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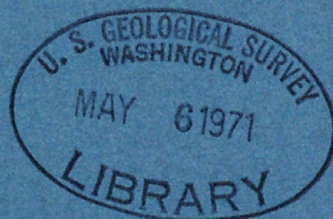
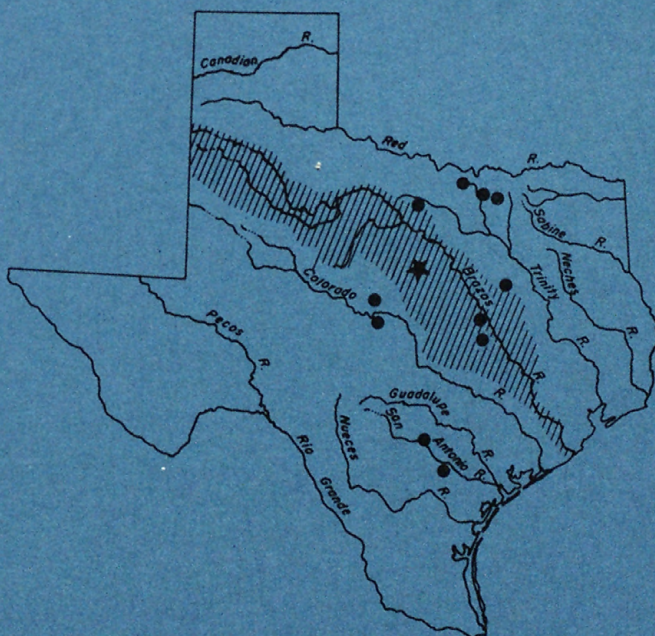
Annual Compilation and Analysis of Hydrologic Data for Green Creek, Brazos River Basin Texas, 1969

By B.C. Massey

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY-WATER RESOURCES DIVISION

Texas District

Trigg Twichell, District Chief



*Prepared in cooperation with the Texas Water Development
Board and the Soil Conservation Service*

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

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ANNUAL COMPILATION AND ANALYSIS OF HYDROLOGIC DATA
FOR GREEN CREEK, BRAZOS RIVER BASIN, TEXAS
1969

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INTRODUCTION

History of Small Watershed Projects in Texas

The U.S. Soil Conservation Service is actively engaged in the installation of flood and soil erosion reducing measures in Texas under the authority of "The Flood Control Act of 1936 and 1944" and "Watershed Protection and Flood Prevention Act" (Public Law 566), as amended. The Soil Conservation Service has found a total of approximately 3,500 floodwater-retarding structures to be physically and economically feasible in Texas. As of September 30, 1969, 1,355 of these structures had been built.

This watershed-development program will have varying but important effects on the surface- and ground-water resources of river basins, especially where a large number of the floodwater-retarding structures are built. Basic hydrologic data under natural and developed conditions are needed to appraise the effects of the structures on the yield and mode of occurrence of runoff.

Hydrologic investigations of these small watersheds were begun by the U.S. Geological Survey in 1951 and are now being made in 12 areas (fig. 1). These studies are being made in cooperation with the Texas Water Development Board, the Soil Conservation Service, the San Antonio River Authority, the city of Dallas, and the Tarrant County Water Control and Improvement District No. 1. The 12 study areas were chosen to sample watersheds having different rainfall, topography, geology, and soils. In five of the study areas (North, Little Elm, Mukewater, North Elm-Little Pond, and Pin Oak Creeks), streamflow and rainfall records were collected prior to construction of the floodwater-retarding structures, thus affording the opportunity for analyses of the conditions "before and after" development. Structures have now been built in three of these study areas. A summary of the development of the floodwater-retarding structures on each study area as of September 30, 1969, is shown in table 1.

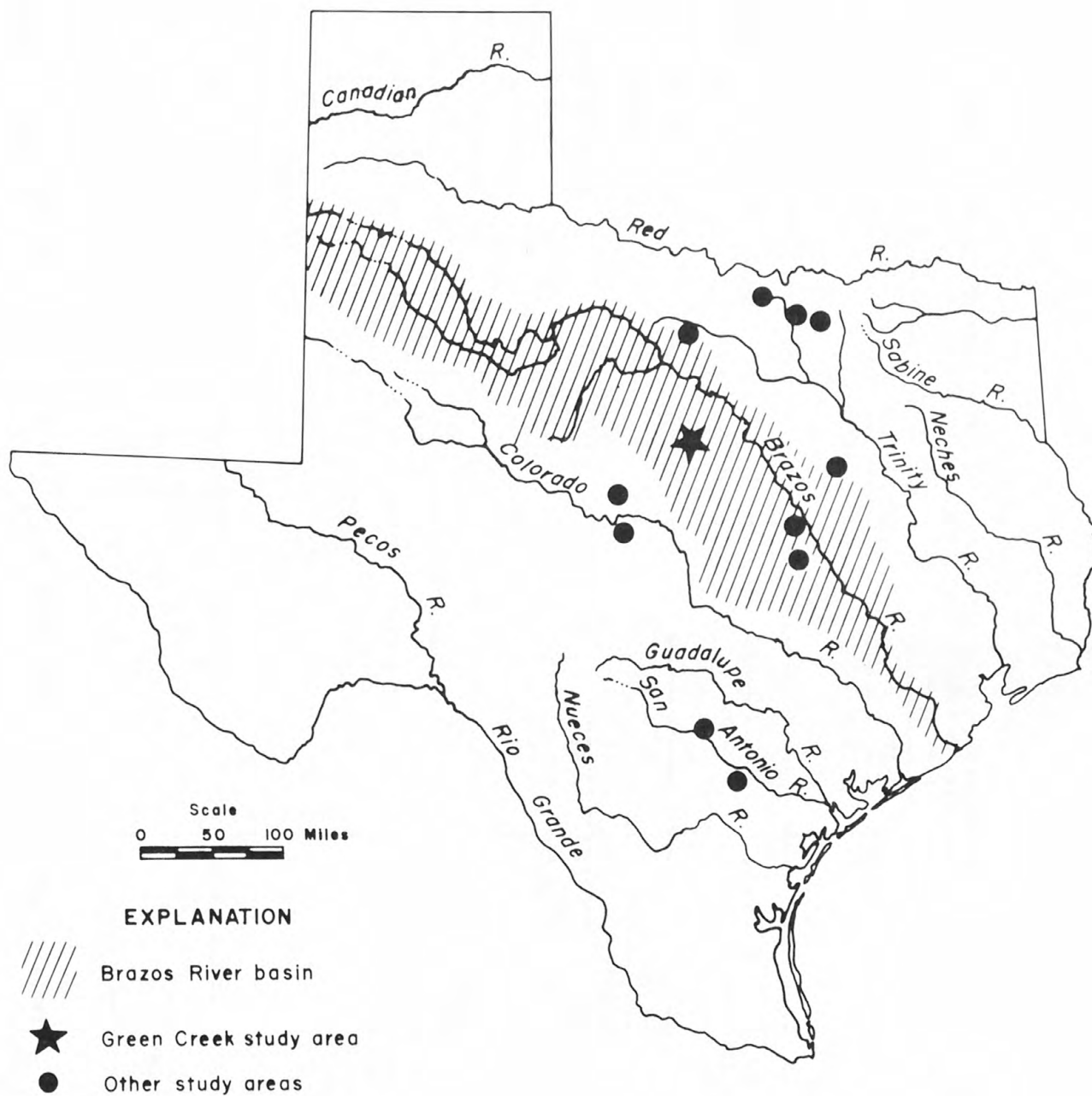


Figure 1.—Location of the Green Creek study area

Table 1.--Small watershed study areas in Texas as of September 30, 1969

Watershed	Drainage area above stream- gaging station (sq mi)	Hydrologic data collection began	Floodwater-retarding structures above stream-gaging station	Period the structures were built
<u>Trinity River basin:</u>				
North Creek near Jacksboro	21.6	Aug. 1956	None	-
Elm Fork Trinity River near Muenster	46.0	July 1956	14	1954-57, 63
Little Elm Creek near Aubrey	75.5	June 1956	8	1966
Honey Creek near McKinney	39.0	July 1951	13	1951-57, 69
Pin Oak Creek near Hubbard	17.6	Sept. 1956	6	1962-63, 65
<u>Brazos River basin:</u>				
Green Creek near Alexander	46.1	Oct. 1954	8	1954-56
Cow Bayou near Mooreville	85.0	Sept. 1954	26	1955-58, 64-65
<u>1</u> /Little Pond Creek at Burlington	22.2	Oct. 1962	None	-
<u>1</u> /North Elm Creek near Cameron	48.6	Oct. 1962	None	-
<u>Colorado River basin:</u>				
Mukewater Creek at Trickham	70.0	Aug. 1951	6	1961-62, 65
Deep Creek near Mercury	<u>a</u> /43.9	June 1951	5	1951-53
<u>San Antonio River basin:</u>				
Calaveras Creek near Elmendorf	77.2	Aug. 1954	7	1954-58
Escondido Creek at Kenedy	<u>b</u> /72.4	July 1954	10	1954-58

1/ Adjacent watersheds; considered as one study area.

a/ 8.31 sq mi above Dry Prong Deep Creek near Mercury not included in this total.

b/ 8.43 sq mi above Escondido Creek subwatershed No. 11 (Dry Escondido Creek) near Kenedy not included in this total.

Objectives of the Texas Small Watersheds Project

The purpose of these investigations is to collect sufficient data to meet the following objectives:

1. To determine the net effect of floodwater-retarding structures on the regimen of streamflow at downstream points.
2. To determine the effectiveness of the structures as ground-water recharge facilities.
3. To determine the effect of the structures on the sediment yield at downstream points.
4. To develop relationships between maximum rates and/or volumes of runoff with rainfall in small natural watersheds.
5. To develop a stream-system model for basins with floodwater-retarding structures.
6. To determine the minimum instrumentation necessary for estimating the flood hydrographs below a system of structures, as needed for downstream water-management operation.

Purpose and Scope of this Basic-Data Report

This report, which is the tenth in a series of basic-data reports published annually for the Green Creek study area, contains the rainfall, runoff, and storage data collected during the 1969 water year for the 46.1-square-mile area above the stream-gaging station Green Creek near Alexander, Texas. The locations of floodwater-retarding structures and hydrologic instruments in the area are shown on figure 2.

The investigation is scheduled to continue through a period of both above- and below-normal precipitation to define the various factors used in the analyses of rainfall-runoff relationships before and after floodwater-retarding structures were built.

To facilitate the publication and distribution of this report at the earliest feasible time, certain material contained herein does not conform to the formal publication standards of the U.S. Geological Survey.

