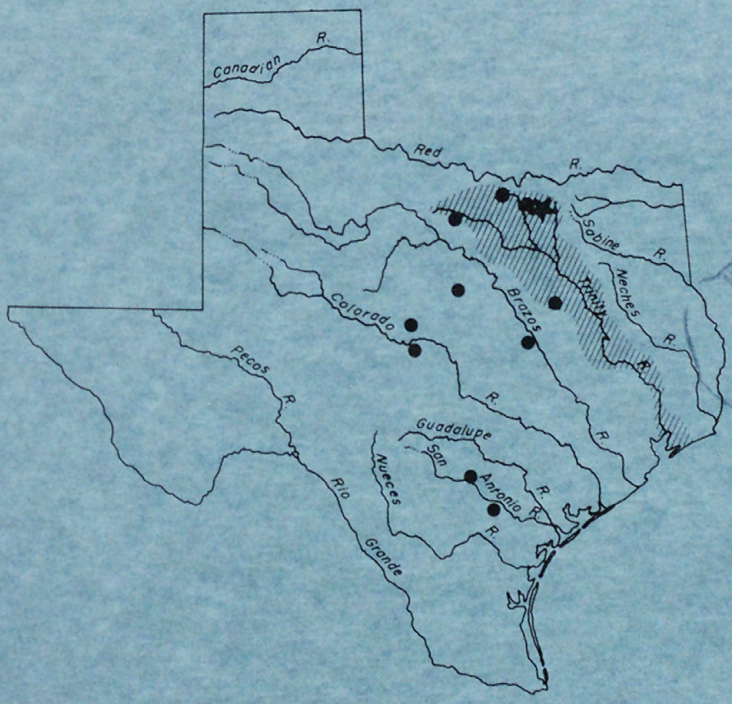
Compilation of Hydrologic Data, Honey Creek, Trinity River Basin, Texas 1966

U.S. GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

Texas District

TRIGG TWICHELL, District Chief



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

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

COMPILATION OF HYDROLOGIC DATA, HONEY CREEK TRINITY RIVER BASIN, TEXAS 1966

A PROGRESS REPORT ON HYDROLOGIC STUDIES
OF SMALL WATERSHEDS IN TEXAS

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

Copies of this report may be obtained at
U.S. Geological Survey
Water Resources Division
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Austin, Texas 78701

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INTRODUCTION

History and Development of the Small Watershed Project in Texas

In 1950 the U. S. Soil Conservation Service began construction of floodwater-retarding structures in Texas under authorities granted by the Congress. These authorities provide, where economically feasible, that the program be applied to tributary watersheds of 240,000 acres or less. The usual practice has been to control flood runoff from approximately 50 percent of the watershed by a system of floodwater-retarding structures located on headwater subwatersheds of generally less than 10 square miles.

Reports by the U. S. Study Commission-Texas in 1962 and the Soil Conservation Service in 1963 show a total of 3,438 structures to be economically feasible for installation in Texas. As of September 30, 1966, 1,081 structures had been completed.

Because of the need to determine the effect of these systems of floodwater-retarding structures on downstream runoff, the concerned cities, river authorities, and other water-management agencies requested cooperative data collection programs with the Geological Survey. The Geological Survey acknowledged the need for these programs and also recognized the opportunity for collecting much needed basic hydrologic data for small watersheds.

The floodwater-retarding pools probably afford the most accurate and economical methods available for gaging the rate, distribution, and volume of runoff from a small watershed. Therefore, during the period 1951-56, the Geological Survey began hydrologic investigations of eleven small-watershed areas that had been developed, were being developed, or would be developed with floodwater-retarding structures. These areas and their respective drainage areas are:

1. North Creek, Trinity River basin (21.6 sq mi)
2. Elm Fork Trinity River, Trinity River basin (46.0 sq mi)
3. Little Elm Creek, Trinity River basin (75.5 sq mi)
4. Honey Creek, Trinity River basin (39.0 sq mi)
5. Pin Oak Creek, Trinity River basin (17.6 sq mi)
6. Green Creek, Brazos River basin (45.5 sq mi)
7. Cow Bayou, Brazos River basin (79.6 sq mi)

8. Deep Creek, Colorado River basin (43.9 sq mi) 1/
9. Mukewater Creek, Colorado River basin (70.0 sq mi)
10. Calaveras Creek, San Antonio River basin (77.2 sq mi)
11. Escondido Creek, San Antonio River basin (72.4 sq mi) 2/

Rather than waiting until development was completed, basic-data collection programs were begun in the areas being developed because of the acute need to obtain and publish small-watershed hydrologic data. After complete development of structures in a particular study area, investigations of downstream effects of the structure system were begun.

In some areas where development was supposedly complete, changes in the Soil Conservation Service program resulted in the construction of additional floodwater-retarding structures.

Detailed information on each of the eleven study areas within the statewide small-watershed project is give in table 1. The locations are shown on figure 1. The areas were chosen to collect data on watersheds having different climate, topography, geology, and soils.

On four of the watersheds (Little Elm, Mukewater, North, and Pin Oak Creeks) collection of rainfall and downstream runoff records was started with the anticipation of getting at least six years of record before construction of the floodwater-retarding structures. With records of rainfall and runoff under drought, flood, and average conditions after construction, hydrologic investigations on these four study areas are expected to define the downstream effects of the system of structures more accurately than investigations in those areas that were developed throughout the data collection periods. Structures have now been built on three of these four study areas--Little Elm, Mukewater, and Pin Oak Creeks. A summary of the progress of construction in each area, to September 30, 1966, is given in table 1.

Objectives of the Project

The broad purpose of these investigations is to collect sufficient data to make the needed interpretations, as presently recognized, and to record the data that will be necessary for future analyses.

1/ 8.31 sq mi above Dry Prong Deep Creek near Mercury not included in this total.

2/ 8.43 sq mi above escondido Creek subwatershed No. 11 (Dry Escondido Creek) near Kenedy not included in this total.

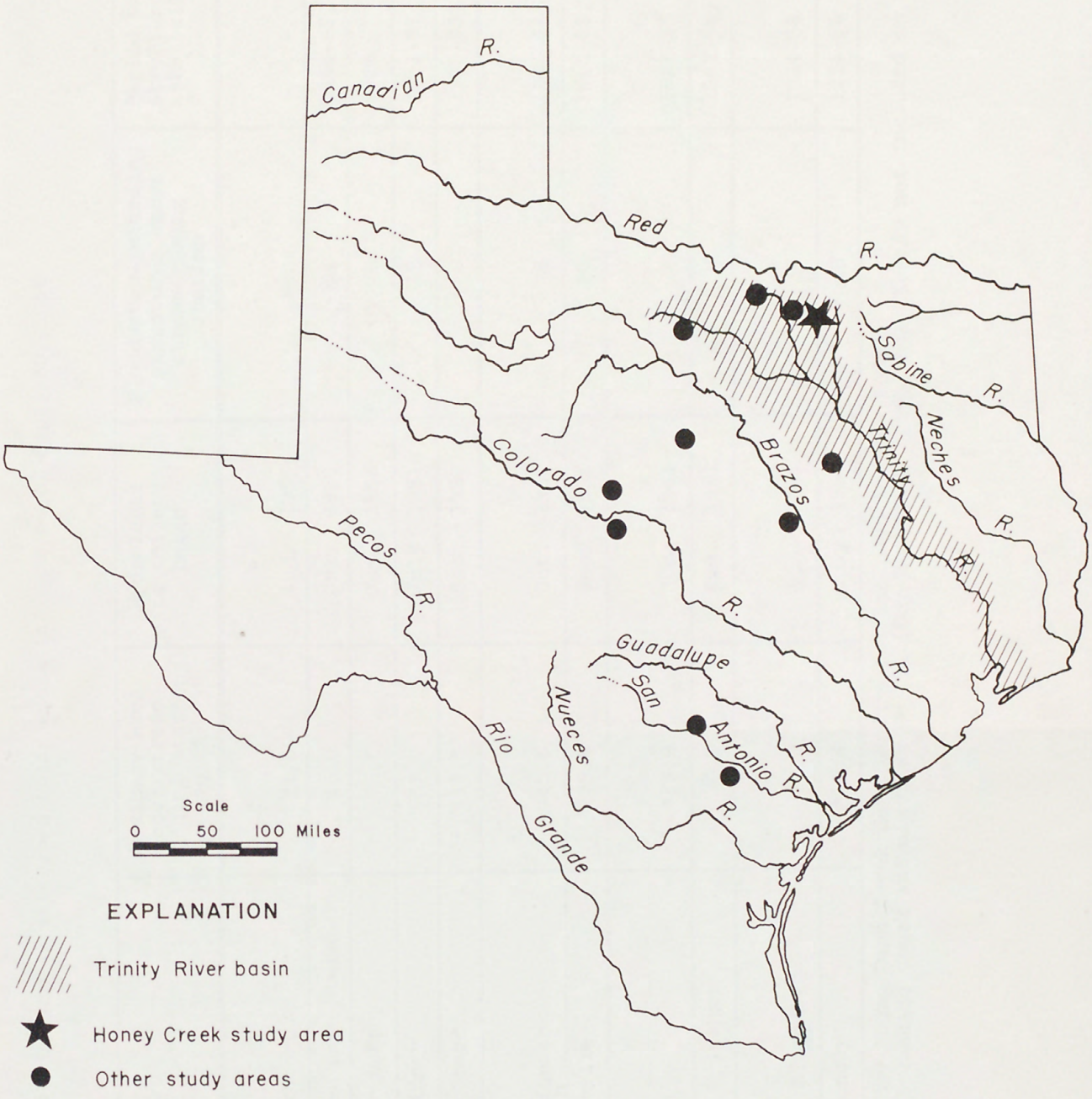

Figure 1.—Map of Texas showing the location of Honey Creek study area.

Table 1.--Small watershed study areas in Texas as of Sept. 30, 1966

Watershed	Drainage area above stream-gaging station (sq mi)	Hydrologic data collection began	Floodwater-retarding structures above stream-gaging station	Period the structure were built
Trinity River basin:				
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	12	1951-57
Pin Oak Creek near Hubbard	17.6	Sept. 1956	6	1962-63, 65
Brazos River basin:				
Green Creek near Alexander	45.5	Oct. 1954	8	1954-56
Cow Bayou near Mooreville	79.6	Sept. 1954	26	1955-58, 64-65
Colorado River basin:				
Deep Creek near Mercury	*43.9	June 1951	5	1951-53
Mukewater Creek near Trickham	70.0	Aug. 1951	6	1961-62, 65
San Antonio River basin:				
Calaveras Creek near Elmendorf	77.2	Aug. 1954	9	1954-58
Escondido Creek at Kenedy	**72.4	July 1954	10	1954-58

* 8.31 sq mi above Dry Prong Deep Creek near Mercury not included in this total.
** 8.43 sq mi above Escondido Creek subwatershed No. 11 (Dry Escondido Creek) near Kenedy not included in this total.

In 1961, a committee of engineers and hydrologists representing the Geological Survey, the Texas Water Commission (now the Texas Water Development Board), the city of Dallas, the San Antonio River Authority, and the Soil Conservation Service, reviewed the District small-watershed project and determined the desirable specific objectives to be as follows:

1. To obtain basic data which will aid in determining the net effect of systems of floodwater-retarding structures on the regimen of streamflow at downstream points, and to publish annually a compilation of the data collected at each of the eleven study areas within the data collection network

2. To determine, where possible, the effect of the structures on the underlying ground-water reservoir.

3. To determine the effect of the structures on the sediment yield of the basin and to determine the trap efficiency of the structures.

4. To develop computation techniques that will give more accurate estimates of runoff resulting from a given amount of rainfall on small watersheds.

5. To develop relationships between maximum rates of runoff and rainfall in small watersheds that will enable more accurate design of small storm-drainage structures.

6. To check the applicability of flood-routing procedures and techniques for small watersheds.

7. To determine the minimum instrumentation necessary for making reliable estimates of total storm inflow to the structures.

8. To determine the chemical quality of the water as to its suitability for possible uses and its flocculating characteristics as they affect the sediment-trap efficiency of the pools.

9. To prepare, as data becomes sufficient for the purpose, interpretive reports on individual areas that will fulfill as many of the stated objectives as possible.

These are the objectives of the statewide project. They do not apply, as a whole, to each particular site within the study.

Purpose of the Basic-Data Reports

The purpose of the annual basic-data reports is to present a compilation of the basic hydrologic data collected and analyzed during the preceding water year. Annual compilation and reporting not only provides the needed data for small watersheds, but affords an opportunity for appraisal of the adequacy of the data-collection program for attainment of the project objectives.

Purpose of this Report

The U.S. Geological Survey, in cooperation with the Texas Water Development Board and the Soil Conservation Service, began the investigation of the Honey Creek area in July 1951. The study involves the collection of rainfall, runoff, and storage data in the 39.0-square-mile area above the stream-gaging station, Honey Creek near McKinney, Texas.

This report contains the basic data collected by the Geological Survey during the water year ending September 30, 1966. Figure 2 shows the location of floodwater-retarding structures and hydrologic instruments in the study area as of September 30, 1966.

DESCRIPTION OF WATERSHED

The headwaters of Honey Creek are near Gunter in Grayson County. The creek flows southeasterly for approximately 15 miles to its junction with the East Fork Trinity River. Honey Creek drains a rectangular shaped basin with an average width of approximately 4 miles and a total area of 50.7 square miles.

Basically the rural watershed economy is agricultural, with cotton, grain sorghums, corn, and Johnson Grass hay being the predominant crops. About two-thirds of the total area is used for crop production and most of the remainder for pasture.

All geologic formations are in the general blackland area of Upper Cretaceous age. The Austin Chalk underlies all of the basin except for narrow fringe of Eagle Ford Shale along the northwestern divide. Soils in the area have formed from chalks and marls with a sprinkling of sands from thin sandstone ledges. Alluvial soils in the creek bottoms are formed from all sources and are very productive. The soils are fine to medium textured and are slowly to moderately permeable.

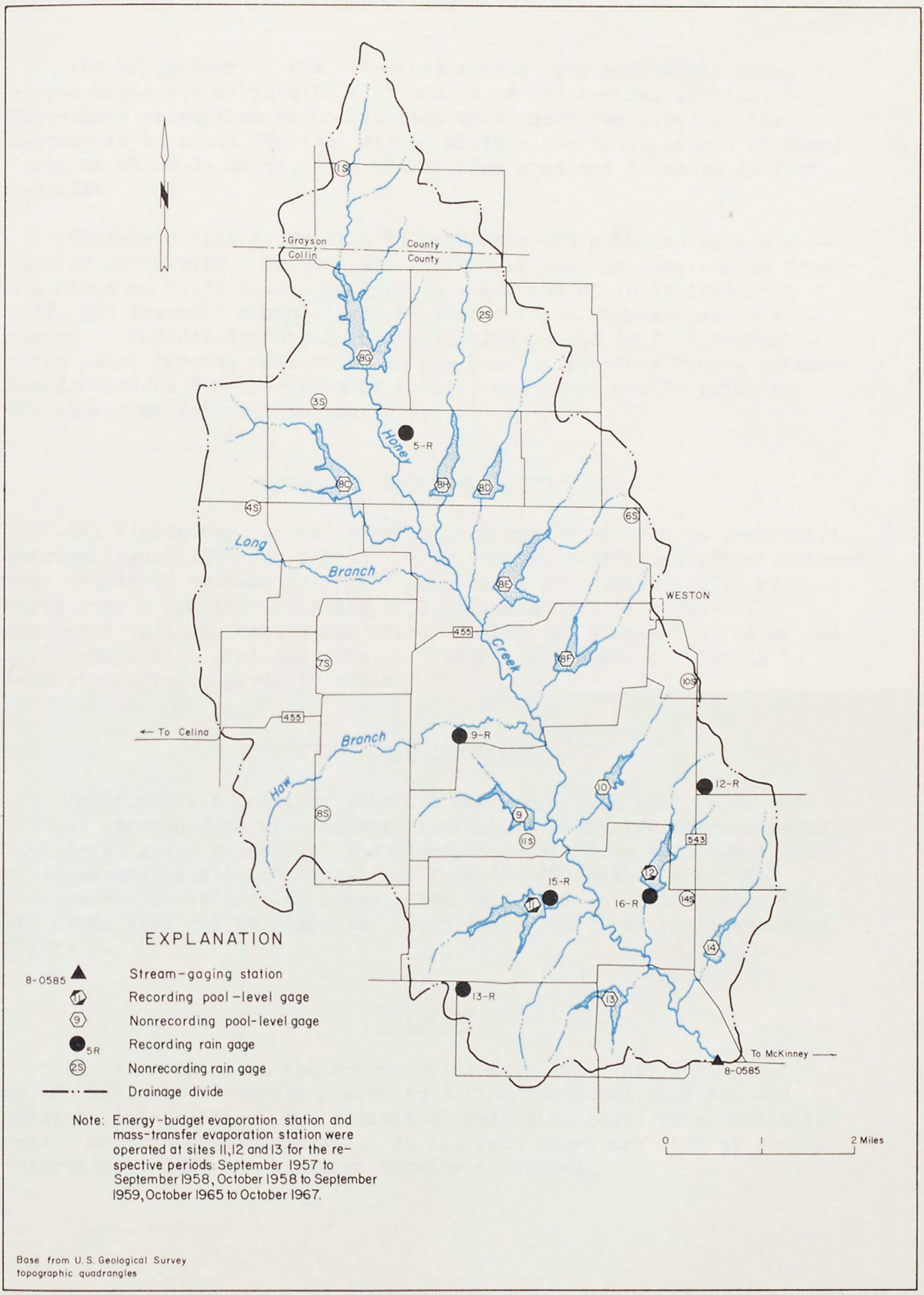

Figure 2.- Honey Creek study area showing locations of floodwater-retarding structures and hydrologic instrument installations

The topography of the watershed ranges from moderately steep slopes along the divides to flat plains in the central section. Elevations range from about 810 feet above mean sea level at the headwaters to about 525 feet at the mouth. The total length of Honey Creek is about 15 miles, thus the average gradient is about 19 feet per mile.

Climate of the study area is temperate and subhumid with a prevailing south wind. The annual rainfall at McKinney has ranged from a minimum of 20.76 inches in 1925 to a maximum of 76.12 inches in 1877, and the mean annual is 39.24 inches for a 58-year period of record. Tropical disturbances originating in the Gulf of Mexico often cause intense rainstorms on the basin. At other times, intense thundershowers are the cause of runoff, and slow, gentle rains are the exception rather than the rule.

FLOODWATER-RETARDING STRUCTURES

Six floodwater-retarding structures in the study area were built between August 1951 and February 1952, and an additional six structures were completed between July 1955 and July 1957. These twelve structures have a combined capacity of 7,857 acre-feet (revised) at emergency spillway crests and partly control 20.9 square miles of the 39.0 square mile drainage area. Pertinent information relating to each structure is given in table 2.

HYDROLOGIC INSTRUMENTS

Instruments to collect rainfall and stage data from which runoff and storage data are computed consist of a network of rain gages, pool-level gages on each of the floodwater-retarding structures, and a stream-gaging station downstream from the floodwater-retarding structures to measure the stage, from which the integrated flow from the study area can be computed. Location of instruments is shown on figure 2.

Rainfall

Six recording and ten nonrecording rain gages are located at points throughout the study area to define the total rainfall and rainfall intensities. Two additional recording gages were used this year. Measurements of rainfall at all rain gages are made at weekly intervals by Soil Conservation Service personnel.

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

Site Number	Drainage Area (sq mi)	Date Dam Completed	Date Gages Established	Datum of Gage above Mean Sea Level	Emergency Spillway			Drop Inlet		Portholes or weir notches			Controlled opening		Pipe Diameter through dam (in.)	Inside Dimensions of Drop Inlet Box	Inside Dimensions of Orifice Plate	Range of Staff Gages
					Width (ft)	Gage Height (ft)	Contents (ac-ft)	Gage Height (ft)	Pool Content (ac-ft)	Size (in.)	Gage Height at Bottom (ft)	Pool Content (ac-ft)	Gage Height at Bottom (ft)	Pool Content (ac-ft)				
8-C	2.10	9-15-56	3-18-57	694.80	100	27.5	629	18.00	152	-	-	-	0.5	1.0	17	2.5' x 2.5'	13"	6.8-30.5
8-D	1.46	7-18-57	11- 5-57	679.70	100	26.9	464	18.00	120	-	-	-	6.0	1.6	17	2.5' x 2.5'	12"	13.3-27.1
8-E	1.93	7-18-57	11- 5-57	654.00	150	26.3	738	16.00	220	-	-	-	1.0	10	17	2.5' x 2.5'	13"	10.2-30.5
8-F	1.45	7-21-55	9- 2-55	651.19	150	24.0	550	12.00	120	-	-	-	6.3	36	12	2.5' x 2.5'	-	6.8-27.1
8-G	3.96	7-21-55	9-16-55	706.26	250	26.5	1,276	12.00	195	6"x30"	11.5	180	2.5	24	17	2.5' x 2.5'	-	3.4-30.5
8-H	2.18	9-15-56	3-28-57	677.00	150	28.2	748	16.00	188	-	-	-	6.5	43	17	2.5' x 2.5'	14"	0.0-27.1
9	1.37	12-29-51	12- 9-54	624.42	150	25.6	526	12.00	119	-	-	-	2.5	28	12	2.5' x 2.5'	-	3.4-30.5
10	1.25	1- 9-52	3-31-55	635.86	140	26.1	429	12.00	82	-	-	-	2.5	4.3	12	2.5' x 2.5'	-	10.2-27.1
11	2.14	2- 9-52	9-11-52	629.00	200	26.8	1,213	14.84	431	-	-	-	4.8	1.23	12	2.5' x 2.5'	-	6.8-30.5
12	1.26	1-11-52	9-11-52	623.00	150	27.0	507	14.99	121	-	-	-	5.0	5.5	12	2.5' x 2.5'	-	0.0-29.9
13	.89	2- 9-52	12- 3-54	612.06	80	23.1	427	12.00	140	-	-	-	2.5	28	12	2.5' x 2.5'	-	3.4-27.1
14	.91	8-30-51	12- 9-54	618.12	100	24.1	350	12.00	85	-	-	-	2.5	8.7	12	2.5' x 2.5'	-	6.8-27.1

Runoff and Pool Contents

Two water-stage recording gages are operated on representative floodwater-retarding pools (sites 11 and 12), at which stage data are collected to compute the contents, surface area, inflow, and outflow. Records at these sites began September 11, 1952. Weekly reading of staff gages are made by Soil Conservation Service personnel at each of the remaining ten floodwater-retarding pools. This provides data to determine the quantity of water retained or released from the structures in the study area.

A water-stage recorder at the stream-gaging station on Honey Creek near McKinney records the stage which, together with measurements of streamflow, affords the computation of the total runoff from the study area. Streamflow records at this gage began July 23, 1951. Records of pool content, inflow, and outflow, for the 1966 water year at sites 11 and 12 are shown in the appendix on pages 14 and 16.

SUMMARY OF DATA FOR 1966 WATER YEAR

Annual

Average rainfall over the study area during the 1966 water year was 39.66 inches, or 115 percent of the 13-year (1953-66) average. The long time yearly average rainfall recorded by the U.S. Weather Bureau at McKinney (6 miles southeast) is 39.24 inches per year. Rainfall was scattered throughout the year with every month receiving some rainfall. The months of April, August, and September had the greatest rainfall, 14.27, 7.42, and 3.44 inches, respectively. The total runoff for the year at the stream-gaging station was 22,390 acre-feet, or 10.76 inches.

Weighted-mean rainfall above site 11 was 39.82 inches, or 117 percent of the 13-year average. Runoff above site 11 was 1,300 acre-feet, or 169 percent of the 14-year (1952-66) average. This runoff represents an equivalent depth of 11.39 inches, or 29 percent of rainfall.

Weighted-mean rainfall above site 12 was 39.45 inches, or 117 percent of the 13-year average. Runoff above site 12 was 786 acre-feet, or 157 percent of the 14-year (1952-66) average. This runoff represents an equivalent depth of 11.70 inches, or 30 percent of rainfall.

Individual Storms

A storm event is defined as a period of rainfall separated by at least 6 hours from other rainfall. Storms are generally 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 record for the storm periods selected. Hydrograph and mass curves are drawn for illustrations.

For the 1966 water year four storm periods were selected for detailed computations. These computations include detailed time breakdown of rainfall and discharge. The storms selected occurred April 23, April 27-28, April 29 and April 30. A summary of rainfall-runoff data for each storm is shown in table 3. Computations and mass curves for each storm are shown in the appendix.

Table 3.--Storm rainfall-runoff data, water year 1966

Date of storm	Duration (hours)	Rainfall (inches)				Runoff (inches)	Ratio, runoff to rainfall
		Total	Maximum increment				
			15-minute	30-minute	60-minute		
Honey Creek near McKinney, Tex. (Drainage area 39.0 sq mi, of which 20.9 sq mi is above floodwater-retarding structures)							
Apr. 23, 1966	18	3.07	0.43	0.74	1.39	0.36	0.12
Apr. 27-28, 1966	14	3.73	.68	.95	1.12	1.73	.46
Apr. 29, 1966	12	2.76	.24	.35	.55	1.40	.51
Apr. 30, 1966	1.5	1.47	.60	1.00	1.30	1.52	1.03
Honey Creek subwatershed No. 11 near McKinney, Tex. (Drainage area, 2.14 sq mi)							
Apr. 23, 1966	18	3.04	0.53	1.13	1.58	0.76	0.25
Apr. 27-28, 1966	14	3.32	.65	.90	1.22	2.12	.64
Apr. 29, 1966	12	2.64	.45	.58	.63	2.32	.88
Apr. 30, 1966	1.5	2.38	1.15	1.99	2.28	2.72	1.14
Honey Creek subwatershed No. 12 near McKinney, Tex. (Drainage area, 1.26 sq mi)							
Apr. 23 1966	18	3.33	0.58	1.08	1.66	1.38	0.41
Apr. 27-28, 1966	14	3.51	.80	.95	1.39	2.63	.75
Apr. 29 1966	12	2.87	.32	.60	.74	2.55	.89
Apr. 30 1966	1.5	1.77	.89	1.30	1.49	1.98	1.12

A P P E N D I X

8-0575. Honey Creek subwatershed No. 11 near McKinney, Tex.

Location.--Lat 33°18'12", long 96°41'22", 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.

Records available.--September 1952 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 629.00 ft above mean sea level, datum of 1929 (Soil Conservation Service bench mark).

Average inflow.--14 years, 809 acre-ft per year.

Average outflow.--14 years, 589 acre-ft per year.

Extremes.--Maximum outflow during year, 77.9 cfs May 1 (gage height, 27.60 ft); no outflow most of time. Maximum inflow, 3,360 cfs (average for 5-minute interval) Apr. 30, computed from outflow and change in pool contents, and adjusted for rainfall on pool surface during time of peak inflow.
1952-66: Maximum outflow, 716 cfs May 26, 1957 (gage height, 28.77 ft); no outflow most of time. Maximum inflow, that of Apr. 30, 1966.

Remarks.--Records good. Dam completed Feb. 9, 1952, but no appreciable storage before April 1952. Outflow began Apr. 21, 1957. Rolled-fill earthen dam is 1,303 ft long with earthen spillway section at gage height 26.8 ft. Outlet structure is 2½-foot square concrete drop inlet, gage height at crest, 14.84 ft, and connected to a 12-inch concrete outlet pipe at gage height 4.8 ft. There is also an 8-inch controlled emergency outlet pipe connected to drop inlet at gage height 4.8 ft. Pool capacity, 1,210 acre-ft at spillway crest, 431 acre-ft at top of drop inlet structure, and 123 acre-ft at controlled outlet pipe. Dam built by Soil Conservation Service for flood control, conservation of stock water, and recreation. A rain gage network (2 recording and one nonrecording) are located in basin above station.

Pool water budget, in acre-ft, water year October 1965 to September 1966

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Inflow 1/	0.8	3.2	13.0	2.1	20.8	4.8	992	239	12.7	0.2	2.2	9.1
Outflow	0	0	0	0	0	0	97.2	628	399	8.6	0	0
(††)	1.30	1.75	1.13	0.91	2.19	0.90	14.85	0.92	3.79	1.93	7.06	3.09

Calendar year 1965: Inflow 689 Outflow 648 †† 28.81
Water year 1965-66: Inflow 1,300 Outflow 1,130 †† 39.82

Peak inflow (base, 100 cfs)

Date	Time	Discharge
4-23	1635	529*
4-28	1315	1,250*
4-29	0845	703*
4-30	1410	3,360*

* 5-minute increment

1/ Inflow adjusted for rainfall on pool and pool losses.
†† Weighted mean rainfall, in inches.

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1966 WATER YEAR

8-0575 Honey Creek subwatershed No 11 near McKinney, Tex Drainage Area 2.14 sq mi

Continuous water-stage recorder: ratio 1:6. Date of last sediment survey April 1960.

Maxima: gage height, 27.60 ft; outflow, 77.2 c f s; surface area, 93.3 acres; contents, 1,280 acre-feet; on May 1.

Minima: gage height, 11.93 ft; surface area, 36.9 acres; contents, 313 acre-feet; on Jan. 18.

Maximum inflow, 3,360 c f s (averaged for 5-min interval and adjusted for rainfall on pool surface) on Apr. 30.

Averages: 14 water years, (1953-66); inflow, 809 acre-feet/year; outflow, 589 acre-feet/year; rainfall, 34.25 inches/year.

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	0.8	3.2	13.0	689	2.1	20.8	4.8	992	239	12.7	0.2	2.2	9.1	1,300
Total Outflow	0	0	0	648	0	0	0	97.2	628	399	8.6	0	0	1,130
Total Consumption	19.4	15.7	21.1	262	9.7	9.5	14.2	15.2	38.0	40.4	30.6	28.2	21.8	264
†	-14.4	-6.9	-4.6	-177	-4.8	+18.2	-6.5	+944.5	-420.7	-408.7	-32.0	-0.9	-1.7	+61.6
‡	38.9	38.3	37.7	42.4	37.2	38.0	38.3	41.1	82.6	56.9	43.7	42.8	42.8	44.9
††	1.30	1.75	1.13	28.81	0.91	2.19	0.90	14.85	0.92	3.79	1.93	7.06	3.09	39.82

1/ 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 c f s)

Date	Time	Discharge	Date	Time	Discharge
4-23	1635	529*			
4-28	1315	1,250*			
4-29	0845	703*			
4-30	1410	3,360*			

* 5-minute increment.

8-0580. Honey Creek subwatershed No. 12 near McKinney, Tex.

Location.--Lat 33°18'20", long 96°40'12", 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.

Records available.--September 1952 to September 1966.

Gage.--Water-stage recorder and concrete drop outlet. Datum of gage is 623.00 ft above mean sea level, datum of 1929 (levels by Soil Conservation Service).

Average inflow.--14 years, 503 acre-ft per year.

Average outflow.--14 years, 411 acre-ft per year.

Extremes.--Maximum outflow during year, 419 cfs Apr. 30 (gage height, 28.77 ft); no outflow most of time. Maximum inflow, 1,400 cfs (average for 5-minute interval) Apr. 30, computed from outflow and change in pool contents, and adjusted for rainfall on pool surface during time of peak inflow.
1952-66: Maximum outflow, 766 cfs May 26, 1957 (gage height, 29.23 ft); no outflow most of time. Maximum inflow, 1,490 cfs (average for 15-minute interval) May 21, 1957, computed and adjusted as above.
Revisions: The maximum inflow for the water year 1959 has been revised to 40 cfs July 24, 1959, superseding figure previously published in WSP 1632.

Remarks.--Records good. Dam completed Jan. 11, 1952, but no appreciable storage before April 1952. Outflow began May 12, 1954. Rolled-fill earthen dam is 1,253 ft long with earthen spillway section at gage height 27.0 ft. Outlet structure is 2.5-foot square concrete drop inlet, gage height of crest, 14.99 ft, connected to a 12-inch concrete outlet pipe at gage height 5.0 ft. There is also an 8-inch controlled outlet to drop inlet at gage height 5.0 ft. Pool capacity, 507 acre-ft at emergency spillway crest, 122 acre-ft at drop inlet structure, and 5.5 acre-ft at controlled outlet pipe. Dam built by Soil Conservation Service for flood control and conservation. A rain gage network (two recording and one nonrecording) are located in basin above station.

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Inflow 1/	0.7	5.9	4.1	4.3	29.4	6.0	632	51.4	5.6	2.4	18.9	25.4
Outflow	0	0	0	0	5.3	2.1	235	463	0.04	0	0.04	26.9
(††)	1.17	1.67	0.98	0.84	2.20	0.72	14.88	0.90	2.24	3.39	6.96	3.50

Calendar year 1965: Inflow 297 Outflow 405 †† 30.40
Water year 1965-66: Inflow 786 Outflow 732 †† 39.45

Peak inflow (base, 100 cfs)

Date	Time	Discharge
4-23	1655	932*
4-28	1255	943*
4-29	0830	755*
4-30	1400	1,400*

* 5-minute increment

1/ Inflow adjusted for rainfall on pool and pool losses.
†† Weighted mean rainfall, in inches.

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1966 WATER YEAR

8-0580 Honey Creek subwatershed No 12 near McKinney, Tex Drainage Area 1.26 sq mi

Continuous water-stage recorder: ratio 1:6 Date of last sediment survey Apr. 1960

Maxima: gage height, 28.77 ft; outflow, 419 cfs; surface area, 54.9 acres; contents, 598 acre-feet; on Apr. 30

Minima: gage height, 13.42 ft; surface area, 16.8 acres; contents, 93.3 acre-feet; on Nov. 2

Maximum inflow, 1,400 cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on Apr. 30

Averages: 14 water years, (1953-66); inflow, 503 acre-feet/year; outflow, 411 acre-feet/year; rainfall, 33.90 inches/year

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Pool water budget, in acre-feet, water year October 1965 to September 1966.

