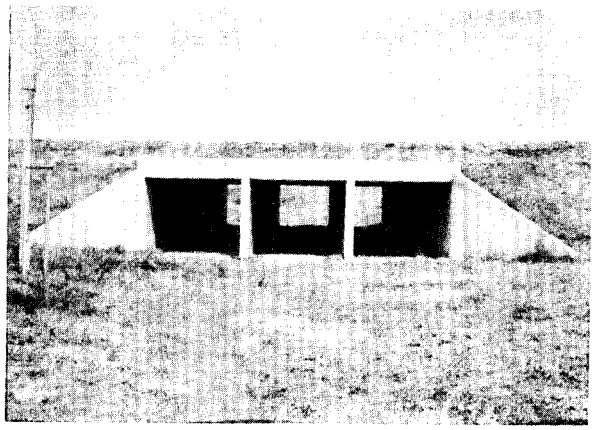
Flood Stages and Discharges For Small Streams in Texas

Research Study 4-5-65-85
Interim Report No. 85-2

By E. E. Schroeder

GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

Texas District
Trigg Twichell, District Chief



Prepared in cooperation with the Texas Highway Department and U. S. Department of Transportation, Federal Highway Administration, Bureau of Public Roads

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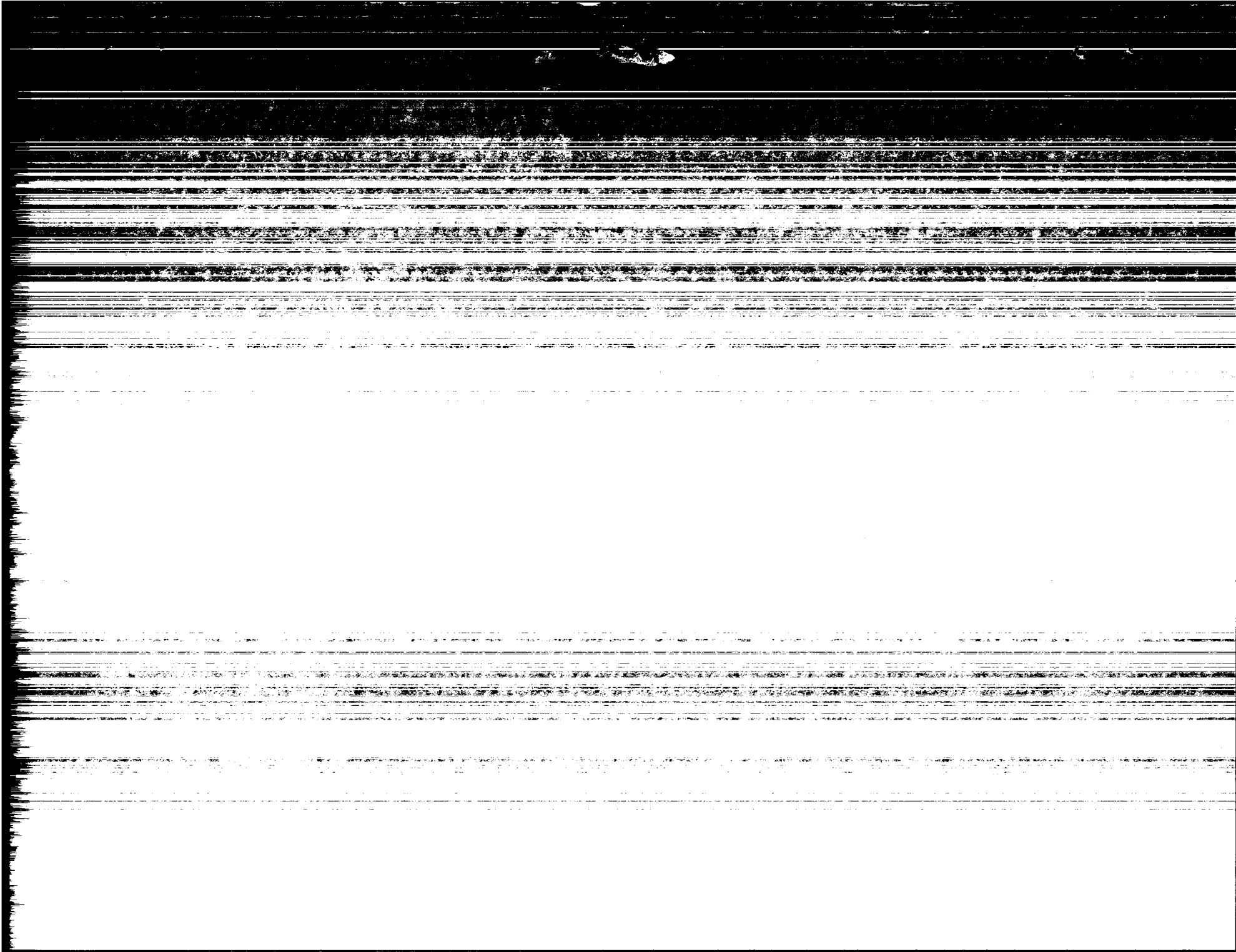

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

FLOOD STAGES AND DISCHARGES FOR SMALL STREAMS IN TEXAS

ANNUAL PROGRESS REPORT
to
The Texas Highway Department and
U.S. Department of Transportation, Federal
Highway Administration, Bureau of Public Roads
For the Period September 1, 1964 to September 30, 1966

Interim Report No. 2, Study No. 4-5-65-85

by
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Austin, Texas

December 1967

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(4) Numbers in parentheses identify Highway Districts in which the stations are located.

a/ Small watershed streamflow station established primarily to supply data necessary for the solution of urban problems, the documentation of the effect of Soil Conservation Service reservoirs, or the expansion of the Statewide water resources inventory network.

ILLUSTRATIONS

TABLES

FLOOD STAGES AND DISCHARGES FOR SMALL STREAMS IN TEXAS

By

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INTRODUCTION

"Hydrologic Investigations of Small Drainage Areas in Texas" is a cooperative program between the Texas Highway Department and the Water Resources Division of the U.S. Geological Survey. This program, which has been in effect since September 1964, is financed by funds made available for research by the Texas Highway Department and the U.S. Department of Transportation, Federal Highway Administration, Bureau of Public Roads.

This second progress report describes the objectives and planning of the project, the instrumentation, the progress and status of the project, the program for the 1967 water year, and the small-stream data collected during the reporting period. These data are tabulated in the section "Station Data" and in table 3. Tables 1 and 2 are a tabulation of miscellaneous flood information.

The first progress report, "Floods on Small Streams in Texas, January 1966," presented the available rainfall and runoff information that might be used in the design of drainage structures spanning small streams in Texas.

Objectives

The primary objective of the program is to obtain basic hydrologic data that may be used to define the magnitude and frequency of floods for drainage areas of less than 20 square miles. These data will supplement those used by Patterson (1963) to prepare flood reports for larger streams in Texas. After sufficient data have been obtained, a magnitude and frequency analysis of floods for smaller streams will be prepared.

Program Planning

To accomplish the objectives, a network of 150 partial-record crest-stage gages was proposed. These gages are to be distributed throughout the State so that all of the hydrologic areas and flood frequency regions that were defined by Patterson (1963) for larger drainage areas can be sampled. The network will also sample the various other hydrologic parameters that influence unit peak discharge. Information on peak discharges at miscellaneous sites will be obtained as the need arises.

The present state of the art of flood frequency analysis requires a minimum of 10 years of annual peak data to satisfy the requirements of statistical methods and also to sample the variations of annual peak discharge associated with a minor climatic cycle, which has a duration of about 10 years.

INSTRUMENTATION

Each site is equipped with one or more crest-stage gages and a stage-rainfall recorder.

A crest-stage gage consists of two modified two-inch pipe caps attached to an appropriate length of two-inch pipe which encloses a wooden or metal rod. The gage is mounted in a vertical position in the flood plain. The upper cap contains a 1/4-inch vent hole to let out air and the lower cap has 6-1/4-inch intake holes which allow water to enter. These intake holes are designed to give optimum performance with respect to "draw down" and "stack up" so that the crest stage recorded on the inside of the pipe agrees, in most instances, with the elevation of the water surface on the outside of the pipe.

This gage is activated by placing a small quantity of granulated cork near the bottom of the inner rod. When a rise in the stream occurs, the cork floats on the water inside the pipe and adheres to the inner rod at the maximum stage. The elevation of the cork line on the rod is noted in terms of the datum to which the gage is set. These recorded elevations are verified by comparison with nearby flood marks. The differential head determined from the headwater and tailwater gages is converted into peak rate of flow by standard U.S. Geological Survey methods of computation. These data will ultimately be used for a flood frequency analysis.

Additional hydrologic data are obtained at each site by a stage and rainfall recorder (S-R recorder). This recorder is a small compact instrument that records, on a circular chart, the time distribution and amount of rainfall and the resulting runoff stage. The chart makes one complete revolution each day, and consequently, when more than one storm occurs between visits, the records may be superimposed. When this occurs, the chart is difficult to read. The instrument is ideally suited for recording a single storm between visits to the site. Although the S-R recorder has limitations, it will obtain sufficient data, over a period of time, to satisfy the needs for rainfall-runoff analyses.

STATUS OF THE PROGRAM

The construction phase of the program is on schedule. A total of 120 gages was scheduled to be installed prior to August 31, 1966, and this has been accomplished. See plate 1 for the location of these gages. All of the combinations of flood-frequency regions and hydrologic-areas have been sampled with the exception of 6-A, a low-lying coastal near the Aransas Bay-Nueces Bay area. No suitable site could be found in that area. A complete list of the gaging stations that were established is contained in the section "Station Data."

Computed stage-discharge ratings have been prepared for 98 of the stations and will be prepared for 20 more. These computed ratings define the stage-discharge relation between the lowest elevation controlled by the culvert and the elevation at which flow over the roadway begins. Above this elevation, the discharge is the combination of computer determined culvert flow plus the measured or computed flow over the roadway. Two stations are located at bridges, and the stage-discharge relation must be defined by current-meter measurements, or if necessary, by indirect methods such as slope-area, contracted-opening, slope-conveyance, flow over roadway embankment, or other special studies.

One of the provisions of the cooperative agreement is to obtain the peak discharge for floods of unusual magnitude or for floods that create a special problem at miscellaeous ungaged sites. Several measurements of this type have been obtained and the results are tabulated in table 2. Other notable flood events during the period are listed in table 1.

In the category of special measurement of floods at ungaged sites, a depressed interchange on U.S. 81 in San Antonio was selected as the site for a special study. A water-stage recorder equipped with a float-type rain gage attachment was installed in the Martin Street pumping station on August 29, 1966. This installation is an experiment in obtaining runoff and rainfall data from a small controlled drainage area that has a high percentage of impervious cover. The present installation contains the minimum instrumentation so there is a possibility that the equipment may need to be modified or that some additional equipment may be necessary. If this method proves successful, the instrumentation will be moved to another site after sufficient data have been obtained at the Martin Street site. As of September 30, 1966 no significant rainfall had occurred.

PROGRAM FOR THE YEAR ENDING SEPTEMBER 30, 1967

During the 1967 State fiscal year, 30 S-R gages are scheduled to be installed, bringing the total to 150 installations and completing the construction phase of the original cooperative agreement.

Data at existing gages will be collected and tabulated. Stage-discharge curves will be extended as the need arises. Operation and maintenance will be performed as required. The following watershed characteristics will be tabulated for each watershed on a $7\frac{1}{2}$-inch series USGS topographic map, scale 1:24,000: (1) Drainage area, (2) main channel length, (3) the 85-10 slope index. The next annual compilation report will be prepared.

DATA COMPILATION

This report lists all of the annual peak data that are available for watersheds of less than 20 square miles. In addition to the 120 Highway Program stations, 34 other stations are included, thereby grouping all of the available continuous data for small watersheds into one volume. These 34 stations are identified in the "Table of Contents" by a shelf (a/).

All stations are listed in downstream order by number. This number appears to the left of the station name. The number appearing to the right of the station name identifies the Highway District in which the station is located. These stations are plotted on a map (see pl. 1) and are identified by downstream order number. Symbols are used to identify the type of station.

Although the contractual year ends on August 31, the water-year ending on September 30 will be used as the 12-month period of data collection so that reporting will be continous with previously collected streamflow data.

Some of the notable floods that have occurred during the period Sept. 1, 1964 to Sept. 30, 1966 are listed in table 1. This list includes only those floods associated with unusual amounts of rainfall or runoff or for which a special request regarding peak discharge was received. Undoubtedly many other record-breaking floods of a local nature occurred throughout the State. Additional details about some of the more destructive floods are contained in various reports prepared by the U.S. Geological Survey, Texas Water Development Board, U.S. Army Engineers, U.S. Weather Bureau, U.S. Department of Agriculture, and others.

The measurements of peak discharge at miscellaneous small-area sites obtained during the reporting period are contained in table 2. Additional information regarding peak discharge is contained in an Open-File Report entitled, "Floods of Apr. 28, 1966, in the northern part of Dallas, Tex." The most notable discharge was observed at Slaughter Branch at Walnut Hill Lane, Dallas, Tex. where 4,770 cfs was measured at a site having a drainage area of 1.51 square miles. Additional information concerning any of these measurements may be obtained from the files of the U.S. Geological Survey District Office in Austin.

Table 3 is a tabulation of runoff and point rainfall data collected at the gaging station. Data for the storm that produced the maximum annual rate of runoff and for other significant storms are listed.