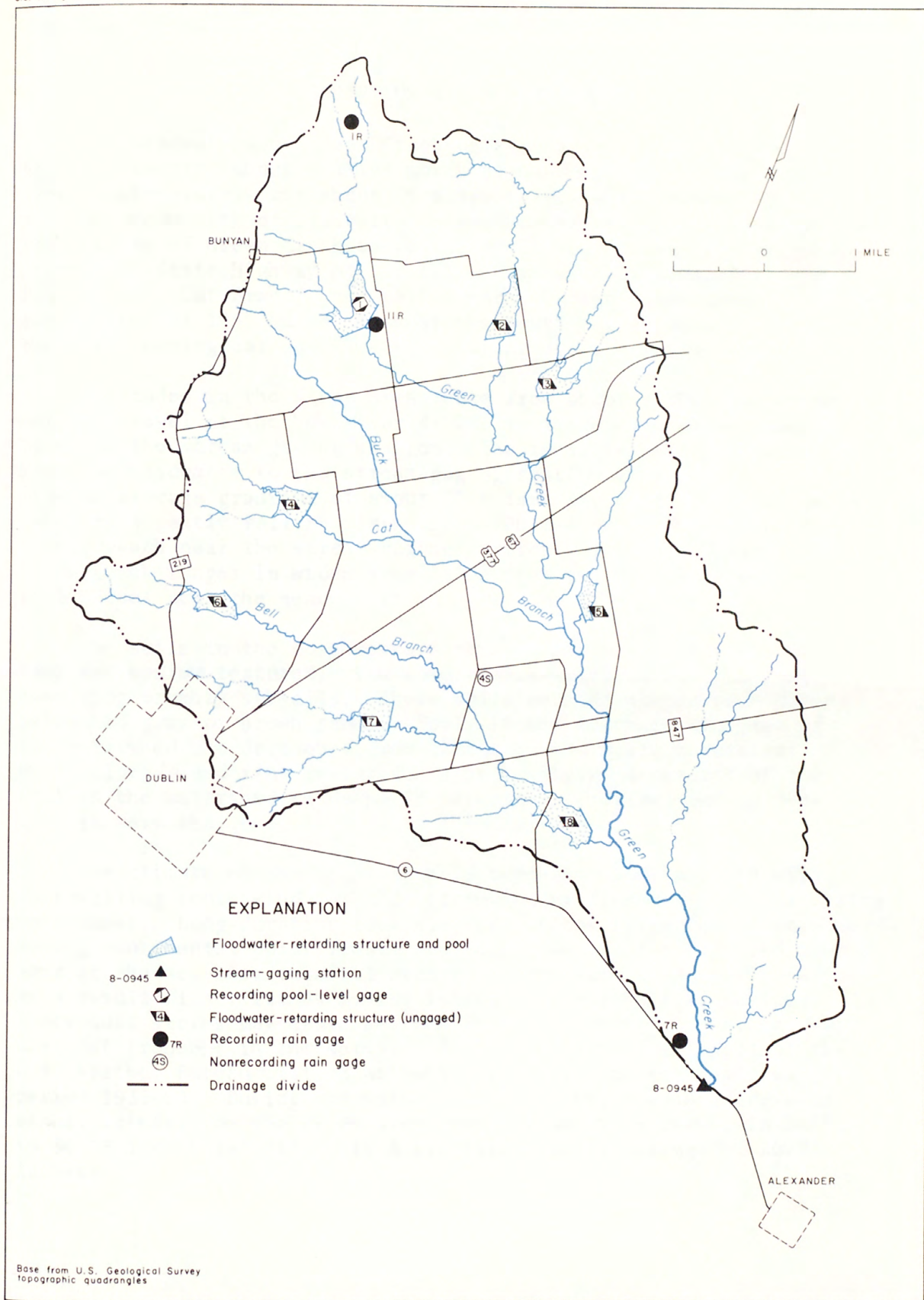


FIGURE 2.—Locations of floodwater-retarding structures and hydrologic-instrument installations in the Green Creek study area

DESCRIPTION OF THE WATERSHED

The headwaters of Green Creek originate in the western part of Erath County, about 2 miles north of Bunyon, Texas. The creek flows southeasterly for about 26 miles to the North Bosque River, near the community of Clairette in southern Erath County. The major tributaries of Green Creek above the Geological Survey stream-gaging station at State Highway 6, 1.7 miles northwest of Alexander, are Buck Branch, Cat Branch, and Bell Branch. Green Creek drains a triangular basin of 105 square miles at the mouth and 46.1 square miles above the Geological Survey stream-gaging station (study area).

Altitudes in the study area range from about 1,500 feet above mean sea level at the headwater divide to 1,170 feet above mean sea level at the stream-gaging station. The total length of Green Creek from the headwater to the stream-gaging station is about 13.5 miles, with an average gradient of about 20.6 feet per mile. An escarpment rises to a gently rolling plain about 100 feet above the flood plain in the reach near the stream-gaging station. The main valley of Green Creek ranges in width from 1,300 feet in the lower reaches to 300 feet near the headwaters.

The soils in the northwestern part of the study area are mostly deep and medium textured, with some coarse-textured surface soils overlying crumbly subsoils. These soils were developed from unconsolidated gray or brown sands. Soils in the southwestern part of the watershed are developed from limestone and shale formations, dark colored, and fine textured. Approximately 54 percent of the soil in the watershed is deep, 34 percent is shallow, and 12 percent is very shallow.

The climate of the study area is temperate and subhumid with a prevailing south wind. Thunderstorms occur frequently in the spring and summer. Long-duration low-intensity storms triggered by southward-moving continental polar fronts are common during the fall and winter. Some of the heaviest rainfall occurs in late summer and early fall as a result of hurricanes moving inland from the Gulf of Mexico. Individual storms may cause serious flooding during any season, but are most frequent in the spring. The normal annual rainfall at the U.S. Weather Bureau station at Dublin is 31.67 inches, based on the period 1931-60. During the water years 1957-69, the weighted-mean annual rainfall on the study area ranged from 19.28 inches in 1967, to 36.06 inches in 1968, with a 12-year weighted average of 28.77 inches.

FLOODWATER-RETARDING STRUCTURES

There are eight floodwater-retarding structures in the Green Creek watershed upstream from the stream-gaging station (fig. 2). These eight structures have a total combined capacity of 7,500 acre-feet below the flood-spillway crests, and control 22.3 square miles, or approximately 50 percent of the drainage area above the stream-gaging station.

Table 2 is a summary of the physical data at each of the eight floodwater-retarding structures.

HYDROLOGIC INSTRUMENTS

Instruments to collect rainfall, runoff, and storage data in the Green Creek study area consist of a network of rain gages, a water-stage recorder at floodwater-retarding structure site 1, and a stream-gaging station on Green Creek downstream from all floodwater-retarding structures. Prior to October 1, 1966, staff gages were operated at seven floodwater-retarding structures, sites 2 through 8, at which weekly readings were obtained to provide data to determine the quality of water retained or released from the structures. On September 30, 1966, staff gage readings at all miscellaneous sites (2-8) were discontinued. The location of instruments presently operated is shown on figure 2.

Three recording and one nonrecording rain gages are located at points throughout the study area to define the total rainfall and rainfall intensities. The measurements of rainfall at these rain gages are made at weekly intervals by Soil Conservation Service personnel. A summary of rainfall from data collected at these gages is included in the compilation and analysis of data.

A continuous water-stage recording gage is operated at floodwater-retarding pool site 1, at which data are collected to measure the contents, and to compute the surface area, inflow, and outflow. Records at site 1 began May 12, 1955. Monthly and annual summary of the water budget for the 1969 water year at site 1 is shown in the compilation and analysis of data.

A continuous water-stage recorder at the stream-gaging station on Green Creek near Alexander provides records of the stage, which together with measurements of streamflow are used to compute the total runoff from the study area. Streamflow records at this gage began May 27, 1958.

Table 2.--Floodwater-retarding structure data, Green Creek study area.

Site Number	Drainage Area (sq mi)	Date Dam Completed	Date Gage Established	Datum of Gage above Mean Sea Level	Emergency Spillway			Drop Outlet		Portholes			Controlled Opening		Pipe through Dam (in.)	Range of Staff Gages
					Number and Width (ft)	Gage Height (ft)	Content (ac-ft)	Gage Height (ft)	Pool Content (ac-ft)	Number and Size (in.)	Gage Height at Bottom (ft)	Pool Content (ac-ft)	Gage Height at Bottom (ft)	Pool Content (ac-ft)		
1	3.34	4-25-55	5-12-55	1,408.0	1 (250)	21.8	1,097	11.0	223	-	-	-	3.76	34	14	3.4- 26.6
2	2.52	2-27-55	10-18-55	1,381.0	1 (200)	25.0	726	15.0	111	1 12"x24"	10.67 plugged	28	7.33	6.0	14	
3	1.58	9- 5-54	10-18-55	1,369.8	1 (150)	24.6	590	15.0	108	-	-	-	7.00	.4	14	
4	1.99	6- 5-55	10-18-55	1,401.5	1 (175)	26.5	642	15.0	48	-	-	-	8.00	0	a/22	
5	2.20	9-29-55	4-12-56	1,306.4	1 (200)	26.4	692	15.0	147	-	-	-	1.00	4	b/22	
6	1.20	10- 5-55	10-18-55	1,422.4	1 (100)	29.9	647	15.0	68	-	-	-	7.00	6.2	c/17	
7	3.20	3-28-56	4-12-56	1,347.0	1 (200)	28.3	1,166	15.0	148	-	-	-	5.00	16.6	d/17	
8	*10.66	9-24-56	12-10-56	1,256.0	2 (100) (300)	37.0	1,906	18.0	294	2 8"x8" 2 8"x10"	15.0	188	0	40	17	

* The 4.40 sq mi above sites 6 and 7 is included in this total.

a/ 10-inch baffle.

b/ 9-inch baffle.

c/ 11-inch baffle.

d/ 12-inch baffle.

SUMMARY OF DATA FOR THE 1969 WATER YEAR

The weighted-mean rainfall over the study area during the 1969 water year was 31.01 inches, or 98 percent of the 1931-60 long-term mean annual rainfall of 31.67 inches at Dublin, Texas. The monthly-rainfall totals ranged from no rainfall in October and January to 7.17 inches in July. The mean daily discharge at the stream-gaging station Green Creek near Alexander was 12.7 cfs (cubic feet per second), compared with the 11-year (1958-69) average of 6.14 cfs. The annual runoff at the stream-gaging station was 9,180 acre-feet. This runoff represents an equivalent depth of 3.73 inches.

The weighted-mean rainfall above subwatershed No. 1 was 29.31 inches and the runoff was 435 acre-feet. This runoff represents an equivalent depth of 2.44 inches. The higher runoff (in inches) at the stream-gaging station as compared to the area above site 1 can be attributed to heavier rainfall during the year over the downstream or lower part of the study area as opposed to the upstream or upper part of the study area. Rainfall in the lower part averaged about 1.70 inches higher than in the upper part of the study area.

A storm event is defined as a period of rainfall separated by at least 6 hours from other rainfall. Storms are selected for detailed rainfall-runoff computations on the basis of rainfall totals and distribution, the peak discharge produced from the rainfall at the stream-gaging station, and the assurance of good rainfall and runoff records for the storm periods selected.

Three storm periods were selected for detailed analysis and computation. These computations include detailed time breakdown of rainfall and discharge, hydrographs, and mass curves. The storms selected occurred on April 12, 1969, May 6-7, 1969, and July 27, 1969. A summary of rainfall-runoff data for these storms is shown in table 3. Computations along with hydrographs and mass curves for the storms are shown in the compilation and analysis of data.

TX-35
6/69

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY-TEXAS DISTRICT

ANNUAL STORM RAINFALL-RUNOFF SUMMARY DATA

Table 3.--Storm rainfall-runoff data, 1969 water year.

Date of Storm	Rainfall (inches)					Runoff (inches)	Ratio runoff to rainfall	Maximum discharge (cfs)
	Duration (hours)	Total	Maximum increment					
			15-minute	30-minute	60-minute			
Green Creek near Alexander, Tex. (Drainage area 46.1 sq mi, of which 22.3 sq mi is above floodwater-retarding structures)								
April 12, 1969	22	2.48	0.13	0.19	0.36	0.15	0.06	625
May 6-7, 1969	20	1.45	.22	.22	.36	.47	.32	2,570
July 27, 1969	19	7.18	.56	1.09	2.12	1.39	.19	9,060
Green Creek subwatershed No. 1 near Dublin, Tex. (Drainage area, 3.34 sq mi)								
April 12, 1969	20	2.69	0.10	0.20	0.34	0.38	0.14	241
May 6-7, 1969	20	1.53	.32	.37	.47	.38	.25	100
July 27, 1969	19	6.05	.64	1.10	1.62	.99	.16	604

COMPI LATION AND ANALYSIS OF DATA

BRAZOS RIVER BASIN

8-0940. Green Creek subwatershed No. 1 near Dublin, Tex.

LOCATION.--Lat 32°09'57", long 98°20'28", Erath County, near center of dam on main headwater channel of Green Creek, 0.9 mile downstream from county road, 1.3 miles east of Farm Road 219, and 5.5 miles north of Dublin.

DRAINAGE AREA.--3.34 sq mi.

PERIOD OF RECORD.--May 1955 to current year.

GAGE.--Water-stage recorder and concrete drop inlet. Datum of gage is 1,408.00 ft above mean sea level (levels by Soil Conservation Service).

AVERAGE INFLOW.--14 years, 562 acre-ft per year.

AVERAGE OUTFLOW.--14 years, 3.99 acre-ft per year.

EXTREMES.--Current year: Maximum outflow, 15 cfs July 28 (gage height, 13.30 ft); no outflow most of time. Maximum inflow, 604 cfs (average for 5-minute interval) July 27, computed from change in pool contents and adjusted for outflow and rainfall on pool surface during time of peak inflow; no inflow for many days.

Period of record: Maximum outflow, 709 cfs May 1, 1956 (gage height, 23.21 ft); no outflow for most of time each year. Maximum inflow, 11,500 cfs (average for 5-minute interval) Apr. 30, 1956, computed and adjusted as above; no inflow for many days each year.

