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no. 928
UNITED STATES DEPARTMENT OF THE INTERIOR

HAROLD L. ICKES, Secretary

U.S. GEOLOGICAL SURVEY

W. C. MENDENHALL, Director

Water-Supply Paper 928

SURFACE WATER SUPPLY *of the* UNITED STATES

1941

PART 8

WESTERN GULF OF MEXICO BASINS

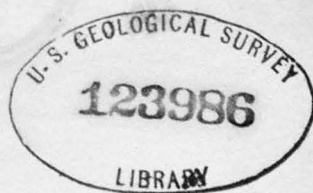
Prepared under the direction of

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In cooperation with the States of

COLORADO, LOUISIANA, NEW MEXICO, AND TEXAS



UNITED STATES
GOVERNMENT PRINTING OFFICE

WASHINGTON : 1943

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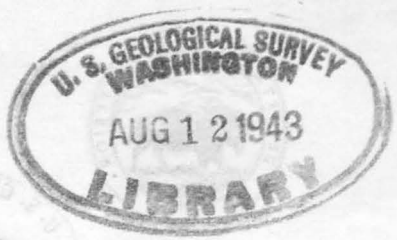
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Part 3

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ILLUSTRATION

Plate 1. Gaging-station structures: A, Sabine River near Gladewater, Tex.; B, Pecos River at Red Bluff, N. Mex.; C, Colorado River near San Saba, Tex.	Page
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SURFACE WATER SUPPLY OF WESTERN GULF OF MEXICO BASINS, 1941

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes, and reservoirs in the United States during the water year ending September 30, 1941. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 9,120 gaging stations in the United States and also at many gaging stations in Alaska and Hawaii. In July 1941, 4,850 gaging stations were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made at many other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Cooperation of the first kind is acknowledged in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 11.

DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-foot" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

"Second-foot per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the runoff is distributed uniformly both as regards time and area.

"Runoff in inches" is the depth to which an area would be covered if all the water draining from it in a given period were uniformly distributed on its surface. It is used for comparing runoff with rainfall, which is usually expressed in inches.

An "acre-foot" is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet. The term is commonly used in connection with storage for irrigation.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons and represents a runoff of 0.0372 inch from 1 square mile.

"Stage-discharge relation" is an abbreviation for the term "relation between gage height and discharge."

"Control" is a term used to designate a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural section, a reach of the channel, or an artificial structure.

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge

measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical structures in use at gaging stations are shown on plate 1.

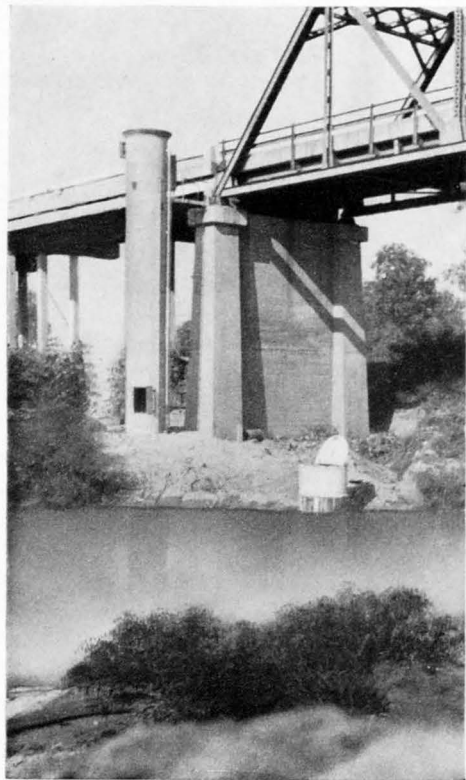
Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to these rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the "shifting-control method," in which correction factors based on individual discharge measurements are used in applying the gage heights to the rating tables.

At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method" in which the slope or fall in a reach of the stream is a factor in the determination of discharge. Information requisite for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage, and for them the rate of change of stage is used as a factor in the determination of discharge.

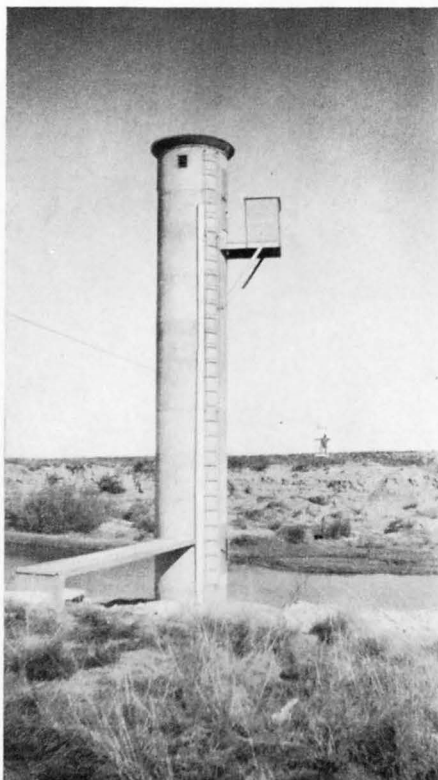
At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, which makes it impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and engineers, and comparable records of discharge for stations in the same or nearby basins. The days included in the periods of ice effect and the days during the winter period on which discharge measurements were made are indicated in the table by symbols referring to footnotes.

For most of the gaging stations on streams in the area covered by this report the data presented comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating tables are published for all stations except those at which the daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage



A. SABINE RIVER NEAR GLADEWATER, TEX.



B. PECOS RIVER AT RED BLUFF, N. MEX.
GAGING-STATION STRUCTURES.



C. COLORADO RIVER NEAR SAN SABA, TEX.



recorder or a nonrecording gage read at the time of the crest. Likewise the minimum discharge represents the lowest stage, unless otherwise qualified. Selected peak discharges with the times of their occurrence are given below the table of monthly discharge for some stations. This supplementary information is generally omitted for stations having drainage areas of less than 10 square miles or more than 10,000 square miles or if the peak discharges usually exceed the corresponding mean discharges for the day by less than 10 percent.

For stations equipped with nonrecording gages, the the table of daily discharge gives the discharge in second-feet corresponding to once-daily readings of the gage or the mean of twice-daily readings. For flashy floods the daily mean discharge is determined from gage-height graphs based on gage readings made once or twice daily or oftener, as stated in the station description. For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the table gives the discharge corresponding to the daily mean gage height. For stations subject to such fluctuation the daily mean gage height may not indicate the true daily mean discharge, which must be obtained by averaging the discharge for parts of the day or by using the discharge integrator, an instrument for obtaining the daily mean discharge from a continuous gage-height graph and containing as an essential element a curve representing the stage-discharge relation at the station.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the figures given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge and not the momentary discharge when the water surface was at crest stage. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" gives the average flow in cubic feet per second during the month.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For a few of the more important lakes and reservoirs a table showing daily contents is given. A skeleton table of capacity at given stages is usually given in the first report in which data for a station are published but is omitted from succeeding reports.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily on (1) the permanency of the stage-discharge relation and (2) the accuracy of observations of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are accurate within 5 percent; "good," within 10 percent; "fair," within 15 percent; and "poor," within 20 or a higher percent.

Yield at some stations as indicated by monthly means may vary widely from natural yield, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations figures of "second-foot per square mile" and "runoff in inches" are not published unless storage or diversion records are included indicating the extent of the regulation or diversion or unless

satisfactory adjustments can be made for changes in contents of reservoirs or for other changes incident to use and control. Figures of second-feet per square mile and runoff in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and therefore the discharge recorded does not show the water supply available for further development, as prior appropriations below the station must first be satisfied.

The table of monthly discharge presents in summary the distribution of the flow past the station. The table of daily discharge affords opportunity for more detailed studies of the variation in flow. As further observations in each succeeding year may be expected to throw new light on data previously published, it should be borne in mind that such data are subject to revision in succeeding water-supply papers.

PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

- Part 1. North Atlantic slope basins (St. John River to York River).
 2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).
 3. Ohio River Basin.
 4. St. Lawrence River Basin.
 5. Hudson Bay and upper Mississippi River Basins.
 6. Missouri River Basin.
 7. Lower Mississippi River Basin.
 8. Western Gulf of Mexico basins.
 9. Colorado River Basin.
 10. The Great Basin.
 11. Pacific slope basins in California.
 12. Pacific slope basins in Washington and upper Columbia River Basin.
 13. Snake River Basin.
 14. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be obtained or consulted as explained below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.
2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.
3. Sets are available for consultation in the local offices of the water-resources

branch of the Geological Survey as follows:

East of the Mississippi River:

- Albany, N. Y., 526 Federal Building.
- Asheville, N. C., 220 Post Office Building.
- Atlanta, Ga., 5 North Rhodes Center.
- Augusta, Maine, Statehouse.
- Baton Rouge, La., 124 Geology Building, Louisiana State University.
- Boston, Mass., 945 Post Office Building.
- Charleston, W. Va., 408 Union Building.
- Charlottesville, Va., House G, Dawson Row, University of Virginia.
- Chattanooga, Tenn., 442 Post Office Building.
- College Park, Md., Engineering Building, University of Maryland.
- Columbia, S. C., 119 United States Courthouse.
- Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
- Harrisburg, Pa., 490 Education Building.
- Hartford, Conn., 225 Capitol Building, 410 Asylum Street.
- Indianapolis, Ind., 511 Board of Trade Building.
- Jackson, Miss., 208 Millsaps Building.

Louisville, Ky., 652 Federal Building.
 Madison, Wis., 666 State Office Building.
 Montgomery, Ala., 507 Post Office Building.
 Ocala, Fla., 302 Post Office Building.
 St. Paul, Minn., 808 New Post Office Building.
 Trenton, N. J., 228 Federal Building.
 Urbana, Ill., 14 Post Office Annex, Elm Street.

West of the Mississippi River:

Austin, Tex., 302 West 15th Street.
 Boise, Idaho, 429 Federal Building.
 Denver, Colo., 230 Customhouse.
 Fort Smith, Ark., 6 Post Office Building.
 Helena, Mont., 408 Federal Building.
 Honolulu, Hawaii, 225 Federal Building.
 Idaho Falls, Idaho, 204 Federal Building.
 Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
 Lincoln, Nebr., 1404 Statehouse.
 Los Angeles, Calif., G-31 United States Post Office and Courthouse.
 Oklahoma City, Okla., 303 Capitol Office Building.
 Portland, Oreg., 606 Post Office Building.
 Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
 St. Louis, Mo., 926 New Federal Building.
 Salt Lake City, Utah, 303 Federal Building.
 San Francisco, Calif., 625 Market Street Building.
 Santa Fe, N. Mex., 204 United States Courthouse.
 Tacoma, Wash., 1100 Washington Building.
 Topeka, Kans., 306 Federal Building.
 Tucson, Ariz., 210 Post Office Building.

A list of the Geological Survey publications may be obtained by applying to the Director, Geological Survey, Washington, D. C.

Records of flow of streams in the United States have been published in the reports tabulated as follows:

Stream-flow data in reports of the Geological Survey
 (A = Annual Report; B = Bulletin; W = Water-Supply Paper)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information...	1884 to Sept. 1890
12th A, pt. 2	.....do.....	1884 to June 30, 1891.
13th A, pt. 3	.....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93)..	1888 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years).	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River and Missouri River and tributaries above Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights of streams west of the Mississippi River except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River and Missouri River and tributaries.	
W 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years).	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.	1900.
22d A, pt. 4	Monthly discharge.....	1900.
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.	1901.
W 75.....	Monthly discharge.....	1901.

Note.- Reports containing records for years after 1901 are given in table on page 6.

The table on the following page gives, by years and drainage basins, the numbers of the papers on surface water supply published from 1899 to 1941. The data for any particular station will, in general, be found in the reports covering the years during

Numbers of water-supply papers containing results of stream measurements, 1899-1941

(For basins included see p. 4)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b35, 36	36	36	36	c36, 37	37	37	d37, 38	38, e39	38, f39	38	38	38
1900 g...	47, h48	48	48, 149	49	49	49, 150	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	k65, 66, 75	66, 75	k65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b82, 83	83	m82, 83	k83, 85	84	k83, 84	84	85	85	85	85	85	85
1903.....	97	b97, 98	98	97	k98, 99, n100	99	k98, 99	99	100	100	100	100	100	100
1904.....	o124, p125, q126	q126, 127	128	129	k128, 130	130, r131	k128, 131	132	133	s134	134	135	135	135
1905.....	o165, p166, q167	q167, 168	169	170	171	172	k169, 173	174	175, t177	176, s177	177	178	178	u177, 178
1906.....	o201, p202, q203	o203, 204	205	206	207	208	k205, 209	210	211, t213	212, s213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20..	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939.....	871	872	873	874	875	876	877	878	879	880	881	882	883	884
1940.....	891	892	893	894	895	896	897	898	899	900	901	902	903	904
1941.....	921	922	923	924	925	926	927	928	929	930	931	932	933	934

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.

b James River only.

c Gallatin River.

d Green and Gunnison Rivers and Colorado River above Gunnison River.

e Mojave River only.

f Kings and Kern Rivers and south Pacific slope basins.

g Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52.

h Monthly discharge for 1900 in 22d Annual Report, part 4.

i Wissahickon and Schuylkill Rivers to James River.

j Scioto River.

J Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.

k Tributaries of Mississippi River from east.

m Lake Ontario and tributaries to St. Lawrence River proper.

n Hudson Bay only.

o New England rivers only.

p Hudson River to Delaware River, inclusive.

q Susquehanna River to Yadkin River, inclusive.

r Platte and Kansas Rivers.

s The Great Basin in California, except Truckee and Carson River Basins.

t Below mouth of Gila River.

u Rogue, Umpqua, and Siletz Rivers only.

which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, 503, which contain records for the Ohio River Basin for those years.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report, the streams and points of measurement listed appearing in the same relative order as the streams and gaging stations in the body of the report. An index of the records obtained prior to 1904 has been published in Water-Supply Paper 119.

Each of the reports on surface water supply for the year 1939, issued as Water-Supply Papers 871 to 884 (see table on p. 6), contains a summary of yearly discharge at gaging stations in the area covered by that report. Gaging stations at which 10 or more complete years of record have been collected are represented. These summaries are available also as separate reprints.

From time to time reports have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which have been revised), as well as some records not contained in the annual series of water-supply papers. The following table gives the numbers and titles of these reports, arranged in alphabetical order by States and drainage basins.

Reports containing compilation of discharge by States and drainage basins		
Water-Supply Paper	Year ending	State or drainage basin and title
STATE		
107	1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific coast river basins.
447	1918	California, southern, Surface water supply of Pacific slope of.
597-E	1927	California, Surface water supply of Sacramento River Basin.
636-D	1927	California, Surface water supply of San Joaquin River Basin.
636-E	1927	California, southern, Surface water supply of Pacific slope basins in.
637-A	1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1900	Colorado, Water resources of.
197	1905	Georgia, Water resources of.
415	1915	Massachusetts, Surface waters of.
230	1906	Nebraska, Surface water supply of.
370	1910	Oregon, Surface water supply of.
850	1937	Texas, Summary of records of surface waters of.
424	1916	Vermont, Surface waters of.
492	1919	Washington, Summary of hydrometric data in.
870	1935	Washington, Summary of records of surface waters of.
469	1921	Wyoming, Surface waters of, and their utilization.
DRAINAGE BASIN		
396	1914	Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization.
617	1927	Colorado River, upper (Colo., Utah), and its utilization.
517	1920	Great Salt Lake Basin, Water powers of.
618	1926	Green River (Utah, Wyo.) and its utilization.
198	1906	Kennebec River Basin (Maine), Water resources of.
491	1917	Milk River. (See St. Mary and Milk Rivers.)
536	1920	New-Kanawha River Basin (N. C., Va., W. Va.), Surface Water Supply of.
279	1909	Penobscot River Basin (Maine), Water resources of.
192	1906	Potomac River Basin (D. C., Md., W. Va.)
358	1913	Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of, 1888-1913.
491	1917	St. Mary and Milk Rivers (Mont., Canada), water supply of.
109	1904	Susquehanna River Basin (Pa., Md.), Hydrography of.

Records of discharge have been published also in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The table on following page contains a list of these reports.

State reports containing compilation of records of discharge

State	Year ending	Report	Issued by
Alabama....	1915	Bull. 17, Water powers of Alabama....	Geological Survey of Alabama.
Arkansas....	1928	Stream-gaging Report 1.....	Arkansas Geological Survey.
Connecticut.	1926	Bull. 44, Water resources of Connecticut.	State Geological and Natural History Survey.
Do.....	1933 ^a	5th biennial report.....	Connecticut State Water Commission.
Georgia....	1906	Bull. 16, Water powers of Georgia....	Geological Survey of Georgia.
Do.....	1920 ^b	Bull. 38, Water powers of Georgia....	Do.
Illinois....	1911	Water resources of Illinois.....	Rivers and Lakes Commission.
Do.....	1934	Stream-flow data of Illinois.....	Division of Waterways.
Indiana....	1927	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	1930 ^c	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Kansas.....	1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1924 ^d	...do.....	Do.
Do.....	1928 ^e	...do.....	Kansas State Board of Agriculture.
Do.....	1935 ^f	Stream-flow data of Kansas.....	Do.
Do.....	1939 ^g	...do.....	Do.
Kentucky....	1920	Surface waters of Kentucky.....	Kentucky Geological Survey.
Maryland....	1937	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Minnesota...	1912	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri....	1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Geological Survey and Water Resources.
Do.....	1939 ^h	Vol. 26, 2d series, Surface waters of Missouri.	Do.
Nebraska....	1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1928 ⁱ	2d hydrographic report.....	Do.
New Jersey...	1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1934 ^j	Special Report 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico...	1925	Surface water supply of New Mexico...	Office of the State Engineer.
North Carolina.	1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Do.....	1936 ^k	Bull. 39, Discharge records of North Carolina streams.	Do.
North Dakota	1920	Report to Governor of North Dakota on flood control.	State chief engineer.
Do.....	1927 ^l	Surface water in North Dakota.....	State Planning Board.
Ohio.....	1921 ^m	Bull. 73, Ohio stream flow.....	Engineering Experiment Station, Ohio State University.
Do.....	1939 ⁿ	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Oregon.....	1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1924 ^o	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1930 ^p	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1936 ^q	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	1932 ^r	Stream-flow records of Pennsylvania..	Department of Forests and Waters.
Tennessee...	1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	1930 ^s	Bull. 40, Surface waters of Tennessee.	Do.
Utah.....	1905	5th biennial report, State Engineer..	Office of the State Engineer.
Do.....	1910	7th biennial report, State Engineer..	Do.
Do.....	1916	10th biennial report, State Engineer.	Do.
Virginia....	1927	Bull. 31, Water resources of Virginia.	Conservation Commission.
Washington..	1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin...	1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1923 ^t	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

a Includes records of monthly discharge in second-feet per square mile for years 1912-33.

b Includes records for years 1907-18.

c Includes records for years 1927-30.

d Includes records for years 1919-24.

e Includes records for years 1924-28.

f Includes records for years 1928-35.

g Includes records for years 1935-39.

h Includes records for years 1927-39.

i Includes records for years 1914-28.

j Includes records for years 1928-34.

k Includes records for years 1889-1936; records of daily and monthly discharge are not included.

l Includes records for years 1892-1937.

m Includes all available records prior to 1921.

n Includes records for years 1902-39.

o Includes records for years 1914-24.

p Includes records for years 1924-30.

q Includes records for years 1930-36.

r Includes records for years 1928-32.

s Includes average weekly discharge for years 1920-30.

t Includes records for years 1914-23.

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Connecticut, Idaho, Indiana, Missouri, Montana, Nebraska, New Mexico, New York (also New York City Board of Water Supply), North Dakota, Oregon, Pennsylvania, Nevada, Washington, and Wyoming.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier noteworthy floods. The following list gives the numbers and titles of these reports.

Water-Supply
Paper

88	The Passaic flood of 1902.
92	The Passaic flood of 1903.
96	Destructive floods in the United States in 1903.
147	Destructive floods in the United States in 1904.
162	Destructive floods in the United States in 1905.
334	The Ohio Valley flood of March-April 1913.
426	Southern California floods of January 1916.
487	The Arkansas River flood of June 3-5, 1921.
488	The floods in central Texas in September 1921.
520-G	Some floods in the Rocky Mountain region.
636-C	The New England flood of November 1927.
771	Floods in the United States, magnitude and frequency.
773-E	The New York State flood of July 1935.
796-B	Flood on Republican and Kansas Rivers, May and June 1935.
796-C	Flood in La Canada Valley, Calif., January 1, 1934.
796-G	Major Texas floods of 1935.
798	The floods of March 1936, Part 1, New England Rivers.
799	The floods of March 1936, Part 2, Hudson River to Susquehanna River region.
800	The floods of March 1936, Part 3, Potomac, James, and upper Ohio Rivers.
816	Major Texas floods of 1936.
836-A	Stages and flood discharges of the Connecticut River at Hartford, Conn.
838	Floods of Ohio and Mississippi Rivers, January-February 1937.
842	Floods in Canadian and Pecos River Basins of New Mexico, May and June 1937.
843	Floods of December 1937 in northern California.
844	Floods of March 1938 in southern California.
847	Maximum discharges at stream-measurement stations through September 1938.
867	Hurricane floods of September 1938.
869	Flood of August 1935 in Muskingum River Basin, Ohio.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of discharge were collected during the water year October 1940 to September 1941 by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by	Remarks
Alamito Creek.....	Near Presidio, Tex.....	1932-41	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Arrey Canal.....	Near Arrey, N. Mex.....	1918, 1920-41	Bureau of Reclamation.	Unpublished.
Calcasieu River...	Near Bartons Landing, La.	1941	Corps of Engineers, U. S. Army.	Do.
Do.....	At Cameron, La.....	1941	.....do.....	Do.
Do.....	At Southern Pacific R. R. bridge near Lake Charles, La.	1941	.....do.....	Do.
Devils River.....	Near Del Rio, Tex.....	†1931-41	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
El Paso sewage outfall.	Near El Paso, Tex.....	1936-41	.....do.....	Do.
East Side Canal...	At Mesilla Dam, near Mesilla Park, N. Mex.	1916-18, 1920-41	Bureau of Reclamation.	Unpublished.
Goodenough Springs	Near Comstock, Tex.....	†1931-41	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Las Vacas Arroyo..	Near Villa Acuna, Coahuila, Mexico.	1938-41	International Boundary Commission, Mexican Section.	Do.
Leasburg Canal....	At head, near Selden, N. Mex.	1917-18, 1920-41	Bureau of Reclamation.	Unpublished.
Pecos River.....	Near Comstock, Tex.....	†1931-41	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.

† Records for earlier years published in Geological Survey water-supply papers.

Records of discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Collected by	Remarks
Pinto Creek.....	Near Del Rio, Tex.....	†1931-41	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Rio Alamo.....	Mier, Tamaulipas, Mexico.	1924-41	International Boundary Commission, Mexican Section.	Do.
Rio Escondido.....	At Villa Puente, Coahuila, Mexico.	1923-41	.....do.....	Records for 1923-24 and 1925 published in report of International Water Commission, United States and Mexico, U. S. Section (H. Doc. 359, 71st Cong., 2d Sess.) as Rio San Antonio above Puente; records for 1932-41 published in water bulletins of International Boundary Commission.
Rio Grande.....	Below American Dam, near El Paso, Tex.	1938-41	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Do.....	Below Brownsville, Tex. County line station near El Paso, Tex.	1934-41 1938-41	.....do.....	Do. Do.
Do.....	Near Del Rio, Tex.....	†1931-41	.....do.....	Do.
Do.....	Eagle Pass, Tex.....	†1931-41	.....do.....	Do.
Do.....	Near El Paso, Tex.....	†1931-41	.....do.....	Do.
Do.....	Below old Fort Quitman, Tex.	†1931-41	.....do.....	Do.
Do.....	Hidalgo, Tex.....	†1931-41	.....do.....	Do.
Do.....	At Johnson Ranch, Tex..	1936-41	.....do.....	Do.
Do.....	At Island station, near El Paso, Tex.	1938-41	.....do.....	Do.
Do.....	Jaurez, Mexico.....	1938-41	International Boundary Commission, Mexican Section.	Do.
Do.....	Langtry, Tex.....	†1931-41	International Boundary Commission, U. S. Section.	Do.
Do.....	La Nutria, 9.5 miles above Candelaria, Tex.	1935-41	.....do.....	Do.
Do.....	Laredo, Tex.....	†1926-41	International Boundary Commission, Mexican Section.	Do.
Do.....	Leasburg Dam, at Seldon, N. Mex.	1919-41	Bureau of Reclamation.	Unpublished.
Do.....	Matamoras, Tamaulipas, Mexico.	†1926-41	International Boundary Commission, Mexican Section.	Published in water bulletins of International Boundary Commission.
Do.....	Mercedes Bridge station, Tex.	1932-39 (fragmentary)	International Boundary Commission, U. S. Section.	Do.
Do.....	Above Presidio, Tex....	†1926-41	.....do.....	Do.
Do.....	Below Presidio, Tex....	*1926-41	.....do.....	Do.
Do.....	Rio Grande City, Tex....	1932-41	.....do.....	Do.
Do.....	Roma, Tex.....	†1925-28, 1931-41	.....do.....	Do.
Do.....	Zapata, Tex.....	1932-41	.....do.....	Do.
Rio Salado.....	Near Guerrero, Tamaulipas, Mexico.	1924-41	International Boundary Commission, Mexican Section.	Do.
Rio San Diego.....	Jimenez, Coahuila, Mexico.	1924-41	.....do.....	Records for 1924-28 published in report of International Water Commission, United States and Mexico, U. S. Section; records for 1932-41 published in water bulletins of International Boundary Commission.
Rio San Juan.....	Santa Rosalia, Tamaulipas, Mexico.	1923-41	.....do.....	Published in water bulletins of International Boundary Commission.
Rio San Rodrigo...	Near El Moral, Coahuila, Mexico.	1922-41	.....do.....	Records for 1923-24 and 1927-28 published in report of International Water Commission, United States and Mexico, U. S. Section (H. Doc. 359, 71st Cong., 2d Sess.); records for 1932-41 published in water bulletins of International Boundary Commission.

† Records for earlier years published in Geological Survey water-supply papers.

* Records for earlier years published in Geological Survey water-supply papers as Rio Grande near Brownsville, Tex.

Records of discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Collected by	Remarks
San Felipe Creek...	Near Del Rio, Tex.....	1931-41	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Terlingua Creek....	Near Terlingua, Tex.....	1932-41	.....do.....	Do.
West Side Canal....	At Mesilla Dam, near Mesilla Park, N. Mex.	1916-18, 1920-41	Bureau of Reclamation.	Unpublished.

Note.-- The Soil Conservation Service made studies of runoff from 6 areas of less than 100 acres each near Mesquite, Tex.; 35 areas, of which 23 were less than 50 acres and 12 were between 50 and 6,000 acres, near Waco, Tex.; 3 areas of less than 10 acres each near Tyler, Tex.; 3 areas of less than 800 acres each near Santa Fe, N. Mex.; and 3 areas of less than 190 acres each near Albuquerque, N. Mex. The records are in the files of that organization.

COOPERATION

The work in the several States was done under cooperative agreements with the organizations listed below:

Colorado: Office of the State engineer, M. C. Hinderlider.

Louisiana: State Department of Conservation, W. H. Hodges and J. L. McHugh, Jr., commissioners.

New Mexico: State engineer, T. M. McClure, and the Interstate Stream Commission, T. M. McClure, secretary.

Texas: Board of Water Engineers, consisting of C. S. Clark, chairman, A. H. Dunlap, and J. W. Pritchett.

Financial assistance was furnished by the Corps of Engineers, United States Army, in the operation of 63 gaging stations, of which 4 were in Louisiana, 1 in New Mexico, and 58 in Texas.

Financial assistance was also furnished by the Office of Indian Affairs of the United States Department of Interior in the operation of gaging stations on the Indian Pueblo lands in New Mexico.

Acknowledgments are due the Bureau of Reclamation of the United States Department of the Interior, and the Weather Bureau of the United States Department of Commerce for assistance in collecting the records published herein.

Assistance in collecting records was rendered also by the following organizations:

New Mexico: Agua Pura Co., the Alamogordo Community Ditch, the town of Alamogordo, and the New Mexico Power Co.

Texas: Dallas County, the city of Corpus Christi, the city of Houston, the San Antonio Public Service Co., Tarrant County Water Control and Improvement District No. 1, the West Texas Utilities Co., the Lower Colorado River Authority, the Brazos River Conservation and Reclamation District, the Upper Guadalupe River Authority, Red Bluff Water Power Control District, Pecos County Water Improvement District No. 1, and Reeves County Water Improvement District No. 1.

DIVISION OF WORK

The stream-gaging work was conducted by the water resources branch of the Geological Survey -- Glenn L. Parker, chief hydraulic engineer, Carl G. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface waters. The data for the stations in the several States were collected and prepared for publication under the supervision of district engineers as follows: In Colorado, Robert Follansbee, the work being done in collaboration with M. C. Hinderlider, State engineer, and L. T. Burgess, State chief hydrographer; in Louisiana, D. H. Barber until Oct. 31, 1940,

succeeded by acting district engineers H. C. Bolon, Nov. 1, 1940, to July 17, 1941, and E. B. Rice subsequent to July 17, 1941; in New Mexico, Berkeley Johnson; and in Texas, C. E. Ellsworth.

The records were reviewed and the manuscript prepared for publication under the direction of B. J. Peterson, engineer in charge, and M. C. Boyer, associate engineer, section of reports.