TABLE 1

SOME NOTABLE FLOOD EVENTS DURING THE REPORTING PERIOD

Location	Date	Remarks
Carrizo Springs	Sept. 15-16, 1964	Rainfall 15" reported.
Trinity basin near Dallas	Sept. 19-27, 1964	Rainfall 12" reported.
Upper Nueces basin	Sept. 19-20, 1964	Rainfall 17" reported.
Rio Grande tributaries near Del Rio	Sept. 19-27, 1964	Severe flooding.
Cibolo Creek near Boerne	Sept. 26, 1964	2 lives lost.
Sulphur River basin	Feb. 1965	Severe flooding.
Middle Brazos and Colorado basins	May 1965	Rainfall 10" reported.
Sanderson Creek	June 11, 1965	24 lives lost.
Channing	June 25-26 1965	Greatest local flood since 1942.
Pedernales, San Gabriel, and Lampasas watersheds	Third week of Sept. 1965	Rainfall 10" reported.
Pease and Wichita Rivers	Sept. 19, 1965	Heavy runoff.
Jasper	Feb. 10, 1966	Jasper reported 9.60" rainfall.
Northeast Texas	Apr. - May 1966	Gladewater reported 20.74" rainfall in 72 hours.
Dallas	Apr. 1966	More than 10 lives lost.
Slaughter Branch at Dallas	Apr. 28, 1966	Second highest unit discharge ever measured in Texas.
Van Horn and Del City area	Aug. 22-23, 1966	Rainfall 11" reported. Extreme flooding; heavy property damage.
Frio and Guadalupe	Aug. 1966	Rainfall 13" reported.

TABLE 2

MAXIMUM DISCHARGE AT MISCELLANEOUS SITES

Stream	Location	Drainage area (sq mi)	Date	Discharge (cfs)	cfs per sq mi
*East Cheyenne Creek tributary near Channing, Tex.	Lat 35°40'35" long 102°16'55" at multiple box culvert on SH 354 and 2-1/2 miles east of Channing, Hartley County, Tex.	0.86	6-25-65	2,260	2,628
East Cheyenne Creek tributary No. 2 near Channing, Tex.	Lat 35°40'30" long 102°17'20" at culvert on SH 354 and 2.1 miles east of Channing, Hartley County, Tex.	0.16	6-25-65	252	1,575
Little Piney Creek near Bastrop, Tex.	Lat 30°01'00" long 97°16'38", at FM 2571 and 6.9 miles southeast of Bastrop, Bastrop County, Tex.	7.08	5-11-65	4,220	596
Reeds Creek near Bastrop, Tex.	Lat 30°00'26" long 97°15'03", at FM 2571 and 8.3 miles southeast of Bastrop, Bastrop County, Tex.	5.31	5-11-65	4,000	753

* A Highway Program station was established at this site in the 1966 FY.

Table 3.--Incremental rainfall and discharge for significant storms

7-3439 Buck Creek tributary near Cooksville, Tex. (19)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Apr. 24, 1966	1230	0	-
	1245	.10	-
	1300	.15	58
	1330	.30	59
	1400	.55	75
	1430	.70	102
	1500	1.45	175
	1515	1.60	250
	1530	2.00	315
	1545	2.05	272
	1600	2.30	255
	1615	3.05	255
	1630	3.05	480
	1640	3.10	590
	1700	3.30	422
	1730	3.35	282
	1800	3.40	170
	1830	3.40	90
	1900	3.50	78
	1930	3.50	175
	2000	3.50	265
	2100	3.50	130
	2200	3.50	66
	2300	3.50	41
	2400	3.50	-

Table 3.--Incremental rainfall and discharge for significant storms

7-2341.5 White Woman Creek tributary nr. Darrouzett, Tex. (4)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Sept. 2, 1966	0000	0	-
	0030	.10	-
	0100	1.00	0
	0115	1.75	-
	0130	2.10	240
	0145	2.50	305
	0200	2.75	375
	0215	2.75	420
	0230	2.75	260
	0245	2.75	145
	0300	2.75	120
	0330	2.75	-
	0400	2.75	-
	0415	2.75	120
	0500	2.75	190
	0600	2.75	335
	0700	2.75	225
	0800	2.75	120
	1000	2.75	-
	1200	2.75	-
	1600	2.75	-
	2000	2.75	-
	2400	2.75	0

Table 3.--Incremental rainfall and discharge for significant storms

7-2995.75 North Groesbeck Creek tributary nr. Kirkland, Tex. (25)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Sept. 18, 1965	2100	0	-
	2300	.10	-
	2400	.12	-
Sept. 19, 1965	0100	.25	-
	0200	.45	-
	0300	.50	0
	0315	.90	2
	0330	1.25	10
	0345	1.35	13
	0400	1.40	10
	0415	1.42	8
	0430	1.45	6
	0445	1.48	2
	0500	1.50	0
	0600	1.50	0
	0615	1.50	0
	0630	1.70	2
	0700	1.70	2
	0800	1.70	0
	0900	1.70	-

Table 3.--Incremental rainfall and discharge for significant storms

7-3460.72 Taylor Branch near Smithland, Tex. (19)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Apr. 24, 1966	0000	0	
	0100	.4	
	0200	.7	
	0215	.8	
	0230	1.7	
	0245	1.8	
	0300	2.2	
	0330	2.9	
	0345	3.2	
	0400	3.4	
	0415	3.5	
	0430	3.5	
	0500	3.8	
	0600	4.0	
	0700	4.2	
	1000	4.3	
	1800	4.3	
	2200	4.3	

Table 3.-- Incremental rainfall and discharge for significant storms

8-0177 Burnett Branch near Canton, Tex. (10)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Apr. 24, 1966	1845	0	
	1900	.10	
	1945	.55	
	2000	.60	
	2015	-	
	2030	1.00	
	2045	1.00	
	2100	1.20	
	2115	1.20	
	2130	-	
	2145	1.45	
	2200	1.60	
	2230	1.70	
	2300	1.80	
	2330	1.90	
	2345	2.20	
	2400	2.30	
Apr. 25, 1966	0015	-	
	0030	2.35	
	0100	2.45	
	0115	-	
	0200	2.50	
	0300	2.65	
	0400	2.85	
	0500	3.15	
	0515	3.25	

Table 3.--Incremental rainfall and discharge for significant storms

8-0442 Walker Creek near Boyd, Tex. (2)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Feb. 8, 1966	0300	0	
	0345	0	
	0400	.15	
	0445	.25	
	0500	.50	
	0600	.95	
	0615	.95	
	0630	.95	
	0645	1.00	
	0700	1.00	
	0730	1.20	
	0800	1.50	
	0845	1.50	

Table 3.--Incremental rainfall and discharge for significant storms

8-0472 West Creek at Fort Worth, Tex. (2)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
July 14, 1965	1445	0	
	1500	.6	
	1510	1.2	
	1515	1.3	
	1520	1.3	
	1525	1.3	
	1530	1.3	
	1535	1.3	
	1545	1.3	
	1600	1.3	

Table 3.--Incremental rainfall and discharge for significant storms

8-0531 Jones-Valley Creek tributary nr. Forestberg, Tex. (3)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Sept. 19, 1965	1700	0	-
	1730	1.20	-
	1745	1.25	90
	1800	2.00	120
	1815	2.50	210
	1830	2.65	335
	1845	2.65	620
	1900	3.10	370
	1930	3.15	180
	1945	3.15	220
	2000	3.15	100
	2100	3.15	-
	2200	3.15	-

Table 3.--Incremental rainfall and discharge for significant storms

8-0542 Gamble Branch near Argyle, Tex. (18)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Apr. 29, 1966	1100	0	
	1200	0	
	1215	.90	
	1230	1.42	
	1245	1.50	
	1300	1.57	
	1315	1.58	
	1330	1.58	
	1400	1.58	
	1500	1.58	
	1600	1.58	
	1700	1.58	

Table 3.--Incremental rainfall and discharge for significant storms

8-0592 Arls Branch near Westminster, Tex. (18)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Sept. 21, 1965	0000	0	
	0100	.20	
	0200	.40	
	0300	.60	
	0400	.70	
	0600	.80	
	0700	1.20	
	0800	1.60	
	1100	1.80	
	1200	2.70	
	1600	2.90	
	1700	3.30	
	2000	3.70	
	2100	4.40	
	2130	5.00	
	2145	5.40	
	2200	5.40	
	2230	5.60	
	2300	5.60	
	2400	5.70	
Sept. 22, 1965	0015	5.70	
	0100	5.80	

Table 3.--Incremental rainfall and discharge for significant storms

8-0592 Arls Branch near Westminster, Tex. (18)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Apr. 28, 1966	0100	0	
	0115	.25	
	0130	.70	
	0145	1.00	
	0200	1.15	
	0230	1.40	
	0300	1.40	
	0330	1.40	
	0400	1.40	
	0500	1.40	
	0600	1.40	
	0700	1.40	

Table 3.--Incremental rainfall and discharge for significant storms

8-0630.05 Red Oak Branch nr. Eustace, Tex. (10)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Feb. 9, 1966	0000	0	
	0030	.15	
	0100	.25	
	0200	.85	
	0230	1.40	
	0245	1.50	
	0300	2.00	
	0330	2.50	
	0345	2.50	
	0400		
	0430		
	0500		
	0600		
	0700		
	0800		
	0900		
	1000		
	1100		
	1500		
	2200		

Table 3.--Incremental rainfall and discharge for significant storms

8-0631.80 Briar Creek tributary nr. Corsicana, Tex. (18)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Apr. 18, 1966	2100	0	
	2200	.05	
	10	.10	
	20	.30	
	30	.80	
	40	1.05	
	50	1.15	
	2300	1.20	
	10	1.25	
	20	1.28	
	30	1.30	
	40	1.35	
	50	1.40	
	2400	1.43	
Apr. 19, 1966	0010	1.45	
	20	1.50	
	30	1.53	
	40	1.55	
	50	1.60	
	0100	1.60	

Table 3.--Incremental rainfall and discharge for significant storms

8-0635.50 Alvarado Branch nr. Alvarado, Tex. (2)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
April 28, 1966	1600	0	
	1615	0	
	1630	.65	
	1645	.90	
	1700	1.03	
	1715	1.03	
	1730	1.03	
	1745	1.03	
	1800	1.05	
	1815	1.05	
	1830	1.05	
	1845	1.05	
	1900		

Table 3.-- Incremental rainfall and discharge for significant storms

8-0646 Saline Branch tributary nr. Bethel, Tex. (10)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Sept. 9, 1966	1845	0	
	1900	.6	
	1930	2.75	
	1945	3.15	
	2000	3.25	
	2015	3.30	
	2030	3.35	
	2045	3.35	
	2100	3.35	
	2130	3.35	

Table 3.--Incremental rainfall and discharge for significant storms

8-0675.5 Welch Branch near Huntsville, Tex. (17)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Apr. 24, 1966	0500	0	
	0515	.15	
	0530	.35	
	0545	.65	
	0600	1.00	
	0615	1.10	
	0630	1.25	
	0645	1.35	
	0700	1.40	
	0730	1.50	
	0800	1.80	
	0830	2.15	
	0900	2.25	
	0930	2.50	
	1000	2.50	
	1030	2.55	
	1100	2.90	
	1200	2.90	

Table 3.--Incremental rainfall and discharge for significant storms

8-0805.1 Guest-Flowers Draw near Aspermont, Tex. (8)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
June 21, 1965	1300	0	-
	1330	.15	-
	1400	.25	-
	1430	.50	50
	1445	1.25	155
	1500	1.50	165
	1530	1.65	140
	1600	1.70	110
	1700	1.75	50
	1800	1.90	-
	1900	2.00	-
	2100	2.10	-

Table 3.--Incremental rainfall and discharge for significant storms

8-0917 Panter Branch near Tolar, Tex. (2)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Feb. 8, 1966	0400	0	
	0415	0	
	0500	.45	
	0530	.85	
	0545	.85	
	0600	.85	
	0615	1.00	
	0630	1.10	
	0645	1.15	
	0700	1.30	
	0800	1.30	
	0900	1.35	
	1000	1.35	
	1100	1.35	
	1200	1.35	
	1300	1.35	
	1400	1.35	

Table 3.--Incremental rainfall and discharge for significant storms

8-0932 Bond Branch near Hillsboro, Tex. (9)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
June 24, 1965	1900	0	-
	1915	1.00	-
	1930	1.35	-
	1945	1.75	-
	2000	2.15	-
	2015	3.10	28
	2030	3.40	230
	2045	3.45	305
	2100	3.45	235
	2115	3.45	138
	2130	3.45	99
	2145	3.45	69
	2200	3.45	56
	2215	3.45	28
Apr. 24, 1966	2100	0	-
	2200	0	-
	2215	.5	-
	2300	.8	-
	2330	.9	28
	2400	1.1	52
Apr. 25, 1966	0030	1.2	46
	0100	2.2	40
	0115	2.5	52
	0130	2.5	285
	0200	2.5	197
	0230	2.5	109
	0300	2.6	72
	0400	2.6	28
	0600	2.6	-

Table 3.--Incremental rainfall and discharge for significant storms

8-0952.5 Willow Branch at McGregor, Tex. (9)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Sept. 17, 1966	2130	0	-
	2245	1.1	-
	2400	1.2	-
Sept. 18, 1966	0645	1.2	234
	0700	1.4	260
	0730	1.4	270
	0800	1.4	325
	0830	1.4	367
	0900	1.4	367
	1000	1.4	325
	1100	1.4	250
	1200	1.4	234

Table 3.--Incremental rainfall and discharge for significant storms

8-1237.5 Coahoma Draw tributary near Big Spring, Tex. (8)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Sept. 21. 1965	1700	0	
	1730	.2	
	1800	.5	
	1830	.9	
	1900	1.0	230
	1930	1.0	265
	1945	1.1	260
	2000	1.1	205
	2030	1.1	180
	2100	1.1	
	2130	1.2	
	2215	1.3	
	2300	1.3	
	2400	1.3	
Sept. 22, 1965	0100	1.3	
	0200	1.3	
	0300	1.3	
	0400	1.3	

Table 3.--Incremental rainfall and discharge for significant storms

8-1237.6 Bull Creek tributary near Forsan, Tex. (8)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Apr. 30, 1966	1930	0	
	2000	.1	
	2030	.3	
	2100	.5	
	2130	1.0	
	2200	1.25	
	2210	1.3	
	2220	1.3	130
	2230	1.3	140
	2245	1.3	95
	2300	1.3	50
	2330	1.3	38
	2400	1.3	
May 1, 1966	0100	1.3	