REMARKS.--Records good. The pool is formed by a rolled earthfill dam 3,000 ft long. The dam was completed Apr. 25, 1955, and storage began shortly thereafter. The outlet structure consists of a 30-inch square concrete drop inlet that is connected to a 14-inch concrete outlet pipe. The gage height at top of the drop inlet is 11.0 ft. The emergency spillway is a 250-foot wide cut in natural ground at the right end of dam. The gage height at crest of emergency spillway is 21.8 ft. There is a clean-out gate valve at the end of an 8-inch pipe which connects to the lower end of the drop inlet box at a gage height of 3.76 ft. The pool capacity at the crest of emergency spillway is 1,097 acre-ft; at top of drop inlet, 223 acre-ft; and at controlled outlet pipe, 48.0 acre-ft. The dam was built by the Soil Conservation Service for flood control. A permit issued by the Texas Water Rights Commission grants 181 acre-ft per year for irrigation. During the water year 1969, no known releases were made for irrigation purposes. Two recording rain gages are located in the watershed; one at station, and one above station. The surface area and capacity tables are based on a Soil Conservation Service sedimentation survey of June 1967.

REVISIONS (WATER YEARS).--WSP 1922: 1955-60(M).

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	0.3	6.9	4.2	1.6	4.1	22.7	82.2	96.5	2.3	187	26.4	0.9
Outflow	0	0	0	0	0	0	8.0	90.6	0	126	26.6	0
(++)	0	4.36	0.04	0	1.45	3.08	4.10	3.37	3.11	6.05	2.72	1.03

CAL YR 1968: Inflow 1,170 Outflow 967 ++ 34.59
WTR YR 1969: Inflow 435 Outflow 251 ++ 29.31

PEAK INFLOW (BASE, 100 CFS)

DATE	TIME	DISCHARGE
4-12	1955	*241
5- 7	1600	**100
7-27	0940	*604

1/ Inflow adjusted for rainfall on pool and pool losses.
++ Weighted-mean rainfall, in inches.
* 5-minute interval.
** 15-minute interval.

8-0940.00

WATER RESOURCES DIVISION
Green Creek
yearly weighted-mean rainfall
Monthly and ~~annual~~ discharge, in _____ inches, of Subwatershed No. 1 River at near Dublin, Tex.
[Drainage area, 3.34 square miles]

16-26489-5 U. S. GOVERNMENT PRINTING OFFICE

[illegible]

8-0940.00

WATER RESOURCES DIVISION
Green Creek
Monthly and ~~annual~~ ^{yearly} Net Inflow ^{discharge}, in acre-feet, of Subwatershed No. 1 River ^{at} Dublin, Tex.
[Drainage area, 3.34 square miles]

16-26489-5 U. S. GOVERNMENT PRINTING OFFICE

[illegible]

8-0940.00

WATER RESOURCES DIVISION
Green Creek
Monthly and ~~annual discharge~~ ^{yearly outflow}, in acre-feet, of Subwatershed No. 1 River ^{at} Dublin, Tex.
[Drainage area, 3.34 square miles]

16-26489-6 U.S. GOVERNMENT PRINTING OFFICE

[illegible]

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOL

ANNUAL SUMMARY

1969 WATER YEAR

08-0940. Green Creek subwatershed No 1 near Dublin, Tex. Drainage Area 3.34 sq. mi.

Continuous water-stage recorder: ratio 10:12. Date of last sediment survey June 1967.

Maxima: gage height, 13.30 ft; outflow, 14.6 cfs; surface area, 54.1 acres; contents, 329 acre-feet; on July 28, 1969.

Minima: gage height, 8.31 ft; surface area, 26.2 acres; contents, 134 acre-feet; on Feb. 13, 1969.

Maximum inflow, 604 cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on July 27, 1969.

Averages: 14 water years, (1955-69); inflow, 562 acre-feet/year; outflow, 399 acre-feet/year; rainfall, 29.66 inches/year.

Pool water budget, in acre-feet, water year October 1968 to September 1969.

	Oct	Nov	Dec.	Calendar year <u>1968</u>	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year <u>1969</u>
Total Inflow \downarrow	0.3	6.9	4.2	1,170	1.6	4.1	22.7	82.2	96.5	2.3	187	26.4	0.9	435
Total Outflow	0	0	0	967	0	0	0	8.0	90.6	0	126	26.6	0	251
Total Consumption	17.9	10.1	10.3	260	7.6	8.8	11.1	19.2	26.8	30.1	39.3	34.9	23.6	240
†	-17.6	+6.0	-6.0	+36.6	-6.0	-1.6	+18.3	+65.8	-9.3	-19.2	+40.6	-26.6	-19.6	+24.8
‡	29.4	28.0	28.5	--	27.3	26.6	27.8	36.3	40.0	37.6	34.8	38.8	36.3	--
††	0	4.36	0.04	34.59	0	1.45	3.08	4.10	3.37	3.11	6.05	2.72	1.03	29.31

\downarrow Inflow adjusted for rainfall on pool and pool losses.

† Change in contents, in acre-feet.

‡ Mean surface area, in acres.

†† Weighted mean rainfall, in inches.

Peak inflow - (base, 100 cfs)

Date	Time	Discharge	Date	Time	Discharge
4-12	1955	*241			
5-7	1600	**100			
7-27	0940	*604			

* Based on 5-minute interval

** Based on 15-minute interval

BRAZOS RIVER BASIN

8-0945. Green Creek near Alexander, Tex.

LOCATION.--Lat 32°04'26", long 98°13'46", Erath County, at downstream side of bridge on State Highway 6, 0.5 mile upstream from Cottonwood Creek, and 1.7 miles northwest of Alexander.

DRAINAGE AREA.--46.1 sq mi.

PERIOD OF RECORD.--October 1954 to April 1958 (annual maximums only), May 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,172.00 ft above mean sea level. Prior to May 27, 1958, nonrecording gage and crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--11 years, 6.14 cfs (4,450 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,060 cfs July 27 (gage height, 20.09 ft), from rating curve extended above 2,400 cfs on basis of slope-area measurement of 8,940 cfs; no flow at times.

Period of record: Maximum discharge, 23,900 cfs Apr. 30, 1956 (gage height, 23.95 ft), from rating curve extended above 2,400 cfs on basis of contracted-opening measurement of 23,900 cfs; no flow at times each year.

Maximum discharge since at least 1910, 55,800 cfs May 23, 1952 (gage height, 28.0 ft), on basis of contracted-opening measurement of peak flow.

REMARKS.--Records good. At end of year, flow from 22.3 sq mi above this station was partly controlled by eight floodwater-retarding structures with a total combined capacity of 7,470 acre-ft below flood-spillway crests, of which 6,510 acre-ft is floodwater-retarding capacity and 960 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Four rain gages (1 standard and 3 recording) are operated in the basin.

REVISIONS (WATER YEARS).--WRD Tex. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	.47	2.8	1.1	.02	90	.03
2	0	0	0	0	0	0	.36	2.6	.94	.02	75	.02
3	0	0	0	0	0	0	.41	2.4	2.9	.01	58	.01
4	0	0	0	0	0	0	.36	2.4	5.0	.01	54	.01
5	0	0	0	0	0	0	.32	117	2.4	.01	70	0
6	0	0	0	0	0	0	.28	44	1.7	.01	54	0
7	0	0	0	0	0	0	.24	472	1.4	0	46	0
8	0	0	0	0	0	0	.20	100	1.1	0	39	0
9	0	0	0	0	0	0	.20	64	.94	0	30	0
10	0	0	0	0	0	0	.24	53	.86	0	25	0
11	0	0	0	0	0	0	.28	43	.70	0	17	0
12	0	0	0	0	0	0	.82	34	.62	0	8.1	0
13	0	0	0	0	0	0	1.13	32	.62	0	4.4	0
14	0	0	0	0	0	0	.26	30	.62	0	1.9	0
15	0	0	0	0	0	0	.13	31	.62	0	1.0	0
16	0	0	0	0	0	0	.77	22	.54	0	.77	0
17	0	0	0	0	0	0	.98	20	.47	0	.45	0
18	0	0	0	0	0	1.9	.24	13	.36	0	.22	0
19	0	0	0	0	0	1.8	.17	9.4	.41	0	.14	0
20	0	0	0	0	0	.62	.13	6.3	.28	0	.08	0
21	0	0	0	0	0	.28	9.1	4.4	.20	0	.04	0
22	0	0	0	0	0	.20	5.7	3.8	.13	0	.04	0
23	0	0	0	0	0	30	4.0	3.4	.15	0	.03	0
24	0	0	0	0	0	4.3	3.1	3.1	.47	0	.05	0
25	0	0	0	0	0	1.1	2.8	2.9	.24	0	.05	0
26	0	0	0	0	0	.62	2.8	2.8	.15	0	.04	0
27	0	0	0	0	0	.54	10	2.6	.08	1,730	.53	0
28	0	0	0	0	0	.47	6.6	2.3	.06	228	3.2	0
29	0	0	0	0	-----	.36	4.0	2.2	.04	137	.41	0
30	0	0	0	0	-----	.41	3.1	1.7	.03	125	.18	0
31	0	-----	0	0	-----	.41	-----	1.4	-----	110	.08	-----
TOTAL	0	0	0	0	0	43.01	517.56	1,131.5	25.13	2,330.08	579.71	0.07
MEAN	0	0	0	0	0	1.39	17.3	36.5	.84	75.2	18.7	.002
MAX	0	0	0	0	0	30	113	472	5.0	1,730	90	.03
MIN	0	0	0	0	0	0	.20	1.4	.03	0	.03	0
AC-FT	0	0	0	0	0	85	1,030	2,240	50	4,620	1,150	.1
CAL YR 1968	TOTAL	5,348.33	MEAN	14.6	MAX	655	MIN	0	AC-FT	10,610		
WTR YR 1969	TOTAL	4,627.06	MEAN	12.7	MAX	1,730	MIN	0	AC-FT	9,180		

WATER RESOURCES DIVISION

yearly weighted-mean rainfall
Monthly and ~~annual discharge~~, in _____ inches, of _____ Green Creek _____ River at _____ near _____ Alexander, Tex.
[Drainage area, _____ 46.1 _____ square miles]

16-26489-5 U. S. GOVERNMENT PRINTING OFFICE

[illegible]

8-0945.00

WATER RESOURCES DIVISION

yearly mean
Monthly and ~~annual~~ discharge, in cfs, of Green Creek River at Alexander, Tex.
[Drainage area, 45.5 square miles]

16-26489-5 U. S. GOVERNMENT PRINTING OFFICE

[illegible]

Form TX-88
Rev. 10-69

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey - Water Resources Division

RAINFALL DATA SUMMARY

STUDY AREA <u>GREEN CREEK</u>		RAIN GAGES				<u>1969</u>	WATER YEAR
Date of Storm	1-R	4-S	7-R	11-R	Average (1R & 11-R)	Weighted*	
October Totals	0	0	0	0	0	0	
Nov. 2, 1968	0.60	0.97	0.19	0.45	0.52	0.56	
8	1.02	.87	.81	.80	.91	.86	
9	.16	.22	.29	.20	.18	.23	
15	.50	.57	.38	.44	.47	.48	
26	1.00	1.07	.83	.75	.88	.93	
27-28	.78	.90	.76	.45	.61	.76	
30	.73	.83	.69	.83	.78	.77	
November Totals	4.79	5.43	3.95	3.92	4.36	4.58	
Dec. 21, 1968	0	0.08	0.14	0	0	0.07	
27	.07	.15	.34	.02	.04	.18	
December Totals	.07	.23	.48	.02	.04	.25	
January Totals (1969)	0	0	0	0	0	0	
Feb. 13-14, 1969	1.02	0.83	0.81	0.80	0.91	0.85	
19	.25	.15	.10	.18	.22	.16	
20	.08	.08	.10	0	.04	.07	
21	.27	.25	.30	.29	.28	.28	
February Totals	1.62	1.31	1.31	1.27	1.45	1.35	

Form TX-88
Rev. 10-69

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey - Water Resources Division