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	0.7	5.9	4.1	297	4.3	29.4	6.0	632	51.4	5.6	2.4	18.9	25.4	786
Total Outflow	0	0	0	405	0	5.3	2.1	235	463	.04	0	.04	26.9	732
Total Consumption	6.8	6.8	3.6	102	3.1	4.1	7.7	9.9	15.9	12.5	12.4	12.0	9.3	104
†	-4.4	+1.5	+1.9	-26.2	+2.4	+23.4	-2.7	+426	-424	-3.3	-4.7	+14.6	-5.1	+25.6
‡	17.1	17.0	17.1	18.5	17.2	18.8	19.2	21.9	31.8	19.2	18.8	18.8	19.4	19.7
††	1.17	1.67	0.98	30.40	.84	2.20	.72	14.88	.90	2.24	3.39	6.96	3.50	39.45

1/ 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
4-23	1655	932*			
4-28	1255	943*			
4-29	0830	755*			
4-30	1400	1,400*			

* 5-minute increment.

8-0585. Honey Creek near McKinney, Tex.

Location.--Lat 33°16'42", long 96°39'27", on right bank at downstream side of bridge on county road, 4.5 miles downstream from Haw Branch, 5.6 miles upstream from mouth, and 6.0 miles northwest of McKinney, Collin County.

Drainage area.--39.0 sq mi.

Records available.--July 1951 to September 1966.

Gage.--Digital water-stage recorder. Datum of gage is 563.68 ft above mean sea level, datum of 1929 (Soil Conservation Service reference mark). July 23, 1951, to May 3, 1965, graphic water-stage recorder at same site and datum.

Average discharge.--15 years, 16.8 cfs (12,160 acre-ft per year).

Extremes.--Maximum discharge during year, 4,440 cfs Apr. 30 (gage height, 18.58 ft); no flow at times.
1951-66: Maximum discharge, 7,920 cfs May 26, 1957 (gage height, 20.29 ft); no flow at times.
Maximum stage since at least 1930, 23.0 ft in spring of 1950, from information by local resident.

Remarks.--Records good. Station operated as part of the Honey Creek basin hydrologic cooperative program of the Geological Survey and Soil Conservation Service to evaluate rainfall-runoff relations, and the effects of floodwater-retarding structures. Flow from 20.9 sq mi above this station is partly controlled by 12 floodwater-retarding structures with a total combined capacity of 7,860 acre-ft below the flood spillway crests, of which 5,900 acre-ft is floodwater-retarding capacity and 1,960 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. Diversions for irrigation above station. Sixteen rain gages (10 standard and 6 recording) are operated in basin above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	0	0.30	0.40	1.4	2.1	0.80	415	7.8	3.3	0	40
2	.80	0	.50	.50	1.0	1.9	.60	281	7.2	1.9	0	11
3	.60	0	1.8	.50	.80	2.1	.60	250	7.2	1.1	0	4.6
4	.40	2.7	.80	.40	.80	1.5	.50	238	7.2	.70	0	4.1
5	.20	2.2	.50	.40	.80	1.1	.50	231	6.9	.40	0	1.9
6	.10	1.0	.40	.40	.80	1.0	.50	226	6.6	.40	0	1.1
7	.10	.70	.40	.40	.80	1.0	.50	221	6.9	.80	0	.90
8	.10	.50	.40	.30	.90	1.1	.60	217	6.6	.70	0	.80
9	.10	.40	.40	.40	102	3.5	.50	212	6.6	.40	0	.90
10	0	.40	.50	.40	34	1.4	.50	208	6.6	.30	0	4.6
11	0	.40	.90	.30	17	1.1	.50	193	6.6	.20	0	7.2
12	0	.40	.90	.40	10	3.1	.60	148	7.5	.10	0	4.6
13	0	.40	.60	.40	8.4	2.5	.40	100	11	.10	79	3.1
14	0	.40	.50	.40	7.2	2.1	.60	85	7.5	.10	72	2.2
15	0	.40	.40	.40	6.9	1.9	.70	82	7.2	.10	45	1.8
16	0	.30	.40	.30	6.9	1.6	.50	80	8.1	0	15	25
17	0	.20	.40	.30	5.4	1.5	.50	80	12	2.9	6.9	20
18	0	.20	.40	.30	2.9	1.3	4.6	79	9.2	1.4	4.9	15
19	.50	.30	.40	.40	2.4	1.1	1.9	79	8.1	.50	3.9	13
20	.40	.40	.40	.60	2.2	1.1	.90	73	7.8	.10	1.5	7.8
21	.10	.40	.40	.80	2.1	1.1	.60	63	7.8	0	1.0	3.5
22	0	.40	.40	.90	2.2	1.1	.80	57	7.8	0	.70	2.5
23	0	.40	.40	.80	2.2	.90	444	57	7.5	0	.50	2.1
24	0	.40	.40	.70	1.9	.90	230	53	7.5	0	2.4	1.8
25	0	.40	.50	.70	1.9	.80	437	42	7.8	0	2.4	1.5
26	0	.40	.50	.80	2.1	.90	191	38	7.5	0	1.4	1.3
27	0	.30	.40	.60	2.7	.90	109	34	7.5	0	1.3	1.9
28	0	.20	.40	.90	2.7	1.5	1,790	27	7.2	0	1.3	3.5
29	0	.20	.40	1.8		1.5	1,540	14	7.5	0	1.9	1.8
30	0	.20	.40	.90	----------	1.0	1,600	10	6.0	.10	6.6	3.7
31	0	----------	.40	.90	----------	.90	----------	8.8	----------	.10	12	----------
Total	4.60	14.60	15.90	17.70	230.40	45.50	6,359.20	3,901.8	228.7	15.70	259.70	193.20
Mean	.15	.49	.51	.57	8.23	1.47	212	126	7.62	.51	8.38	6.44
Ac-ft	9.1	29	32	35	457	90	12,610	7,740	454	31	515	383
(†)	1,460	1,440	1,420	1,420	1,640	1,600	8,580	2,330	1,810	1,680	1,900	1,850
(††)	1.21	1.83	1.18	.88	2.21	.97	14.27	1.12	2.64	2.33	7.54	3.43

Calendar year 1965: Max 861 Min 0 Mean 18.0 Ac-ft 13,020 †† 31.47
Water year 1965-66: Max 1,790 Min 0 Mean 30.9 Ac-ft 22,390 †† 39.61

† Contents, in acre-feet, at end of month, in Soil Conservation Service pools upstream from station.
†† Weighted mean rainfall, in inches.

GPO 895-960

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1966 WATER YEAR

Honey Creek subwatershed No 8-C near McKinney, Tex Drainage Area 2.10 sq mi

Staff Gage read weekly Date of last sediment survey September 1959

Maxima: gage height, 28.3, outflow, 94 cfs; surface area, 92.6 acres; contents, 701 acre-feet; on Apr. 30

Minima: gage height, 14.0; surface area, 14.3 acres; contents, 81.7 acre-feet; on Aug. 11

Maximum inflow, _____ cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on _____

Averages: _____ water years, ( ); inflow, _____ acre-feet/year; outflow, _____ acre-feet/year; rainfall, _____ inches/year

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	0	5.0	6.1	722	6.2	4.3	7.3	848	67.1	0.5	3.9	66.0	3.0	1,017
Total Outflow	0	0	0	647	0	0	0	314	622	0	5	20	5	966
Total Consumption	14.5	6.0	6.0	142	4.2	5.8	7.1	11.6	17.9	15.2	15.4	15.2	12.9	132
†	-13.0	+1.7	+1.7	-14.7	+3.4	+1.8	+1.7	+566	-569	-11.7	-13.9	+42.0	-11.1	-.4
‡	17.3	17.0	17.0	17.3	17.0	17.6	17.7	21.0	29.9	16.9	15.4	19.0	18.4	18.7
††	1.12	1.92	1.20	33.87	.99	2.28	1.17	12.90	1.29	2.31	2.06	7.86	3.49	38.59

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1966 WATER YEAR

Honey Creek subwatershed No 8-D near McKinney, Tex Drainage Area 1.46 sq mi

Staff Gage, read weekly Date of last sediment survey September 1959

Maxima: gage height, 27.02, outflow, 20.5 c f s; surface area, 57.2 acres; contents, 470 acre-feet; on Apr. 30

Minima: gage height, 16.0; surface area, 17.9 acres; contents, 77.7 acre-feet; on Jan. 17

Maximum inflow, _____ c f s (averaged for 5-min. interval and adjusted for rainfall on pool surface) on _____

Averages: _____ water years, ( ); inflow, _____ acre-feet/year; outflow, _____ acre-feet/year; rainfall, _____ inches/year

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov.	Dec.	Calendar year 1965	Jan.	Feb.	Mar	Apr	May	June	July	Aug.	Sept	Water year 1966
Total Inflow 1/	7.4	3.7	3.9	294	1.4	26.4	3.4	608	63.4	3.2	2.6	62.8	11.0	797
Total Outflow	0	0	0	263	0	0	0	261	400	0	0	35.5	7.0	704
Total Consumption	9.6	8.6	5.7	133	5.8	7.1	9.4	12.9	21.5	18.2	16.8	13.2	13.4	142
†	-.5	-1.9	0	-38.4	-2.9	+22.9	-4.2	+372.2	-354.8	-11.0	-10.6	+29.3	-2.5	+36.0
‡	19.1	18.8	18.5	22.2	18.2	20.4	21.3	23.4	30.7	22.7	21.0	22.7	24.3	21.8
††	1.07	1.85	1.20	32.86	.95	2.20	1.15	13.71	1.37	2.24	2.57	8.81	3.57	40.69

1/ 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, _____ c f s)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1966 WATER YEAR

Honey Creek subwatershed No 8-E near McKinney, Tex Drainage Area 1.93 sq mi
Staff Gage read weekly. Date of last sediment survey September 1959

Maxima: gage height, 26.87; outflow, 80 c f s; surface area, 75.5 acres; contents, 780 acre-feet; on Apr. 30

Minima: gage height, 13.64; surface area, 23.5 acres; contents, 156 acre-feet; on Feb. 7

Maximum inflow, _____ c f s (averaged for 5-min interval and adjusted for rainfall on pool surface) on _____

Averages: _____ water years, ( ); inflow, _____ acre-feet/year; outflow, _____ acre-feet/year; rainfall, _____ inches/year

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	3.0	3.4	3.4	644	6.8	21.7	1.9	895	274	0.9	2.3	67.4	21.7	1,302
Total Outflow	0	0	0	600	0	0	0	326	806	0	0	26.0	21.6	1,180
Total Consumption	10.2	9.9	8.5	183	10.8	8.9	14.0	15.5	24.2	27.9	17.9	21.9	18.5	188
†	-5.0	-2.5	-2.4	-61.6	-2.4	+17.4	-10.1	+603	-551	-20.4	-8.3	+38.0	-9.3	+47.0
‡	25.4	24.8	24.2	28.5	24.0	25.5	25.4	28.1	40.3	29.4	28.0	29.2	30.8	27.9
††	1.05	1.85	1.33	31.13	.81	2.28	.97	14.90	1.34	2.67	3.17	7.83	3.55	41.75

1/ 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, _____ c f s)

Date	Time	Discharge	Date	Time	Discharge

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GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1966 WATER YEAR

Honey Creek subwatershed No 8-F near McKinney, Tex Drainage Area 1.45 sq mi

Staff Gage, read weekly. Date of last sediment survey September 1959

Maxima: gage height, 25.03; outflow, 100 cfs; surface area, 60.8 acres; contents, 609 acre-feet; on Apr. 30

Minima: gage height, 10.12; surface area, 16.2 acres; contents, 85.8 acre-feet; on Jan. 17

Maximum inflow, _____ cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on _____

Averages: _____ water years, ( ); inflow, _____ acre-feet/year; outflow, _____ acre-feet/year; rainfall, _____ inches/year

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	1.1	3.5	1.7	379	2.2	27.9	2.6	727	190	3.1	0	35.1	22.3	1,016
Total Outflow	0	0	0	344	0	0	0	267	656	0	0	11.7	24.3	959
Total Consumption	8.2	5.9	5.0	115	4.1	4.6	8.0	9.9	20.9	13.7	16.6	13.2	10.1	120
†	-5.2	0	-1.7	-33.7	-.6	+26.5	-3.8	+492.3	-483	-7.1	-11.2	+23.2	-6.1	+23.3
‡	17.0	16.8	16.6	19.0	16.3	18.5	19.4	21.9	34.8	19.6	18.7	18.9	20.2	19.9
††	1.17	1.78	1.25	30.49	.41	2.25	.97	15.08	1.17	2.46	3.26	7.77	3.52	41.09

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1966 WATER YEAR

Honey Creek subwatershed No 8-G near McKinney, Tex Drainage Area 3.96 sq mi

Staff Gage read weekly. Date of last sediment survey September 1959

Maxima: gage height, 27.10; outflow 100 c f s; surface area, 126 acres; contents, 1,350 acre-feet; on Apr. 30

Minima: gage height, 11.0; surface area, 27.2 acres; contents, 166 acre-feet; on Jan. 18

Maximum inflow, _____ c f s (averaged for 5-min interval and adjusted for rainfall on pool surface) on _____

Averages: ____ water years, ( ); inflow, _____ acre-feet/year; outflow, _____ acre-feet/year; rainfall, _____ inches/year

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	13.4	5.5	3.9	954	7.6	68.1	17.1	1,564	388	2.6	0.5	81.6	47.0	2,199
Total Outflow	2.3	0	0	866	0	48.6	14.3	439	1,515	3.6	0	50.0	40.7	2,114
Total Consumption	15.0	9.9	9.5	187	6.9	10.4	11.8	15.2	43.9	19.0	22.0	19.6	18.1	201
†	-1.4	0	-2.8	-18.0	+2.8	+14.5	-5.9	+1,170	-1,161	-14.7	-16.3	+31.0	-3.0	+13.1
‡	28.8	28.4	28.0	29.2	27.6	29.6	29.6	33.7	79.8	29.2	26.8	28.0	30.1	33.3
††	1.21	1.87	1.30	33.95	.80	2.11	1.33	13.21	1.22	2.02	2.41	7.12	3.91	38.51

1/ 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, _____ c f s)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1966 WATER YEAR

Honey Creek subwatershed No 8-H near McKinney, Tex Drainage Area 2.18 sq mi

Staff Gage Date of last sediment survey September 1959

Maxima: gage height, 27.70, outflow, 29.0 cfs; surface area, 69.2 acres; contents, 713 acre-feet; on Apr. 30

Minima: gage height, 13.34; surface area, 18.1 acres; contents, 131 acre-feet; on Jan. 19

Maximum inflow, _____ cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on _____

Averages: _____ water years, ( ); inflow, _____ acre-feet/year; outflow, _____ acre-feet/year; rainfall, _____ inches/year

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	0.1	2.7	2.8	502	2.3	44.1	9.7	848	260	3.1	3.8	64.4	226	1,264
Total Outflow	0	0	0	476	0	0	0	344	763	0	0	20.2	13.1	1,140
Total Consumption	12.6	8.5	6.4	151	5.5	6.5	10.8	14.0	20.7	24.7	25.1	20.6	19.6	175
†	-10.8	-2.8	-1.8	-59.8	-1.7	+41.5	+0.9	+532.4	-519.9	-17.2	-17.5	+39.9	-2.6	+40.4
‡	19.4	18.9	18.4	23.7	18.2	21.6	24.0	25.4	34.5	24.7	21.8	22.9	26.2	23.1
††	1.08	1.83	1.18	33.03	.96	2.17	1.20	13.46	1.42	2.20	2.60	9.08	3.61	40.79

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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1966 WATER YEAR

Honey Creek subwatershed No 9 near McKinney, Tex Drainage Area 1.37 sq mi

Staff Gage read weekly. Date of last sediment survey September 1959

Maxima: gage height, 26.1; outflow, 50 cfs; surface area, 48.5 acres; contents, 550 acre-feet; on Apr. 30

Minima: gage height, 8.34; surface area, 10.6 acres; contents, 71.7 acre-feet; on Jan. 18

Maximum inflow, _____ cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on _____

Averages: _____ water years, ( ); inflow, _____ acre-feet/year; outflow, _____ acre-feet/year; rainfall, _____ inches/year

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	0	0.1	2.2	337	0.8	6.9	2.1	576	149	1.3	0.1	8.3	6.3	753
Total Outflow	0	0	0	316	0	0	0	134	557	0	0	0	0	691
Total Consumption	6.7	5.1	4.4	101	3.7	3.4	5.6	7.4	21.0	11.8	13.7	11.0	8.5	102
†	-5.3	-3.4	-1.1	-46.0	-2.1	+5.5	-2.7	+469.9	-427.1	-6.6	-10.7	+5.6	+1.4	+23.4
‡	12.0	11.4	11.1	14.0	10.7	11.3	11.3	13.4	26.3	14.9	14.1	13.8	14.1	13.7
††	1.31	1.80	1.22	29.60	.93	2.14	.80	14.81	1.06	3.06	1.92	7.18	3.26	39.49

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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1966 WATER YEAR

Honey Creek subwatershed No 10 near McKinney, Tex Drainage Area 1.25 sq mi

Staff Gage read weekly. Date of last sediment survey September 1959

Maxima: gage height, 27.5; outflow, 150 cfs; surface area, 46.6 acres; contents, 490 acre-feet; on Apr. 30

Minima: gage height, 9.73; surface area, 10.4 acres; contents, 55.4 acre-feet; on Jan. 18

Maximum inflow, _____ cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on _____

Averages: _____ water years, ( ); inflow, _____ acre-feet/year; outflow, _____ acre-feet/year; rainfall, _____ inches/year

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	1.8	1.9	3.3	452	3.0	25.9	6.7	662	149	1.2	0.1	25.8	22.0	903
Total Outflow	0	0	0	434	0	0	0	278	539	0	0	8.7	18.8	844
Total Consumption	6.3	4.4	4.2	75.8	4.6	4.8	6.4	8.3	12.8	9.4	10.8	9.1	8.3	89.4
†	-3.4	-1.0	0	-25.8	-.8	+23.1	+1.0	+401.3	-400.6	-5.8	-7.1	+15.4	-1.3	+20.8
‡	10.9	10.7	10.6	12.1	10.5	12.0	12.7	15.1	21.4	12.5	11.2	12.1	12.8	12.7
††	1.28	1.70	1.12	30.25	.95	2.24	.92	15.08	1.00	2.19	3.48	7.63	3.51	41.10

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1966 WATER YEAR

Honey Creek subwatershed No 13 near McKinney, Tex Drainage Area 0.89 sq mi

Staff Gage read weekly

Date of last sediment survey September 1959

Maxima: gage height, 22.0; outflow, 6.8 cfs; surface area, 34.0 acres; contents, 388 acre-feet; on Apr. 30

Minima: gage height, 7.05; surface area, 11.4 acres; contents, 70.4 acre-feet; on Apr. 17

Maximum inflow, _____ cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on _____

Averages: _____ water years, ( ); inflow, _____ acre-feet/year; outflow, _____ acre-feet/year; rainfall, _____ inches/year

-12-

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	0.1	1.2	0.2	276	1.3	10.3	0.7	345	70.9	3.5	0.3	10.1	4.1	448
Total Outflow	0	0	0	243	0	0	0	47.8	305	0	0	0	0	353
Total Consumption	10.9	6.8	5.2	137	5.8	4.2	5.3	9.9	17.8	14.9	26.4	22.4	16.4	146
†	-9.3	-3.7	-3.6	-64.9	-3.5	+8.3	-3.6	+311	-250	-6.7	-21.5	-5.7	-8.3	+3.4
‡	12.8	12.4	12.0	15.3	11.7	12.1	12.1	13.2	23.7	16.6	15.5	14.0	13.7	14.2
††	1.34	1.78	1.25	29.97	.96	2.23	.96	14.79	1.09	3.73	2.41	6.62	3.19	40.35

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1966 WATER YEAR

Honey Creek subwatershed No 14 near McKinney, Tex Drainage Area 0.91 sq mi

staff Gage read weekly Date of last sediment survey September 1959.

Maxima: gage height, 23.9; outflow, 17.6 c.f.s; surface area, 33.4 acres; contents, 343 acre-feet; on Apr. 30

Minima: gage height, 9.95; surface area, 10.8 acres; contents, 61.2 acre-feet; on Dec. 9

Maximum inflow, _____ c.f.s (averaged for 5-min. interval and adjusted for rainfall on pool surface) on _____

Averages: _____ water years, ( ); inflow, _____ acre-feet/year; outflow, _____ acre-feet/year; rainfall, _____ inches/year

Pool water budget, in acre-feet, water year October 1965 to September 1966

	Oct	Nov	Dec	Calendar year 1965	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1966
Total Inflow 1/	0.5	1.6	2.1	230	1.8	27.4	3.9	482	161	0.6	9.9	8.0	6.9	706
Total Outflow	0	0	0	216	0	3.1	.6	237	413	0	1.2	1.6	2.4	659
Total Consumption	5.0	3.3	3.3	69.0	2.7	4.2	5.6	6.6	9.2	8.5	9.7	9.8	8.1	76.0
†	-3.2	0	0	-22.7	0	+22.2	-1.3	+259.2	-259.7	-4.4	+2.5	+2.4	0	+17.7
‡	11.0	10.9	10.9	11.9	10.9	12.0	12.5	13.1	15.4	12.2	12.1	12.3	12.4	12.1
††	1.32	1.79	1.25	31.75	.99	2.26	.86	14.71	1.21	3.10	3.58	6.14	3.51	40.72

1/ 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, _____ c.f.s)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY-AUSTIN DISTRICT

RAINFALL DATA SUMMARY

STUDY AREA *Honey Creek # II*

1966 WATER YEAR

RAIN GAGES

Date of storm	11-S	.0955	13-R	.6879	15-R	.2166		Totals
1965								
Oct. 3-4	.36	.03	.24	.17	.20	.04		.24
15	.69	.07	.70	.48	.65	.14		.69
18	.39	.04	.38	.26	.32	.07		.37
Oct. Totals		.14		.91		.25		1.30
Nov. 3	1.03	.10	(1.08)	.74	1.04	.23		1.07
4	.56	.05	(.58)	.40	.60	.13		.58
5	.09	.01	(.10)	.07	(.10)	.02		.10
11	.01	0	0	0	0	0		0
Nov. Totals		.16		1.21		.38		1.75
Dec. 1-2	.55	.05	.54	.37	.44	.10		.52
10	.31	.03	.32	.22	.28	.06		.31
17	.12	.01	.12	.08	(.10)	.02		.11
24	.20	.02	.20	.14	(.15)	.03		.19
Dec. Totals		.11		.81		.21		1.13
Cal. Yr. Totals								
1966								
Jan 1-2	.09	.01	.10	.07	.10	.02		.10
* 19-21	.35	.03	.40	.28	.40	.09	*	.40
28	.46	.04	.42	.29	.36	.08		.41
Jan. Totals		.08		.64		.19		.91
Feb. 8	.46	.04	.60	.41	.48	.10		.55
9	1.42	.14	1.33	.91	(1.50)	.32		1.37
26	.17	.02	.20	.14	(.20)	.04		.20
28	.10	.01	.07	.05	(.05)	.01		.07
Feb. Totals		.21		1.51		.47		2.19
Mar. 3	.12	.01	.07	.05	(.05)	.01		.07
12	.33	.03	.25	.17	.25	.05		.25
28	.42	.04	.65	.45	(.40)	.09		.58
Mar. Totals		.08		.67		.15		.90

		11-S	.0955	13-R	.6879	15-R	.2166		Totals	By / ✓
Apr.	10	.12	.01	.10	.07	(.10)	.02		.10	[illegible]/RHC
	14	.28	.03	.30	.21	.28	.06		.30	
	17-18	1.33	.13	1.15	.79	1.20	.26		1.18	
	22	.33	.03	.32	.22	.32	.07		.32	
	23	3.03	.29	3.05	2.10	3.00	.65		3.04	
	24	.28	.03	.28	.19	.28	.06		.28	
	25	1.13	.11	1.23	.85	1.12	.24		1.20	
	26	.11	.01	.05	.03	.08	.02		.06	
	27-28	2.22	.21	2.02	1.39	(1.97)	.43		2.03	
	28	1.22	.12	1.31	.90	(1.28)	.28		1.30	
	29	2.80	.27	2.61	1.80	2.56	.55		2.62	
	30	2.16	.21	2.45	1.69	2.40	.52		2.42	
Apr	Totals		1.45		10.24		3.16		14.85	
May	1	.32	.03	.31	.21	.25	.05		.29	
	12	.18	.02	.28	.19	.20	.04		.25	
	19	.04	0	0	0	0	0		0	
	21	.58	.06	.38	.26	.29	.06		.38	
May	Totals		.11		.66		.15		.92	
June	12	1.68	.16	2.41	1.66	(2.40)	.52		2.34	
	16	.68	.06	.83	.57	.60	.13		.76	
	17	.84	.08	.65	.45	.76	.16		.69	
June	Totals		.30		2.68		.81		3.79	
July	1	.38	.04	.10	.07	.16	.03		.14	
	7	.53	.05	.64	.44	(.60)	.13		.62	
	17	1.59	.15	1.07	.74	1.28	.28		1.17	
July	Totals		.24		1.25		.44		1.93	
Aug.	2	.14	.01	.08	.06	(.10)	.02		.09	
	11	.06	.01	.03	.02	0	0		.03	
	12	.41	.04	(.70)	.48	(.60)	.13		.65	
	13	2.70	.26	(2.80)	1.93	(2.60)	.56		2.75	
	14	1.03	.10	.88	.61	.84	.18		.89	

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY-AUSTIN DISTRICT

RAINFALL DATA SUMMARY

STUDY AREA Honey Creek #11 — 1966 WATER YEAR

RAIN GAGES

Date of storm	11-5	.0955	13-R	.6879	15-R	.2166		Totals
Aug. 24	1.38	.13	1.30	.89	1.12	.24		1.26
28	.05	0	.03	.02	0	0		.02
29	.09	.01	.15	.10	.04	.01		.12
30	.43	.04	.24	.17	.80	.17		.38
31	.75	.07	.88	.61	(.90)	.19		.87
Aug. Totals		.67		4.89		1.50		7.06
Sept. 1	.12	.01	0	0	0	0		.01
9-10	1.00	.10	.80	.55	1.00	.22		.87
15	.04	0	.03	.02	0	0		.02
16	1.01	.10	1.03	.71	(1.05)	.23		1.04
17	.13	.01	.16	.11	(.20)	.04		.16
27	.39	.04	.50	.34	(.50)	.11		.49
30	.51	.05	.50	.34	(.50)	.11		.50
Sept. Totals		.31		2.07		.71		3.09
Water Yr. Totals		3.86		27.54		8.42		39.82
Revised: DEL								
* Jan. 18	.05	.005	.05	.034	.05	.011		.05
19	.03	.003	.04	.028	.04	.009		.04
20	.21	.020	.20	.138	.20	.043		.20
21	.03	.003	.03	.021	.03	.006		.03
23	.03	.003	.08	.055	.08	.017		.08
		.034		.276		.086		0.40

By ✓

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY-AUSTIN DISTRICT

RAINFALL DATA SUMMARY

STUDY AREA Honey Creek No. 12

1966 WATER YEAR

RAIN GAGES

Date of storm	10-S	058	12-R	663	16-R	279		Totals
1965								
Oct. 3-4	.39	.02	.30	.20	.19	.05		.27
15	.56	.03	.69	.46	.62	.17		.66
18	.37	.02	.18	.12	.35	.10		.24
Oct. Totals		.07		.78		.32		1.17
Nov. 3	1.04	.06	1.03	.68	1.09	.30		1.04
4	.58	.03	.58	.38	.60	.14		.55
5	.08	0	.07	.05	.10	.03		.08
Nov. Totals		.09		1.11		.47		1.67
Dec. 1-2	.55	.03	.47	.31	.44	.12		.46
10	.32	.02	.27	.18	.24	.07		.27
17	.11	.01	.09	.06	(.10)	.03		.10
23-24	0	0	0	0	0	0		0
24	.19	.01	.15	.10	.14	.04		.15
Dec. Totals		.07		.65		.26		.98
Cal. Yr. Totals 1966								
Jan. 1-2	.10	.01	.08	.05	.05	.01		.07
19-21	.40	.02	.37	.25	(.36)	.10	*	.37
28	.47	.03	.42	.28	.34	.09		.40
Jan. Totals		.06		.58		.20		.84
Feb. 8	.43	.02	.43	.29	.44	.12		.43
9	1.57	.09	1.54	1.02	1.56	.44		1.55
26	.16	.01	.15	.10	.12	.03		.14
28	.09	.01	.08	.05	.08	.02		.08
Feb. Totals		.13		1.46		.61		2.20
Mar. 3	.20	.01	.01	.01	.08	.02		.04
12	.39	.02	.30	.20	.36	.10		.32
28	.41	.02	.36	.24	.35	.10		.36
Mar. Totals		.05		.45		.22		.72
Apr. 10	.10	.01	.08	.05	(.10)	.03		.09
14	.25	.01	.21	.14	(.25)	.07		.22
17-18	1.33	.08	1.14	.76	(1.10)	.31		1.15
22	.35	.02	.38	.25	.30	.08		.35

Date of Storm	10-S	058	12-R	663	16-R	279		Totals
Apr. 23	3.16	.18	3.35	2.22	(3.32)	.93		3.33
24	.29	.02	.29	.19	.22	.06		.27
25	1.14	.07	1.21	.80	1.25	.35		1.22
26	.12	.01	.08	.05	(.10)	.03		.09
27-28	2.36	.14	2.38	1.58	2.32	.65		2.37
28	1.20	.07	1.17	.78	1.08	.30		1.15
29	2.93	.17	2.94	1.95	(2.70)	.75		2.87
30	1.93	.11	1.61	1.07	(2.12)	.59		1.77
Apr. Totals		.89		9.84		4.15		14.88
May 1	.32	.02	.29	.19	.28	.08		.29
12	.17	.01	.13	.09	(.10)	.03		.13
19	.04	0	0	0	0	0		0
20	0	0	0	0	0	0		0
21	.48	.03	.54	.36	.32	.09		.48
May Totals		.06		.64		.20		.90
June 12	.73	.04	.86	.57	(.90)	.25		.86
16	.56	.03	.55	.36	.50	.14		.53
17	.87	.05	.89	.59	.74	.21		.85
June Totals		.12		1.52		.60		2.24
July 1	.26	.02	0	0	0	0		.02
7	1.23	.07	1.66	1.10	(.90)	.25		1.42
17	1.93	.11	1.96	1.30	1.94	.54		1.95
30	.02	0	0	0	0	0		0
July Totals		.20		2.40		.79		3.39
Aug. 2	.23	.01	.10	.07	(.05)	.01		.09
11	.06	0	.03	.02	0	0		.02
12	.25	.01	.22	.15	(.26)	.06		.22
13	2.35	.14	2.16	1.43	(2.20)	.61		2.18
14	1.10	.06	1.36	.90	1.28	.36		1.32
24	1.18	.07	1.05	.70	.96	.27		1.04
28	.09	.01	0	0	0	0		.01
29	.11	.01	.05	.03	.04	.01		.05
30	1.26	.07	1.52	1.01	(1.20)	.33		1.41
31	1.17	.07	.62	.41	(.50)	.14		.62
Aug. Totals		.45		4.72		1.79		6.96

By V

* See next page

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY-AUSTIN DISTRICT

RAINFALL DATA SUMMARY

STUDY AREA Honey Creek No.12

1966 WATER YEAR

RAIN GAGES

Date of storm	10-S	058	12-R	.663	16-R	.279		Totals	By KHO	By DEL
1966										
Sept. 1	.25	.01	.04	.03	0	0		.04		
3	0	0	.05	.03	.04	.01		.04		
9-10	1.19	.07	1.15	.76	(1.00)	.28		1.11		
15	.04	0	.04	.03	(1.25)	.35		.38		
16	1.06	.06	1.31	.87	(.20)	.06		.99		
17	.12	.01	.13	.09	0	0		.10		
27	.33	.02	.28	.19	.28	.08		.29		
30	.52	.03	.53	.35	.60	.17		.55		
Sept. Totals		.20		2.35		.95		3.50		
Water Yr. Totals		2.39		26.50		10.56		39.45		
Revised-KHO										
* Jan. 18.	.05	.003	.05	.033	.05	.014		.05		
19	.04	.002	.04	.027	.04	.011		.04		
20	.22	.013	.20	.133	.19	.053		.20		
21	.07	.004	.06	.040	.06	.017		.06		
23	.02	.001	.02	.013	.02	.006		.02		
		.023		.246		.101	*	.37		