CONTRIBUTION

The work in this report was done under cooperative agreements with the following States: California, Office of the State Engineer, M. D. Hildner, District Engineer; Louisiana, Office of the State Engineer, J. J. Hildner, District Engineer; New Mexico, Office of the State Engineer, T. M. Hollister, District Engineer; Texas, Office of the State Engineer, T. M. Hollister, District Engineer; and the District of Columbia, Office of the State Engineer, T. M. Hollister, District Engineer. Financial assistance was furnished by the Office of Engineers, United States Army, in the operation of 22 gaging stations, 4 of which were in Louisiana, 1 in New Mexico, and 16 in Texas. Financial assistance was also furnished by the Office of Indian Affairs of the United States Department of Interior in the operation of gaging stations on the Indian Reservations in New Mexico. Acknowledgments are due the Bureau of Reclamation of the United States Department of the Interior and the Weather Bureau of the United States Department of Commerce for their assistance in collecting the records reviewed and by the following organizations: New Mexico: State Engineer, J. J. Hildner, District Engineer; Louisiana: State Engineer, J. J. Hildner, District Engineer; Texas: State Engineer, T. M. Hollister, District Engineer; and the District of Columbia: State Engineer, T. M. Hollister, District Engineer.

DIVISION OF WORK

The division of work was arranged as follows: The major responsibility of the Division of Work was to review the records and prepare the manuscript for publication. The Division of Work also prepared the report and the report was published under the direction of the Division of Work. The Division of Work also prepared the report and the report was published under the direction of the Division of Work.

MERMENTAU RIVER BASIN

Bayou Nezpique near Basile, La.

Location.- Wire-weight gage, lat. 30°28'50", long. 92°37'55", in NE¼NW¼ sec. 1, T. 7 S., R. 3 W., Louisiana meridian, at bridge on U. S. Highway 190, a quarter of a mile downstream from Missouri Pacific Railroad bridge and 2 miles west of Basile. Datum of gage is 3.60 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge during year, 7,190 second-feet Dec. 17 (gage height, 23.40 feet); minimum observed, 2.6 second-feet Apr. 19 (gage height, 1.73 feet).
1938-41: Maximum discharge, 22,900 second-feet Aug. 11, 1940 (gage height, 31.08 feet); minimum observed, 0.4 second-foot May 15, 1929; minimum gage height, 1.16 feet June 6, 1940.

Remarks.- Records fair. Gage read twice daily. Diversions above station for irrigation.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

		Oct. 1 to June 3				June 4 to Sept. 30							
1.8	4.0	3.3	51	10.1	616	21.5	4,510	2.0	6.0	3.3	39	6.3	416
2.0	8.0	3.7	68	14.1	1,200	22.5	5,810	2.2	9.0	3.7	56	10.3	637
2.2	13	4.3	98	15.5	1,440	23.4	7,190	2.4	13	4.5	98	14.0	1,170
2.5	22	5.1	147	17.5	2,100			2.7	20	5.3	147	15.2	1,370
2.7	28	6.1	223	19.5	2,925			2.9	25	6.3	224	16.0	1,680
2.9	35	8.1	404	20.5	3,510								

Note.- Same as preceding table above 16.0 Feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,900	39	3,600	2,670	1,200	189	250	125	k4,150	502	k1,340	23
2	2,530	78	3,540	2,550	771	134	134	84	4,490	k519	k795	k596
3	k1,650	248	3,340	2,360	764	99	98	66	4,610	k1,290	k343	1,260
4	k1,100	280	3,120	2,080	961	78	80	54	4,280	1,580	180	1,480
5	k608	187	2,840	k1,330	988	62	59	k889	3,840	1,960	95	1,610
6	k332	119	k2,140	k752	678	80	47	k2,780	3,400	2,170	108	1,480
7	109	138	k1,810	k430	694	68	36	k4,210	3,030	2,180	k177	k1,110
8	k65	153	1,680	285	657	76	29	9,900	k2,440	1,910	287	k770
9	104	147	1,530	197	566	109	23	5,310	k2,000	k1,160	384	578
10	91	k1,250	1,520	168	489	118	18	4,860	k1,810	k740	470	534
11	81	k1,670	1,470	144	359	103	14	4,250	1,350	k455	441	703
12	71	2,050	1,400	123	237	81	12	3,660	1,180	k1,170	279	778
13	65	2,430	k2,350	100	184	76	9.6	3,190	1,210	k2,150	135	669
14	60	2,530	k3,380	92	120	70	8.4	k2,500	1,260	k2,720	151	352
15	54	2,460	k5,180	169	94	77	6.0	k1,760	1,200	2,790	220	285
16	47	2,260	6,340	k595	77	117	4.4	k1,120	1,190	3,020	171	417
17	43	1,970	7,160	951	64	136	4.4	k503	1,350	3,280	108	554
18	38	k1,250	6,630	1,200	53	213	4.0	k181	1,480	3,330	68	727
19	30	k728	5,560	1,310	46	316	2.8	40	1,670	3,220	40	765
20	21	k371	4,650	1,300	49	k1,180	1.8	22	1,730	3,060	27	605
21	15	223	3,900	1,810	42	k1,740	1.9	16	1,760	2,940	19	399
22	23	148	3,350	k331	42	k2,370	4.3	12	1,760	2,890	16	241
23	14	116	k2,590	k698	57	k2,780	k373	5.8	1,610	2,860	12	189
24	16	k199	k1,960	568	103	k3,460	750	4.4	1,420	2,860	5.4	k1,200
25	16	k1,130	k1,380	732	210	k2,290	997	4.6	k369	2,840	7.8	k1,930
26	15	k1,800	1,340	k1,360	338	2,670	1,100	4.2	k429	2,800	4.5	k2,770
27	15	k2,580	1,760	1,440	332	2,410	1,120	5.0	371	2,670	18	k3,140
28	13	k3,010	2,180	1,650	275	2,180	1,030	5.9	690	2,480	30	3,080
29	12	3,160	2,830	1,730	-	k1,490	k387	k684	897	2,260	37	3,120
30	9.4	3,450	2,720	1,640	-	k889	k260	k2,210	749	2,050	29	3,030
31	18	-	2,740	1,450	-	k457	-	k3,450	-	1,820	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	10,355.4	2,900	9.4	334	20,540
November	36,132.4	3,450	39	1,204	71,670
December	95,650	7,160	1,340	3,085	189,700
Calendar year 1940	592,482.4	22,700	.5	1,619	1,175,000
January	32,120	2,670	92	1,036	63,710
February	10,630	1,200	42	380	21,080
March	28,927	3,480	50	856	61,430
April	7,103.6	1,120	2.8	237	14,090
May	47,132	5,310	4.2	1,520	93,480
June	58,325	4,610	371	1,944	115,700
July	67,656	3,330	455	2,182	134,200
August	5,993.7	1,340	4.5	193	11,890
September	34,295	3,140	23	1,143	68,020
Water year 1940-41	431,319.7	7,160	2.8	1,182	855,500

k Computed by using rate of change of stage as a factor.

MERMENTAU RIVER BASIN

Bayou Des Cannes near Eunice, La.

Location.- Water-stage recorder, lat. 30°29'00", long. 92°29'25", in SW $\frac{1}{4}$ sec. 32, T. 6 S., R. 1 W., Louisiana meridian, at bridge on U. S. Highway 190, 3 miles downstream from Missouri Pacific Railroad bridge and 4 miles west of Eunice. Datum of gage is 14.84 feet above mean sea level, datum of 1929 (Louisiana Geodetic Survey bench mark; levels by Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge during year, 5,410 second-feet June 1 (gage height, 18.50 feet); minimum, 0.3 second-foot May 24, 25; minimum gage height, 1.52 feet May 25.
1938-41: Maximum discharge, 9,520 second-feet Aug. 10, 1940 (gage height, 21.13 feet); no flow May 7, 10-18, and July 10, 1939.

Remarks.- Records fair. Diversions above station for irrigation. Some regulation May to October by small irrigation diversion dams.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	691	27	648	510	32	31	16	15	5,100	17	23	23
2	265	76	344	138	70	19	12	8.8	3,200	20	18	95
3	68	70	305	45	248	13	9.4	5.4	1,700	54	12	152
4	28	66	249	38	309	10	7.6	3.9	1,200	257	9.2	169
5	18	50	148	37	224	8.4	6.5	607	819	370	10	196
6	13	34	78	30	111	9.2	5.2	1,360	362	294	12	163
7	13	26	183	24	70	59	4.9	2,020	147	130	37	117
8	13	19	548	21	56	303	4.1	2,090	153	51	74	85
9	11	16	684	20	48	316	3.6	1,430	291	21	47	72
10	9.5	1,070	722	19	42	154	3.3	1,060	297	10	32	55
11	8.0	1,700	623	18	28	54	3.2	574	185	11	20	51
12	6.5	2,780	324	17	18	23	2.8	133	203	581	14	52
13	5.8	2,440	849	15	13	18	2.8	32	263	1,170	14	47
14	4.9	1,670	1,750	19	11	52	4.2	20	209	1,910	11	34
15	4.6	1,280	3,490	122	9.0	41	3.8	12	88	1,710	6.3	36
16	4.0	967	2,520	507	8.0	21	3.2	6.1	176	1,320	3.0	55
17	3.2	530	1,620	714	7.0	17	2.5	3.6	298	1,070	6.6	58
18	2.8	161	1,290	774	6.3	14	2.0	2.1	397	794	5.4	54
19	2.4	46	1,020	725	5.7	14	1.8	1.5	431	465	3.9	57
20	2.1	24	770	464	7.2	522	5.7	1.2	342	253	3.3	33
21	2.0	18	216	138	12	872	1.5	1.1	217	214	1.8	18
22	1.8	16	58	42	13	1,090	1.64	.6	132	315	1.4	10
23	1.6	15	33	25	11	1,250	450	.4	161	176	1.5	7.2
24	1.5	15	25	50	41	1,060	914	.3	170	146	2.8	622
25	1.3	347	110	197	62	673	1,220	.3	76	93	2.5	954
26	1.1	813	673	518	90	196	1,430	.9	33	61	2.5	790
27	1.1	1,060	991	688	87	44	1,210	2.8	32	215	3.2	612
28	1.8	1,360	1,490	706	56	26	880	50	55	268	5.2	415
29	2.4	1,250	1,600	588	-	20	357	264	44	137	7.9	226
30	2.0	1,000	1,260	282	-	17	69	1,160	28	69	14	94
31	5.2	-	950	79	-	18	-	3,450	-	39	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,195.6	691	1.1	38.6	2,370
November.....	18,946	2,780	15	632	37,580
December.....	25,581	3,490	25	825	50,740
Calendar year 1940.....	200,531.1	9,350	.2	548	397,746
January.....	7,570	774	15	244	15,010
February.....	1,695.2	309	5.7	60.5	3,360
March.....	6,964.6	1,250	8.4	225	13,810
April.....	6,813.6	1,430	1.8	227	13,510
May.....	14,336.0	3,450	.3	462	28,440
June.....	16,811	5,100	28	560	33,340
July.....	12,261	1,910	10	396	24,320
August.....	420.5	74	1.4	13.6	834
September.....	5,352.2	954	7.2	178	10,620
Water year 1940-41.....	117,946.7	5,100	.3	323	233,934

Calcasieu River near Oberlin, La.

Location.- Water-stage recorder, lat. 30°39'25", long. 92°48'50", in NW¼ sec. 7, T. 5 S., R. 4 W., Louisiana meridian, at bridge on State Highway 52, 3 miles northwest of Oberlin and 15 miles upstream from Whiskey Chitto Creek. Datum of gage is 39.45 feet (revised) above mean sea level, datum of 1929 (Louisiana Geodetic Survey bench mark).

Drainage area.- 753 square miles.

Records available.- August 1922 to January 1925, September 1938 to September 1941.

Extremes.- Maximum discharge during year, 18,000 second-feet Nov. 29 (gage height, 19.39 feet); minimum, 70 second-feet Oct. 27, 28 (gage height, 3.58 feet).
1922-25, 1938-41: Maximum discharge, 34,700 second-feet Apr. 7, 1923 (gage height, 18.48 feet, datum then in use), from rating curve extended above 14,000 second-feet; minimum, 42 second-feet Aug. 18, 1924.

Remarks.- Records good. Water used by paper mill at Elizabeth is pumped from wells and later discharged into Mill Creek about 20 miles above station. This discharge, estimated to be about 5 second-feet, is continuous and fairly constant.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 27						Jan. 28 to Sept. 30			
3.6	71	8.6	851	15.6	5,210	4.8	163	8.6	1,020
4.4	115	9.8	1,260	16.2	6,540	5.4	234	10.5	1,660
5.0	163	11.6	2,000	17.0	8,980	5.8	297	12.0	2,240
5.6	234	13.1	2,780	19.2	17,300	6.6	476	13.1	2,780
6.2	330	14.2	3,500						
7.6	601	15.0	4,280						

Note.- Same as preceding table above 13.1 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	145	97	9,480	2,290	1,290	1,070	1,820	704	3,660	1,870	2,500	204
2	136	290	7,080	3,460	1,400	1,160	1,500	782	3,110	1,670	2,140	434
3	126	469	5,580	4,730	1,780	1,240	1,090	827	3,460	2,200	1,820	1,350
4	116	564	4,410	4,080	1,830	1,290	782	796	3,660	2,770	1,870	1,350
5	108	380	3,570	3,360	1,620	1,300	615	1,180	4,010	3,680	1,460	861
6	102	181	2,990	2,860	1,390	1,280	575	3,620	3,790	4,140	1,440	534
7	98	140	2,690	2,470	1,260	1,200	508	4,180	3,270	3,120	1,590	392
8	94	123	2,820	2,120	1,200	998	454	6,390	3,360	5,630	1,470	342
9	90	114	2,790	1,780	1,110	743	402	12,000	3,360	7,900	1,170	315
10	88	184	2,560	1,410	1,060	557	402	13,900	2,800	6,120	1,090	293
11	85	330	2,210	1,090	1,020	491	396	10,700	2,680	4,620	941	274
12	83	558	2,140	871	998	486	334	7,050	2,840	3,750	796	252
13	82	673	5,610	745	975	570	268	4,910	2,610	3,280	768	233
14	80	768	11,400	666	938	669	230	3,610	2,460	2,960	782	221
15	79	895	10,900	678	899	718	206	2,920	2,800	3,090	718	222
16	77	745	10,200	1,160	813	827	188	2,440	3,350	2,590	653	237
17	76	571	11,200	1,980	701	1,030	175	2,050	4,660	2,280	609	251
18	76	540	10,900	2,150	585	1,100	166	1,610	4,860	2,220	578	257
19	75	558	8,310	1,800	464	1,100	168	1,040	5,250	1,910	526	225
20	74	596	6,150	1,220	418	1,680	168	612	4,760	2,110	446	207
21	74	631	4,670	1,020	466	2,630	157	409	3,960	3,060	377	196
22	74	673	3,740	1,010	496	2,900	155	311	3,390	3,480	305	186
23	73	705	3,140	1,080	486	2,680	169	288	2,910	3,560	283	182
24	72	1,970	2,720	1,230	604	2,090	492	229	2,270	4,140	266	372
25	72	3,680	2,360	1,570	771	1,680	346	207	1,910	4,340	252	838
26	72	6,390	2,720	1,860	864	1,360	251	192	1,670	4,940	245	963
27	70	8,150	3,580	2,200	921	1,340	284	178	1,620	4,730	233	796
28	70	13,900	3,770	2,150	986	1,400	381	185	2,540	4,680	221	466
29	72	17,500	3,650	1,840	-	1,540	488	652	2,640	3,930	218	351
30	71	13,700	3,180	1,570	-	1,730	604	2,750	2,240	3,340	211	342
31	74	-	2,520	1,390	-	1,900	-	4,120	-	2,870	207	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,684	145	70	86.6	5,320
November	76,065	17,500	97	2,536	150,900
December	169,040	11,400	2,140	5,130	315,600
Calendar year 1940	672,633	18,400	70	1,838	1,334,000
January	57,820	4,730	666	1,865	114,700
February	27,325	1,830	418	976	54,200
March	40,649	2,900	451	1,311	80,630
April	13,744	1,820	155	458	27,260
May	90,812	13,900	178	2,929	180,100
June	95,890	5,250	1,620	3,196	190,200
July	110,790	7,900	1,670	3,674	219,700
August	26,885	2,500	207	835	51,540
September	13,146	1,350	162	438	26,070
Water year 1940-41	713,850	17,500	70	1,956	1,416,000

Note.- Discharge computed on basis of partly estimated gage-height record June 11-16, June 22 to July 5, July 7, 8, 13-21, 26, 30-31, Aug. 6, 7, 20-22, 27-28, Sept. 1, 10, 11, 16, 17, 22, 24-26.

Calcasieu River near Kinder, La.

Location.- Water-stage recorder, lat. 30°30'10", long. 92°54'55", in N45E½ sec. 30, T. 8 S., R. 5 W., Louisiana meridian, at bridge on State Highway 7, 0.5 mile downstream from Whiskey Chitto Creek and 4 miles west of Kinder. Datum of gage is 12.02 feet above mean sea level, datum of 1929 (Louisiana Geodetic Survey bench mark; levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,700 square miles.

Records available.- August 1922 to January 1925, October 1938 to September 1941.

Extremes.- Maximum discharge during year, 33,000 second-feet Nov. 27 (gage height, 20.32 feet); minimum, 444 second-feet Oct. 28 (gage height, 2.97 feet).
1922-25, 1938-41: Maximum discharge, 68,000 second-feet Jan. 23, 1924 (gage height, 21.69 feet, datum then in use), from rating curve extended above 40,000 second-feet; minimum, 200 second-feet Aug. 9, 10, 1924 (gage height, 0.81 foot, datum then in use).

Remarks.- Records good. Water used by paper mill at Elizabeth is pumped from wells and later discharged into Mill Creek about 36 miles above station. This discharge, estimated to be about 5 second-feet, is continuous and fairly constant. Diversion from left bank of Calcasieu River 5 miles above station for irrigation.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Temporary shift curve used Oct. 1 to Nov. 13)

4.0	695	11.5	4,200	15.6	10,600
5.0	1,050	13.0	5,600	16.8	15,000
7.0	1,870	14.0	6,910	18.0	20,400
10.0	3,270	14.8	8,470	20.1	31,700

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	708	693	22,600	8,570	2,630	2,130	2,880	1,180	19,900	5,300	k4,270	677
2	666	k2,300	16,800	7,100	2,730	2,090	2,740	1,280	16,800	4,870	k3,580	1,020
3	632	k3,260	19,000	6,860	3,220	2,100	2,430	1,330	13,300	4,250	3,200	1,610
4	600	3,680	9,130	6,860	3,510	2,120	1,970	1,370	11,200	k6,310	2,720	2,070
5	580	3,700	7,380	5,900	3,530	2,110	1,700	k2,310	9,150	7,790	2,380	2,010
6	560	k1,850	6,050	5,380	3,280	2,110	1,730	k6,300	k5,250	9,030	2,240	1,620
7	560	1,020	5,170	4,780	2,940	2,090	1,600	k13,800	5,570	9,450	2,530	1,260
8	540	812	5,350	4,250	2,810	2,000	1,390	24,200	5,730	8,360	2,960	1,050
9	522	764	6,210	3,840	2,700	2,080	1,260	21,300	6,220	7,760	2,760	886
10	522	1,140	6,430	3,420	2,630	2,010	1,150	20,900	6,610	8,330	2,530	978
11	518	1,760	6,050	3,000	2,310	1,660	1,120	20,800	6,820	7,890	2,270	978
12	514	k3,460	5,490	2,620	2,140	1,450	1,050	k14,800	7,330	7,650	1,840	921
13	498	3,750	k9,940	2,320	2,040	1,410	975	k12,300	8,260	8,360	2,010	928
14	494	3,790	k19,400	2,150	1,960	1,490	876	k6,600	8,810	8,240	2,350	890
15	490	3,850	26,600	2,300	1,880	1,680	830	k6,070	9,420	8,110	2,180	830
16	482	3,940	26,400	k3,340	1,800	1,890	792	k3,970	10,000	8,470	1,920	1,220
17	474	k2,840	22,400	k4,940	1,690	2,100	780	k3,220	10,600	8,360	1,560	1,220
18	472	2,030	20,300	6,410	1,640	2,420	739	2,850	11,400	8,060	1,370	1,070
19	468	1,830	18,000	6,830	1,410	2,470	723	2,230	11,300	7,350	1,210	963
20	468	1,530	14,200	k4,410	1,360	k3,670	739	1,630	10,800	k4,750	1,070	816
21	466	1,510	9,970	k3,260	1,470	k5,760	720	1,130	9,420	4,290	959	730
22	460	1,520	7,570	2,860	1,960	6,860	709	947	8,450	4,870	886	689
23	458	1,690	6,230	2,700	2,180	7,090	760	844	7,380	5,660	823	706
24	452	k3,940	6,210	2,700	2,200	6,680	967	776	k5,650	6,260	806	1,880
25	455	k9,060	4,430	3,040	2,210	5,770	1,280	730	k4,830	7,220	784	3,000
26	455	k20,200	k6,670	k4,020	2,280	k4,040	1,210	708	k3,990	8,110	723	3,180
27	448	31,700	k8,580	4,580	2,320	k3,040	1,310	671	3,790	9,030	723	2,960
28	446	26,900	10,600	4,860	2,240	2,790	1,200	736	k6,220	9,650	706	2,440
29	468	26,800	10,700	4,340	-	2,710	1,110	k1,840	5,950	8,600	709	1,760
30	465	26,900	9,970	k3,320	-	2,800	1,130	k5,780	5,640	8,200	663	1,310
31	476	-	9,450	2,970	-	2,870	-	k13,700	-	k6,590	686	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	16,790	708	446	509	31,380
November	200,239	31,700	764	6,675	397,200
December	354,180	26,500	4,430	11,430	702,500
Calendar year 1940	1,680,602	60,800	446	4,319	3,135,000
January	130,910	8,570	2,150	4,223	269,700
February	64,870	3,530	1,360	2,317	128,700
March	91,380	7,090	1,410	2,948	181,200
April	37,840	2,880	709	1,261	75,060
May	195,102	24,200	671	6,294	387,000
June	255,290	19,900	3,790	8,510	506,400
July	227,080	9,650	4,250	7,325	460,400
August	55,388	4,270	823	1,787	109,900
September	41,772	3,180	677	1,392	82,850
Water year 1940-41	1,669,821	31,700	446	4,575	3,312,000

k Computed by using rate of change of stage as a factor.

Whiskey Chitto Creek near Oberlin, La.

Location.- Wire-weight gage, lat. 30°41'55", long. 92°53'35", in NE¼NE¼ sec. 20, T. 4 S., R. 5 W., Louisiana meridian, at bridge on State Highway 52, 1 mile downstream from Tenmile Creek, 8 miles upstream from Bundick Creek, and 10 miles northwest of Oberlin.

Drainage area.- 510 square miles.

Records available.- January 1939 to September 1941.

Extremes.- Maximum discharge during year, 16,300 second-feet May 7 (gage height, 21.30 feet, from graph based on gage readings); minimum, 199 second-feet Oct. 23 (gage height, 4.63 feet).

1939-41: Maximum discharge, 35,000 second-feet Aug. 9, 1940 (gage height, 23.42 feet); minimum observed, 102 second-feet Sept. 19, 1939 (gage height, 3.72 feet).

Maximum stage known, about 25.7 feet in June 1886, from floodmarks preserved by local residents.

Remarks.- Records fair. Gage read twice daily.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 22				Mar. 23 to Sept. 30			
4.7	210	10.6	1,760	5.1	274	15.8	4,360
6.0	425	13.6	3,020	6.1	462	17.2	5,630
7.2	662	15.4	4,060	7.1	677	18.2	7,050
8.6	1,050	17.0	5,410	8.6	1,070	19.2	9,030
Note.- Same as following table above 16.0 feet.				10.5	1,830	20.2	12,050
				14.0	3,350		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	309	882	3,120	2,530	610	540	576	365	5,770	1,480	744	331
2	293	2,270	2,240	1,350	700	500	560	362	5,820	1,020	657	372
3	277	2,470	1,540	1,060	794	475	547	346	4,490	2,020	576	407
4	261	1,770	1,240	942	954	461	572	358	3,150	3,220	536	486
5	258	889	927	913	948	454	785	1,160	1,420	3,810	532	549
6	242	576	728	864	767	447	645	3,310	769	3,760	697	464
7	248	425	881	855	700	432	510	12,900	962	3,310	1,240	387
8	252	309	1,670	838	757	521	454	9,200	2,020	2,600	798	288
9	234	290	2,130	811	773	664	428	6,000	2,480	1,220	760	336
10	234	494	1,990	746	698	597	411	4,560	2,480	809	731	362
11	226	852	1,610	662	532	490	400	2,860	2,820	758	570	390
12	229	1,790	2,010	627	548	457	378	1,090	3,650	1,030	805	482
13	226	2,020	4,800	601	528	448	367	747	3,960	1,670	1,490	944
14	226	2,130	8,010	599	502	509	358	633	4,540	1,940	1,110	367
15	224	2,150	9,060	726	490	644	351	567	4,240	2,220	782	331
16	218	1,620	6,920	1,460	485	633	344	514	3,810	2,730	538	355
17	218	691	5,460	2,180	472	723	338	474	3,820	2,820	458	369
18	218	544	4,250	1,920	454	762	334	448	3,170	2,200	428	369
19	216	490	2,940	1,640	447	619	331	426	2,450	1,240	409	390
20	216	457	1,680	1,160	475	1,140	354	409	1,510	1,030	390	336
21	215	416	1,200	767	695	2,180	324	394	1,640	1,360	376	310
22	208	528	1,010	696	924	2,340	341	376	1,490	1,640	365	292
23	200	1,300	910	653	875	2,330	394	360	1,420	2,220	351	271
24	204	2,490	822	681	681	2,140	396	348	1,710	3,020	367	524
25	204	4,670	767	1,280	644	1,510	534	334	1,560	3,490	344	828
26	202	9,780	1,690	1,660	715	831	715	326	1,060	3,850	338	867
27	202	11,400	3,170	1,720	715	728	642	317	1,180	4,120	351	820
28	204	7,730	3,680	1,390	601	705	448	331	1,950	3,740	355	642
29	207	5,760	3,810	872	-	747	385	506	1,890	2,760	343	436
30	208	4,410	4,240	710	-	588	360	2,140	1,850	1,570	332	380
31	208	-	3,660	638	-	590	-	4,690	-	895	329	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	7,086	309	200	229	0.449	0.52	14,050
November	71,603	11,400	290	2,387	4.68	5.22	142,000
December	88,165	9,060	728	2,844	5.58	6.43	174,900
Calendar year 1940	479,397	30,200	194	1,310	2.57	34.96	980,900
January	33,551	2,530	599	1,082	2.12	2.45	66,560
February	18,486	954	447	660	1.29	1.55	36,660
March	26,406	2,340	432	862	1.67	1.93	52,370
April	13,562	785	324	452	.886	.99	26,900
May	58,928	12,900	317	1,836	3.60	4.15	112,900
June	79,091	5,820	769	2,656	5.17	5.77	156,900
July	69,462	4,120	758	2,240	4.39	5.06	137,800
August	18,082	1,490	329	583	1.14	1.32	35,870
September	15,736	944	271	458	.898	1.00	27,240
Water year 1940-41	496,146	12,900	200	1,359	2.66	36.19	984,100

Bundick Creek near Dry Creek, La.

Location.- Wire-weight gage, lat. 30°40'55", long. 93°02'15", in sec. 25, T. 4 S., R. 7 W., Louisiana meridian, at bridge on State Highway 251, 1 mile northeast of Dry Creek and 8 miles upstream from Whiskey Chitto Creek.

Drainage area.- 238 square miles.

Records available.- January 1939 to September 1941.

Extremes.- Maximum discharge during year, 11,600 second-feet Nov. 26 (gage height, 24.41 feet, from graph based on gage readings); minimum, 75 second-feet Oct. 24-26 (gage height, 10.31 feet).

1939-41: Maximum discharge, 22,000 second-feet Aug. 10, 1940 (gage height, 26.28 feet, from high-water mark); minimum, 49 second-feet on many days in September and October 1939; minimum gage height, 9.69 feet Sept. 24, 25, 1939.