RAINFALL DATA SUMMARY

STUDY AREA GREEN CREEK

1969 WATER YEAR

Date of storm	RAIN GAGES					Weighted*
	1-R	4-S	7-R	11-R	Average (1R & 11-R)	
Mar. 2, 1969	0.25	0.22	0.15	0.18	0.21	0.17
2-3	.13	.19	.20	.12	.12	.17
5	.30	.30	.22	.30	.30	.27
14-15	.72	.74	.68	.68	.70	.71
16	.05	.03	.02	.03	.04	.03
16-17	.15	.10	.05	.15	.15	.10
17	.60	.51	.40	.59	.60	.50
23	1.01	.82	.73	.87	.94	.83
30	0	.03	0	.03	.01	.01
March Totals	3.21	2.94	2.45	2.95	3.08	2.82
Apr. 9, 1969	0.06	0.14	0.22	0	0.03	0.13
11	0	.02	.05	0	0	.02
12	2.82	2.40	2.33	2.55	2.68	2.47
16-17	.62	1.25	1.41	.58	.60	1.09
20	0	0	0	.14	.07	.02
26	.10	.06	.05	.05	.08	.06
27	.72	.67	.75	.57	.64	.69
April Totals	4.32	4.54	4.81	3.89	4.10	4.48
May 5, 1969	1.28	2.25	2.02	1.30	1.29	1.85
6	.88	.93	.43	.88	.88	.75
7	.54	.82	.65	.77	.66	.71
15	.29	.22	.12	.29	.29	.21
17	.19	.18	.55	.11	.15	.29
23	.10	0	0	.09	.10	.03
May Totals	3.28	4.40	3.77	3.44	3.37	3.84

Form TX-88
Rev. 10-69

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey - Water Resources Division

RAINFALL DATA SUMMARY

STUDY AREA <u>GREEN CREEK</u>						<u>1969</u>	WATER YEAR
		RAIN GAGES					
Date of Storm		1-R	4-S	7-R	11-R	Average (1-R & 11R)	Weighted*
June 3, 1969		1.82	1.40	0.86	1.80	1.81	1.36
12		.27	.47	.12	.17	.22	.27
19		.35	.18	.25	.24	.30	.24
23		1.07	.66	1.00	.50	.78	.81
June Totals		3.51	2.71	2.23	2.71	3.11	2.68
July 27, 1969		6.05	9.23	6.23	(6.05)	6.05	7.17
July Totals		6.05	9.23	6.23	6.05	6.05	7.17
Aug. 4-5, 1969		1.65	1.21	1.40	1.35	1.50	1.37
25		.25	.18	.15	.31	.28	.20
27		.68	.91	1.10	.65	.66	.89
29		.24	.19	.10	.32	.28	.19
August Totals		2.82	2.49	2.75	2.63	2.72	2.65
Sept. 3, 1969		0	0	0	0.10	0.05	0.02
7		.07	.11	.06	.15	.11	.09
10		.08	.08	.12	.06	.07	.09
10-11		.32	.31	.48	.28	.30	.36
23		.56	.72	.65	.45	.50	.62
September Totals		1.03	1.22	1.31	1.04	1.03	1.19
1969 Water Year Total							

INFLOW AND OUTFLOW COMPUTATIONSStorm period Apr. 12-13, 19698-940 Green Creek subwatershed No. 1 near Dublin, Tex. D.A. 3.34 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage		Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool				Net Inflow			Acc in
				ac-ft	cfs				in	ac	Storage ac-ft	cfs	Rate cfs	in/hr	in	
<u>April 12</u>																
<u>0000</u>	<u>8.92</u>	<u>150.91</u>							<u>0</u>							
<u>0200</u>	<u>8.94</u>	<u>151.50</u>	<u>2.0</u>	<u>+ .59</u>	<u>+ 3.6</u>	<u>8.93</u>		<u>3.6</u>	<u>.24</u>	<u>49.2</u>	<u>0.58</u>	<u>3.5</u>	<u>.1</u>	<u>.0000</u>	<u>.0000</u>	<u>.0000</u>
<u>0600</u>	<u>8.96</u>	<u>152.08</u>	<u>4.0</u>	<u>+ .58</u>	<u>+ 1.8</u>	<u>8.95</u>		<u>1.8</u>	<u>.23</u>	<u>29.2</u>	<u>.56</u>	<u>1.7</u>	<u>.1</u>	<u>.0000</u>	<u>.0000</u>	<u>.0000</u>
<u>0700</u>	<u>8.99</u>	<u>152.96</u>	<u>1.0</u>	<u>+ .88</u>	<u>+ 10.6</u>	<u>8.97</u>		<u>10.6</u>	<u>.25</u>	<u>29.4</u>	<u>.61</u>	<u>7.4</u>	<u>3.2</u>	<u>.0015</u>	<u>.0015</u>	<u>.0015</u>
<u>0800</u>	<u>9.01</u>	<u>153.55</u>	<u>1.0</u>	<u>+ .59</u>	<u>+ 7.1</u>	<u>8.99</u>		<u>7.1</u>	<u>.16</u>	<u>29.4</u>	<u>.39</u>	<u>4.7</u>	<u>2.4</u>	<u>.0011</u>	<u>.0011</u>	<u>.0026</u>
<u>1200</u>	<u>9.02</u>	<u>152.85</u>	<u>4.0</u>	<u>+ .30</u>	<u>+ .9</u>	<u>9.01</u>		<u>.9</u>	<u>.10</u>	<u>29.6</u>	<u>.25</u>	<u>.8</u>	<u>.1</u>	<u>.0000</u>	<u>.0000</u>	<u>.0026</u>
<u>1500</u>	<u>9.04</u>	<u>154.44</u>	<u>3.0</u>	<u>+ .59</u>	<u>+ 2.4</u>	<u>9.03</u>		<u>2.4</u>	<u>.16</u>	<u>29.6</u>	<u>.39</u>	<u>1.6</u>	<u>.8</u>	<u>.0004</u>	<u>.0012</u>	<u>.0038</u>
<u>1600</u>	<u>9.07</u>	<u>155.34</u>	<u>1.0</u>	<u>+ .90</u>	<u>+ 10.9</u>	<u>9.06</u>		<u>10.9</u>	<u>.32</u>	<u>29.8</u>	<u>.79</u>	<u>9.6</u>	<u>1.3</u>	<u>.0006</u>	<u>.0006</u>	<u>.0044</u>
<u>1700</u>	<u>9.11</u>	<u>156.53</u>	<u>1.0</u>	<u>+ 1.19</u>	<u>+ 14.4</u>	<u>9.09</u>		<u>14.4</u>	<u>.32</u>	<u>30.0</u>	<u>.80</u>	<u>9.7</u>	<u>4.7</u>	<u>.0022</u>	<u>.0022</u>	<u>.0066</u>
<u>1730</u>	<u>9.16</u>	<u>158.04</u>	<u>.5</u>	<u>+ 1.51</u>	<u>+ 36.5</u>	<u>9.14</u>		<u>36.5</u>	<u>.08</u>	<u>30.2</u>	<u>.20</u>	<u>4.8</u>	<u>31.7</u>	<u>.0147</u>	<u>.0074</u>	<u>.0140</u>
<u>1800</u>	<u>9.22</u>	<u>159.87</u>		<u>+ 1.83</u>	<u>+ 44.3</u>	<u>9.19</u>		<u>44.3</u>	<u>.16</u>	<u>30.4</u>	<u>.41</u>	<u>9.9</u>	<u>24.4</u>	<u>.0160</u>	<u>.0080</u>	<u>.0230</u>
<u>1830</u>	<u>9.31</u>	<u>162.64</u>	<u>.5</u>	<u>+ 2.77</u>	<u>+ 67.0</u>	<u>9.26</u>		<u>67.0</u>	<u>.22</u>	<u>30.8</u>	<u>.56</u>	<u>12.6</u>	<u>53.4</u>	<u>.0248</u>	<u>.0124</u>	<u>.0244</u>
<u>1845</u>	<u>9.39</u>	<u>165.15</u>	<u>.25</u>	<u>+ 2.51</u>	<u>+ 121</u>	<u>9.35</u>		<u>121</u>	<u>.09</u>	<u>31.3</u>	<u>.23</u>	<u>11.1</u>	<u>110</u>	<u>.0510</u>	<u>.0128</u>	<u>.0472</u>
<u>1900</u>	<u>9.48</u>	<u>168.01</u>		<u>+ 2.86</u>	<u>+ 138</u>	<u>9.44</u>		<u>138</u>	<u>.04</u>	<u>31.7</u>	<u>.11</u>	<u>5.3</u>	<u>132</u>	<u>.0217</u>	<u>.0154</u>	<u>.0626</u>
<u>1915</u>	<u>9.58</u>	<u>171.23</u>		<u>+ 3.22</u>	<u>+ 156</u>	<u>9.56</u>		<u>156</u>	<u>.03</u>	<u>32.2</u>	<u>.08</u>	<u>3.9</u>	<u>152</u>	<u>.0705</u>	<u>.0176</u>	<u>.0802</u>
<u>1930</u>	<u>9.68</u>	<u>174.50</u>	<u>.25</u>	<u>+ 3.27</u>	<u>+ 158</u>	<u>9.63</u>		<u>158</u>	<u>.02</u>	<u>32.7</u>	<u>.05</u>	<u>2.4</u>	<u>156</u>	<u>.0724</u>	<u>.0181</u>	<u>.0983</u>
<u>1940</u>	<u>9.75</u>	<u>176.83</u>	<u>.167</u>	<u>+ 2.33</u>	<u>+ 169</u>	<u>9.72</u>		<u>169</u>	<u>.02</u>	<u>33.2</u>	<u>.06</u>	<u>4.4</u>	<u>165</u>	<u>.0766</u>	<u>.0128</u>	<u>.1111</u>
<u>1945</u>	<u>9.79</u>	<u>178.17</u>	<u>.083</u>	<u>+ 1.34</u>	<u>+ 195</u>	<u>9.77</u>		<u>195</u>	<u>.01</u>	<u>33.5</u>	<u>.03</u>	<u>4.4</u>	<u>191</u>	<u>.0886</u>	<u>.0074</u>	<u>.1185</u>
<u>1950</u>	<u>9.83</u>	<u>179.52</u>		<u>+ 1.25</u>	<u>+ 196</u>	<u>9.81</u>		<u>196</u>	<u>.01</u>	<u>33.7</u>	<u>.03</u>	<u>4.4</u>	<u>192</u>	<u>.0891</u>	<u>.0074</u>	<u>.1259</u>
<u>1955</u>	<u>9.88</u>	<u>181.21</u>		<u>+ 1.69</u>	<u>+ 245</u>	<u>9.86</u>		<u>245</u>	<u>.01</u>	<u>34.0</u>	<u>.03</u>	<u>4.4</u>	<u>241</u>	<u>.1118</u>	<u>.0098</u>	<u>.1352</u>
<u>2000</u>	<u>9.92</u>	<u>182.58</u>	<u>.083</u>	<u>+ 1.37</u>	<u>+ 199</u>	<u>9.90</u>		<u>199</u>	<u>.01</u>	<u>34.2</u>	<u>.03</u>	<u>4.4</u>	<u>195</u>	<u>.0905</u>	<u>.0075</u>	<u>.1427</u>
<u>2015</u>	<u>10.02</u>	<u>186.04</u>	<u>.25</u>	<u>+ 3.46</u>	<u>+ 167</u>	<u>9.97</u>		<u>167</u>	<u>.03</u>	<u>34.6</u>	<u>.09</u>	<u>4.4</u>	<u>163</u>	<u>.0756</u>	<u>.0189</u>	<u>.1616</u>
<u>2030</u>	<u>10.13</u>	<u>189.90</u>		<u>+ 3.86</u>	<u>+ 187</u>	<u>10.08</u>		<u>187</u>	<u>.02</u>	<u>35.2</u>	<u>.06</u>	<u>2.9</u>	<u>184</u>	<u>.0854</u>	<u>.0214</u>	<u>.1830</u>
<u>2045</u>	<u>10.24</u>	<u>193.83</u>		<u>+ 3.93</u>	<u>+ 190</u>	<u>10.18</u>		<u>190</u>	<u>.01</u>	<u>35.7</u>	<u>.03</u>	<u>1.5</u>	<u>188</u>	<u>.0872</u>	<u>.0218</u>	<u>.2048</u>
<u>2100</u>	<u>10.33</u>	<u>197.08</u>		<u>+ 3.25</u>	<u>+ 157</u>	<u>10.28</u>		<u>157</u>	<u>.01</u>	<u>36.2</u>	<u>.03</u>	<u>1.5</u>	<u>156</u>	<u>.0724</u>	<u>.0181</u>	<u>.2229</u>
<u>2115</u>	<u>10.42</u>	<u>200.38</u>		<u>+ 3.30</u>	<u>+ 160</u>	<u>10.38</u>		<u>160</u>	<u>0</u>	<u>36.7</u>	<u>0</u>	<u>0</u>	<u>160</u>	<u>.0742</u>	<u>.0186</u>	<u>.2415</u>
<u>2130</u>	<u>10.50</u>	<u>203.34</u>	<u>.25</u>	<u>+ 2.96</u>	<u>+ 143</u>	<u>10.46</u>		<u>143</u>	<u>0</u>	<u>37.1</u>	<u>0</u>	<u>0</u>	<u>143</u>	<u>.0664</u>	<u>.0166</u>	<u>.2581</u>
<u>2200</u>	<u>10.61</u>	<u>207.47</u>	<u>.50</u>	<u>+ 4.13</u>	<u>+ 100</u>	<u>10.56</u>		<u>100</u>	<u>0</u>	<u>37.5</u>	<u>0</u>	<u>0</u>	<u>100</u>	<u>.0464</u>	<u>.0232</u>	<u>.2813</u>
<u>2230</u>	<u>10.70</u>	<u>210.89</u>		<u>+ 3.42</u>	<u>+ 82.8</u>	<u>10.66</u>		<u>82.8</u>	<u>0</u>	<u>38.0</u>	<u>0</u>	<u>0</u>	<u>82.8</u>	<u>.0384</u>	<u>.0192</u>	<u>.3005</u>
<u>2300</u>	<u>10.75</u>	<u>212.81</u>	<u>.50</u>	<u>+ 1.92</u>	<u>+ 46.5</u>	<u>10.72</u>		<u>46.5</u>	<u>0</u>	<u>38.3</u>	<u>0</u>	<u>0</u>	<u>46.5</u>	<u>.0216</u>	<u>.0108</u>	<u>.3112</u>
<u>2400</u>	<u>10.85</u>	<u>216.68</u>	<u>1.00</u>	<u>+ 3.87</u>	<u>+ 46.8</u>	<u>10.80</u>		<u>46.8</u>	<u>0</u>	<u>38.7</u>	<u>0</u>	<u>0</u>	<u>46.8</u>	<u>.0217</u>	<u>.0217</u>	<u>.3320</u>