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY--TEXAS DISTRICT

RAINFALL DATA SUMMARY

STUDY AREA Honey Creek near McKinney, Tex. 1966 WATER YEAR

RAIN GAGES

Date of storm	1-S	2-S	3-S	4-S	5-R	6-S	7-S	8-S	9-R	10-S	11-S	12-R	13-R	14-S	15-R	16-R		Total	Avg	By RHG/BCM
1965																				
Oct. 3-4	.43	.41	.36	.40	.32	.36	.35	.38	.26	.39	.36	.30	.24	.46	.20	.19				
15	.36	.28	.28	.33	.30	.41	.48	.57	.54	.56	.69	.69	.70	.54	.65	.62				
18	.52	.41	.39	.48	.43	.27	.38	.45	.22	.37	.39	.18	.38	.38	.32	.35				
Totals	1.31	1.10	1.03	1.21	1.05	1.04	1.21	1.40	1.02	1.32	1.44	1.17	1.32	1.38	1.17	1.16		19.33	1.21	
Nov. 3	1.13	1.07	1.08	1.21	1.14	1.10	1.13	1.22	(1.06)	1.04	1.03	1.03	1.08	1.12	1.04	(1.09)				
4	.70	.67	.68	.75	.71	.69	.66	.66	(.59)	.58	.56	.58	.58	.63	.60	(.50)				
5	.06	.06	.06	.06	.06	.06	.08	.11	(.10)	.08	.09	.07	.10	.08	(.10)	.40				
11	.01	0	0	0	0	0	0	0	.05	0	.01	0	0	0	0	0				
Totals	1.90	1.80	1.82	2.02	1.91	1.85	1.87	1.99	1.80	1.70	1.69	1.68	1.76	1.83	1.74	1.69		29.05	1.82	
Dec. 1-2	.61	.53	.51	.55	.55	.59	.56	.60	.50	.55	.55	.47	.54	.57	.44	.44				
10	0	0	0	0	0	0	0	.19	0	.19	.19	.27	.32	.42	.28	.24				
10-11	.50	.38	.40	.40	.33	.43	.31	.20	.35	.13	.12	0	0	0	0	0				
17	.08	.06	.06	.08	.05	.08	.07	.13	.08	.11	.12	.09	.12	.17	(.10)	(.10)				
23-24	.19	.21	.21	.20	.25	.24	.12	0	0	0	0	0	0	0	0	0				
24	0	0	0	0	0	0	.10	.25	.22	.19	.20	.15	.20	.21	(.15)	.14				
Totals	1.38	1.18	1.18	1.23	1.18	1.34	1.16	1.37	1.15	1.17	1.18	.98	1.18	1.37	.97	.92		18.94	1.18	
1965 Cal. Year.																	Cal. Yr. Total	31.44		
1966																				
Jan. 1-2	.08	.31	.26	.25	.18	.10	.09	.10	.05	.10	.09	.08	.10	.09	.10	.05				
18	.04	.04	.05	.07	.08	.05	.04	.08	.04	.05	.05	.05	.05	.08	.05	.05				
19	.07	.07	.08	.10	.12	.08	.06	.06	.03	.04	.03	.04	.04	.07	.04	.04				
20	.09	.10	.11	.14	.17	.11	.14	.35	.20	.22	.21	.20	.20	.32	.20	.19				
21	.02	.02	.03	.03	.04	.03	.02	.04	.02	.07	.03	.06	.03	.10	.03	.06				
23	.06	.06	.07	.08	.10	.07	.04	.07	0	.02	.03	.02	.08	.03	.08	.02				
28	.35	.35	.32	.40	.31	.35	.35	.51	.38	.47	.46	.42	.42	.35	.36	.34				
Totals	.71	.95	.92	1.01	1.00	.79	.74	1.21	.72	.97	.90	.87	.92	1.04	.86	.75		14.42	.90	
Feb. 8	.18	.19	.19	.20	.19	.19	.30	.48	.40	.43	.46	.43	.60	.40	.48	.44				
9	1.62	1.70	1.72	1.80	1.73	1.77	1.63	1.34	1.44	1.57	1.42	1.54	1.33	1.45	(1.50)	1.56				
15	0	0	0	.02	0	0	.02	.03	0	0	0	0	0	.02	0	0				
26	.13	.12	.15	.17	.19	.16	.14	.20	.14	.16	.17	.15	.20	.27	(.20)	.12				
28	.13	.11	.15	.16	.18	.15	.12	.11	.11	.09	.10	.08	.07	.14	(.05)	.08				
Totals	2.06	2.12	2.21	2.33	2.29	2.27	2.21	2.16	2.09	2.25	2.15	2.20	2.20	2.28	2.23	2.20		35.25	2.20	

Form A-88
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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY--TEXAS DISTRICT

RAINFALL DATA SUMMARY

STUDY AREA Honey Creek near Mc Kinney, Tex. 1966 WATER YEAR

RAIN GAGES

Date of storm	1-S	2-S	3-S	4-S	5-R	6-S	7-S	8-S	9-R	10-S	11-S	12-R	13-R	14-S	15-R	16-R		Total	Avg.	By V / RHO / M
Mar. 3	.06	.06	.05	.05	.05	.08	.06	.05	.08	.20	.12	.01	.07	.22	(.05)	.08				
12	.90	.75	.66	.66	.60	.59	.54	.40	.33	.39	.33	.30	.25	.41	.25	.36				
28	.42	.48	.54	.38	.35	.30	.31	.33	.30	.41	.47	.36	.65	.31	(.40)	.35				
Totals	1.38	1.29	1.25	1.09	1.00	.97	.91	.78	.71	1.00	.87	.67	.97	.99	.70	.79		15.32	.96	
Apr. 10	.07	.09	.10	.11	.10	.09	.10	.12	.10	.10	.12	.08	.10	.12	(.10)	(.10)				
14	.24	.23	.20	.22	.22	.31	.23	.25	.25	.25	.28	.21	.30	.21	.28	(.25)				
17-18	1.36	1.31	1.12	1.26	1.23	1.71	1.27	1.15	1.35	1.33	1.33	1.14	1.15	1.14	1.20	(1.10)				
22	.21	.20	.20	.19	.22	.22	.26	.29	.31	.35	.33	.38	.37	.37	.32	.30				
23	3.00	2.96	2.94	2.85	3.27	3.30	3.03	2.73	2.88	3.16	3.03	3.35	3.05	3.29	3.00	(3.32)				
24	.21	.20	.20	.19	.22	.22	.24	.25	.27	.29	.28	.29	.28	.29	.28	.22				
25	.94	.93	.92	.90	1.01	1.03	1.02	1.04	1.03	1.14	1.13	1.21	1.23	1.19	1.12	1.25				
26	.04	.04	.04	.04	.04	.04	.11	.11	.18	.12	.11	.08	.05	.08	.08	(.10)				
27-28	2.48	2.45	2.44	2.36	2.67	2.74	2.49	2.01	2.34	2.34	2.22	2.38	2.02	2.34	(1.97)	(2.32)				
28	1.44	1.42	1.41	1.37	1.55	1.59	1.39	1.17	1.24	1.20	1.22	1.17	1.31	1.15	(1.28)	(1.08)				
29	2.64	2.61	2.59	2.52	2.84	2.91	2.86	2.54	2.92	2.93	2.80	2.94	2.61	2.89	2.56	(2.70)				
30	.75	.73	.73	.71	.80	.82	1.61	2.25	2.44	1.93	2.16	1.61	2.45	1.58	2.40	(2.12)				
Totals	13.38	13.17	12.89	12.72	14.12	14.98	14.61	13.91	15.31	15.16	15.01	14.81	14.87	14.75	14.55	14.86		227.07	14.32	
May 1	.26	.26	.26	.25	.28	.29	.32	.31	.36	.32	.32	.29	.31	.29	.25	.28				
12	.11	.72	.66	.50	.45	.48	.30	.16	.10	.17	.18	.13	.28	.43	.20	(.10)				
19	.14	.09	.06	.11	.08	.10	.10	.06	.09	.04	.04	0	0	0	0	0				
20	.05	.04	.02	.04	.03	.04	.02	0	0	0	0	0	0	0	0	0				
21	.60	.41	.23	.46	.34	.44	.43	.54	.41	.48	.58	.54	.38	.60	.29	.32				
Totals	1.16	1.52	1.23	1.36	1.18	1.35	1.17	1.07	.96	1.01	1.12	.96	.97	1.32	.74	.70		17.82	1.11	
June 12	.59	.87	.94	1.25	.96	1.04	1.38	1.43	1.59	.73	1.68	.86	2.41	1.63	(2.40)	(.90)				
16	.61	.63	.58	.56	.53	.77	.43	.74	.54	.56	.68	.55	.83	.69	.60	.50				
17	.72	.74	.67	.66	.62	.91	.57	.78	.79	.87	.84	.89	.65	1.11	.76	.74				
Totals	1.92	2.24	2.19	2.47	2.11	2.72	2.38	2.95	2.92	2.16	3.20	2.30	3.89	3.43	3.76	2.14		42.78	2.67	
July																				
	0	0	0	0	0	0	0	0	.03	.26	.38	0	.10	.05	.16	0				
7	.21	.45	.23	.24	.43	.85	.06	.14	.33	1.23	.53	1.66	.64	1.14	(.60)	(.90)				
17	2.07	2.32	2.03	1.32	1.64	2.30	.95	.95	1.30	1.93	1.59	1.96	1.07	2.32	1.28	1.94				
24	.10	0	.02	.41	0	0	.35	0	0	0	0	0	0	0	0	0				
30	.02	.05	.02	0	0	.02	.03	.05	0	.02	0	0	0	.05	0	0				
Totals	2.40	2.82	2.30	1.97	2.07	3.27	1.39	1.14	1.66	3.44	2.50	3.62	1.81	3.56	2.04	2.84		38.83	2.43	

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY-AUSTIN DISTRICT

RAINFALL DATA SUMMARY

STUDY AREA Honey Creek near McKinney, Tex. 1966 WATER YEAR

RAIN GAGES

Date of storm	1-S	2-S	3-S	4-S	5-R	6-S	7-S	8-S	9-R	10-S	11-S	12-R	13-R	14-S	15-R	16-R		Total	Avg.	By V / RHO / BCM
Aug 2	.41	.20	.10	.12	0	.21	.10	.18	.06	.23	.14	.10	.08	.17	(.10)	(.05)				
11	.45	.64	.57	.55	.56	.53	.35	.07	.12	.06	.06	.03	.03	.03	0	0				
12	.05	.07	.06	.06	.06	.06	.24	.51	.40	.25	.41	.22	.70	.19	(.60)	(.20)				
13	3.18	4.56	4.06	3.91	3.97	3.76	3.76	2.88	3.40	2.35	2.70	2.16	2.80	1.86	(2.60)	(2.20)				
14	.67	.96	.85	.82	.83	.79	.89	.84	.92	1.10	1.03	1.36	.88	1.17	.84	1.28				
15	.05	.07	.06	.06	.06	.06	.03	0	0	0	0	0	0	0	0	0				
24	1.30	1.49	1.21	1.58	1.19	1.24	1.66	1.96	1.26	1.18	1.38	1.05	1.30	1.28	1.12	.96				
28	.01	.07	.04	.03	.07	.05	.09	.05	.10	.09	.05	0	.03	0	0	0				
29	.01	.06	.04	.03	.06	.05	.07	.09	.08	.11	.09	.05	.15	.02	.04	.04				
30	.03	.15	.10	.08	.16	.12	.13	.14	.10	1.26	.43	1.52	.24	.72	.80	(1.20)				
31	.21	1.19	.74	.61	1.23	.92	1.02	.67	.80	1.17	.75	.62	.88	.29	(.90)	(.50)				
Totals	6.37	9.46	7.83	7.85	8.19	7.79	8.34	7.39	7.24	7.80	7.04	7.11	7.09	5.73	7.00	6.43		118.66	7.42	
Sept. 1	.04	.24	.15	.12	.25	.19	.26	.10	.26	.25	.12	.04	0	.02	0	0				
3	0	0	0	0	0	0	0	0	0	0	0	.05	0	0	0	.04				
9-10	1.77	1.33	1.38	.90	1.00	1.07	.78	.82	.90	1.19	1.00	1.15	.80	1.15	1.00	(1.00)				
15	.08	.08	.07	.08	.08	.08	.06	.05	.05	.04	.04	.04	.03	.04	0	(.05)				
16	1.02	.96	.93	1.03	.99	.96	.92	1.19	1.05	1.06	1.01	1.31	1.03	1.17	(1.05)	(1.20)				
17	.14	.13	.13	.14	.14	.14	.12	.17	.14	.12	.13	.13	.16	.11	(.20)	(.20)				
27	.42	.37	.33	.47	.37	.44	.42	.49	.40	.33	.39	.28	.50	.35	(.50)	.28				
30	.67	.59	.52	.74	.58	.68	.58	.54	.48	.52	.51	.53	.50	.66	(.50)	.60				
Totals	4.14	3.70	3.51	3.48	3.41	3.56	3.14	3.36	3.28	3.51	3.20	3.53	3.02	3.50	3.25	3.37		54.96	3.44	
																			39.66	W.Y. Total

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1960 WATER YEAR

____ Honey Creek subwatershed No 8-C near McKinney, Tex Drainage Area 2.10 sq mi.

staff gage
~~Continuous water-stage recorder~~ ratio ____ Date of last sediment survey September 1959

Maxima: gage height, 19.5 ft; outflow, 20 cfs; surface area, 27.1 acres; contents, 188 acre-feet; on Dec. 15

Minima: gage height, 15.4 ft; surface area, 16.3 acres; contents, 103 acre-feet; on Sept. 30

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

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Pool water budget, in acre-feet, water year October 1959 to September 1960.

	Oct	Nov	Dec	Calendar year 1959	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1960
Total Inflow 1/	21.8	26.3	132		55.9	18.0	9.1	6.5	11.3	20.3	15.3	2.0	1.4	320
Total Outflow	0	19.0	124		57.5	17.6	3.2	6.9	4.2	15.9	0	0	0	248
Total Consumption	11.2	7.2	7.1		6.9	6.2	8.0	11.0	15.2	13.0	16.0	16.8	15.0	134
†	+19.1	+3.8	+7.6		-5.7	-1.9	0	-9.2	-3.5	0	+7.1	-8.9	-10.1	-1.7
‡	18.1	19.3	19.7		19.7	19.3	19.0	18.6	17.7	18.1	17.2	17.7	16.7	—
††	5.97	3.09	3.88		1.93	2.38	1.43	1.76	3.08	4.59	5.83	3.75	2.57	40.26
Rainfall on Pool	8.55	3.71	6.26		2.84	3.90	2.11	2.16	4.58	8.56	7.79	5.90	3.46	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1960 WATER YEAR

Honey Creek subwatershed No 8-D near McKinney, Tex Drainage Area 1.46 sq. mi.

Staff gage ~~Continuous water-stage recorder~~: ratio —. Date of last sediment survey —.

Maxima: gage height, 19.1 ft; outflow, 15 c.f.s; surface area, 27.4 acres; contents, 148 acre-feet; on Dec. 15.

Minima: gage height, 16.8 ft; surface area, 20.4 acres; contents, 92.9 acre-feet; on Oct. 3.

Maximum inflow, — c.f.s (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —.

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1959 to September 1960.

	Oct	Nov.	Dec.	Calendar year 1959	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year 1960
Total Inflow 1/	10.6	18.3	104		38.4	49.1	9.8	3.1	5.6	92.9	3.5	21.3	0.9	358
Total Outflow	0	0	97.0		37.1	49.2	4.2	0	0	82.7	0	0	0	270
Total Consumption	10.8	11.4	9.5		4.9	4.9	8.3	13.0	14.0	17.0	16.4	16.6	15.0	142
†	+10.6	+11.4	+4.8		0	0	0	-7.1	-2.3	+4.6	-2.3	+4.7	-9.3	+15.1
‡	21.7	23.7	24.3		24.6	24.6	24.3	23.7	23.4	24.3	23.4	23.4	23.0	—
††	5.85	2.32	3.85		1.82	2.39	1.30	1.52	2.97	5.20	4.74	3.83	2.81	38.60
Rainfall on Pool	10.80	4.49	7.53		3.57	4.99	2.70	2.76	6.06	11.44	10.60	7.93	4.81	

1/ 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, — c.f.s)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1960 WATER YEAR

Honey Creek subwatershed No 8-E near McKinney, Tex. Drainage Area 1.93 sq. mi.

Staff gage ~~Continuous water-stage recorder: rating~~ —. Date of last sediment survey —.

Maxima: gage height, 16.4 ft; outflow, 9.2 cfs; surface area, 32.0 acres; contents, 233 acre-feet; on Feb. 3.

Minima: gage height, 11.8 ft; surface area, 18.4 acres; contents, 118 acre-feet; on Oct. 3.

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —.

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1959 to September 1960.

	Oct	Nov	Dec	Calendar year 1959	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1960
Total Inflow 1/	7.7	14.5	67.4		73.2	65.6	18.5	8.2	3.4	14.9	15.8	20.6	9.7	320
Total Outflow	0	0	0		49.3	64.1	15.7	6.3	0	0	0	0	13.9	149
Total Consumption	10.0	9.2	9.1		8.6	7.4	12.2	15.3	18.7	23.0	21.1	25.9	14.4	175
†	+ 5.7	+ 7.9	+ 66.1		+ 20.7	0	- 6.1	- 8.8	- 8.6	+ 2.8	+ 5.8	+ 5.8	- 11.6	79.7
‡	18.9	20.4	24.6		30.6	30.9	30.6	29.4	28.8	28.8	28.5	28.8	28.8	—
††	5.27	1.64	3.97		2.11	2.30	1.29	1.86	2.83	4.61	4.72	4.61	2.92	38.13
Rainfall on Pool	7.96	2.57	7.77		5.44	5.86	3.26	4.60	6.67	10.87	11.12	11.15	7.00	

1/ 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, — cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1960 WATER YEAR

____ Honey Creek subwatershed No 8-F near McKinney, Tex Drainage Area 1.45 sq mi

Staff gage ~~Continuous water-stage recorder~~: ratio ____. Date of last sediment survey —.

Maxima: gage height, 12.6 ft; outflow, 7.3 cfs; surface area, 21.5 acres; contents, 133 acre-feet; on June 8.

Minima: gage height, 9.9 ft; surface area, 15.7 acres; contents, 82.3 acre-feet; on Oct. 3.

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —.

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 59 to September 1960.

	Oct	Nov	Dec	Calendar year 1959	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1960
Total Inflow 1/	15.2	8.6	33.9		47.3	17.5	11.7	5.0	18.4	80.5	17.4	9.4	0.8	266
Total Outflow	0	0	0		43.8	17.7	6.9	0	10.1	79.5	2.2	0.4	0	161
Total Consumption	18.2	13.0	5.9		5.3	3.6	6.7	9.4	12.0	14.1	16.7	16.8	15.3	137
†	+ 3.2	- 3.2	+34.1		+ 2.0	0	0	-2.0	+ 2.0	- 6.0	+ 6.0	0	- 9.8	+ 26.3
‡	16.6	16.3	17.8		20.5	20.2	20.2	20.0	20.0	20.2	19.6	19.8	19.6	—
††	4.90	1.24	4.04		2.18	2.26	1.20	1.66	3.13	4.33	4.66	4.59	2.96	37.15
Rainfall on Pool	6.23	1.22	6.08		3.83	3.80	1.91	2.37	5.74	7.12	7.47	7.77	4.74	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1960 WATER YEAR

____ Honey Creek subwatershed No 8-G near McKinney, Tex Drainage Area 3.96 sq. mi.

Staff gage
~~Continuous water-stage recorder~~ ratio ____. Date of last sediment survey ____.

Maxima: gage height, 17.0 ft; outflow, 23 cfs; surface area, 59.4 acres; contents, 418 acre-feet; on Dec. 15.

Minima: gage height, 10.1 ft; surface area, 23.9 acres; contents, 143 acre-feet; on Oct. 3.

Maximum inflow, ____ cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on ____.

Averages: ____ water years, ( ); inflow, ____ acre-feet/year; outflow, ____ acre-feet/year; rainfall, ____ inches/year.

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Pool water budget, in acre-feet, water year October 1959 to September 1960.

	Oct	Nov.	Dec.	Calendar year 1959	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year 1960
Total Inflow 1/	17.0	93.5	290		384	290	108	10.0	20.4	22.8	29.0	5.0	0.6	1,270
Total Outflow	6.6	55.4	278		390	283	108	8.7	9.9	18.0	5.0	3.0	0	1,170
Total Consumption	15.4	15.0	9.0		6.1	6.4	10.0	14.8	20.6	24.5	18.5	22.4	20.1	183
†	+ 7.4	+ 30.2	+ 12.2		- 6.2	+ 6.2	- 6.2	- 8.9	- 2.9	- 8.5	+ 17.3	- 11.7	- 13.7	+ 15.2
‡	25.7	30.1	32.3		32.3	31.8	30.5	29.6	29.6	28.8	27.6	28.8	26.8	—
††	5.92	2.66	4.01		2.13	2.43	1.36	1.80	2.96	4.43	5.36	3.09	3.09	39.24
Rainfall on Pool	12.35	7.11	9.62		5.51	6.12	3.85	4.56	7.16	11.24	11.79	8.75	5.85	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1960 WATER YEAR

____ . Honey Creek subwatershed No 8-H near McKinney, Tex Drainage Area 2.18 sq mi

Staff gage ~~Continuous water stage recorder~~: ratio —. Date of last sediment survey —.

Maxima: gage height, 18.2 ft; outflow, 24 c f s; surface area, 32.8 acres; contents, 254 acre-feet; on Dec. 15.

Minima: gage height, 14.3 ft; surface area, 20.4 acres; contents, 149 acre-feet; on Oct. 3.

Maximum inflow, — c.f.s (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —.

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

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Pool water budget, in acre-feet, water year October 1959 to September 1960.

	Oct	Nov.	Dec.	Calendar year 1959	Jan	Feb	Mar	Apr	May	June	July	Aug.	Sept	Water year 1960
Total Inflow 1/	16.3	35.8	20.1		72.0	22.6	16.8	7.3	7.5	108	6.1	3.5	3.1	500
Total Outflow	0	5.6	19.6		72.4	23.2	10.3	0	0	101	0	0	0	408
Total Consumption	16.6	10.7	8.1		6.1	4.7	9.4	12.9	16.8	22.3	21.9	18.5	18.9	167
†	+10.7	+24.0	+ 5.2		- 2.6	0	0	- 2.6	-2.6	- 2.5	- 4.9	- 7.2	-11.2	+ 6.3
‡	22.2	25.4	26.9		26.6	26.2	26.2	25.8	25.4	26.2	24.3	23.2	22.2	—
††	5.85	2.42	3.85		1.79	2.39	1.30	1.50	2.95	5.15	4.72	3.68	2.84	38.44
Rainfall on pool	10.99	4.50	8.75		3.92	5.33	2.92	3.04	6.69	12.56	10.86	7.78	4.57	

1/ 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, ____ c f s)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
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WATER BUDGET OF POOLS

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1960 WATER YEAR

Honey Creek subwatershed No 9 near McKinney, Tex Drainage Area 1.37 sq mi

Staff gage [redacted] ratio —. Date of last sediment survey —.

Maxima: gage height, 12.1, outflow, 0.7 cfs; surface area, 15.5 acres; contents, 121 acre-feet; on Aug. 22

Minima: gage height, 5.2; surface area, 7.1 acres; contents, 44.6 acre-feet; on Dec. 14

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1959 to September 1960

	Oct	Nov	Dec	Calendar year 1959	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1960
Total Inflow 1/	0.3	0.1	6.1		17.3	32.9	16.4	4.8	2.2	4.8	22.0	13.6	0.3	121
Total Outflow	0	0	0		0	0	0	0	0	0	1.8	6.7	0	8.5
Total Consumption	3.9	3.5	2.2		1.9	2.6	4.8	8.0	8.8	12.3	13.8	14.2	12.3	88.3
†	−0.8	− 2.9	+ 6.0		+ 16.9	+ 32.3	+ 12.8	− 1.5	− 2.9	− 2.8	+ 13.2	− 1.5	− 8.9	+ 59.9
‡	7.6	7.3	7.4		9.3	12.8	14.2	14.8	14.6	14.5	14.2	15.0	14.6	—
††	4.81	0.96	3.43		1.99	2.18	1.08	1.36	2.79	3.95	6.41	4.62	2.47	36.05
Rainfall on Pool	2.79	0.54	2.13		1.54	2.05	1.25	1.72	3.68	4.69	6.83	5.80	3.07	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1960 WATER YEAR

Honey Creek subwatershed No 10 near McKinney, Tex Drainage Area 1.25 sq mi

staff gage [redacted] ratio —. Date of last sediment survey —.

Maxima: gage height, 12.3, outflow, 4.5 cfs; surface area, 13.2 acres; contents, 85.6 acre-feet; on Feb. 3

Minima: gage height, 8.2; surface area, 8.9 acres; contents, 40.7 acre-feet; on Dec. 14

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1959 to September 1960

	Oct	Nov	Dec	Calendar year 1959	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1960
Total Inflow 1/	2.8	0.9	20.0		21.5	36.1	17.5	6.2	10.7	1.0	11.5	5.5	0.7	134
Total Outflow	0	0	0		0.4	35.2	14.3	0.2	6.0	0	1.2	0	0	57.3
Total Consumption	4.5	3.4	3.3		2.9	3.1	4.4	7.2	8.9	10.1	11.8	11.3	10.2	81.1
†	+ 1.8	− 1.8	+19.9		+20.3	0	0	0	0	− 3.9	+ 3.9	− 1.3	− 6.3	32.6
‡	9.3	9.2	9.9		12.1	13.0	12.8	12.8	12.7	12.6	12.3	12.6	12.4	—
††	4.58	0.90	4.07		2.21	2.19	1.13	1.35	3.58	4.34	4.76	4.46	3.01	36.58
Rainfall on Pool	3.51	0.68	3.20		2.07	2.23	1.21	1.22	4.21	5.20	5.39	4.49	3.20	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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1960 WATER YEAR

8-575 Honey Creek subwatershed No 11 near McKinney, Tex Drainage Area 2.14 sq mi

Continuous water-stage recorder: ratio 1:6. Date of last sediment survey April 1960.

Maxima: gage height, 15.05, outflow, 2.2 cfs; surface area, 44.8 acres; contents, 441 acre-feet; on Aug. 26, 27

Minima: gage height, 8.94; surface area, 27.3 acres; contents, 218 acre-feet; on Dec. 14, 15

Maximum inflow, 320 cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on Aug. 26

Averages: 8 water years, (1952-60); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1959 to September 1960

	Oct	Nov	Dec	Calendar year 1959	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1960
Total Inflow 1/	1.6	0.9	12.4		66.6	85.8	37.5	10.3	15.1	2.9	33.6	60.8	6.0	334
Total Outflow	0	0	0		0	0	0	0	0	0	0	14.7	2.0	16.7
Total Consumption	16.9	12.7	7.8		6.2	8.4	13.1	21.0	25.4	35.2	39.4	35.1	34.8	256
†	-4.0	-10.1	+12.5		+66.0	+83.8	+27.9	-3.5	-0.4	-20.7	+17.3	+30.4	-22.7	+176
‡	29.2	28.3	28.0		32.8	39.9	42.4	42.8	43.1	42.4	41.4	42.8	43.4	—
††	4.63	0.71	3.39		2.14	2.05	0.98	2.03	2.77	3.29	6.82	5.45	2.26	36.52
Rainfall on Pool	11.33	1.69	7.90		5.60	6.40	3.46	7.23	9.92	11.61	23.13	19.35	8.06	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1960 WATER YEAR

8-580 Honey Creek subwatershed No. 12 near McKinney, Tex. Drainage Area 1.26 sq mi

Continuous water-stage recorder: ratio 1:6. Date of last sediment survey April 1960.

Maxima: gage height, 16.00; outflow, 6.0 cfs; surface area, 20.8 acres; contents, 141.9 acre-feet; on June 8

Minima: gage height, 12.11; surface area, 14.4 acres; contents, 72.8 acre-feet; on Oct. 2

Maximum inflow, 286 cfs (averaged for 15-min interval and adjusted for rainfall on pool surface) on June 8

Averages: 8 water years, (1952-60); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

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

	Oct	Nov	Dec	Calendar year 1959	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1960
Total Inflow 1/	14.4	3.3	41.1		43.8	44.9	16.5	6.9	16.4	21.7	10.4	14.5	3.9	238
Total Outflow	0	0	0		39.2	44.0	12.9	0	11.1	17.4	0	0	0	125
Total Consumption	7.6	6.3	5.0		3.9	4.1	6.4	10.0	11.6	15.4	15.2	14.3	14.0	114
†	+12.4	- 1.9	+41.6		+4.2	+0.2	- 1.0	- 1.1	- 0.4	- 3.8	+ 2.6	+0.2	- 5.3	+47.7
‡	15.3	15.1	17.1		19.4	19.6	19.3	19.3	19.3	19.3	18.7	19.0	18.7	—
††	4.56	0.87	4.01		2.17	2.11	1.14	1.25	3.72	4.58	5.14	4.39	3.11	37.05
Rainfall on Pool	5.64	1.11	5.48		3.53	3.44	1.83	2.01	5.95	7.33	7.44	6.93	4.79	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1960 WATER YEAR

Honey Creek subwatershed No 13 near McKinney, Tex Drainage Area 0.89 sq mi

Staff gage ~~Continuous water-stage recorder~~: ratio — Date of last sediment survey —

Maxima: gage height, 7.6, outflow, 0 cfs; surface area, 12.0 acres; contents, 76.8 acre-feet; on March 28

Minima: gage height, 2.3; surface area, 7.0 acres; contents, 26.8 acre-feet; on Dec. 14

Maximum inflow, — c.f.s (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1959 to September 1960

	Oct	Nov	Dec	Calendar year 1959	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1960
Total Inflow 1/	0.6	0.1	2.3		19.1	24.6	8.5	0.6	1.4	0.7	3.6	20.0	2.8	84.3
Total Outflow	0	0	0		0	0	0	0	0	0	0	0	0	0
Total Consumption	6.2	3.6	2.6		3.6	2.8	4.9	5.9	7.4	12.1	10.8	11.1	13.2	84.2
†	-2.4	-3.0	+2.2		+17.1	+23.8	+ 4.7	- 3.6	-3.4	- 8.7	- 3.1	+12.9	- 7.7	+ 28.8
‡	7.9	7.5	7.3		8.8	11.0	11.7	11.7	11.5	10.8	10.1	10.1	11.0	—
††	4.74	0.70	3.64		2.19	2.13	1.01	2.06	2.67	3.08	6.36	5.34	2.47	36.39
Rainfall on Pool	3.24	0.48	2.51		1.58	2.04	1.09	1.69	2.56	2.72	4.07	3.97	2.73	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1960 WATER YEAR

Honey Creek subwatershed No 14 near McKinney, Tex Drainage Area 0.91 sq mi

Staff gage ~~Continuous water stage recorder~~: ratio — Date of last sediment survey —

Maxima: gage height, 12.5, outflow, 10 f s; surface area, 13.0 acres; contents, 91.5 acre feet, on Feb.3

Minima: gage height, 9.0; surface area, 9.8 acres; contents, 51.5 acre-feet; on Oct.3

Maximum inflow, — c.f.s (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1959 to September 1960

	Oct	Nov	Dec	Calendar year 1959	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1960
Total Inflow 1/	11.0	0.6	36.2		29.2	58.8	8.7	4.4	9.8	5.8	7.1	11.4	7.6	192
Total Outflow	0	0	6.5		29.2	58.5	4.8	0	4.6	1.0	0	0	0	105
Total Consumption	5.2	3.1	4.0		2.4	2.8	5.1	6.2	7.9	11.8	13.2	12.6	14.5	88.8
†	+5.8	-1.8	+29.6		0	0	0	0	0	-3.7	-1.2	+3.6	-3.6	28.7
‡	10.4	10.3	11.5		12.6	12.6	12.5	12.4	12.4	12.4	12.0	12.0	12.1	—
††	4.76	0.80	4.09		2.24	2.26	1.11	1.56	3.04	3.57	4.99	4.63	3.08	36.13
Rainfall on Pool	4.12	0.66	3.92		2.40	2.48	1.16	1.79	2.75	3.27	4.88	4.76	3.07	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1961 WATER YEAR

Honey Creek subwatershed No 8-C near McKinney, Tex Drainage Area 2.10 sq mi

Staff gage
~~Continuous water stage recorder~~ ratio —. Date of last sediment survey September 1959

Maxima: gage height, 17.7, outflow, 0 cfs; surface area, 20.6 acres; contents, 145 acre-feet; on Feb. 7

Minima: gage height, 14.8, surface area, 15.4 acres; contents, 93.5 acre-feet; on Dec. 5

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1960 to September 1961

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	0.7	0.2	30.7	171	9.8	61.0	127	19.8	19.6	14.2	6.5	9.5	7.0	306
Total Outflow	0	0	0	105	2/ 11.9	2/ 55.3	2/ 131	2/ 4.4	2/ 16.5	0	0	0	0	219
Total Consumption	8.7	4.2	4.5	126	7.4	6.9	9.2	11.1	13.8	13.8	18.3	14.9	11.0	122
†	-6.4	-3.1	+33.1	- 8.6	-6.4	+3.1	- 8.3	+7.0	- 7.1	+ 6.2	-4.5	-2.6	+ 3.0	+ 14.0
‡	15.8	15.4	17.4	—	18.6	19.2	17.7	17.7	18.1	17.7	18.1	17.5	17.7	—
††	1.44	0.80	4.76	34.32	1.84	2.65	2.91	1.83	2.26	3.34	4.50	2.01	4.17	32.51
Rainfall on Pool	1.57	0.86	6.87		3.06	4.33	4.46	2.67	3.58	5.83	7.32	2.80	7.01	

1/ 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
2/ Release through 8-inch controlled valve

Peak inflow - (base, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1961 WATER YEAR

____ Honey Creek subwatershed No 8-D near McKinney, Tex Drainage Area 1.46 sq mi

Staff gage ~~Continuous water-stage recorder~~ ratio — Date of last sediment survey September 1959

Maxima: gage height, 18.8; outflow, 15 cfs; surface area, 26.6 acres; contents, 140 acre-feet; on May 1 , —

Minima: gage height, 16.5; surface area, 19.4 acres; contents, 87.0 acre-feet; on Sept. 11

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1960 to September 1961.