Remarks.- Records fair. Gage read twice daily.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

10.4	83	18.6	1,290	22.0	4,220
11.2	155	19.6	1,620	23.0	6,750
12.0	262	20.4	2,050	24.0	10,000
13.6	458	20.9	2,460		
17.0	980	21.4	3,130		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	1,090	1,100	1,020	262	267	252	121	3,980	916	215	199
2	94	1,300	624	545	308	234	238	123	2,380	522	184	116
3	90	1,580	584	462	497	215	232	123	1,880	568	168	118
4	88	1,510	510	455	506	204	229	120	1,240	1,360	155	155
5	85	560	408	429	443	194	262	967	435	1,560	163	a220
6	84	220	366	432	375	190	247	8,620	306	1,360	242	a200
7	85	171	547	439	378	203	237	6,150	298	1,140	334	a190
8	81	147	1,060	424	383	397	194	3,350	761	732	564	a180
9	81	135	1,080	389	349	485	167	2,210	969	337	606	a170
10	81	250	1,090	360	312	374	153	1,680	1,130	310	490	a160
11	81	921	1,040	343	275	286	144	853	1,630	345	334	156
12	78	945	1,190	307	244	230	139	332	2,000	1,030	240	158
13	78	961	3,250	287	229	247	135	260	2,850	1,440	200	184
14	78	998	5,310	302	219	270	128	228	2,520	1,760	312	150
15	78	1,000	4,290	506	211	299	126	198	1,940	2,060	540	124
16	78	608	2,790	1,160	203	337	123	178	1,610	2,220	381	122
17	78	277	2,110	1,160	194	428	121	161	2,130	1,930	192	131
18	77	219	1,610	1,000	185	391	118	151	2,260	1,510	168	148
19	76	194	961	776	181	341	118	141	1,920	900	143	140
20	78	181	563	508	238	744	118	136	1,540	558	133	123
21	77	173	461	376	482	1,220	116	130	1,220	410	116	111
22	76	287	408	324	540	1,210	120	126	1,120	570	117	107
23	76	406	375	365	458	1,260	126	123	738	644	121	a105
24	75	2,000	350	444	398	1,280	139	120	839	770	118	a200
25	75	6,750	330	524	419	998	160	116	878	766	113	a450
26	76	10,100	1,060	712	406	460	207	112	644	596	115	a540
27	76	5,880	1,590	726	355	353	232	109	530	536	120	503
28	76	3,370	1,640	512	310	347	188	123	755	539	120	466
29	83	2,270	1,760	370	-	347	137	444	902	426	118	317
30	85	1,770	1,870	309	-	315	124	3,560	966	341	114	192
31	196	-	1,640	277	-	280	-	7,010	-	262	111	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,620	196	75	84.5	0.355	0.41	5,200
November	46,263	10,100	135	1,542	6.48	7.23	91,760
December	41,947	5,310	330	1,353	5.68	6.55	83,200
Calendar year 1940	247,400	17,700	66	676	2.84	38.65	490,700
January	16,245	1,160	277	524	2.20	2.54	32,220
February	9,360	540	181	334	1.40	1.46	18,570
March	14,406	1,280	190	465	1.95	2.25	28,570
April	5,028	262	116	168	.708	.79	9,970
May	38,072	8,620	109	1,228	5.16	5.95	75,510
June	42,401	3,980	298	1,413	5.94	6.63	84,100
July	28,418	2,220	262	917	3.85	4.44	56,370
August	7,027	606	111	227	.954	1.10	13,940
September	6,145	540	105	205	.861	.96	12,190
Water year 1940-41	257,932	10,100	75	707	2.97	40.31	511,600

a No gage-height record; discharge computed on basis of records for nearby stations.

Sabine River near Mineola, Tex.

Location.- Water-stage recorder, lat. 32°36'45", long. 95°29'10", at bridge on U. S. Highway 69, 3.2 miles south of Mineola, Wood County, 4.5 miles upstream from bridge of International-Great Northern Railroad, and 16.5 miles upstream from Lake Fork of Sabine River. Datum of gage is 304.2 feet above mean sea level, datum of 1929.

Drainage area.- 1,445 square miles.

Records available.- May 1939 to September 1941.

Extremes.- Maximum discharge during year, 16,900 second-feet June 14 (gage height, 18.59 feet); minimum, 0.4 second-foot Oct. 22.

1939-41: Maximum discharge, that of June 14, 1941; no flow at times.

Maximum stage since about 1919, 20.6 feet on Jan. 25, 1938, according to information furnished by local resident.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No large diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	662	a5,200	6,640	238	2,170	261	4,260	22	1,470	13	1,040
2	3.2	460	a4,420	4,810	753	2,230	320	3,630	62	1,000	11	456
3	2.4	216	3,690	3,470	1,350	2,230	414	3,380	195	716	8.5	139
4	1.9	111	2,340	a2,220	1,600	2,050	521	4,460	488	1,150	7.5	56
5	1.7	66	1,250	a1,300	1,800	1,460	400	9,780	796	1,090	6.9	33
6	1.5	40	534	a866	2,050	940	217	8,660	1,100	904	6.1	22
7	1.6	29	209	a492	2,630	1,690	183	7,080	2,690	704	5.3	16
8	1.4	161	135	290	2,860	2,630	270	7,540	4,520	396	5.3	12
9	1.3	755	111	203	2,120	3,240	340	11,700	5,350	160	5.5	10
10	1.1	904	93	169	1,130	6,480	548	10,900	4,810	81	5.9	9.8
11	1.1		93	144	460	8,030	760	8,580	4,520	58	7.3	9.5
12	1.1		144	129	191	5,540	728	6,200	5,540	63	6.1	8.5
13	1.0		259	123	135	4,030	402	4,360	8,500	90	5.3	8.0
14	1.0		606	241	114	2,660	180	2,800	15,800	136	11	7.8
15	1.1		1,140	461	96	1,420	114	1,720	14,500	262	17	7.3
16	1.0	a860	1,760	437	81	652	206	888	12,100	594	13	6.3
17	.7		2,420	381	74	362	370	313	9,300	860	9.8	5.3
18	.6		3,800	381	70	225	216	126	7,080	1,000	7.3	4.3
19	.5		8,710	310	68	166	162	81	6,480	1,040	5.7	3.6
20	.5		9,060	207	174	144	172	64	6,110	980	4.1	2.8
21	.4		6,530	155	393	138	155	54	5,330	674	3.0	2.4
22	.4		4,810	126	461	129	117	47	4,380	437	180	2.1
23	.4		3,350	111	530	396	190	96	3,040	545	346	2.0
24	.4		1,920	99	1,210	967	664	361	1,730	545	146	305
25	.5		970	90	1,720	1,090	1,140	388	758	292	68	597
26	.5	a4,400	1,820	200	1,950	1,160	1,570	199	226	118	500	473
27	.6		3,690	580	2,170	1,140	1,950	86	376	76	1,070	225
28	.6		4,970	850	2,170	876	2,780	50	3,830	49	1,560	89
29	.6		5,740	868	-	-	491	4,380	37	3,020	31	1,950
30	251		9,700	600	-	290	4,810	29	2,050	23	2,050	52
31	784		9,780	336	-	212	-	25	-	18	1,670	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,068.9	784	0.4	34.5	2,120
November.....	52,454	-	29	1,748	104,000
December.....	99,254	9,780	93	3,202	196,900
Calendar year 1940.....	318,169.7	9,780	0	869	631,100
January.....	27,311	6,640	90	881	54,170
February.....	28,598	2,860	68	1,021	56,720
March.....	55,238	8,030	129	1,732	109,600
April.....	24,540	4,810	114	818	48,670
May.....	97,894	11,700	25	3,168	194,200
June.....	134,683	15,800	22	4,489	267,100
July.....	15,541	1,470	18	501	30,830
August.....	9,704.6	2,050	3.0	313	19,250
September.....	3,638.7	1,040	2.0	121	7,220
Water year 1940-41.....	549,925.2	15,800	.4	1,507	1,091,000

a No gage-height record; discharge computed on basis of records for nearby stations and weather records.

Sabine River near Gladewater, Tex.

Location.- Water-stage recorder, lat. 32°32', long. 94°57', at bridge on U. S. Highway 271, half a mile downstream from Glade Creek and 1 mile southwest of Gladewater, Gregg County. Datum of gage is 243.65 feet above mean sea level (Texas Reclamation Department bench mark).

Drainage area.- 2,846 square miles.

Records available.- October 1932 to September 1941.

Extremes.- Maximum discharge during year, 21,000 second-feet June 19 (gage height, 34.75 feet); minimum, 34 second-feet Oct. 28.

1932-41: Maximum discharge, 40,600 second-feet Jan. 28, 1938 (gage height, 38.34 feet); minimum, 5.6 second-feet Aug. 18, 1939.

Maximum discharge known, 48,500 second-feet in January 1932 (gage height, 39.4 feet from floodmarks), from rating curve extended above 40,000 second-feet.

Remarks.- Records fair. Small diversions above station for oil field operations and municipal supply.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	186	1,020	7,440	8,240	1,870	3,460	2,060	3,390	306	6,010	214	1,840
2	124	1,460	8,800	10,400	2,060	3,660	1,680	3,900	456	5,660	a185	1,980
3	98	1,660	9,890	14,000	2,030	3,830	2,330	4,380	711	5,300	a163	1,890
4	83	1,480	10,600	14,900	2,060	3,970	4,180	4,830	810	4,790	a146	1,390
5	72	1,190	10,400	14,000	2,260	4,080	3,930	5,170	850	4,140	a136	696
6	67	830	9,750	11,300	2,510	4,300	3,330	5,660	890	3,320	a127	315
7	84	540	9,300	9,210	2,760	5,040	3,080	6,140	1,730	2,510	a120	204
8	73	360	8,560	8,000	3,020	5,440	2,620	6,360	3,390	1,870	a119	165
9	66	351	7,580	6,970	3,360	5,460	2,400	6,340	3,930	1,340	a129	193
10	66	734	6,730	5,740	3,690	5,440	1,920	7,320	4,580	972	a161	207
11	61	1,190	5,740	4,580	3,970	5,520	1,680	8,000	5,570	692	a149	202
12	57	1,480	4,540	2,840	4,150	5,790	1,530	8,880	5,920	994	141	183
13	55	1,560	3,520	1,870	3,690	6,320	1,630	10,000	6,270	1,390	124	154
14	51	1,530	2,680	1,340	2,660	7,270	1,660	11,600	6,640	1,510	166	141
15	46	1,480	2,480	1,100	1,690	8,480	1,430	11,800	7,070	1,460	306	134
16	44	1,460	3,300	1,100	972	9,210	1,040	11,000	7,880	1,390	970	130
17	43	1,430	3,590	1,150	873	9,210	810	9,890	10,300	1,480	192	128
18	42	1,360	3,660	1,130	597	8,720	790	9,040	16,900	1,560	154	116
19	41	1,190	3,720	1,080	578	7,790	890	8,160	20,600	1,630	129	103
20	39	870	3,830	994	711	6,680	890	7,170	20,200	1,790	112	96
21	39	559	4,080	950	810	5,420	770	6,080	18,200	1,980	100	87
22	38	502	4,660	890	994	3,800	730	4,420	15,600	2,120	1,120	80
23	36	1,720	5,520	850	1,340	2,700	843	2,670	13,200	2,120	2,510	76
24	36	4,460	6,320	790	2,000	2,510	1,040	1,070	11,800	1,880	1,680	222
25	36	5,570	6,970	730	2,510	2,340	1,060	474	9,690	1,340	1,270	502
26	34	6,010	7,580	750	2,840	2,370	1,390	502	8,960	1,040	890	905
27	35	6,180	8,540	790	3,080	2,510	1,690	730	8,160	770	502	1,690
28	53	6,230	8,720	850	3,260	2,680	1,980	502	7,790	521	635	1,760
29	104	6,360	8,320	1,100	-	2,790	2,340	398	7,070	398	972	1,360
30	87	6,680	7,930	1,430	-	2,730	2,790	342	6,460	306	1,310	770
31	249	-	7,650	1,710	-	2,660	-	324	-	252	1,630	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,147	249	34	69.3	4,260
November	67,366	6,680	351	2,246	135,600
December	202,600	10,600	2,480	6,532	401,700
Calendar year 1940	577,190	10,600	24	5,777	1,145,000
January	130,584	14,900	730	4,212	259,000
February	62,045	4,150	578	2,216	123,100
March	162,100	9,210	2,340	4,906	301,700
April	54,513	4,180	730	1,817	108,100
May	166,732	11,600	324	5,378	330,700
June	231,822	20,600	306	7,727	459,800
July	62,465	6,010	252	2,015	123,900
August	15,762	2,510	100	508	31,260
September	17,604	1,980	76	587	34,920
Water year 1940-41	1,165,640	20,600	34	3,194	2,312,000

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.
f Fragmentary gage-height record; discharge computed from partly estimated gage height.

Sabine River near Tatum, Tex.

Location.- Wire-weight gage, lat. 32°22', long. 94°28', on bridge on State Highway 43, 5 miles upstream from Potter Creek, 5.2 miles northeast of Tatum, Rusk County, and 7 miles downstream from Cherokee Bayou. Datum of gage is 204.2 feet above mean sea level, datum of 1929, (levels by Corps of Engineers, U. S. Army).

Drainage area.- 3,586 square miles.

Records available.- January 1939 to September 1941.

Extremes.- Maximum discharge observed during year, 13,800 second-feet Nov. 25 (gage height, 25.65 feet); minimum observed, 46 second-feet Oct. 27-30.

1939-41: Maximum discharge, that of Nov. 25, 1940; minimum observed, 9.1 second-feet Oct. 9, 1939.

Maximum stage known, about 32 feet in May 1884, according to information furnished by local residents.

Remarks.- Records good. Gage read twice daily and oftener during high water. Several small diversions above station for oil field operations and municipal supply.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	642	556	8,010	10,700	2,220	4,150	3,630	2,920	716	10,800	500	1,730
2	377	1,310	7,350	11,000	2,920	4,050	3,270	3,270	690	10,700	478	1,810
3	413	1,860	6,990	11,000	3,580	4,050	3,630	3,470	928	9,650	377	1,810
4	179	1,620	6,790	10,800	3,580	4,100	5,580	3,840	1,220	8,650	352	1,730
5	144	1,580	6,790	10,300	3,420	4,150	5,980	4,370	1,250	7,430	345	1,040
6	123	1,380	6,990	10,300	3,320	4,370	5,920	5,520	1,220	7,270	330	956
7	119	1,250	6,370	10,500	3,270	5,580	5,580	6,790	1,770	8,450	323	713
8	123	928	6,860	10,800	3,270	6,460	5,150	7,750	2,630	5,690	330	479
9	152	666	10,500	11,000	3,320	6,790	4,640	8,100	3,420	4,690	323	232
10	139	690	11,000	11,200	3,470	6,990	4,100	7,830	3,990	3,120	323	232
11	119	820	11,000	10,900	3,680	6,660	3,370	7,430	5,130	2,050	338	232
12	106	1,190	10,900	10,400	3,840	6,340	2,630	7,130	5,410	1,930	302	232
13	92	1,440	10,700	9,970	3,980	6,160	2,180	6,990	5,410	2,360	295	232
14	72	1,580	10,300	9,180	4,100	5,980	2,100	6,920	5,410	2,690	281	232
15	80	1,650	9,770	7,670	3,940	5,920	2,100	6,990	5,630	2,540	274	232
16	85	1,510	9,970	6,790	3,630	5,980	1,930	7,200	6,220	2,540	404	281
17	89	1,480	9,250	5,300	2,490	6,160	1,770	7,510	6,630	2,140	404	316
18	71	1,440	8,550	3,990	1,580	6,530	1,220	7,920	6,660	2,050	368	288
19	54	1,440	7,670	2,920	1,380	6,720	1,350	8,280	6,790	1,930	368	253
20	54	1,350	6,720	2,140	1,730	7,200	1,440	8,650	7,060	1,930	377	149
21	55	1,160	6,220	2,140	2,220	7,690	1,580	8,750	7,750	1,970	386	190
22	55	1,200	5,800	1,850	2,350	7,530	1,440	8,650	8,550	2,050	386	225
23	52	7,140	5,020	1,730	2,400	8,010	1,480	8,370	9,970	2,180	806	295
24	52	11,900	4,910	3,070	3,170	7,920	2,010	7,830	10,900	2,220	1,600	345
25	48	13,500	4,910	3,270	3,840	7,800	2,450	6,160	11,800	2,050	2,580	820
26	48	12,100	5,580	3,170	4,100	6,220	2,220	4,910	12,100	1,690	2,450	1,220
27	47	11,000	7,830	2,630	4,260	5,300	2,050	2,270	12,200	1,550	1,770	1,250
28	46	10,200	8,280	2,360	4,260	4,370	2,140	1,220	12,100	1,220	1,040	1,250
29	46	9,450	9,970	1,970	-	3,730	2,360	1,040	11,800	956	1,040	1,220
30	46	8,650	10,400	1,850	-	3,530	2,540	900	11,500	768	1,660	1,220
31	190	-	10,300	2,010	-	3,580	-	768	-	618	1,660	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,918	642	46	126	7,770
November	111,740	13,500	556	3,725	221,600
December	266,680	11,000	4,910	5,250	500,100
Calendar year 1940	719,554	13,500	46	1,966	1,427,000
January	202,880	11,200	1,730	6,545	402,400
February	89,340	4,260	1,380	3,191	177,800
March	179,900	8,010	3,530	5,803	356,800
April	87,870	5,980	1,220	2,929	174,300
May	179,648	8,750	768	5,795	355,500
June	186,914	12,200	690	6,230	370,700
July	114,048	10,800	618	3,679	226,800
August	22,470	2,580	274	725	44,570
September	21,217	1,810	149	707	42,060
Water year 1940-41	1,456,619	13,500	46	3,991	2,889,000

Sabine River at Logansport, La.

Location.- Wire-weight gage, lat. 31°58', long. 94°00, on bridge on U. S. Highway 84, 200 feet upstream from Texas & New Orleans (Southern Pacific) Railroad bridge in Logansport, De Sota Parish, and 3 miles upstream from Bayou Castor. Prior to Feb. 15, chain gage at site 200 feet downstream and to same datum. Datum of gage is 147.72 feet above mean sea level, datum of 1929.

Drainage area.- 4,858 square miles.

Records available.- July 1903 to September 1941 (January 1907 to September 1923, monthly records only, published in Water-Supply Paper 850). U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 35 years (1903-19, 1922-41), 2,879 second-feet.

Extremes.- Maximum discharge during year, 38,800 second-feet Nov. 27 (gage height, 35.91 feet, from graph based on gage readings); minimum observed, 87 second-feet Oct. 30, 31, 1903-41; Maximum discharge observed, 47,000 second-feet May 5, 1915 (gage height, 36.9 feet); minimum observed during periods of daily records, 1903-6, 1923-41, 16 second-feet Sept. 26-28, Oct. 3, 4, 1939.
Maximum stage known, 39.4 feet, present datum, sometime in May 1884.

Remarks.- Records good except those for periods of backwater, which are poor. Gage read twice daily. Small diversions above station.

Cooperation.- Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	640	126	26,000	21,800	4,410	8,990	7,220	2,770	2,730	11,800	1,050	1,000
2	828	144	22,300	21,800	4,000	8,780	6,280	3,030	1,840	12,300	872	1,190
3	762	547	19,400	22,300	4,850	8,420	6,060	3,650	1,400	12,500	740	1,450
4	580	1,260	17,400	23,400	5,510	7,820	6,060	c4,250	1,270	a12,500	680	1,660
5	446	1,690	15,400	22,300	5,840	7,040	6,120	c5,460	1,290	a12,600	620	1,840
6	328	1,750	14,000	20,500	6,060	6,560	6,440	c6,800	1,510	a12,500	560	1,900
7	272	1,690	12,900	19,800	6,060	7,460	6,980	c6,660	c1,870	12,300	540	1,750
8	208	1,540	12,500	17,200	5,950	8,660	7,460	c10,800	c4,410	11,800	580	1,400
9	184	1,350	12,400	15,800	5,510	9,700	7,760	11,800	c7,160	11,200	540	1,000
10	164	1,170	12,500	14,600	5,070	11,000	7,820	12,500	c8,600	10,500	500	740
11	164	982	12,900	13,700	4,630	12,300	7,580	13,100	c9,060	9,610	482	580
12	164	938	14,200	13,100	4,410	12,800	6,980	13,200	c8,720	8,660	482	500
13	164	1,140	15,600	12,600	4,300	12,700	5,950	12,900	c8,540	c7,100	464	422
14	164	1,450	16,300	12,600	4,300	12,300	4,630	12,500	c8,480	c5,290	446	464
15	144	1,690	17,200	12,500	4,300	11,500	3,350	11,800	c8,990	c4,150	392	446
16	136	1,750	18,200	12,600	4,360	10,600	2,770	11,100	10,700	c4,300	360	392
17	126	1,720	18,400	12,400	4,360	9,880	2,570	10,400	11,700	4,460	344	360
18	126	1,690	18,200	12,200	4,100	9,200	2,410	9,700	12,600	4,180	344	328
19	117	1,630	17,800	11,700	3,350	8,660	2,130	9,130	12,900	4,740	376	300
20	117	1,600	17,000	11,000	c3,560	8,420	1,900	8,780	13,100	5,730	392	286
21	117	1,540	16,600	9,880	4,360	8,420	1,810	8,540	12,800	5,020	360	272
22	109	c1,480	15,400	8,540	c5,460	8,540	1,870	8,420	12,400	3,750	314	244
23	109	c1,980	14,600	6,920	c6,680	8,540	1,930	8,360	11,700	2,690	300	244
24	101	c5,320	13,300	4,300	7,820	8,600	2,060	8,360	11,100	2,410	300	300
25	101	c12,600	12,200	4,100	8,660	8,660	2,450	8,420	10,600	2,370	762	480
26	94	c28,800	11,800	4,680	8,660	8,780	3,030	8,480	10,200	2,770	1,870	1,340
27	94	36,400	c12,400	5,510	8,780	8,920	3,210	8,480	10,200	2,730	2,290	2,170
28	94	36,800	c15,400	6,000	8,550	9,060	3,030	8,420	11,100	2,530	2,020	2,490
29	94	32,600	c15,100	6,340	-	8,990	2,770	c7,880	11,200	2,060	1,600	2,490
30	94	28,400	c17,200	6,220	-	8,720	2,690	c6,680	11,500	1,570	1,240	2,450
31	94	-	c20,100	5,510	-	8,180	-	4,680	-	1,270	1,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,924	828	94	223	13,730
November	213,677	38,400	126	7,123	423,800
December	492,500	26,000	11,800	15,890	976,900
Calendar year 1940	1,314,778	36,400	94	3,592	2,608,000
January	390,700	23,400	4,100	12,600	774,900
February	153,950	8,950	3,350	5,498	305,400
March	288,200	12,800	6,560	9,297	571,600
April	133,320	7,820	1,810	4,444	264,400
May	268,950	13,200	2,770	8,676	533,500
June	249,470	13,100	1,270	8,316	494,800
July	207,360	12,600	1,270	6,689	411,300
August	22,820	2,290	300	736	45,260
September	30,548	2,490	244	1,018	60,590
Water year 1940-41	2,458,419	38,400	94	6,735	4,876,000

a No gage-height record; discharge computed from graph based on gage heights for preceding and following days and weather records.

c Backwater from Bayou Castor, 3 miles downstream; discharge computed on basis discharge measurements, records for stations near Tatum and Milam, and weather records.

Sabine River near Milam, Tex.

Location.— Wire-weight gage, lat. 31°28', long. 93°45', on bridge on State Highway 21, 6.5 miles northeast of Milam, Sabine County, and 7.2 miles upstream from Palo Gaucho Bayou. Datum of gage is 97.96 feet above mean sea level, datum of 1929.

Drainage area.— 6,543 square miles.

Records available.— January 1939 to September 1941. October 1923 to August 1925, at Sabinetown, 7.4 miles downstream, records equivalent except during periods of extreme low flow and high runoff from Palo Gaucho Bayou.

Extremes.— Maximum discharge observed during year, 54,200 second-feet Nov. 29 (gage height, 44.70 feet); minimum observed, 126 second-feet Oct. 27, 28.

1939-41: Maximum discharge, that of Nov. 29, 1940; minimum observed, 32 second-feet Oct. 15, 22, 1939.

Maximum stage known, 48 feet about July 28, 1933, according to information furnished by observer.

Remarks.— Records good. Gage read twice daily and oftener during high water. No large diversions above station.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

6.2	97	14.0	3,380	39.0	26,100
6.5	164	16.0	4,710	40.0	28,000
7.0	290	20.0	7,710	41.0	30,500
9.0	960	25.0	11,900	42.0	33,600
10.0	1,350	30.0	16,200	43.0	38,300
11.0	1,790	35.0	20,700	44.0	46,100
12.0	2,250	37.0	25,100	44.7	54,200

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	238	318	47,000	27,600	7,550	13,100	9,760	3,320	16,400	16,400	2,450	1,350
2	290	376	41,700	27,800	9,110	12,600	9,240	3,380	15,000	15,500	1,690	1,230
3	568	518	37,800	27,400	8,350	12,000	8,430	3,440	11,400	15,000	1,590	1,250
4	814	281	35,200	27,200	8,190	11,600	7,470	3,840	6,460	14,900	1,270	1,600
5	706	568	32,900	27,400	7,870	10,900	7,070	8,150	3,380	14,400	1,230	1,870
6	602	1,390	29,700	27,600	8,110	9,920	6,450	14,700	2,350	14,200	1,110	2,000
7	500	1,690	28,300	27,400	8,270	12,700	6,840	17,300	2,260	14,100	1,310	2,100
8	406	1,740	27,200	27,200	8,190	13,800	6,990	18,300	3,900	14,100	1,270	1,960
9	332	1,740	26,000	26,500	7,950	13,700	7,230	18,800	5,860	13,900	1,190	1,820
10	264	2,100	24,600	26,000	7,590	13,300	7,550	19,300	8,990	13,700	1,150	1,470
11	238	1,780	23,500	25,100	6,610	13,300	7,790	19,700	12,650	13,400	1,070	1,190
12	226	1,510	23,200	24,100	6,010	13,600	7,870	19,600	14,100	13,300	960	922
13	213	1,270	24,100	22,800	5,560	13,700	7,630	19,200	14,700	13,200	850	778
14	200	1,230	24,600	21,800	5,200	14,900	6,990	18,400	14,300	12,800	742	706
15	200	1,430	25,100	20,800	5,130	14,900	5,940	17,700	13,900	12,400	706	670
16	188	1,690	25,400	20,300	5,060	14,800	4,430	16,900	13,900	11,500	670	636
17	188	1,780	25,800	20,000	4,990	14,600	3,440	16,200	14,600	9,670	636	602
18	176	1,320	25,800	19,300	4,920	14,300	3,080	15,400	16,500	7,790	602	534
19	159	1,780	25,100	18,700	5,060	13,800	2,840	14,200	18,200	6,610	568	468
20	145	1,740	24,500	18,000	9,670	14,300	2,620	13,400	19,200	6,540	534	468
21	150	1,690	24,200	17,400	12,400	15,500	2,620	13,100	19,800	6,840	534	436
22	145	1,640	23,600	16,700	13,500	15,700	2,780	12,100	19,800	7,150	568	406
23	142	1,780	23,100	15,900	13,800	14,900	2,720	11,000	19,600	6,380	534	376
24	142	11,300	22,300	15,100	14,500	14,100	2,960	10,200	19,200	4,710	500	670
25	135	18,200	21,600	14,000	14,900	13,200	3,200	9,600	18,600	3,700	436	960
26	140	26,700	21,400	12,200	14,900	12,200	2,960	9,160	17,700	3,140	436	1,430
27	131	42,400	23,100	9,240	14,300	11,500	3,260	9,080	16,900	3,440	1,190	1,690
28	126	52,700	24,500	7,870	13,600	10,900	3,440	9,420	17,500	4,160	2,150	2,500
29	140	54,200	25,800	7,310	-	10,400	3,700	12,600	17,400	3,770	2,300	3,080
30	135	51,400	26,500	7,390	-	10,200	3,580	16,200	17,000	3,380	2,000	3,140
31	164	-	27,400	7,470	-	10,000	-	16,900	-	2,840	1,640	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,203	814	126	265	16,270
November	288,531	54,200	251	9,618	572,300
December	840,800	47,000	21,400	27,120	1,668,000
Calendar year 1940	2,257,483	54,200	126	6,168	4,478,000
January	613,580	27,800	7,310	19,790	1,217,000
February	249,890	14,900	4,920	8,925	495,600
March	404,420	15,700	9,920	13,050	802,200
April	160,890	9,760	2,620	5,363	319,100
May	410,490	19,700	3,320	13,240	814,200
June	411,390	19,800	2,250	13,710	816,000
July	302,920	16,400	2,840	9,772	600,800
August	35,686	2,450	436	1,087	66,820
September	38,292	3,140	376	1,276	75,950
Water year 1940-41	3,763,092	54,200	126	10,310	7,464,000

a No gage-height record; discharge computed from graph based on gage readings for preceding and following days.

Sabine River near Bon Wier, Tex.

Location.- Chain gage, lat. 30°44', long. 93°37', on bridge on U. S. Highway 190, 1 1/2 miles east of Bon Wier, Newton County, and 2.4 miles upstream from Caney Creek. Datum of gage is 46.4 feet above mean sea level, datum of 1929.

Drainage area.- 6,323 square miles.

Records available.- October 1923 to September 1934, January 1939 to September 1941. U. S. Weather Bureau has collected gage-height records in this vicinity since 1913.

Average discharge.- 13 years (1923-34, 1939-41), 7,527 second-feet.

Extremes.- Maximum discharge observed during year, 51,600 second-feet Dec. 13 (gage height, 22.48 feet); minimum observed, 525 second-feet Oct. 28.

1923-34, 1939-41: Maximum discharge observed, 63,000 second-feet Aug. 1, 2, 1933; maximum gage height, 23.04 feet Aug. 2, 1933; minimum observed, 185 second-feet Sept. 11, 22 and 24, 1925.

Maximum stage known, 26 feet (present site and datum) in May 1884 based on information furnished by local resident.