Table 3.--Incremental rainfall and discharge for significant storms

8-1333 Quarry Creek near Sterling City, Tex. (7)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Oct. 17, 1965	2200	0	
	2215	.6	
	2230	1.1	
	2245	1.3	190
	2300	1.3	115
	2330	1.4	
	2400	1.4	
Oct. 18, 1965	0100	1.4	
	0200	1.4	
	0600	1.4	
	0900	1.4	
	1200	1.4	
	1300	1.4	

Table 3.--Incremental rainfall and discharge for significant storms

8-1338 Broome Creek near Broome, Tex. (7)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Oct. 16, 1965	2300	0	-
	2315	0	-
	2330	.55	-
	2345	1.20	-
	2400	1.70	-
Oct. 17, 1965	0015	1.90	-
	0030	2.00	117
	0100	2.05	150
	0130	2.10	160
	0200	2.15	117

Table 3.--Incremental rainfall and discharge for significant storms

8-1343 Nolke Station Creek near San Angelo, Tex. (7)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Aug. 25, 1966	0200	0	
	0300	.2	
	0400	.2	
	0500	.25	
	0630	.25	
	0700	.65	28
	0715	1.25	71
	0730	1.50	82
	0745	1.80	87
	0800	2.00	71
	0830	2.15	35
	0900	2.20	22
	0930	2.20	19
	1000	2.50	28
	1030	2.75	35
	1100	3.15	98
	1115	3.40	107
	1130	3.50	87
	1200	3.65	61
	1230	4.10	87
	1300	4.25	51
	1400	4.40	25
	1500	4.48	

Table 3.--Incremental rainfall and discharge for significant storms

8-1344 Gravel Pit Creek near San Angelo, Tex.(7)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Aug. 24, 1966	0830	0	
	0900	.2	
	0930	.3	
	1000	1.45	36
	1015	1.7	41
	1030	1.75	
	1100	1.75	
	1130	1.85	
	1200	2.10	
	1300	2.50	
	1330	2.7	
	1400	3.0	
	1500	3.25	
	1600	3.25	
	1700	3.25	

Table 3.--Incremental rainfall and discharge for significant storms

8-1437 Browns Creek tributary nr. Goldthwaite, Tex. (23)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Apr. 29, 1966	1730	0	
	1745	.1	
	1800	.5	
	1815	1.1	
	1830	1.2	80
	1845	1.3	150
	1900	1.3	200
	1915	1.3	230
	1930	1.3	220
	2000	1.3	135
	2030	1.3	80

Table 3.--Incremental rainfall and discharge for significant storms

8-1721 West Elm Creek nr. Niederwald, Tex. (14)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Dec. 2, 1965	0100	0	
	0600	.3	
	0900	.8	
	1200	1.2	
	1300	1.5	
	1400	1.5	
	1500	1.8	
	1600	2.4	
	1630	3.0	
	1700	3.5	
	1730	3.7	
	1830	4.3	
	1900	4.9	
	2000	5.0	
	2400	5.0	
Dec. 3, 1965	0200		
	0400		
	0600		
	0700		
	1300		
	1600		

Table 3.-- Incremental rainfall and discharge for significant storms

8-4376.5 Monument Draw tributary nr. Pyote, Tex. (6)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
July 12, 1966	2000	0	-
	2030	0	-
	2045	1.2	-
	2100	1.3	6.6
	2115	1.3	22
	2130	1.3	28
	2200	1.3	30
	2230	1.3	28
	2300	1.3	22
	2330	1.3	16
	2400	1.3	7.8
July 13, 1966	0100	1.3	-

Table 3.--Incremental rainfall and discharge for significant storms

8-4444 Three Mile Mesa Creek near Ft. Stockton, Tex. (6)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
June 10, 1965	1445	0	
	1500	.5	
	1515	1.2	76
	1530	1.35	76
	1600	1.35	68
	1630	1.35	50
	1700	1.35	

Table 3.--Incremental rainfall and discharge for significant storms

8-4531 Zorro Creek near Del Rio, Tex. (22)

Date	Time	Accumulated Rainfall (inches)	Discharge (cfs)
Apr. 23, 1966	1900	0	
	2000	1.0	
	2030	1.1	
	2200	1.2	
	2230	1.5	
	2330	1.5	
	2400	1.5	
Apr. 24, 1966	0030	1.5	
	0100	1.8	
	0130	2.0	
	0200	2.3	
	0245	2.5	
	0400	2.5	
	0600	2.5	
	0800	2.5	
	0900	2.5	

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STATION DATA

PEAK DISCHARGES AT GAGING STATIONS

LISTED BY BASIN AND IN DOWNSTREAM ORDER

7-2274.6 East Fork Cheyenne Creek Tributary near Channing, Tex. (4)

Location.--Lat 35°40'35", long 102°16'55", on upstream side of culvert on State Highway 354, 2-1/2 miles east of Channing, Hartley County.

Drainage area.--0.86 sq mi, furnished by the Texas Highway Department.

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Historical data.--The greatest flood since at least _____, June 25, 1965, from information by local residents; discharge 2,260 cfs (computation of peak flow by indirect methods).

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	June 25, 1965		2,260
1966	Aug. 31, 1966	a4.84	

a Maximum for period Dec. 30, 1965 to Sept. 30, 1966

7-2274.8 Tecovas Creek Tributary near Bushland, Tex. (4)

Location.--Lat 35°15'35", long 102°00'20", on upstream side of culvert on FM 1061 and 5.5 miles northeast of Bushland, Potter County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	-	0

7-2341.5 White Woman Creek Tributary near Darrouzett, Tex. (4)

Location.--Lat 36°24'00", long 100°16'30", on upstream side of culvert on SH 305, 4.5 miles southeast of Darrouzett, and 11.9 miles north of Lipscomb, Lipscomb County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 31, 1966	5.20	

7-2981.5 Rock Creek Tributary near Silverton, Tex. (25)

Location.--Lat 34°28'40", long 101°25'50", on upstream side of culvert on SR 86 and 6.7 miles west of Silverton, Briscoe County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 24, 1966	6.70	

7-2995.75 North Groesbeck Creek Tributary near Kirkland, Tex. (25)

Location.--Lat 34°24', long 100°03', on upstream side of culvert on FM 1033, 1.4 miles north of Kirkland, 1.5 miles upstream from North Groesbeck Creek, and 8.6 miles east of Childress, Childress County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 19, 1965	a5.32	
1966	Aug. 23, 1966	8.22	

a Maximum for period June 4 to Sept. 30, 1965

7-2999.4 Oklahoma Draw Tributary near Hedley, Tex. (25)

Location.--Lat 34°53'12", long 100°37'18", on upstream side of culvert on SH 203, 2.7 miles northeast of Hedley, and 15.8 miles southeast of Clarendon, Donley County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 19, 1965	a5.25	
1966	Apr. 25, 1966	5.20	

a Maximum for period June 5 to Sept. 30, 1965

7-3121.4 Beaver Creek Tributary near Crowell, Tex. (25)

Location.--Lat 33°58'54", long 99°41'30", on upstream side of culvert on U. S. 70 and 2 miles east of Crowell, Foard County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 31, 1966	5.67	

7-3123. Wolf Creek near Iowa Park, Tex. (3)

Location.--Lat 33°54'45", long 98°48'30", on upstream side of culvert on FM 367, 1.0 mile above mouth, and 8.5 miles southwest of Iowa Park, Wichita County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 28. 1966	a10.06	

a Maximum for period July 20 to Sept. 30, 1966

7-3142. North Fork Little Wichita River Tributary near Archer City, Tex. (3)

Location.--Lat 33°39'50", long 98°43'30", on upstream side of culvert on SH 25, 1.3 miles upstream from North Fork Little Wichita River, and 7.4 miles northwest of Archer City, Archer County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
a1965	-	-	0
1966	Sept. 16, 1966	5.67	

a For the period May 25 to Sept. 30, 1965

7-3155.5 Farmers Creek near Saint Jo, Tex. (3)

Location.--Lat 33°42'45", long 97°33'05", on upstream side of culvert on U. S. 82 and 2.0 miles northwest of Saint Jo, Montague County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 24, 1966	a3.64	

a Maximum for the period Aug. 4 to Sept. 30, 1966

7-3326.02 Cooper Creek near Bonham, Tex. (1)

Location.--Lat 33°32'24", long 96°12'03", on upstream side of culvert on FM 1629, 1.7 miles upstream from Bois d'Arc Creek, and 2.9 miles south of Bonham, Fannin County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 28, 1966	19.11	3,100

7-3369.4 McKinney Bayou near Leary, Tex. (19)

Location.--Lat 33°31'33", long 94°11'32", on upstream side of culvert on FM 2253, 1.1 miles north of Mt. Zion, 3.2 miles north of FM 2148, and 4.3 miles north of Leary, Bowie County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 25, 1966	15.23	220

7-3424.5 Nelson Branch near Leonard, Tex. (1)

Location.--Lat 33°21'20", long 96°13'25", on upstream side of culvert on U. S. 69, 0.4 mile southeast of Hunt-Fannin County line, and 2.2 miles southeast of Leonard, Fannin County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 21, 1965	a10.93	16
1966	Apr. 28, 1966	16.52	300

a Maximum for period June 23 to Sept. 30, 1965.

7-3433.5 Dial Branch near Bagwell, Tex. (1)

Location.--Lat 33°37'50", long 95°10'15", on upstream side of culvert on U. S. 82, 1.8 miles upstream from mouth, and 2.3 miles south of Bagwell, Red River County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Feb. 9, 1966	16.21	660

7-3439 Buck Creek Tributary near Cooksville, Tex. (19)

Location.--Lat 33°11'10", long 94°52'20", on upstream side of culvert on U. S. 67, 1 mile west of Cooksville, and 5.5 miles west of Mt. Pleasant, Titus County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water Year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 24, 1966	17.08	590

7-3460.1 Cypress Creek Tributary near Jefferson, Tex. (19)

Location.--Lat 32°42'50", long 94°25'52", on upstream side of culvert on FM 2208, 4.3 miles upstream from Cypress Creek, and 5.5 miles southwest of Jefferson, Marion County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 24, 1966	13.78	129

7-3460.72 Taylor Branch near Smithland, Tex. (19)

Location.--Lat 32°47'20", long 94°15'02", on upstream side of culvert on SH 49, 0.9 mile east of FM 805, and 6.4 miles northeast of Jefferson, Marion County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 24, 1966	13.33	430

8-177. Burnett Branch near Canton, Tex. (10)

Location.--Lat 32°32'17", long 95°51'44", on upstream side of culvert on SH 19, 0.4 mile south of SH 243, and 1.3 miles south of Canton, Van Zandt County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 24, 1966	14.49	330

8-220.1 Redmon Branch near Hallsville, Tex. (19)

Location.--Lat 32°29'41", long 94°28'47", on upstream side of culvert on FM 968, 2.6 miles upstream from Potters Creek, and 5.6 miles east of Hallsville, Harrison County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 24, 1966	15.70	725

8-285.05 Moore Branch near Newton, Tex. (20)

Location.--Lat 30°53'00", long 93°40'59", on upstream side of culvert on FM 1414 and 5.2 miles northeast of Newton, Newton County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	< a0.88	-

a Maximum for period July 29 to Sept. 30, 1966.

8-307 Adams Bayou Tributary near Deweyville, Tex. (20)

Location.--Lat 30°14'53", long 93°48'56", on upstream side of culvert on SH 12 and about 5-1/2 miles southwest of Deweyville, Newton County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	∠a0.63	-

a Maximum for period Aug. 2 to Sept. 30, 1966.

8-0311. Bethlehem Branch near Van, Tex. (10)

Location.--Lat 32°29'04", long 95°38'35", on upstream side of culvert on FM 314, 0.7 miles upstream from mouth, and 3.1 miles south of Van, Van Zandt County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 23, 1966	15.83	660

8-321. Hurricane Creek Tributary near Palestine, Tex. (10)

Location.--Lat 31°52'10", long 95°34'20", on upstream side of culvert on SH 155 and 8.5 miles northeast of Palestine, Anderson County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	< a0.92	-

a Maximum for period July 22 to Sept. 30, 1966.

8-334.5 Shawnee Creek Tributary near Huntington, Tex. (11)

Location.--Lat 31°13'07", long 94°30'31", on upstream side of culvert on U. S. 69 and 5.3 miles southeast of Huntington, Angelina County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	< al.86	-

a Maximum for period Aug. 3 to Sept. 30, 1966.

8-334.8 Greenwood Creek Tributary near Colmesneil, Tex. (20)

Location.--Lat 30°58'48", long 94°24'22". on upstream side of culvert on U. S. 69 and 5.2 miles north of Colmesneil, Tyler County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	< a2.70	-

a Maximum for period July 28 to Sept. 30, 1966.

DOUBLE BAYOU BASIN

8-425.5 West Fork Double Bayou near Anahuac, Tex. (20)

Location.--Lat 29°45'39", long 94°38'00", on downstream side of bridge on FM 562 (Smith Point Road) and about 3 miles southeast of Anahuac, Chambers County.

Drainage area.--4.43 sq mi.

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Remarks.--This site was instrumented with a water-stage recorder during the periods March to July 1963 and November 1963 to February 1965 as part of the Houston Ship Channel Model Study.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 5, 1966	a12.22	

a Maximum for period Aug. 5 to Sept. 30, 1966.

8-427. North Creek near Jacksboro, Tex. (2)

Location.--Lat 33°17', long 98°18', on left bank at downstream side of bridge on U. S. Highway 281, 1.5 miles upstream from Henderson Creek, 9.3 miles northwest of Jacksboro, Jack County, and 14 miles upstream from mouth.

Drainage area.--21.6 sq mi.

Gage.--Recording. Datum of gage is 1,016.33 ft above mean sea level (State Highway Department bench mark).

Historical data.--Flood of Apr. 28, 1957, was the highest since at least 1915, from information by local resident.