Comp. BCM 3-25-70
CHK CMW 3-31-70

Storm period Apr. 12-13, 1969

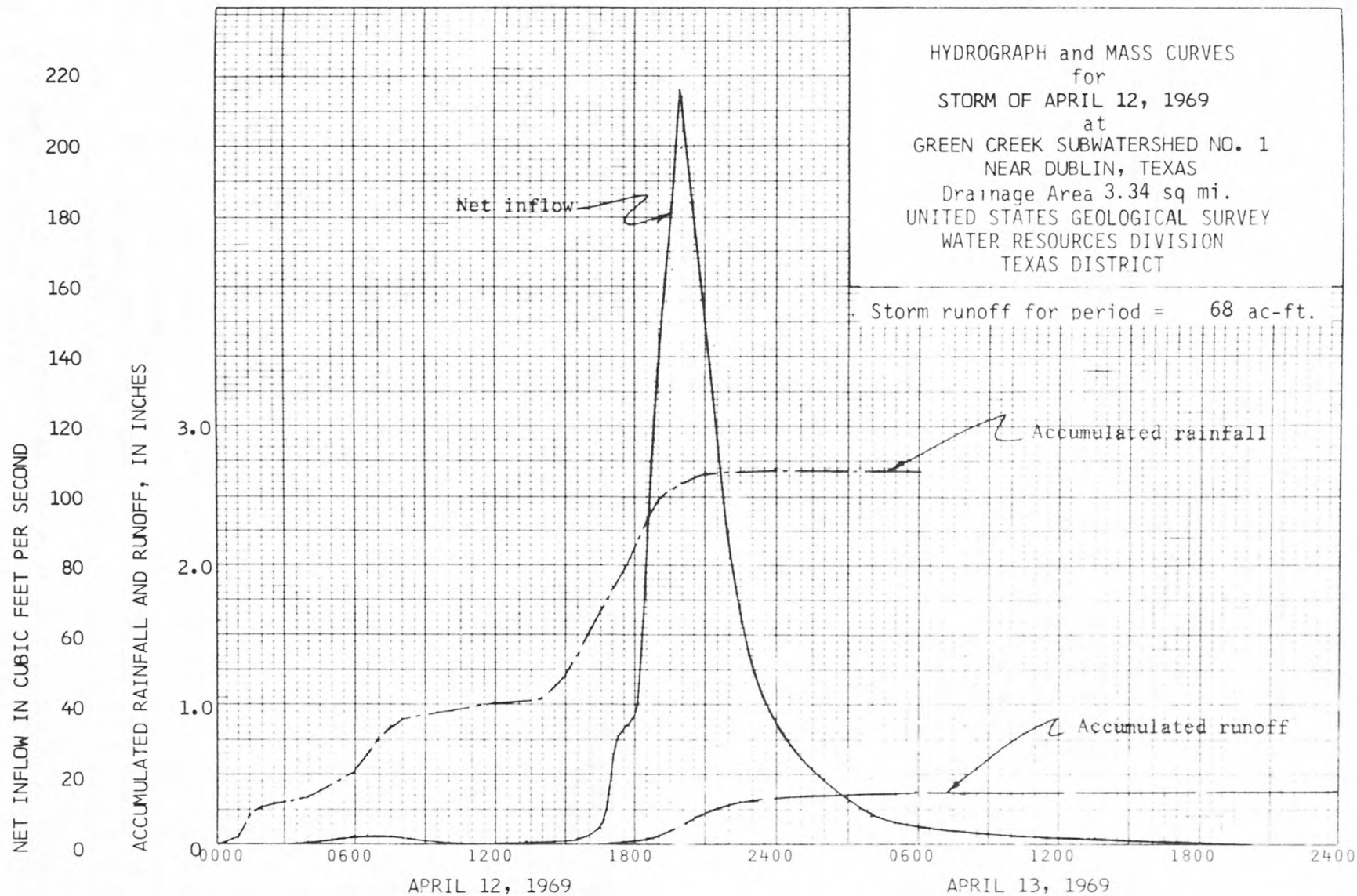
[illegible]

-24-

WEIGHTED-PRECIPITATION RECORD

Comp. by: B.C.M.
Date: 6-22-70
Check by: J.D.B.
Date: 6-24-70

[illegible]



UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY-TEXAS DISTRICT

RUNOFF COMPUTATIONS

Station Green Creek near Alexander, Tex

Period of Record Apr. 12-13, 1969

Drainage Area 46.1 sq. mi.

Time	G. Ht. Feet	Sh. Adj.	Discharge			Runoff	
			c.f.s.	Inc.	In/hr.	Inches	Acc. In.
	Apr. 12,	1969					
0000	2.57	0	.24	1			
0200	2.61	0	.41	3			
0400	2.62	0	.47	3			
0800	2.67	0	.86	3	.0000	.0000	.0000
1200	2.71	0	1.2	3.5	.0000	.0000	.0000
1500	2.82	0	2.4	2	.0001	.0002	.0002
1600	2.89	0	3.6	1	.0001	.0001	.0003
1700	3.03	0	7.2	.75	.0002	.0002	.0005
1730	3.12	0	10	.5	.0003	.0002	.0007
1800	3.24	0	15	.5	.0005	.0002	.0009
1830	3.50	0	28	.5	.0009	.0004	.0013
1900	4.00	0	67	.5	.0023	.0012	.0025
1930	4.35	$\frac{0}{+0.02}$	102	.5	.0034	.0017	.0042
2000	5.15	$\frac{0}{+0.04}$	207	.5	.0070	.0035	.0077
2030	5.50	$\frac{0}{+0.07}$	278	.5	.0093	.0046	.0123
2100	5.80	$\frac{0}{+0.07}$	344	.5	.0116	.0058	.0181
2130	5.87	$\frac{0}{+0.09}$	360	.5	.0121	.0060	.0241
2200	6.15	$\frac{0}{+0.11}$	435	.5	.0146	.0073	.0314
2230	6.60	$\frac{0}{+0.13}$	553	.5	.0186	.0093	.0407
2300	6.82	$\frac{0}{+0.13}$	625	.5	.0210	.0105	.0512
2330	6.75	$\frac{0}{+0.12}$	604	.5	.0203	.0102	.0614
2400	6.55	$\frac{0}{0}$	542	.5	.0182	.0046	.0660
			1972.9	24			
			82				
	Apr. 13						
0100	6.10	$\frac{0}{+0.09}$	422	1	.042	.0142	.0802
0200	5.66	$\frac{0}{+0.05}$	312	1	.0105	.0105	.0907
0300	5.34	$\frac{0}{+0.03}$	244	1	.0082	.0082	.0989
0400	5.03	$\frac{0}{0}$	186	1.5	.0063	.0094	.1083

Time	G. Ht. Feet	Sh. Adj.	Discharge			Runoff	
			c.f.s.	Inc.	In/hr.	Inches	A. T. In.
	Apr. 13, (cont.)						
0600	4.57	0	126	2.5	.0012	.0105	.1188
0900	4.15	0	82	2.5	.0008	.0070	.1259
1100	3.98	0	65	1.5	.0002	.0035	.1291
1200	3.92	+01	61	1.5	.0020	.0030	.1321
1400	3.82	+02	53	2	.0018	.0036	.1357
1600	3.75	+02	47	3	.0016	.0048	.1405
2000	3.65	+03	40	4	.0013	.0052	.1457
2400	3.58	+03	35	2	.0012	.0024	.1481
			2714	(24-			
			113				

Computed by EEL

Date 4-30-69

Checked by CMW

Date 3-26-70

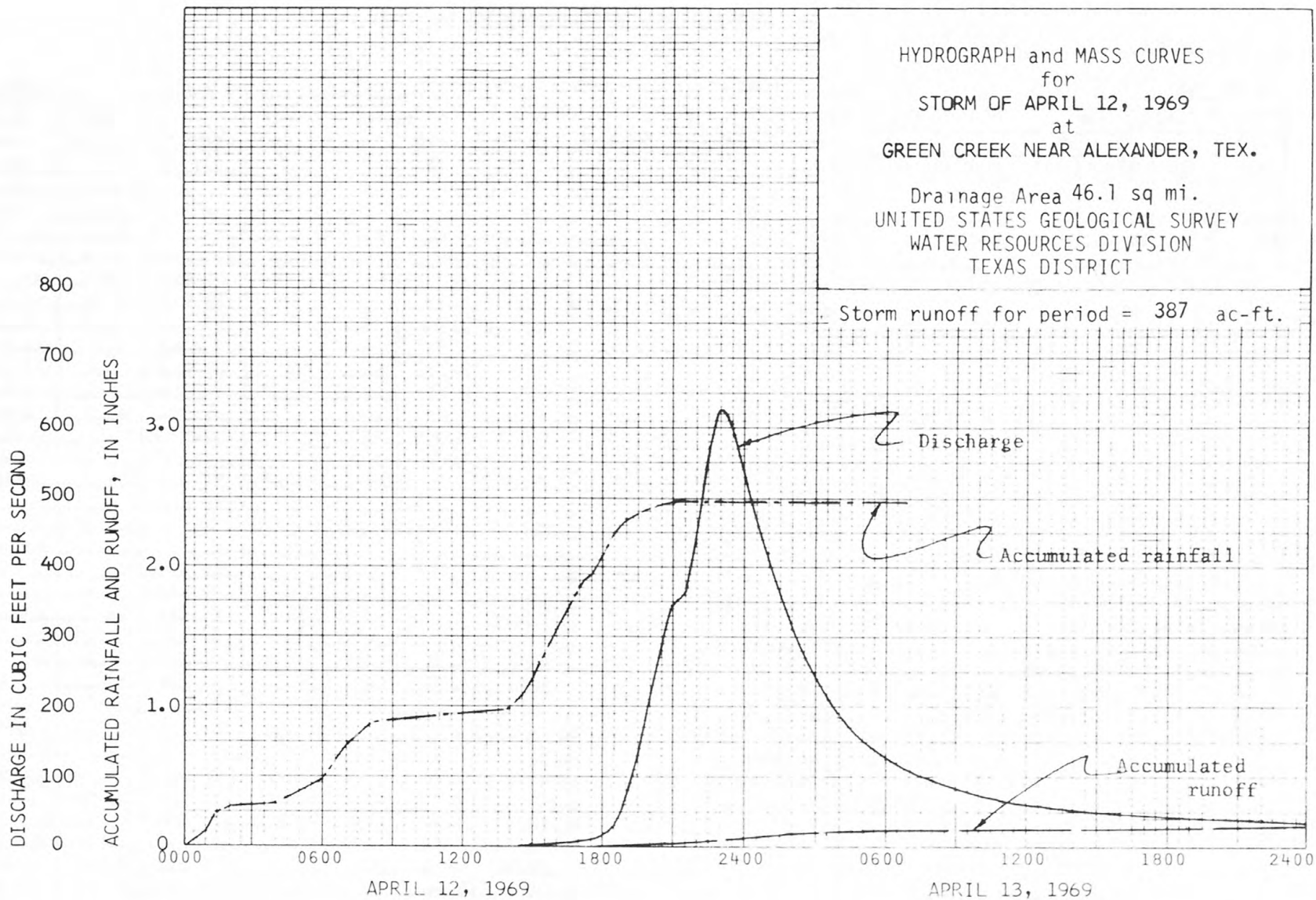
- 11 Drawdown corrections
12 Shift corrections

Comp. by: BCM
 Date: 6-22-70
 Check by: J.D.A.
 Date: 6-23-70

Area: Green Creek near Alexander, Tex.