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	1.5	5.5	3.59	268	36.8	99.7	20.3	7.9	95.8	0.3	3.1	3.3	29.3	339
Total Outflow	0	0	12.9	186	40.1	100	15.9	0.8	88.3	0	0	0	0	258
Total Consumption	8.3	10.9	7.1	136	5.7	5.4	10.2	14.2	15.8	14.1	18.5	13.4	19.0	143
†	- 4.5	- 4.3	+25.5	+ 5.0	- 5.0	0	+ 0.3	- 3.4	- 3.5	- 6.4	- 6.4	- 6.7	+19.0	+ 4.6
‡	22.4	21.3	23.7	—	24.6	24.6	24.3	24.0	24.3	22.7	22.0	21.0	22.4	—
††	1.18	0.80	4.81	33.37	1.88	2.53	2.87	1.64	2.27	3.86	3.70	2.10	4.37	32.01
Rainfall on Pool	2.32	1.10	9.57		3.99	5.71	6.14	3.70	4.82	7.44	9.00	3.75	8.68	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1961 WATER YEAR

____ Honey Creek subwatershed No 8-E near McKinney, Tex Drainage Area 1.93 sq mi

~~Continuous water stage recorder~~ ratio —. Date of last sediment survey September 1959

Maxima: gage height, 16.6; outflow, 17 cfs; surface area, 32.9 acres; contents, 239 acre-feet; on May 8

Minima: gage height, 14.4; surface area, 25.8 acres; contents, 175 acre-feet; on Sept. 11

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1960 to September 1961

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	3.0	2.7	40.0	276	80.3	84.4	42.1	14.2	208	5.2	5.2	4.3	19.4	509
Total Outflow	0	0	2.2	152	78.2	87.3	30.7	1.1	205	0	0	0	0	404
Total Consumption	12.7	12.0	10.1	181	9.9	8.3	14.7	16.7	18.5	18.7	24.1	19.9	13.8	180
†	- 6.7	- 7.9	+38.4	+ 23.8	- 3.1	- 4.6	+4.0	+ 2.1	- 9.1	- 2.0	- 13.9	- 15.6	+ 15.3	- 3.1
‡	28.2	27.3	28.8	—	30.9	30.9	30.0	30.3	30.9	29.7	29.1	27.3	27.6	—
††	1.25	0.64	4.50	33.64	1.83	2.55	2.91	2.24	2.45	4.65	2.30	1.88	4.29	31.49
Rainfall on Pool	2.97	1.43	10.67		4.72	6.58	7.32	5.71	6.55	11.53	5.00	4.25	9.69	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1961 WATER YEAR

Honey Creek subwatershed No 8-F near McKinney, Tex Drainage Area 1.45 sq mi

staff gage
~~Continuous water-stage recorder~~: ratio —. Date of last sediment survey September 1959

Maxima: gage height, 13.7, outflow, 8.4 cfs; surface area, 23.8 acres; contents, 157 acre-feet; on May 1

Minima: gage height, 10.5; surface area, 17.0 acres; contents, 92.1 acre-feet; on Sept. 11

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1961 to September 1961

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	3.0	4.5	25.0	240	48.1	47.1	78.5	29.8	1.56	4.1	9.4	0	15.0	420
Total Outflow	0	0	10.5	171	47.8	46.7	74.8	14.3	160	0	0	0	0	354
Total Consumption	8.5	9.2	3.0	121	6.2	4.1	8.2	10.1	13.8	10.7	19.8	16.8	10.2	121
†	-2.7	-3.9	+19.5	+ 5.1	- 3.1	0	+0.2	+10.2	- 13.4	0	- 6.8	- 14.6	+13.6	- 1.0
‡	18.9	18.5	19.8	—	20.5	20.5	20.5	20.2	20.9	19.8	19.6	18.3	18.5	—
††	1.50	0.58	4.66	33.71	1.74	2.34	2.81	2.55	2.46	4.36	2.12	1.66	5.04	31.82
Rain Fall on Pool	2.78	0.79	7.99		2.82	3.69	4.66	4.77	4.29	6.61	3.58	2.21	8.75	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1961 WATER YEAR

____ Honey Creek subwatershed No 8-6 near McKinney, Tex Drainage Area 396 sq mi

Staff gage
~~Continuous water-stage recorder~~ ratio ____. Date of last sediment survey September 1959

Maxima: gage height, 14.3, outflow, 22 cfs; surface area, 42.9 acres; contents, 280 acre-feet; on Jan. 8

Minima: gage height, 10.2; surface area, 24.2 acres; contents, 145 acre-feet; on Dec. 5

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1960 to September 1961.

	Oct	Nov	Dec.	Calendar year 1960	Jan.	Feb.	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	1.1	0	142	1,010	349	367	213	31.7	157	4.0	26.9	6.3	45.2	1,340
Total Outflow	0	0	92.1	918	362	361	210	28.6	151	0	0	0	12.7	1,220
Total Consumption	12.3	7.9	5.8	169	7.2	7.2	12.4	15.9	19.3	16.8	25.9	31.7	22.7	185
†	- 7.8	- 5.7	+ 54.5	+ 6.4	- 15.6	+ 5.2	- 1.3	- 8.4	- 7.2	- 7.2	+ 11.8	- 20.9	+ 19.2	+ 16.6
‡	26.1	24.6	26.4	—	32.8	31.4	31.0	30.1	30.1	27.6	27.6	27.6	28.4	—
††	1.35	0.99	5.11	34.10	1.83	2.66	2.66	1.59	1.92	3.04	4.46	4.84	4.42	31.87
Rainfall on Pool	3.46	2.15	10.94		4.74	6.78	7.48	4.41	5.91	5.59	10.84	4.47	9.45	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1961 WATER YEAR

_____ Honey Creek subwatershed No 8-H near McKinney, Tex Drainage Area 2.18 sq mi

Staff gage ~~Continuous water-stage recorder~~ ratio — Date of last sediment survey September 1959

Maxima: gage height, 16.7; outflow, 20 cfs; surface area, 28.7 acres; contents, 208 acre-feet; on May 1

Minima: gage height, 14.0; surface area, 19.7 acres; contents, 143 acre-feet; on Sept. 11

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1960 to September 1961

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	0.2	0.1	44.5	292	52.5	118	35.8	9.5	62.6	0	8.3	0	14.4	346
Total Outflow	0	0	2.4	209	52.2	118	30.6	2.2	60.1	0	0	0	0	266
Total Consumption	8.7	6.3	6.8	153	7.2	5.3	11.8	13.9	15.2	17.5	23.2	19.8	17.6	153
†	-6.3	-5.1	+45.0	0	-2.6	+1.3	0	-2.6	-7.6	-9.7	-5.5	-16.3	+5.2	-4.2
‡	21.3	20.2	22.6	—	26.6	26.6	26.2	26.2	25.8	24.0	23.2	21.3	20.7	—
††	1.16	0.84	4.84	33.16	1.87	2.48	2.83	1.51	2.24	3.73	3.65	2.15	4.28	31.58
Rainfall on Pool	2.19	1.13	9.69		4.31	6.17	6.64	4.03	5.06	7.83	9.44	3.49	8.36	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1961 WATER YEAR

Honey Creek subwatershed No 9 near McKinney, Tex Drainage Area 1.37 sq mi

Staff gage ~~Continuous water-stage recorder~~; ratio —. Date of last sediment survey September 1959

Maxima: gage height, 13.1, outflow, 11 cfs; surface area, 17.1 acres; contents, 137 acre-feet; on May 1

Minima: gage height, 10.2; surface area, 13.0 acres; contents, 93.9 acre-feet; on Sept. 11

Maximum inflow, — c.f.s (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1960 to September 1961

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	0.2	0.1	20.7	135	74.4	51.9	34.5	51.8	144	3.4	4.4	0.3	5.8	392
Total Outflow	0	0	1.2	9.7	73.8	50.8	32.6	34.5	152	0	0	0	0	345
Total Consumption	7.8	5.7	3.3	95.5	3.6	3.4	6.5	8.9	10.4	9.1	13.5	14.6	10.4	97.2
†	-5.1	-5.0	+21.7	69.2	-0.6	+0.6	0	+11.6	-13.9	-0.1	-6.3	-14.0	0	11.7
‡	14.1	13.6	14.2	—	15.5	15.5	15.5	15.4	15.7	15.2	15.0	13.9	13.5	—
††	2.00	0.49	4.47	33.81	1.79	2.28	2.81	2.05	3.28	4.69	2.77	0.41	4.47	31.51
Rainfall on Pool	2.53	0.58	5.46		2.35	2.94	4.62	3.24	5.05	5.58	2.79	0.34	4.59	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1961 WATER YEAR

____ Honey Creek subwatershed No 10 near McKinney, Tex Drainage Area 1.25 sq mi

~~Backwater water stage recorder~~: ratio — Date of last sediment survey September 1959

Maxima: gage height, 15.2, outflow, 9.0 cfs; surface area, 17.0 acres; contents, 129 acre-feet; on May 1

Minima: gage height, 10.1; surface area, 10.8 acres; contents, 59.3 acre-feet; on Sept. 10

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1960 to September 1961

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	3.0	0.8	51.4	166	35.1	62.5	47.0	60.1	184	2.3	1.8	0.3	0	448
Total Outflow	0	0	39.3	96.6	33.4	61.2	45.4	34.6	202	0	0	0	0	416
Total Consumption	5.4	4.3	3.3	82.9	3.5	3.5	5.5	7.8	8.6	6.6	13.1	10.7	6.9	79.2
†	-2.4	-2.9	+13.8	+21.2	0	+0.3	-0.5	+21.3	-22.9	-0.4	-8.7	-9.2	-1.6	- 13.2
‡	12.1	11.9	12.6	—	13.0	13.0	13.0	13.0	13.7	12.7	12.5	11.5	11.0	—
††	1.87	0.53	4.83	34.26	1.68	2.19	2.82	2.86	2.66	3.92	2.24	1.40	5.83	32.83
Rainfall on Pool	2.25	0.59	5.03		1.84	2.48	3.38	3.57	4.01	3.87	2.56	1.21	5.29	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1961 WATER YEAR

8-575 Honey Creek subwatershed No 11 near McKinney, Tex Drainage Area 2.14 sq mi

Continuous water-stage recorder: ratio 1:6. Date of last sediment survey April 1960

Maxima: gage height, 17.91; outflow, 6.6 cfs; surface area, 53.6 acres; contents, 581 acre-feet; on May 2

Minima: gage height, 13.23; surface area, 40.2 acres; contents, 363 acre-feet; on Sept. 11

Maximum inflow, 1,320 cfs (averaged for 15-min. interval and adjusted for rainfall on pool surface) on May 1

Averages: 9 water years, (1952-61); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1960 to September 1961.

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	5.8	8.1	68.5	401	145	139	115	92.3	220	14.3	5.1	0	4.3	817
Total Outflow	0	0	7.7	24.4	150	135	102	55.0	247	1.6	3.0	0	0	701
Total Consumption	24.5	23.0	20.3	286	9.9	10.3	17.4	23.6	27.6	28.6	32.9	37.1	30.4	286
†	-11.5	-13.1	+57.2	+211	-8.1	+1.4	+7.6	+23.3	-37.2	-1.7	-16.6	-36.6	-10.2	-45.5
‡	42.6	41.8	43.1	—	449	449	446	446	469	441	439	42.1	406	—
††	2.05	0.52	4.65	35.01	1.96	2.14	3.30	2.56	4.37	3.88	3.88	0.14	4.69	34.14
Rainfall on Pool	7.22	1.81	16.69		7.42	8.04	12.26	9.64	17.03	14.17	14.17	0.49	15.91	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1961 WATER YEAR

8-580 Honey Creek subwatershed No 12 near McKinney, Tex Drainage Area 1.26 sq mi

Continuous water-stage recorder: ratio 1:6. Date of last sediment survey April 1960.

Maxima: gage height, 18.88; outflow, 7.7 cfs; surface area, 26.8 acres; contents, 210 acre-feet; on May 1

Minima: gage height, 13.67; surface area, 17.2 acres; contents, 97.5 acre-feet; on Sept. 10

Maximum inflow, 589 cfs (averaged for 15-min interval and adjusted for rainfall on pool surface) on May 1

Averages: 9 water years, (1952-61); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1960 to September 1961

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	4.2	2.9	49.7	236	65.0	56.3	47.9	44.0	122	7.4	3.5	0.2	12.0	415
Total Outflow	0	0	39.9	164	67.2	55.3	43.8	13.5	143	2.2	0	0	0	365
Total Consumption	6.5	6.0	5.0	112	4.5	4.5	7.9	10.8	12.4	11.1	14.6	13.2	11.8	108
†	+1.1	-2.2	+12.6	+7.1	-3.9	+0.2	+1.2	+24.6	-27.9	0	-7.2	-11.2	+8.6	-4.1
‡	18.7	18.7	19.2	—	19.4	19.4	19.3	19.3	20.4	19.2	19.0	18.1	18.1	—
††	2.13	0.57	4.88	35.19	1.72	2.30	3.13	2.91	3.45	3.67	2.47	1.17	5.72	34.12
Rainfall on Pool	3.35	0.88	7.83		2.84	3.73	5.04	4.94	5.99	5.87	3.88	1.78	8.37	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1961 WATER YEAR

Honey Creek subwatershed No 13 near McKinney, Tex Drainage Area 0.89 sq mi

Staff gage ~~Continuous water stage recorder~~ ratio —. Date of last sediment survey September 1950

Maxima: gage height, 14.5, outflow, 5.6 cfs, surface area, 20.5 acres; contents, 186 acre-feet; on May 2

Minima: gage height, 5.4; surface area, 9.7 acres; contents, 53.1 acre-feet; on Dec. 5

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1960 to September 1961

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	0.9	1.9	24.5	109	64.6	35.8	27.0	37.2	108	0	0.1	0.6	0.1	301
Total Outflow	0	0	0	0	3.0	28.4	23.4	16.9	120	0	0	0	0	192
Total Consumption	6.6	6.8	5.7	90.9	6.9	4.8	8.8	10.9	10.5	16.8	21.2	16.6	14.1	130
†	-4.2	-4.5	+23.5	+46.8	+57.0	+6.0	-0.5	+13.2	-15.7	-12.0	-17.7	-15.1	-8.4	+ 21.6
‡	10.4	10.0	10.8	—	14.6	17.0	17.0	17.0	17.5	16.3	15.1	13.8	12.8	—
††	1.92	0.50	4.86	34.59	1.97	2.22	3.37	2.65	4.55	3.67	3.80	0.34	5.02	34.87
Rainfall on Pool	1.53	0.37	4.66		2.30	3.45	4.71	3.80	6.89	4.84	3.42	0.93	5.64	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1961 WATER YEAR

____ Honey Creek subwatershed No 14 near McKinney, Tex Drainage Area 0.91 sq mi

Staff gage ~~Continuous water-stage recorder~~ ratio — Date of last sediment survey —

Maxima: gage height, 16.9, outflow, 16 cfs; surface area, 18.9 acres; contents, 161 acre-feet; on May 2

Minima: gage height, 10.5, surface area, 11.2 acres; contents, 67.3 acre-feet; on Sept. 11

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1960 to September 1961

	Oct	Nov	Dec	Calendar year 1960	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1961
Total Inflow 1/	2.1	1.2	25.4	172	36.6	39.2	25.3	41.5	197	6.6	6.5	5.2	13.3	400
Total Outflow	0	0	12.9	111	36.9	37.3	22.8	28.0	206	0	0	0	0	344
Total Consumption	5.0	4.1	6.2	91.8	2.8	3.2	6.4	6.2	7.6	10.9	14.1	14.2	13.0	93.7
†	-2.9	-2.5	+11.6	+ 1.3	- 1.1	+ 0.5	- 0.5	+10.1	-11.1	- 0.6	- 4.8	- 8.2	+ 5.5	- 4.0
‡	12.0	11.8	12.3	—	12.6	12.6	12.6	12.5	13.1	12.4	12.3	11.8	11.8	—
††	1.91	0.49	5.13	34.01	1.81	2.39	3.25	2.79	4.19	3.61	2.63	0.93	5.46	34.59
Rainfall on pool	1.77	0.44	5.32		1.96	1.82	3.44	2.85	5.31	3.70	2.77	0.79	5.21	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1962 WATER YEAR

____ Honey Creek subwatershed No. 8-C near McKinney, Tex. Drainage Area 2.10 sq mi

Staff gage [redacted] ratio —. Date of last sediment survey September 1959.

Maxima: gage height, 23.4; outflow, 22 c.f.s.; surface area, 53.6 acres; contents, 343 acre-feet; on Sept. 7

Minima: gage height, 15.6; surface area, 16.7 acres; contents, 106 acre-feet; on Jan. 24

Maximum inflow, — c.f.s. (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1961 to September 1962.

	Oct	Nov	Dec	Calendar year 1961	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1962
Total Inflow 1/	36.2	3.4	18.4	332	7.5	11.2	26.1	300	26.9	53.2	7.7	0	490	981
Total Outflow	28.6	0	22.2	270	3.2	0	3.0	279	27.8	33.9	26.2	0	493	917
Total Consumption	10.2	3.2	6.7	126	11.0	9.4	8.6	9.3	17.7	17.5	14.0	18.8	15.2	142
†	+1.4	+3.6	-7.1	-11.7	-5.2	+3.4	+18.3	+22.3	-16.5	+14.3	-27.7	-15.8	+1.7	-7.3
‡	18.6	17.9	18.6	—	17.0	17.0	17.2	19.3	18.4	19.7	18.6	17.7	21.7	—
††	2.70	2.30	2.13	32.64	0.98	1.38	2.57	6.10	1.26	7.73	3.37	2.33	9.67	42.52
Rainfall on Pool	3.97	3.38	3.37		1.53	1.60	3.79	10.30	2.12	12.55	4.77	3.00	20.12	

1/ 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, ____ c.f.s.)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1962 WATER YEAR

Honey Creek subwatershed No 8-D near McKinney, Tex Drainage Area 1.46 sq mi

Staff gage ~~water stage recorder~~ ratio —. Date of last sediment survey September 1959

Maxima: gage height, 22.0; outflow, 17 cfs; surface area, 358 acres; contents, 239 acre-feet; on Sept. 7

Minima: gage height, 17.4; surface area, 224 acres; contents, 106 acre-feet; on Aug. 31

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1961 to September 1962

	Oct	Nov	Dec	Calendar year 1961	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1962
Total Inflow 1/	67.3	11.6	61.3	437	2.4	4.7	9.0	210	11.5	30.1	24.7	2.1	346	781
Total Outflow	63.1	9.5	51.4	369	0	0	2.0	212	6.9	20.2	10.3	0	340	715
Total Consumption	9.1	4.7	9.5	140	4.6	7.0	9.8	11.3	19.2	15.8	20.6	20.1	16.5	148
†	+0.5	+1.8	+4.8	- 5.0	0	0	+2.5	0	-11.9	+9.4	0	-14.0	+ 9.2	+ 2.3
‡	24.0	23.7	24.3	—	24.3	24.0	24.0	25.2	23.7	24.3	24.0	23.4	26.6	—
††	2.89	2.17	2.12	32.40	1.00	1.17	2.62	5.91	1.27	7.32	3.80	2.03	9.61	41.91
Rainfall on Pool	5.20	4.45	4.42		2.19	2.26	5.34	13.20	2.69	15.26	6.23	3.97	19.31	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1962 WATER YEAR

Honey Creek subwatershed No. 8-E near McKinney, Tex. Drainage Area 1.93 sq mi

Staff gage ~~stage recorder~~; ratio —. Date of last sediment survey September 1959

Maxima: gage height, 22.0; outflow, 30 c.f.s; surface area, 52.2 acres; contents, 469 acre-feet; on Sept. 7.

Minima: gage height, 15.1; surface area, 27.9 acres; contents, 194 acre-feet; on Sept. 30.

Maximum inflow, — c.f.s. (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1961 to September 1962.

	Oct	Nov	Dec	Calendar year 1961	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year 1962
Total Inflow 1/	32.6	3.3	67.5	566	51.6	28.0	20.6	372	41.5	80.9	21.7	1.4	673	1,390
Total Outflow	11.7	0	56.5	470	43.8	23.6	7.9	373	333	68.4	13.9	0	665	1,300
Total Consumption	10.6	8.9	11.3	175	7.7	10.7	14.7	13.4	20.4	21.3	25.5	28.8	21.6	195
†	+17.7	0	+6.1	−3.1	+3.1	−3.1	+6.2	0	−9.3	+9.3	−9.3	−23.2	+20.2	+17.7
‡	30.3	29.7	30.6	—	30.9	30.6	30.6	32.0	30.0	30.9	30.3	29.4	36.6	—
††	2.98	2.24	2.46	32.78	1.18	1.26	3.16	5.11	1.22	7.07	3.35	1.75	10.37	42.15
Rainfall on Pool	7.36	5.58	6.37		3.04	3.25	8.17	14.59	2.91	18.10	8.42	4.17	34.53	

1/ 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, _____ c.f.s)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1962 WATER YEAR

Honey Creek subwatershed No 8-F near McKinney, Tex Drainage Area 1.45 sq mi

staff gage ~~Continuous water stage recorder~~: ratio —. Date of last sediment survey September 1959

Maxima: gage height, 17.3, outflow, 10 c.f.s; surface area, 32.5 acres; contents, 278 acre-feet; on Sept. 7

Minima: gage height, 10.9; surface area, 17.8 acres; contents, 99.1 acre-feet; on Sept. 1

Maximum inflow, — c.f.s (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1961 to September 1962

	Oct	Nov	Dec	Calendar year 1961	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1962
Total Inflow 1/	15.0	15.3	26.8	495	23.0	6.4	18.8	134	38.6	23.0	6.0	10.6	227	544
Total Outflow	5.2	6.1	24.4	379	20.2	3.6	16.1	121	48.8	11.1	2.8	0	210	469
Total Consumption	8.0	7.5	6.7	122	4.8	5.2	7.9	8.1	16.8	12.1	19.6	14.0	12.2	123
†	+5.7	+6.0	0	-2.2	0	0	+4.1	+15.0	-25.1	+8.1	-11.9	-1.1	+18.9	+19.7
‡	20.0	19.8	20.2	—	20.2	20.2	20.2	21.3	20.2	20.2	19.6	18.7	22.6	—
††	2.70	2.41	2.57	32.76	1.19	1.34	2.97	4.96	1.18	6.00	3.08	1.60	9.40	39.40
Rainfall on Pool	3.86	4.26	4.28		2.00	2.38	4.65	9.62	1.91	8.29	4.52	2.27	14.52	

1/ 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, _____ c.f.s)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1962 WATER YEAR

Honey Creek subwatershed No. 8-6 near McKinney, Tex. Drainage Area 3.96 sq mi

Staff gage ~~Continuous water-stage recorder~~; ratio —. Date of last sediment survey September 1959

Maxima: gage height, 22.2, outflow, 26 s; surface area, 93.3 acres; contents, 811 acre-feet; on Sept. 7

Minima: gage height, 10.4; surface area, 25.0 acres; contents, 150 acre-feet; on Aug. 31

Maximum inflow, — c.f.s. (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1961 to September 1962.

	Oct	Nov.	Dec.	Calendar year 1961	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year 1962
Total Inflow 1/	45.1	22.9	259	1,530	52.2	31.4	46.7	625	61.5	145	17.2	27.2	1,020	2,350
Total Outflow	36.1	12.3	255	1,430	46.0	29.4	28.8	394	302	13.5	5.6	33.3	986	2,260
Total Consumption	15.7	7.2	8.8	191	5.5	8.7	11.7	15.2	24.5	20.5	28.8	23.1	36.1	206
†	0	+8.8	0	− 15.6	+ 3.0	− 3.0	+12.4	+238	−262	+ 8.7	− 8.6	−24.1	+ 38.7	+ 11.9
‡	29.6	28.8	31.4	—	30.5	30.1	30.1	38.1	31.4	31.0	28.8	27.2	53.1	—
††	2.66	2.50	2.16	31.74	0.97	1.27	2.55	5.89	1.22	7.39	3.64	2.27	10.07	42.59
Rainfall on Pool	6.70	5.42	5.20		2.31	3.67	6.18	21.64	2.91	19.26	8.61	5.10	45.69	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1962 WATER YEAR

____ Honey Creek subwatershed No 8-H near McKinney, Tex Drainage Area 2.18 sq mi

Staff gage ~~Continuous-reference-stage-recorder~~: ratio —. Date of last sediment survey September 1959

Maxima: gage height, 21.0, outflow, 26 cfs; surface area, 40.4 acres; contents, 356 acre-feet; on Sept. 7

Minima: gage height, 14.7; surface area, 21.6 acres; contents, 158 acre-feet; on Nov. 20

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1961 to September 1962

	Oct	Nov	Dec	Calendar year 1961	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1962
Total Inflow 1/	14.9	2.8	71.1	390	50.6	42.5	61.5	344	29.5	65.1	34.0	1.2	606	1,320
Total Outflow	0	0	38.7	302	47.4	38.1	50.6	350	23.8	54.7	16.7	0.6	587	1,210
Total Consumption	11.4	7.0	7.4	157	5.6	6.9	11.4	11.4	19.1	19.2	26.7	24.6	23.0	174
†	+8.6	0	+29.2	0	0	0	+5.4	-2.7	-10.5	+7.8	-2.6	-19.8	+17.2	+32.6
‡	22.9	21.9	24.7	—	26.6	26.6	26.6	28.4	25.8	26.6	26.2	25.1	30.3	—
††	2.92	2.15	2.06	31.87	0.95	1.16	2.54	5.91	1.25	7.31	4.00	2.05	9.66	41.96
Rainfall on Pool	5.06	4.21	4.21		2.37	2.48	5.89	14.65	2.93	16.57	6.82	4.21	21.96	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1962 WATER YEAR

Honey Creek subwatershed No. 9 near McKinney, Tex. Drainage Area 1.37 sq mi

Staff gage ~~Continuous water-stage recorder~~; ratio —. Date of last sediment survey September 1959

Maxima: gage height, 14.7, outflow, 12 cfs; surface area, 19.8 acres; contents, 167 acre-feet; on April 27

Minima: gage height, 10.5; surface area, 13.4 acres; contents, 97.8 acre-feet; on Oct. 1

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1961 to September 1962

	Oct	Nov	Dec	Calendar year 1961	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1962
Total Inflow 1/	8.0	1.8	49.8	430	26.4	23.8	33.9	168	13.7	16.4	1.5	0.01	24.0	367
Total Outflow	0	0	28.8	372	23.6	21.4	29.6	160	20.0	8.1	0	4.4	6.9	303
Total Consumption	8.0	4.6	5.5	98.5	2.9	4.5	6.4	7.0	10.8	11.7	12.7	10.0	10.4	94.5
†	+3.7	0	+18.8	-1.2	+1.5	0	+1.6	+8.0	-15.6	+4.5	-7.5	-12.6	+15.6	+17.0
‡	13.8	13.5	14.9	—	15.4	15.5	15.5	15.8	15.4	15.4	14.9	14.1	14.9	—
††	2.43	2.36	2.72	32.06	1.17	1.45	2.96	5.49	1.18	6.33	3.12	1.57	7.78	38.56
Rainfall on Pool	2.70	2.83	3.33		1.60	2.06	3.66	7.27	1.51	7.86	3.66	1.79	8.88	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1962 WATER YEAR

____ Honey Creek subwatershed No 10 near McKinney, Tex Drainage Area 1.25 sq mi

~~Sediment = water-stage recorder~~ ratio — Date of last sediment survey September 1959

Maxima: gage height, 15.3; outflow, 9.0 cfs; surface area, 17.1 acres; contents, 131 acre-feet; on Sept. 7

Minima: gage height, 10.5; surface area, 11.2 acres; contents, 63.7 acre-feet; on Aug. 31

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1961 to September 1962.

	Oct	Nov	Dec	Calendar year 1961	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1962
Total Inflow 1/	36.6	11.2	56.4	497	33.6	29.5	29.7	144	21.8	16.1	2.7	2.4	128	507
Total Outflow	16.5	7.5	52.8	453	31.9	21.6	26.0	141	19.6	12.5	0	3.6	110	443
Total Consumption	4.5	4.2	4.8	79.7	2.9	4.5	5.3	6.0	10.0	9.3	12.2	10.6	8.4	82.7
†	+18.2	+2.3	+1.5	+0.3	0	0	+1.3	+2.7	-6.5	0	-6.3	-10.5	+16.8	+19.5
‡	12.8	12.7	13.0	—	13.0	12.8	13.0	13.0	12.8	12.8	12.4	11.8	13.2	—
††	2.38	2.22	2.68	32.88	1.17	1.33	2.97	5.63	1.20	6.09	2.98	1.51	7.96	38.12
Rainfall on Pool	2.65	2.83	2.67		1.17	1.69	2.92	5.13	1.26	5.67	3.23	1.32	7.35	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1962 WATER YEAR

8-575 Honey Creek subwatershed No. 11 near McKinney, Tex. Drainage Area 2.14 sq mi

Continuous water-stage recorder: ratio 1:6. Date of last sediment survey April 1960.

Maxima: gage height, 16.76; outflow, 6.3 c.f.s; surface area, 49.9 acres; contents, 522 acre-feet; on April 28

Minima: gage height, 13.27; surface area, 40.3 acres; contents, 365 acre-feet; on Oct. 1.

Maximum inflow, 169 c.f.s (averaged for 15-min. interval and adjusted for rainfall on pool surface) on April 27

Averages: 10 water years, (1952-62); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1961 to September 1962.

	Oct	Nov.	Dec.	Calendar year 1961	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year 1962
Total Inflow 1/	17.7	9.6	10.4	866	54.0	52.7	72.6	21.1	26.8	67.5	5.6	0.4	41.5	663
Total Outflow	0	0	39.6	733	48.5	46.1	43.8	16.0	83.6	47.1	3.2	0	0	472
Total Consumption	18.5	15.1	16.5	268	7.6	13.4	16.9	18.2	32.9	30.6	34.9	39.3	30.3	274
†	+8.1	+2.9	+57.2	-9.9	+2.7	-1.3	+21.2	+48.7	-85.4	+15.0	-22.4	-33.3	+33.7	+47.1
‡	41.2	40.8	43.5	—	44.5	44.5	44.5	45.4	44.5	44.4	43.6	42.2	43.3	—
††	2.61	2.46	2.79	34.78	1.27	1.48	2.49	4.85	1.20	6.84	2.80	1.56	6.57	36.92
Rainfall on Pool	8.96	8.39	9.80		4.71	5.49	9.25	15.81	4.37	25.20	10.11	5.54	22.58	

1/ 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, _____ c.f.s)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1962 WATER YEAR

8-580 Honey Creek subwatershed No. 12 near McKinney, Tex Drainage Area 1.26 sq mi

Continuous water-stage recorder: ratio 1:6. Date of last sediment survey April 1960.

Maxima: gage height, 16.42; outflow, 7.8 cfs; surface area, 21.6 acres; contents, 151.8 acre-feet; on April 27

Minima: gage height, 13.95; surface area, 17.7 acres; contents, 102 acre-feet; on Aug. 30

Maximum inflow, 158 cfs (averaged for 15-min. interval and adjusted for rainfall on pool surface) on April 24

Averages: 10 water years, (1952-62); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1961 to September 1962.

	Oct	Nov	Dec.	Calendar year 1961	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Water year 1962
Total Inflow 1/	54.9	11.9	57.0	482	21.5	17.2	37.7	113	18.1	49.0	49	1.2	77.4	464
Total Outflow	42.5	8.0	55.5	431	19.6	15.1	29.1	114	9.8	42.7	0.1	0	59.0	395
Total Consumption	8.1	5.8	5.0	110	3.5	5.8	7.7	8.2	14.8	12.8	16.8	14.6	10.6	114
†	+8.6	+2.3	+0.6	-4.1	+0.2	-1.4	+5.2	-2.1	-4.6	+2.1	-7.2	-11.3	+18.9	+11.3
‡	19.3	19.2	19.4	—	19.3	19.3	19.3	19.6	19.2	19.4	18.9	18.2	19.2	—
††	2.80	2.66	2.56	34.56	1.14	1.45	2.72	4.82	1.20	5.37	3.06	1.39	7.17	36.34
Rainfall on pool	4.34	4.25	4.13		1.84	2.33	4.37	6.64	1.91	8.58	4.76	2.12	10.98	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1962 WATER YEAR

Honey Creek subwatershed No 13 near McKinney, Tex Drainage Area 0.89 sq mi

Staff gage; ratio —. Date of last sediment survey September 1959

Maxima: gage height, 13.4; outflow, 5.4 cfs; surface area, 18.9 acres; contents, 165 acre-feet; on April 27

Minima: gage height, 7.4; surface area, 11.7 acres; contents, 74.4 acre-feet; on Nov. 20

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1961 to September 1962.

	Oct	Nov	Dec	Calendar year 1961	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1962
Total Inflow 1/	0.9	0.6	15.1	290	6.0	6.6	12.0	91.8	11.1	15.9	4.0	3.1	4.4	172
Total Outflow	0	0	0	192	0	0	0	52.0	17.1	0	0	0	0	69.1
Total Consumption	8.4	7.9	3.1	130	4.9	5.5	5.4	7.7	15.5	15.5	21.8	19.6	7.3	123
†	-4.4	-4.8	+14.9	+12.5	+2.7	+2.6	+9.7	+33.3	-19.9	+8.1	-14.3	-14.6	+5.7	+25.0
‡	12.5	12.0	12.5	—	13.2	13.2	13.6	15.8	16.7	16.3	15.6	14.5	14.6	—
††	2.80	2.49	2.82	35.70	1.32	1.42	2.52	4.92	1.20	6.60	2.74	1.57	6.63	37.03
Rainfall on Pool	3.12	2.51	2.94		1.55	1.52	3.15	7.25	1.61	7.74	3.47	1.91	8.64	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1962 WATER YEAR

_____ Honey Creek subwatershed No 14 near McKinney, Tex Drainage Area 0.91 sq mi

Staff gage
~~Continuous water-stage recorder~~: ratio —. Date of last sediment survey —.

Maxima: gage height, 13.8, outflow, 14 cfs; surface area, 14.5 acres; contents, 109 acre-feet; on April 24

Minima: gage height, 10.8; surface area, 11.5 acres; contents, 70.7 acre-feet; on Aug. 31

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1961 to September 1962.