Remarks.--Three recording and two non-recording rain gages located in the watershed.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1956	May 3, 1956	21.58	5,700
1957	Apr. 28, 1957	24.45	6,990
1958	Nov. 4, 1957	12.56	1,760
1959	June 26, 1959	14.45	2,500
1960	Oct. 3, 1959	19.65	4,830
1961	July 16, 1961	15.23	2,840
1962	June 10, 1962	18.10	4,130
1963	Apr. 28, 1963	11.55	1,370
1964	May 29, 1964	13.60	1,360
1965	Sept.18, 1965	16.82	2,250
1966	Apr. 23, 1966	17.38	2,790

8-442. Walker Creek near Boyd, Tex. (2)

Location.--Lat 33°04'32", long 97°34'58", on upstream side of culvert on SH 114, 1.1 miles upstream from Salt Creek, and 1.1 miles west of Boyd, Wise County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 22, 1965	a12.75	270
1966	Feb. 8, 1966	13.83	450

a Maximum for period June 16 to Sept. 30, 1965.

8-472. West Creek at Fort Worth, Tex. (2)

Location.--Lat 32°40'25", long 97°22'06", on upstream side of culvert on Bilglade at intersection of West Creek Drive, 0.4 mile north of Loop 820, and 0.6 mile upstream from Gulf, Colorado, and Santa Fe Railroad, Fort Worth, Tarrant County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	July 14, 1965	a14.18	275
1966	Aug. 29, 1966	16.30	495

a Maximum for period July 2 to Sept. 30, 1965.

8-502. Elm Fork Trinity River Subwatershed 6-0 near Muenster, Tex. (3)

Location.--Lat 33°37'13", long 97°24'15", near center of earth-fill dam on unnamed tributary of Elm Fork Trinity River, 1.0 mile west of Farm Road 373 and 2.6 miles southwest of Muenster, Cook County.

Drainage area.--0.77 sq mi.

Gage.--Recording. Datum of gage is 941.75 ft above mean sea level, datum of 1929 (U. S. Soil Conservation Service bench mark).

Remarks.--Peak discharge based on maximum inflow (average for 5 to 15-minute intervals), computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. Recording rain gage located at station.

Annual maximum stage and discharge

Water Year	Date	Gage height (ft)	Discharge (cfs)
1957	June 1, 1957	-	449
1958	May 1, 1958	-	688
1959	Nov. 16, 1958	-	34
1960	Oct. 3, 1959	-	842
1961	Mar. 25, 1961	-	51
1962	June 18, 1962	-	287
1963	Nov. 26, 1962	-	221
1964	Sept.21, 1964	-	261
1965	Nov. 18, 1964	-	367
1966	Feb. 9, 1966	-	476

8-526.3 Little Elm Creek SWS No. 10 near Gunter, Tex. (18)

Location.--Lat 33°24'33", long 96°48'41", near center of dam on Walnut Fork, 3.6 miles upstream from streamflow station Little Elm Creek near Celina, 4.7 miles southwest of Gunter, Grayson County.

Drainage area.--2.48

Gage.--Water-stage recorder.

Remarks.--Rain gage 3S located 1/4 mile southeast of dam.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)

8-531. Jones Valley Creek Tributary near Forestburg, Tex. (3)

Location.--Lat 33° 33' 15", long 97° 37' 05", on upstream side of culvert on FM 455, 0.7 mile upstream from Jones Valley Creek, and 3.8 miles northwest of Forestburg, Montague County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 19, 1965	a17.80	
1966	Feb. 9, 1966	20.15	

a Maximum for period June 22 to Sept. 30, 1965

8-542. Gamble Branch near Argyle, Tex. (18)

Location.--Lat 33°04'53", long 97°11'48", on upstream side of culvert on U. S. 377, 1.4 miles south of FM 407, and 2.8 miles south of Argyle, Denton County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 22, 1965	a11.56	68
1966	Apr. 29, 1966	14.17	306

a Maximum for period June 18 to Sept. 30, 1965.

8-557. Bachman Branch at Dallas, Tex. (18)

Location.--Lat 32°51'26", long 96°50'12", on right bank at downstream side of bridge on Midway Road at Dallas, Dallas County, 1,400 ft south of Northwest Highway, 1.5 miles upstream from Bachman Lake Dam, and 6.0 miles northwest of Dallas City Hall.

Drainage area.--10.0 sq mi.

Gage.--Water-stage recorder. Datum of gage is mean sea level, datum of 1929, supplementary adjustment of 1953.

Historical data.--Maximum stage known since at least 1900, that of Apr. 28, 1966, from information by local residents. The second greatest flood since 1900 occurred Oct. 8, 1962.

Remarks.--This watershed is about 75% urbanized (1966). Two recording rain gages are located in the watershed above the station.

Annual maximum stage and discharge

Water Year	Date	Gage height (ft)	Discharge (cfs)
1963	Oct. 8, 1962	465.6	9,200
1964	Sept. 21, 1964	459.30	3,620
1965	May 10, 1965	461.43	5,170
1966	Apr. 28, 1966	467.97	16,000

8-565. Turtle Creek at Dallas, Tex. (18)

Location.--Lat 32°48'26", long 96°48'08", on left bank 68 ft upstream from Hall Street Dam, 210 ft upstream from Hall Street at Dallas, Dallas County, and 2.0 miles north of Dallas County Courthouse.

Drainage area.--7.98 sq mi.

Gage.--Recording. Datum of gage is 428.13 ft above mean sea level, datum of 1929.

Historical data.--Flood of Apr. 28, 1966, reached the highest stage since at least 1903.

Remarks.--Five recording rain gages installed in 1961 are located in the watershed above this station. The watershed is in a highly-developed urban area.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1947	Aug. 27, 1947	6.8	3,350
1948	May 11, 1948	4.68	1,630
1949	May 18, 1949	6.15	2,800
1950	May 1, 1950	5.29	2,060
1951	Sept.12, 1951	4.82	1.700
1952	May 17, 1952	5.47	2,220
1953	Apr. 23, 1953	3.54	910
1954	Apr. 12, 1954	6.40	2,980
1955	June 18, 1955	3.44	852
1956	May 1, 1956	4.84	1,740
1957	Apr. 26, 1957	7.30	3,850
1958	Apr. 26, 1958	6.54	3,070
1959	Feb. 14, 1959	4.47	1,460
1960	Oct. 1, 1959	8.10	4,650
1961	Oct. 13, 1960	4.08	1,240
1962	July 27, 1962	7.96	4,640
1963	Apr. 28, 1963	7.77	4,290
1964	Sept.21, 1964	6.79	3,240
1965	May 10, 1965	7.97	4,520
1966	Apr. 28, 1966	10.54	12,200

8-575. Honey Creek Subwatershed No. 11, near McKinney, Tex. (18)

Location.--Lat 33°18'10", long 96°41'30", near center of dam on unnamed tributary of Honey Creek, 1.5 miles west of Farm Road 543 and 8.4 miles northwest of McKinney, Collin County.

Drainage area.--2.14 sq mi.

Gage.--Recording. Datum of gage is 629.00 ft above mean sea level, datum of 1929.

Remarks.--Peak discharge based on maximum inflow (average for 5 to 30-minute intevals), computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. Recording rain gage located at station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1953	May 15, 1953	-	268
1954	June 8, 1954	-	235
1955	Feb. 19, 1955	-	42
1956	Feb. 17, 1956	-	264
1957	May 21, 1957	-	1,630
1958	May 1, 1958	-	1,880
1959	July 24, 1959	-	156
1960	Aug. 26, 1960	-	320
1961	May 1, 1961	-	1,320
1962	Apr. 27, 1962	-	169
1963	May 30, 1963	-	546
1964	Sept.21, 1964	-	1,380
1965	Nov. 18, 1964	-	842
1966	Apr. 30, 1966	-	3,380

8-580. Honey Creek Subwatershed No. 12 near McKinney, Tex. (18)

Location: Lat 33°18'20", long 96°40'15", near center of dam on unnamed tributary of Honey Creek, 0.5 mile west of Farm Road 543 and 7.8 miles northwest of McKinney, Collin County.

Drainage area.--1.26 sq mi.

Gage.--Recording. Datum of gage is 623.00 ft above mean sea level, datum of 1929.

Remarks.--Peak discharge based on maximum inflow (average for 5 to 30-minute interval), computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. One recording and two non-recording rain gages located in the watershed above the station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1953	Apr. 28, 1953	-	a423
1954	June 15, 1954	-	212
1955	Oct. 23, 1954	-	123
1956	Feb. 17, 1956	-	295
1957	May 21, 1957	-	1,490
1958	May 1, 1958	-	1,410
1959	July 24, 1959	-	b40
1960	June 8, 1960	-	286
1961	May 1, 1961	-	589
1962	Apr. 24, 1962	-	158
1963	May 30, 1963	-	663
1964	Sept. 21, 1964	-	850
1965	May 28, 1965	-	791
1966	Apr. 30, 1966	-	1,370

a Unadjusted for rainfall on water surface.

b Estimated

8-592. Arls Branch near Westminister, Tex. (18)

Location.--Lat 33°21'20", long 96°26'35", on upstream side of culvert on SH 121, 0.8 mile northeast of FM 2862, and 1.2 miles east of Westminister, Collin County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 21, 1965	a13.48	170
1966	Apr. 28, 1966	14.95	310

a Maximum for period June 23 to Sept. 30, 1965.

8-630.05 Red Oak Branch near Eustace, Tex. (10)

Location.--Lat 32°18'36", long 95°57'38", on upstream side of culvert on FM 2709, 1.3 miles upstream from Clear Creek, and 2.2 miles east of Eustace, Henderson County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 26, 1966	16.53	1,300

8-631.8 Briar Creek Tributary near Corsicana, Tex. (18)

Location.--Lat 32°02'55", long 96°34'45", on upstream side of culvert on FM 744, 0.5 mile east of FM 1126, 1.3 miles upstream from Briar Creek, and 7.7 miles west of Corsicana, Navarro County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 23, 1966	13.90	560

8-632. Pin Oak Creek near Hubbard, Tex. (9)

Location.--Lat 31°48'05", long 96°43'10", on right bank 85 ft downstream from bridge on State Highway 171, 5.8 miles southeast of Hubbard, Hill County.

Drainage area.--17.6 sq mi.

Gage.--Recording. Datum of gage is 463.08 ft above mean sea level, datum of 1929, supplementary adjustment of 1942.

Historical data.--Maximum stage since at least 1900, about 17 ft in August 1919, from information by local resident.

Remarks.--Flood-retarding structures partially controlling 7.29 sq mi above this station were built during 1963. Six rain gages are operated in the watershed above this station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1958	Aug. 24, 1958	13.86	4,340
1959	June 24, 1959	13.73	4,100
1960	Oct. 4, 1959	11.52	1,810
1961	June 18, 1961	11.60	1,870
1962	Apr. 27, 1962	12.42	2,580
1963	Apr. 28, 1963	4.52	89
1964	Sept. 17, 1964	4.65	126
1965	May 14, 1965	11.15	1,230
1966	Apr. 24, 1966	11.98	2,040

8-0635.5 Alvarado Branch near Alvarado, Tex. (2)

Location.--Lat 32°24'49", long 97°12'20", on upstream side of culvert on FM 1706, 0.2 mile south of U. S. 67, and 0.6 mile northeast of Alvarado, Johnson County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	< a10.63	< 15
1966	Apr. 25, 1966	14.42	550

a Maximum for period July 26 to Sept. 30, 1965.

8-636.2 Kings Branch near Reagor Springs, Tex. (18)

Location.--Lat 32°20'41", long 96°47'02", on upstream side of culvert on Rock Island and Pacific Railroad, 25 ft south of U. S. 287, 0.7 mile upstream from mouth at Waxahachie Creek, and 1.8 miles northwest of Reagan Springs, Ellis County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	May 16, 1965	18.50	580
1966	Apr.24, 1966	17.52	470

8-646.3 Saline Branch Tributary near Bethel, Tex. (10)

Location.--Lat 31°55'46", long 95°55'58", on upstream side of culvert on U. S. 287, 0.3 mile northeast of Bethel, Anderson County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Sept. 9, 1966	a4.36	

a Maximum for period July 20 to Sept. 30, 1966.

8-653.2 Mayes Branch near Latexo, Tex. (11)

Location.--Lat 31°25'58", long 95°28'29", on upstream side of culvert on U. S. 287, 2.6 miles north of Latexo, Houston County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	<al.73	-

a Maximum for period July 26 to Sept. 30, 1966.

8-659. Pollard Branch Tributary near Madisonville, Tex. (17)

Location.--Lat 30°56'32", long 95°45'07", on upstream side of culvert on FM 1428, 10.4 miles east of Madisonville, Madison County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Sept. 15, 1966	a2.02	

a Maximum for period July 15 to Sept. 30, 1966.

8-0663.5 Bluff Creek Tributary near Livingston, Tex. (11)

Location.--Lat 30°41'52", long 94°46'58", on upstream side of culvert on U. S. 190, 9.2 miles east of Livingston, Polk County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	a b	-
1966	-	b	-

a For the period Aug. 20 to Sept. 30, 1965

b Less than elevation of intakes

8-667. Tanner Bayou Tributary near Moss Hill, Tex. (20)

Location.--Lat 30°20'08", long 94°45'06", on upstream side of culvert on SH 146, 6.2 miles north of Moss Hill, Liberty County.

Drainage area.--

Gage.--State-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	< a1.62	-
1966	Feb. 10, 1966	6.24	

a Maximum for period Aug. 24 to Sept. 30, 1965

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8-675.5 Welsh Branch near Huntsville, Tex. (17)

Location.--Lat 30°38'33", long 95°40'47", on upstream side of culvert on FM 1791, 6.9 miles southwest of Huntsville, Walker County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	<al.72	-
1966	Feb. 10, 1966	5.30	

a Maximum for period Aug. 19 to Sept. 30, 1965

8-677.5 Landrum Creek Tributary near Montgomery, Tex. (12)

Location.--Lat 30°21'03", long 95°41'50", on upstream side of culvert on SH 149, 2.4 miles south of Montgomery, Montgomery County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	< a1.94	-
1966	Apr. 24, 1966	7.88	

a Maximum for period Aug. 18 to Sept. 30, 1965

8-681.5 Brushy Creek Tributary near Hockley, Tex. (12)

Location.--Lat 30°06'22", long 95°46'36", on upstream side of culvert on Roberts Cemetery Road, 6.9 miles north of Hockley, Waller County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 22, 1965	a3.35	-
1966	May 18, 1966	5.69	

a For the period Aug. 27 to Sept. 30, 1965

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8-697.5 McCombs Creek Tributary near Oakhurst, Tex. (11)

Location.--Lat 30°42'26", long 95°16'12", on upstream side of culvert on FM 946, 4.6 miles southeast of Oakhurst, San Jacinto County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 22, 1965	a2.82	-
1966	Apr. 24, 1966	3.71	

a For the period Aug. 19 to Sept. 30, 1965

SAN JACINTO RIVER BASIN

8-710.5 Bee Branch near Fostoria, Tex. (12)

Location.--Lat 30°19'28", long 95°09'14", on upstream side of culvert on SH 105, 0.8 mile east of Fostoria, Montgomery County.