Date of storm Apr. 12, 1969

[illegible]



INFLOW AND OUTFLOW COMPUTATIONSStorm period May 6-7, 19698-940 Green Creek subwatershed No. 1 near Dublin, Tex. D.A. 3.34 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage		Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool				Net Inflow			
				ac-ft	cfs				in	area ac	Storage		Rate		in	Acc in
May 6, 1969																
0000	11.17	229.38							0.00					.0000	.0000	.0000
1200	11.13	227.76	12	-1.62	-1.6	11.15	3.2	1.6	.00	40.4	0	0	1.6	.0007	.0084	.0084
1800	11.12	227.36	6	.40	.8	11.12	2.4	1.6	.00	40.3	0	0	1.6	.0007	.0042	.0126
2100	11.14	228.17	3	.81	3.3	11.13	2.6	5.9	.28	40.3	0.94	3.8	2.1	.0010	.0030	.0156
2130	11.17	229.38	.5	1.21	29.3	11.16	3.4	32.7	.22	40.5	.74	17.9	14.8	.0069	.0034	.0190
2200	11.21	231.00	.5	1.62	39.2	11.19	4.3	43.5	.28	40.6	.95	23.0	20.5	.0095	.0048	.0238
2230	11.25	232.64	.5	1.64	39.7	11.23	5.5	45.2	.07	40.8	.24	5.8	29.4	.0183	.0092	.0330
2245	11.28	233.86	.25	1.22	59.0	11.26	6.4	65.4	.03	41.0	.10	4.8	60.6	.0281	.0070	.0400
2300	11.32	235.51		1.65	79.9	11.30	7.7	87.6	0	41.2	0	0	87.6	.0406	.0102	.0502
2315	11.36	237.16		1.65	79.9	11.34	9.1	89.0	0	41.4	0	0	89.0	.0413	.0103	.0605
2330	11.40	238.82		1.66	80.3	11.38	10.5	90.8	0	41.6	0	0	90.8	.0421	.0105	.0710
2345	11.44	240.50		1.68	81.3	11.42	12.0	93.3	0	41.8	0	0	93.3	.0433	.0108	.0818
2400	11.48	242.18	.25	1.68	81.3	11.46	12.8	94.1	0	42.0	0	0	94.1	.0437	.0109	.0927
May 7																
0000	11.48	242.18														
0015	11.52	243.87	.25	1.69	81.8	11.50	13.0	94.8	0	42.2	0	0	94.8	.0440	.0110	.1037
0030	11.55	245.14	.25	1.27	61.5	11.54	13.0	74.5	0	42.5	0	0	74.5	.0346	.0086	.1123
0100	11.59	246.84	.50	1.70	41.1	11.57	13.1	54.2	0	42.6	0	0	54.2	.0251	.0126	.1249
0130	11.62	248.13		1.29	31.2	11.60	13.1	44.3	0	42.8	0	0	44.3	.0206	.0103	.1352
0200	11.65	249.42	.50	1.29	31.2	11.64	13.1	44.3	0	43.0	0	0	44.3	.0206	.0103	.1455
0300	11.67	250.29	1.0	.87	10.5	11.66	13.2	33.7	0	43.1	0	0	33.7	.0110	.0110	.1565
0600	11.69	251.15	3.0	.86	3.5	11.68	13.2	16.7	0	43.2	0	0	16.7	.0077	.0231	.1796
0900	11.64	248.99		2.16	8.7	11.66	13.2	4.5	.03	43.1	.11	.4	4.1	.0019	.0057	.1853
1200	11.59	246.84	3.0	2.15	8.7	11.62	13.1	4.4	.02	42.9	.07	.3	4.1	.0019	.0057	.1910
1230	11.63	248.56	.5	1.72	41.6	11.61	13.1	54.7	.55	42.9	1.97	47.7	7.0	.0032	.0016	.1926
1300	11.64	248.99	.5	.93	10.4	11.62	13.1	23.5	.04	42.9	.14	3.4	20.1	.0093	.0046	.1972
1400	11.67	250.29	1.0	1.30	15.7	11.66	13.2	28.9	.10	43.1	.36	4.7	24.5	.0114	.0114	.2086
1430	11.69	251.15	.5	.86	20.8	11.68	13.2	31.0	.02	43.2	.07	1.7	32.3	.0150	.0075	.2161
1445	11.72	252.45	.25	1.30	62.9	11.70	13.2	76.1	.01	43.4	.04	1.9	74.2	.0244	.0086	.2247

Continued
Comp. BCM 3-26-70
ck CMU 4-1-70

Storm period May 6-7, 1969

Green

Creek subwatershed No. *I* near *Dublin*, Tex. D.A. *3.34* sq mi

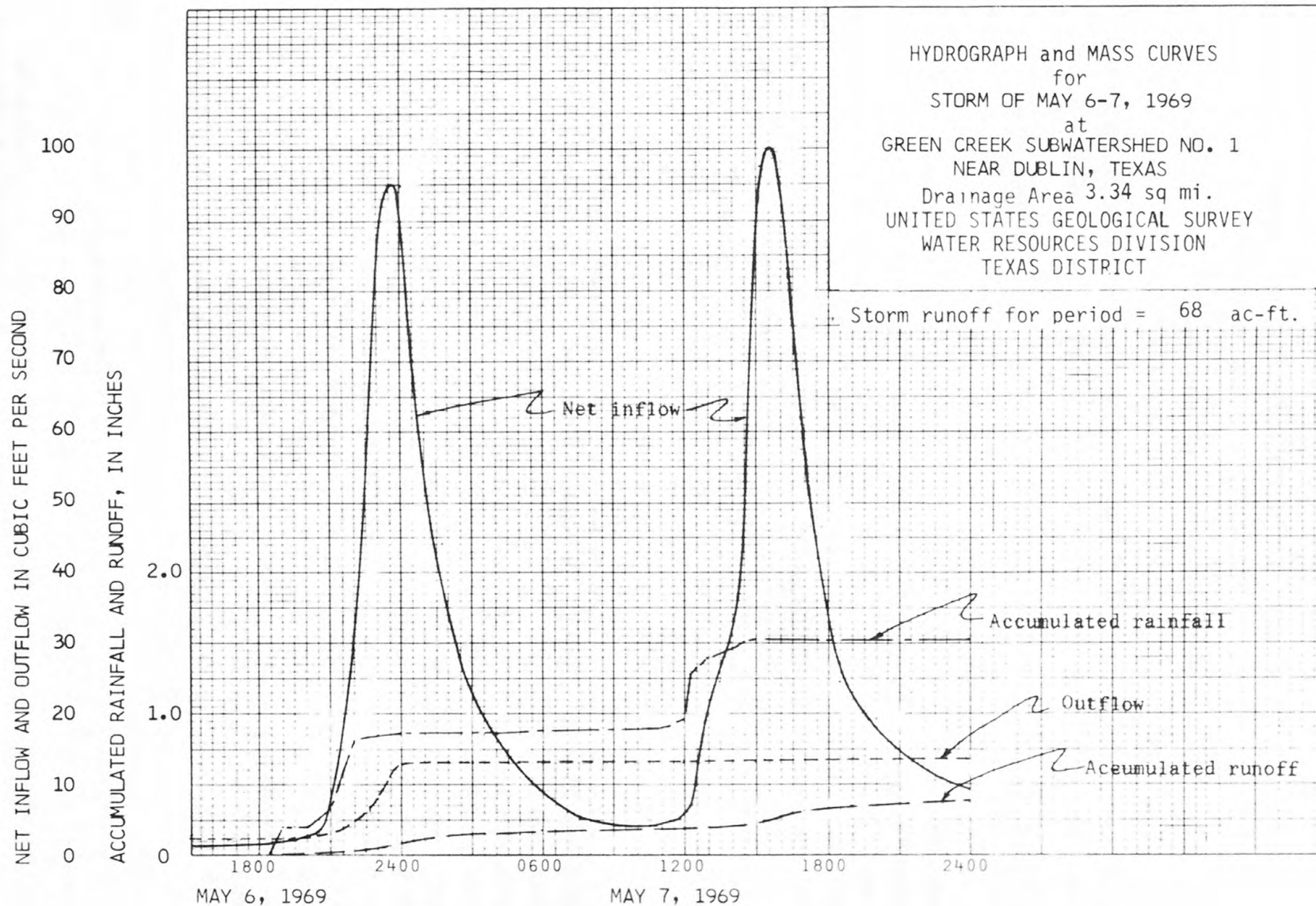
Comp Bcm 3-26-76
*k Cmau 4-1-76

UNITED STATES DEPARTMENT OF INTERIOR
 GEOLOGICAL SURVEY, SURFACE WATER BRANCH
 AUSTIN DISTRICT
Sheet 1 of 1
 Comp. by: BGM
 Date: 6-23-70
 Check by: J.D.B.
 Date: 6-23-70

WEIGHTED-PRECIPITATION RECORD

 Area: Green Creek subwatershed No. 1 near Dublin, Tex Date of storm 5 May 6-7, 1969

Accumulated Precipitation in Inches for Recording Gages												Accumulated Weighted Precipitation																																																		
Weight Factor	Gage <u>1-R</u>		Gage <u>1-R</u>		Gage		Gage		Gage		Gage		Recording Gages	(Rec. Gages x K) All Gages																																																
Date & Time	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor																																																		
<u>May 6, 1969</u>																																																														
0000	0	0	0	0									0	0																																																
1830	0	0	.02	.01									.01	.01																																																
1845	.02	.01	.23	.12									.13	.13																																																
1900	.15	.08	.23	.12									.20	.20																																																
2000	.16	.08	.24	.12									.20	.20																																																
2100	.28	.14	.40	.20									.34	.34																																																
2115	.32	.16	.61	.30									.46	.46																																																
2130	.50	.25	.70	.35									.60	.60																																																
2200	.78	.39	.80	.40									.79	.81																																																
2400	.88	.44	.85	.42									.86	.86																																																
<u>May 7</u>																																																														
0000	.88	.44	.85	.42									0	.86																																																
0400	.88	.44	.85	.42									0	.86																																																
0600	.88	.44	.88	.44									.02	.88																																																
1100	.91	.46	.88	.44									.04	.90																																																
1200	.93	.46	1.00	.50									.10	.96																																																
1215	1.40	.70	1.17	.58									.42	1.28																																																
1230	1.48	.74	1.18	.59									.47	1.33																																																
1300	1.52	.76	1.27	.64									.54	1.40																																																
1415	1.56	.78	1.42	.71									.63	1.49																																																
1430	1.60	.80	1.42	.71									.65	1.51																																																
1500	1.65	.82	1.42	.71									.67	1.53																																																
2400	1.65	.82	1.42	.71									.67	1.53																																																
<div style="display: flex; justify-content: space-between;"> <div> <table border="1" style="width: 48%;"> <thead> <tr> <th>Rain Gage</th> <th>Weight Factor</th> <th>Precipitation</th> <th>Precipitation x Weight Factor</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> </div> <div> <table border="1" style="width: 48%;"> <thead> <tr> <th>Rain Gage</th> <th>Weight Factor</th> <th>Precipitation</th> <th>Precipitation x Weight Factor</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> </div> </div>															Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor																					Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor																				
Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor																																																											
Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor																																																											
WHR =												WMB:																																																		
$WHR = \text{Sum of Precipitation} \times \text{Weight Factor} \quad K = \frac{WHR}{\text{Total Recording Gages Weighted Precipitation}} =$																																																														



UNITED STATES DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY - TEXAS DISTRICT

RUNOFF COMPUTATIONS

Station Green Creek near Alexander, Tex.Period of Record May 6-8, 1969Drainage Area 46.1