Remarks.- Records good. Gage read twice daily and oftener during high water. No large diversions above station.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	782	1,520	33,300	33,900	10,700	18,700	13,000	6,640	26,900	20,100	4,540	3,000
2	760	1,800	34,600	32,100	10,900	17,600	12,600	6,410	26,900	20,100	4,100	2,450
3	758	1,600	37,700	31,000	13,600	16,800	12,200	5,860	26,600	20,300	3,560	2,600
4	715	1,410	41,700	30,800	15,400	15,600	12,200	5,860	25,600	22,300	3,000	3,110
5	782	1,250	44,500	31,000	15,400	14,900	11,600	5,640	22,600	22,300	2,720	3,660
6	1,040	1,040	44,500	31,000	13,500	14,200	10,400	15,000	16,000	21,300	2,760	3,660
7	1,070	1,040	43,000	31,000	12,000	15,600	9,530	19,400	9,830	19,600	2,670	3,330
8	1,040	1,600	43,000	31,000	11,400	18,000	9,240	21,800	11,100	17,200	2,500	3,110
9	938	2,030	41,700	31,000	11,100	19,600	9,110	24,000	10,400	15,600	2,560	3,110
10	828	3,330	40,600	30,800	10,400	20,600	9,110	24,600	10,000	14,500	2,560	3,110
11	782	5,970	38,600	30,600	9,630	20,100	9,110	23,700	12,600	14,400	2,460	3,000
12	760	7,900	38,600	30,000	8,980	18,700	9,370	22,800	16,400	15,100	2,340	2,720
13	692	6,870	47,900	30,000	8,260	17,600	9,800	22,000	17,800	17,400	3,000	2,280
14	670	5,200	47,900	30,000	7,680	17,400	9,500	21,800	19,700	18,900	2,450	1,940
15	648	3,560	44,500	30,000	7,100	17,600	9,240	21,800	19,900	18,900	2,050	1,670
16	625	2,560	46,200	29,600	6,760	17,800	8,730	21,300	18,900	18,000	1,940	1,560
17	605	2,400	43,000	29,600	6,520	17,800	7,680	21,000	18,900	17,000	1,800	1,220
18	585	2,560	40,600	29,600	6,410	17,800	6,520	20,600	17,600	15,200	1,720	1,410
19	565	2,670	36,900	29,700	6,300	17,800	5,750	19,600	16,800	12,900	1,600	1,330
20	565	2,670	34,600	27,600	6,980	16,700	5,310	18,700	16,800	11,100	1,520	1,860
21	565	2,620	33,300	26,500	11,200	22,800	5,200	17,600	17,600	9,760	1,520	1,200
22	565	2,780	31,600	25,200	14,700	24,000	5,090	16,600	16,500	8,610	1,440	1,130
23	545	3,000	30,600	24,300	16,800	24,000	6,190	15,400	19,800	8,250	1,410	1,040
24	537	9,980	30,000	23,400	17,400	24,300	8,980	14,400	20,100	8,020	1,370	1,300
25	535	23,800	29,100	22,800	17,400	24,000	10,500	13,400	20,300	7,330	1,410	2,400
26	537	27,900	29,500	22,300	18,900	22,000	9,630	12,200	20,300	6,410	1,370	4,210
27	537	30,500	31,000	21,300	19,600	19,600	8,140	11,500	20,600	6,670	1,330	3,550
28	529	32,700	32,700	18,900	19,600	17,600	6,620	11,600	20,600	6,300	1,330	3,110
29	565	32,700	32,700	17,200	-	16,000	6,190	18,200	20,600	5,970	1,720	3,000
30	508	32,700	33,300	15,700	-	14,500	6,520	26,500	20,600	5,750	2,750	3,350
31	828	-	34,600	11,400	-	13,700	-	27,600	-	5,090	3,220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	21,576	1,070	529	696	42,800
November	257,610	32,700	1,040	8,567	511,000
December	1,171,700	47,900	29,100	37,600	2,524,000
Calendar year 1940	3,295,791	47,900	529	9,005	6,557,000
January	835,300	33,900	11,400	26,960	1,657,000
February	354,910	19,600	6,300	11,960	664,300
March	576,400	24,300	13,700	18,560	1,141,000
April	262,680	13,000	5,090	8,755	521,000
May	536,610	27,600	6,880	17,310	1,064,000
June	659,330	26,900	9,830	26,620	1,108,000
July	430,560	22,300	5,090	13,690	854,000
August	70,780	4,540	1,330	2,223	140,400
September	74,000	4,210	1,040	2,467	146,800
Water year 1940-41	5,129,536	47,900	529	14,060	10,170,000

Sabine River near Ruliff, Tex.

Location.- Wire-weight gage, lat. 30°18'10", long. 93°44'40", on bridge on State Highway 235, 2.4 miles north of Ruliff, Newton County, and 4.5 miles downstream from Cypress Creek. Datum of gage is 4.08 feet above mean sea level, datum of 1929. Prior to Mar. 1, 1941, staff gage at site 4.2 miles downstream and at 2.02 feet lower datum.

Drainage area.- 9,440 square miles.

Records available.- October 1924 to September 1941.

Average discharge.- 17 years, 8,060 second-feet.

Extremes.- Maximum discharge observed during year, 72,800 second-feet Dec. 16 (gage height, 16.46 feet); minimum observed, 848 second-feet Oct. 25, 28.
1924-41: Maximum discharge observed, 76,600 second-feet May 24, 25, 1935 (gage height, 17.9 feet, present site and datum); minimum observed, 358 second-feet Sept. 25-27, Oct. 2, 3, 22-24, 1939. Higher stages are known to have occurred in the past.

Remarks.- Records good. No large diversions above station. Gage read twice-daily and oftener during high water.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1 to Feb. 3)

Oct. 1 to Feb. 28				Mar. 1 to Sept. 30					
2.0	470	9.5	7,770	14.0	46,800	5.0	1,670	12.0	8,550
3.0	1,030	10.0	8,950	15.0	59,800	6.0	2,160	13.0	12,400
4.0	1,710	10.5	10,600	16.0	72,800	7.0	2,670	14.0	21,000
6.0	3,340	11.0	12,800			8.0	3,220	15.0	34,000
8.0	5,390	12.0	21,000			10.0	4,600	16.0	47,000
9.0	6,810	13.0	33,800			11.0	6,120		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,490	968	40,300	39,000	19,800	20,400	18,400	8,000	45,700	21,600	8,000	3,160
2	1,350	3,880	39,000	39,000	18,800	21,000	17,200	7,730	41,800	21,600	7,220	3,330
3	1,280	5,140	39,000	39,000	17,000	21,000	15,800	7,730	35,300	21,600	6,320	3,380
4	1,280	5,320	39,000	37,700	15,400	20,400	14,700	8,000	30,800	21,600	5,260	3,280
5	1,220	4,900	40,300	36,400	14,000	19,700	14,400	10,200	28,200	22,300	4,600	3,530
6	1,220	3,880	41,600	35,100	15,400	19,000	13,800	12,400	26,200	24,900	4,300	3,620
7	1,280	3,080	45,500	33,800	16,200	17,800	13,500	14,400	26,200	24,900	4,130	3,860
8	1,490	2,570	48,100	33,800	17,000	17,200	12,900	16,200	24,200	24,800	4,300	3,920
9	1,570	2,570	49,400	33,800	17,000	17,200	12,200	19,000	20,400	22,300	4,050	3,680
10	1,570	2,910	50,700	33,800	16,200	17,800	11,400	21,600	17,200	21,000	3,920	3,680
11	1,420	3,780	50,700	32,500	15,400	19,700	10,600	23,000	16,700	19,700	3,800	3,620
12	1,350	5,260	49,400	32,500	14,700	21,000	10,200	23,600	16,800	19,700	3,680	3,680
13	1,280	6,810	57,200	32,500	14,000	21,600	10,200	23,600	16,200	22,300	3,500	3,500
14	1,220	8,220	62,400	32,500	12,800	21,600	9,830	23,000	16,400	23,000	3,500	3,280
15	1,150	9,250	68,900	33,800	11,700	21,000	9,830	22,300	21,000	23,600	3,440	3,000
16	1,090	8,950	72,800	35,400	10,900	20,400	10,200	21,600	21,600	24,900	3,160	2,670
17	1,030	6,970	67,600	39,000	10,200	19,700	9,830	21,000	21,000	25,600	2,840	2,510
18	968	5,260	62,400	37,700	8,950	19,700	9,830	21,000	20,400	24,200	2,620	2,360
19	968	4,270	57,200	35,400	8,460	20,400	9,150	20,400	21,000	22,300	2,510	2,560
20	968	3,980	53,500	35,800	8,220	21,600	8,000	20,400	21,000	20,400	2,410	2,210
21	968	3,980	49,400	32,500	8,000	22,300	6,980	19,700	20,400	18,400	2,310	2,110
22	908	3,880	44,200	31,200	8,000	23,600	6,120	19,000	19,700	16,700	2,260	2,010
23	908	3,880	40,300	29,900	8,950	27,500	5,930	18,400	18,400	14,700	2,160	1,960
24	908	5,260	36,400	26,800	10,900	30,100	6,120	17,800	18,400	13,200	2,110	1,420
25	908	9,550	35,100	27,300	12,800	28,800	6,980	16,700	19,000	12,000	2,060	6,320
26	908	18,800	35,400	26,000	15,400	27,500	8,270	15,800	19,700	11,000	2,110	6,530
27	908	32,500	35,400	26,000	18,800	26,200	9,150	15,000	20,400	10,600	2,160	7,470
28	908	46,800	37,700	24,700	19,800	24,900	9,830	16,200	21,000	9,830	2,110	7,470
29	908	48,100	39,000	24,700	-	23,600	9,830	21,000	21,000	9,480	2,110	6,530
30	968	44,200	39,000	23,400	-	22,300	9,150	32,700	21,000	9,150	2,160	5,100
31	968	-	39,000	21,000	-	20,400	-	44,400	-	8,550	2,670	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	35,362	1,570	908	1,141	70,140
November	315,118	48,100	968	10,500	625,000
December	1,467,700	72,800	35,100	47,550	2,911,000
Calendar year 1940	4,209,210	72,800	908	11,500	8,349,000
January	1,005,900	39,000	21,000	32,580	1,921,000
February	364,780	19,800	9,000	13,740	735,200
March	875,400	30,100	17,200	21,790	1,340,000
April	320,330	18,400	5,930	10,680	635,400
May	581,880	44,400	7,730	18,770	1,154,000
June	688,500	45,700	16,800	22,950	1,366,000
July	585,710	25,600	8,550	18,990	1,162,000
August	107,770	8,000	2,060	3,476	213,800
September	114,060	7,470	1,960	3,802	226,800
Water year 1940-41	6,280,590	72,800	908	17,210	12,460,000

Lake Fork of Sabine River near Quitman, Tex.

Location.- Wire-weight gage, lat. 32°46', long. 95°28', on bridge on State Highway 37, half a mile downstream from Dry Creek and 2.5 miles south of Quitman, Wood County. Datum of gage is 317.42 feet above mean sea level, datum of 1929.

Drainage area.- 586 square miles.

Records available.- June 1924 to April 1926, February 1939 to September 1941.

Extremes.- Maximum discharge observed during year, 9,200 second-feet Dec. 28 (gage height, 18.25 feet); minimum observed, 0.2 second-foot Oct. 20-29, Sept. 22, 23.

1924-26, 1939-41: Maximum discharge observed, that of Dec. 28, 1940; no flow at times.

Maximum stage known, 22.4 feet, during latter part of January 1938, according to information furnished by local resident.

Remarks.- Records poor. Gage read twice daily and oftener during high water. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	164	794	1,350	142	1,070	360	868	26	97	19	9.8
2	9.5	157	283	678	554	856	464	1,410	60	40	18	7.8
3	8.0	115	109	343	996	452	666	3,100	151	31	17	6.5
4	6.2	54	70	227	1,460	225	544	2,230	400	28	16	4.9
5	5.4	30	56	178	2,280	160	378	1,480	875	26	16	3.5
6	4.8	19	48	154	1,620	351	232	1,020	1,120	22	15	2.5
7	6.1	17	45	132	823	1,420	213	1,120	1,340	21	15	2.1
8	4.9	14	43	118	333	5,600	314	2,220	1,000	19	15	1.8
9	3.3	71	43	108	160	5,800	516	2,200	681	19	17	1.4
10	2.2	259	39	102	126	2,970	616	1,540	705	18	19	1.3
11	1.5	213	39	96	102	1,850	471	1,080	1,330	18	19	1.2
12	1.0	340	69	86	89	1,020	190	924	1,590	40	38	1.0
13	.6	427	328	82	76	420	122	1,620	2,960	141	28	1.0
14	.6	351	632	150	71	220	99	1,840	3,080	442	20	.8
15	.5	122	768	220	66	171	82	965	2,190	648	16	.8
16	.4	45	972	235	61	157	76	270	2,190	704	14	.7
17	.3	30	1,260	235	57	143	71	92	2,060	790	12	.6
18	.3	24	2,460	178	53	129	71	60	3,090	1,100	11	.5
19	.3	21	2,370	126	51	118	82	48	2,850	1,260	11	.4
20	.2	19	1,510	96	154	102	89	43	1,740	731	10	.3
21	.2	20	734	76	259	92	74	40	726	272	9.7	.3
22	.2	26	280	68	251	92	74	37	190	259	43	.2
23	.2	462	171	64	284	300	358	34	68	150	35	.2
24	.2	1,320	126	63	550	693	782	32	46	59	29	133
25	.2	1,730	116	82	924	768	1,920	30	40	38	231	174
26	.2	2,990	665	349	1,020	704	3,510	28	35	30	451	146
27	.2	2,950	2,860	648	1,310	523	2,370	27	95	27	544	76
28	.2	2,000	7,880	790	1,310	286	1,450	28	580	24	441	26
29	.2	1,880	7,470	704	-	192	568	28	274	22	111	10
30	.3	1,450	3,740	446	-	154	397	28	185	21	24	7.8
31	51	-	2,160	178	-	229	-	28	-	20	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	120.2	51	0.2	3.88	238
November.....	17,300	2,990	14	577	34,310
December.....	38,140	7,880	39	1,230	75,650
Calendar year 1940.....	124,904.2	7,880	0	341	247,700
January.....	8,362	1,350	63	270	16,590
February.....	15,162	2,260	51	542	30,070
March.....	27,267	5,890	92	890	54,080
April.....	17,152	3,510	71	672	34,020
May.....	24,466	3,100	25	759	45,530
June.....	31,377	3,090	28	1,046	62,240
July.....	7,107	1,260	18	229	14,100
August.....	2,275.7	544	9.7	73.4	4,510
September.....	622.4	174	.2	20.7	1,230
Water year 1940-41.....	189,351.3	7,880	.2	619	375,600

Big Sandy Creek near Big Sandy, Tex.

Location.- Water-stage recorder, lat. 32°37', long. 95°06', on county highway bridge 2.2 miles northeast of Big Sandy, Upshur County, and 7.8 miles upstream from mouth. Prior to Oct. 6, wire-weight gage at same site and datum. Datum of gage is 281.6 feet above mean sea level, unadjusted.

Drainage area.- 235 square miles.

Records available.- February 1939 to September 1941.

Extremes.- Maximum discharge during year not determined; minimum observed, 13 second-feet Oct. 5.

1939-41: Maximum discharge, 1,400 second-feet May 31, 1940 (gage height, 14.75 feet, from graph based on gage readings); minimum observed, 7.7 second-feet Sept. 30, 1939.

Maximum stage known, 20.4 feet (probably affected by backwater from Sabine River) in January 1938, according to information furnished by observer.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Gage read twice daily Oct. 1-5. No large diversions above station.

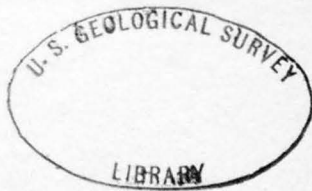
Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	14	a238	a350	675	178	391	254	215	40	355	a29	24	
2	13	a208		515	222	358	232	208	79	278	a29	24	
3	13	a119		286	391	222	302	658	215	84	262	a29	26
4	13	a119		238	310	222	262	511	222	84	246	a29	26
5	13	a119		200	262	238	222	338	208	73	208	a29	24
6	13	a119	171	230	270	286	270	238	73	144	a27	23	
7	15	a164	171	222	310	535	286	262	591	107	a27	23	
8	17	a164	167	208	302	535	302	230	611	84	a31	23	
9	17	a164	144	185	254	809	270	200	412	73	a31	31	
10	15	a238	138	171	208	1,190	230	208	425	63	a31	32	
11	14	a238	144	157	178	900	200	230	518	74	a31	29	
12	14	a208	185	144	157	650	192	230	429	164	a27	27	
13	13	a208	200	138	144	479	185	215	461	215	27	26	
14	14	a164	200	184	125	358	171	192	497	215	a29	26	
15	14	a208	243	171	119	294	187	185	625	215	31	26	
16	14	a208	519	164	113	246	144	171	900	a178	31	26	
17	14	a164	302	157	107	215	144	157	650	a107	27	26	
18	13	a84	369	157	107	192	144	131	420	a63	26	24	
19	14	a84	445	164	101	178	138	95	549	a58	24	23	
20	14	a84	445	164	144	178	131	78	840	a90	23	21	
21	14	a84	403	157	144	178	125	68	625	a95	23	21	
22	14	a95	338	150	164	171	119	58	441	a95	110	20	
23	14		278	131	178	239	138	54	321	a83	63	20	
24	14		230	125	270	294	157	49	238	a58	49	56	
25	15		200	119	236	302	150	44	157	a47	40	101	
26	15	a600	294	138	302	348	150	38	113	a47	34	84	
27	15		625	131	338	445	150	36	146	a42	31	56	
28	a15		535	125	369	429	157	38	922	a42	29	40	
29	a40		515	131	-	338	171	38	625	a38	27	34	
30	a29		870	144	-	278	192	42	527	a34	27	32	
31	a78	-	930	157	-	278	-	44	-	a31	26	-	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	544	-	13	17.5	1,080
November.....	8,281	-	-	276	16,420
December.....	10,275	930	138	331	20,360
Calendar year 1940	44,667.6	-	9.5	122	88,600
January.....	6,257	675	119	202	12,410
February.....	5,772	369	101	206	11,450
March.....	11,880	1,190	171	383	23,560
April.....	6,466	658	119	216	12,830
May.....	4,399	262	36	142	8,730
June.....	12,473	900	40	416	24,740
July.....	3,769	355	-	122	7,520
August.....	1,027	110	-	33.1	2,040
September.....	974	101	a20	32.5	1,930
Water year 1940-41	72,137	-	13	198	143,100

Peak discharge.- Dec. 30 (8 p.m.) 1,020 sec.-ft.; Mar. 10 (5 a.m.) 1,280 sec.-ft.; June 28 (10 a.m.) 1,190 sec.-ft.

a No gage-height record; discharge computed on basis of records for nearby stations and weather records.



Cherokee Bayou near Elderville, Tex.

Location.- Water-stage recorder, lat. 32°20', long. 94°42', at bridge on county highway 3.8 miles southeast of Elderville, Gregg County, 4.5 miles upstream from bridge on State Highway 149, and 19.3 miles upstream from mouth. Datum of gage is 266.8 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 110 square miles.

Records available.- August 1939 to September 1941.

Extremes.- Maximum discharge during year, 10,200 second-feet Nov. 23 (gage height, 12.81 feet), from rating curve extended above 3,500 second-feet by logarithmic plotting; minimum, 0.8 second-foot Oct. 6.
1939-41: Maximum discharge, that of Nov. 23, 1940; no flow at times.
Maximum stage known, about 14 feet in September 1913, according to information furnished by local residents.

Remarks.- Records good except those for period of no gage-height record and those above 4,000 second-feet, which are poor. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	3.0	248	168	1,390	165	190	125	77	37		8.3	32	
2	2.2	332	140	1,780	299	162	125	66	50	} a31	6.7	26	
3	1.8	348	127	820	476	153	170	92	60		6.4	20	
4	1.3	190	109	468	372	146	439	55	68		6.7	24	
5	1.0	68	96	340	235	134	305	168	54	18	7.1	20	
6	.9	31	101	281	190	238	188	1,080	34	15	6.2	18	
7	4.2	22	750	255	175	830	138	1,620	193	13	7.2	16	
8	4.8	17	1,140	232	172	913	118	895	528	12	13	13	
9	4.1	29	668	218	153	469	105	392	380	11	12	17	
10	4.4	98	320	202	129	281	94	235	207	10	12	19	
11	4.2	116	255	182	118	205	84	212		37	12	16	
12	3.8	158	440	172	116	165	79	266		105	10	20	
13	3.1	129	860	170	114	140	75	195		114	8.0	19	
14	2.9	101	590	248	109	186	70	114		178	7.0	16	
15	4.5	65	638	372	105	136	68	84		122	6.1	15	
16	3.7	55	1,620	436	101	131	66	66	} a162	94	5.3	14	
17	2.8	31	942	293	94	182	66	56		62	5.1	13	
18	2.3	28	464	222	94	281	63	65		66	4.1	11	
19	1.9	26	299	178	112	180	79	94		26	3.4	10	
20	1.6	26	245	151	350	156	92	60		24	2.9	9.3	
21	1.4	26	220	134	560	180	107	58		20	2.3	7.8	
22	1.3	123	192	131	420	190	129	41		17	100	6.5	
23	1.4	6,360	170	188	289	265	141	39		15	220	6.0	
24	1.4	6,630	156	608	430	434	225	34		13	324	116	
25	1.6	2,380	160	960	643	507	332	30	} a31	12	244	299	
26	1.7	1,490	515	492	479	272	290	26			14	56	432
27	2.0	860	2,080	356	290	200	149	27			13	22	560
28	2.3	500	1,630	278	230	188	96	30		12	16	318	
29	2.2	267	678	215	-	149	63	32	} a35	14	15	108	
30	2.6	208	392	180	-	131	61	36			13	17	49
31	341	-	298	162	-	134	-	37			11	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	417.4	341	0.9	13.5	828
November.....	19,975	6,360	17	663	39,610
December.....	16,431	2,060	96	530	32,590
Calendar year 1940.....	49,903.2	6,360	.2	136	98,990
January.....	12,082	1,780	131	390	23,980
February.....	7,000	643	94	250	13,890
March.....	7,827	913	131	262	15,520
April.....	4,132	439	63	139	8,290
May.....	6,220	1,620	26	203	12,460
June.....	5,840	528	-	121	7,220
July.....	1,178	-	10	38.0	2,340
August.....	1,200.8	324	2.3	38.7	2,380
September.....	2,218.6	530	6.0	74.0	4,400
Water year 1940-41.....	82,428.8	6,360	.9	226	163,500

Peak discharge.- Nov. 23 (6 p.m.) 10,200 sec.-ft.; Dec. 27 (9 p.m.) 2,620 sec.-ft.; Jan. 1 (10 p.m.) 2,380 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

Neches River near Neches, Tex.

Location.- Wire-weight gage, lat. 31°54', long. 95°26', at bridge on U. S. Highway 79, half a mile downstream from International-Great Northern Railroad bridge, 1 mile downstream from Walnut Creek, and 4.4 miles northeast of Neches, Anderson County. Datum of gage is 263.9 feet above mean sea level, datum of 1929.

Drainage area.- 1,129 square miles.

Records available.- February 1939 to September 1941.

Extremes.- Maximum discharge during year, 8,400 second-feet June 12; maximum gage height, 16.73 feet, from floodmarks, Nov. 28; minimum observed, 14 second-feet Oct. 23, 26 1939-41; Maximum discharge, that of June 12, 1941; maximum gage height, that of Nov. 28, 1940; no flow Oct. 3-5, 1939.

The flood in May 1908 reached a stage of 24.3 feet, according to information furnished by local resident. Flood of May 1884 probably reached a higher stage.

Remarks.- Records good. Gage read twice daily, oftener during high water. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	93	4,890	6,750	762	1,670	1,090	712	186	1,030	93	93
2	83	98	3,600	5,430	834	1,820	1,120	712	180	834	70	78
3	78	76	2,700	3,960	910	1,920	1,470	664	262	696	76	66
4	55	68	2,260	2,560	930	1,870	1,320	616	284	728	70	55
5	47	88	1,980	2,260	955	1,770	1,180	680	276	834	66	41
6	40	135	1,820	2,040	955	1,670	1,180	980	268	930	66	35
7	36	180	1,720	1,820	955	1,620	1,390	1,180	350	930	76	38
8	22	206	1,720	1,870	980	1,870	1,770	1,150	470	852	86	32
9	28	236	1,670	1,570	1,000	1,870	1,920	1,060	540	728	88	24
10	23	260	1,620	1,430	1,030	1,820	1,720	980	664	696	78	51
11	22	260	1,520	1,320	1,090	1,870	1,470	930	1,410	762	68	61
12	20	244	1,470	1,240	1,120	2,110	1,390	890	6,920	870	66	49
13	19	213	1,430	1,150	1,120	2,260	1,320	910	6,760	930	66	39
14	21	174	1,430	1,350	1,060	2,340	1,280	930	4,890	955	63	35
15	22	220	1,870	1,520	980	2,260	1,180	980	3,390	910	57	49
16	22	265	1,820	1,520	890	1,920	1,090	1,000	2,630	834	53	57
17	20	292	1,870	1,470	798	1,770	1,030	1,000	2,260	728	49	55
18	18	320	1,820	1,390	712	1,570	930	910	2,110	664	54	51
19	17	340	1,770	1,320	648	1,390	834	780	2,110	632	61	42
20	16	330	1,770	1,280	762	1,280	728	600	4,690	616	59	36
21	18	292	1,820	1,280	870	1,180	648	432	7,280	584	53	34
22	16	328	1,820	1,280	890	1,090	568	330	5,900	484	47	32
23	15	1,440	1,820	1,240	930	1,060	568	268	4,100	350	47	30
24	16	5,580	1,820	1,210	1,280	1,060	600	280	2,700	268	70	49
25	15	5,580	1,620	1,210	1,520	1,060	648	300	2,110	206	93	132
26	14	4,780	1,620	1,180	1,620	1,090	696	340	1,820	186	78	228
27	15	5,430	1,870	1,150	1,670	1,090	696	330	1,570	174	100	169
28	15	7,800	2,180	1,060	1,670	1,150	880	276	1,430	162	126	192
29	15	7,620	2,340	960	-	1,150	632	244	1,320	138	120	236
30	15	6,400	2,920	890	-	1,180	632	280	1,210	120	123	320
31	31	-	6,400	816	-	1,140	-	206	-	93	106	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	881	83	14	28.4	1,750
November	49,331	7,800	68	1,644	97,860
December	66,680	6,400	1,430	2,148	132,100
Calendar year 1940	168,921	7,800	14	462	335,100
January	55,366	6,750	816	1,786	109,800
February	28,741	1,620	648	1,026	57,010
March	49,180	2,340	1,060	1,686	97,560
April	31,780	1,920	568	1,059	63,030
May	20,870	1,180	206	673	41,400
June	70,060	7,280	180	2,336	139,000
July	18,924	1,030	93	610	37,540
August	2,328	126	47	75.1	4,620
September	2,442	320	24	81.4	4,840
Water year 1940-41	396,483	7,800	14	1,086	786,500

a No gage-height record; discharge interpolated.

Neches River near Diboll, Tex.

Location.- Wire-weight gage, lat. 31°08', long. 94°48', at bridge on State Highway 35, 130 feet downstream from Texas and New Orleans Railroad bridge, 2.8 miles downstream from Alabama Creek, and 3.8 miles south of Diboll, Angelina County. Datum of gage is 134.46 feet above mean sea level, datum of 1929.

Drainage area.- 2,670 square miles.

Records available.- November 1923 to August 1925, March 1939 to September 1941.

Extremes.- Maximum discharge observed during year, 22,800 second-feet Nov. 28 (gage height, 16.53 feet); minimum observed, 45 second-feet Oct. 27, 28.

1923-25, 1939-41: Maximum discharge observed, that of Nov. 28, 1940; no flow Aug. 15-22, 1925.

Maximum stage known, 21.5 feet in May 1884, according to information furnished by local residents.

Remarks.- Records good. Gage read twice daily, oftener during high stages. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	191	16,800	6,260	3,240	5,620	3,040	1,780	876	5,500	530	134
2	78	148	13,500	6,130	4,280	5,170	2,800	1,530	828	5,740	420	135
3	75	121	10,600	6,130	4,520	4,870	2,740	1,380	780	5,860	376	138
4	71	111	8,900	6,280	4,280	4,600	2,740	1,350	692	4,960	320	141
5	66	121	8,100	6,550	4,040	4,440	2,500	4,050	630	4,600	304	144
6	66	180	7,900	6,550	3,730	4,360	2,300	7,180	718	4,120	280	132
7	73	186	8,300	6,550	3,590	6,260	2,220	6,260	1,950	3,730	280	127
8	81	162	8,500	7,000	3,380	7,900	2,070	4,120	2,070	3,380	244	122
9	83	162	8,100	7,180	3,100	7,700	2,000	3,040	2,070	2,800	265	110
10	81	237	7,180	7,350	2,920	7,180	1,940	2,620	1,880	2,560	258	93
11	78	180	6,700	6,850	2,800	6,130	1,940	2,680	4,600	2,620	251	95
12	75	180	9,900	6,260	2,680	6,130	1,940	2,800	9,900	2,800	288	108
13	70	204	14,600	5,860	2,500	6,000	1,880	2,920	7,700	2,620	265	134
14	65	237	14,200	5,860	2,350	5,860	1,940	2,860	5,280	2,660	244	133
15	60	265	11,200	6,130	2,220	5,500	1,940	2,740	3,960	2,980	224	134
16	56	280	10,200	6,260	2,140	5,170	1,940	2,500	3,040	2,740	204	127
17	53	272	8,900	6,260	2,000	4,960	1,940	2,300	2,620	2,980	192	123
18	51	265	7,700	6,000	1,840	4,690	1,940	2,070	2,300	3,100	180	124
19	50	251	7,000	5,500	1,880	4,440	1,840	2,000	2,070	2,800	168	115
20	50	237	6,700	5,170	3,640	5,060	2,000	1,630	2,070	2,740	184	107
21	50	237	6,550	4,960	5,740	6,130	2,000	2,220	2,680	2,560	146	108
22	50	244	6,260	4,870	5,740	6,130	2,070	2,070	3,730	2,400	143	107
23	49	301	6,000	4,600	6,000	6,000	2,220	1,740	4,440	2,220	134	82
24	48	3,660	5,500	6,550	6,700	6,000	3,590	1,620	5,380	2,000	90	779
25	48	14,700	5,060	7,350	7,000	5,620	4,040	1,590	5,740	1,700	126	1,350
26	47	20,400	6,000	6,550	6,850	5,170	4,040	1,560	5,620	1,530	168	1,120
27	45	22,000	7,700	5,620	6,550	4,780	2,400	1,530	5,170	1,290	186	1,260
28	45	22,800	8,900	5,380	6,000	4,280	2,000	1,410	4,780	1,120	180	996
29	47	22,000	8,500	4,280	-	4,040	1,800	1,350	4,600	948	154	610
30	54	20,000	7,700	3,730	-	3,660	2,000	1,290	4,780	780	134	420
31	58	-	6,850	3,450	-	3,380	-	1,020	-	630	134	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,907	84	45	61.5	3,780
November.....	130,532	22,800	111	4,351	258,900
December.....	270,000	16,800	5,060	8,710	535,500
Calendar year 1940	695,911	22,800	45	1,901	1,380,000
January.....	183,450	7,350	3,450	5,918	365,900
February.....	111,810	7,000	1,880	3,993	221,800
March.....	167,230	7,900	3,380	5,395	331,700
April.....	69,990	4,040	1,880	2,333	138,800
May.....	75,410	7,180	1,020	2,433	149,600
June.....	102,954	9,900	630	3,432	204,200
July.....	88,668	5,860	630	2,860	175,900
August.....	7,042	530	90	227	13,970
September.....	9,308	1,350	82	310	18,460
Water year 1940-41	1,218,301	22,800	45	3,338	2,417,000

Neches River near Rockland, Tex.