	Oct	Nov	Dec	Calendar year 1961	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1962
Total Inflow 1/	77.6	3.3	51.7	504	15.5	13.3	11.8	152	6.8	10.9	3.4	0	57.1	403
Total Outflow	68.0	0	50.4	449	14.9	10.7	7.3	152	3.8	4.8	0	0	45.6	358
Total Consumption	6.2	3.4	4.4	92.4	2.1	4.0	6.1	5.2	8.2	8.4	11.0	11.1	6.8	77.9
†	+ 6.4	+2.5	0	− 1.3	0	0	+1.3	0	−5.0	+3.7	−4.9	− 9.5	+11.9	6.4
‡	12.5	12.3	12.6	—	12.5	12.5	12.5	12.7	12.4	12.5	12.2	11.7	12.3	
††	2.93	2.58	2.79	35.36	1.32	1.40	2.76	5.14	1.21	5.63	2.84	1.50	7.21	37.31
Rainfall on Pool	2.98	2.62	3.06		1.48	1.44	2.89	5.82	1.21	6.00	2.72	1.55	7.23	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1963 WATER YEAR

Honey Creek subwatershed No 8-C near McKinney, Tex Drainage Area 2.10 sq mi

staff gage ~~Continuous water-stage recorder~~ ratio —. Date of last sediment survey September 1959

Maxima: gage height, 20.6, outflow, 21 cfs; surface area, 33.7 acres; contents, 221 acre-feet; on May 30

Minima: gage height, 13.2; surface area, 13.1 acres; contents, 70.7 acre-feet; on Sept. 30

Maximum inflow, — cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1962 to September 1963.

	Oct	Nov	Dec	Calendar year 1962	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1963
Total Inflow 1/	9.4	38.5	9.2	980	10.6	10.5	4.7	65.9	195	19.8	0	0	0	364
Total Outflow	0	13.1	25.4	905	0	0	3.2	27.6	143	91.0	0	2.4	0	306
Total Consumption	9.4	5.2	6.3	142	8.7	8.0	11.3	8.0	15.2	19.0	18.5	13.8	11.2	13.5
†	+3.9	+24.6	-20.5	+ 2.8	+ 2.5	+ 3.3	- 8.6	+37.1	+49.8	-89.0	- 15.4	- 15.7	- 11.0	- 39.0
‡	16.8	18.1	18.6		17.7	18.1	17.9	18.1	19.5	18.4	16.5	15.0	13.7	—
††	2.51	3.08	0.88	41.86	0.35	0.38	0.69	5.15	6.29	0.62	1.95	0.21	0.39	22.50
Rainfall on Pool	3.86	4.35	1.98		0.61	0.77	1.19	6.85	13.03	1.15	3.09	0.48	0.23	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

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1963 WATER YEAR

Honey Creek subwatershed No. 8-D near McKinney, Tex. Drainage Area 1.46 sq mi

Staff gage [redacted] ratio —. Date of last sediment survey September 1959

Maxima: gage height, 21.2; outflow, 16 c f s; surface area, 33.4 acres; contents, 212 acre-feet; on May 30

Minima: gage height, 15.7; surface area, 17.1 acres; contents, 72.4 acre-feet; on Sept. 30

Maximum inflow, — c.f.s. (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1962 to September 1963

	Oct	Nov	Dec	Calendar year 1962	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Water year 1963
Total Inflow 1/	33.4	179	81.2	934	20.9	3.3	7.1	41.6	254	41.6	0.3	0.1	0.1	663
Total Outflow	18.2	157	97.0	864	17.1	0	0	25.2	187	102	0	0	0	604
Total Consumption	11.8	87	8.9	154	5.6	6.7	12.2	13.6	16.6	20.2	17.6	16.5	9.3	148
†	+ 8.5	+19.4	− 22.1	+ 1.0	− 1.0	− 2.4	− 3.5	+ 8.4	+ 67.0	−78.9	− 13.2	− 15.8	− 8.9	− 42.5
‡	23.7	24.9	24.6	—	24.3	24.0	24.0	23.4	25.2	24.3	22.0	19.7	17.9	—
††	2.57	2.97	1.18	41.46	0.35	0.40	0.69	4.37	6.73	0.65	2.15	0.27	0.28	22.62
Rainfall on Pool	5.07	6.02	2.57		0.83	1.00	1.57	5.55	16.60	1.54	4.05	0.62	0.28	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1963 WATER YEAR

____ Honey Creek subwatershed No 8-E near McKinney, Tex Drainage Area 1.93 sq mi

Staff gage ~~[redacted]~~ ratio —. Date of last sediment survey September 1959

Maxima: gage height, 19.6; outflow, 28 cfs; surface area, 43.4 acres; contents, 355 acre-feet; on May 30

Minima: gage height, 12.0; surface area, 18.9 acres; contents, 122 acre-feet; on Sept. 30.

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1962 to September 1963.

	Oct	Nov	Dec	Calendar year 1962	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1963
Total Inflow 1/	24.9	184	137	1,640	8.1	9.0	5.4	39.2	391	249	9.0	0.3	0.2	833
Total Outflow	6.7	154	160	1,550	17.3	0	0	6.6	283	161	11.9	0	0	800
Total Consumption	16.3	10.5	10.6	201	9.5	12.8	12.8	12.5	22.2	22.4	23.3	16.2	14.9	184
†	+9.2	+26.0	-29.1	0	-17.8	-2.9	-5.6	+29.4	+106	+157	-21.8	-15.2	-13.8	- 92.6
‡	29.7	30.9	31.2	—	29.7	28.5	28.5	27.9	31.6	27.6	24.0	21.6	19.8	—
††	2.96	2.66	1.61	41.70	0.36	0.37	0.77	4.02	7.23	0.63	2.23	0.42	0.53	23.79
Rainfall on Pool	7.31	6.70	4.46		0.92	0.87	1.85	9.29	20.38	1.37	4.44	0.72	0.93	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1963 WATER YEAR

____ Honey Creek subwatershed No. 8-F near McKinney, Tex. Drainage Area 1.45 sq mi

Staff gage [redacted] ratio —. Date of last sediment survey September 1959

Maxima: gage height, 13.8; outflow, 8.5 c.f.s; surface area, 29.0 acres; contents, 160 acre-feet; on May 30

Minima: gage height, 7.0; surface area, 11.6 acres; contents, 43.5 acre-feet; on Sept. 30

Maximum inflow, — c.f.s. (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1962 to September 1963.

	Oct	Nov.	Dec.	Calendar year 1962	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Water year 1963
Total Inflow 1/	11.0	72.3	67.0	638	5.5	4.6	3.6	36.2	154	40.2	0.8	0.7	0.2	396
Total Outflow	2.0	61.2	70.9	568	0	0	0	30.6	181	54.6	10.9	14.3	11.5	387
Total Consumption	10.7	7.8	6.2	125	6.1	5.1	9.0	9.1	13.9	15.5	16.9	14.8	6.5	122
†	+2.0	+8.3	-8.3	+ 10.0	0	0	-4.0	+4.0	+21.3	-29.2	-23.3	-28.0	-17.3	- 74.5
‡	19.8	20.5	20.5	—	20.2	20.2	20.0	19.8	20.7	20.2	17.8	15.1	11.9	—
††	2.63	2.82	1.32	38.49	0.36	0.34	0.80	4.25	7.09	0.52	2.38	0.38	0.54	23.43
Rainfall on Pool	3.70	5.04	1.79		0.62	0.53	1.42	7.52	12.40	0.69	3.70	0.39	0.55	

1/ 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, ____ c.f.s)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1963 WATER YEAR

_____ Honey Creek subwatershed No. 8-6 near McKinney, Tex. Drainage Area 3.96 sq mi

Staff gage [redacted] ratio —. Date of last sediment survey September 1959

Maxima: gage height, 16.7; outflow, 23 c.f.s; surface area, 57.5 acres; contents, 400 acre-feet; on May 30

Minima: gage height, 8.9; surface area, 20.8 acres; contents, 116 acre-feet; on Sept. 30

Maximum inflow, — c.f.s. (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1962 to September 1963.

	Oct	Nov.	Dec.	Calendar year 1962	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Water year 1963
Total Inflow 1/	8.2	316	144	2,490	25.2	15.1	7.2	281	548	146	7.4	6.7	0.3	1,510
Total Outflow	5.4	284	160	2,410	22.4	7.5	1.8	177	487	291	11.1	9.5	0	1,460
Total Consumption	17.5	12.1	8.1	212	6.6	8.3	12.9	14.6	20.9	22.6	22.4	18.9	16.3	181
†	- 8.9	+28.0	-22.1	+ 0.1	- 3.0	0	- 5.8	+103	+60.6	-166	-21.5	-21.4	-15.1	- 72.2
‡	29.2	31.0	31.0	—	30.1	29.6	29.2	29.2	33.2	32.3	26.4	23.6	21.7	—
††	2.19	3.08	0.79	41.33	0.35	0.28	0.52	4.64	5.97	0.57	2.21	0.36	0.23	21.19
Rainfall on Pool	5.84	8.62	2.27		0.85	0.68	1.66	14.14	20.66	1.24	4.62	0.29	0.90	

1/ 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, _____ c.f.s)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1963 WATER YEAR

____ Honey Creek subwatershed No. 8-H near McKinney, Tex. Drainage Area 2.18 sq mi

Staff gage [redacted] ratio —. Date of last sediment survey September 1959

Maxima: gage height, 18.9; outflow, 25 c.f.s.; surface area, 34.5 acres; contents, 278 acre-feet; on May 30.

Minima: gage height, 13.0; surface area, 17.4 acres; contents, 125 acre-feet; on Sept. 30.

Maximum inflow, — c.f.s. (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —.

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1962 to September 1963.

	Oct	Nov.	Dec.	Calendar year 1962	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year 1963
Total Inflow 1/	23.4	202	120	1,580	28.0	18.1	27.4	131	304	79.4	5.2	1.2	0	940
Total Outflow	3.6	184	129	1,490	23.0	13.9	18.8	120	251	128	8.3	6.9	0	886
Total Consumption	22.4	8.8	7.3	186	7.2	6.6	12.3	12.6	16.4	22.6	19.7	16.3	14.0	166
†	+ 3.1	+15.9	-13.8	0	- 1.3	- 1.3	- 3.1	+ 8.1	+54.1	-69.3	-18.6	-21.4	-13.7	- 61.3
‡	25.8	26.6	26.9	—	26.6	26.2	26.2	25.8	27.3	26.6	23.2	20.4	18.2	—
††	2.47	3.02	1.12	41.44	0.34	0.39	0.66	4.40	6.52	0.67	2.12	0.22	0.26	22.19
Rainfall on Pool	5.68	6.51	2.83		0.91	1.10	0.58	9.86	17.47	1.78	4.21	0.64	0.30	

1/ 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, ____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1963 WATER YEAR

Honey Creek subwatershed No 9 near McKinney, Tex Drainage Area 1.37 sq mi

Staff gage [redacted] ratio —. Date of last sediment survey September 1959

Maxima: gage height, 16.0; outflow, 13 cfs; surface area, 22.3 acres; contents, 194 acre-feet; on May 30

Minima: gage height, 8.5; surface area, 10.8 acres; contents, 73.4 acre-feet; on Sept. 30

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1962 to September 1963

	Oct	Nov	Dec	Calendar year 1962	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1963
Total Inflow 1/	1.2	53.8	82.9	446	7.6	5.4	13.5	34.6	172	29.7	0.8	0.1	0.1	402
Total Outflow	0	34.7	84.5	394	6.1	1.6	9.9	28.8	121	79.1	8.9	0	0	376
Total Consumption	8.3	6.2	5.3	96.2	3.5	4.3	7.8	8.2	10.9	11.0	12.5	13.5	9.6	101
†	-4.4	+16.8	- 6.4	1.5	- 1.5	0	-1.5	+ 3.0	+51.9	-59.4	- 18.1	- 12.6	-9.2	- 41.4
‡	14.6	14.5	15.5	—	15.4	15.4	15.4	15.4	16.2	15.7	13.9	12.5	11.4	—
††	2.27	3.04	1.15	37.51	0.39	0.41	1.44	4.14	7.92	0.74	2.28	0.70	0.29	24.77
Rainfall on Pool	2.69	3.90	1.54		0.48	0.54	2.72	5.38	12.08	1.00	2.47	0.75	0.33	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

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1963 WATER YEAR

_____: Honey Creek subwatershed No. 10 near McKinney, Tex. Drainage Area 1.25 sq mi

staff gage
~~Continuous water-stage recorder~~: ratio —. Date of last sediment survey September 1959

Maxima: gage height, 15.0; outflow, 8.9 cfs; surface area, 16.7 acres; contents, 126 acre-feet; on May 30

Minima: gage height, 9.5; surface area, 10.2 acres; contents, 53.0 acre-feet; on Sept. 30

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1962 to September 1963

	Oct	Nov.	Dec.	Calendar year 1962	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Water year 1963
Total Inflow 1/	6.7	63.0	64.9	537	16.9	3.8	7.2	77.1	132	42.2	0.1	0.7	0.01	415
Total Outflow	0	52.8	66.5	486	13.9	0	1.8	67.5	106	68.5	0	0	0	377
Total Consumption	9.3	3.9	4.4	86.8	3.5	4.2	6.5	9.1	8.5	10.9	13.2	8.9	6.7	89.1
†	-2.6	+9.1	-5.2	— 1.2	0	0	0	+5.2	+27.5	-36.6	-10.8	-7.8	-6.3	-27.5
‡	12.4	12.5	13.0	—	12.8	12.8	12.8	13.0	13.3	12.8	12.1	11.1	10.5	—
††	2.24	2.95	0.95	36.98	0.38	0.33	0.89	4.46	7.28	0.43	2.47	0.38	0.52	23.28
Rainfall on Pool	2.16	2.76	0.82		0.46	0.39	1.14	4.68	9.34	0.55	2.28	0.43	0.39	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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WATER BUDGET OF POOLS

ANNUAL SUMMARY

1963 WATER YEAR

B-575 Honey Creek subwatershed No 11 near McKinney, Tex Drainage Area 2.14 sq mi

Continuous water-stage recorder: ratio 1:6. Date of last sediment survey April 1960.

Maxima: gage height, 16.90; outflow, 6.4 cfs; surface area, 50.3 acres; contents, 528 acre-feet; on May 30, 31

Minima: gage height, 10.02; surface area, 30.5 acres; contents, 249 acre-feet; on April 15

Maximum inflow, 546 cfs (averaged for 5-min interval and adjusted for rainfall on pool surface) on May 30

Averages: 11 water years, (1952-63); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1962 to September 1963.

	Oct	Nov	Dec	Calendar year 1962	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1963
Total Inflow 1/	7.0	46.2	92.6	678	30.8	22.3	15.6	61.9	239	19.0	2.5	1.5	7.0	545
Total Outflow	0	4.8	82.4	520	25.2	24.6	148	28.6	20.2	88.6	0	0	0	422
Total Consumption	27.2	19.2	16.0	286	9.8	12.8	18.4	15.4	24.0	36.2	42.6	40.6	34.8	297
†	-10.3	+33.5	- 1.3	+ 0.8	-2.7	-13.6	-146	+29.4	+219	99.8	-31.6	-36.2	-26.4	- 86.0
‡	42.6	42.7	44.6	—	44.4	44.2	39.1	32.0	40.0	44.7	42.6	40.6	38.9	—
††	2.56	3.19	1.20	36.01	0.39	0.41	1.25	4.35	7.16	1.60	2.21	0.87	0.41	25.60
Rainfall on Pool	10.00	11.39	4.48		1.45	1.50	4.08	11.41	23.72	5.96	8.47	2.88	1.34	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1963 WATER YEAR

8-580 Honey Creek subwatershed No 12 near McKinney, Tex Drainage Area 1.26 sq mi

Continuous water-stage recorder: ratio 1:6. Date of last sediment survey April 1960.

Maxima: gage height, 19.36; outflow, 7.8 cfs; surface area, 27.8 acres; contents, 223 acre-feet; on May 30

Minima: gage height, 13.04; surface area, 16.1 acres; contents, 87.0 acre-feet; on Sept. 30

Maximum inflow, 663 cfs (averaged for 15-min interval and adjusted for rainfall on pool surface) on May 30

Averages: 11 water years, (1952-63); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1962 to September 1963

	Oct	Nov	Dec	Calendar year 1962	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1963
Total Inflow 1/	4.3	49.6	31.8	426	9.3	5.0	8.2	33.1	170	11.9	2.2	0	0.7	326
Total Outflow	0.3	44.4	31.3	365	6.5	0.2	2.4	26.2	91.8	84.3	0	0	0	287
Total Consumption	8.9	5.2	4.6	114	4.4	5.6	9.6	9.2	12.4	15.2	14.9	13.7	10.0	114
†	−1.5	+4.5	−2.8	0	−0.9	−0.2	−2.1	+4.6	+80.7	−86.7	−8.9	−12.9	−8.6	−34.8
‡	19.0	19.3	19.3	—	19.3	19.2	19.2	19.2	20.0	19.8	18.6	17.6	16.6	—
††	2.13	2.76	0.78	33.99	0.42	0.39	1.08	4.26	8.27	0.54	2.45	0.54	0.48	24.10
Rainfall on Pool	3.37	4.46	1.26		0.67	0.62	1.73	6.88	14.91	0.87	3.78	0.77	0.67	

1/ 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, _____ cfs)

Date	Time	Discharge	Date	Time	Discharge

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1963 WATER YEAR

Honey Creek subwatershed No. 13 near McKinney, Tex. Drainage Area 0.89 sq mi

Staff gage ~~Continuous water-stage recorder~~: ratio —. Date of last sediment survey —.

Maxima: gage height, 14.8; outflow, 5.6 cfs; surface area, 21.0 acres; contents, 193 acre-feet; on May 30

Minima: gage height, 7.7; surface area, 12.1 acres; contents, 78.0 acre-feet; on Sept. 30

Maximum inflow, — cfs (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year

Pool water budget, in acre-feet, water year October 1962 to September 1963.

	Oct	Nov	Dec	Calendar year 1962	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Water year 1963
Total Inflow 1/	7.8	7.2	15.4	185	7.7	0	4.6	203	104	49.6	0.1	0	0	217
Total Outflow	11.1	2.8	0	83.0	0	1.0	0	2.4	40.4	85.9	0	0	10.1	154
Total Consumption	9.2	3.8	4.8	121	9.7	6.9	8.9	7.0	9.6	19.9	19.8	19.5	9.8	129
†	-9.9	+4.2	+11.6	+ 25.2	-1.5	-7.3	-2.8	+ 16.1	+66.3	-55.2	-15.6	-18.5	-19.2	-31.8
‡	14.2	13.6	14.9	—	14.9	14.5	14.2	14.0	16.0	17.3	15.6	14.0	12.6	—
††	2.50	3.18	1.08	35.68	0.41	0.43	1.12	4.36	7.47	1.45	2.57	0.89	0.56	25.96
Rainfall on Pool	2.55	3.60	.99		.53	.58	1.47	5.15	12.34	1.02	4.13	1.00	0.70	

1/ 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, — cfs)

Date	Time	Discharge	Date	Time	Discharge

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GEOLOGICAL SURVEY - TEXAS DISTRICT

WATER BUDGET OF POOLS

ANNUAL SUMMARY

1963 WATER YEAR

Honey Creek subwatershed No. 14 near McKinney, Tex. Drainage Area 0.91 sq mi

Staff gage; ratio —. Date of last sediment survey —.

Maxima: gage height, 16.1; outflow, 15 c f s; surface area, 17.6 acres; contents, 146 acre-feet; on May 30

Minima: gage height, 9.7; surface area, 10.5 acres; contents, 58.6 acre-feet; on Sept. 30

Maximum inflow, — c.f.s. (averaged for 5-min. interval and adjusted for rainfall on pool surface) on —

Averages: — water years, ( ); inflow, — acre-feet/year; outflow, — acre-feet/year; rainfall, — inches/year.

Pool water budget, in acre-feet, water year October 1962 to September 1963.

	Oct	Nov	Dec.	Calendar year 1962	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year 1963
Total Inflow 1/	5.5	9.7	24.9	311	19.2	4.1	14.5	83.8	164	25.6	0.1	1.0	0	352
Total Outflow	0	.7	23.0	263	15.5	2.0	9.3	75.9	120	74.0	0	0	0	320
Total Consumption	9.2	4.7	4.0	81.8	2.8	3.9	7.8	6.1	7.7	7.9	10.5	9.7	7.1	81.4
†	-3.7	+7.5	-1.3	0	+1.3	-1.3	-1.2	+6.3	+45.6	-55.6	-7.2	-7.9	-6.5	-24.0
‡	12.1	12.1	12.5	—	12.5	12.5	12.5	12.4	12.9	12.5	11.9	11.4	10.8	—
††	2.13	2.76	0.77	34.67	0.43	0.39	1.12	4.25	8.36	0.56	2.49	0.67	0.49	24.32
Rainfall on Pool	2.18	3.23	0.85		0.44	0.51	1.41	4.48	9.88	0.74	3.17	0.81	0.59	

1/ 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, _____ c f s)

Date	Time	Discharge	Date	Time	Discharge

(Rev. 5-65) GEOLOGICAL SURVEY - TEXAS DISTRICT

INFLOW AND OUTFLOW COMPUTATIONS

Storm period April 23, 1966

8-0575 HONEY Creek subwatershed No. 11 near McKINNEY, Tex. D.A. 2.14 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Acc in
Apr. 23, 1966																
0000	12.18	322.42	—													.0000
1200	12.25	325.06	12.0	+ 2.64	2.7	12.22	0	2.7	.61	37.8	1.92	1.9	.8	.0006	.0072	.0072
15	12.26	325.44	.25	+ .38	18.4	12.26		18.4	0	37.9	0	0	18.4	.0133	.0033	.0105
1330	12.28	326.20	1.25	+ .76	7.4	12.27		7.4	.15	37.9	.47	4.5	2.9	.0021	.0026	.0131
1415	12.29	326.58	.75	+ .38	6.1	12.28		6.1	.09	38.0	.28	4.5	1.6	.0012	.0009	.0140
1500	12.31	327.34	.75	+ .76	12.2	12.30		12.2	.13	38.0	.41	6.6	5.6	.0041	.0031	.0171
1600	12.33	328.11	1.00	+ .77	9.3	12.32		9.3	.01	38.1	.03	.4	8.9	.0064	.0064	.0235
15	12.39	330.40	.25	+ 2.29	111	12.36		111	.03	38.2	.10	4.8	106	.0768	.0192	.0427
30	12.62	339.27	.25	+ 8.87	429	12.50		429	.54	38.6	.17	8.2	421	.3048	.0762	.1189
35	12.73	343.56	.083	+ 4.29	623	12.68		623	.20	39.0	.65	94.4	529	.3830	.0318	.1507
40	12.84	347.88	|	+ 4.32	627	12.78		627	.22	39.2	.72	105	522	.3780	.0314	.1821
45	12.94	351.82	|	+ 3.94	572	12.89		572	.18	39.5	.59	85.7	486	.3519	.0292	.2113
50	13.02	355.00	|	+ 3.18	462	12.98		462	.16	39.7	.53	77.0	385	.2788	.0231	.2344
55	13.10	358.18	|	+ 3.18	462	13.06		462	.12	39.8	.40	58.1	404	.2925	.0243	.2587
1700	13.17	360.99	.083	+ 2.81	408	13.14		408	.09	40.0	.30	43.6	364	.2636	.0219	.2806
15	13.37	369.06	.25	+ 8.07	391	13.27		391	.08	40.3	.27	13.1	378	.2737	.0684	.3490
30	13.56	376.81	|	+ 7.75	375	13.46		375	.19	40.8	.65	31.5	344	.2491	.0623	.4113
45	13.74	384.23	|	+ 7.42	359	13.65		359	.03	41.2	.10	4.8	354	.2563	.0641	.4754
1800	13.88	390.06	|	+ 5.83	282	13.81		282	.05	41.6	.17	8.2	274	.1984	.0496	.5250
15	13.97	393.83	|	+ 3.77	182	13.92		182	.02	41.9	.07	3.4	179	.1296	.0324	.5574
30	14.05	397.20	|	+ 3.37	163	14.01		163	.01	42.1	.04	1.9	161	.1166	.0292	.5866
45	14.12	400.16	|	+ 2.96	143	14.08		143	.10	42.3	.35	16.9	126	.0912	.0228	.6094
1900	14.17	402.28	|	+ 2.12	103	14.14		103	.02	42.4	.07	3.4	99.6	.0721	.0180	.6274
15	14.21	403.99	|	+ 1.71	82.8	14.19		82.8	0	42.6	0	0	82.8	.0600	.0150	.6424
30	14.25	405.70	|	+ 1.71	82.8	14.23		82.8	.01	42.7	.04	1.9	80.9	.0586	.0146	.6570
45	14.28	406.98	|	+ 1.28	62.0	14.26		62.0	.01	42.8	.04	1.9	60.1	.0435	.0109	.6679
2000	14.31	408.26	|	+ 1.28	62.0	14.30		62.0	0	42.8	0	0	62.0	.0449	.0112	.6791
15	14.34	409.56	|	+ 1.29	62.4	14.32		62.4	0	42.9	0	0	62.4	.0452	.0113	.6904
30	14.36	410.41	|	+ .86	41.6	14.35		41.6	0	43.0	0	0	41.6	.0301	.0075	.6979
45	14.38	411.27	|	+ .86	41.6	14.37		41.6	0	43.0	0	0	41.6	.0301	.0075	.7054
2100	14.40	412.13	.25	+ .86	41.6	14.39	0	41.6	0	43.1	0	0	41.6	.0301	.0075	.7129
		(continued)									(continued)					

Comp by: DEL
Checked by: RHO

Form A-64
(Rev. 5-65)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

INFLOW AND OUTFLOW COMPUTATIONS

Storm period Apr. 23, 1966

8-0575. HONEY Creek subwatershed No. 11 near McKINNEY, Tex. D.A. 2.14 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
Apr 23, 1966 (cont.)																
2130	14.42	412.99	.50	+ 0.86	20.8	14.41	0	20.8	0	43.1	0	0	20.8	.0151	.0076	.7205
2200	14.44	413.86		+ .87	21.1	14.43		21.1	0	43.2	0	0	21.1	.0153	.0076	.7281
30	14.46	414.72		+ .86	20.8	14.45		20.8	0	43.2	0	0	20.8	.0151	.0076	.7357
2300	14.47	415.15		+ .43	10.4	14.46		10.4	0	43.2	0	0	10.4	.0075	.0038	.7395
30	14.50	416.45		+1.30	31.5	14.48		31.5	0	43.3	0	0	31.5	.0228	.0114	.7509
2400	14.52	417.32	.50	+ .87	21.1	14.51	0	21.1	0	43.4	0	0	21.1	.0153	.0076	.7585

Comp. by: DEL
Checked by: RHO

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: DEL
Date: 4-13-67
Check by: RHO
Date: 4-14-67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek Subwatershed No. 11 nr McKinney, Tex. Date of storm April 23, 1966

Weight Factor		1.000												Accumulated Weighted Precipitation	
		Accumulated Precipitation in Inches for Recording Gages													
	Gage:	13-R		Gage		Gage		Gage		Gage		Gage			(Rec. Gages x K)
Date & Time	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recording Gages	All Gages
Apr. 23														
0000	.32													.32
1200	.93													.93
1215	.93													.93
1330	1.08													1.08
1415	1.17													1.17
1500	1.30													1.30
1600	1.31													1.31
1615	1.34													1.34
1630	1.88													1.87
1635	2.08													2.07
1640	2.30													2.29
1645	2.48													2.47
1650	2.64													2.63
1655	2.76													2.75
1700	2.85													2.84
1715	2.93													2.92
1730	3.12													3.11
1745	3.15													3.14
1800	3.20													3.19
1815	3.22													3.21
1830	3.29													3.22
1845	3.33													3.32
1900	3.35													3.34
1915	3.35													3.34
1930	3.36													3.35
1945	3.37													3.36
2000														
2015														
2030														
2045	3.37													3.36

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
11-S	.0955	3.03	.29								
13-R	.6879	3.05	2.10								
15-E	.2166	3.00	.65								
	1.0000		3.04								
										WMR:	

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation = 3.04 / 3.05 = .997

HYDROGRAPH and MASS CURVES
for
STORM OF APRIL 23, 1966
at
HONEY CREEK SUBWATERSHED NO. 11
NEAR MCKINNEY, TEX.
Drainage Area 2.14 sq. mi.
UNITED STATES GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
TEXAS DISTRICT

Total runoff for period = 87 ac.-ft.

NET INFLOW AND OUTFLOW, IN CUBIC FEET PER SECOND

ACCUMULATED RAINFALL AND RUNOFF, IN INCHES

600
500
400
300
200
100
0

9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0

Accumulated rainfall
Net inflow
Accumulated runoff
Net outflow

1200 0300 0600 0900 1200 1500 1800 2100 2400

APRIL 23

(Rev. 5-65)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

Sheet 1 of 1

INFLOW AND OUTFLOW COMPUTATIONS

Storm period April 23, 1966

8-580 Honey Creek subwatershed No. 12 near McKinney, Tex. D.A. 1.26 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
Apr. 23																
0000	14.80	118.01							0		0		0	0.0000	0.0000	0.0000
0600	14.85	118.96	6.00	+ .95	+ 1.9	14.82	0	1.9	.48	19.0	.76	1.5	.4	.0005	.0030	.0030
1200	14.86	119.16	6.00	.20	.4	14.86		.4	.03	19.1	.05	.1	.3	.0004	.0024	.0054
1230	14.89	119.73	.50	.57	13.8	14.88		13.8	.36	19.1	.57	13.8	0	0	0	.0054
1545	14.97	121.26	3.25	1.53	5.7	14.93		5.7	.31	19.2	.49	2.4	3.3	.0041	.0133	.0187
1600	14.99	121.65	.25	.39	18.9	14.98	0	18.9	.24	19.3	.39	18.9	0	0	0	.0187
1615	15.05	122.81	.25	1.16	56.1	15.02	.1	56.2	.71	19.3	1.14	55.0	1.2	.0015	.0004	.0191
1630	15.19	125.54	.25	2.73	132	15.12	1.0	133	.48	19.5	.77	37.4	95.6	.1176	.0294	.0485
1635	15.27	127.11	.083	1.57	228	15.23	2.8	231	.14	19.6	.23	33.4	198	.2435	.0202	.0687
1640	15.37	129.09		1.98	288	15.32	4.6	293	.07	19.8	.12	17.4	276	.3395	.0282	.0969
1645	15.54	132.48		3.39	492	15.46	6.8	499	.03	20.0	.05	7.3	492	.6052	.0502	.1471
1650	15.74	136.54		4.06	590	15.64	7.1	597	.02	20.3	.03	4.4	593	.7294	.0605	.2076
1655	16.05	142.94		6.40	929	15.90	7.2	936	.02	20.7	.03	4.4	932	1.1446	.0950	.3026
1700	16.34	149.09		6.15	893	16.20	7.3	900	.03	21.2	.05	7.3	893	1.0984	.0917	.3943
1705	16.60	154.71		5.62	816	16.47	7.3	823	.02	21.6	.04	5.8	817	1.0049	.0834	.4777
1710	16.84	160.02		5.31	771	16.72	7.4	778	.01	22.1	.02	2.9	775	.9532	.0791	.5568
1715	17.05	164.74	.083	4.72	685	16.94	7.4	692	.01	22.5	.02	2.9	689	.8475	.0703	.6271
1730	17.57	176.83	.25	12.09	585	17.31	7.4	592	.04	23.2	.08	3.9	588	.7232	.1808	.8079
1745	17.92	185.29	.25	8.46	409	17.74	7.5	416	.02	24.2	.04	1.9	414	.5092	.1273	.9352
1800	18.10	189.75	.25	4.46	216	18.01	7.5	224	.02	24.8	.04	1.9	222	.2731	.0683	1.0035
1830	18.38	196.83	.50	7.08	171	18.24	7.6	179	.21	25.3	.44	10.6	168	.2066	.1033	1.1068
1900	18.57	201.74		4.91	119	18.48	7.6	127	.03	25.9	.06	1.5	126	.1550	.0775	1.1843
1930	18.71	205.40		3.66	88.6	18.64	7.6	96.2	.06	26.2	.13	3.1	93.1	.1145	.0572	1.2415
2000	18.81	208.05		2.65	64.1	18.76	7.7	71.8	.01	26.4	.02	0	71.8	.0883	.0442	1.2857
2030	18.87	209.65		1.60	38.7	18.84	7.7	46.4	0	26.7	0		46.4	.0571	.0286	1.3143
2100	18.90	210.45	.50	.80	19.4	18.88	7.7	27.1		26.8			27.1	.0333	.0166	1.3309
2200	18.93	211.26	1.00	.81	9.8	18.92	7.7	17.5		26.8			17.5	.0215	.0215	1.3524
2400	18.94	211.53	2.00	+ .27	+ 1.6	18.94	7.7	9.3	0	26.9	0	0	9.3	.0114	.0228	1.3752

Comp. by RHO
Check by DEL
Revised by TLS

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: RHO
Date: 4-4-67
Check by: DEL
Date: 4-5-67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek Subwatershed #12 nr McKinney, Tex. Date of storm Apr. 23, 1966

Date & Time	Accumulated Precipitation in Inches for Recording Gages: Gage 12-R Recorded	x Factor (1.000)	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Accumulated Weighted Precipitation: Recording Gages	(Rec. Gages x K) All Gages
Apr. 23														
0000	0													
0600	.48												.48	.48
1200	.51												.51	.51
1230	.87												.87	.86
1545	1.18												1.18	1.17
1600	1.42												1.42	1.41
1615	2.13												2.13	2.12
1630	2.61												2.61	2.59
1635	2.75												2.75	2.73
1640	2.82												2.82	2.80
1645	2.85												2.85	2.83
1650	2.87												2.87	2.85
1655	2.89												2.89	2.87
1700	2.92												2.92	2.90
1705	2.94												2.94	2.92
1710	2.95												2.95	2.93
1715	2.96												2.96	2.94
1730	3.00												3.00	2.98
1745	3.02												3.02	3.00
1800	3.04												3.04	3.02
1830	3.25												3.25	3.23
1900	3.28												3.28	3.26
1930	3.34												3.34	3.32
2000	3.35												3.35	3.33
2030														
2100														
2200														
2400	3.35												3.35	3.33

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
10-S	.058	3.16	.18
12-R	.663	3.35	2.22
16-F	.279	3.32	.93
			3.33

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor

WMR: 3.33

WMR = Sum of Precipitation x Weight Factor

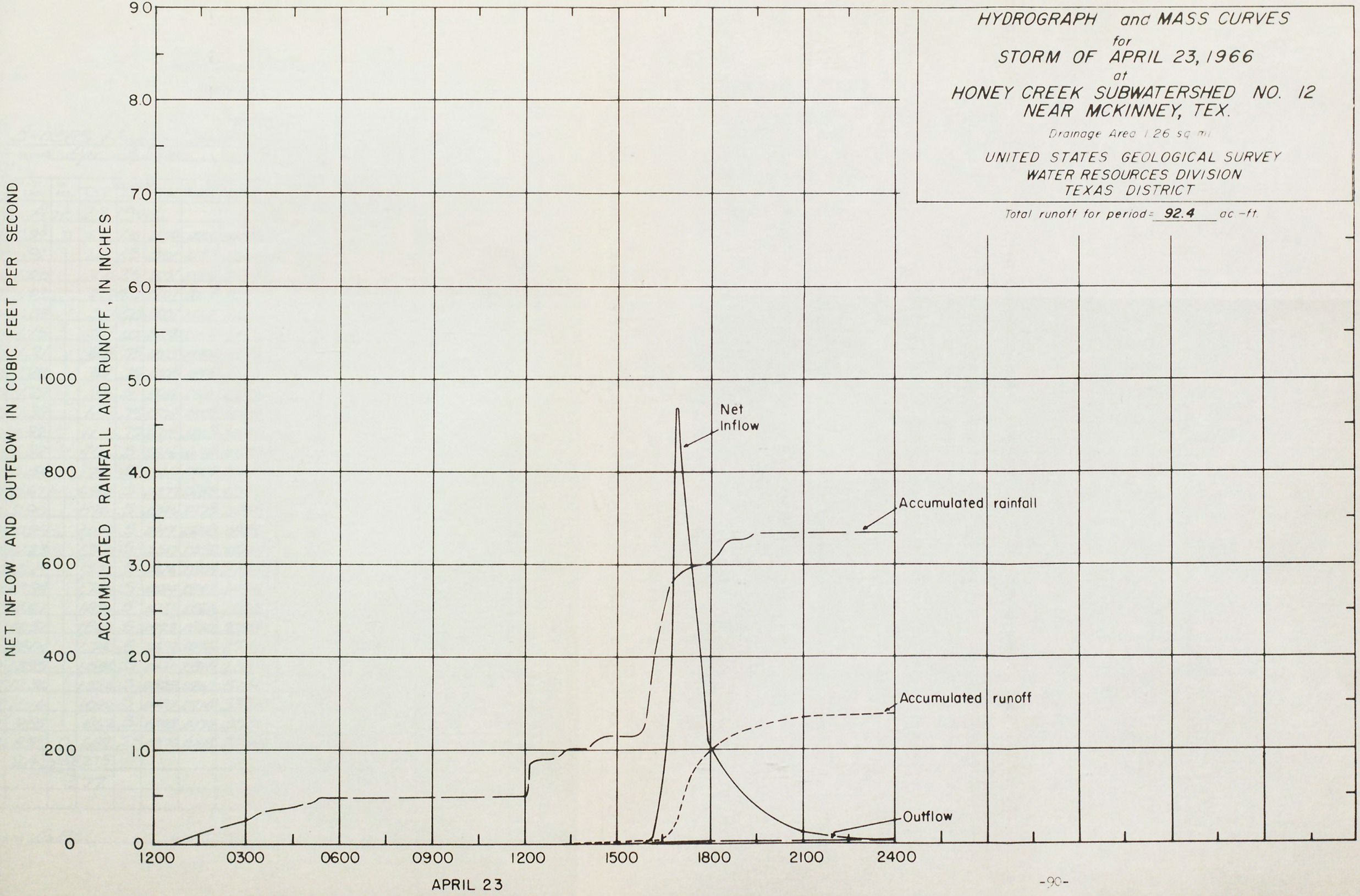
$K = \frac{WMR}{\text{Total Recording Gages Weighted Precipitation}} = 3.33 / 3.35 = 0.994$

HYDROGRAPH and MASS CURVES
for
STORM OF APRIL 23, 1966
at
HONEY CREEK SUBWATERSHED NO. 12
NEAR MCKINNEY, TEX.