Drainage area:

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	< a3.19	-
1966	Feb. 10, 1966	6.69	

a Maximum for period Aug. 24 to Sept. 30, 1965

8-741.5 Cole Creek at Deihl Road, Houston, Tex. (12)

Location.--Lat 29°51'04", long 95°29'16", on downstream side of bridge at Deihl Road in northwest Houston, Harris County, and 1.8 miles upstream from mouth.

Drainage area.--At Deihl Road, Apr. 12, 1964 to Apr. 1, 1965, 10.6 sq mi; Apr. 2 to May 17, 1965, 8.81 sq mi. At Antoine Drive, May 18 to Aug. 1, 1965, 9.94 sq mi; Aug. 2 to Sept. 30, 1966, 10.2 sq mi.

Gage.--Water-stage recorder. Datum of gage is mean sea level, datum of 1929, adjustment of 1957.

Remarks.--Station was established at Deihl Road and was temporarily relocated to Antoine Drive because of bridge construction and channel rectification. When conditions are favorable station will be moved back to Deihl Road. Recording rain gage located at station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
a 1964	May 31, 1964	-	400
1965	Feb. 16, 1965	78.23	338
1966	Apr. 14, 1966	c71.50	b950

a Maximum for period April to September 1964.
b Estimated
c Backwater from Whiteoak Bayou

8-742.5 Brickhouse Gully at Costa Rica Street, Houston, Tex. (12)

Location.--Lat 29°49'40", long 95°28'09", on right bank at downstream side of bridge at Costa Rica Street in northwest Houston, Harris County, and 1.0 miles upstream from Whiteoak Bayou.

Drainage area.--Prior to May 1965, 10.5 sq mi; May to August 1965, 10.7 sq mi; after August 1965, 10.5 sq mi. Drainage area changes caused by changes in storm sewers.

Gage.--Water-stage recorder. Datum of gage is mean sea level, datum of 1929, adjustment of 1957.

Remarks.--Recording rain gage located at station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
a 1964	Aug. 23, 1964	60.08	235
1965	Sept.22, 1965	b 64.60	550
1966	Apr. 14, 1966	64.87	1,040

a Maximum for period August to September 1964.

b Backwater from construction dam.

8-748. Keegans Bayou at Roark Road near Houston, Tex. (12)

Location.--Lat 29°39'23", long 95°33'43", on left bank at downstream side of bridge on Roark Road and about 2.0 miles southwest of city limits of Houston, Harris County.

Drainage area.--9.66 sq mi.

Gage.--Water-stage recorder. Datum of gage is mean sea level, datum of 1929 through 1957 adjustment.

Remarks.--Recording rain gage located at station.

Annual maximum stage and discharge

Water year	Date	Gage Height (ft)	Discharge (cfs)
1965	Dec. 10, 1964	66.43	140
1966	Apr. 14, 1966	67.64	588

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8-754. Sims Bayou at Hiram Clarke Street Houston, Tex. (12)

Location.--Lat 29°37'07", long 95°26'45", on right bank at downstream side of Hiram Clarke Street bridge in southwest section of Houston, Harris County, 12.7 miles upstream from gage, Sims Bayou at Houston, and 19.7 miles upstream from mouth.

Drainage area.--20.2 sq mi.

Gage.--Water-stage recorder. Datum of gage is mean sea level, datum of 1929, 1959 adjustment.

Remarks.--Recording rain gage located at station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
a 1964	Sept. 17, 1964	43.83	96
1965	Dec. 10, 1964	48.70	960
1966	Apr. 14, 1966	51.08	2,280

a Maximum for period August to September 1964.

8-757.7 Hunting Bayou at Highway 90A at Houston, Tex. (12)

Location.--Lat 29°47'43", long 95°16'21", on right bank 100 ft downstream from U. S. Highway 90A bridge, in northeast section of Houston, Harris County, and 9.2 miles upstream from mouth.

Drainage area.--14.4 sq mi.

Gage.--Water-stage recorder. Datum of gage is mean sea level, datum of 1929, adjustment of 1959.

Remarks.--Recording rain gage located at station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
a 1964	Apr. 17, 1964	24.39	166
1965	Dec. 10, 1964	26.60	355
1966	Apr. 14, 1966	31.43	1,150

a Maximum for period April to September 1964.

8-765. Halls Bayou at Houston, Tex. (12)

Location.--Lat 29°51'42", long 95°20'05", on right bank at downstream side of bridge on Jensen Drive (formerly U. S. Highway 59), in northeast section of Houston, Harris County, 11.0 miles upstream from mouth.

Drainage area.--24.7 sq mi.

Gage.--Recording. Datum of gage is 0.66 ft below mean sea level, datum of 1929, adjustment of 1957.

Remarks.--Channel was rectified in June 1956.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1953	May 18, 1953	59.05	2,410
1954	July 30, 1954	60.65	2,020
1955	Feb. 6, 1955	56.62	1,530
1956	Jan. 22, 1956	51.53	357
1957	Apr. 29, 1957	52.51	620
1958	Oct. 15, 1957	57.09	1,280
1959	May 23, 1959	58.10	1,980
1960	June 26, 1960	58.79	2,230
1961	Sept.12, 1961	60.50	3,400
1962	Nov. 13, 1961	58.28	2,540
1963	Nov. 27, 1962	57.02	1,870
1964	May 31, 1964	55.27	1,470
1965	Sept.22, 1965	55.02	1,250
1966	Apr. 14, 1966	58.93	2,640

8-775.5 Cowart Creek near Friendswood, Tex. (12)

Location.--Lat 29°30'46", long 95°13'21", at downstream side of bridge on county road, 1.7 miles southwest of Friendswood, Brazoria County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	< all.70	-
1966	Apr. 14, 1966	18.74	948

a Maximum for period Aug. 25 to Sept. 30, 1965

8-795.7 Barnum Springs Draw near Post, Tex. (5)

Location.--Lat 33°16'54", long 101°23'30", on upstream side of culvert on FM 122, 6.4 miles north of Post, Garza County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 10, 1966	3.55	

8-795.8 Rattlesnake Creek near Post, Tex. (5)

Location.--Lat 33°13'36", long 101°21'36", on upstream side of culvert on FM 651, 2.7 miles north of Post, Garza County.

Drainage.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 31, 1966	4.58	

8-805.1 Guest-Flowers Draw near Aspermont, Tex. (8)

Location.--Lat 33°07'25", long 100°08'15", on upstream side of culvert on U. S. 380, 0.2 mile upstream from Tank Creek, 5.0 miles west of Old Glory, and 5.3 miles east of Aspermont, Stonewall County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	June 21, 1965	a17.85	
1966	Aug. 31, 1966	17.25	

a Maximum for period June 4 to Sept. 30, 1965

8-807.5 Callahan Draw near Lockney, Tex. (5)

Location.--Lat 33°59'48", long 101°32'54", on upstream side of culvert on FM 784, 7 miles upstream from Running Water Draw, and 10.5 miles northwest of Lockney, Floyd County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 24, 1966	3.01	

8-829. North Elm Creek near Throckmorton, Tex. (3)

Location.--Lat 33°10'50", long 99°22'05", on upstream side of culvert on SH 24, 11.3 miles west of Throckmorton, and 21.5 miles east of Haskell, Throckmorton County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
a1965			0
1966	Apr. 30, 1966	26.28	

a For the period June 3 to Sept. 30, 1965

8-853. Humphries Draw near Haskell, Tex. (8)

Location.--Lat 33°10'40", long 99°34'30", on upstream side of culvert on SH 24, 3.2 miles west of Irby, and 9.3 miles east of Haskell, Haskell County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 19, 1965	a14.38	
1966	Aug. 25, 1966	16.31	

a Maximum for period June 3 to Sept. 30, 1965

8-881. Salt Creek at Olney, Tex. (3)

Location.--Lat 33°22'15", long 98°44'30", on right bank 21 ft downstream from bridge on State Highway 199 and 0.5 mile east of Olney, Young County.

Drainage area.--9.6 sq. mi.

Gage.--Recording. Datum of gage is 1,164.03 ft above mean sea level, datum of 1929.

Historical data.--Maximum stage since at least 1908, 16.7 ft in June 1915, from information by local residents.

Remarks.--Rain gage at site.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1958	Sept. 16, 1958	8.18	345
1959	June 22, 1959	7.30	264
1960	Oct. 3, 1959	10.16	1,040
1961	Sept. 12, 1961	5.95	162
1962	Nov. 22, 1961	9.66	485
1963	Nov. 26, 1962	9.32	360
1964	May 29, 1964	10.05	498
1965	May 10, 1965	6.62	148
1966	Apr. 29, 1966	12.14	

8-883. Briar Creek near Graham, Tex. (3)
(Formerly published as Oak Creek near Graham, Tex.)

Location.--Lat 33°12'40", long 98°37'05", on downstream side of bridge on Farm Road 1769, 2.5 miles upstream from mouth, and 7.0 miles northwest of Graham, Young County.

Drainage area.--19.7 sq mi.

Gage.--Recording.

Historical data.--Maximum stage since at least 1900, 15.2 ft in September 1955, from information by local residents.

Remarks.--

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 23, 1959	4.08	207
1960	Oct. 3, 1959	9.02	649
1961	Oct. 18, 1960	8.42	555
1962	June 10, 1962	10.50	563
1963	Apr. 27, 1963	5.10	245
1964	May 30, 1964	6.47	332
1965	Nov. 19, 1964	7.14	444
1966	Apr. 23, 1966	11.42	723

8-891. Elm Creek Tributary near Graford, Tex. (2)

Location.--Lat 32°54'35", long 98°17'35", on upstream side of culvert on FM 4, 0.2 mile upstream from Elm Creek, and 3.2 miles southwest of Graford, Palo Pinto County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
a1965			0
1966	Apr. 30, 1966	12.71	

a For the period June 22 to Sept. 30, 1965

8-908.5 Cidwell Branch near Granbury, Tex. (2)

Location.--Lat 32°35'41", long 97°46'24", on upstream side of culvert on SH 51, 2.6 miles north of Parker-Hood County line, and 10.5 miles north of Granbury, Hood County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 29, 1966	16.65	540

8-912. Morris Branch near Bluff Dale, Tex. (2)

Location.--Lat 32°21'25", long 98°00'00", on upstream side of culvert on U. S. 377, 0.3 mile west of Erath-Hood County line, and 1.2 miles east of Bluff Dale, Erath County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	< all.44	<25
1966	Apr. 29, 1966	13.71	107

a Maximum for period June 10 to Sept. 30, 1965.

8-917. Panter Branch near Tolar, Tex. (2)

Location.--Lat 32°20'59", long 97°51'25", on upstream side of culvert on SH 51, 2.5 miles upstream from mouth, and 4.6 miles southeast of Tolar, Hood County.

Drainage area.--

Gage-..Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 29, 1966	14.49	880

8-932. Bond Branch near Hillsboro, Tex. (9)

Location.--Lat 32°02'20", long 97°06'30", on upstream side of culvert on U. S. 77, 0.3 mile east of U. S. 81, and 2.3 miles northeast of Hillsboro, Hill County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	June 24, 1965	14.19	305
1966	Apr. 25, 1966	14.00	285

8-940. Green Creek Subwatershed No. 1 near Dublin, Tex. (2)

Location.--Lat 32°10' 00", long 98°20'30", near center of dam on main headwater channel of Green Creek, three-quarters of a mile downstream from county road, 1.0 mile east of Farm Road 219, and 4.0 miles north of Dublin, Erath County.

Drainage area.--3.18 sq mi.

Gage.--Recording. Datum of gage is 1,408.00 ft above mean sea level, datum of 1929 (levels by U. S. Soil Conservation Service).

Remarks.--Peaks are based on maximum inflow (average for 5 to 15-minute intervals), computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. No adjustment made for reservoir losses. One recording rain gage is located in the watershed above the station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1955	May 18, 1955	-	3,390
1956	Apr. 30, 1956	-	a 9,910
1957	Apr. 26, 1957	-	887
1958	July 22, 1958	-	552
1959	June 26, 1959	-	430
1960	Oct. 3, 1959	-	1,400
1961	July 9, 1961	-	227
1962	Sept. 7, 1962	-	403
1963	Apr. 28, 1963	-	599
1964	Sept. 21, 1964	-	2,090
1965	May 15, 1965	-	365
1966	Apr. 30, 1966	-	645

a Unadjusted for rainfall on water surface.

8-952.5 Willow Branch at McGregor, Tex. (9)

Location.--Lat 31°26'25", long 97°25'15", on upstream side of culvert on U. S. 84, on west edge of McGregor, McLennan County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Sept. 18, 1966	a5.54	367

a Maximum for period July to September 1966.

8-965.5 Box Branch at Robinson, Tex. (9)

Location.--Lat 31°29'35", long 97°08'45", on upstream side of culvert on Loop 340, in Robinson City Limits, 0.2 mile east of IH 35, and 4.9 miles south of Waco, McLennan County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	a	0
1966	May 1, 1966	12.90	460

a Period August to September 1965.

8-968. Cow Bayou Subwatershed No. 4 near Bruceville, Tex. (9)

Location.--Lat 31°20', long 97°16', near center of dam on Foster Branch, 1.0 mile upstream from South Fork Cow Bayou, 2.1 miles west of Bruceville, McLennan County, and 2.3 miles northwest of Eddy.

Drainage area.--5.25 sq mi.