Location.- Staff gage, lat. 31°01'45", long. 94°23'50", quarter of a mile upstream from bridge on U. S. Highway 69, half a mile upstream from Texas & New Orleans Railroad bridge, 1 mile north of Rockland, Tyler County, and 3 1/2 miles downstream from Billams Creek. Datum of gage is 91.4 feet above mean sea level, datum of 1929.

Drainage area.- 3,539 square miles.

Records available.- July 1903 to September 1941. July 1903 to September 1923, monthly records only, in Water-Supply Paper 850. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 35 years (1903-10, 1913-41), 2,346 second-feet.

Extremes.- Maximum discharge during year, 25,900 second-feet Nov. 30 (gage height, 25.50 feet, from graph based on gage readings); minimum observed, 55 second-feet Oct. 26, 28, 1903-41. Maximum discharge observed, 48,500 second-feet Apr. 2, 1922, and May 22, 1935 (gage height, 28.90 feet), from rating curve extended above 36,000 second-feet; minimum observed during periods of daily records, 1923-40, 3.0 second-feet Oct. 15, 1931.

Maximum stage known, 34.9 feet in May 1884, according to information furnished by local resident.

Remarks.- Records good. Gage read twice daily, oftener during high water. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	149	159	24,800	11,500	7,680	9,440	5,720	4,680	2,220	5,020	854	200
2	140	109	22,900	11,000	7,820	9,140	5,130	4,160	1,860	4,730	698	268
3	128	180	20,900	10,300	7,680	8,550	4,850	3,830	1,560	4,560	586	388
4	114	211	18,500	9,670	7,480	7,820	4,500	3,660	1,320	4,560	550	317
5	108	222	16,700	9,000	7,200	7,200	4,000	4,500	1,100	4,850	482	256
6	101	233	13,900	8,260	6,870	6,940	3,770	5,900	1,760	4,850	482	233
7	95	211	12,500	7,890	6,940	7,550	3,550	7,250	3,500	4,790	482	244
8	87	256	11,800	7,680	6,600	7,750	3,330	9,290	4,060	4,560	550	244
9	90	317	11,100	7,480	6,090	8,400	3,110	10,500	4,450	4,280	482	244
10	103	418	10,500	7,340	5,660	8,770	2,900	10,500	5,070	3,940	482	268
11	111	450	10,100	7,270	5,190	9,140	2,630	9,670	8,370	3,720	418	344
12	109	418	11,700	7,140	4,730	9,370	2,480	9,630	8,110	3,600	450	233
13	108	358	14,900	7,270	4,220	9,440	2,420	7,270	9,140	3,660	418	190
14	101	344	19,100	7,550	3,720	9,140	2,320	5,840	9,990	3,770	373	200
15	95	358	22,800	8,180	3,280	8,400	2,270	4,680	10,500	4,220	358	233
16	85	344	23,500	8,920	3,000	7,750	2,270	3,770	10,500	4,160	344	292
17	79	344	20,000	9,070	2,840	7,200	2,220	3,220	9,990	3,770	317	373
18	71	358	17,000	9,000	2,690	6,800	2,220	2,950	9,000	3,600	280	358
19	67	344	15,200	8,630	2,580	6,600	2,160	2,690	7,820	3,290	256	330
20	64	330	13,600	7,960	2,840	6,750	2,160	2,690	6,600	3,110	256	330
21	62	304	12,700	7,410	3,330	7,140	2,160	3,110	5,360	3,160	244	256
22	60	292	11,600	7,200	4,000	7,480	2,220	3,160	4,220	3,330	222	233
23	60	822	10,600	7,140	4,790	7,680	2,700	2,950	3,890	3,380	233	334
24	60	7,130	9,670	7,000	5,840	7,750	3,880	2,790	3,770	3,060	292	2,650
25	57	12,000	9,070	6,870	7,270	7,750	4,620	2,690	3,830	2,740	233	2,690
26	55	15,100	9,370	7,550	8,490	7,680	5,130	2,530	4,060	2,630	190	2,580
27	57	19,100	10,300	8,260	9,290	7,550	5,420	2,060	4,450	2,480	200	2,270
28	55	23,300	11,600	8,770	9,670	7,410	5,480	2,060	5,080	1,960	268	2,060
29	66	25,300	11,900	8,920	-	7,140	5,480	2,480	5,130	1,610	292	2,010
30	63	25,900	12,000	8,850	-	6,670	5,190	2,580	5,130	1,280	268	1,810
31	88	-	11,800	8,480	-	6,220	-	2,420	-	1,060	233	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,688	149	55	86.7	5,330
November	135,212	25,900	109	4,507	268,200
December	451,410	24,800	9,070	14,560	895,400
Calendar year 1940	1,078,985	25,900	55	2,948	2,140,000
January	257,560	11,500	6,870	8,308	510,900
February	157,780	9,670	2,580	5,635	313,000
March	242,600	9,440	6,220	7,826	481,200
April	106,290	5,720	2,160	3,543	210,800
May	144,810	10,500	2,060	4,671	287,200
June	161,810	10,500	1,100	5,394	320,900
July	109,720	5,020	1,060	3,539	217,600
August	11,761	854	190	379	25,350
September	22,438	2,690	190	748	44,510
Water year 1940-41	1,804,079	25,900	55	4,943	3,578,000

Neches River at Evadale, Tex.

Location.- Staff gage, lat. 30°21', long. 94°05', at bridge on U. S. Highway 59, 200 feet upstream from Gulf, Colorado & Santa Fe Railway bridge at Evadale, Jasper County, and 15 miles upstream from Village Creek. Datum of gage is 8.3 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 7,908 square miles.

Records available.- July 1904 to December 1906, October 1923 to September 1941.

Average discharge.- 20 years (1904-6, 1923-41), 6,165 second-feet.

Extremes.- Maximum discharge observed during year, 59,600 second-feet Dec. 5, 6 (gage height, 20.78-feet); minimum observed, 340 second-feet Oct. 25-28, 30.

1904-06, 1923-41: Maximum discharge, 83,800 second-feet June 1, 1929 (gage height, 22.20 feet, observed at crest); minimum observed, about 148 second-feet Sept. 10, 1925.

Maximum stage known, 26.2 feet in 1884, (discharge, about 175,000 second-feet, from rating curve extended above 72,000 second-feet by logarithmic plotting) from records of Gulf, Colorado & Santa Fe Railway Co.

Remarks.- Records good. No diversion above station. Gage read twice daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	800	582	30,200	27,800	15,700	14,900	18,100	10,900	11,600	9,320	4,260	1,150
2	772	1,400	38,100	27,800	15,700	15,700	17,100	10,900	11,900	9,320	3,490	1,120
3	716	1,940	48,800	29,400	15,700	16,600	16,600	10,900	11,600	9,080	2,930	1,090
4	680	1,640	55,300	31,000	15,300	17,600	15,300	10,300	10,600	8,840	2,550	1,220
5	608	1,290	58,600	31,800	15,700	18,100	13,800	10,300	8,200	8,200	2,220	1,570
6	582	1,090	59,600	32,600	15,700	18,600	12,200	10,600	6,020	7,800	2,020	1,570
7	558	1,150	58,500	31,800	15,600	19,200	11,100	11,900	5,280	7,400	1,900	1,400
8	534	1,500	58,500	30,200	16,600	19,200	10,100	13,800	6,500	7,400	1,860	1,260
9	510	1,360	55,300	29,400	16,600	18,600	9,320	14,900	7,800	7,400	1,980	1,190
10	486	1,430	51,000	27,000	16,200	18,600	8,400	15,700	8,620	7,220	2,110	1,220
11	464	1,820	46,700	25,400	15,700	18,600	8,200	16,600	9,560	6,860	2,110	1,260
12	442	2,870	43,500	24,000	15,300	18,600	7,600	17,600	11,600	7,220	1,980	1,400
13	442	3,560	49,900	22,600	14,100	18,600	7,040	18,600	12,800	8,840	1,860	1,500
14	420	3,420	46,700	22,000	13,400	18,600	6,680	19,700	14,100	8,620	1,790	1,400
15	420	2,600	46,700	21,400	12,200	18,600	6,340	20,900	15,300	8,000	1,710	1,220
16	420	2,020	47,800	22,000	11,100	18,600	6,180	20,800	16,200	7,220	1,640	1,150
17	420	1,780	45,600	22,000	10,100	18,600	6,020	20,800	17,100	7,220	1,570	1,190
18	400	1,600	44,600	20,800	9,080	18,600	6,180	19,700	17,600	7,800	1,460	1,260
19	400	1,540	45,600	20,800	8,200	18,600	6,340	17,600	18,600	8,200	1,430	1,360
20	380	1,400	47,800	20,800	7,600	20,200	6,500	14,100	19,200	8,200	1,400	1,290
21	380	1,290	47,800	20,800	7,220	21,400	6,680	11,400	19,700	7,600	1,360	1,190
22	380	1,260	46,700	20,800	7,800	20,800	6,860	9,080	19,200	7,220	1,260	1,120
23	360	1,220	43,500	20,200	9,080	20,200	7,040	8,400	18,600	7,040	1,150	956
24	360	2,330	40,300	19,700	10,900	19,700	7,220	7,800	17,100	7,040	1,090	1,700
25	340	7,150	38,100	19,200	11,900	19,200	7,600	7,600	15,300	6,680	1,050	2,870
26	340	13,500	36,000	18,600	12,800	18,600	8,620	7,400	13,400	6,500	1,050	5,120
27	340	20,200	33,400	17,600	13,400	18,600	9,560	7,600	11,400	6,020	1,090	7,220
28	340	22,600	31,000	17,600	14,500	18,600	10,300	8,840	10,100	5,860	1,050	7,040
29	360	24,700	29,400	16,600	-	18,600	10,900	9,820	9,320	5,860	1,150	6,020
30	340	27,000	27,800	16,200	-	18,100	10,900	10,300	9,320	5,560	1,260	5,120
31	400	-	27,000	16,200	-	18,100	-	11,100	-	5,040	1,220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	14,374	800	340	464	28,510
November	157,242	27,000	582	5,241	311,900
December	1,360,800	59,600	27,000	44,540	2,759,000
Calendar year 1940	3,129,962	59,600	340	8,552	6,208,000
January	724,100	32,600	16,200	23,360	1,436,000
February	364,180	16,600	7,220	13,010	722,300
March	576,800	21,400	14,900	18,600	1,144,000
April	284,780	18,100	6,020	9,498	564,900
May	405,840	20,800	7,400	13,080	808,000
June	383,620	19,700	5,280	12,790	760,900
July	230,580	9,320	5,040	7,438	457,300
August	55,020	4,260	1,050	1,775	109,100
September	64,216	7,220	956	2,141	127,400
Water year 1940-41	4,641,352	59,600	340	12,720	9,206,000

Mud Creek near Jacksonville, Tex.

Location.- Water-stage recorder, lat. 31°58'40", long. 95°09'40", at bridge on U. S. Highway 79, 5 miles downstream from International-Great Northern Railroad bridge and 6.9 miles east of Jacksonville, Cherokee County. Datum of gage is 271.6 feet above mean sea level, datum of 1929.

Drainage area.- 382 square miles.

Records available.- May 1939 to September 1941.

Extremes.- Maximum discharge during year, 14,200 second-feet Nov. 23 (gage height, 12.50 feet); minimum, 1.2 second-feet Oct. 28.

1939-41: Maximum discharge, that of Nov. 23, 1940; no flow at times. Maximum stage known occurred in May 1884, according to information furnished by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	159	898	1,140	299	865	a277	207	87	195	24	27
2	15	98	747	1,270	592	716	a257	211	84	167	21	23
3	13	92	605	887	635	563	a2,020	220	121	87	18	20
4	11	101	483	758	521	418	1,510	207	154	64	16	21
5	9.3	95	386	675	546	346	966	254	176	56	16	26
6	8.3	62	324	597	571	470	832	504	162	54	21	23
7	7.8	45	441	521	546	1,280		580	138	48	29	16
8	8.1	38	768	451	455	1,075		455	158	40	33	14
9	7.4	35	778	386	364	1,170		439	220	36	32	14
10	5.8	46	1,160	338	324	1,260		435	277	32	31	17
11	8.3	54	1,220	318	294	1,000		404	348	38	29	29
12	10	74	1,590	305	267	854		312	401	279	23	52
13	8.1	95	1,200	294	252	768		229	364	376	18	42
14	6.9	110	989	800	234	571		203	324	324	15	30
15	5.8	107	1,710	726	220	421	a250	168	311	417	13	25
16	5.1	84	2,540	580	211	364		134	282	563	11	21
17	4.5	62	2,070	625	203	331		112	305	416	17	19
18	3.8	50	1,950	655	195	318		99	358	265	16	18
19	3.4	47	1,450	625	202	331		93	398	142	11	17
20	3.2	46	1,020	505	481	354		87	505	96	8.6	15
21	2.8	45	810	404	597	338		84	580	81	6.9	12
22	2.6	127	675	351	588	311	195	81	448	69	5.9	9.1
23	2.1	9,080	546	299	778	331	211	75	237	58	10	7.4
24	1.8	12,400	459	421	1,720	555	221	68	144	50	86	35
25	1.8	10,000	374	463	1,380	563	288	62	106	44	182	255
26	1.8	5,690	625	625	1,160	615	272	60	84	38	176	374
27	1.4	3,550	1,860	625	1,110	635	294	61	76	43	123	311
28	1.3	2,380	2,070	521	989	597	311	60	114	52	50	338
29	1.7	1,620	2,780	467	-	463	263	65	148	44	34	374
30	1.7	1,140	2,070	398	-	366	207	77	179	37	31	398
31	53	-	1,260	331	-	311	-	87	-	31	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	233.8	53	1.3	7.54	464
November.....	47,508	12,400	35	1,584	94,230
December.....	35,858	2,780	324	1,157	71,120
Calendar year 1940	106,175.7	12,400	0	290	210,600
January.....	17,141	1,270	294	553	34,000
February.....	16,734	1,720	195	562	31,210
March.....	18,605	1,280	311	600	36,900
April.....	11,934	-	-	398	23,670
May.....	8,133	580	60	198	12,160
June.....	7,269	580	75	242	14,420
July.....	4,242	563	31	137	8,410
August.....	1,117.4	176	5.9	36.0	5,220
September.....	2,682.5	398	7.4	86.1	2,120
Water year 1940-41	168,357.7	12,400	1.3	461	333,900

a No gage-height record; discharge computed on basis of recorded range in stage, engineer's notes, and weather records.

Angelina River near Alto, Tex.

Location.- Chain gage, lat. 31°40', long. 94°58', on bridge on State Highway 21, 3 miles upstream from Bingham Creek, and 7 miles east of Alto, Cherokee County. Datum of gage is 204.3 feet above mean sea level, datum of 1929.

Drainage area.- 1,261 square miles.

Records available.- September 1940 to September 1941. May to August 1940 (discharge measurements only).

Extremes.- 1940-41: Maximum discharge not determined; minimum observed, 15 second-feet Oct. 25-26.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Discharge above 2,200 second-feet not computed because of indefinite stage-discharge relation. Gage read twice daily. No large diversion above station.

Discharge, in second-feet, 1940-41
1940

Date	Discharge	Date	Discharge	Date	Discharge
May 9	*245	June 25	*379	Sept. 26	114
19	*134	July 21	*473	27	129
June 3	*1,180	Aug. 19	*251	28	124
4	*1,050	Sept. 23	*52	29	104
5	*784	24	74	30	94
6	*514	25	94		

* Discharge measurement.

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	a39	-	-	1,930	-	1,430	893	368	696	241	140
2	89	a84	-	-	2,040	-	1,350	808	368	680	241	124
3	74	206	-	-	1,840	-	1,310	776	368	605	229	104
4	64	342	-	-	1,720	-	1,200	760	342	474	184	134
5	54	394	-	-	1,670	-	1,390	1,090	329	420	151	195
6	47	381	-	-	1,700	-	-	1,240	342	368	140	162
7	44	342	-	-	1,780	-	-	1,240	407	277	140	129
8	39	329	-	-	1,610	-	-	1,370	516	241	173	119
9	35	316	1,930	-	1,780	-	-	-	635	217	206	134
10	31	290	1,670	-	1,720	-	-	-	712	195	265	151
11	30	241	1,540	-	1,620	-	-	-	1,030	195	303	154
12	30	241	1,720	-	1,520	-	-	-	1,030	446	255	124
13	30	290	-	1,840	1,610	-	-	-	1,070	680	206	134
14	28	342	-	-	1,290	-	-	-	1,090	893	173	129
15	27	316	-	2,040	1,180	-	-	-	1,110	1,220	151	140
16	25	290	-	1,840	1,070	-	944	1,620	1,310	1,270	134	151
17	25	a265	-	1,840	990	-	808	1,270	1,390	1,450	134	140
18	25	a265	-	1,930	893	-	728	998	1,270	1,620	119	124
19	21	a265	-	-	976	-	712	744	1,220	1,620	109	109
20	21	a277	-	-	1,350	1,840	744	620	1,240	1,500	99	99
21	20	a277	-	-	1,520	1,670	744	1,090	1,260	1,310	94	94
22	18	-	-	2,110	1,620	1,520	760	1,070	1,260	1,030	89	84
23	17	-	-	1,880	1,610	1,450	776	792	1,220	712	104	79
24	17	-	-	1,880	-	1,450	808	560	1,180	407	114	84
25	15	-	-	1,700	-	1,430	808	446	1,140	290	124	265
26	15	-	-	1,540	-	1,410	808	361	1,050	241	151	303
27	15	-	-	1,450	-	1,410	825	342	876	355	173	446
28	15	-	-	1,480	-	1,450	876	316	792	277	184	575
29	20	-	-	1,570	-	1,500	927	342	728	342	217	744
30	21	-	-	1,720	-	1,520	910	342	712	290	241	1,020
31	a24	-	-	1,880	-	1,500	-	355	-	253	206	-

Monthly discharge, in second-feet, 1940-41

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
September 24-30, 1940.....	733	129	74	105	1,450
Water year	-	-	-	-	-
October 1940.....	1,025	89	15	33.1	2,030
November 1-21.....	5,792	394	-	276	11,490
December.....	-	-	1,540	-	-
Calendar year	-	-	-	-	-
January 1941	-	-	1,450	-	-
February 1-23.....	35,129	2,040	876	1,527	69,680
March 20-31.....	18,150	1,840	1,410	1,512	36,000
April.....	-	-	712	-	-
May.....	-	-	316	-	-
June.....	26,365	1,390	329	879	52,290
July.....	20,574	1,620	195	664	40,810
August.....	5,360	303	89	175	10,630
September.....	6,370	1,020	79	212	12,630
Water year 1940-41.....	-	-	-	-	-

Angelina River near Lufkin, Tex.

Location.- Water-stage recorder, lat. 31°27'40", long. 94°43'35", at bridge on State Highway 35, 400 feet upstream from Procella Creek, half a mile downstream from Little Loco Bayou, 1.5 miles upstream from bridge of Texas and New Orleans Railroad, and 8 miles north of Lufkin, Angelina County. Datum of gage is 164.72 feet above mean sea level, datum of 1929.

Drainage area.- 1,575 square miles.

Records available.- October 1923 to September 1934, July 1939 to September 1941.

Average discharge.- 13 years, 1,273 second-feet.

Extremes.- Maximum discharge during year, 31,300 second-feet Nov. 28 (gage height, 17.97 feet); minimum, 37 second-feet Oct. 25-27.

1923-34, 1939-41: Maximum discharge, 38,200 second-feet Feb. 24, 1932; maximum gage height, that of Nov. 28, 1940; minimum discharge, 2.3 second-feet Oct. 12, 1939. Maximum stage known, about 26.5 feet in May 1884, according to information furnished by local residents.

Remarks.- Records good except those for period of no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	172	17,600	5,420		3,410	1,950	1,060	486	990	351	237
2	107	136	13,000	7,610		3,800	1,950	1,140	475	842	316	206
3	101	140	9,670	9,370		4,240	1,950	1,080	464	772	292	172
4	95	154	7,870	9,070		4,340	1,950	1,010	431	702	284	154
5	90	206	6,850	8,470	a2,560	4,240	1,910	1,300	420	615	262	154
6	80	300	5,760	8,170		4,240	1,800	1,520	451	530	237	162
7	70	351	5,090	7,610		4,980	1,760	1,760	685	475	250	186
8	61	351	4,660	6,830		4,870	1,870	1,800	931	409	300	172
9	57	342	4,140	6,110		4,550	2,250	1,720	1,010	333	342	158
10	53	360	3,800	5,090		3,960	2,660	1,620	979	292	308	186
11	50	369	3,720	4,440	2,250	3,560	3,200	1,690	2,530	284	292	206
12	49	342	5,200	3,960	2,250	3,410	3,480	1,870	2,540	440	316	186
13	47	292	5,420	3,640	2,250	3,800	3,410	2,120	1,950	655	303	167
14	46	269	5,200	3,640	2,160	4,340	3,130	2,340	1,580	1,250	276	154
15	46	292	4,660	3,560	2,030	4,550	2,720	2,540	1,340	1,830	262	154
16	45	324	4,440	3,340	1,910	4,440	2,440	2,720	1,550	2,440	221	158
17	44	316	4,050	3,200	1,720	4,140	1,990	2,660	1,720	2,300	196	162
18	43	300	4,140	2,850	1,550	3,800	1,520	2,440	1,800	1,870	176	162
19	41	292	4,240		1,460	3,560	1,210	2,070	1,830	1,660	167	158
20	41	292	4,870		2,780	3,720	1,010	1,660	1,690	1,660	158	140
21	40	292	5,760		3,410	3,720	950	1,310	1,550	1,690	140	124
22	39	284	6,110		3,720	3,340	950	1,140	1,490	1,660	128	110
23	39	5,650	5,880		3,340	3,060	990	1,260	1,460	1,550	128	98
24	38	11,400	5,540		3,410	2,780	1,140	1,260	1,430	1,310	144	440
25	37	15,400	5,420	a2,360	3,410	2,540	1,160	990	1,400	924	172	808
26	37	11,800	5,880		3,560	2,540	1,140	720	1,340	585	181	1,010
27	37	21,000	7,090		3,480	2,800	1,040	555	1,340	530	167	895
28	39	30,200	7,090		3,340	2,070	990	508	1,260	542	176	650
29	44	28,000	6,340		-	1,990	990	508	1,160	475	196	555
30	44	23,500	5,650		-	1,950	1,010	508	1,110	409	211	600
31	100	-	5,090		-	1,950	-	508	-	398	226	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,780	120	37	57.4	3,530
November.....	153,126	30,200	136	5,104	303,700
December.....	190,210	17,600	3,720	6,136	377,300
Calendar year 1940.....	578,669	30,200	37	1,581	1,148,000
January.....	133,060	9,370	-	4,292	263,900
February.....	71,630	3,720	1,460	2,558	142,100
March.....	109,890	4,980	1,950	3,545	218,000
April.....	54,520	3,480	950	1,817	108,100
May.....	45,387	2,720	508	1,464	90,020
June.....	38,382	2,540	420	1,279	76,130
July.....	30,622	2,440	284	988	60,740
August.....	7,183	351	128	232	14,250
September.....	6,729	1,010	98	291	17,310
Water year 1940-41.....	844,519	30,200	37	2,314	1,675,000

a No gage-height record; discharge computed on basis of recorded range in stage, records for station near Alto, and weather records.

Angelina River at Horger, Tex.

Location.- Chain gage, lat. 31°00', long. 94°10', on bridge on State Highway 63, a quarter of a mile east of Horger, Jasper County, 7 miles upstream from Indian Creek, and 20 miles upstream from mouth. Datum of gage is 68.4 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 3,435 square miles.

Records available.- March 1928 to September 1941.

Average discharge.- 13 years, 2,915 second-feet.

Extremes.- Maximum discharge during year, 36,200 second-feet Nov. 30 (gage height, 34.50 feet, from graph based on gage readings); minimum observed, 99 second-feet Oct. 28, 1928-41: Maximum discharge, 48,800 second-feet Feb. 24, 1932 (gage height, 36.35 feet, from graph based on gage readings); minimum observed, 13 second-feet Sept. 22, 1937.

Maximum discharge known, 82,000 second-feet August 1915 (gage height, 39.5 feet, according to information furnished by local residents), from rating curve extended above 47,000 second-feet by logarithmic plotting.

Remarks.- Records good. Gage read twice daily. Occasional backwater from Neches River. No diversion above station.

Correction.- The run-off in acre-feet for the water year 1931-32, as published in Water-Supply Paper 733, should be 3,530,000 instead of 2,530,000.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	306	358	32,900	18,300	5,370	10,400	5,780	2,940	6,200	2,940	1,160	474
2	244	230	30,400	18,000	6,410	10,300	4,980	2,500	4,020	2,580	1,020	516
3	250	210	29,600	17,100	8,090	9,900	4,400	2,200	2,840	2,350	890	805
4	237	340	28,300	15,700	8,440	9,580	3,900	2,000	2,050	2,250	830	575
5	225	502	26,200	14,200	7,810	8,860	3,720	3,980	1,770	2,250	770	560
6	210	502	24,100	12,900	7,320	8,720	3,600	7,950	1,640	2,250	740	516
7	204	418	22,400	11,900	7,040	9,900	3,480	10,400	2,150	1,950	740	502
8	190	379	20,300	11,200	6,550	10,200	3,240	12,000	2,560	1,680	770	474
9	178	418	19,000	11,100	6,060	10,300	3,060	12,000	3,600	1,460	860	460
10	170	665	17,400	11,400	5,640	9,750	2,940	11,700	4,330	1,340	830	460
11	162	920	15,700	11,500	5,240	9,600	2,780	11,500	7,040	1,260	830	460
12	155	800	15,400	11,300	4,980	9,600	2,720	11,100	8,720	1,190	860	460
13	150	755	17,100	11,100	4,720	9,680	2,670	10,400	9,520	1,190	830	474
14	146	740	17,600	10,800	4,330	9,680	2,720	9,300	10,000	1,340	755	488
15	133	725	19,300	10,600	3,960	9,600	2,890	7,740	10,000	1,770	695	502
16	135	680	19,400	10,600	4,330	9,380	3,060	5,850	9,900	2,400	680	474
17	127	620	19,600	10,600	3,420	9,080	3,240	4,520	9,380	2,720	680	418
18	116	530	19,400	10,400	3,240	8,790	3,360	3,900	8,650	2,780	680	385
19	118	530	18,700	9,900	3,180	8,440	3,480	3,600	8,020	2,780	690	374
20	113	502	17,600	9,360	4,460	8,790	3,420	3,300	7,250	2,690	560	366
21	116	502	16,400	8,720	4,520	9,450	3,300	3,360	6,620	3,240	516	360
22	109	502	14,800	8,160	7,530	9,900	3,120	3,540	5,850	3,000	488	352
23	109	856	13,500	7,530	7,810	10,000	2,940	3,640	4,980	2,620	460	344
24	109	8,900	12,300	7,110	8,440	9,980	4,020	3,480	4,520	2,300	446	1,020
25	109	13,900	11,300	7,810	9,300	9,900	4,720	3,120	4,260	2,250	432	1,080
26	109	16,200	11,300	7,460	9,980	9,600	4,330	2,670	3,960	2,150	488	1,500
27	109	18,500	12,100	7,530	10,100	9,150	3,840	2,200	3,660	2,300	495	1,660
28	99	25,300	13,100	7,460	10,400	8,650	3,360	2,300	3,720	2,400	665	1,720
29	111	34,000	15,600	6,970	-	8,160	3,300	3,120	3,600	2,200	545	1,680
30	116	35,000	17,200	6,200	-	7,460	3,42-	5,300	3,300	1,690	502	1,680
31	201	-	17,700	5,710	-	6,620	-	6,760	-	1,300	474	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,867	306	99	157	9,650
November.....	164,484	35,000	210	5,483	328,200
December.....	585,700	32,900	11,300	18,890	1,162,000
Calendar year 1940.....	1,503,923	35,000	99	4,109	2,983,000
January.....	328,640	18,300	5,710	10,600	651,800
February.....	178,670	10,400	3,180	6,381	354,400
March.....	289,220	10,400	6,620	9,530	573,700
April.....	105,790	5,780	2,670	3,526	209,800
May.....	178,210	12,000	2,000	5,749	353,500
June.....	164,110	10,000	1,640	5,470	325,500
July.....	66,700	3,240	1,190	2,152	132,300
August.....	21,511	1,160	432	694	42,670
September.....	20,959	1,720	344	699	41,870
Water year 1940-41.....	2,108,861	35,000	99	5,778	4,183,000

Striker Creek near Summerfield, Tex.