Drainage Area 1.26 sq mi

UNITED STATES GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
TEXAS DISTRICT

Total runoff for period = 92.4 ac-ft



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(Rev. 11-66)

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY-TEXAS DISTRICT

RUNOFF COMPUTATIONS

Station 8-0585 Honey Creek near McKinney, Tex.

Period of Record Apr. 23, 1966 Drainage Area 39.0

Time	G. Ht. Feet	Sh. Adj.	Discharge c.f.s.	Discharge Inc.	Discharge In/hr.	Runoff Inches	Runoff Acc. In.
	Apr. 23, 1966						
0000	0.94	0	1.2	1.0	.0000	.0000	.0000
0200	.96		1.5	1.5	.0001	.0002	.0002
0300	1.00		2.0	2.5	.0001	.0002	.0004
0700	1.03		2.5	4.0	.0001	.0004	.0008
1100	1.09		3.7	2.75	.0001	.0003	.0011
1230	1.15		5.1	1.0	.0002	.0002	.0013
1300	1.21		6.9	.75	.0003	.0002	.0015
1400	1.25		8.1	.75	.0003	.0002	.0017
1430	1.29		9.6	.5	.0004	.0002	.0019
1500	1.32		11	.75	.0004	.0003	.0022
1600	1.32		11	.75	.0004	.0003	.0025
1630	1.82		40	.5	.0016	.0008	.0033
1700	5.54		174	.5	.0069	.0034	.0067
1730	8.67		696	.5	.0277	.0138	.0205
1800	9.90		870	.5	.0346	.0173	.0378
1830	10.95		1,050	.5	.0417	.0208	.0586
1900	12.23		1,300	.5	.0517	.0258	.0844
1930	13.24		1,550	.5	.0616	.0308	.1152
2000	13.94		1,720	.5	.0684	.0342	.1494
2030	14.41		1,830	.5	.0735	.0368	.1862
2100	14.31		1,820	.5	.0723	.0362	.2224
2130	14.04		1,740	.5	.0682	.0346	.2570
2200	13.35		1,580	.5	.0620	.0310	.2880
2230	12.36		1,320	.5	.0525	.0262	.3142
2300	11.16		1,090	.5	.0433	.0216	.3358
2330	9.85		862	.5	.0343	.0172	.3530
2400	8.57	0	689	.25	.0272	.0068	.3598
	24		58,275				
			377				

Time	G. Ht. Feet	Sh. Adj.	Discharge c.f.s.	Discharge Inc.	Discharge In/hr.	Runoff Inches	Runoff Acc. In.

Computed by GEL Date 9/18/67 Checked by RLS Date 9-15-67

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: G.E.C. Date: Sept. 11, 1967
Check by: PLS Date: Sept. 18, 1967

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek near Mc Kinney, Tex. Date of storm Apr. 23, 1966

Date & Time	Accumulated Precipitation in Inches for Recording Gages												Accumulated Weighted Precipitation	
Weight Factor	0.4616		0.2398		0.1566		0.1420							
	Gage 3-K		Gage 5-K		Gage 12-K		Gage 13-K		Gage		Gage			
	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recording Gages	(Rec. Gages x K) All Gages
Apr. 23														
0000	0	0	0	0	0	0	0	0					0	0
0050	.02	.01	0	0	.05	.01	0	0					.02	.02
0200	.04	.02	.06	.01	.15	.02	0	0					.05	.05
0300	.05	.02	.08	.02	.20	.03	0	0					.07	.07
0320	.06	.03	.09	.02	.42	.07	.05	.01					.13	.13
0520	.10	.05	.47	.11	.48	.08	.10	.01					.25	.24
0525	.30	.14	.48	.12	.48	.08	.30	.04					.38	.37
0530	.46	.21	.49	.12	.48	.08	.50	.07					.48	.47
0600	.51	.24	.51	.12	.48	.08	.52	.07					.51	.50
0620	.53	.24	.51	.12	.48	.08	.55	.08					.52	.51
1210	.54	.25	.51	.12	.82	.13	.61	.09					.59	.58
1215	.69	.32	.51	.12	.83	.13	.61	.09					.66	.65
1300	.71	.33	.72	.17	.86	.13	.65	.09					.72	.70
1320	.73	.34	.72	.17	1.00	.16	.76	.11					.78	.76
1340	.76	.35	.79	.19	1.00	.16	.78	.11					.81	.79
1405	.81	.37	.82	.20	1.02	.16	.80	.11					.84	.82
1410	.86	.40	.82	.20	1.08	.17	.82	.12					.89	.87
1415	.91	.42	.82	.20	1.10	.17	.85	.12					.91	.89
1430	.96	.44	.82	.20	1.14	.18	.87	.12					.94	.92
1530	1.02	.47	.88	.21	1.15	.18	.89	.13					.99	.97
1535	1.04	.48	.88	.21	1.15	.18	.91	.13					1.00	.98
1540	1.12	.52	.89	.21	1.16	.18	.93	.13					1.04	1.02
1545	1.27	.59	.89	.21	1.17	.18	.94	.13					1.11	1.09
1550	1.52	.70	.89	.21	1.18	.18	.95	.13					1.22	1.19
1555	1.73	.80	.89	.21	1.48	.23	.97	.14					1.38	1.35
1600	1.83	.84	.92	.22	1.68	.26	.99	.14					1.46	1.43
1605	2.03	.94	.97	.23	1.80	.28	1.00	.14					1.59	1.56
1610	2.13	.98	1.02	.24	2.05	.32	1.01	.14					1.68	1.64
1615	2.23	1.03	1.12	.27	2.26	.35	1.02	.14					1.79	1.75
1620	2.36	1.09	1.21	.29	2.30	.36	1.14	.16					1.90	1.86

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
										WMR:	

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation =

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp by: [illegible]
Date: Sept. 11, 1967
Check by: FLS
Date: Sept. 18, 1967

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek near McKinney, Tex. Date of storm: Apr. 23, 1966

Weight Factor		0.4676		0.2398		0.1366		0.1420						Accumulated Weighted Precipitation	
		Gage 3-R		Gage 8-S		Gage 12-R		Gage 13-R		Gage		Gage			
Date & Time		Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recording Gages	(Rec. Gages x K) All Gages
Apr. 23 cont															
1625		2.59	1.20	1.32	.32	2.40	.38	1.33	.19					2.09	2.04
1630		2.64	1.22	1.53	.37	2.61	.41	1.56	.22					2.22	2.17
1635		2.69	1.24	1.69	.41	2.75	.43	1.76	.25					2.33	2.28
1640		2.73	1.26	1.99	.48	2.82	.44	1.98	.28					2.46	2.41
1645		2.78	1.28	2.06	.49	2.85	.45	2.16	.31					2.53	2.47
1650		2.80	1.29	2.16	.52	2.87	.45	2.32	.33					2.59	253
1700		2.82	1.30	2.35	.56	2.92	.46	2.53	.36					2.68	2.62
1705		2.84	1.31	2.40	.58	2.94	.46	2.63	.37					2.72	2.66
1725		2.85	1.32	2.50	.60	2.94	.46	2.73	.39					2.77	2.71
1745		2.94	1.36	2.58	.62	3.02	.47	2.83	.40					2.85	2.79
1750		2.99	1.38	2.59	.62	3.03	.47	2.85	.40					2.87	2.81
1800		3.05	1.41	2.64	.63	3.04	.48	2.88	.41					2.93	2.87
1820		3.09	1.43	2.69	.64	3.15	.49	2.91	.41					2.97	2.90
1830		3.10	1.43	2.70	.65	3.25	.51	2.93	.42					3.01	2.94
1900		3.12	1.44	2.80	.67	3.28	.51	3.03	.43					3.05	2.98
2000		3.16	1.46	2.84	.68	3.35	.52	3.05	.43					3.09	3.02
2200		3.22	1.49	2.88	.69	3.35	.52	3.05	.43					3.13	3.07

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
1-S	0.0666	3.00	.20
2-S	.0715	2.96	.21
3-S	.0720	2.94	.21
4-S	.0600	2.85	.17
5-R	.0889	3.22	.29
6-S	.0695	3.30	.23

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
7-S	0.0888	3.03	.27
8-S	.0689	2.73	.19
9-R	.0855	2.88	.25
10-S	.0523	3.16	.17
11-S	.0716	3.03	.22
12-R	.0345	3.35	.12

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
13-R	0.0724	3.05	.22
14-S	.0975	3.29	.32
		Total	3.07

WMR = Sum of Precipitation x Weight Factor k = WMR / Total Recording Gages Weighted Precipitation = 3.07/3.13 = WMR: 0.978

HYDROGRAPH and MASS CURVES
for
STORM OF APRIL 23, 1966
at
HONEY CREEK NEAR MCKINNEY, TEX.

Drainage Area 39.0 sq. mi.

UNITED STATES GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
TEXAS DISTRICT

Total runoff for period = 748 ac.-ft.

DISCHARGE, IN CUBIC FEET PER SECOND

2000
1750
1500
1250
1000
750
500
250
0

ACCUMULATED RAINFALL AND RUNOFF, IN INCHES

9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0

Discharge

Accumulated rainfall

Accumulated runoff

1200 0300 0600 0900 1200 1500 1800 2100 2400 0300 0600 0900 1200

APRIL 23 APRIL 24

Form A-64
(Rev. 5-65)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

Sheet 1 of 2

INFLOW AND OUTFLOW COMPUTATIONS

Storm period Apr. 27-28, 1966

8-0575. Honey Creek subwatershed No. 11 near McKinney, Tex. D.A. 2.14 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
	Apr. 27, 1966															
0000	15.94	481.67							0		0	0	0	0	0	0
2300	15.78	474.13	23.00	-7.54	-4.0	15.86	6.0	2.0	0		0	0	2.0	.0014	.0322	.0322
15	15.79	474.60	.25	+.47	+22.7	15.78	5.9	28.6	.07	46.8	.28	13.5	15.1	.0109	.0027	.0349
30	15.80	475.07	|	+.47	+22.7	15.80	6.0	28.7	.15	46.9	.58	28.1	.6	.0004	.0001	.0350
45	15.83	476.48	|	+1.41	+68.2	15.82	6.0	74.2	.38	47.0	1.49	72.1	2.1	.0015	.0004	.0354
2400	15.88	478.83	.25	+2.35	+114	15.86	6.0	120	.07	47.1	.27	13.1	107	.0775	.0194	.0548
							24 | 143.98								
							6.0									
	Apr. 28, 1966															
0030	16.00	484.51	.50	+5.68	+137	15.94	6.0	143	.24	47.3	.95	23.0	120	.0869	.0434	.0982
0100	16.14	491.19	|	+6.68	+162	16.07	6.1	168	.02	47.7	.08	1.9	166	.1202	.0601	.1583
0130	16.27	497.45	|	+6.26	+151	16.20	6.1	157	0	48.1	0	0	157	.1137	.0568	.2151
0200	16.37	502.30	|	+4.85	+117	16.32	6.2	123	.01	48.5	.04	1.0	122	.0883	.0442	.2593
0230	16.42	504.74	|	+2.44	+59.0	16.40	6.2	65.2	0	48.7	0	0	65.2	.0472	.0236	.2829
0300	16.47	507.18	|	+2.44	+59.0	16.44	6.2	65.2	.52	48.8	2.12	51.3	13.9	.0101	.0050	.2879
0330	16.56	511.60	|	+4.42	+107	16.52	6.2	113	.10	49.1	.41	9.9	103	.0746	.0373	.3252
0400	16.67	517.04	|	+5.44	+132	16.62	6.3	138	.08	49.4	.33	8.0	130	.0941	.0470	.3722
0430	16.80	523.50	|	+6.46	+156	16.74	6.3	162	.01	49.8	.04	1.0	161	.1166	.0583	.4305
0500	16.96	531.54	|	+8.04	+195	16.88	6.4	201	.03	50.2	.13	3.1	198	.1434	.0717	.5022
0530	17.14	540.68	|	+9.14	+221	17.05	6.4	227	.19	50.8	.80	19.4	208	.1506	.0753	.5775
0600	17.30	548.89	|	+8.21	+199	17.22	6.5	206	.07	51.4	.30	7.3	199	.1441	.0720	.6495
0630	17.45	556.68	|	+7.79	+189	17.38	6.5	196	.03	51.9	.13	3.1	193	.1398	.0699	.7194
0700	17.58	563.47	|	+6.79	+164	17.52	6.5	170	.01	52.4	.04	1.0	169	.1224	.0612	.7806
0730	17.67	568.22	|	+4.75	+115	17.62	6.6	122	.02	52.7	.09	2.2	120	.0869	.0434	.8240
0800	17.74	571.92	|	+3.70	+89.5	17.70	6.6	96.1	.02	52.9	.09	2.2	93.9	.0680	.0340	.8580
0830	17.79	574.58	|	+2.66	+64.4	17.76	6.6	71.0	0	53.1	0	0	71.0	.0514	.0257	.8837
0900	17.82	576.18	|	+1.60	+38.7	17.80	6.6	45.3	.01	53.2	.04	1.0	44.3	.0321	.0160	.8997
0930	17.84	577.25	|	+1.07	+25.9	17.83	6.6	32.5	0	53.3	0	0	32.5	.0235	.0118	.9115
1000	17.86	578.31	.50	+1.06	+25.7	17.85	6.6	32.3	0	53.4	0	0	32.3	.0234	.0117	.9232
1100	17.88	579.38	1.00	+1.07	+12.9	17.87	6.6	19.5	.01	53.4	.04	.5	19.0	.0138	.0138	.9370
Comp by:							RHO									THH
Checked by:							THH									DEL

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Form A-64
(Rev. 5-65)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

INFLOW AND OUTFLOW COMPUTATIONS

Storm period Apr. 27-28, 1966

8-0575. Honey Creek subwatershed No. 11 near McKinney, Tex. D.A. 2.14 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
Apr. 28, 1966 (cont.)																
1200	17.90	580.45	1.00	+ 1.07	+ 12.9	17.89	6.6	19.5	0	53.6	0	0	19.5	.0141	.0141	.9511
15	17.93	582.06	.25	+ 1.61	+ 77.9	17.92	6.6	84.5	.22	53.7	.99	47.9	36.6	.0265	.0066	.9577
30	17.98	584.75	|	+ 2.69	+ 130	17.96	6.6	137	.25	53.8	1.12	54.2	82.8	.0600	.0150	.9727
45	18.12	592.33	|	+ 7.58	+ 367	18.05	6.7	374	.65	54.1	2.93	142	232	.1680	.0420	1.0147
1300	18.48	612.11	.25	+19.78	+ 957	18.30	6.7	964	.10	55.0	.46	22.3	943	.6821	.1705	1.1852
05	18.61	619.36	.083	+ 7.25	+1,050	18.54	6.8	1,060	.01	55.8	.05	7.3	1,050	.7603	.0631	1.2483
10	18.75	627.24	|	+ 7.88	+1,140	18.68	6.8	1,150	.01	56.3	.05	7.3	1,140	.8255	.0685	1.3168
15	18.90	635.76	|	+ 8.52	+1,240	18.82	6.8	1,250	0	56.8	0	0	1,250	.9051	.0751	1.3919
20	19.03	643.21	|	+ 7.45	+1,080	18.96	6.8	1,090	|	57.3	|	|	1,090	.7893	.0655	1.4574
25	19.15	650.14	|	+ 6.93	+1,010	19.09	6.9	1,020	|	57.8	|	|	1,020	.7386	.0613	1.5187
30	19.26	656.53	.083	+ 6.39	+ 928	19.20	6.9	935	|	58.1	|	|	935	.6770	.0562	1.5749
45	19.52	671.82	.25	+ 15.29	+ 740	19.39	6.9	747	|	58.8	|	|	747	.5409	.1352	1.7101
1400	19.65	679.56	.25	+ 7.74	+ 375	19.58	7.0	382	|	59.5	|	|	382	.2766	.0692	1.7793
30	19.83	690.36	.50	+ 10.80	+ 261	19.74	7.0	267	|	60.0	|	|	267	.1933	.0966	1.8759
1500	19.91	695.21	|	+ 4.85	+ 117	19.87	7.0	124	|	60.6	|	|	124	.0898	.0449	1.9208
30	19.97	698.86	|	+ 3.65	+ 88.3	19.94	7.0	95.3	|	60.7	|	|	95.3	.0690	.0345	1.9553
1600	20.00	700.68	.50	+ 1.82	+ 44.0	19.98	7.0	51.0	|	60.9	|	|	51.0	.0369	.0184	1.9737
1700	20.05	703.74	1.00	+ 3.06	+ 37.0	20.02	7.0	44.0	|	61.1	|	|	44.0	.0319	.0319	2.0056
1800	20.09	706.19	1.00	+ 2.45	+ 29.6	20.07	7.0	36.6	0	61.3	0	0	36.6	.0265	.0265	2.0321
2000	20.13	708.64	2.0	+ 2.45	+ 14.8	20.11	7.0	21.8	.05	61.4	.26	1.6	20.2	.0146	.0292	2.0613
2200	20.17	711.10	|	+ 2.46	+ 14.9	20.15	7.0	21.9	0	61.6	0	0	21.9	.0159	.0318	2.0931
2400	20.20	712.95	2.0	+ 1.85	+ 11.2	20.18	7.0	18.2	0	61.7	0	0	18.2	.0132	.0264	2.1195
Comp. by:							RHO									THH
Checked by:							TNH									DEL

GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Date: 4-10-67
Check by: [illegible]
Date 4-12-67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek Subwatershed No. 11 nr McKinney, Tex. Date of storm Apr. 27-28, 1966

Weight Factor		1.000											Accumulated Weighted Precipitation	
	Accumulated Precipitation in Inches for Recording Gages													
	Gage 13-R		Gage		Gage		Gage		Gage		Gage			
Date & Time	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recording Gages	(Rec. Gages x K) All Gages
Apr. 27														
0000	0													0
1200	0													0
2300	0													0
2315	.05													.05
2330	.22													.22
2345	.60													.60
2400	.67													.67
Apr. 28														
0030	.91													.91
0100	.93													.93
0130	.93													.93
0200	.94													.94
0230	.94													.94
0300	1.46													1.46
0330	1.56													1.56
0400	1.64													1.64
0430	1.65													1.65
0500	1.68													1.67
0530	1.87													1.86
0600	1.94													1.93
0630	1.97													1.96
0700	1.98													1.97
0730	2.00													1.99
0800	2.02													2.01
0830	2.02													2.01
0900	2.03													2.02
0930	2.03													2.02
1000	2.03													2.02

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
11-S	.0955	3.44	.33								
13-R	.6879	3.33	2.29								
15-F	.2166	(3.25)	.70								
	1.0000		3.32							WMR:	3.32

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation = 3.32/3.33 = .997

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: RBC
Date 4-10-67
Check by: THH
Date 4-10-67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek Subwatershed No. 11 nr McKinney, Tex. Date of storm Apr. 27-28, 1966

Weight Factor	Accumulated Precipitation in Inches for Recording Gages												Accumulated Weighted Precipitation	
	Gage 13-R 1.000		Gage		Gage		Gage		Gage		Gage			
Date & Time	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recording Gages	(Rec. Gages x K) All Gages
Apr. 28	Cont.													
1100	2.04													2.03
1200	2.04													2.03
1215	2.26													2.25
1230	2.51													2.50
1245	3.16													3.15
1300	3.26													3.25
1305	3.27													3.26
1310	3.28													3.27
1315														
1320														
1325														
1330														
1345														
1900														
1430														
1500														
1530														
1600														
1700														
1800	3.28													3.27
2000	3.33													3.32
2200														
2400	3.33													3.32

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
										WMR:	

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation =

HYDROGRAPH and MASS CURVES
for
STORM OF APR 27-28, 1966
at
HONEY CREEK SUBWATERSHED NO 11
NEAR MCKINNEY, TEX.
Drainage Area 2.14 sq mi
UNITED STATES GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
TEXAS DISTRICT

Total runoff for period = 242 ac - ft

Net Inflow and Outflow cubic feet per second

Accumulated rainfall and runoff, in inches

1400
1200
1000
800
600
400
200
0

5.0
4.0
3.0
2.0
1.0
0

Net Inflow

Accumulated rainfall

Accumulated runoff

Outflow

2100 2400 0300 0600 0900 1200 1500 1800 2100 2400

Apr 27, 1966

Apr 28, 1966

(Rev. 5-65)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

INFLOW AND OUTFLOW COMPUTATIONS

Storm period April 27-28, 1966

8-580 Honey Creek subwatershed No. 12 near McKinney, Tex. D.A. .126 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
Apr. 27																
2200	18.82	208.31							0		0	0	0	0	0	0
2245	18.80	207.78	.75	- .53	- 8.5	18.81	7.7	0	.01	26.6	.02	.3	0	0	0	0
2300	18.81	208.05	.25	+ .27	+ 13.1	18.80	7.7	20.8	.36	26.6	.80	38.7	0	0	0	0
2315	18.83	208.58	.25	+ .53	+ 25.7	18.82	7.7	33.4	.15	26.6	.33	16.0	17.4	.0214	.0054	.0054
2330	18.86	209.38	.25	+ .80	+ 38.7	18.84	7.7	46.4	.81	26.7	1.80	87.1	0	0	0	.0054
2345	19.03	213.95	.25	+ 4.57	+ 221	18.94	7.7	229	.09	26.9	.20	9.7	219	.2694	.0674	.0728
2350	19.13	216.67	.083	+ 2.72	+ 395	19.08	7.7	403	.02	27.2	.05	7.3	396	.4871	.0404	.1132
2355	19.28	220.78		+ 4.11	+ 597	19.20	7.7	605	.01	27.4	.02	2.9	602	.7405	.0615	.1747
2400	19.44	225.23		+ 4.45	+ 646	19.36	7.7	654	.01	27.8	.02	2.9	651	.8007	.0665	.2412
Apr. 28									1.76		3.24					
0005	19.66	231.43		+ 6.20	+ 900	19.55	7.8	908	.04	28.2	.09	13.1	895	1.1008	.0914	.3326
0010	19.86	237.16		+ 5.73	+ 832	19.76	7.8	840	.04	28.6	.10	14.5	826	1.0160	.0843	.4169
0015	20.03	242.09		+ 4.93	+ 716	19.94	7.8	724	.01	29.0	.02	2.9	721	.8868	.0736	.4905
0020	20.17	246.20		+ 4.11	+ 597	20.10	7.9	605	.01	29.4	.02	2.9	602	.7405	.0615	.5520
0025	20.28	249.47		+ 3.27	+ 475	20.22	7.9	483	.01	29.6	.02	2.9	480	.5904	.0490	.6010
0030	20.37	252.15	.083	+ 2.68	+ 389	20.32	7.9	397	.01	29.8	.02	2.9	394	.4846	.0402	.6412
0045	20.56	257.88	.25	+ 5.73	+ 277	20.46	7.9	285	0	30.1	0	0	285	.3506	.0876	.7288
0100	20.68	261.53		+ 3.65	+ 177	20.62	7.9	185	0	30.5			185	.2276	.0569	.7857
0115	20.77	264.29		+ 2.76	+ 134	20.72	8.0	142	0	30.7			142	.1747	.0437	.8294
0130	20.82	265.83		+ 1.54	+ 74.5	20.80	8.0	82.5	0	30.8			82.5	.1015	.0254	.8548
0145	20.85	266.76		+ .93	+ 45.0	20.84	8.0	53.0	0	30.9			53.0	.0652	.0163	.8711
0200	20.87	267.37	.25	+ .61	+ 29.5	20.86	8.0	37.5	0	30.9			37.5	.0461	.0115	.8826
0230	20.89	267.99	.50	+ .62	+ 15.0	20.88	8.0	23.0	0	31.0	0	0	23.0	.0283	.0142	.8968
0300	20.92	268.92	.50	+ .93	+ 22.5	20.90	8.0	30.5	.04	31.0	.10	2.4	28.1	.0346	.0173	.9141
0315	20.94	269.54	.25	+ .62	+ 30.0	20.93	8.0	38.0	.21	31.1	.54	26.1	11.9	.0146	.0036	.9177
0330	20.96	270.17		+ .63	+ 30.5	20.95	8.0	38.5	.16	31.1	.41	19.8	18.7	.0230	.0058	.9235
0345	21.01	271.72		+ 1.55	+ 75.0	20.98	8.0	83.0	.02	31.2	.05	2.4	80.6	.0991	.0248	.9483
0400	21.11	274.86		+ 3.14	+ 152	21.06	8.0	160	.01	31.3	.03	1.5	158	.1943	.0486	.9969
0415	21.28	280.23		+ 5.37	+ 260	21.20	8.0	268	.01	31.7	.03	1.5	266	.3272	.0818	1.0787
0430	21.37	283.11		+ 2.88	+ 139	21.32	8.0	147	.01	31.9	.03	1.5	146	.1796	.0449	1.1236
0445	21.45	285.68		+ 2.57	+ 124	21.41	8.1	132	.01	32.1	.03	1.5	130	.1599	.0400	1.1636
0500	21.51	287.62	.25	+ 1.94	+ 93.9	21.48	8.1	102	.08	32.3	.22	10.6	91.4	.1124	.0281	1.1917

Comp. by RHO
Check by BCM

Form A-64
(Rev. 9-65)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

INFLOW AND OUTFLOW COMPUTATIONS

Storm period April 27-28, 1966

8-580 Honey Creek subwatershed No. 12 near McKinney, Tex. D.A. 1.26 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
Apr 28	con't															
0515	21.56	289.24	.25	+ 1.42	+ 78.4	21.54	8.1	86.5	.19	32.5	.51	24.7	61.8	.0760	.0190	1.2107
0530	21.62	291.19		+ 1.95	+ 94.4	21.59	8.1	102	.02	32.6	.05	2.4	99.6	.1225	.0306	1.2413
0545	21.74	295.13		+ 3.94	+ 191	21.68	8.1	199	.04	32.8	.11	5.3	194	.2386	.0596	1.3009
0600	21.87	299.43	.25	+ 4.30	+ 208	21.80	8.1	216	.02	33.1	.06	2.9	213	.2620	.0655	1.3664
0630	22.10	307.15	.50	+ 7.72	+ 187	21.98	8.1	195	.01	33.5	.03	.7	194	.2386	.1193	1.4857
0700	22.22	311.23		+ 4.08	+ 98.7	22.16	8.2	107	0	34.0	0	0	107	.1316	.0658	1.5515
0730	22.27	312.94		+ 1.71	+ 41.4	22.24	8.2	49.6	0	34.2			49.6	.0610	.0305	1.5820
0800	22.29	313.62	.50	+ .68	+ 16.5	22.28	8.2	24.7	0	34.4			24.7	.0304	.0152	1.5972
0900	22.32	314.66	1.00	+ 1.04	+ 12.6	22.30	8.2	20.8	0	34.4	0	0	20.8	.0256	.0256	1.6228
1200	22.31	314.32	3.00	- .34	- 13.7	22.32	8.2	0	.08	34.4	.23	.9	0	0	0	1.6228
1215	22.33	315.00	.25	+ .68	+ 32.9	22.32	8.2	41.1	.32	34.4	.92	44.5	0	0	0	1.6228
1230	22.38	316.73	.25	+ 1.73	+ 83.7	22.36	8.2	91.9	.44	34.5	1.27	61.5	30.4	.0374	.0094	1.6322
1245	22.63	325.47	.25	+ 8.74	+ 423	22.50	8.2	431	.20	34.9	.58	28.1	403	.4957	.1239	1.7561
1250	22.78	330.79	.083	+ 5.32	+ 772	22.70	8.2	780	.01	35.5	.03	4.4	776	.9545	.0792	1.8353
1255	22.96	337.26		+ 6.47	+ 939	22.87	8.3	947	.01	35.9	.03	4.4	943	1.1599	.0963	1.9316
1300	23.12	343.08		+ 5.82	+ 845	23.04	8.3	853	.01	36.4	.03	4.4	849	1.0443	.0867	2.0183
1305	23.26	348.24		+ 5.16	+ 749	23.19	8.3	757	.01	36.8	.03	4.4	753	.9262	.0769	2.0952
1310	23.38	352.70		+ 4.46	+ 648	23.32	8.3	656	0	37.2	0	0	656	.8069	.0670	2.1622
1315	23.48	356.46	.083	+ 3.76	+ 546	23.43	8.4	554	0	37.5	0	0	554	.6814	.0566	2.2188
1330	23.74	366.34	.25	+ 9.88	+ 478	23.61	8.4	486	.01	38.0	.03	1.5	484	.5953	.1488	2.3676
1345	23.87	371.35	.25	+ 5.01	+ 242	23.80	8.4	250	0	38.5	0	0	250	.3075	.0769	2.4445
1400	23.93	373.68	.25	+ 2.33	+ 113	23.90	8.4	121	0	38.8			121	.1488	.0372	2.4817
1430	23.99	376.02	.50	+ 2.34	+ 56.6	23.96	8.4	65.0	0	39.0			65.0	.0800	.0400	2.5217
1500	24.02	377.19	.50	+ 1.17	+ 28.3	24.00	8.4	36.7	0	39.1	0	0	36.7	.0451	.0226	2.5443
1600	24.05	378.37	1.00	+ 1.18	+ 14.3	24.04	8.4	22.7	.01	39.2	.03	.4	22.3	.0274	.0274	2.5717
1800	24.05	378.37	2.00	0	0	24.05	8.4	8.4	0	39.2	0	0	8.4	.0103	.0206	2.5923
1830	24.05	378.37	.50	0	0	24.05	8.4	8.4	.04	39.2	.13	3.1	5.3	.0065	.0032	2.5955
1900	24.05	378.37	.50	0	0	24.05	8.4	8.4	0	39.2	0	0	8.4	.0103	.0052	2.6007
2000	24.06	378.76	1.00	+ .39	+ 4.7	24.06	8.4	13.1	0	39.2			13.1	.0161	.0161	2.6168
2100	24.06	378.76	1.00	0	0	24.06	8.4	8.4	0	39.2	0	0	8.4	.0103	.0103	2.6271
2400	24.06	378.76	3.00	0											→	BCM
Comp. by: RHO															→	THH
Checked by: BCM																

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: [illegible]
Date: 4-6-67
Check by: BCM
Date: 4-7-67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek subwatershed No. 12 Date of storm Apr. 27-28, 1966

Date & Time	Gage 13-R Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Accumulated Weighted Precipitation: Recording Gages	Accumulated Weighted Precipitation: (Rec. Gages x K) All Gages
	Weight Factor 1.000													
	Accumulated Precipitation in Inches for Recording Gages													
	Apr. 27, 1966													
2200	0												0	0
45	.01												.01	.01
2300	.37												.37	.37
15	.52												.52	.51
30	1.33												1.33	1.32
45	1.42												1.42	1.40
50	1.44												1.44	1.42
55	1.45												1.45	1.43
2400	1.46												1.46	1.44
	Apr. 28, 1966													
0005	1.50												1.50	1.48
10	1.54												1.54	1.52
15	1.55												1.55	1.53
20	1.56												1.56	1.54
25	1.57												1.57	1.55
30	1.58												1.58	1.56
45	1.58												1.58	1.56
0100	1.58												1.58	1.56
15	1.58												1.58	1.56
30	1.58												1.58	1.56
45	1.58												1.58	1.56
0200	1.58												1.58	1.56
30	1.58												1.58	1.56
0300	1.62												1.62	1.60
15	1.83												1.83	1.81
30	1.99												1.99	1.97
45	2.01												2.01	1.99
0400	2.02												2.02	2.00
15	2.03												2.03	2.01
30	2.04												2.04	2.02

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
										WMR:	

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation =

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: RHO
Date: 4-6-67
Check by: BCM
Date: 4-7-67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek subwatershed No. 12 Date of storm Apr. 27-28, 1966

Date & Time	Accumulated Precipitation in Inches for Recording Gages: Gage 12-R Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Accumulated Weighted Precipitation: Recording Gages	(Rec. Gages x K) All Gages
Weight Factor	1.000													
Apr. 28 (continued)														
0445	2.05												2.05	2.03
0500	2.13												2.13	2.11
15	2.32												2.32	2.29
30	2.34												2.34	2.31
45	2.38												2.38	2.35
0600	2.40												2.40	2.37
30	2.41												2.41	2.38
0700	2.41												2.41	2.38
30	2.41												2.41	2.38
0800	2.41												2.41	2.38
0900	2.41												2.41	2.38
1200	2.49												2.49	2.46
15	2.81												2.81	2.78
30	3.25												3.25	3.21
45	3.45												3.45	3.41
50	3.46												3.46	3.42
55	3.47												3.47	3.43
1300	3.48												3.48	3.44
05	3.49												3.49	3.45
10	3.49												3.49	3.45
15	3.49												3.49	3.45
30	3.50												3.50	3.46
45	3.50												3.50	3.46
1400	3.50												3.50	3.46
30	3.50												3.50	3.46
1500	3.50												3.50	3.46
1600	3.51												3.50	3.46
1800	3.51												3.51	3.47
30	3.55												3.55	3.51
2400	3.55												3.55	3.51

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
10-S	.058	3.56	0.21
12-R	.663	3.55	2.35
16-F	.279	3.40	.95
			3.51

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor

WMR: 3.51

WMR = Sum of Precipitation x Weight Factor

$K = \frac{WMR}{\text{Total Recording Gages Weighted Precipitation}} = \frac{3.51}{3.55} = .989$

HYDROGRAPH and MASS CURVES
for
STORM OF APR 27-28, 1966
at
HONEY CREEK SUBWATERSHED NO. 12
NEAR MCKINNEY, TEX.