Time	G. Ht. Feet	Sh. Adj.	Discharge			Runoff	
			C. f. s.	Inch.	In. Hr.	Inches	Acc. In.
May 6, 1969							
0000	3.94	0	62	1.5	.0021	.0032	.0032
0300	3.84		53	3	.0018	.0054	.0086
0600	3.76		46	3	.0015	.0045	.0131
0900	3.71		42	3	.0014	.0042	.0173
1200	3.67		38	3	.0013	.0039	.0212
1500	3.64		37	3	.0012	.0036	.0248
1800	3.62		35	2	.0012	.0024	.0272
1900	3.63		36	1	.0012	.0012	.0284
2000	3.67		39	1	.0013	.0013	.0297
2100	3.86		54	1	.0018	.0018	.0315
2200	4.04		71	1	.0023	.0023	.0338
2300	4.22		89	1	.0030	.0030	.0368
2400	4.51	0	119	5	.0040	.0020	.0388
			1066.5	24			
			44				
May 7							
0000	4.51	$\frac{0}{0}$	119	.25	.0040	.0010	.0398
0030	4.60	$\frac{0}{0}$	130	.75	.0044	.0033	.0431
0130	4.48	$\frac{0}{0}$	116	.75	.0039	.0029	.0460
0200	5.47	$\frac{+0.04}{0}$	272	.5	.0091	.0046	.0506
0230	5.54	$\frac{+0.05}{0}$	288	.5	.0097	.0048	.0554
0300	5.48	$\frac{+0.04}{0}$	274	.5	.0092	.0046	.0600
0330	5.40	$\frac{+0.04}{0}$	258	.5	.0087	.0044	.0644
0400	5.27	$\frac{+0.03}{0}$	230	.75	.0077	.0058	.0702
0500	5.05	$\frac{0}{0}$	188	.75	.0063	.0047	.0749
0530	4.98	$\frac{0}{0}$	178	.75	.0060	.0045	.0794
			11384.25	24			
			472				
May 7, (cont.)							
0630	5.06	$\frac{0}{0}$	190	1	.0064	.0064	.0858
0730	5.02	$\frac{0}{0}$	184	1.25	.0062	.0078	.0936
0900	4.85	$\frac{0}{0}$	160	1.75	.0054	.0094	.1030
1100	4.64	$\frac{0}{0}$	135	1.50	.0045	.0068	.1098
1200	4.63	$\frac{0}{0}$	134	.75	.0045	.0034	.1132
1230	8.50	$\frac{+2.0}{0}$	1250	5	.0420	.0210	.1342
1300	9.80	$\frac{+2.5}{0}$	1880	.5	.0632	.0316	.1658
1330	10.60	$\frac{+2.8}{0}$	2370	.5	.0797	.0398	.2056
1400	10.93	$\frac{+2.9}{0}$	2570	.5	.0864	.0432	.2488
1430	9.50	$\frac{+2.3}{0}$	1720	.5	.0578	.0289	.2777
1500	8.80	$\frac{+2.1}{0}$	1390	.5	.0467	.0234	.3011
1530	8.15	$\frac{+1.9}{0}$	1110	.5	.0373	.0186	.3197
1600	7.65	$\frac{+1.7}{0}$	890	.5	.0302	.0151	.3348
1630	7.20	$\frac{+1.5}{0}$	745	.5	.0250	.0125	.3473
1700	6.80	$\frac{+1.3}{0}$	619	.5	.0208	.0104	.3577
1730	6.50	$\frac{+1.1}{0}$	528	.5	.0178	.0089	.3666
1800	6.20	$\frac{+1.0}{0}$	450	.75	.0151	.0113	.3779
1900	5.80	$\frac{+0.8}{0}$	346	1	.0116	.0116	.3895
2000	5.50	$\frac{+0.4}{0}$	278	1	.0093	.0093	.3988
2100	5.27	$\frac{+0.3}{0}$	230	1	.0077	.0077	.4065
2200	5.09	$\frac{0}{0}$	194	1	.0065	.0065	.4130
2300	4.94	$\frac{0}{0}$	173	1	.0058	.0058	.4188
2400	4.84	$\frac{0}{0}$	159	.5	.0053	.0026	.4214
			11384.25	24			
			472				

Computed by E. E. L. Date 6-12-69 Checked by C. M. W. Date 3-26-70

L Drawdown Corrections

L Shift Corrections

UNITED STATES DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY - TEXAS DISTRICT

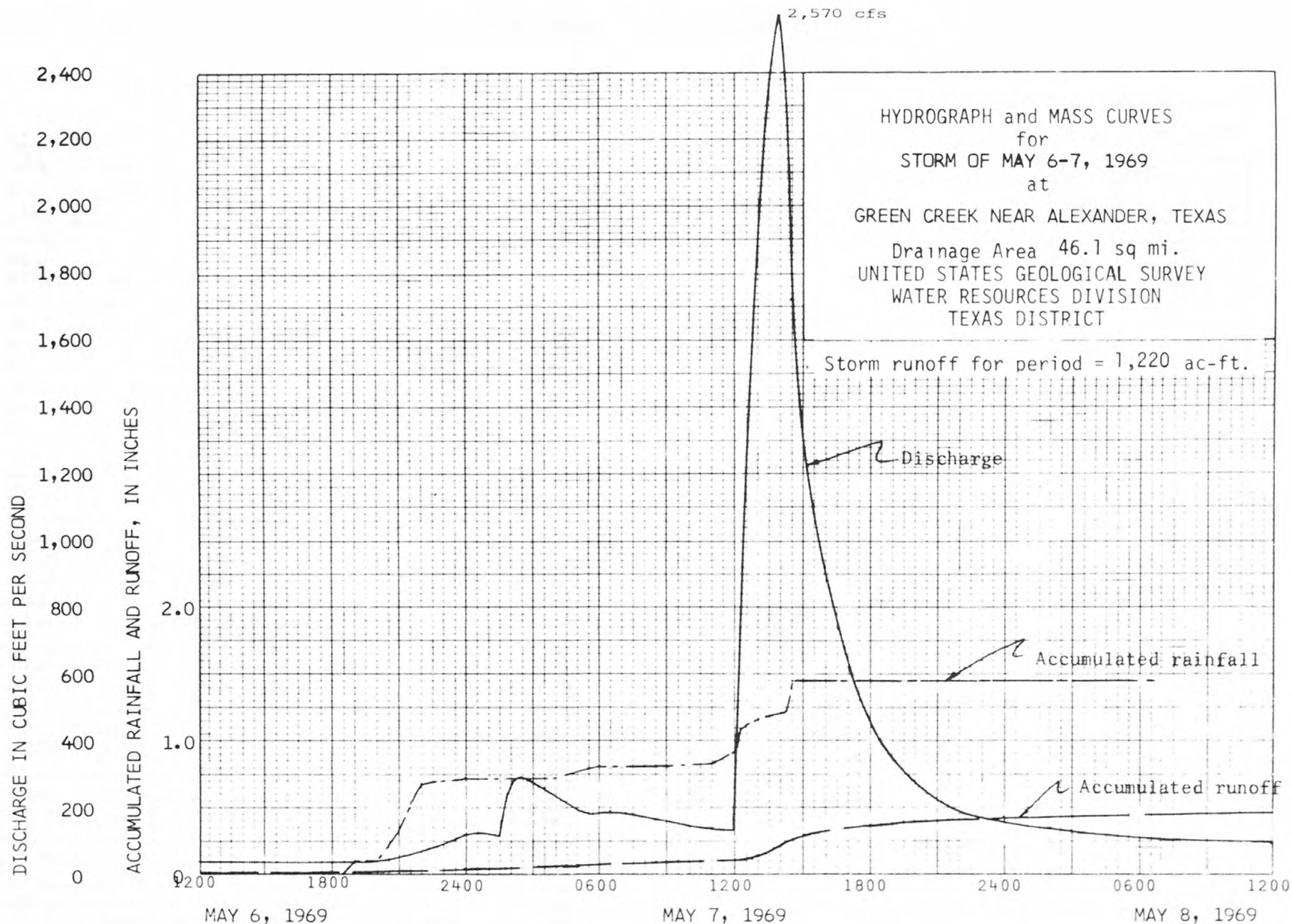
RUNOFF COMPUTATIONS

Station Green Creek near Alexander, TexPeriod of Record May 6-8, 1969Drainage Area 46.1

Time	G. Hr. Feet	Sh. Adj.	Discharge			Runoff	
			C. f. s.	In.	In Hr.	Inches	Acc. In.
May 8							
0000	4.84	0	159	1.5	.0053	.0080	.4294
0300	4.61		131	3	.0044	.0132	.4426
0600	4.45		112	3	.0038	.0114	.4540
0900	4.36		103	3	.0035	.0105	.4645
1200	4.28		95	4.5	.0032	.0144	.4789
1800	4.14		81	6	.0028	.0168	.4957
2400	4.06	0	73	3	.0025	.0075	.5032
			2409.0		24		
			100				

Computed by EEL Date 6-12-69 Checked by CMW Date 3-26-70
☒ Drawdown Corrections

☒ Shift Corrections



INFLOW AND OUTFLOW COMPUTATIONSStorm period July 27-28, 19698-0940 GREEN Creek subwatershed No. 1 near DUBLIN, Tex. D.A. 3.34 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage		Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool				Net Inflow		
				ac-ft	cfs				in	area ac	Storage ac-ft	cfs	Rate cfs	in/hr	Acc in
July 27, 1969															
0000	9.18	158.65							0						
0500	9.18	158.65	5.00	0	0	9.18		0	.05	30.4	.12	.3	0	0	0
0515	9.19	158.95	2.5	+ .30	+14.5	9.18		14.5	.06	30.4	.15	7.3	7.2	.0033	.0008
0530	9.22	159.87		+ .92	+44.5	9.20		44.5	.25	30.5	.64	31.0	13.5	.0063	.0015
0545	9.32	162.96		+3.09	+149.6	9.27		149.6	.64	30.8	1.64	79.4	70.2	.0326	.0081
0600	9.40	165.46		+2.50	+121.0	9.36		121.0	.46	31.3	1.20	59.1	62.9	.0292	.0073
0615	9.51	168.97		+3.51	+169.9	9.46		169.9	.16	31.8	.42	20.3	149.6	.0694	.0174
0630	9.60	171.88		+2.91	+140.8	9.56		140.8	.36	32.3	.97	46.9	93.9	.0436	.0108
0645	9.69	174.83		+2.95	+143.8	9.64		142.8	.27	32.8	.74	35.8	107.8	.0496	.0124
0700	9.76	177.16		+2.33	+112.8	9.72		112.8	.06	33.2	.17	8.2	104.6	.0485	.0120
0715	9.82	179.18		+2.02	+97.8	9.79		97.8	.18	33.6	.50	24.2	73.6	.0342	.0086
0730	9.90	181.89		+2.71	+131.2	9.86		131.2	.24	34.0	.68	32.9	98.3	.0456	.0114
0745	10.00	185.34		+3.45	+167.0	9.95		167.0	.29	34.5	.83	40.2	126.8	.0588	.0147
0800	10.06	187.44		+2.10	+101.6	10.03		101.6	.18	34.9	.52	25.2	76.4	.0354	.0088
0815	10.15	190.62		+3.18	+153.9	10.10		153.9	.31	35.3	.91	44.0	109.9	.0510	.0128
0830	10.26	194.55		+3.93	+190.2	10.20		190.2	.32	35.8	.95	46.0	144.2	.0669	.0167
0845	10.42	200.38	2.5	+5.83	+282.2	10.34		282.2	.51	36.5	1.55	75.0	207.2	.0767	.0249
0850	10.49	202.97	.083	+2.59	+376.1	10.46		376.1	.09	37.1	.28	40.7	235.4	.1556	.0129
0855	10.57	205.96		+2.99	+434.1	10.53		434.1	.05	37.4	.15	21.8	412.3	.1913	.0158
0900	10.65	208.99		+3.03	+440.0	10.61		440.0	.03	37.8	.09	13.1	426.9	.1981	.0164
0905	10.73	212.04		+3.05	+442.9	10.69		442.9	.01	38.2	.03	4.4	438.5	.2035	.0169
0910	10.81	215.12		+3.08	+447.2	10.77		447.2	.01	38.5	.03	4.4	443.8	.2055	.0171
0915	10.89	218.23		+3.11	+451.6	10.85		451.6	.01	38.9	.03	4.4	447.2	.2075	.0172
0920	10.98	221.77		+3.54	+514.0	10.94		514.0	.01	39.4	.03	4.4	509.6	.2365	.0196
0925	11.07	225.35		+3.58	+519.8	11.02		520.1	.01	39.7	.03	4.4	515.7	.2393	.0199
0930	11.17	229.38		+4.03	+585.2	11.12		587.6	.01	40.3	.03	4.4	523.2	.2706	.0225
0935	11.27	233.45		+4.07	+591.0	11.22		596.2	.01	40.8	.03	4.4	521.8	.2746	.0225
0940	11.37	237.58		+4.13	+592.7	11.32		608.1	.01	41.3	.03	4.4	608.7	.2801	.0232
0945	11.46	241.37	.083	+3.76	+544.0	11.42		558.0	.01	41.8	.03	4.4	553.6	.2569	.0213
1000	11.70	251.58	2.5	+10.24	+495.6	11.58		508.7	0	42.7	0	0	558.6	.2360	.0590
1015	11.92	261.26		+9.68	+468.5	11.81		481.8	.02	44.0	.07	2.4	474.4	.2260	.0557
1030	12.12	270.30		+9.04	+437.5	12.02		451.1	.02	45.2	.07	2.4	472.7	.2075	.0519
1045	12.28	277.71	2.5	+7.41	+358.6	12.20		372.4	.03	46.3	.12	5.8	366.6	.1701	.0425