Location.- Chain gage, lat. 32°00'10", long. 94°59'35", on bridge on U. S. Highway 79, 3½ miles downstream from Johnson Creek and 6½ miles northeast of Summerfield, Cherokee County. Datum of gage is 287.0 feet above mean sea level, datum of 1929.

Drainage area.- 135 square miles.

Records available.- September 1940 to September 1941. May to August 1940 (discharge measurements only).

Extremes.- 1940-41: Maximum discharge during period, 10,800 second-feet Nov. 24 (gage height, 17.23 feet, from floodmark), from rating curve extending above 5,000 second-feet by velocity-area studies; minimum observed, 4.7 second-feet Oct. 25, 28.

Remarks.- Records good except those for period of no gage-height record, which are poor. Gage read twice daily, oftener during floods. No large diversion above station.

Daily discharge, in second-feet, 1940-41

1940

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
May 1	*162	June 3	*46	June 24	*62	Sept. 24	8.2	Sept. 29	9.2
3	*122	11	†123	July 24	*15	25	9.0	30	8.4
5	*63	12	*186	Aug. 20	*49	26	9.7		
9	*16	13	*211	30	*1,250	27	11		
18	*18	14	*131	31	†576	28	9.9		

* Discharge measurement.

† Average of two discharge measurements.

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	38	161	346		192	106	75	38	74	31	29
2	6.4	72	138	619		160	135	72	38	46	21	21
3	7.2	146	126	915		139	1,670	77	43	30	18	17
4	6.8	147	114	537		126	1,400	81	60	25	16	16
5	6.4	105	103	334		118	654	100	82	22	18	39
6	6.4	60	92	230		146	299	346	66	21	33	56
7	6.8	32	126	185		556	192	1,110	50	19	48	35
8	*6.8	20	351	160		1,180	144	927	64	18	52	22
9	*6.7	23	660	144		764	126	409	106	17	50	18
10	*6.6	35	453	134	a185	364	106	222	134	16	43	18
11	6.6	53	278	126		230	99	134	134	31	32	37
12	6.6	85	371	122		172	89	134	139	82	34	59
13	5.9	106	651	114		160	80	149	178	275	20	48
14	5.5	103	768	180		149	75	114	134	460	17	29
15	5.4	80	810	381		139	70	89	95	346	15	22
16	5.0	50	1,770	540		130	72	70	99	239	14	19
17	5.0	30	1,840	398		122	82	51	183	214	15	18
18	4.8	25	814	268		192	83	45	248	154	14	17
19	5.2	23	406	185	83	192	85	41	185	95	13	16
20	4.8	22	248	149	163	149	110	42	118	54	12	14
21	4.8	22	192	130	334	139	134	44	76	37	10	13
22	4.8	42	160	118	480	139	149	44	59	30	9.9	12
23	4.8	4,040	144	114	358	166	130	38	67	25	9.9	12
24	4.8	9,640	130	169	615	279	160	33	52	22	42	39
25	4.7	5,050	122	366	890	503	222	30	38	20	122	242
26	5.0	2,510	158	625	712	397	258	28	41	18	118	1,240
27	4.8	1,280	729	466	406	237	178	35	42	31	66	1,460
28	4.7	623	1,940	334	288	166	126	38	44	103	29	686
29	5.0	330	1,240	230	-	144	95	38	58	139	20	298
30	5.0	209	545	166	-	126	81	41	85	114	17	163
31	14	-	322	144	-	114	-	42	-	66	22	-

a No gage-height record; discharge interpolated or computed on basis of records for nearby station and weather records.

Monthly discharge, in second-feet, 1940-41.

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
September 24-30, 1940.....	65.4	11	8.2	9.34	130
October 1940.....	184.9	14	4.7	5.96	367
November.....	25,030	9,640	20	834	49,650
December.....	15,962	1,940	92	515	31,660
Calendar year.....	-	-	-	-	-
January 1941.....	8,931	915	114	288	17,710
February.....	7,637	890	-	273	15,150
March.....	7,810	1,180	114	252	15,490
April.....	7,210	1,670	70	240	14,300
May.....	4,699	1,110	28	152	9,320
June.....	2,756	248	38	91.9	5,470
July.....	2,865	480	16	92.4	5,680
August.....	971.8	122	9.9	31.3	1,930
September.....	4,715	1,460	12	157	9,350
Water year 1940-41.....	88,771.7	9,640	4.7	243	176,100

Attoyac Bayou near Chireno, Tex.

Location.- Water-stage recorder, lat. 31°30'15", long. 94°18'15", at bridge on State Highway 21, 3 miles northeast of Chireno, Nacogdoches County, and 7 miles downstream from Arenoso Creek. Datum of gage is 169.9 feet above mean sea level, datum of 1929.

Drainage area.- 502 square miles.

Records available.- January 1924 to August 1925, July 1939 to September 1941.

Extremes.- Maximum discharge during year, 31,900 second-feet Nov. 24 (gage height, 25.97 feet); minimum, 34 second-feet Oct. 23.

1924-25, 1939-41: Maximum discharge, that of Nov. 24, 1940; minimum observed, 7.0 second-feet Aug. 27, 1925.

Maximum stage known, 29.9 feet in June 1912 (result of local storm), according to information furnished by local residents.

Remarks.- Records good except those for period of no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	135	1,740	2,150	442	1,740	462	342	472	704	133	174
2	48	282	1,340	1,950	653	1,520	442	342	382	751	120	143
3	46	225	1,120	1,970	854	1,340	492	422	352	654	110	160
4	44	141	1,040	3,080	896	1,100	522	402	322	522	110	178
5	42	137	939	2,480	882	842	462	2,310	285	392	113	153
6	41	110	775	2,070	924	710	432	5,000	286	294	156	190
7	42	94	763	1,740	969	1,100	432	5,750	857	276	164	153
8	42	80	954	1,570	954	1,300	412	4,890	894	240	204	113
9	42	80	1,200	1,180		1,520	372	3,200	5,390	218	312	113
10	40	132	1,380	1,150		2,340	342	2,380	3,740	204	322	153
11	38	198	1,850	924		2,200	322	1,990	3,480	208	429	204
12	37	214	2,790	727		1,990	303	1,680	2,600	303	182	240
13	37	214	5,440	616	472	1,880	294	1,400	2,480	422	133	174
14	37	171	5,750	660	452	1,680	285	1,090	2,150	557	116	126
15	36	134	4,780	788	422	1,420	267	687	1,880	693	213	116
16	37	110	3,650	939	412	1,300	258	432	1,680	751	160	113
17	37	96	3,080	1,000	392	1,200	258	362	1,680	801	113	113
18	36	88	2,720	1,020	382	1,070	249	382	1,740	654	102	104
19	36	83	2,380	965	396	896	249	362	1,940	377	99	99
20	35	83	2,070	954	1,360	1,020	267	419	2,200	267	86	96
21	35	83	1,800	854	1,860	1,240	276	660	1,880	226	80	91
22	35	86	1,570	682	2,330	1,300	285	610	1,570	195	76	83
23	34	703	1,340	552	2,480	1,200	635	462	1,340	174	244	78
24	35	26,800	1,180	532	2,600	1,150	854	372	1,100	174	649	225
25	36	26,600	992	532	2,380	1,070	788	303	904	240	392	492
26	36	15,700	1,410	594	2,150	969	588	258	644	222	190	660
27	36	7,260	2,540	660	2,030	910	442	240	472	208	174	704
28	37	3,930	7,980	682	1,950	801	342	316	482	267	164	704
29	40	2,660	6,860	649	-	649	352	530	627	255	133	751
30	47	2,110	3,650	552	-	542	392	693	660	226	129	814
31	66	-	2,540	472	-	492	-	649	-	164	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,240	66	34	40.0	2,460
November	88,742	26,800	80	2,958	176,000
December	77,723	7,980	763	2,504	164,000
Calendar year 1940	318,862	26,800	34	871	632,500
January	34,714	3,080	472	1,120	68,850
February	31,202	2,600	382	1,114	61,890
March	38,491	2,340	492	1,242	76,350
April	11,856	854	249	395	23,520
May	35,935	5,750	240	1,256	77,230
June	44,489	5,390	285	1,483	88,240
July	11,669	801	164	376	23,150
August	5,578	649	76	180	11,060
September	7,517	814	78	251	14,910
Water year 1940-41	392,056	26,800	34	1,074	777,700

Peak discharges.- Nov. 24 (4:30 p.m.) 31,900 sec.-ft.; Dec. 13 (7:30 p.m.) 6,700 sec.-ft.;

Dec. 25 (5:30 p.m.) 10,500 sec.-ft.;

a No gage-height record; discharge computed on basis of recorded range in stage, records for Mud Creek near Jacksonville and Striker Creek near Summerfield, and weather records.

Village Creek near Kountze, Tex.

Location.- Water-stage recorder, lat. 30°24', long. 94°16', on bridge on Kountze-Silsbee county highway, 1.2 miles upstream from Gulf, Colorado & Santa Fe Railway bridge, 3.2 miles northeast of Kountze, Hardin County, and 4½ miles downstream from Beech Creek. Datum of gage is 25.1 feet above mean sea level, datum of 1929.

Drainage area.- 837 square miles.

Records available.- May 1924 to November 1929, and April 1939 to September 1941. October 1927 to November 1929 (discharge measurements only).

Extremes.- Maximum discharge during year, 67,200 second-feet Nov. 26 (gage height, 27.6 feet, from floodmark), from rating curve extended above 35,000 second-feet by logarithmic plotting; minimum, 61 second-feet Oct. 24, 25. 1924-27, 1939-41: Maximum discharge, that of Nov. 26, 1940; minimum, 32 second-feet Sept. 28, 1939.

Maximum stage known, about 34 feet, present site and datum, August 1915. Flood of May 27, 1929, reached a stage of about 32 feet, present site and datum. Above stages were determined on basis of information furnished by engineers of Gulf, Colorado & Santa Fe Railway for site 1.2 miles downstream.

Remarks.- Records good except those above 35,000 second-feet, which are poor. No diversion above station.

Rating table, water year 1940-41 (gage-height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1-31)

1.9	60	10.0	1,450	16.0	6,150	22.0	24,000
2.5	105	11.0	1,780	17.0	8,050	24.0	35,500
3.0	150	12.0	2,200	18.0	10,200	26.0	51,300
4.5	317	13.0	2,800	19.0	12,800	27.0	61,200
6.0	550	14.0	3,550	20.0	16,000		
8.0	970	15.0	4,650	21.0	19,500		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	551	4,410	3,850	772	1,270	838	1,400	3,650	1,080	244	165
2	89	948	3,600	3,010	872	1,040	772	1,450	3,390	750	228	165
3	83	1,100	2,900	2,260	1,450	838	706	1,540	2,620	626	216	175
4	80	948	2,300	1,780	1,970	750	666	1,640	1,580	816	211	165
5	77	568	1,840	1,540	2,500	706	706	2,080	919	948	222	241
6	75	450	1,510	1,400	3,080	706	706	3,670	686	544	222	418
7	73	482	1,370	1,370	3,310	1,350	366	4,170	1,230	434	233	324
8	70	466	1,600	1,350	2,680	2,280	606	4,170	3,320	379	365	238
9	70	418	1,930	1,350	2,050	2,740	586	4,290	4,650	337	418	195
10	69	938	2,100	1,270	1,640	2,870	550	3,750	5,070	324	402	195
11	68	1,480	2,150	1,180	1,320	2,800	498	2,800	5,070	372	379	255
12	67	1,700	2,990	1,060	1,100	2,380	466	1,690	5,830	1,060	310	279
13	66	1,780	12,600	970	970	1,850	418	947	6,150	2,190	255	310
14	66	1,780	29,600	992	882	1,420	402	686	5,510	2,500	228	255
15	64	1,420	31,900	1,520	816	1,150	386	586	5,210	2,100	211	233
16	64	926	19,400	2,050	750	1,010	372	514	3,850	1,670	195	211
17	64	532	10,200	2,440	686	992	351	466	2,800	1,270	180	352
18	64	418	6,980	2,560	666	948	344	418	2,010	1,200	170	386
19	65	358	5,670	2,440	646	1,010	337	394	1,570	1,400	160	394
20	66	330	4,650	2,260	686	2,330	330	372	1,250	1,250	160	386
21	66	310	3,750	1,890	926	4,410	330	365	1,060	1,040	150	279
22	64	304	3,010	1,480	1,200	5,070	357	823	1,010	1,200	146	222
23	63	324	2,580	1,150	1,370	4,530	402	971	1,150	795	141	200
24	62	2,180	1,850	1,010	1,670	3,850	764	1,370	1,250	588	136	876
25	62	19,200	1,840	1,010	1,930	3,080	1,150	1,540	1,080	450	132	1,760
26	64	162,200	1,640	1,080	2,010	2,320	1,420	902	926	379	132	1,930
27	64	147,800	2,260	1,250	1,810	1,650	1,820	586	838	337	132	1,970
28	70	25,500	3,080	1,320	1,510	1,220	2,680	777	794	324	136	2,010
29	92	11,300	3,750	1,200	-	1,130	2,420	1,720	882	304	141	1,870
30	93	6,200	4,410	970	-	1,060	3,090	3,090	1,180	279	160	1,010
31	123	-	4,530	838	-	970	-	3,650	-	261	160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,251	123	62	72.6	4,460
November	192,911	62,200	304	6,430	382,600
December	180,900	31,900	1,370	5,835	358,800
Calendar year 1940	516,504	62,200	62	1,411	1,024,000
January	49,850	3,850	838	1,608	96,880
February	41,272	3,310	646	1,474	81,880
March	59,690	5,070	706	1,925	118,400
April	23,669	2,680	330	789	46,950
May	52,527	4,290	365	1,694	104,200
June	76,535	6,150	686	2,551	151,800
July	27,167	2,500	261	877	53,920
August	6,575	418	132	212	13,040
September	17,199	2,010	165	573	34,110
Water year 1940-41	730,566	62,200	62	2,002	1,449,000

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

West Fork of Trinity River at Fort Worth, Tex.

Location.- Water-stage recorder above spillway of Fort Worth Power & Light Co. concrete dam, lat. 32°46', long. 97°20', in old pump house of Fort Worth Power & Light Co.'s plant in Fort Worth, Tarrant County, 150 feet upstream from Paddock viaduct and a quarter of a mile downstream from Clear Fork of Trinity River. Datum of gage is 519.2 feet above mean sea level (Texas Reclamation Department benchmark based on U. S. Coast & Geodetic Survey datum).

Drainage area.- 2,431 square miles.

Records available.- October 1920 to September 1941. U. S. Weather Bureau has collected gage-height records in this vicinity since 1910.

Average discharge.- 21 years, 417 second-feet.

Extremes.- Maximum discharge during year, 10,200 second-feet Feb. 1 (gage height, 10.89 feet); minimum, 0.1 second-foot Oct. 13-15, 23-26. 1920-41: Maximum discharge, 85,000 second-feet, Apr. 25, 1922 (gage height, 23.95 feet), by slope-area method, data furnished by City engineer of Fort Worth; no flow at times.

Remarks.- Records good except those below 25 second-feet, which are fair. Considerable diversion above station for municipal supply. Flow partly regulated by Bridgeport, Eagle Mountain, and Lake Worth Reservoirs (combined capacity, 527,000 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	4.8	1,260	1,560	4,970	1,620	734	1,410	1,710	5,290	2,340	29
2	.7	2.9	1,220	1,470	3,190	1,560	734	1,340	3,060	5,440	2,280	27
3	.7	3.8	1,220	1,490	1,080	1,620	785	1,350	2,520	5,000	2,280	25
4	.5	8.0	1,220	1,420	778	1,460	741	1,470	1,980	4,390	2,280	195
5	.5	8.0	1,240	1,080	648	1,200	663	5,510	1,860	4,390	2,280	714
6	.3	5.8	1,220	607	727	1,310	677	2,600	2,010	4,390	2,280	918
7	.3	5.8	1,230	425	858	1,330	1,020	2,220	2,360	4,080	1,760	955
8	a.3	4.8	1,210	331	895	1,040	843	2,160	1,920	3,600	1,240	955
9	a.3	42.0	1,200	284	1,080	918	778	2,040	1,660	3,170	916	1,040
10	a.2	12.0	1,200	230	1,330	962	727	2,040	4,780	2,900	677	1,020
11	a.2	9.2	1,670	216	1,410	800	713	2,040	5,990	2,840	555	1,010
12	a.2	6.9	1,650	198	1,380	851	705	2,100	2,970	2,770	346	1,010
13	a.1	4.8	1,560	202	1,520	677	684	2,040	4,460	2,580	1,320	1,020
14	a.1	3.8	2,110	234	1,310	475	713	1,980	5,710	2,520	296	992
15	.1	3.8	3,890	202	1,320	353	741	1,980	6,100	2,460	144	756
16	.3	8.0	3,480	225	1,340	294	741	1,980	7,450	2,460	113	580
17	.7	10	1,350	198	1,350	234	727	1,920	7,120	2,460	64	514
18	.7	9.2	910	144	1,330	207	1,980	1,980	8,260	2,400	41	475
19	.7	6.9	713	180	1,390	198	1,250	1,920	8,870	2,460	35	475
20	.5	5.8	955	120	2,260	202	969	1,920	9,140	2,460	35	409
21	.9	14	1,260	113	1,520	194	756	1,980	8,960	2,400	33	178
22	.5	35	1,320	109	1,540	181	792	2,280	8,760	2,400	108	89
23	.1	281	1,340	106	2,700	356	1,700	2,040	8,600	2,400	109	46
24	.1	408	1,330	102	3,170	278	1,620	1,920	8,310	2,340	109	37
25	.1	1,390	1,320	99	2,040	211	1,480	1,860	7,710	2,340	224	220
26	.7	6,480	3,360	99	2,340	499	1,400	1,860	6,460	2,340	125	348
27	1.1	6,815	4,190	92	1,920	548	1,530	1,850	5,410	2,340	87	431
28	2.1	6,627	2,040	85	1,740	620	1,540	1,320	6,710	2,340	41	488
29	1.1	6,891	1,680	85	-	670	1,440	1,250	5,970	2,340	37	508
30	1.1	1,200	1,560	89	-	698	1,440	1,240	5,580	2,340	35	508
31	44	-	1,560	132	-	685	-	1,460	-	2,340	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	80.1	44	0.1	1.94	119
November	8,107.3	2,480	2.0	270	16,080
December	51,478	4,190	713	1,661	102,100
Calendar year 1940	98,138.2	4,190	.1	258	194,700
January	11,867	1,560	85	383	23,540
February	47,136	4,970	648	1,583	93,490
March	22,319	1,620	181	720	44,270
April	30,623	1,980	663	1,021	60,740
May	60,770	5,510	1,240	1,960	120,500
June	162,620	9,140	1,710	5,421	322,600
July	93,920	5,440	2,340	3,030	185,300
August	22,201	2,340	33	716	44,040
September	16,972	1,040	25	532	31,680
Water year 1940-41	527,073.4	9,140	.1	1,444	1,045,000

Peak discharge.- Dec. 26, (8:00 p.m.) 7,290 sec.-ft.; Feb. 1, (7:00 p.m.) 10,200 sec.-ft.; June 10, (7 p.m.) 7,455 sec.-ft.; June 15, (12:30 p.m.) 8,970 sec.-ft.; June 20, (12:00 m.) 9,140 sec.-ft.;

a No gage-height record; discharge interpolated.

g Computed from graph based on gage readings furnished by U. S. Weather Bureau.

West Fork of Trinity River at Grand Prairie, Tex.

Location.- Water-stage recorder, lat. 32°46', long. 96°59', 440 feet downstream from bridge on Grand Prairie-Sowers-Irving highway, 1 mile northeast of Grand Prairie, Dallas County, and 6 miles upstream from Mountain Creek. Datum of gage is 412.98 feet above mean sea level, datum of 1929.

Drainage area.- 2,866 square miles.

Records available.- March 1925 to September 1941.

Average discharge.- 16 years, 522 second-feet.

Extremes.- Maximum discharge during year, 11,400 second-feet June 11, 23; maximum gage height, 23.50 feet June 12 (affected by backwater from Elm Fork and Mountain Creek); minimum, 11 second-feet Oct. 9.

1925-41: Maximum discharge observed, 15,400 second-feet Jan. 23, 1932 (gage height, 25.96 feet, at site then in use, present datum); minimum observed, 3.2 second-feet June 6, 1925.

Maximum stage known, 29 feet in April 1922.

Remarks.- Records good except those for periods of backwater, which are poor. Many small diversions above gage; largest diversion is for municipal supply of Fort Worth. Flow partly regulated by Bridgeport, Eagle Mountain, and Lake Worth Reservoirs (combined capacity, 527,000 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	124	1,290	1,810	864	1,980	907	1,620	1,620	6,290	2,320	75
2	14	43	1,290	1,720	6,610	1,880	826	1,560	3,950	5,930	2,320	75
3	18	26	1,260	1,640	5,610	1,820	880	1,600	5,060	6,110	2,290	65
4	18	20	1,260	1,670	1,590	1,820	880	1,610	2,760	5,570	2,290	62
5	17	16	1,290	1,530	1,080	1,620	826	4,740	2,040	4,680	2,290	201
6	17	18	1,260	1,060	930	1,590	772	7,100	2,680	4,800	2,290	772
7	19	26	1,260	654	1,050	1,940	1,120	3,700	5,070	4,750	2,220	988
8	13	23	1,260	530	1,080	1,620	1,260	2,480	2,820	4,300	1,590	1,040
9	12	42	1,240	450	1,130	1,260	934	2,290	2,060	3,760	1,230	1,070
10	14	136	1,240	416	1,370	1,150	880	2,180	4,000	3,320	880	1,200
11	15	55	1,400	358	1,560	1,100	799	2,150	9,720	5,160	691	1,150
12	16	42	2,360	347	1,580	961	799	2,180	68,480	4,330	572	1,150
13	17	32	2,210	325	1,580	985	772	2,220	65,290	3,280	522	1,150
14	17	27	2,910	347	1,610	718	772	2,080	5,270	2,800	2,540	1,150
15	14	26	4,130	381	1,480	510	826	2,010	6,230	2,600	461	1,100
16	14	25	6,290	336	1,480	472	826	1,980	7,730	2,680	258	799
17	16	24	3,930	336	1,500	398	826	1,980	9,040	2,640	205	637
18	18	23	1,660	303	1,460	340	1,940	1,980	9,040	2,620	144	672
19	18	24	1,030	248	1,500	317	2,460	1,910	9,040	2,740	117	548
20	17	27	930	223	2,360	306	1,500	1,940	9,650	2,920	102	548
21	17	31	1,240	223	2,460	306	1,070	1,980	10,500	2,520	90	422
22	13	646	1,420	219	1,780	306	907	2,150	11,000	2,480	108	240
23	14	2,240	1,450	213	2,000	328	2,110	2,290	11,400	2,440	296	151
24	16	1,640	1,450	201	5,300	498	2,560	2,080	11,000	2,400	352	106
25	18	2,730	1,420	196	4,190	386	1,940	1,940	10,600	2,400	363	138
26	18	5,840	1,910	190	2,980	386	1,670	1,880	10,300	2,360	317	265
27	20	2,370	6,520	182	3,010	840	1,640	1,850	9,040	2,360	317	366
28	19	684	6,200	173	2,290	718	1,850	1,560	9,040	2,360	292	448
29	14	805	2,530	167	-	772	1,790	1,370	8,660	2,320	131	498
30	13	1,160	1,890	169	-	799	1,640	1,370	7,240	2,360	102	498
31	29	-	1,780	184	-	853	-	1,370	-	2,360	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	509	29	12	16.4	1,010
November	19,125	5,840	16	637	37,930
December	67,210	6,520	930	2,168	133,300
Calendar year 1940	175,810	6,520	12	481	343,900
January	16,851	1,810	167	544	33,420
February	61,424	6,610	864	2,194	121,800
March	28,982	1,980	306	935	57,480
April	37,982	2,560	772	1,266	75,340
May	69,050	7,100	1,370	2,227	137,000
June	210,430	11,400	1,620	7,014	417,400
July	107,740	6,290	2,320	3,475	213,700
August	27,788	2,540	88	895	55,120
September	17,496	1,200	62	583	34,700
Water year 1940-41	664,587	11,400	12	1,821	1,518,000

Peak discharge.- Dec. 28, (1 a.m.) 7,470 sec.-ft.; Feb. 3, (1 a.m.) 7,670 sec.-ft.; May 6, (8 a.m.) 7,870 sec.-ft.; June 11, (8 p.m.) 11,400 sec.-ft.; June 23, 24, 11,400 sec.-ft.; July 11, (1 p.m.) 7,080 sec.-ft.

c Backwater from Elm Fork of Trinity River and Mountain Creek; discharge computed on basis of records for Elm Fork of Trinity River near Carrollton, discharge measurement, and weather records.

Trinity River at Dallas, Tex.

Location.- Water-stage recorder, lat. 32°47', long. 96°48', at Commerce Street viaduct in Dallas, Dallas County, 5 1/2 miles downstream from confluence of West and Elm Forks. Datum of gage is 368.14 feet above mean sea level, datum of 1929.

Drainage area.- 6,001 square miles.

Records available.- July 1903 to July 1930, October 1932 to September 1941 (January 1907 to September 1920, monthly records only, in Water-Supply Paper 850). October 1898 to December 1899 (gage heights only), at site 2 miles upstream. July 1930 to September 1932, at site 6 miles downstream. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 38 years (1903-41), 1,433 second-feet.

Extremes.- Maximum discharge during year, 77,000 second-feet June 12 (gage height, 42.90 feet); minimum, 26 second-feet Oct. 29.

1903-41: Maximum discharge, 184,000 second-feet May 25 (date previously published in error), 1908 (gage height, 52.6 feet), from rating curve extended above 76,000 second-feet by logarithmic plotting; minimum discharge observed for periods 1903-6, 1920-41, 6.8 second-feet Sept. 11, 1924.

Remarks.- Records fair. Discharge for periods of backwater occurring at times of falling stages after floods of more than about 15,000 second-feet computed from backwater curve based on discharge measurements. Only known diversions are for municipal supply. Flow partly regulated by Bridgeport, Eagle Mountain, Lake Worth, Mountain Creek, and Lake Dallas Reservoirs (combined capacity, 777,000 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132	275	c2,540	8,280	1,050	5,560	1,380	5,120	1,520	c7,400	2,620	f363
2	129	217	2,840	6,190	11,300	4,100	1,560	4,490	8,030	c7,080	2,620	337
3	127	184	2,730	4,160	13,100	4,050	1,330	4,490	15,600	c8,100	2,620	313
4	130	176	2,680	4,440	6,660	4,050	1,560	4,800	10,200	c8,130	2,620	304
5	134	174	2,620	4,600	3,020	3,720	1,180	11,600	c6,490	c6,760	2,620	352
6	135	168	2,620	4,160	1,610	4,090	975	16,900	c5,780	c5,900	2,560	925
7	135	176	2,680	3,500	1,410	6,840	2,030	11,000	13,400	c5,420	2,510	1,150
8	137	172	2,510	3,220	1,250	5,040	2,460	c5,440	6,080	c5,040	2,070	1,200
9	130	250	2,460	3,000	1,200	3,610	1,850	c4,710	c3,420	c4,380	1,680	1,200
10	132	288	2,460	1,850	1,330	3,120	1,410	c4,490	c6,120	3,810	1,630	1,300
11	134	257	3,130	1,280	1,580	2,950	1,100	4,220	17,000	4,520	1,200	1,260
12	134	220	5,540	1,120	1,740	2,820	1,020	4,050	60,300	7,160	1,000	1,250
13	135	198	5,640	1,270	1,580	2,620	1,000	4,050	53,400	4,620	1,250	1,250
14	140	192	9,140	1,180	1,680	2,460	975	3,940	32,500	3,170	3,500	1,250
15	149	184	14,500	950	1,460	2,120	1,000	3,610	24,600	2,840	1,100	1,220
16	135	182	17,500	850	1,410	1,460	1,050	2,730	25,400	2,840	600	1,050
17	140	182	17,500	825	1,410	1,120	2,250	2,290	30,500	2,900	418	900
18	130	180	c3,940	732	1,410	925	6,580	2,070	25,200	3,050	310	825
19	135	178	c4,160	620	1,520	655	12,200	2,020	24,600	3,560	232	778
20	140	188	c3,440	560	3,070	512	12,000	2,590	17,500	4,660	154	778
21	151	208	c3,610	580	4,520	500	6,110	2,580	12,900	2,950	175	710
22	140	774	4,220	532	2,470	492	3,960	2,460	13,100	2,730	225	512
23	134	4,850	4,160	453	3,190	560	9,060	2,780	13,500	2,620	355	400
24	132	5,840	4,100	411	11,000	778	13,300	2,780	13,600	2,560	560	307
25	137	7,570	4,000	396	11,400	800	13,100	2,680	13,900	2,560	665	242
26	140	14,500	4,860	355	6,150	1,100	9,890	2,340	13,500	2,620	f732	376
27	144	13,200	13,600	340	9,800	1,540	6,640	2,120	13,600	2,620	f732	600
28	145	c6,980	17,100	325	9,120	1,360	6,160	1,630	17,300	2,560	925	710
29	111	c3,480	c9,080	304	-	1,360	5,780	1,410	c11,700	2,560	f620	642
30	145	c2,510	c3,860	270	-	1,360	5,720	1,380	c8,010	2,560	f540	580
31	208	-	c4,600	262	-	1,350	-	1,360	-	2,560	f442	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,280	208	111	138	8,490
November.....	63,953	14,500	168	2,132	126,800
December.....	189,520	17,500	2,340	6,081	373,900
Calendar year 1940	564,165	17,500	38	1,541	1,119,000
January.....	57,005	8,280	262	1,839	113,100
February.....	116,440	13,100	1,050	4,159	231,000
March.....	72,812	6,840	492	2,349	144,400
April.....	134,250	13,300	975	4,475	266,300
May.....	127,930	16,900	1,360	4,127	253,700
June.....	521,750	60,300	1,520	17,390	1,035,000
July.....	130,330	8,190	2,560	4,204	258,500
August.....	39,345	3,500	154	1,299	78,040
September.....	23,124	1,300	242	771	45,870
Water year 1940-41	1,479,739	60,300	111	4,054	2,935,000

Peak discharge.- Dec. 16 (9 p.m.) 18,000 sec.-ft.; Dec. 28 (10:30 a.m.) 17,500 sec.-ft.; May (11:30 a.m.) 17,700 sec.-ft.; June 3 (11 a.m.) 16,100 sec.-ft.; June 12 (8 p.m.) 77,000 sec.-ft. June 17 (3:30 p.m.) 31,000 sec.-ft.

c Stage-discharge relation affected by backwater from return flow.