Gage.--Recording. Datum of gage is 574.46 ft above mean sea level, datum of 1929 (levels by U. S. Soil Conservation Service).

Remarks.--Peak discharge based on maximum inflow (average for 5 to 15-minute intervals), computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. Recording rain gage located at station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1957	May 11, 1957	-	6,900
1958	Oct. 14, 1957	-	1,510
1959	June 23, 1959	-	1,690
1960	Oct. 4, 1959	-	1,400
1961	June 8, 1961	-	628
1962	June 30, 1962	-	293
1963	Oct. 26, 1962	-	19
1964	June 16, 1964	-	151
1965	May 16, 1965	-	1,780
1966	Feb. 9, 1966	-	1,830

8-983. Little Pond Creek at Burlington, Tex. (17)

Location.--Lat 31°01'30", long 96°59'15", on left bank 30 ft downstream from bridge on U. S. Highway 77, 1 mile north of Burlington, Milam County, and 2-1/2 miles downstream from Keys Creek.

Drainage area.--22.2 sq mi.

Gage.--Water-stage recorder. Datum of gage is 388.51 ft above mean sea level, datum of 1929.

Historical data.--Maximum stage since at least 1938, 17.5 ft in 1950, from information by local residents.

Remarks.--Three recording rain gages are located in the watershed.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1963	Nov. 27, 1962	7.50	418
1964	Sept. 24,1964	10.09	745
1965	May 16, 1965	15.61	5,980
1966	Apr. 25, 1966	13.02	2,550

8-993.5 Sabana River Tributary at De Leon, Tex. (23)

Location.--Lat 32°06'35", long 98°33'55", on upstream side of culvert on FM 587, 1.6 miles west of De Leon, Comanche County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 29, 1966	a7.56	520

a Maximum for period February to September 1966.

8-1001. Eidson Creek near Hamilton, Tex. (9)

Location.--Lat 31°46'10", long 98°07'25", on upstream side of culvert on U. S. 281, 4.6 miles north of Hamilton, Hamilton County.

Drainage area.--

Gage.--Gage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	a	0
1966	Oct. 18, 1965	10.06	150

a Period August to September, 1965.

8-1004. Bermuda Branch near Gatesville, Tex. (9)

Location.--Lat 31°32'26", long 97°47'53", on upstream side of culvert on SH 36, 8.0 miles northwest of Gatesville, Coryell County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	a	0

a Period July to Seotember 1966.

8-1008. Hoffman Branch near Hamilton, Tex. (9)

Location.--Lat 31°35'01", long 98°11'45",on upstream side of culvert on FM 2414, 9.3 miles southwest of Hamilton, Hamilton County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Sept. 18, 1966	11.71	50 *

* Discharge estimated, culvert was partially plugged with debris.

8-1029. School Branch near Lampasas, Tex. (23)

Location.--Lat 31°13'48", long 98°09'25", on upstream side of culvert on FM 1690, 11.5 miles north of Lampasas, Lampasas County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 12, 1966	a5.36	83

a Maximum for period July to September 1966.

8-1034.5 Fleece Branch near Lampasas, Tex. (23)

Location.--Lat 31°05'46", long 98°12'30", on upstream side of culvert on U. S. 183-190, 0.7 mile upstream from Burleson Creek, and 2.8 miles northwest of Lampasas, Lampasas County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	a	0
1966	June 19, 1966	15.18	980

a Period August to September 1965.

8-1059. Avery Branch near Taylor, Tex. (14)

Location.--Lat 30°29'11", long 97°27'27", on upstream side of culvert on FM 973, 6.4 miles southwest of Taylor, Williamson County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Sept. 27, 1966	a6.20	280

a Maximum for period July to September 1966.

8-1088. Little Branch near Bryan, Tex. (17)

Location.--Lat 30°45'14", long 96°28'01", on upstream side of culvert on U. S. 190-SH6, in Robertson County, 8.3 miles northwest of Bryan, Brazos County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	a	0
1966	May 1, 1966	13.33	99

a Period August to September 1965.

8-1103.5 Plummers Creek at Mexia, Tex. (9)

Location.--Lat 31°40', long 96°30', on upstream side of culvert on SH 14, at southwest city limits of Mexia, Limestone County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	a	0
1966	Apr. 18, 1966	15.34	2,000

a Period August to September 1965.

8-1111. Winkleman Creek near Brenham, Tex. (17)

Location.--Lat 30°15'19, long 96°15'44", on upstream side of culvert on SH 90, 10.7 miles northeast of Brenham, Washington County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	a	0
1966	Feb. 27, 1966	10.53	95

a Period August to September 1965.

8-1149. Seabourne Creek near Rosenberg, Tex. (12)

Location.--Lat 29°31'27", long 95°48'29", on upstream side of culvert on SH 36, 2.35 miles south of Rosenberg, Fort Bend County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Sept. 9, 1966	a4.92	

a Maximum for period Aug. 12 to Sept. 30, 1966

8-1164. Dry Creek near Rosenberg, Tex. (12)

Location.--Lat 29°30'42", long 95°44'45", on right bank, 38 ft downstream from county road bridge, 8.2 miles upstream from Smithers Lake spillway, and 5.0 miles southeast of Rosenberg, Fort Bend County.

Drainage area.--8.53 sq mi.

Gage.--Recording. Datum of gage is 71.90 ft above mean sea level, datum of 1929, supplementary adjustment of 1943.

Historical data.--Highest flood since at least 1932, Oct. 31, 1959, from information by local residents.

Remarks.--

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1959	Apr. 11, 1959	8.00	* 504
1960	Oct. 31, 1959	12.66	2,410
1961	June 19, 1961	11.13	* 1,120
1962	Nov. 13, 1961	6.88	348
1963	Jan. 17, 1963	9.83	762
1964	Mar. 19, 1964	8.13	386
1965	Feb. 16, 1965	10.30	860
1966	Apr. 14, 1966	10.96	900

* Revised

8-1178. Mound Creek Tributary at Guy, Tex. (12)

Location.--Lat 29°20'49", long 95°46'30", on upstream side of culvert on SH 36, 0.2 mile southeast of Guy, Fort Bend County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	<al.58	-

a Maximum for period July 12 to Sept. 30, 1966

8-1236.2 Sulphur Springs Draw near Wellman, Tex. (5)

Location.--Lat 33°04'36", long 102°27'54", on upstream side of culvert on FM 402, 0.3 mile northeast of Wellman, Terry County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 24, 1966	7.41	

8-1237.5 Coahoma Draw Tributary near Big Spring, Tex. (8)

Location.--Lat 32°19'25", long 101°26'05", on upstream side of culvert on SH 350, 5.5 miles northeast of Big Spring, Howard County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 21, 1965	a4.05	265
1966	Apr. 30, 1966	3.47	185

a Maximum for period June to September 1965.

8-1237.6 Bull Creek Tributary near Forsan, Tex. (8)

Location.--Lat 32°08'23", long 101°10'53", on upstream side of culvert on FM 2183, 11.4 miles east of Forsan, Howard County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 30, 1966	a8.23	140

a Maximum for period February to September 1966.

8-1263. Fish Creek Tributary near Hylton, Tex. (8)

Location.--Lat 32°07'55", long 100°13'55", on upstream side of culvert on FM 1170, 1.8 miles west of Hylton, Nolan County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 30, 1966	a5.14	36

a Maximum for period February to September 1966.

8-1271. Dry Creek near Christoval, Tex. (7)

Location.--Lat 31°05'25", long 100°20'50", on upstream side of culvert on FM 2084, 11.4 miles southeast of Christoval, Tom Green County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Aug. 12, 1965	a1.77	
1966	May 1, 1966	3.10	200

a Maximum for period June to September 1965.

8-1333. Quarry Creek near Sterling City, Tex. (7)

Location.--Lat 31°50'48", long 101°09'18", on upstream side of culvert on SH 158, 9.8 miles west of Sterling City, Sterling County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 18, 1965	a4.73	170
1966	Oct. 17, 1965	4.81	190

a Maximum for period June to September 1965.

8-1338. Broome Creek near Broome, Tex. (7)

Location.--Lat 31°46'05", long 100°51'10", on upstream side of culvert on U. S. 87, 1.1 miles northwest of Broome, Sterling County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	Sept. 18, 1965	a2.81	150
1966	Oct. 17, 1965	2.87	160

a Maximum for period June to September 1965.

8-1343. Nolke Station Creek near San Angelo, Tex. (7)

Location.--Lat 31°31'34", long 100°33'46", on upstream side of culvert on FM 2288, 8.6 miles northwest of San Angelo, Tom Green County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	May 17, 1965	7.58	281
1966	Apr.30, 1966	6.16	170

8-1344. Gravel Pit Creek near San Angelo, Tex. (7)

Location.--Lat 31°27'54", long 100°31'17", on upstream side of culvert on FM 2288, just upstream from right bank of San Angelo Reservoir, and 5.0 miles west of San Angelo, Tom Green County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	June 4, 1965	a2.09	
1966	Aug.24, 1966	2.79	41

a Maximum for period May to September 1965.

8-1362. Puddle Creek near Veribest, Tex. (7)

Location.--Lat 31°30'38", long 100°09'31", on upstream side of culvert on FM 1692, 6.2 miles northeast of Veribest, Tom Green County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	July 31, 1966	a5.70	72

a Maximum for period February to September 1966.

8-1370. Mukewater Creek Subwatershed No. 9 near Trickham, Tex. (23)

Location.--Lat 31°41'40", long 99°12'18", near center of dam on tributary to Sand Creek, 1.5 miles upstream from mouth, 4.5 miles southwest of Bangs, Brown County, and 7.1 miles north of Trickham, Coleman County.

Drainage area.--4.02 sq mi.

Gage.--Recording. Datum of gage is 1,500.01 ft above mean sea level, datum of 1929.

Remarks.--Peak discharge based on maximum inflow (average for 5 to 15-minute intervals), computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. Recording rain gage located at station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
a 1961	June 5, 1961	-	1,440
1962	Oct. 9, 1961	-	44
1963	May 22, 1963	-	186
1964	Apr.23, 1964	-	1,170
1965	Nov.17, 1964	-	838
1966	Nov. 8, 1965	-	267

a Maximum for period January to September 1961.

8-1390. Deep Creek SWS No. 3 near Placid, Tex. (23)

Location.--Lat 31°17'10", long 99°09'25", near right end of dam on tributary to Deep Creek, 2.8 miles southeast of Placid, McCulloch County.

Drainage area.--3.42 sq mi.

Gage.--Water-stage recorder. Datum of gage is 1500.00 ft above mean sea level, datum of 1929. Prior to Dec. 1, 1953, staff gage at same site and datum.

Remarks.--Peak discharge based on maximum inflow (average for 5 to 15-minuteintervals), computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. Recording rain gage located at station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1954	Oct. 4, 1953	-	742
1955	May 18, 1955	-	1,800
1956	Aug. 28, 1956	-	218
1957	May 12, 1957	-	1,160
1958	Mar. 6, 1958	-	448
1959	June 3, 1959	-	938
1960	Oct. 4, 1959	-	a 280
1961	June 5, 1961	-	235
1962	June 26, 1962	-	154
1963	May 30, 1963	-	208
1964	Sept.27, 1964	-	681
1965	Feb. 8, 1965	-	322
1966	Sept.15, 1966	-	280

a About

8-1400. Deep Creek Subwatershed No. 8 (Dry Prong Deep Creek) near Mercury, Tex. (23)

Location.--Lat 31°23'05", long 99°08'30", near center of dam on Dry Prong Deep Creek, 1.9 miles southeast of Mercury, McCulloch County, and 3.5 miles upstream from mouth.

Drainage area.--4.32 sq mi.

Gage.--Recording. Datum of gage is 1,377.13 ft above mean sea level, datum of 1929 (levels by Soil Conservation Service).

Remarks.--Peak discharges based on maximum inflow (average for 5 to 30-minute intervals) computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. Recording rain gage located at station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1952	Apr. 18, 1952	-	a b 500
1953	May 12, 1953	-	a b 900
1954	Oct. 4, 1953	-	1,570
1955	May 17, 1955	-	2,550
1956	Aug. 28, 1956	-	557
1957	May 12, 1957	-	894
1958	Nov. 2, 1957	-	521
1959	June 3, 1959	-	332
1960	Oct. 3, 1959	-	a 323
1961	Dec. 7, 1960	-	217
1962	Nov. 2, 1961	-	b 100
1963	May 5, 1963	-	408
1964	Sept. 21, 1964	-	5,660
1965	May 16, 1965	-	241
1966	Sept. 16, 1966	-	90

a Unadjusted for rainfall on water surface.

b Estimated.

8-1405. Dry Prong Deep Creek near Mercury, Tex. (23)

Location.--Lat 31°24'10", long 99°08'10", near center of span on downstream side of bridge on Farm Road 502, 1.3 miles southeast of Mercury, McCulloch County, 1.7 miles downstream from floodwater-retarding structure, and 1.8 miles upstream from mouth.

Drainage area.--8.31 sq mi.

Gage.--Recording. Datum of gage is 1,339.02 ft above mean sea level, datum of 1929.

Historical data.--Flood of May 17, 1955, is the highest since at least 1924, from information by local resident.

Remarks.--In December 1951, one floodwater-retarding structure was built on the creek at a site 1.7 miles upstream from this station. This structure has a total floodwater-retarding capacity of 1,410 acre-ft below flood spillway crest, and partly controls the flow from 4.32 sq mi above this station. Two recording rain gages are located in the watershed above the station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1938	July 23, 1938	8.7	-
1952	Apr. 18, 1952	5.80	105
1953	May 12, 1953	5.30	293
1954	Oct. 4, 1953	7.94	776
1955	May 17, 1955	9.00	2,000
1956	May 1, 1956	7.20	960
1957	May 12, 1957	6.46	664
1958	Nov. 2, 1957	4.85	253
1959	June 4, 1959	4.95	274
1960	Oct. 3, 1959	4.65	226
1961	Feb. 5, 1961	3.91	129
1962	Oct. 9, 1961	4.32	182
1963	May 5, 1963	5.72	425
1964	Sept.21, 1964	9.00	1,970
1965	Feb. 8, 1965	4.09	144
1966	Sept.15, 1966	4.85	258

8-1411. McCall Branch near Coleman, Tex. (23)

Location.--Lat. 31°51'00", long 99°33'15", on upstream side of culvert on SH 53, one mile upstream from Hoards Creek, and 8.2 miles west of Coleman, Coleman County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	June 18, 1966	a4.78	620

a Maximum for period March to September 1966.