Drainage Area 1.26 sq. mi

UNITED STATES GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
TEXAS DISTRICT

Total runoff for period = 177 ac-ft

Inflow and Outflow in cubic feet per second

Accumulated rainfall and runoff, in inches

1000
800
600
400
200
0

5.0
4.0
3.0
2.0
1.0
0

Inflow in cfs

Accumulated rainfall in inches

Accumulated runoff in inches

Outflow in cfs

2100 2400 0300 0600 0900 1200 1500 1800 2100

Apr 27, 1966

Apr 28, 1966

A-65
(Rev. 6-63)

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY-AUSTIN DISTRICT

RUNOFF COMPUTATIONS

Station 8-0585. Honey Creek near McKinney, Tex.

Period of Record Apr. 27-28, 1966 Drainage Area 39.0

Time	G. Ht. Feet	Sh. Adj.	Discharge c.f.s.	Discharge Inc.	Discharge In/hr.	Runoff Inches	Runoff Acc. In.
	Apr. 27, 1966						
0000	3.27	0	149	.5	.0059	.0030	.0030
0100	3.25		148	1.0	.0059	.0059	.0089
0200	3.22		145	1.5	.0058	.0087	.0176
0400	3.13		137	2.0	.0054	.0108	.0284
0600	3.04		129	2.0	.0051	.0102	.0386
0800	2.97		124	2.0	.0049	.0098	.0484
1000	2.85		114	2.0	.0045	.0090	.0574
1200	2.74		105	2.0	.0042	.0084	.0658
1400	2.61		95	2.0	.0038	.0076	.0734
1600	2.54		89	2.0	.0035	.0070	.0804
1800	2.46		84	2.0	.0033	.0066	.0870
2000	2.43		82	2.0	.0033	.0066	.0936
2200	2.39		79	1.5	.0031	.0046	.0982
2300	2.38		78	.625	.0031	.0019	.1001
2315	2.39		79	.25	.0031	.0008	.1009
2330	2.44		82	.25	.0032	.0008	.1017
2345	2.71		103	.25	.0041	.0010	.1027
2400	3.33	0	155	.125	.0062	.0008	.1035
	Apr. 28						
0000	3.33	0	155	.25	.0062	.0016	.1051
0030	7.01		510	.50	.0203	.0102	.1153
0100	9.01		736	.5	.0292	.0146	.1299
0130	10.60		986	.5	.0392	.0196	.1495
0200	12.39		1,330	.5	.0529	.0264	.1759
0230	13.82		1,680	.5	.0668	.0334	.2093
0300	15.23		2,100	.5	.0835	.0418	.2511
0330	16.11		2,450	.5	.0974	.0487	.2998
0400	16.70		2,730	.75	.1085	.0814	.3812
0500	16.61	0	2,680	1.0	.1065	.1065	.4877
0600	15.52	0	2,200	1.5	.0874	.1311	.6188
0800	15.05		2,030	2.0	.0807	.1614	.7802
1000	14.02		1,730	1.5	.0688	.1032	.8834
1100	11.98		1,250	1.0	.0497	.0497	.9331
1200	9.44		792	.75	.0315	.0236	.9567
1230	8.44		664	.5	.0264	.0132	.9699
1300	8.80		712	.5	.0283	.0142	.9841
1330	11.36		1,130	.5	.0449	.0224	1.0065
1400	12.98		1,470	.75	.0584	.0438	1.0503
1500	13.41		1,570	1.0	.0624	.0624	1.1127
1600	16.98		2,890	1.0	.1148	.1148	1.2275
1700	17.72		3,400	.75	.1351	.1013	1.3288
1730	17.83		3,500	.5	.1391	.0696	1.3984
1800	17.63		3,320	.75	.1319	.0989	1.4973
1900	15.50		2,200	1.0	.0874	.0874	1.5847
2000	12.12		1,270	1.0	.0505	.0505	1.6352
2100	11.13		1,080	1.0	.0429	.0429	1.6781
2200	7.36		554	1.5	.0220	.0330	1.7111
2400	6.17	0	430	1.0	.0171	.0171	1.7282
			24)42,840				
			1,790				

Computed by J.N.S. Date 9-12-67
ch. by BS 9-13-67

Computed J.N.S. Date 9-12-67
ch. by BS 9-13-67

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: G.E.L. Date: Sept. 11, 1967 : 9/14/67
Check by: RS, IPB Date: 9/20/67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek near McKinney, Tex. Date of storm Apr. 27-28, 1966

Weight Factor			0.1616		0.2358		0.1366		0.1429						Accumulated Weighted Precipitation	
	Gage 5-R		Gage 9-R		Gage 12-R		Gage 13-R		Gage		Gage					
Date & Time	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor			Recording Gages	(Rec. Gages x K) All Gages
Apr. 27																
2200	0	0	0	0	0	0	0	0							0	0
2230	0	0	0	0	0	0	0	0							0	0
2235	.15	.07	0	0	0	0	0	0							.07	.07
2240	.29	.13	0	0	0	0	0	0							.13	.13
2245	.41	.19	0	0	.01	0	0	0							.19	.19
2250	.61	.28	0	0	.19	.03	0	0							.31	.30
2255	.76	.35	.05	.01	.32	.05	0	0							.41	.40
2300	.84	.39	.10	.02	.36	.06	0	0							.47	.46
2305	.86	.40	.21	.05	.38	.06	.01	0							.51	.50
2310	.92	.42	.31	.07	.40	.06	.02	0							.55	.54
2315	1.08	.50	.38	.08	.51	.08	.05	.01							.67	.65
2320	1.32	.61	.45	.09	.79	.12	.10	.01							.83	.81
2325	1.58	.73	.47	.10	1.07	.17	.16	.02							1.02	.99
2330	1.75	.81	.60	.10	1.31	.21	.22	.03							1.15	1.12
2335	1.83	.84	.69	.17	1.37	.21	.30	.04							1.26	1.23
2340	1.92	.89	.78	.19	1.41	.22	.40	.06							1.36	1.32
2400	1.95	.90	.99	.24	1.44	.23	.47	.10							1.47	1.43
Apr. 28																
0010	1.99	.92	1.09	.25	1.52	.24	.75	.11							1.52	1.48
0030	2.00	.92	1.22	.28	1.56	.24	.91	.13							1.57	1.53
0100	2.01	.93	1.23	.28	1.56	.24	.93	.13							1.58	1.54
0230	2.02	.93	1.25	.28	1.56	.24	.94	.13							1.58	1.54
0300	2.03	.94	1.25	.28	1.60	.25	1.46	.21							1.68	1.64
0305	2.20	1.02	1.30	.29	1.62	.25	1.46	.21							1.77	1.72
0310	2.30	1.06	1.35	.30	1.63	.26	1.48	.21							1.83	1.78
0340	2.32	1.07	1.64	.36	1.98	.31	1.56	.22							1.96	1.91
0430	2.33	1.08	1.65	.37	2.02	.32	1.65	.23							2.00	1.95
0450	2.39	1.08	1.65	.37	2.03	.32	1.66	.24							2.01	1.96
0455	2.42	1.12	1.65	.37	2.05	.32	1.67	.24							2.05	2.00
0500	2.50	1.15	1.66	.38	2.11	.33	1.68	.24							2.10	2.05

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
										WMR:	

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation =

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: G.E.L. TPB
Date: Sept. 11, 1967 9/21/67
Check by: FAS, TPB
Date 9/29/67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek near McKinney, Tex. Date of storm Apr. 27-28

Weight Factor			0.0666		0.2338		0.1566		0.1420						Accumulated Weighted Precipitation	
			Gage 3-R		Gage 5-R		Gage 12-R		Gage 13-R		Gage		Gage			
Date & Time			Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recording Gages	(Rec. Gages x K) All Gages
Apr. 28 cont.																
0510			2.53	1.17	1.93	.44	2.27	.36	1.70	.24					2.21	2.15
0520			2.55	1.18	2.17	.49	2.29	.36	1.75	.25					2.28	2.22
0530			2.60	1.20	2.29	.53	2.31	.36	1.87	.27					2.36	2.30
0535			2.64	1.22	2.31	.53	2.32	.36	1.88	.27					2.38	2.32
0545			2.65	1.22	2.32	.53	2.35	.37	1.90	.27					2.39	2.33
0550			2.67	1.23	2.34	.54	2.36	.37	1.92	.27					2.41	2.35
0600			2.70	1.25	2.36	.54	2.37	.37	1.94	.28					2.44	2.38
1100			2.71	1.25	2.36	.54	2.41	.38	2.04	.29					2.46	2.40
1130			2.72	1.26	2.36	.54	2.42	.38	2.04	.29					2.47	2.41
1200			2.73	1.26	2.36	.54	2.46	.39	2.04	.29					2.48	2.42
1205			2.75	1.27	2.36	.54	2.52	.39	2.10	.30					2.50	2.44
1210			2.81	1.30	2.38	.54	2.57	.40	2.20	.31					2.55	2.48
1215			2.95	1.36	2.40	.55	2.78	.44	2.26	.32					2.67	2.60
1220			3.28	1.51	2.52	.59	2.87	.45	2.36	.34					2.89	2.81
1225			3.77	1.74	2.66	.61	3.07	.48	2.40	.34					3.17	3.09
1230			4.02	1.86	2.92	.65	3.21	.50	2.51	.36					3.37	3.28
1235			4.10	1.89	3.13	.72	3.32	.52	2.70	.38					3.51	3.42
1240			4.14	1.91	3.23	.77	3.37	.53	2.95	.42					3.63	3.54
1300			4.15	1.92	3.44	.82	3.44	.54	3.26	.46					3.74	3.64
1340			4.18	1.93	3.48	.83	3.46	.54	3.28	.47					3.77	3.67
1400			4.19	1.93	3.48	.83	3.46	.54	3.28	.47					3.77	3.67
1500			4.20	1.94	3.49	.84	3.46	.54	3.28	.47					3.79	3.69
1720			4.21	1.94	3.49	.84	3.47	.54	3.29	.47					3.79	3.69
1900			4.22	1.95	3.59	.86	3.51	.55	3.33	.47					3.83	3.73

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
1-S	0.0666	3.92	.26	7-S	0.0888	3.88	0.34	13-R	0.0724	3.33	0.24
2-S	.0715	3.87	.28	8-S	.0689	3.18	.22	14-S	.0975	3.49	.34
3-S	.0720	3.85	.28	9-R	.0855	3.58	.31				
4-S	.0600	3.73	.22	10-S	.0523	3.56	.19			Total	3.73
5-R	.0889	4.22	.38	11-S	.0716	3.44	.25				
6-S	.0695	4.33	.30	12-R	.0345	3.55	.12				

WMP = Sum of Precipitation x Weight Factor

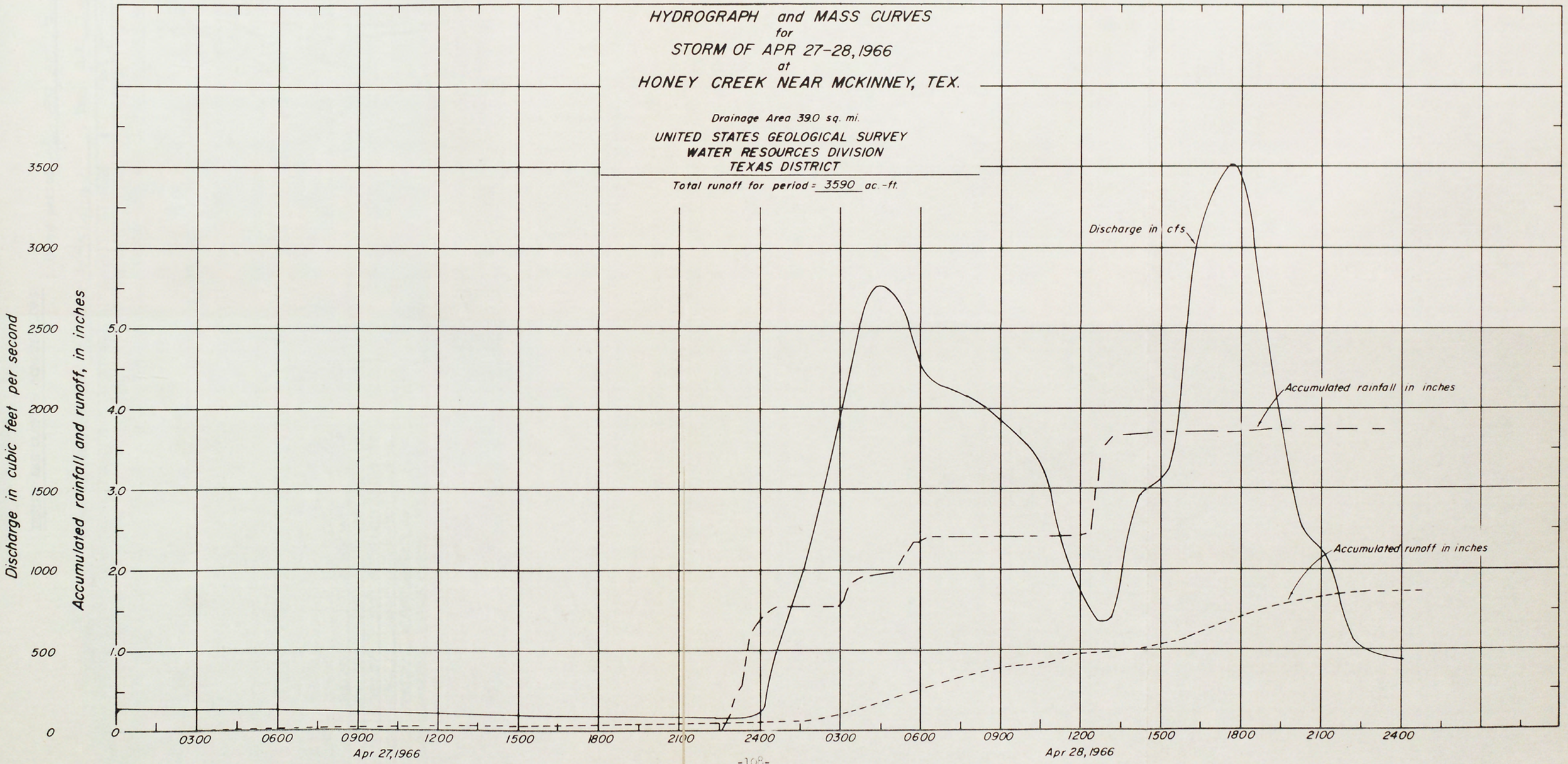
$K = \frac{WMP}{\text{Total Recording Gages Weighted Precipitation}}$ 3.73/3.83 = 0.974

HYDROGRAPH and MASS CURVES
for
STORM OF APR 27-28, 1966
at
HONEY CREEK NEAR MCKINNEY, TEX.

Drainage Area 39.0 sq. mi.

UNITED STATES GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
TEXAS DISTRICT

Total runoff for period = 3590 ac.-ft.



Form A-64
(Rev. 9-65)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

INFLOW AND OUTFLOW COMPUTATIONS

Storm period Apr. 29, 30, 1966

8-575 Honey Creek subwatershed No. 11 near McKinney, Tex. D.A. 2.14 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
Apr 29																
0000	20.20	712.95	-	-	-	-	-	-	-	-	-	-	-	-	.0000	.0000
0600	20.24	715.43	6.00	+ 2.48	+ 5.0	20.22	7.0	12.0	0		0	0	12.0	.0087	.0522	.0522
0630	20.25	716.04	.50	+ .61	+ 14.8	20.24	7.1	21.9	.03	61.8	.15	3.6	18.3	.0133	.0066	.0588
0645	20.27	717.28	.25	+ 1.24	+ 60.0	20.26	7.1	67.1	.19	61.9	.98	47.4	19.7	.0143	.0036	.0624
0700	20.31	719.76	.25	+ 2.48	+ 120.0	20.29	7.1	127	.25	62.0	1.29	62.4	64.6	.0468	.0117	.0741
0730	20.53	733.52	.50	+ 13.76	+ 333	20.42	7.1	340	.23	62.6	1.20	29.0	311	.2252	.1126	.1867
0800	20.79	750.01	.50	+ 16.49	+ 399	20.66	7.1	406	.05	63.4	.26	6.3	400	.2896	.1448	.3315
0815	20.97	759.00	.25	+ 8.99	+ 435	20.86	7.1	442	.45	64.1	2.40	116	326	.2361	.0590	.3905
0830	21.12	771.29		+ 12.29	+ 595	21.02	7.2	602	.13	64.8	.70	33.9	568	.4113	.1028	.4933
0845	21.34	785.71		+ 14.42	+ 698	21.23	7.2	705	.01	65.5	.05	2.4	703	.5090	.1272	.6205
0900	21.51	796.98		+ 11.27	+ 545	21.42	7.2	552	0		0	0	552	.3997	.0999	.7204
0915	21.64	805.66		+ 8.68	+ 420	21.58	7.2	427	0		0	0	427	.3092	.0773	.7977
0930	21.73	811.72	.25	+ 6.06	+ 293	21.68	7.3	300	0		0	0	300	.2172	.0543	.8520
1000	21.86	820.51	.50	+ 8.79	+ 213	21.80	7.3	220	.05	62.7	.28	6.8	213	.1542	.0771	.9291
1100	22.09	836.23	1.00	+ 15.72	+ 190	21.98	7.3	197	.01	68.4	.06	.7	196	.1419	.1419	1.0710
1300	22.22	845.21	2.00	+ 8.98	+ 54.3	22.16	7.3	61.6	.07	69.0	.40	2.4	59.2	.0429	.0858	1.1568
1330	22.25	847.29	.50	+ 2.08	+ 50.3	22.24	7.3	57.6	.12	69.9	.69	16.7	40.9	.0296	.0148	1.1716
1400	22.36	854.95	.50	+ 7.66	+ 185	22.30	7.3	192	.10	69.6	.58	14.0	178	.1289	.0644	1.2360
1500	22.57	869.70	1.00	+ 14.75	+ 178	22.46	7.3	185	0		0	0	185	.1340	.1340	1.3700
1600	22.69	878.21	1.00	+ 8.51	+ 103	22.63	7.4	110	.08	70.9	.47	5.7	104	.0753	.0753	1.4453
1630	22.75	882.69	.50	+ 4.28	+ 104	22.72	7.4	111	.09	71.3	.53	12.8	98.2	.0711	.0356	1.4809
1700	22.83	888.21		+ 5.72	+ 138	22.79	7.4	145	.09	71.6	.54	13.1	132	.0956	.0478	1.5287
1730	22.95	896.85	.50	+ 8.64	+ 209	22.89	7.4	216	.25	72.0	1.50	36.3	180	.1303	.0652	1.5939
1830	23.43	932.02	1.00	+ 35.17	+ 426	23.19	7.4	433	.39	73.3	2.38	288	404	.2925	.2925	1.8864
1900	23.65	948.49	.50	+ 16.47	+ 399	23.54	7.5	406	.07	74.9	.44	10.6	395	.2860	.1430	2.0294
1930	23.78	958.32		+ 9.83	+ 238	23.72	7.5	246	0		0	0	246	.1781	.0890	2.1184
2000	23.86	964.42	.50	+ 6.10	+ 148	23.82	7.5	156					156	.1130	.0565	2.1749
2100	23.94	970.54	1.00	+ 6.12	+ 74.1	23.90	7.5	81.6					81.6	.0591	.0591	2.2340
2300	24.02	976.69	2.00	+ 6.15	+ 37.2	23.98	7.5	44.7					44.7	.0324	.0648	2.2988
2400	24.04	978.24	1.00	+ 1.55	+ 18.8	24.03	7.5	26.3	0		0	0	26.3	.0190	.0190	2.3178
Comp. by: RHO						24	174.3									
Checked by: THH							7.3									

Form A-64
(Rev. 9-65)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

Sheet 2 of 2

INFLOW AND OUTFLOW COMPUTATIONS

Storm period Apr 29, 30, 1966

8-575 Honey Creek subwatershed No. 11 near McKinney, Tex. D.A. 2.14 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
Apr 30																
0000	24.04	978.24	–	–	–	–	–	–	0	–	0	0	0	–	–	–
0600	24.10	982.87	6.00	+ 4.63	94	24.07	7.5	16.9					16.9	.0122	.0732	2.3910
1200	24.12	984.42	6.00	+ 1.55	31	24.11	7.5	10.6					10.6	.0077	.0462	2.4372
1300	24.12	984.42	1.00	0	0	24.12	7.5	7.5					7.5	.0054	.0054	2.4426
1315	24.12	984.42	.25	0	0	24.12	7.5	7.5	0		0	0	7.5	.0054	.0014	2.4440
1330	24.12	984.42	.25	0	0	24.12	7.5	7.5	.08	77.6	.52	25.2	0	0	0	2.4440
1335	24.23	992.99	.083	+ 8.57	+1,240	24.18	7.5	1,250	.28	77.9	1.82	264	986	.7140	.0593	2.5033
1340	24.36	1,003.18		+10.19	+1,480	24.30	7.5	1,490	.35	78.4	2.29	333	1,160	.8400	.0697	2.5730
1345	24.52	1,015.83		+12.65	+1,840	24.44	7.5	1,850	.27	79.1	1.78	258	1,590	1.1513	.0956	2.6686
1350	24.71	1,031.00		+15.17	+2,200	24.62	7.6	2,210	.40	79.9	2.66	386	1,820	1.3179	.1094	2.7780
1355	24.93	1,048.79		+17.79	+2580	24.82	7.6	2,590	.48	80.8	3.23	469	2,120	1.5351	.1274	2.9054
1400	25.18	1,069.25		+20.46	+2,970	25.06	7.6	2,980	.23	81.9	1.57	228	2,750	1.9913	.1653	3.0707
1405	25.45	1,091.67		+22.42	+3,260	25.32	7.6	3,270	.13	88.0	.90	131	3,140	2.2737	.1887	3.2594
1410	25.73	1,115.25		+23.58	+3420	25.59	7.7	3,480	.07	88.2	.49	71.1	3360	2.4330	.2019	3.4613
1415	25.99	1,137.44		+22.19	+3220	25.86	7.7	3,230	.01	85.4	.07	10.2	3,220	2.3316	.1935	3.6548
1420	26.22	1,157.33		+19.89	+2890	26.10	7.7	2,900	.01	86.4	.07	10.2	2890	2.0926	.1737	3.8285
1425	26.42	1,174.82		+17.49	+2540	26.32	7.7	2,550	.01	87.4	.07	10.2	2540	1.8392	.1527	3.9812
1430	26.59	1,189.82		+15.00	+2180	26.50	7.8	2,190	.01	88.2	.07	10.2	2,180	1.5785	.1310	4.1122
1435	26.70	1,199.60		+ 9.78	+1420	26.64	7.8	1,430	.01	88.9	.07	10.2	1,420	1.0282	.0853	4.1975
1440	26.79	1,207.65		+ 8.05	+1,170	26.74	7.8	1,180	.02	89.3	.15	21.8	1,160	.8400	.0697	4.2672
1445	26.86	1,213.93	.083	+ 6.28	+ 912	26.82	7.8	920	.02	89.7	.15	21.8	898	.6502	.0540	4.3212
1500	27.00	1,226.55	.25	+12.62	+ 611	26.93	7.8	619	.02	90.1	.15	7.3	612	.4431	.1108	4.4320
1600	27.29	1,252.98	1.00	+26.43	+ 320	27.14	8.4	328	0		0	0	328	.2375	.2375	4.6695
1800	27.42	1,264.96	2.00	+11.98	+ 72.5	27.36	19.8	92.3					92.3	.0668	.1336	4.8031
2100	27.99	1,271.44	3.00	+ 6.48	+ 26.1	27.46	37.8	63.9					639	.0463	.1389	4.9420
2400	27.49	1,271.44	3.00	0	0	27.49	45.3	45.3	0		0	0	45.3	.0328	.0984	5.0404
							24/410.0		5.06							
							17.1									

Comp. by: RHO
Checked by: DEL

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: E.H.O.
Date: 4-10-67
Check by: T.H.H.
Date: 4-10-67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek subwatershed No. 11 nr. McKinney, Tex. Date of storm Apr. 29-30, 1966

Date & Time	Accumulated Precipitation in Inches for Recording Gages: Gage 15-R Recorded	Gage 15-R x Factor	Gage Recorded	Gage x Factor	Gage Recorded	Gage x Factor	Gage Recorded	Gage x Factor	Gage Recorded	Gage x Factor	Gage Recorded	Gage x Factor	Accumulated Weighted Precipitation: Recording Gages	Accumulated Weighted Precipitation: (Rec. Gages x K) All Gages
Weight Factor	1.00													
Apr. 29 1966														
0000	.00													.00
0600	.00													.00
0630	.03													.03
0645	.22													.22
0700	.47													.47
0730	.70													.69
0800	.75													.74
0815	1.20													1.19
0830	1.33													1.32
0845	1.34													1.39
0900	1.34													1.33
0915	1.34													1.33
0930	1.34													1.33
1000	1.39													1.38
1100	1.40													1.39
1300	1.47													1.46
1330	1.59													1.58
1400	1.69													1.68
1500	1.69													1.68
1600	1.77													1.76
1630	1.86													1.84
1700	1.95													1.93
1730	2.20													2.18
1830	2.59													2.57
1900	2.66													2.64
1930	2.66													2.64
2000	2.66													2.64
2100	2.66													2.64
2300	2.66													2.64
2400	2.66													2.64

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
11-S	.0955	4.96	.47
12-R	.6879	5.06	3.48
15-R	.2166	4.96	1.07
		WMR = 5.02	

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
		WMR:	5.02

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation = 5.02 / 5.06 = .992

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: R.H.O.
Date: 4-10-67
Check by: T.H.H.
Date: 4-10-67

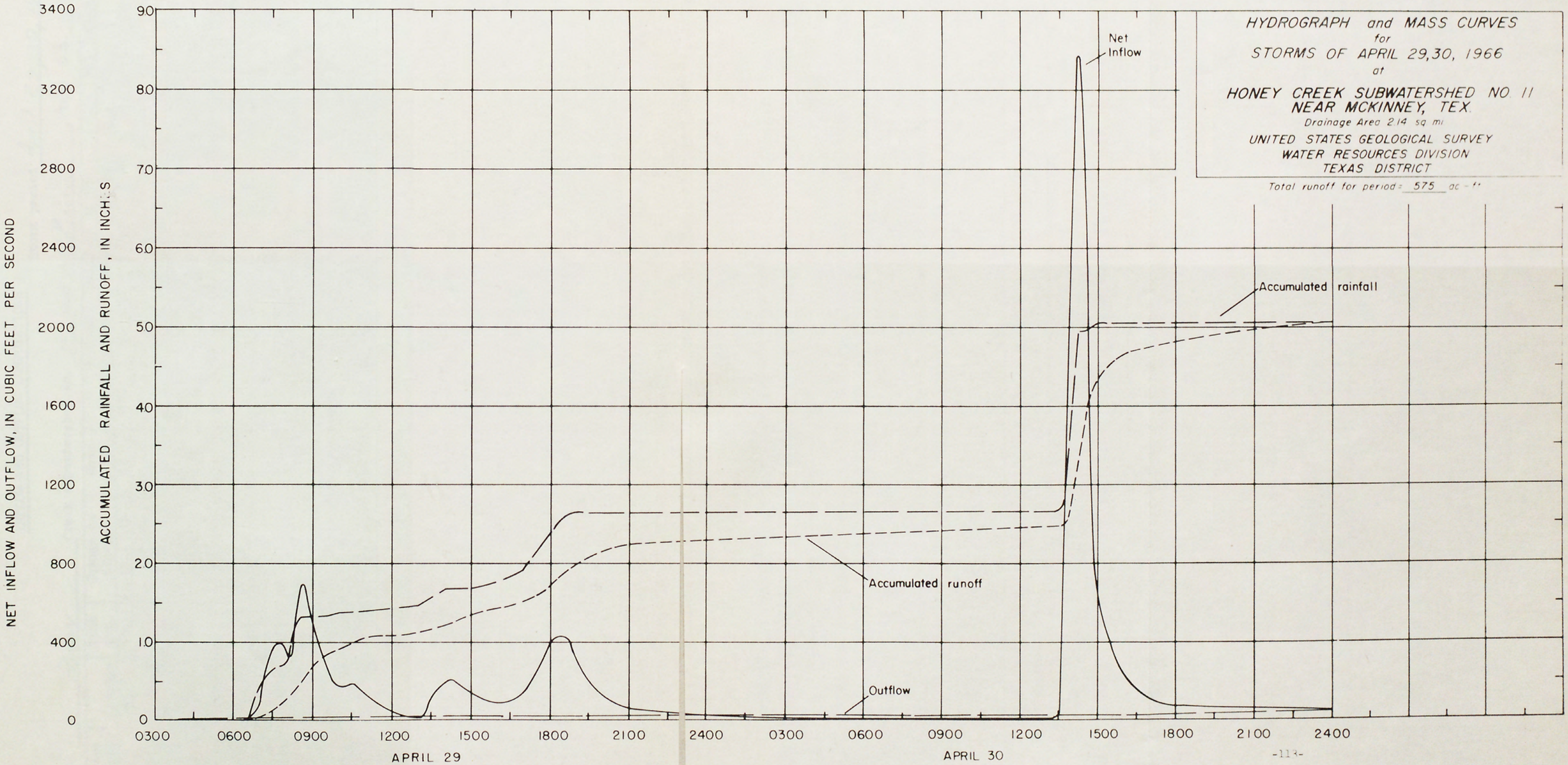
WEIGHTED PRECIPITATION RECORD

Area: Honey Creek subwatershed No. 11 nr. Mckinney, Tex. Date of storm Apr. 29-30, 1966