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

Trinity River near Rosser, Tex.

Location.- Water-stage recorder, lat. 32°25'40", long. 96°27'50", at bridge on State Highway 34, 1.4 miles downstream from Texas & New Orleans Railroad bridge, 1.9 miles downstream from East Fork of Trinity River, and 2.5 miles south of Rosser, Kaufman County. Datum of gage is 302.6 feet above mean sea level, datum of 1929.

Drainage area.- 8,057 square miles.

Records available.- November 1938 to September 1941. July to September 1924 and October 1924 to September 1925 (gage heights only), at site 1.7 miles upstream.

Extremes.- Maximum discharge during year, 55,300 second-feet June 16 (gage height, 39.51 feet); minimum, 127 second-feet Oct. 30.

1924, 1938-41: Maximum discharge, that of June 16, 1941; minimum, 34 second-feet Sept. 8-11, 1924.

Maximum discharge known occurred in May 1908 (gage height, about 33.0 feet, present site and datum), according to information furnished by Corps of Engineers, U. S. Army.

Maximum stage known, about 42.0 feet, present site and datum, Feb. 21, 1938, according to information furnished by Texas & New Orleans Railroad engineers (flow was confined within levee system constructed in 1916).

Remarks.- Records good. No diversions above station except for municipal supply. Flow partly regulated by reservoirs above Dallas.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

4.5	140	13.0	1,980	27.0	9,000	32.0	22,100
5.0	206	17.0	3,400	28.0	10,000	34.0	30,400
7.0	502	21.0	5,130	29.0	11,500	38.0	48,200
9.0	890	23.0	6,200	30.0	14,000	40.0	57,700
11.0	1,380	25.0	7,450	31.0	18,000		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	192	511	9,600	13,400	1,170	9,800	1,950	12,400	1,980	16,700	2,720	846
2	179	300	7,310	13,400	6,130	9,700	1,950	10,800	4,450	15,500	2,760	648
3	163	292	6,040	12,900	7,590	8,250	2,010	9,300	9,100	14,000	2,720	518
4	157	220	4,980	11,300	8,440	7,310	2,170	8,520	9,900	13,200	2,680	457
5	157	206	3,920	9,800	9,000	6,920	2,240	9,670	11,200	11,700	2,680	427
6	162	206	3,360	8,840	7,690	7,280	1,980	12,200	12,900	10,600	2,650	446
7	160	192	3,240	7,800	4,940	9,000	1,760	12,900	15,100	9,600	2,620	917
8	163	192	3,200	6,740	3,680	9,400	2,730	14,000	17,100	8,200	2,650	1,200
9	160	227	3,080	5,760	3,440	8,640	3,240	18,900	17,600	6,740	2,200	1,300
10	153	496	3,000	4,800	2,350	7,380	2,860	17,600	16,700	5,480	1,820	1,330
11	156	412	3,240	3,210	2,480	6,090	2,510	15,500	17,100	4,840	1,690	1,440
12	160	397	5,720	2,340	2,480	5,330	2,300	12,600	16,700	5,640	1,200	2,410
13	160	300	6,440	2,140	2,540	4,880	2,300	10,000	21,900	7,640	1,000	1,410
14	158	255	6,740	3,150	2,370	4,660	2,400	7,840	41,800	7,260	1,780	1,410
15	162	314	7,960	2,770	2,340	3,920	1,820	6,010	51,400	5,900	3,300	1,410
16	163	292	10,400	2,200	2,170	3,280	1,880	4,660	54,800	4,800	1,580	1,380
17	162	262	11,900	1,880	2,110	2,540	1,850	3,690	54,400	4,340	780	1,150
18	158	241	14,700	1,660	2,080	2,080	2,860	3,120	51,000	4,480	620	956
19	156	234	18,800	1,490	2,060	1,820	5,670	2,860	47,300	4,700	550	868
20	152	234	20,400	1,330	2,700	1,520	7,380	3,160	43,600	4,760	442	868
21	156	255	18,400	1,220	3,840	1,300	8,280	3,920	40,000	5,080	352	868
22	165	314	14,400	1,220	4,600	1,220	8,680	3,680	34,700	4,010	344	730
23	162	3,050	11,500	1,170	4,180	2,510	8,920	3,560	28,700	3,400	442	656
24	158	8,360	9,400	1,100	7,650	1,760	9,800	3,680	23,300	3,120	566	457
25	149	9,000	7,520	1,020	8,520	1,690	10,800	3,640	18,800	2,930	1,180	397
26	a152	9,700	7,100	1,000	9,000	2,180	12,400	3,360	15,500	2,900	1,550	367
27	a155	9,600	8,360	934	9,600	2,860	13,400	3,040	14,400	2,820	1,880	374
28	a158	9,600	9,500	890	9,800	2,900	14,400	2,790	14,700	2,790	2,240	602
29	162	10,100	10,100	845	-	2,440	14,700	2,270	15,600	2,760	2,480	740
30	141	11,000	11,900	824	-	2,140	14,000	2,010	16,300	2,720	2,140	700
31	158	-	13,400	750	-	2,040	-	2,040	-	2,720	1,320	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,949	192	141	160	9,820
November	76,462	11,000	192	2,549	151,700
December	275,610	20,400	3,000	8,891	546,700
Calendar year 1940	931,969	20,400	64	2,546	1,849,000
January	127,914	13,400	780	4,126	253,700
February	135,750	9,800	1,170	4,848	269,300
March	143,070	9,800	1,220	4,615	283,800
April	169,240	14,700	1,760	5,641	335,700
May	226,920	17,600	2,010	7,320	450,100
June	737,910	54,800	1,980	24,600	1,464,000
July	201,320	16,700	2,720	6,494	399,300
August	52,916	3,300	344	1,707	105,000
September	26,222	1,440	367	874	52,010
Water year 1940-41	2,178,283	54,800	141	5,968	4,321,000

Peak discharge.- Dec. 20 (8:30 a.m.) 20,800 sec.-ft.; Apr. 29 (6 a.m.) 14,700 sec.-ft.; May 10 (10 a.m.) 17,600 sec.-ft.; June 9 (5 a.m.) 17,600 sec.-ft.; June 16 (6 p.m.) 55,300 sec.-ft.; July 1 (6 a.m.) 16,700 sec.-ft.

a No gage-height record; discharge interpolated.

Trinity River near Oakwood, Tex.

Location.— Water-stage recorder, lat. 31°39', long. 95°47', at bridge on U. S. Highways 79 and 84, 1½ miles upstream from International-Great Northern Railroad bridge and 6 miles northeast of Oakwood, Leon County. Datum of gage is 175.03 feet above mean sea level, datum of 1929.

Drainage area.— 12,840 square miles.

Records available.— July 1932 to September 1941. October 1923 to July 1932 at site 1½ miles downstream. (Records for January 1905 to September 1923 published in Water-Supply Papers 850 and 878. Figures below 500 second-feet in these publications and minimum yearly discharge for water year 1923-24 published in Water Supply Paper 878, have been found to be in error). U. S. Weather Bureau has collected gage-height records in this vicinity since 1904.

Average discharge.— 18 years (1923-41), 4,658 second-feet.

Extremes.— Maximum discharge during year, 70,800 second-feet Nov. 28, June 22; maximum gage height, 46.50 feet June 22; minimum discharge, 145 second-feet Oct. 24, 1923-41: Maximum discharge, 84,400 second-feet May 23, 1930 (gage height, 46.8 feet, present site and datum); minimum discharge observed for period 1924-41, 22 second-feet Aug. 18, 1934.

Flood of June 4, 1908, reached a stage of 52.2 feet, present site and datum, according to information furnished by U. S. Weather Bureau.

Remarks.— Records good. No diversions above station except for municipal supply. Flow partly regulated by reservoirs above Dallas.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	224	236	41,400	25,800	1,350	g20,800	3,340	15,800	2,320	31,500	2,740	3,340
2	213	758	35,400	25,200	3,660	g23,300	3,030	15,700	2,200	27,800	2,700	2,280
3	218	1,000	29,600	24,200	8,200	g23,900	4,670	15,200	2,420	26,000	2,700	1,480
4	224	794	28,600	23,000	11,200	g22,200	4,710	14,900	4,300	24,200	2,660	1,050
5	224	706	22,000	21,700	13,500	g20,200	4,680	15,100	7,360	22,700	2,660	794
6	213	530	19,300	20,600	15,600	g17,900	4,240	15,700	9,340	21,700	2,630	540
7	196	382	16,800	19,600	18,200	g16,800	3,720	16,500	10,900	20,600	2,630	530
8	202	298	14,000	18,600	20,600	g15,800	3,380	17,100	12,300	20,000	2,590	4460
9	208	272	10,100	17,800	21,500	g15,200	3,050	18,200	13,600	19,100	2,590	4330
10	202	285	6,300	16,800	20,000	g15,300	3,210	20,200	14,900	18,300	2,780	g937
11	191	1,110	4,850	15,800	16,600	g18,600	3,670	23,900	16,600	17,600	2,680	g1,280
12	191	2,000	5,270	14,500	11,800	g21,300	3,720	27,400	18,300	16,700	2,280	g1,390
13	191	1,830	6,340	12,100	7,080	g24,200	3,380	27,400	20,000	15,500	1,970	g1,410
14	186	1,570	8,560	12,100	4,280	g24,200	2,970	25,600	22,200	14,500	1,660	g1,460
15	186	1,100	11,000	12,400	3,460	g22,700	2,780	23,900	24,200	14,300	1,360	g1,490
16	191	695	13,700	13,100	3,210	g20,400	2,780	22,200	27,400	14,800	1,600	g1,490
17	186	480	14,800	14,100	3,090	g15,800	3,310	21,000	30,200	15,500	3,060	g1,520
18	186	422	15,700	14,400	2,900	g9,770	4,180	19,600	31,500	16,700	3,200	g1,490
19	191	398	18,700	13,000	2,820	g6,210	4,470	18,300	41,100	17,800	1,850	g1,410
20	202	350	17,500	8,760	3,090	3,830	4,060	15,900	58,800	18,400	1,050	g1,230
21	186	318	18,200	4,640	3,400	3,050	4,900	11,400	67,700	18,300	815	g1,080
22	151	790	18,800	2,820	5,320	2,590	6,840	7,500	69,300	15,500	708	g980
23	149	11,000	18,900	2,290	7,320	2,480	8,020	6,760	63,200	11,600	613	g908
24	149	20,600	18,800	2,230	g11,600	2,420	8,680	6,920	57,400	8,300	838	g926
25	149	22,200	18,300	2,150	g13,400	3,720	9,830	6,540	50,600	6,090	816	g1,220
26	153	25,200	18,900	2,030	g14,900	5,370	11,200	5,320	44,200	4,100	1,360	956
27	157	47,400	20,800	1,920	g16,500	4,990	12,500	4,290	41,400	3,340	1,520	728
28	173	59,300	22,200	1,890	g18,400	4,160	13,700	3,800	36,200	3,090	1,860	640
29	182	63,200	23,900	1,830	-	4,290	14,500	3,380	34,600	2,930	2,460	g574
30	182	49,500	25,200	1,710	-	4,470	15,500	3,090	33,800	2,820	3,130	g541
31	196	-	26,000	1,600	-	4,020	-	2,700	-	2,740	3,760	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,862	224	149	189	11,630
November	324,724	69,300	236	10,820	644,100
December	564,920	41,400	4,850	18,220	1,121,000
Calendar year 1940	1,885,269	69,300	141	5,151	3,740,000
January	368,670	25,600	1,600	11,890	731,000
February	285,260	21,500	1,630	10,120	561,800
March	400,170	24,200	2,420	12,910	795,700
April	178,980	15,600	2,780	5,966	356,000
May	451,200	27,400	2,700	14,560	894,900
June	868,340	69,300	2,200	28,940	1,722,000
July	472,510	31,600	2,740	15,240	937,200
August	65,244	3,760	613	2,105	129,400
September	34,674	3,340	430	1,156	68,770
Water year 1940-41	4,018,454	69,300	149	11,010	7,970,000

g Computed from graph based on gage readings furnished by U. S. Weather Bureau.

Trinity River near Midway, Tex.

Location.- Wire-weight gage, lat. 31°04'40", long. 95°42'00", on bridge on State Highway 21, 5 miles northeast of Midway, Madison County, and 8 miles downstream from Boggy Creek. Datum of gage is 117.6 feet above mean sea level, datum of 1929.

Drainage area.- 14,390 square miles.

Records available.- April 1939 to September 1941.

Extremes.- Maximum discharge observed during year, 65,200 second-feet June 26 (gage height, 45.30 feet); minimum observed, 165 second-foot Oct. 28, 28.

1939-41: Maximum discharge observed, that of June 26, 1941; minimum observed, 100 second-foot Oct. 4, 1939.

Maximum discharge known occurred in May 1890 (gage height, about 45.0 feet, discharge not determined), according to information furnished by local residents.

Maximum stage known, 46.7 feet May 27, 1930, from floodmarks (flood was confined within levee system constructed in 1916). Flood of June 9, 1908, reached a stage of 44.3 feet, from floodmarks and information furnished by local residents.

Remarks.- Records good. Gage read twice daily, oftener during high stages. Flow partly regulated by reservoirs above Dallas.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	295	326	48,800	25,400	2,820	17,400	5,190	15,900	3,760	46,300	3,430	3,540
2	289	352	58,200	25,800	5,750	18,000	4,850	14,300	3,380	44,400	3,320	3,650
3	279	410	58,200	25,800	6,750	18,900	4,470	14,800	3,100	41,200	3,260	2,940
4	271	905	48,800	26,000	8,790	20,000	5,710	14,900	3,160	39,400	3,210	2,010
5	264	1,050	43,900	26,100	11,100	20,800	5,970	17,000	3,990	37,800	3,160	1,430
6	269	905	40,900	26,000	12,900	22,300	5,710	19,800	6,230	35,200	3,160	1,050
7	274	785	38,800	25,800	14,200	26,100	5,450	19,900	8,230	33,000	3,160	845
8	269	645	36,400	25,200	15,600	27,200	5,010	19,100	9,630	31,800	3,160	725
9	249	553	33,700	24,500	16,700	26,500	4,530	18,200	10,700	30,200	3,210	655
10	242	553	30,200	23,600	18,000	24,200	3,870	17,400	12,000	28,400	3,100	645
11	247	486	27,300	22,400	19,000	21,900	3,930	17,300	15,600	26,700	3,160	745
12	244	570	22,400	21,100	19,400	20,200	4,290	17,700	17,800	25,300	3,160	1,200
13	240	1,660	19,000	19,600	18,800	19,100	4,410	18,600	18,800	24,800	2,770	1,320
14	225	1,950	16,500	20,500	16,400	19,000	4,170	19,700	18,300	23,200	2,380	1,430
15	249	1,910	16,100	21,500	9,280	19,400	3,920	20,800	18,400	22,800	2,110	1,520
16	247	1,480	18,700	20,900	5,390	19,800	3,600	21,600	18,800	20,800	1,760	1,560
17	242	1,050	18,700	20,300	4,530	20,300	3,480	22,000	19,700	19,000	1,610	1,810
18	238	766	18,100	19,000	4,230	20,700	3,700	22,000	20,700	17,300	2,600	1,610
19	234	606	17,600	17,400	4,340	20,400	4,770	21,800	21,700	16,500	3,390	1,560
20	227	553	17,400	16,000	7,980	18,600	4,890	21,400	22,700	16,500	2,660	1,660
21	227	556	17,400	13,700	9,490	14,100	4,710	21,100	24,000	17,200	1,660	1,380
22	236	426	17,300	9,430	8,230	9,260	4,950	19,600	25,800	17,900	1,160	1,200
23	236	9,340	17,400	5,660	9,280	5,580	6,160	16,000	28,900	18,300	965	1,070
24	215	28,600	17,500	6,670	12,300	5,260	7,400	11,000	34,300	17,200	825	1,180
25	194	41,600	18,200	5,680	15,300	4,830	8,160	9,300	50,000	14,300	825	1,340
26	185	45,600	19,800	4,590	16,200	4,890	8,880	7,460	65,200	9,840	925	1,520
27	190	47,000	23,400	3,950	16,900	6,100	9,700	6,680	63,800	6,560	1,090	1,340
28	187	45,600	25,400	3,600	17,200	6,360	10,600	5,530	59,600	4,830	1,520	1,000
29	197	43,400	25,700	3,320	-	5,710	11,400	4,890	64,000	4,110	1,710	825
30	215	43,900	25,700	3,160	-	5,320	12,400	4,550	50,000	3,760	2,250	765
31	269	-	25,400	2,940	-	5,380	-	4,110	-	3,540	2,940	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,445	295	185	240	14,770
November	323,476	47,000	326	10,780	641,600
December	862,900	58,200	16,100	27,874	1,712,000
Calendar year 1940	2,344,241	58,200	185	6,405	4,650,000
January	515,320	26,100	2,940	16,620	1,022,000
February	324,870	19,400	2,820	11,590	643,600
March	492,590	27,200	4,830	15,890	977,000
April	175,960	19,400	3,480	5,865	349,000
May	481,290	22,000	4,110	15,530	954,600
June	712,060	65,200	3,100	23,740	1,412,000
July	696,940	46,300	3,540	22,480	1,382,000
August	73,680	3,430	825	2,377	146,100
September	43,575	3,550	645	1,452	86,430
Water year 1940-41	4,709,826	65,200	185	12,900	9,341,000

Trinity River at Riverside, Tex.

Location.- Wire-weight gage, lat. 30°52', long. 95°24', on bridge on State Highway 45, 1,200 feet upstream from bridge of International - Great Northern Railroad, 0.5 mile north of Riverside, Walker County, and three-quarters of a mile downstream from Harmon Creek. Prior to May 7, chain gage at site 1,200 feet downstream at same datum. Datum of gage is 89.86 feet above mean sea level, datum of 1929.

Drainage area.- 15,510 square miles.

Records available.- January 1903 to December 1906, October 1923 to September 1941. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 21 years (1903-6, 1923-41), 6,579 second-feet.

Extremes.- Maximum discharge observed during year, 52,200 second-feet Nov. 26 (gage height, 40.09 feet); minimum observed, 240 second-feet Oct. 28.

1903-6, 1923-41: Maximum discharge observed, 76,100 second-feet June 1, 1929 (gage height, 46.5 feet, present site and datum); minimum observed, 70 second-feet Aug. 30-26, Sept. 8-13, 1925, Sept. 29 to Oct. 4, 1931.

Maximum discharge known, 86,600 second-feet June 11, 1908 (gage height, 50.1 feet, present site and datum), from rating curve extended above 78,000 second-feet.

Remarks.- Records good except those for periods below 3,000 second-feet in August and September and during backwater effect, which are poor. No diversions except for municipal uses. Flow partly regulated by reservoirs above Dallas. Gage read twice daily.

Cooperation.- Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308	940	44,700	27,800	3,470	18,200	5,700	17,400	4,650	47,300	3,640	3,290
2	305	940	45,200	27,200	13,900	18,200	5,460	15,800	3,710	47,500	3,670	3,760
3	305	832	45,400	27,200	12,500	18,200	6,790	15,400	3,250	46,400	3,500	3,710
4	299	583	44,900	26,900	12,000	19,500	5,220	15,800	3,080	45,800	3,430	2,940
5	302	1,770	46,200	26,900	12,700	20,300	6,510	e17,900	3,150	44,500	3,360	2,090
6	290	1,780	46,600	26,600	13,200	22,800	6,240	e21,700	4,880	42,600	3,360	1,550
7	285	1,290	47,500	26,600	14,600	e30,300	5,060	e21,700	9,440	41,000	3,430	1,210
8	285	1,050	46,000	26,300	15,600	e31,100	5,700	e20,500	10,400	38,700	3,430	1,080
9	285	910	44,000	26,900	16,800	e30,300	5,300	e18,500	12,000	35,800	3,500	992
10	280	1,030	41,300	26,200	17,600	e27,500	4,680	e18,700	14,300	33,300	3,430	948
11	275	910	38,700	24,300	18,500	e23,800	4,300	18,200	31,400	30,800	3,360	948
12	270	910	48,400	23,200	19,300	e22,700	4,300	17,900	31,600	30,000	3,360	1,160
13	285	1,180	51,500	22,000	19,500	e21,300	4,520	18,200	30,100	30,000	3,290	1,460
14	275	2,200	48,800	24,900	18,600	21,000	4,600	19,100	25,400	28,800	2,940	1,610
15	285	2,560	42,600	25,900	14,800	20,800	4,300	20,200	21,600	28,200	2,650	1,670
16	290	2,060	38,700	27,500	8,450	21,200	3,920	20,900	20,000	26,100	2,210	1,790
17	285	1,640	33,800	26,600	5,460	22,100	3,700	21,600	20,200	23,500	1,910	1,850
18	280	1,150	30,600	24,200	4,600	22,400	3,700	22,000	20,800	20,800	1,910	1,790
19	280	910	26,300	20,800	4,380	e22,500	4,000	22,000	21,600	18,800	3,010	1,790
20	280	725	22,700	18,800	8,110	e23,800	4,750	22,300	22,400	17,500	3,500	1,790
21	275	655	20,600	17,100	13,200	e23,400	5,140	24,600	23,200	17,300	2,600	1,670
22	275	532	19,600	14,000	13,000	18,600	5,140	25,000	24,100	17,600	1,790	1,350
23	275	9,030	19,400	8,950	13,000	11,500	7,140	26,600	25,500	17,900	1,430	1,380
24	255	34,200	19,300	6,600	18,200	7,320	8,650	15,900	27,300	17,900	1,670	3,500
25	275	47,900	19,600	8,550	19,000	5,790	8,550	11,200	29,800	16,800	1,670	2,870
26	255	51,900	22,700	6,060	20,000	5,140	9,050	8,480	33,800	13,400	1,380	2,660
27	255	51,900	28,000	4,900	19,800	5,700	9,650	7,380	37,900	8,790	1,350	2,150
28	245	50,600	29,800	4,150	18,600	6,780	10,400	6,370	41,500	5,920	1,430	1,670
29	412	46,800	30,100	3,780	-	6,690	11,300	5,600	44,300	4,680	1,790	1,260
30	436	46,800	29,700	3,480	-	5,860	14,400	5,680	46,200	4,060	2,090	1,110
31	436	-	28,400	3,250	-	5,620	-	5,360	-	3,890	2,660	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,173	456	245	266	18,190
November	367,527	51,900	553	12,250	729,000
December	1,097,100	51,500	19,300	35,390	2,176,000
Calendar year 1940	2,861,137	51,900	230	7,817	5,675,000
January	585,520	27,800	3,250	18,990	1,161,000
February	388,670	20,000	3,470	13,880	770,900
March	561,020	31,100	5,140	18,100	1,113,000
April	192,170	14,400	3,700	6,272	373,230
May	520,970	24,600	5,350	16,810	1,033,000
June	647,600	46,200	3,080	21,590	1,284,000
July	805,500	47,500	3,850	25,990	1,598,000
August	82,530	3,640	1,350	2,662	163,700
September	57,268	3,780	948	1,909	113,600
Water year 1940-41	5,311,048	51,900	245	14,550	10,530,000

c Backwater from Tantabogue Creek, 10 miles downstream; discharge computed on basis of discharge measurements, engineer's notes, and weather records.

Trinity River at Romayor, Tex.

Location.- Chain gage, lat. 30°27', long. 94°51', on bridge of Gulf, Colorado & Santa Fe Railway, a quarter of a mile west of Romayor, Liberty County, and 2½ miles downstream from Big Creek. Gage readings indicate distance from base of rail to water surface. Datum of gage (base of rail) is 89.62 feet above mean sea level, datum of 1929.

Drainage area.- 17,190 square miles.

Records available.- May 1924 to September 1941.

Average discharge.- 17 years, 7,297 second-feet.

Extremes.- Maximum discharge observed during year, 61,200 second-feet Nov. 26 (gage height, -18.70 feet); minimum observed, 400 second-feet Oct. 10-23, 1924-41; Maximum discharge observed, 81,100 second-feet May 31, 1929 (gage height, -16.3 feet), from rating curve extended above 60,000 second-feet; minimum observed, 132 second-feet Aug. 21, 22, 1925 (gage height, -53.46 feet).

Remarks.- Records fair. Gage read twice daily. No diversions of consequence except for municipal uses. Regulation same as that for Trinity River at Dallas.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	496	756	52,500	33,400	4,570	20,100	6,000	18,800	8,130	38,700	4,120	2,090
2	448	870	50,900	31,700	11,600	19,000	5,800	18,800	6,400	40,700	3,870	2,510
3	424	1,000	49,300	30,600	21,200	18,400	5,700	16,900	5,110	42,000	3,630	2,720
4	424	1,050	48,500	30,100	19,600	19,000	7,360	15,800	4,300	43,400	3,580	3,790
5	424	830	47,000	29,900	16,600	19,300	6,100	18,200	3,790	44,100	3,470	3,470
6	424	870	46,600	29,100	14,900	21,200	6,100	31,200	3,870	44,100	3,470	2,720
7	424	1,460	46,600	28,600	15,000	28,600	6,500	36,300	14,800	43,800	3,390	2,150
8	424	1,550	47,800	28,400	15,800	34,000	6,100	37,200	24,400	43,400	3,630	1,790
9	424	1,140	48,200	28,100	16,400	36,600	6,000	33,700	19,100	42,400	3,550	1,440
10	400	1,050	47,800	27,600	16,900	37,600	5,500	28,800	15,400	41,000	3,580	1,240
11	400	1,050	47,400	26,700	17,900	36,900	5,020	24,200	26,200	39,000	3,710	1,140
12	400	1,610	50,900	26,300	18,800	34,800	4,480	20,500	26,300	37,800	3,470	1,100
13	400	1,340	56,600	25,000	19,500	31,200	4,210	19,000	35,700	35,400	3,390	1,100
14	400	1,100	59,100	24,200	19,800	26,700	4,210	18,800	38,100	34,000	3,390	1,290
15	400	960	59,100	28,400	19,500	23,800	4,390	19,100	34,800	33,100	3,230	1,440
16	400	1,490	57,400	30,600	16,200	22,300	4,390	19,800	30,900	31,400	2,930	1,550
17	400	1,610	54,900	32,800	11,600	21,700	4,030	20,600	25,800	30,400	2,650	1,730
18	400	1,670	52,100	32,800	7,580	22,300	3,710	21,600	22,800	27,800	2,390	2,150
19	400	1,340	48,900	29,100	6,300	23,000	3,630	21,900	21,200	28,000	2,160	2,030
20	400	1,050	44,900	26,100	8,440	26,100	3,630	22,300	21,200	20,800	2,150	1,910
21	400	870	38,400	21,900	17,400	31,200	4,210	24,000	21,600	18,300	3,230	1,790
22	400	790	32,300	19,100	18,100	32,000	4,840	26,900	22,800	17,100	3,230	1,730
23	400	790	26,700	16,600	17,800	26,300	6,520	26,100	23,600	16,900	2,580	1,670
24	400	27,300	23,000	12,100	17,800	18,600	17,200	23,800	24,400	16,900	2,030	4,730
25	400	57,000	22,300	10,100	23,000	11,300	16,000	19,100	25,200	17,100	1,670	9,840
26	400	60,800	21,700	12,800	23,000	8,130	11,600	13,400	26,500	16,800	1,670	7,160
27	400	59,500	26,700	10,400	22,300	6,920	10,300	10,300	29,600	14,000	1,730	4,750
28	400	57,800	31,200	7,690	21,600	6,300	10,100	8,900	31,700	10,300	1,550	3,870
29	496	65,800	33,400	5,900	-	7,140	10,800	8,680	34,600	7,250	1,550	2,930
30	520	54,500	34,200	5,110	-	7,260	13,800	8,680	36,900	5,400	1,550	2,150
31	545	-	34,000	4,660	-	6,600	-	9,240	-	4,390	1,850	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13,073	545	400	422	25,930
November	398,945	60,800	755	13,300	791,300
December	1,340,300	59,100	21,700	43,240	2,658,000
Calendar year 1940	3,277,124	60,800	400	8,954	6,500,000
January	705,560	33,400	4,660	22,760	1,399,000
February	459,090	23,000	4,570	16,400	910,600
March	684,240	37,500	6,300	22,070	1,357,000
April	208,230	17,200	3,630	6,941	413,000
May	642,600	37,200	8,680	20,730	1,275,000
June	677,400	38,700	3,790	22,580	1,344,000
July	882,740	44,100	4,390	28,480	1,751,000
August	88,330	4,120	1,550	2,949	175,200
September	79,980	9,840	1,100	2,666	158,600
Water year 1940-41	6,180,488	60,800	400	16,930	12,260,000

Trinity River at Liberty, Tex.