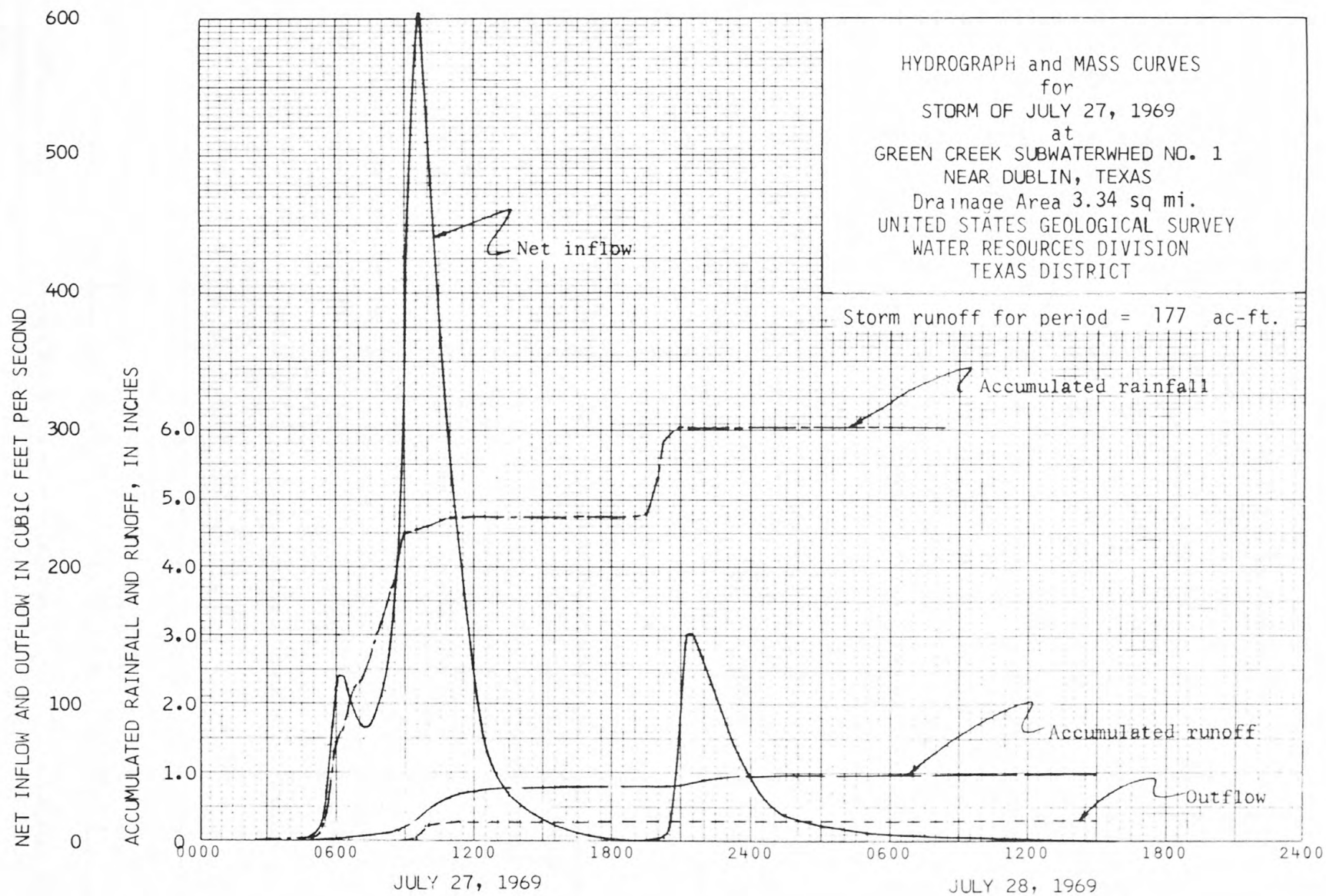
(continued)

Comp by HAW Pat 8-6-69

C4 11 0000 + 4-2-70

INFLOW AND OUTFLOW COMPUTATIONSStorm period July 27-28, 19698-0940 GREEN Creek subwatershed No. 1 near DUBLIN, Tex. D.A. 3.34 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage		Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool				Net Inflow		
				ac-ft	cfs				in	ac	Storage ac-ft	cfs	Rate cfs	in/hr	Acc in
July 27, 1969 (continued)															
11 00	12.41	283.85	.25	+ 6.14	+297.2	12.34	13.9	311.1	.05	47.2	.19	9.2	301.9	.1401	.0350 .6377
11 15	12.51	288.65	.25	+ 4.80	+288.3	12.46	14.1	246.4	.01	48.0	.04	1.9	244.5	.1134	.0283 .6660
11 30	12.60	291.52	.25	+ 4.37	+211.5	12.56	14.2	225.7	0.	48.7	0.	0.	225.7	.1047	.0262 .6922
12 00	12.72	298.94	.50	+ 5.92	+143.3	12.66	14.2	157.5	0.	49.4	0.	0.	157.5	.0731	.0366 .7288
12 30	12.78	301.94	.50	+ 3.00	+72.6	12.75	14.2	86.8	0.	50.0	0.	0.	86.8	.0403	.0202 .7490
13 00	12.81	303.45	.50	+ 1.51	+36.5	12.80	14.3	50.8	0.	50.4	0.	0.	50.8	.0236	.0118 .7608
14 00	12.84	304.97	1.00	+ 1.52	+ 18.4	12.82	14.3	32.7	0.	50.5	0.	0.	32.7	.0152	.0152 .7760
15 00	12.86	305.98	↑	+ 1.01	+ 12.2	12.85	14.4	26.6	.01	50.7	.04	.5	26.1	.0121	.0121 .7881
16 00	12.86	305.98	↓	0.	0.	12.86	14.4	14.4	0.	50.8	0.	0.	14.4	.0067	.0067 .7948
17 00	12.84	304.97	1.00	- 1.01	- 12.2	12.85	14.4	2.2	.04	50.7	2.0	.5	1.7	.0008	.0008 .7956
20 00	12.81	303.45	3.00	- 1.52	- 6.1	12.82	14.3	8.2	.48	50.5	2.02	8.1	.1	.0000	.0000 .7956
20 30	12.84	304.97	.50	+ 1.52	+36.5	12.81	14.3	51.1	.50	50.5	2.02	48.9	2.2	.0010	.0005 .7961
21 00	12.86	305.98	↑	+ 1.01	+24.4	12.85	14.3	63.4	.29	50.7	1.01	24.4	39.0	.0181	.0090 .8051
21 30	12.97	311.61		+ 5.63	+136.2	12.92	14.4	150.6	0.	51.2	0.	0.	150.6	.0699	.0350 .8401
22 00	13.07	316.60		+ 5.19	+125.6	13.02	14.5	140.1	0.				140.1	.0650	.0325 .8726
22 30	13.17	322.27	↓	+ 5.27	+127.5	13.12	14.5	142.0	0.				116.6	.0541	.0270 .8996
23 00	13.22	324.73	.50	+ 2.66	+ 64.4	13.19	14.6	79.0	0.				104.4	.0484	.0242 .9238
24 00	13.28	327.96	1.00	+ 3.23	+ 39.1	13.25	14.6	53.7	0.				53.7	.0249	.0249 .9487
July 28, 1969															
04 00	13.29	328.49	4.00	+ .53	+ 1.6	13.28	14.6	16.2					16.2	.0075	.0300 .9787
06 00	13.26	326.88	2.00	- 1.61	- 9.7	13.28	14.6	4.9					4.9	.0023	.0046 .9833
08 00	13.22	324.73	↑	- 2.15	- 12.0	13.24	14.6	1.6					1.6	.0007	.0014 .9847
10 00	13.18	322.60		- 2.13	- 12.9	13.20	14.6	1.7					1.7	.0008	.0016 .9863
12 00	13.14	320.49		- 2.11	- 12.8	13.16	14.6	1.8					1.8	.0008	.0016 .9879
14 00	13.09	317.85		- 2.64	- 16.0	13.12	14.5	0.					0.	0.	0.9879
16 00	13.05	315.76		- 2.09	- 12.6	13.07	14.5	1.9					1.9	.0009	.0018 .9897
18 00	13.00	313.15		- 2.61	- 15.8	13.02	14.5	0.					0.	0.	0.9897
20 00	12.95	310.58		- 2.57	- 15.5	12.98	14.5	0.					5.2	.0024	.0048 .9945
22 00	12.90	308.01	↓	- 2.57	- 15.5	12.92	14.4	0.					0.	0.	0.9945
24 00	12.85	305.48	2.00	- 2.53	- 15.3	12.88	14.4	0.					0.	0.	0.9945



UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY-TEXAS DISTRICT

RUNOFF COMPUTATIONS

Station Green Creek near Alexander, Tex
Period of Record July 27, 1969 Drainage Area 46.1 sq. mi.

Time	G. Ht. Feet	Sh. Adj.	Discharge		Runoff	
			c.f.s.	Inc.	In/hr.	Inches
July 27, 1969						
0000	2.09	0	0	3		
0600	2.08	0	0	3.25		
0630	2.65	$\frac{0}{+10}$	71	.5	.0000	.0000
0700	3.40	$\frac{0}{+17}$	24	.5	.0008	.0004
0730	7.00	$\frac{0}{+14}$	236	.5	.0079	.0040
0800	12.50	$\frac{0}{+33}$	3000	.5	.1009	.0504
0830	13.95	$\frac{0}{+40}$	4000	.5	.1345	.0672
0900	13.70	$\frac{0}{+40}$	3850	.5	.1294	.0647
0930	15.00	$\frac{0}{+44}$	4690	.5	.1577	.0788
1000	16.60	$\frac{0}{+50}$	5900	.5	.1984	.0992
1030	18.20	$\frac{0}{+61}$	7200	.5	.2421	.1210
1100	18.90	$\frac{0}{+66}$	8200	.5	.2757	.1378
1130	19.40	$\frac{0}{+69}$	9060	.5	.3046	.1523
1200	19.05	$\frac{0}{+65}$	8410	.5	.2827	.1414
1230	18.35	$\frac{0}{+62}$	7380	.5	.2481	.1240
1300	16.65	$\frac{0}{+50}$	5520	.5	.1856	.0928
1330	14.00	$\frac{0}{+40}$	3540	.5	.1190	.0595
1400	11.90	$\frac{0}{+32}$	2380	.5	.0800	.0400
1430	10.45	$\frac{0}{+27}$	1750	.5	.0588	.0294
1500	9.25	$\frac{0}{+23}$	1300	.5	.0437	.0218
1530	8.25	$\frac{0}{+19}$	934	.5	.0314	.0157
1600	7.50	$\frac{0}{+16}$	710	.5	.0229	.0120
1630	7.12	$\frac{0}{+14}$	610	.75	.0205	.0154
1730	6.50	$\frac{0}{+11}$	448	1	.0151	.0151
1830	6.10	$\frac{0}{+9}$	353	1	.0119	.0119

Time	G. Ht. Feet	Sh. Adj.	Discharge		Runoff	
			c.f.s.	Inc.	In/hr.	Inches
July 27, 1969 cont.						
1930	5.80	$\frac{0}{+07}$	292	1.5	.0098	.0147
2130	5.45	$\frac{0}{+04}$	228	1.75	.0077	.0135
2300	5.44	$\frac{0}{+04}$	227	1.25	.0076	.0095
2400	5.40	$\frac{0}{+04}$	220	.5	.0074	.0037
41531.6 / 24						
1,730						

Computed by EEL Date 10-28-69 Checked by CMW Date 3-26-70
 1 Drawdown corrections
 2 Shift corrections