8-1437. Browns Creek Tributary near Goldthwaite, Tex. (23)

Location.--Lat 31°31'01", long 98°34'00", on upstream side of culvert on SH 16, 4.6 miles north of Goldthwaite, Mills County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 29, 1966	a4.48	230

a Maximum for period February to September 1966.

8-1502. Llano River Tributary near London, Tex. (7)

Location.--Lat 30°28'20", long 99°35'40", on upstream side of culvert on U. S. 377, 2.7 miles south of London, Kimble County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 28, 1966	a5.21	

a Maximum for period February to September 1966.

8-1509. Stone Creek Tributary near Art, Tex. (14)

Location.--Lat 30°44'20", long 99°03'35", on upstream side of culvert on SH 29, 3 miles east of Art, Texas, and 10.3 miles east of Mason, Mason County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 11, 1966	a3.88	45

a Maximum for period February to September 1966.

8-1527. Little Flatrock Creek near Marble Falls, Tex. (14)

Location.--Lat 30°30'52", long 98°18'44", on upstream side of culvert on SH 71, 4.8 miles southwest of Marble Falls, Burnet County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	a	0

a Period July to September 1966.

8-1531. Cane Branch at Stonewall, Tex. (14)

Location.--Lat 30°14'07", long 98°39'21", on upstream side of culvert on U. S. 290, at Stonewall, and 0.6 mile upstream from Pedernales River, Gillespie County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	a	0
1966	Sept. 10, 1966	9.91	24

a Period August to September 1965.

8-1570. Waller Creek at 38th Street, Austin, Tex. (14)

Location.--Lat 30°17'49", long 97°43'36", on right bank 200 ft upstream from bridge at East 38th Street at Austin, Travis County, 1.1 miles upstream from West Branch of Waller Creek, and 3.3 miles upstream from Colorado River.

Drainage area.--2.31 sq mi.

Gage.--Recording. Datum of gage is 555.44 ft above mean sea level, datum of 1929, Fort Worth supplementary adjustment of 1942.

Remarks.--This station operated as research project for runoff from urban areas. Two standard and one recording rain gages located in watershed.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1956	May 1, 1956	3.94	a 108
1957	May 26, 1957	5.75	596
1958	Oct. 14, 1957	5.54	518
1959	Sept. 23, 1959	5.41	468
1960	Oct. 4, 1959	4.67	251
1961	Oct. 29, 1960	7.77	1,970
1962	June 10, 1962	7.11	1,420
1963	June 18, 1963	4.72	263
1964	Sept. 27, 1964	7.01	1,340
1965	May 16, 1965	6.15	805
1966	Aug. 11, 1966	5.75	618

a Maximum for period Apr. 1 to Sept. 30, 1956.

8-1575. Waller Creek at 23d Street, Austin, Tex. (14)

Location.--Lat 30°17'08", long 97°44'01", on San Jacinto Boulevard, 50 ft upstream from bridge on East 23d Street at Austin, Travis County, and 2.1 miles upstream from Colorado River.

Drainage area.--4.13 sq mi.

Gage.--Recording. Datum of gage is 509.95 ft above mean sea level, datum of 1929, Fort Worth supplementary adjustment of 1942.

Remarks.--Three recording and three non-recording rain gages located in watershed.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1951	June 12, 1951	-	a 2,010
1954	Oct. 23, 1953	8.0	-
b 1955	May 18, 1955	5.40	1,640
1956	May 1, 1956	3.90	615
1957	June 12, 1957	5.85	2,050
1958	Apr. 26, 1958	5.47	1,700
1959	Sept. 23, 1959	5.71	1,910
1960	Oct. 4, 1959	4.11	726
1961	Oct. 29, 1960	7.96	3,710
1962	June 3, 1962	6.40	2,270
1963	June 18, 1963	4.70	1,070
1964	Sept. 27, 1964	7.08	2,280
1965	May 16, 1965	7.12	2,320
1966	Aug. 11, 1966	6.25	1,680

a Peak discharge determined by slope-area measurement half a mile downstream from gage.

b Maximum for period January to September 1955.

8-1589. Fox Branch near Oak Hill, Tex. (14)

Location.--Lat 30°14'00", long 97°52'25", on upstream side of culvert on SH 71, near intersection with U. S. 290, 0.2 mile upstream from Williamson Creek, and 1.0 mile west of Oak Hill, Travis County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	a	0
1966	Sept. 8, 1966	10.15	11

a Period August to September 1965.

8-1591.5 Wilbarger Creek near Pflugerville, Tex. (14)

Location.--Lat 30°27'16", long 97°36'02", on left bank 131 ft downstream from county road (Pfluger Lane), 800 ft downstream from Farm Road 685, 1.6 miles northeast of Pflugerville, Travis County, And 1.9 miles downstream from Missouri-Kansas-Texas Railroad.

Drainage area.--4.61 sq mi.

Gage.--Water-stage recorder. Datum of gage is 670.61 ft above mean sea level, datum of 1929.

Remarks.--Three recording rain gages located in the watershed.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1964	June 16, 1964	6.92	1,760
1965	Feb. 16, 1965	4.75	737
1966	Apr. 24, 1966	3.67	396

8-1600. Dry Creek at Buescher Lake near Smithville, Tex. (14)

Location.--Lat 30°02'35", long 97°09'20", on left bank, 225 ft upstream from dam in Bastrop-Buescher State Park, 1.9 miles upstream from mouth, and 2.2 miles north of Smithville, Bastrop County.

Drainage area.--1.48 sq mi.

Gage.--Recording. Datum of gage is 327.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Inflow into lake only, and is computed on basis of change in reservoir contents plus flow over spillway. Generally, peak inflow is computed as the average inflow for a period of less than 30 minutes, unadjusted for rainfall on reservoir surface during time of peak inflow.

Remarks.--Recording rain gage located at station since Jan. 31, 1961. Peak inflow was not determined for 1944, 1951-56, and 1964 water years. Maximum water level was below the intakes. Station discontinued at end of 1966 water year.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1940	June 30, 1940	-	1,870
1941	June 7, 1941	-	903
1942	Oct. 30, 1941	-	670
1943	Nov. 4, 1942	-	35
1944	Nov. 9, 1944	-	-
1945	Mar. 30, 1945	-	1,200
1946	June 1, 1946	-	1,570
1947	Aug. 26, 1947	-	667
1948	May 25, 1948	-	86
1949	Apr. 22, 1949	-	595
1950	June 2, 1950	-	465
1951	-	-	-
1952	-	-	-
1953	-	-	-
1954	-	-	-
1955	-	-	-
1956	-	-	-
1957	Apr. 28, 1957	-	889
1958	Feb. 22, 1958	-	206
1959	Apr. 11, 1959	-	252
1960	Apr. 29, 1960	-	1,200
1961	Sept.12, 1961	-	505
1962	June 3, 1962	-	111
1963	Oct. 28, 1962	-	39
1964	-	-	-
1965	Feb. 16, 1965	-	82
1966	Apr. 25, 1966	-	116

8-1615.8 Dry Branch Tributary near Altair, Tex. (13)

Location.--Lat 29°34'39", long 96°28'16", on upstream side of culvert on SH 71, 0.9 mile northwest of Altair, Colorado County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	-	<a0.13	-

a Maximum for period Aug. 10 to Sept. 30, 1966

8-1663. Turtle Creek Tributary near Kerrville, Tex. (15)

Location.-- Lat 29°58'11", long 99°11'02", on upstream side of culvert on FM 2771, 0.4 mile east of SH 16, and 5.9 miles south of Kerrville, Kerr County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	May 22, 1966	a8.82	

a Maximum for period Mar. 17 to Sept. 30, 1966

8-1676. Rebecca Creek near Spring Branch, Tex. (15)

Location.--Lat 29°55'08", long 98°22'09", on right bank 72 ft upstream from private road crossing, 2.8 miles upstream from mouth, and 4.0 miles northeast of Spring Branch, Comal County.

Drainage area.--11.0 sq mi.

Gage.--Recording. Datum of gage is 985.55 ft above mean sea level, datum of 1929.

Historical data.--Maximum stage since at least 1885, 25-1/2 ft in September 1952, from information by local residents.

Remarks.--Rain gage at site.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1961	Oct. 29, 1960	6.18	4,340
1962	Apr. 27, 1962	2.12	3.8
1963	Apr. 5, 1963	6.20	4,340
1964	Mar. 18, 1964	2.99	191
1965	May 11, 1965	7.70	8,500
1966	Oct. 18, 1965	7.97	9,300

8-1687.2 Trough Creek near New Braunfels, Tex. (15)

Location.--Lat 29°46'20", long 98°15'55", on upstream side of culvert on SH 46, 8.0 miles northwest of Loop 337, and 11.0 miles northwest of New Braunfels, Comal County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	May 16, 1965	a10.0	386
1966	Dec. 2, 1965	8.29	236

a Maximum for period Aug. 17 to Sept. 30, 1965

8-1687.5 Dry Comal Creek Tributary near New Braunfels, Tex. (15)

Location.--Lat 29°42'48", long 98°17'52", on upstream side of culvert on FM 1863, 10.3 miles west of New Braunfels, Comal County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	June 18, 1966	6.37	

8-1698.5 East Pecan Branch near Gonzales, Tex. (13)

Location.--Lat 29°29'36", long 97°31'36", on upstream side of culvert on U. S. 90A, 0.6 mile west of FM 2091, and 3.7 miles west of Gonzales, Gonzales County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	May 4, 1966	6.88	73

8-1721. West Elm Creek near Niederwald, Tex. (14)

Location.--Lat 29°59'00", long 97°44'45", on upstream side of culvert on FM 2001, 0.8 mile south of SH 21, and 2.3 miles southwest of Niederwald, Caldwell County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Dec. 2, 1965	6.84	261

8-1766. Three Mile Creek near Cuero, Tex. (13)

Location.--Lat 29°02'00", long 97°20'52", on upstream side of culvert on FM 2718, 5.2 miles southwest of Cuero, DeWitt County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	May 5, 1966	a6.62	22

a Maximum for period Feb. 9 to Sept. 30, 1966

8-1789. Bandera Creek Tributary near Bandera, Tex. (15)

Location.--Lat 29°50'51", long 99°06'12", on upstream side of culvert on FM 689, 1.2 miles south of Bandera-Kerr County line, and 10 miles north of Bandera, Bandera County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 25, 1966	a6.29	

a Maximum for period Mar. 16 to Sept. 30, 1966

8-1792. Medina River Tributary near Pipe Creek, Tex. (15)

Location.--Lat 29°38'10", long 98°56'10", on upstream side of culvert on FM 1283, 2.5 miles north of Park Road 37, and 6.8 miles south of Pipe Creek, Bandera County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual Maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 17, 1966	a4.12	

a Maximum for period Mar. 17 to Sept. 30, 1966

8-1812. French Creek Tributary near Helotes, Tex. (15)

Location.--Lat 29°33'45", long 98°39'20", on upstream side of culvert on FM 1604, 0.8 mile northeast of SH 16, and 2.2 miles east of Helotes, Bexar County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 27, 1966	a5.91	107

a Maximum for period Mar. 15 to Sept. 30, 1966

8-1824. Calaveras Creek Suberwatershed No. 6 near Elmendorf, Tex. (15)

Location.--Lat 29°22'53", long 98°17'34", near center of dam on Chupaderas Creek, tributary to Calaveras Creek, 0.4 mile north of Sayer, 9.1 miles north of Elmendorf, Bexar County, and 9.2 miles upstream from mouth.

Drainage area.--7.01 sq mi.

Gage.--Recording. Datum of gage is 516.06 ft above mean sea level, datum of 1929 (levels by U. S. Soil Conservation Service).

Remarks.--Peak discharge based on maximum inflow (average for 5 to 15-minute intervals), computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. There are two recording rain gages, one at the station and one in the watershed.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1957	Sept. 25, 1957	-	3,750
1958	May 3, 1958	-	1,880
1959	Apr. 11, 1959	-	252
1960	Oct. 4, 1959	-	419
1961	June 18, 1961	-	800
1962	Nov. 13, 1961	-	385
1963	Apr. 4, 1963	-	13
1964	Feb. 3, 1964	-	1,810
1965	May 18, 1965	-	3,330
1966	Dec. 3, 1965	-	501

8-1870. Escondido Creek Subwatershed No. 1 near Kenedy, Tex. (16)

Location.--Lat 28°47', long 97°54', near center of dam on unnamed fork of Panther Creek, 500 ft upstream from State Highway 72 and 3 miles southwest of Kenedy, Karnes County.

Drainage area.--3.29 sq mi.

Gage.--Recording. Datum of gage is 350.00 ft above mean sea level, datum of 1929 (levels by Soil Conservation Service).

Remarks.--Peaks are based on maximum inflow (average for 15-minute interval), computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. No adjustment made for reservoir losses. There are two recording rain gages located in the watershed, one of which is at the station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1955	Aug. 11, 1955	-	2,100
1956	June 19, 1956	-	486
1957	May 27, 1957	-	a 1,800
1958	May 3, 1958	-	1,700
1959	Sept. 29, 1959	-	181
1960	July 17, 1960	-	a 817
1961	Oct. 25, 1960	-	4,990
1962	June 1, 1962	-	745
1963	Nov. 27, 1962	-	1,300
1964	Aug. 8, 1964	-	809
1965	Jan. 21, 1965	-	1,550
1966	Oct. 18, 1965	-	157

a Not adjusted for rainfall on water surface.

8-1879. Escondido Creek SWS No. 11 near Kenedy, Tex. (lc)

Location.--Lat 28°52', long 97°51', near center of dam on Dry Escondido, 0.35 miles upstream from bridge on State Farm Road 792, 3 miles north of Kenedy, Karnes County, and 4.5 miles upstream from Escondido Creek.

