey.

a/ Well destroyed.

b/ This measurement was made while the well was being pumped.