Weight Factor	1.00												Accumulated Weighted Precipitation	
	Accumulated Precipitation in Inches for Recording Gages													
	Gage 13-R		Gage		Gage		Gage		Gage		Gage			
Date & Time	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recording Gages	(Rec. Gages x K) All Gages
Apr. 30 1966														
0000	2.66													2.64
0600	2.66													2.64
1200	2.66													2.64
1300	2.66													2.64
1315	2.66													2.64
1330	2.74													2.72
1335	3.02													3.00
1340	3.37													3.34
1345	3.64													3.61
1350	4.04													4.01
1355	4.52													4.48
1400	4.75													4.71
1405	4.88													4.84
1410	4.95													4.91
1415	4.96													4.92
1420	4.97													4.93
1425	4.98													4.94
1430	4.99													4.95
1435	5.00													4.96
1440	5.00													4.98
1445	5.04													5.00
1500	5.06													5.02
1600	5.06													5.02
1800	5.06													5.02
2100	5.06													5.02
2400	5.06													5.02

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
										WMR:	

WMR = Sum of Precipitation x Weight Factor K = 1 / Total Recording Gages Weighted Precipitation =


HYDROGRAPH and MASS CURVES
for
STORMS OF APRIL 29,30, 1966
at
HONEY CREEK SUBWATERSHED NO. 11
NEAR MCKINNEY, TEX.
Drainage Area 2.14 sq mi
UNITED STATES GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
TEXAS DISTRICT
Total runoff for period = 575 ac - ft
Net Inflow
Accumulated rainfall
Accumulated runoff
Outflow
NET INFLOW AND OUTFLOW, IN CUBIC FEET PER SECOND
ACCUMULATED RAINFALL AND RUNOFF, IN INCHES
3400
3200
2800
2400
2000
1600
1200
800
400
0
90
80
70
60
50
40
30
20
1.0
0
0300
0600
0900
1200
1500
1800
2100
2400
APRIL 29
APRIL 30

Form A-64
(Rev. 9-65)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

Sheet 1 of 3

INFLOW AND OUTFLOW COMPUTATIONS

Storm period April 29, 30, 1966

08-0580 Honey Creek subwatershed No. 12 near McKinney, Tex. D.A. 1.26 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
Apr. 29																
0600	23.95	374.46							0		0	0	0	0	0	0
0615	23.95	374.46	.25	0	0	23.95	8.4	8.4	.06	38.9	.19	9.2	0	0	0	0
0630	23.95	374.46		0	0	23.95	8.4	8.4	.31	38.9	1.00	48.4	0	0	0	0
0645	24.01	376.80		+ 2.34	+ 113	23.98	8.4	121	.20	39.0	.65	31.5	89.5	.1101	.0275	.0275
0700	24.16	382.70	.25	+ 5.90	+ 286	24.08	8.5	294	.21	39.3	.69	33.4	261	.3210	.0802	.1077
0705	24.24	385.87	.083	+ 3.17	+ 460	24.20	8.5	468	.02	39.6	.07	10.2	458	.5633	.0468	.1545
0710	24.34	389.86		+ 3.99	+ 579	24.29	8.5	588	.01	39.9	.03	4.4	584	.7183	.0596	.2141
0715	24.43	393.48		+ 3.62	+ 526	24.38	8.5	534	.01	40.1	.03	4.4	530	.6519	.0541	.2682
0720	24.51	396.72		+ 3.24	+ 470	24.47	8.5	478	0	40.4	0	0	478	.5879	.0488	.3170
0725	24.58	399.56		+ 2.84	+ 412	24.54	8.5	420	.01	40.6	.03	4.4	416	.5117	.0425	.3595
0730	24.64	402.01	.083	+ 2.45	+ 356	24.61	8.5	364	.02	40.8	.07	10.2	354	.4354	.0361	.3956
0745	24.80	408.58	.25	+ 6.57	+ 318	24.72	8.6	327	.31	41.2	1.06	51.3	276	.3395	.0849	.4805
0800	24.94	414.40	.25	+ 5.82	+ 282	24.87	8.6	291	.31	41.6	1.07	51.8	239	.2940	.0735	.5540
0815	25.10	421.12	.25	+ 6.72	+ 325	25.02	8.6	334	.01	42.1	.04	1.9	332	.4084	.1021	.6561
0820	25.17	424.09	.083	+ 2.97	+ 431	25.14	8.6	440	0	42.3	0	0	440	.5412	.0449	.7010
0825	25.25	427.50		+ 3.41	+ 495	25.21	8.6	504	.01	42.6	.04	5.8	498	.6125	.0508	.7518
0830	25.37	432.64		+ 5.14	+ 746	25.31	8.6	755	0	42.8	0	0	755	.9286	.0771	.8289
0835	25.48	437.39		+ 4.75	+ 690	25.42	8.7	699	.01	43.3	.04	5.8	693	.8524	.0707	.8996
0840	25.57	441.31		+ 3.92	+ 569	25.52	8.7	578	0	43.5	0	0	578	.7109	.0590	.9586
0845	25.64	444.38		+ 3.07	+ 446	25.60	8.7	455	.01	43.8	.04	5.8	449	.5523	.0458	1.0044
0850	25.70	447.01		+ 2.63	+ 382	25.67	8.7	391	0	44.0	0	0	391	.4809	.0399	1.0443
0855	25.75	449.22		+ 2.21	+ 321	25.72	8.7	330	.01	44.2	.04	5.8	324	.3985	.0331	1.0774
0900	25.79	450.99	.083	+ 1.77	+ 257	25.77	8.7	266	0	44.3	0	0	266	.3272	.0272	1.1046
0915	25.87	454.54	.25	+ 3.55	+ 172	25.83	8.7	181	.01	44.5	.04	1.9	179	.2202	.0550	1.1596
0930	25.91	456.38	.25	+ 1.79	+ 86.6	26.89	8.7	95.3	.01	44.7	.04	1.9	93.4	.1149	.0287	1.1883
1000	25.95	458.12	.50	+ 1.79	+ 43.3	25.93	8.7	52.0	.02	44.8	.07	1.7	50.3	.0619	.0310	1.2193
1100	25.99	459.92	1.00	+ 1.80	+ 21.8	25.97	8.7	30.5	.01	44.9	.04	.5	30.0	.0369	.0369	1.2562
1130	26.01	460.82	.50	+ .90	+ 21.8	26.00	8.7	30.5	.01	45.0	.04	1.0	29.5	.0363	.0182	1.2744
1200	26.03	461.73	.50	+ .91	+ 22.0	26.02	8.7	30.7	.10	45.1	.38	8.2	21.5	.0264	.0132	1.2876
1300	26.08	463.99	1.00	+ 2.26	+ 27.3	26.06	8.8	36.1	0	45.2	0	0	36.1	.0444	.0444	1.3320
Comp. by: RHO																THH
Checked by: THH																RHO

Form A-64
(Rev.)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - TEXAS DISTRICT

INFLOW AND OUTFLOW COMPUTATIONS

Storm period Apr. 29, 30, 1966

8-580 Honey Creek subwatershed No. 12 near McKinney, Tex. D.A. 1.26 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
Apr. 29	con't.															
1330	26.11	465.34	.50	+ 1.35	+ 32.7	26.10	8.8	41.5	.33	45.3	1.25	30.2	11.3	.0139	.0070	1.3390
1400	26.25	471.73		+ 6.39	+155	26.18	8.8	164	.05	45.6	.19	4.6	159	.1956	.0978	1.4368
1430	26.40	478.64		+ 6.91	+167	26.32	8.8	176	.01	46.1	.04	1.0	175	.2152	.1076	1.5444
1500	26.46	481.43		+ 2.79	+ 67.5	26.43	8.8	76.3	.01	46.4	.04	1.0	75.3	.0926	.0463	1.5907
1530	26.50	483.29		+ 1.86	+ 45.0	26.48	8.8	53.8	.06	46.6	.23	5.6	48.2	.0593	.0296	1.6203
1600	26.55	485.63		+ 2.34	+ 56.6	26.52	8.8	65.4	.07	46.8	.27	6.5	58.9	.0724	.0362	1.6565
1630	26.60	487.97		+ 2.34	+ 56.6	26.58	8.8	65.4	.08	47.0	.31	7.5	57.9	.0712	.0356	1.6921
1700	26.69	492.22		+ 4.25	+103	26.64	8.8	112	.21	47.1	.82	19.8	92.2	.1134	.0567	1.7488
1730	26.82	498.40		+ 6.18	+150	26.76	8.9	159	.25	47.6	.99	24.0	135	.1660	.0830	1.8318
1800	27.17	515.33		+16.93	+410	27.00	8.9	419	.09	48.4	.36	8.7	410	.5043	.2522	2.0840
1830	27.40	526.69		+11.36	+275	27.28	10.9	286	.08	49.4	.33	8.0	278	.3419	.1710	2.2550
1900	27.54	533.71		+ 7.02	+170	27.47	13.4	183	.01	50.1	.04	1.0	182	.2239	.1120	2.3670
1930	27.60	536.73		+ 3.02	+ 73.1	27.57	17.0	90.1	.01	50.5	.04	1.0	89.1	.1096	.0548	2.4218
2000	27.63	538.25	.50	+ 1.52	+ 36.8	27.62	18.6	55.4	0	50.6	0	0	56.4	.0681	.0340	2.4558
2100	27.65	539.26	1.00	+ 1.01	+ 12.2	27.64	20.0	32.2		50.6			32.2	.0396	.0396	2.4954
2200	27.65	539.26		0	0	27.65	20.0	20.0		50.7			20.0	.0246	.0246	2.5200
2300	27.64	538.76		- .50	- 6.0	27.64	20.0	14.0		50.6			14.0	.0172	.0172	2.5372
2400	27.63	538.25	1.00	- .51	- 6.2	27.64	20.0	13.8	0	50.6	0	0	13.8	.0170	.0170	2.5542

Shift for spillway rating →

Comp. by: RHO
Checked by: THH

THH
RHO

Form A-64
(Rev. 6-62)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY - AUSTIN DISTRICT

Sheet 3 of 3

INFLOW AND OUTFLOW COMPUTATIONS

Storm period April 29, 30, 1966

8-580 Honey Creek subwatershed No. 12 near McKinney, Tex. D.A. 1.26 sq mi

Date and time	Gage height ft	Storage ac-ft	Time int. hrs	Change in storage ac-ft	Change in storage cfs	Mean G. Ht. ft	Outflow cfs	Total inflow cfs	Rainfall on Pool in	Rainfall on Pool area ac	Rainfall on Pool Storage ac-ft	Rainfall on Pool Storage cfs	Net Inflow Rate cfs	Net Inflow Rate in/hr	Net Inflow in	Net Inflow Acc in
April 30																
0000	27.63	538.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0600	27.56	534.71	6.0	- 3.54	- 7.1	27.60	17.8	10.7	0	50.5	0	0	10.7	.0132	.0792	2.6334
1200	27.47	530.19	6.0	- 4.52	- 9.1	27.52	15.0	5.9	0	50.3	0	0	5.9	.0073	.0438	2.6772
1300	27.46	529.69	1.0	- .50	- 6.0	27.46	13.0	7.0	.02	50.0	.08	1.0	6.0	.0074	.0074	2.6846
1315	27.45	529.19	.25	- .50	- 24.2	27.46	13.0	0	.17	50.0	.71	34.4	0	0	0	2.6846
1330	27.51	532.19	25	+ 3.00	+ 145	27.48	13.8	159	.81	50.1	3.38	164	0	0	0	2.6846
1335	27.56	534.71	.083	+ 2.52	+ 366	27.54	15.8	382	.18	50.3	.75	109	273	.3358	.0279	2.7125
1340	27.64	538.76	.083	+ 4.05	+ 588	27.60	17.8	606	.13	50.5	55	79.9	526	.6470	.0537	2.7662
1345	27.75	544.36	.083	+ 5.60	+ 813	27.70	25.0	838	.06	50.9	.25	36.3	802	.9865	.0819	2.8481
1350	27.88	551.02	.083	+ 6.66	+ 967	27.82	38.0	1,000	.09	51.4	.39	56.6	943	1.1599	.0963	2.9444
1355	28.03	558.80	.083	+ 7.78	+1,130	27.96	63.0	1,190	.02	51.8	.09	13.1	1,180	1.4514	.1205	3.0649
1400	28.20	567.71	.083	+ 8.91	+1,290	28.12	107	1,400	.01	52.5	.04	5.8	1,390	1.7097	.1419	3.2068
1405	28.35	575.66	.083	+ 7.95	+1,150	28.28	166	1,320	.01	53.1	.04	5.8	1,310	1.6113	.1337	3.3405
1410	28.48	582.63	.083	+ 6.97	+1,010	28.42	220	1,230	.01	53.6	.04	5.8	1,220	1.5006	.1245	3.4650
1415	28.58	588.03	.083	+ 5.40	+ 784	28.53	281	1,060	.04	54.0	.18	26.1	1,030	1.2669	.1052	3.5702
1420	2866	592.38	.083	+ 4.35	+ 632	28.62	338	970	.01	54.4	.05	7.3	963	1.1845	.0983	3.6685
1425	28.69	594.01	.083	+ 1.63	+ 237	28.68	374	611	.01	54.6	.05	7.3	604	.7429	.0617	3.7302
1430	28.72	595.66	.083	+ 1.66	+ 240	28.70	389	629	.01	54.6	.05	7.3	622	.7651	.0635	3.7937
#1445	28.77	598.40	.25	+ 2.74	+ 133	28.74	419	552	.01	54.7	.05	2.4	550	.6765	.1691	3.9628
1500	28.72	595.66	.25	- 2.74	- 133	28.74	419	286	.01	54.7	.05	2.4	284	.3493	.0873	4.0501
1530	28.60	589.11	.50	- 6.55	- 159	28.66	360	201	.01	54.5	.05	1.2	200	.2460	.1230	4.1731
1600	28.46	581.55	.50	- 7.56	- 183	28.53	281	98.0	0	54.0	0	0	98.0	.1205	.0602	4.2333
1700	28.24	570.88	1.0	- 10.67	- 129	28.36	197	68.0		53.3			68.0	.0836	.0836	4.3169
1800	28.12	563.50	1.0	- 7.38	- 89.3	28.19	130	40.7		52.7			40.7	.0501	.0501	4.3670
2000	27.95	554.64	2.0	- 8.86	- 53.6	28.04	83.0	29.4		52.1			29.4	.0362	.0724	4.4394
2400	27.79	546.40	4.0	- 8.24	- 24.9	27.87	43.0	18.1	0	51.6	0	0	18.1	.0223	.0892	4.5286
			24.0													

Computed by FAP — BBH — RHO — THH
Checked by DEL — DEL — THN — RHO

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: J.N.S.
Date 9-11-67
Check by:
Date 67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek subwatershed No. 12 nr. McKinney, Tex. Date of storm Apr. 29 1966

Weight Factor		1.00												Accumulated Weighted Precipitation	
		Accumulated Precipitation in Inches for Recording Gages													
Date & Time	Gage Recorded	12-R x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor	Recording Gages	(Rec. Gages x K) All Gages
														x .976
Apr. 29 1966														
0000	.00													.00
0600	.00													.00
0615	.06													.06
0630	.37													.36
0645	.57													.56
0700	.78													.76
0705	.80													.78
0710	.81													.79
0715	.82													.80
0720	.82													.80
0725	.83													.81
0730	.85													.83
0745	1.14													1.11
0800	1.47													1.43
0815	1.48													1.44
0820	1.48													1.44
0825	1.49													1.45
0830	1.49													1.45
0835	1.50													1.46
0840	1.50													1.46
0845	1.51													1.47
0850	1.51													1.47
0855	1.52													1.48
0900	1.52													1.48
0915	1.53													1.49
0930	1.54													1.50
1000	1.56													1.52
1100	1.57													1.53
1130	1.58													1.54
1200	1.68													1.64

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
10-S	.058	2.93	.17
12-R	.663	2.94	1.95
16-R	.279	(2.70)	.75
			WMR = 2.87

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation = 2.87 / 2.94 = .976

A-78 (Revised Feb. 1960)

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: J.N.S
Date: 9-11-67
Check by:
Date

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek subwatershed No.12 nr. McKinney, Tex. Date of storm Apr. 29, 1966

Weight Factor	1.00												Accumulated Weighted Precipitation	
	Gage 12-R		Gage		Gage		Gage		Gage		Gage			
Date & Time	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recording Gages	(Rec. Gages x K) All Gages
Apr. 29	continued													x.976
1300	1.68													1.64
1330	2.01													1.96
1400	2.06													2.01
1430	2.07													2.02
1500	2.08													2.03
1530	2.14													2.09
1600	2.21													2.16
1630	2.29													2.24
1700	2.50													2.44
1730	2.75													2.68
1800	2.84													2.77
1830	2.92													2.85
1900	2.93													2.86
1930	2.94													2.87
2000	2.94													2.87
2100	2.94													2.87
2200	2.94													2.87
2300	2.94													2.87
2400	2.94													2.87

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
										WMR:	

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation =

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: J.N.S.
Date: 9-12-67
Check by:
Date:

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek subwatershed No. 12 nr. McKinney, Tex. Date of storm Apr. 30 1966

Weight Factor	1.00										Accumulated Weighted Precipitation	
	Accumulated Precipitation in Inches for Recording Gages											
	Gage 12-R		Gage		Gage		Gage		Gage			(Rec. Gages x K)
Date & Time	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	All Gages
Apr. 30 1966												x 1.099
6000'	.00											.00
1200	.00											.00
1300	.02											.02
1315	.19											.21
1330	1.00											1.10
1335	1.18											1.30
1340	1.31											1.44
1345	1.37											1.51
1350	1.46											1.60
1355	1.48											1.63
1400	1.49											1.64
1405	1.50											1.65
1410	1.51											1.66
1415	1.55											1.70
1420	1.56											1.71
1425	1.57											1.73
1430	1.58											1.74
1445	1.59											1.75
1500	1.60											1.76
1530	1.61											1.77
1600	1.61											1.77
1800	1.61											1.77
2400	1.61											1.77

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
10-S	.058	1.93	.11								
12-R	.663	1.61	1.07								
K6-R	.279	(2.12)	.59								
		WMR =	1.77							WMR:	

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation = 1.77 / 1.61 = 1.099

HYDROGRAPH and MASS CURVES
for
STORMS OF APRIL 29, 30, 1966
at
HONEY CREEK SUBWATERSHED NO. 12
NEAR MCKINNEY, TEX.

Drainage Area 1.26 sq. mi.

UNITED STATES GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
TEXAS DISTRICT

Total runoff for period = 172 ac-ft

NET INFLOW AND OUTFLOW, IN CUBIC FEET PER SECOND

1400
1200
1000
800
600
400
200
0

ACCUMULATED RAINFALL AND RUNOFF, IN INCHES

9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0

Net Inflow

Accumulated rainfall

Accumulated runoff

Outflow

0600 0900 1200 1500 1800 2100 2400 0300 0600 0900 1200 1500 1800

APRIL 29

APRIL 30

A-65
(Rev. 6-63)

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY-AUSTIN DISTRICT

RUNOFF COMPUTATIONS

Station 8-0585. Honey Creek near McKinney, Tex.

Period of Record Apr. 29, 1966 Drainage Area 39.0

Time	G. Ht. Feet	Sh. Adj.	Discharge c.f.s.	Inc.	In/hr.	Runoff Inches	Acc. In.
Apr. 29, 1966							
0000	6.17	0	430	1.0	.0171	.0171	.0171
0200	5.58		368	2.0	.0146	.0292	.0463
0400	5.20		330	2.0	.0131	.0262	.0725
0600	5.00		310	1.5	.0123	.0184	.0909
0700	6.17		430	.75	.0171	.0128	.1037
0730	8.61		688	.5	.0273	.0136	.1173
0800	10.57		986	.5	.0392	.0196	.1369
0830	11.63		1,170	.5	.0465	.0232	.1601
0900	13.03		1,470	.5	.0584	.0292	.1893
0930	13.92		1,700	.5	.0676	.0338	.2231
1000	14.58		1,910	.75	.0759	.0569	.2800
1100	15.35		2,170	1.0	.0862	.0862	.3662
1200	15.31		2,140	1.0	.0850	.0850	.4512
1300	14.28		1,820	1.0	.0723	.0723	.5235
1400	12.54		1,350	1.0	.0536	.0536	.5771
1500	11.43		1,130	1.0	.0449	.0449	.6220
1600	11.56		1,170	1.0	.0465	.0465	.6685
1700	12.81		1,420	1.0	.0564	.0564	.7249
1800	13.89		1,700	1.0	.0676	.0676	.7925
1900	15.27		2,140	1.0	.0850	.0850	.8775
2000	16.45		2,580	1.0	.1025	.1025	.9800
2100	17.27		3,090	.75	.1228	.0921	1.0721
2130	17.53		3,240	.5	.1288	.0644	1.1365
2200	17.68		3,400	.5	.1351	.0676	1.2041
2230	17.60		3,320	.5	.1319	.0660	1.2701
2300	17.19		3,020	.5	.1200	.0600	1.3301
2330	16.23		2,500	.5	.0994	.0497	1.3798
2400	14.79	0	1,970	.25	.0783	.0196	1.3994
		24)36,840					
			1,540				

Time	G. Ht. Feet	Sh. Adj.	Discharge c.f.s.	Inc.	In/hr.	Runoff Inches	Acc. In.

Computed by J.N.S. Date 9-12-67

Ch. by BS 9-13-67

Computed _____ Date _____

A-65
(Rev. 6-63)

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY-AUSTIN DISTRICT

RUNOFF COMPUTATIONS

Station 8-0585. Honey Creek near McKinney, Tex.

Period of Record Apr. 30, 1966 Drainage Area 39.0

Time	G. Ht. Feet	Sh. Adj.	Discharge c.f.s.	Discharge Inc.	Discharge In/hr.	Runoff Inches	Runoff Acc. In.
Apr. 30, 1966							
0000	14.79	0	1,970	1.0	.0783	.0783	.0783
0200	9.65		822	2.0	.0327	.0654	.1437
0400	7.17		532	2.0	.0211	.0422	.1859
0600	6.35		450	2.0	.0179	.0358	.2217
0800	5.86		396	2.0	.0157	.0314	.2531
1000	5.54		364	2.0	.0145	.0290	.2821
1200	5.31		341	1.5	.0136	.0204	.3025
1300	5.21		331	.75	.0132	.0099	.3124
1330	6.26		440	.5	.0175	.0088	.3212
1400	12.84		1,420	.5	.0564	.0282	.3494
1430	16.10		2,450	.5	.0974	.0487	.3981
1500	16.76		2,780	.75	.1105	.0829	.4810
1600	17.43		3,160	1.0	.1256	.1256	.6066
1700	18.01		3,700	.75	.1470	.1102	.7168
1730	18.33		4,060	.5	.1613	.0806	.7974
1800	18.58		4440	.5	.1764	.0882	.8856
1830	18.54		4300	.5	.1709	.0854	.9710
1900	18.47		4300	.75	.1709	.1282	1.0992
2000	18.10		3,820	1.5	.1518	.2277	1.3269
2200	14.30		1,820	2.0	.0723	.1446	1.4715
2400	12.20	0	1,290	1.0	.0513	.0513	1.5228

Time	G. Ht. Feet	Sh. Adj.	Discharge c.f.s.	Discharge Inc.	Discharge In/hr.	Runoff Inches	Runoff Acc. In.

Computed by J.N.S. Date 9-12-67

ch. by [illegible] 9-15-67

Computed _____ Date _____

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: G.E.L.
Date: Sept. 11, 1967
Check by: TPB
Date: 9-22-67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek near Mc Kinney, Tex. Date of storm Apr. 29, 1966

Weight Factor			0.4616		0.2398		0.1366		0.1420						Accumulated Weighted Precipitation	
			Gage 3-R		Gage 2-R		Gage 12-R		Gage 13-R		Gage		Gage		Accumulated Precipitation in Inches for Recording Gages	
Date & Time			Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recording Gages	(Rec. Gages x K) All Gages
Apr. 29																
0300			0	0	0	0	0	0	0	0					0	0
0580			.02	.01	0	0	0	0	0	0					.01	.01
0620			.03	.01	0	0	.08	.01	.02	0					.02	.02
0625			.10	.05	.01	0	.30	.05	.02	0					.10	.10
0630			.22	.10	.01	0	.37	.06	.03	0					.16	.15
0635			.32	.15	.01	0	.40	.06	.13	.02					.23	.22
0640			.33	.15	.10	.02	.48	.08	.20	.03					.28	.27
0650			.36	.17	.31	.07	.68	.11	.33	.05					.40	.39
0700			.49	.23	.33	.08	.78	.12	.47	.07					.50	.48
0800			.62	.29	.53	.13	1.47	.23	.75	.11					.76	.74
0805			.65	.30	.54	.13	1.47	.23	.90	.13					.79	.76
0810			.68	.31	.55	.13	1.48	.23	1.05	.15					.82	.79
0815			.78	.36	.57	.14	1.48	.23	1.20	.17					.90	.87
0820			.83	.38	.60	.14	1.48	.23	1.26	.18					.93	.90
0830			.88	.41	.79	.19	1.49	.23	1.33	.19					1.02	.99
0840			.92	.42	.82	.20	1.50	.23	1.33	.19					1.04	1.01
0850			.96	.44	.86	.21	1.51	.24	1.34	.19					1.08	1.05
0900			.98	.45	.88	.21	1.52	.24	1.34	.19					1.09	1.06
0930			1.00	.46	.89	.21	1.54	.24	1.34	.19					1.10	1.06
0950			1.04	.48	.92	.22	1.55	.24	1.38	.20					1.14	1.10
1135			1.05	.48	.95	.23	1.60	.25	1.40	.20					1.16	1.12
1140			1.10	.51	.96	.23	1.62	.25	1.42	.20					1.19	1.15
1150			1.14	.53	.97	.23	1.66	.26	1.43	.20					1.22	1.18
1220			1.15	.53	1.07	.26	1.67	.26	1.45	.21					1.26	1.22
1300			1.17	.54	1.09	.26	1.68	.26	1.47	.21					1.27	1.23
1330			1.18	.54	1.09	.26	2.01	.31	1.59	.23					1.34	1.30
1335			1.19	.55	1.09	.26	2.02	.32	1.61	.23					1.36	1.32
1340			1.34	.62	1.19	.29	2.03	.32	1.63	.23					1.46	1.41
1345			1.45	.67	1.41	.34	2.03	.32	1.65	.23					1.56	1.51
1350			1.54	.71	1.51	.36	2.04	.32	1.67	.24					1.63	1.58

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
										WMR:	

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation =

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: G.E.L.
Date: Sept. 11, 1967
Check by: TPB
Date: 9-22-67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek near Mc Kinney, Tex. Date of storm: Apr. 29

Accumulated Precipitation in Inches for Recording Gages

Weight Factor		0.4616		0.2338		0.1566		0.1420						Accumulated Weighted Precipitation	
Date & Time	Gage 3-R Recorded	x Factor	Gage 5-R Recorded	x Factor	Gage 12-R Recorded	x Factor	Gage 13-R Recorded	x Factor	Gage Recorded	x Factor	Gage Recorded	x Factor		Recording Gages	(Rec. Gages x K) All Gages
Apr. 29 cont															
1355	1.60	.74	1.57	.38	2.05	.32	1.68	.24						1.68	1.63
1400	1.61	.74	1.58	.38	2.06	.32	1.69	.24						1.68	1.63
1410	1.64	.76	1.59	.38	2.06	.32	1.69	.24						1.70	1.65
1505	1.65	.76	1.62	.39	2.06	.32	1.69	.24						1.71	1.66
1510	1.66	.77	1.62	.39	2.08	.33	1.70	.24						1.73	1.67
1515	1.70	.78	1.62	.39	2.10	.33	1.71	.24						1.74	1.68
1520	1.72	.79	1.62	.39	2.11	.33	1.73	.25						1.76	1.70
1530	1.74	.80	1.67	.40	2.14	.34	1.75	.25						1.79	1.73
1540	1.76	.81	1.70	.41	2.16	.34	1.77	.25						1.81	1.75
1620	1.86	.86	1.81	.43	2.25	.35	1.82	.26						1.90	1.84
1640	1.94	.90	1.86	.45	2.31	.36	1.86	.26						1.97	1.91
1650	1.96	.90	1.88	.45	2.38	.37	1.88	.27						1.99	1.93
1655	2.00	.92	1.91	.46	2.42	.38	1.92	.27						2.03	1.97
1700	2.03	.94	1.92	.46	2.50	.39	1.95	.28						2.07	2.00
1705	2.11	.97	1.93	.46	2.55	.40	1.99	.28						2.11	2.04
1710	2.17	1.00	1.95	.47	2.57	.40	2.03	.29						2.16	2.09
1715	2.21	1.02	1.99	.48	2.58	.40	2.07	.29						2.19	2.12
1720	2.32	1.07	2.09	.50	2.60	.41	2.09	.30						2.28	2.21
1725	2.47	1.14	2.17	.52	2.68	.42	2.14	.30						2.38	2.30
1730	2.57	1.19	2.23	.53	2.75	.43	2.20	.31						2.46	2.38
1735	2.62	1.21	2.27	.54	2.78	.44	2.25	.32						2.51	2.43
1740	2.66	1.23	2.29	.55	2.79	.44	2.30	.33						2.55	2.47
1800	2.72	1.26	2.71	.65	2.84	.44	2.40	.34						2.69	2.60
1820	2.77	1.28	2.76	.66	2.91	.46	2.50	.36						2.76	2.67
1830	2.81	1.30	2.80	.67	2.92	.46	2.59	.37						2.80	2.71
1900	2.84	1.31	2.92	.70	2.94	.46	2.66	.38						2.85	2.76

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
1-S	0.0666	2.64	0.18	7-S	0.0888	2.86	0.25	13-R	0.0724	2.61	0.19
2-S	.0715	2.61	.19	8-S	.0689	2.54	.18	14-S	.0975	2.89	.28
3-S	.0720	2.59	.19	9-R	.0855	2.92	.25				
4-S	.0600	2.52	.15	10-S	.0523	2.93	.15			Total	2.76
5-R	.0889	2.84	.25	11-S	.0716	2.80	.20				
6-S	.0695	2.91	.20	12-R	.0345	2.94	.10				

WMR = Sum of Precipitation x Weight Factor K = WMR / Total Recording Gages Weighted Precipitation = 2.76/2.85 = 0.968

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY, SURFACE WATER BRANCH
AUSTIN DISTRICT

Comp. by: G.E.L.
Date: Sept. 11, 1967
Check by: T.P.B.
Date: 9-21-67

WEIGHTED PRECIPITATION RECORD

Area: Honey Creek near McKinney, Tex. Date of storm Apr. 30, 1966

Date & Time	Accumulated Precipitation in Inches for Recording Gages												Accumulated Weighted Precipitation	
Weight Factor	0.4666		0.2339		0.1366		0.1420							
	Gage 3-R		Gage 9-R		Gage 12-R		Gage 13-R		Gage		Gage			
	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recorded	x Factor	Recording Gages	(Rec. Gages x K) All Gages
Apr. 30														
0900	0	0	0	0	0	0	0	0					0	0
1000	.03	.01	0	0	0	0	0	0					.01	.01
1335	.04	.02	.01	0	1.18	.18	.36	.05					.25	.24
1340	.14	.06	.02	0	1.31	.21	.71	.10					.37	.35
1345	.35	.16	.22	.05	1.37	.21	.98	.14					.56	.53
1350	.46	.21	.53	.13	1.46	.23	1.38	.20					.77	.73
1355	.60	.28	.90	.22	1.48	.23	1.86	.26					.99	.94
1400	.64	.30	1.47	.35	1.49	.23	2.09	.30					1.18	1.12
1420	.69	.32	2.27	.54	1.56	.24	2.31	.33					1.43	1.36
1430	.75	.35	2.30	.55	1.58	.25	2.33	.33					1.48	1.40
1440	.79	.36	2.35	.56	1.59	.25	2.36	.34					1.51	1.43
1500	.80	.37	2.42	.58	1.60	.25	2.40	.34					1.54	1.46
1600	.80	.37	2.44	.59	1.61	.25	2.40	.34					1.55	1.47

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
1-S	0.0666	0.75	0.05
2-S	.0715	.73	.05
3-S	.0720	.73	.05
4-S	.0600	.71	.04
5-R	.0889	.80	.07
6-S	.0695	.82	.06

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
7-S	0.0888	1.61	0.14
8-S	.0689	2.25	.16
9-R	.0855	2.44	.21
10-S	.0523	1.93	.10
11-S	.0716	2.16	.15
12-R	.0345	1.61	.06

Rain Gage	Weight Factor	Precipitation	Precipitation x Weight Factor
13-R	0.0724	2.45	0.18
14-S	.0975	1.58	.15
		Total	1.47

Σ = Sum of Precipitation x Weight Factor

$K = \frac{WMR}{\text{Total Recording Gages Weighted Precipitation}} = 1.47 / 1.55 = 0.948$

WMR:

HYDROGRAPH and MASS CURVES for STORMS OF APRIL 29, 30, 1966 at HONEY CREEK NEAR MCKINNEY, TEX.

Drainage Area 39.0 sq. mi.

UNITED STATES GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
TEXAS DISTRICT

Total runoff for period = 6,080 ac.-ft.