Drainage area.--8.43 sq mi.

Gage.--Water-stage recorder. Datum of gage is 285.12 ft above mean sea level, datum of 1929.

Remarks.--Peak discharge based on maximum inflow (average for 5 to 15-minute intervals) computed from outflow and change in reservoir contents, adjusted for rainfall on the reservoir surface during time of peak inflow. There are two recording rain gages located in the watershed, one of which is at the station.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1958	Sept. 22, 1958	-	1,560
1959	June 5, 1959	-	137
1960	Oct. 4, 1959	-	54
1961	Oct. 25, 1960	-	773
1962	June 2, 1962	-	613
1963	June 26, 1962	-	1,190
1964	Feb. 3, 1964	-	435
1965	May 19, 1965	-	4,950
1966	Sept. 17, 1966	-	334

8-1884. Baugh Creek at Goliad, Tex. (16)

Location.--Lat 28°39'50", long 97°25'05", on upstream side of culvert on U. S. 59, 0.2 mile west of SH 239, and 1.5 miles west of Goliad, Goliad County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 20, 1966	5.50	

8-1896. Olmos Creek Tributary near Skidmore, Tex. (16)

Location.--Lat 28°15'27", long 97°44'15", on upstream side of culvert on FM 797, 3.4 miles west of Skidmore, Bee County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 25, 1966	a8.00	235

a Maximum for period Feb. 8, 1966 to Sept. 30, 1966

8-1945.5 Plant Creek near Tilden, Tex. (15)

Location.--Lat 28°24'04", long 98°32'58", on upstream side of culvert on SH 173, 4.0 miles south of Tilden, McMullen County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Nov. 11, 1965	7.30	

8-2009. Bone Creek near Hondo, Tex. (15)

Location.--Lat 29°33'16", long 99°06'12", on upstream side of culvert on FM 689, 14 miles north of Hondo, Medina County.

Drainage area.--

Gage.--State-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 25, 1965	3.22	

8-2035. Leona River Tributary near Uvalde, Tex. (22)

Location.--Lat. 29°17', long 99°46', on upstream side of culvert on U. S. 83, 3.2 miles south of FM 2690, and 5.12 miles north of Uvalde, Uvalde County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 13, 1966	a6.67	

a Maximum for period Feb. 3 to Sept. 30, 1966

8-2115.5 Pintas Creek Tributary near Banquette, Tex. (16)

Location.--Lat 27°42'36", long 97°49'57", on upstream side of culvert on FM 666, 0.8 mile north of FM 665, and 7.0 miles south of Banquette, Nueces County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	May 5, 1966	a8.43	84

a Maximum for period Mar. 8 to Sept. 30, 1966

8-2116. Hamon Creek near Freer, Tex. (21)

Location.--Lat 27°46'30", long 98°34'10", on upstream side of culvert on SH 339, 8.3 miles southeast of Freer, Duval County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Nov. 11, 1965	8.28	225

8-3656. McKelligon Canyon at El Paso, Tex. (24)

Location.--Lat 31°49'20", long 106°28'15", on left bank 120 ft south of McKelligon Canyon Drive, 0.5 mile south of crest of Sugarloaf Mountain, 0.2 mile west of Alabama Avenue, 1.6 miles west of U. S. Highway 54, and 4.5 miles north of El Paso post office.

Drainage area.--2.3 sq mi, approximately.

Gage.--Recording. Altitude of gage is 4,257.33 ft above mean sea level (levels by city of El Paso).

Remarks.--No flow except Sept.11,12,1958. Flood flow controlled by four small reservoirs upstream, with a total capacity of about 95 acre-feet.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
a 1958	Sept. 11, 1958	-	76
1959			0
1960			0
1961			0
1962			0
1963			0
1964			0
1965			0
1966			0

a Period June to September 1958.

8-3658. Government ditch at El Paso, Tex. (24)

Location.--Lat 31°47'02", long 106°26'04", at intersection of Montana and Houston Streets, 2 miles northeast of the business center of El Paso.

Drainage area.--6.4 sq mi, approximately.

Gage.--Recording. Altitude of gage is 3,740 ft (from topographic map).

Remarks.--

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
a 1958	Sept. 11, 1958	2.64	550
1959	Aug. 5, 1959	0.70	58
1960	July 14, 1960	0.84	78
1961	Sept. 8, 1961	2.18	374
1962	Sept. 2, 1962	1.93	299
1963	Aug. 18, 1963	0.66	53
1964	Sept. 11, 1964	2.06	338
1965	Sept. 6, 1965	1.44	179
1966	Sept. 23, 1966	2.03	329

a Period June to September 1958.

8-3702. Camp Rice Arroyo Tributary near Fort Hancock, Tex. (24)

Location.--Lat 31°17'55", long 105°48'55", on upstream side of culvert on U. S. 10, 1.6 miles east of Fort Hancock, Hudspeth County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	June 27, 1966	a5.35	15

a Maximum for period April to September 1966.

8-3708. Wildhorse Creek Tributary near Van Horn, Tex. (24)

Location.--Lat 31°02'50", long 104°40'25", on upstream side of culvert on U. S. 80, 9.5 miles east of Van Horn, Culbertson County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 22, 1966	a5.38	200

a Maximum for period April to September 1966.

8-3776. Rio Grande Tributary near Langtry, Tex. (22)

Location.--Lat 29°48'15", long 101°28'45", on upstream side of culvert on U. S. 90, 4.7 miles east of Langtry, Val Verde County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Sept. 9, 1966	a7.05	120

a Maximum for period January to September 1966.

8-4078. Delaware River Tributary near Orla, Tex. (24)

Location.--Lat 31°55'50", long 104°28'50", on upstream side of culvert on SH 652 in Culbertson County, 36 miles west of Orla, Reeves County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Aug. 21, 1966	11.52	

8-4368. Courtney Creek Tributary near Ft. Stockton, Tex. (6)

Location.--Lat 31°00'30", long 103°04'20", on upstream side of culvert on U. S. 285, 14 miles northwest of Fort Stockton, Pecos County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	June 12, 1966	a2.82	

a Maximum for period January to September 1966.

8-4375.5 Lake Leon Tributary near Ft. Stockton, Tex. (6)

Location.--Lat 30°54'00", long 103°02'50", on upstream side of culvert on U. S. 290, just east of U. S. 67, and 10 miles west of Fort Stockton, Pecos County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 24, 1966	a7.25	740

a Maximum for period January to September 1966.

8-4376.5 Monument Draw Tributary at Pyote, Tex. (6)

Location.--Lat 31°33'35", long 103°08'00", on upstream side of culvert on Spur 247 just off SH 115, 2.1 miles northwest of Pyote, Ward County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	July 12, 1966	a3.22	30

a Maximum for period January to September 1966.

8-4444. Three Mile Mesa Creek near Ft. Stockton, Tex. (6)

Location.--Lat 30°50'15", long 102°50'30", on upstream side of culvert on SH 285, 4.6 miles southeast of Fort Stockton, Pecos County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	June 10, 1965	a2.84	76
1966	Apr. 24, 1966	2.71	69

a Maximum for period June to September 1965.

8-4488. Sonora Field Creek Tributary near Sonora, Tex. (7)

Location.--Lat 30°34'15", long 100°38'45", on upstream side of culvert on U. S. 277, at Sonora, Sutton County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1965	-	-	0
1966	May 29, 1966	5.44	510

8-4496. Evans Creek Tributary near Del Rio, Tex. (22)

Location.--Lat 29°32'20", long 101°04'40", on upstream side of culvert on U. S. 90, 4.7 miles south of Loop 406, and 16 miles northwest of Del Rio, Val Verde County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 25, 1966	a3.49	16

a Maximum for period January to September 1966.

8-4531. Zorro Creek near Del Rio, Tex. (22)

Location.--Lat 29°19'52", long 100°49'54", on upstream side of culvert on U. S. 277, 4.7 miles southwest of Del Rio, Val Verde County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 24, 1966	a9.53	800

a Maximum for period Feb. 2 to Sept. 30, 1966

8-4549. East Perdido Creek near Brackettville, Tex. (22)

Location.--Lat 29°20'50", long 100°34'32", on upstream side of culvert on U. S. 90, 9.7 miles west of Brackettville, Kinney County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 24, 1966	6.84	200

8-4596. Arroyo San Bartolo at Zapata, Tex. (21)

Location.--Lat 26°55'40", long 99°17'20", on upstream side of culvert on U. S. 83, 1.0 mile north of Zapata, Zapata County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 14, 1966	a5.64	550

a Maximum for period Feb. 17 to Sept. 30, 1966

8-4661. Rio Grande Tributary near Rio Grande City, Tex. (21)

Location.--Lat 26°18'58", long 98°39'47", on upstream side of culvert on U. S. 83, 6.0 miles northwest of Hidalgo-Starr County line, and 10.0 miles southeast of Rio Grande City, Starr County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	June 19, 1966	a4.61	100

a Maximum for period Feb. 16 to Sept. 30, 1966

8-4662. Rio Grande Tributary at Sullivan City, Tex. (21)

Location.--Lat 26°17'11", long 98°35'18", on upstream side of culvert on U. S. 83, 0.9 mile northwest of Hidalgo-Starr County line, and 1.6 miles northwest of Sullivan City, Hidalgo County.

Drainage area.--

Gage.--Stage-Rainfall (S-R) recorder and crest-stage gage.

Annual maximum stage and discharge

Water year	Date	Gage height (ft)	Discharge (cfs)
1966	Apr. 19, 1966	a6.63	20

a Maximum for period Feb. 16 to Sept. 30, 1966

DEPARTMENT OF THE INTERIOR
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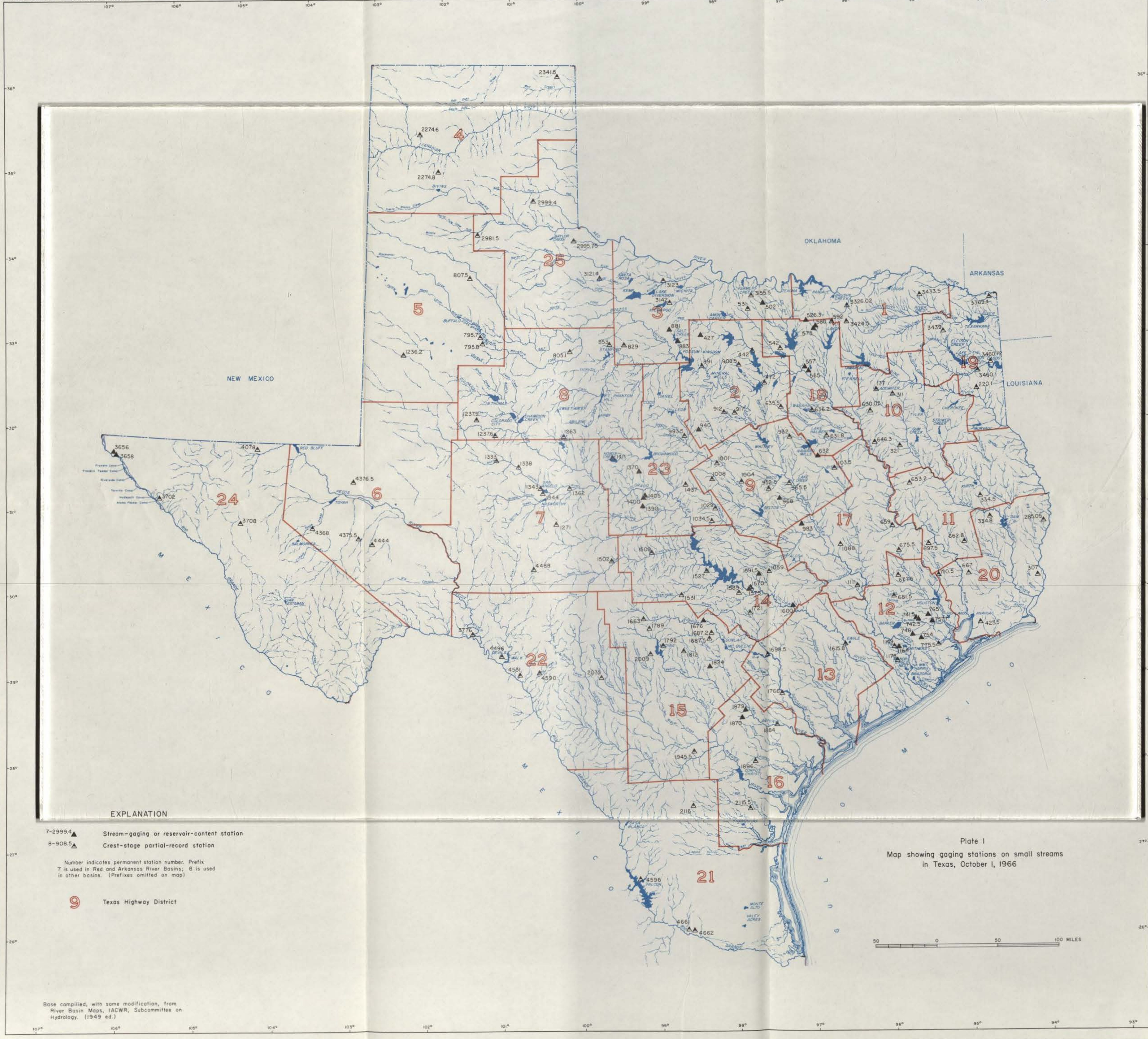
AND
U. S. BUREAU OF PUBLIC ROADS

WATER RESOURCES DIVISION
TEXAS DISTRICT



EXPLANATION

7-2999.4 ▲ Stream-gaging or reservoir-content station

8-908.5 △ Crest-stage partial-record station

Number indicates permanent station number. Prefix 7 is used in Red and Arkansas River Basins; 8 is used in other basins. (Prefixes omitted on map)

9 Texas Highway District

Plate I

Map showing gaging stations on small streams in Texas, October 1, 1966

Base compiled, with some modification, from River Basin Maps, IACWR, Subcommittee on Hydrology. (1949 ed.)