Location.- Staff gage, lat. 30°03'25", long. 94°49'05", on bridge on U. S. Highway 90 in Liberty, Liberty County, 450 feet downstream from Texas & New Orleans Railroad bridge. Datum of gage is 2.22 feet below mean sea level, datum of 1929.

Drainage area.- 17,500 square miles.

Records available.- October 1936 to September 1940 (discharge measurements and some records of daily discharge), October 1940 to September 1941. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Extremes.- Maximum discharge observed during year, 61,500 second-feet Dec. 16-18 (gage height, 27.1 feet); minimum discharge not determined (affected by tides); minimum gage height observed, 2.8 feet Oct. 18.

1938-41: Maximum discharge observed, that of Dec. 16-18, 1940; minimum discharge not determined (affected by tides); minimum gage height observed, 2.5 feet Nov. 4, 1939.

Maximum stage since 1903, 28.6 feet May 8-11, 1922, according to information furnished by U. S. Weather Bureau.

Remarks.- Records poor. Discharge not computed below 4,200 second-feet because of effect of tides on the stage-discharge relation. Gage read once daily.

Cooperation.- Gage readings furnished by U. S. Weather Bureau.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	56,500	36,700	4,480	23,800	7,960	15,900	12,200	27,600	6,020	-
2	-	-	56,500	33,700	5,480	23,000	7,180	18,000	10,100	29,000	5,180	-
3	-	-	54,000	33,700	13,300	22,200	7,350	18,600	7,850	30,700	4,760	-
4	-	-	51,500	33,700	19,600	21,700	7,250	18,200	6,200	33,700	4,480	-
5	-	-	54,000	33,700	19,600	21,500	7,950	18,800	5,040	39,000	4,270	-
6	-	-	51,500	32,500	19,100	21,300	6,950	20,600	4,830	41,500	4,200	-
7	-	-	51,500	31,500	18,200	22,400	7,050	23,200	7,070	41,500	-	-
8	-	-	51,500	30,700	17,800	24,700	7,350	25,600	20,100	39,000	-	-
9	-	-	49,000	30,100	17,800	26,400	6,950	27,600	23,000	41,500	-	-
10	-	-	49,000	30,100	18,000	28,000	6,650	29,500	23,000	41,500	-	-
11	-	-	51,500	29,500	18,400	29,500	6,290	31,500	23,500	44,000	4,200	-
12	-	-	54,000	29,000	19,900	30,700	5,650	35,000	25,900	44,000	-	-
13	-	-	56,500	28,400	19,500	31,500	5,110	38,000	29,000	41,500	-	-
14	-	-	56,500	28,000	20,200	30,700	4,900	24,700	32,500	39,000	-	-
15	-	-	59,000	28,000	20,800	30,100	4,900	22,700	35,000	39,000	-	-
16	-	-	61,500	28,000	20,600	28,400	5,040	21,500	35,000	36,700	-	-
17	-	-	61,500	28,400	18,800	27,200	4,900	21,300	33,700	35,000	-	-
18	-	-	61,500	29,000	18,200	27,200	4,990	20,800	32,500	32,500	-	-
19	-	-	56,500	29,500	10,500	25,900	4,480	21,000	30,100	31,500	-	-
20	-	-	56,500	30,700	8,160	25,400	4,200	21,000	29,000	29,500	-	-
21	-	-	54,000	29,500	10,000	27,600	4,200	21,300	25,600	27,600	-	-
22	-	-	51,500	28,400	16,300	29,000	4,550	21,500	25,000	25,000	-	-
23	-	-	46,500	25,800	18,000	30,100	5,940	21,900	24,100	22,700	-	-
24	-	-	44,000	22,200	19,100	29,800	9,940	22,200	23,500	21,700	-	6,380
25	-	24,600	33,700	18,400	20,200	26,400	18,000	21,900	23,500	20,800	-	10,900
26	-	-	32,500	30,700	15,200	22,400	21,500	17,300	21,000	23,800	20,400	-
27	-	-	49,000	29,500	14,300	23,200	17,000	14,600	18,800	24,400	19,300	-
28	-	-	56,500	29,000	11,600	23,500	12,700	12,200	15,800	25,300	17,500	-
29	-	-	59,000	30,100	8,160	-	10,300	11,600	13,500	25,800	14,400	-
30	-	-	56,500	31,500	6,200	-	9,080	12,700	13,300	26,900	10,900	-
31	-	-	33,700	5,040	-	-	8,490	-	12,400	-	7,550	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	-	-	-	-	-
November 25-30.....	278,100	59,000	24,600	46,350	551,800
December.....	1,514,200	61,500	29,000	48,950	3,003,000
Calendar year 1940.....	-	-	-	-	-
January.....	799,500	36,700	5,040	25,790	1,586,000
February.....	477,120	23,500	4,480	17,040	946,400
March.....	744,270	31,500	8,490	24,010	1,476,000
April.....	233,800	18,000	4,200	7,793	463,700
May.....	867,100	35,000	12,400	21,520	1,323,000
June.....	872,290	35,000	4,830	22,410	1,333,000
July.....	945,550	44,000	7,550	30,500	1,875,000
August.....	-	-	-	-	-
September 24-30.....	59,530	13,600	4,340	6,504	118,100
Water year 1940-41.....	-	-	-	-	-

Big Sandy Creek near Bridgeport, Tex.

Location.- Water-stage recorder, lat. 33°13', long. 97°41', at bridge on State Highway 24, 1.9 miles upstream from Turkey Creek, 4.4 miles upstream from mouth, and 5 miles east of Bridgeport, Wise County. Datum of gage is 727.44 feet above mean sea level, datum of 1929.

Drainage area.- 276 square miles.

Records available.- October 1936 to September 1941.

Extremes.- Maximum discharge during year, 53,000 second-feet June 10 (gage height, 15.69 feet, from floodmark), from rating curve extended above 22,000 second-feet on basis of logarithmic plotting; no flow at times.

1936-41: Maximum discharge, that of June 10, 1941; no flow at times.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	58	46	651	102	19	3,180	17	100	6.8	10
2		0	44	77	2,210	84	18	613	35	72	5.0	5.9
3		0	36	80	1,510	72	18	267	240	77	4.2	3.9
4		0	32	50	352	60	18	362	154	66	3.5	2.4
5		0	28	35	156	52	19	f1,030	60	48	2.8	1.4
6		0	26	29	110	49	20	f872	37	40	2.6	.8
7		0	24	27	91	47	18	308	259	34	2.6	.4
8		0	21	25	77	45	18	140	311	31	2.6	.1
9		0	20	24	66	41	18	100	88	27	13	.1
10		0	18	21	60	38	18	84	f19,000	24	11	.3
11		4.2	23	20	55	34	20	75	g11,600	23	4.2	27
12		f9.1	32	20	51	32	21	79	f2,700	30	2.6	13
13		f6.3	34	22	49	29	21	79	g537	35	2.2	6.2
14		f4.3	34	26	43	27	21	70	f3,170	26	1.9	4.1
15		f2.9	521	26	39	28	28	606	g7,090	32	1.6	3.4
16		f2.2	1,280	24	38	28	5,280	48	g4,620	27	1.6	2.4
17		f1.5	493	23	36	26	1,530	42	1,350	23	1.5	1.8
18		a.8	148	18	35	23	1,540	38	371	19	1.0	1.2
19		a.2	87	a16	36	22	726	35	180	16	.6	.9
20		a0	63	a16	58	23	386	33	123	14	.2	.6
21		a1.3	48	a16	178	23	179	32	102	12	.6	.4
22		a46	38	a15	118	22	109	85	91	11	7.8	0
23		g480	33	a15	94	30	1,010	136	81	10	11	0
24		g1,150	30	a15	308	32	621	68	72	8.8	6.8	0
25		g2,520	29	15	424	30	220	43	86	8.3	8.1	7.6
26		g4,200	100	15	354	32	117	36	77	7.4	6.5	12
27		g2,560	474	14	354	31	98	29	96	5.8	3.9	12
28		g451	534	12	163	30	91	24	2,720	6.0	2.6	9.6
29		g126	197	13	-	26	155	21	1,620	5.4	93	6.0
30		79	82	13	-	22	3,070	20	271	5.4	72	5.1
31		-	58	22	-	21	-	19	-	9.1	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	11,642.8	4,200	0	388	23,090
December	4,645	1,280	18	160	9,210
Calendar year 1940	36,969.6	4,200	0	109	79,270
January	790	80	12	25.5	1,570
February	7,718	2,210	35	276	15,310
March	1,159	102	21	37.4	2,300
April	16,004	5,280	18	533	31,740
May	8,024	3,180	19	259	16,820
June	57,658	19,000	17	1,922	114,400
July	854.2	100	5.4	27.6	1,690
August	308.8	93	.2	9.96	612
September	138.6	27	0	4.62	275
Water year 1940-41	108,942.4	19,000	0	298	216,100

Peak discharge.- Nov. 26, 4,550 sec.-ft.; Apr. 16 (5:30 a.m.) 7,720 sec.-ft.; Apr. 30 (9 a.m.) 7,300 sec.-ft.; June 10 (6 p.m.) 53,000 sec.-ft.; June 15 (12:30 p.m.) 2,160 sec.-ft.; June 28 (6 a.m.) 4,690 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

g Computed from graph based on gage readings.

Clear Fork of Trinity River at Fort Worth, Tex.

Location.- Water-stage recorder and concrete control, lat. 32°44', long. 97°21', at bridge on Stove Foundry road, 388 feet downstream from bridge of Texas & Pacific Railway at Fort Worth, Tarrant County, and 3 miles upstream from mouth. Datum of gage is 532.91 feet above mean sea level, datum of 1929.

Drainage area.- 522 square miles.

Records available.- March 1924 to September 1941.

Average discharge.- 17 years, 85.1 second-feet.

Extremes.- Maximum discharge during year, 11,800 second-feet Feb. 1 (gage height, 15.42 feet); no flow Oct. 1 to Nov. 23.
1924-41: Maximum discharge, 17,800 second-feet Sept. 5, 1932 (gage height, 20.08 feet); no flow at times.

Maximum discharge known, 74,300 second-feet Apr. 25, 1922 (gage height, 27.5 feet, present datum), by slope-area method, data furnished by City Engineer of Fort Worth.

Remarks.- Records good except those below 25 second-feet, which are poor. Texas & Pacific Railway Co. diverts small amount of water from pool in which gage is located.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	49	320	5,640	446	143	193	74	118	21	16
2		0	40	257	3,060	391	139	162	1,320	107	17	16
3		0	40	314	9,462	354	132	193	683	107	17	14
4		0	40	252	679	278	125	380	170	139	14	9.7
5		0	40	232	576	267	118	4,870	121	111	14	9.7
6		0	40	222	511	478	118	850	310	83	13	8.4
7		0	40	210	391	462	321	414	531	73	16	8.4
8		0	35	202	347	314	162	314	177	67	16	7.1
9		0	32	185	302	272	129	262	139	64	21	8.4
10		0	30	170	290	272	114	222	3,330	61	19	7.1
11		0	386	170	262	257	107	222	3,890	161	14	8.4
12		0	311	166	252	247	107	278	622	173	13	9.7
13		0	277	175	218	232	111	218	362	118	1,270	8.4
14		0	907	197	189	227	111	177	278	83	121	8.4
15		0	2,810	170	189	237	111	158	355	70	49	7.1
16		0	2,290	154	185	222	121	143	1,640	80	43	5.9
17		0	494	132	173	193	114	136	406	73	25	7.1
18		0	354	118	173	185	1,310	125	282	61	19	5.9
19		0	284	118	210	189	400	118	222	100	16	5.9
20		0	237	121	1,080	193	328	118	197	64	13	4.8
21		0	210	121	314	185	151	145	177	55	16	4.8
22		0	193	114	354	173	152	471	166	43	76	3.8
23		213	177	111	1,990	322	803	173	166	38	93	4.8
24		388	166	107	2,010	193	455	129	242	35	90	4.8
25		2,660	162	104	824	147	252	107	151	35	241	9.7
26		2,290	2,360	100	1,200	462	185	100	132	30	104	1.3
27		195	2,830	93	705	339	293	97	321	28	43	1.3
28		93	767	90	519	197	290	90	1,220	25	30	2.0
29		70	470	90	-	166	210	83	210	25	25	1.3
30		67	391	93	-	162	193	83	143	28	17	2.0
31		-	369	121	-	154	-	83	-	23	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	5,976	2,660	0	199	11,850
December.....	16,831	2,830	30	543	33,390
Calendar year 1940.....	33,489.2	2,920	0	91.5	66,410
January.....	5,027	320	90	162	9,970
February.....	23,566	5,640	173	842	46,780
March.....	8,216	478	147	265	16,300
April.....	7,305	1,310	107	244	14,490
May.....	11,114	4,870	83	359	22,040
June.....	18,017	3,890	74	601	35,740
July.....	2,268	173	23	73.2	4,500
August.....	2,502	1,270	13	80.7	4,960
September.....	212.2	16	1.3	7.07	421
Water year 1940-41.....	101,053.2	5,640	0	277	200,400

Peak discharge.- Nov. 25 (6 p.m.) 5,580 sec.-ft.; Dec. 26 (7 p.m.) 6,890 sec.-ft.; Feb. 1 (4 p.m.) 11,800 sec.-ft.; May 4 (4:30 a.m.) 6,810 sec.-ft.; June 10 (5 p.m.) 8,530 sec.-ft.; Aug. 13 (4 p.m.) 6,460 sec.-ft.

Note.- Accumulation of drift on control affects stage-discharge relation below 25 second-feet.

Elm Fork of Trinity River near Carrollton, Tex.

Location.- Water-stage recorder above spillway of California concrete dam, lat. 32°52'25", long. 96°55'50", at bridge on State Highway 114, 100 feet downstream from Hackberry Creek and 5.5 miles southwest of Carrollton, Dallas County. Datum of gage is 410.46 feet above mean sea level, datum of 1929.

Drainage area.- 2,612 square miles.

Records available.- July 1938 to September 1941. January 1907 to December 1928, at site near Dallas, 7 miles downstream (January 1907 to September 1920, monthly records only, published in Water-Supply Paper 850). November 1923 to July 1938, at site 8.5 miles upstream, at Carrollton Dam. Records equivalent except during periods of intense local rains and during low flows at station near Dallas, caused by municipal pumping between sites.

Average discharge.- 33 years (1907-22, 1923-41) 783 second-feet.

Extremes.- Maximum discharge during year, 76,400 second-feet June 12 (gage height, 20.53 feet); minimum observed, 57 second-feet Sept. 30 (regulated).

1907-41: Maximum gage height, about 27.5 feet, present site and datum, May 25 (corrected), 1908, from floodmarks, furnished by State Reclamation Department (discharge not determined but probably maximum for period of record; affected by backwater from West Fork of Trinity River); no flow at times.

Remarks.- Records good except those above 3,000 second-feet and those for period of no gage-height record, which are fair. Flow regulated by Lake Dallas (capacity, 214,000 acre-feet). No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	201	1,770	1,920	372	1,770	516	3,300	157	808	279	297
2	154	174	1,720	1,670	2,340	1,580	527	3,300	4,350	1,870	178	271
3	154	165	1,670	1,380	1,910	1,970	522	3,070	7,060	2,410	165	256
4	154	165	1,620	2,410	1,530	1,970	498	2,960	6,890	1,700	150	251
5	150	165	1,620	2,460	923	1,870	532	6,220	2,970	588	142	246
6	150	161	1,620	2,410	625	2,500	308	4,830	1,290	504	138	246
7	150	165	1,580	2,410	452	3,110	564	1,280	2,550	441	138	241
8	150	165	1,580	2,360	282	2,280	1,160	1,380	864	396	154	236
9	146	188	1,580	2,150	225	1,970	783	1,920	539	251	520	236
10	146	192	1,580	942	196	1,870	528	1,870	4,240	230	487	236
11	150	192	1,860	802	183	1,770	352	1,820	18,000	291	322	236
12	157	178	3,250	707	170	1,720	324	1,770	65,700	271	206	241
13	157	174	2,530	683	157	1,720	313	1,770	35,500	297	225	241
14	157	a170	6,050	613	142	1,670	313	1,720	22,400	256	206	241
15	157	a170	7,920	504	124	1,580	313	1,240	18,200	251	196	241
16	157	a170	9,440	470	117	970	405	606	19,200	215	178	241
17	150	a170	9,610	435	120	738	2,140	292	20,900	291	174	241
18	138	a170	c2,660	402	120	639	6,830	183	18,700	729	154	241
19	138	a165	2,460	318	127	310	c9,290	178	13,500	498	127	241
20	138	a165	2,190	303	415	220	c3,980	425	c6,880	251	111	236
21	138	a165	2,520	303	605	225	2,600	452	c2,900	170	138	230
22	138	a713	2,630	297	551	220	2,320	527	1,870	157	138	230
23	142	2,640	2,520	201	1,040	316	6,520	600	1,970	150	135	230
24	142	2,420	2,520	183	3,920	430	8,660	890	2,330	150	142	118
25	146	3,910	2,460	146	2,800	522	7,480	721	2,410	146	352	68
26	146	7,510	3,170	135	3,430	600	4,500	578	1,970	150	446	128
27	146	c9,400	7,030	135	5,410	728	3,880	300	2,990	146	448	251
28	116	c4,200	7,750	131	3,440	646	3,680	178	1,110	142	470	252
29	117	c1,350	2,620	127	-	613	3,980	165	1,530	142	413	80
30	165	1,260	1,380	110	-	551	3,840	210	1,070	146	374	59
31	196	-	1,350	104	-	522	-	165	-	150	330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,596	196	116	148	9,120
November	36,033	8,400	161	1,201	71,470
December	100,360	9,610	1,350	3,237	199,100
Calendar year 1940	314,071	9,610	50	858	622,900
January	27,231	2,460	104	878	54,010
February	31,728	5,410	117	1,133	62,930
March	37,600	3,110	220	1,213	74,580
April	77,258	9,290	308	2,575	153,200
May	44,918	6,220	165	1,449	89,090
June	297,040	65,700	157	9,901	589,200
July	14,187	2,410	142	458	28,140
August	7,636	520	111	246	15,150
September	6,562	297	59	219	13,020
Water year 1940-41	685,149	65,700	59	1,877	1,359,000

a No gage-height record; discharge computed on basis of engineer's notes, records for nearby stations, and weather records.

c Backwater effect from return of overbank flow below station; discharge computed from backwater curve drawn on basis of several discharge measurements.

Denton Creek near Roanoke, Tex.

Location.- Water-stage recorder, lat. 33°02', long. 97°12', 340 feet upstream from bridge on U. S. Highway 377, a quarter of a mile downstream from bridge of Texas & Pacific Railway, and 2.2 miles northeast of Roanoke, Denton County. Datum of gage is 523.6 feet above mean sea level, datum of 1929.

Drainage area.- 704 square miles.

Records available.- October 1923 to December 1927, March 1939 to September 1941.

Extremes.- Maximum discharge during year, 39,300 second-feet June 11 (gage height, 28.90 feet); no flow Oct. 1 to Nov. 23.

1923-27, 1939-41: Maximum discharge, that of June 11, 1941; no flow at times.

Maximum stage known, about 31 feet in May 1908, according to information from local residents.

Remarks.- Records good. No large diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	138	323	967	488	87	626	27	170	38	18
2		0	98	226	1,240	390	82	643	1,640	119	26	14
3		0	80	231	1,170	335	60	424	214	97	17	13
4		0	71	201	936	250	73	566	72	88	13	11
5		0	66	194	478	204	66	1,610	73	83	11	8.8
6		0	58	184	329	408	68	426	99	76	10	7.4
7		0	57	164	240	339	385	563	95	69	21	6.0
8		0	50	154	182	240	152	356	69	56	679	5.0
9		0	47	142	154	204	96	218	88	61	222	4.8
10		0	44	127	140	178	87	147	7,440	54	39	4.8
11		0	456	120	133	146	77	116	24,900	49	51	4.8
12		0	310	119	124	139	69	129	7,800	56	38	6.6
13		0	1,050	124	116	131	69	110	1,640	61	71	7.0
14		0	1,410	144	100	127	87	84	1,960	56	40	6.6
15		0	5,360	135	93	133	69	68	3,800	52	28	6.0
16		0	2,010	120	92	136	737	58	4,140	69	34	5.6
17		0	985	106	92	120	2,650	52	3,610	71	22	5.0
18		0	726	80	89	109	3,490	47	1,090	46	16	5.8
19		0	460	83	111	106	1,170	43	554	39	11	5.0
20		0	329	84	451	108	653	58	390	37	8.8	4.4
21		0	253	84	214	111	486	69	297	33	8.0	3.7
22		0	204	84	340	106	369	48	244	30	9.5	3.2
23		4.7	175	79	743	142	1,850	50	206	27	12	2.8
24		392	154	78	1,170	156	1,380	50	206	25	162	2.6
25		3,520	144	77	670	133	788	38	170	22	204	63
26		3,180	d1,950	75	2,020	252	472	41	206	20	51	20
27		2,040	d1,970	75	1,440	166	451	44	285	19	35	17
28		1,210	722	58	527	126	540	37	678	16	30	9.8
29		409	512	67	-	99	517	30	654	15	24	6.6
30		209	425	68	-	92	474	27	278	17	26	5.0
31		-	342	77	-	91	-	26	-	159	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	10,964.7	3,520	0	365	21,750
December.....	20,656	5,360	44	666	40,970
Calendar year 1940.....	70,244.2	6,280	0	192	139,300
January.....	3,891	323	67	126	7,720
February.....	14,660	2,020	89	524	29,080
March.....	5,794	69	91	137	11,490
April.....	17,773	3,490	66	592	35,250
May.....	6,802	1,610	26	219	13,490
June.....	62,843	24,900	27	2,095	124,600
July.....	1,802	170	15	58.1	3,670
August.....	1,982.3	679	8.0	65.9	3,930
September.....	282.8	63	2.6	9.43	561
Water year 1940-41.....	147,450.8	24,900	0	404	292,400

Peak discharge.- Nov. 25 (9 p.m.) 7,800 sec.-ft.; Dec. 15 (4:30 p.m.) 10,100 sec.-ft.; Dec. 26 (9 p.m.) 5,290 sec.-ft.; Apr. 18 (3:15 a.m.) 9,000 sec.-ft.; June 11 (7 a.m.) 39,300 sec.-ft.
 d Doubtful gage-height record; discharge computed on basis of floodmarks, partial record, engineer's notes, and weather records.

East Fork of Trinity River near Rockwall, Tex.

Location.- Chain gage, lat. 32°55'25", long. 96°30'20", on bridge on U. S. Highway 67, 3 miles southwest of Rockwall, Rockwall County and 8 miles upstream from Middy Creek. Datum of gage is 404.3 feet above mean sea level, datum of 1929.

Drainage area.- 831 square miles.

Records available.- November 1923 to September 1941.

Average discharge.- 18 years, 432 second-feet.

Extremes.- Maximum discharge during year, 43,200 second-foot June 11 (gage height, 21.0 feet, from graph based on gage readings); no flow Oct. 1 to Nov. 10.
1923-41: Maximum discharge, 64,800 second-feet, June 16, 1935 (gage height, 23.39 feet, from floodmarks), by slope-area method; no flow at times.
Maximum stage known, about 25 feet in spring of 1922.

Remarks.- Records good. Gage read twice daily. No diversions above station.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 4 to Feb. 1)

1.2	0	2.5	38.5	8.0	570	12.5	1,900	17.0	14,800
1.4	1.5	3.0	65.5	10.0	840	13.0	2,560	18.0	20,000
1.6	5.0	3.5	99.5	11.0	1,020	14.0	4,500	19.0	26,500
1.8	10.5	4.0	140	11.5	1,150	15.0	7,100		
2.0	17.8	5.0	330	12.0	1,430	16.0	10,500		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	132	2,320	259	2,410	671	1,510	120	590	86	50
2		0	103	3,060	1,010	962	865	2,560	1,370	194	55	38
3		0	88	2,720	1,430	696	440	3,520	3,060	532	56	30
4		0	74	1,350	2,010	480	242	1,520	9,000	1,120	30	26
5		0	71	674	1,070	396	208	3,520	7,100	733	26	24
6		0	69	505	468	615	176	9,700	2,260	185	40	20
7		0	67	444	363	1,180	379	9,350	2,130	140	43	17
8		0	69	396	310	1,610	1,030	4,500	2,890	119	35	14
9		0	77	374	260	1,410	1,460	1,430	2,130	107	30	12
10		0	69	352	237	717	1,260	622	1,660	97	32	10
11		35	168	320	227	432	470	458	24,200	89	27	9.3
12		98	957	300	218	341	290	508	17,700	215	27	9.0
13		53	1,360	300	204	320	251	420	7,100	790	67	8.7
14		20	2,560	352	185	330	242	352	3,590	1,600	185	9.3
15		11	4,260	330	167	300	251	280	1,900	1,390	110	9.0
16		8.1	9,000	310	154	310	360	242	3,230	818	102	8.1
17		5.2	8,300	290	158	290	626	218	5,500	312	84	7.5
18		4.2	5,500	237	154	251	716	199	5,000	140	44	54
19		3.0	1,790	204	149	218	1,260	185	3,510	158	30	42
20		2.7	852	190	237	218	3,600	237	544	320	23	13
21		2.4	596	194	518	222	3,250	396	396	310	19	8.1
22		2.1	480	199	408	218	1,480	396	341	103	16	6.8
23		284	420	194	597	481	2,970	208	310	73	15	5.2
24		1,000	363	185	1,120	650	3,800	172	352	65	603	3.6
25		1,180	330	180	1,790	596	8,000	149	300	59	1,510	4.6
26		274	648	176	2,720	330	5,260	218	251	54	683	3.4
27		2,890	2,260	172	2,010	310	2,000	138	293	50	176	3.4
28		2,130	4,500	162	2,890	280	893	123	924	45	156	3.4
29		855	5,750	149	-	227	674	107	1,890	40	60	3.2
30		217	2,280	149	-	204	893	103	1,430	37	286	2.7
31		-	1,010	149	-	264	-	100	-	33	96	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	9,074.7	2,890	0	302	18,000
December	54,203	9,000	67	1,748	107,500
Calendar year 1940	211,607.3	15,400	0	578	419,700
January	16,937	3,060	149	546	33,590
February	21,223	2,890	149	762	42,280
March	17,253	2,410	204	537	34,250
April	44,209	8,000	176	1,474	87,690
May	43,516	9,700	100	1,404	86,310
June	107,881	24,200	120	3,596	214,000
July	10,418	1,500	33	336	20,660
August	4,732	1,510	15	153	9,390
September	455.3	54	2.7	15.2	903
Water year 1940-41	330,017.0	24,200	0	904	654,600

Cedar Creek near Mabank, Tex.

Location.- Water-stage recorder, lat. 32°19'45", long. 96°10'05", at bridge on county highway 2 miles downstream from Lacys Fork and 5½ miles southwest of Mabank, Kaufman County. Datum of gage is 285.39 feet above mean sea level, unadjusted.

Drainage area.- 741 square miles.

Records available.- December 1938 to September 1941.

Extremes.- Maximum discharge during year, 16,800 second-feet June 17 (gage height, 19.12 feet), from rating curve extended above 3,000 second-feet on basis of one slope-area determination at gage height 23.5 feet, at site 12 miles downstream; no flow at times. 1939-41: Maximum discharge, that of June 17, 1941; no flow at times.

Maximum stage known, 23.5 feet, Sept. 29, 1936, according to information from local residents; peak discharge of this flood at site about 12 miles below station (drainage area, 910 square miles), 35,400 second-feet, by slope-area method.

Remarks.- Records fair except those for periods of no gage-height record and those above 3,000 second-feet, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	163	120	196	a94	248	39	780	7.6	1,980	a0.9	21
2	0	195	68	136	a1,560	133	32	1,520	281	193	.7	13
3	0	59	44	106	a2,160	92	28	2,220	1,440	82	.9	10
4	0	21	34	77	a1,980	68	24	2,100	2,220	110	.7	6.2
5	0	9.4	31	65	797	54	22	3,200	2,470	91	.6	7.0
6	0	5.5	26	53	168	592	20	6,300	1,600	42	.4	6.1
7	0	3.6	23	48	105	3,210	38	7,200	2,110	27	.4	5.5
8	0	2.9	20	40	76	5,650	49	5,860	3,290	20	.3	4.9
9	0	68	18	34	57	6,620	92	3,180	2,930	14	.3	4.6
10	0	764	16	30	44	4,040	81	746	2,930	10	1.1	4.3
11	0	753	76	27	35	799	47	195	3,540	10	5.8	4.0
12	0	340	646	25	29	192	29	95	5,210	14	2.2	3.8
13	0	140	1,130	36	26	128	20	66	7,260	296	1.4	3.6
14	0	73	1,420	869	22	97	15	49	6,250	1,940	.9	3.3
15	0	31	1,210	1,270	21	77	13	34	5,300	2,220	.4	3.1
16	0	15	2,350	a671	19	63	23	24	8,340	1,070	.3	2.9
17	0	10	3,380	a337	17	54	103	20	15,900	778	0	2.7
18	0	8.2	3,920	a192	17	48	94	16	15,600	238	0	2.5
19	0	6.4	2,080	a116	23	37	75	14	6,530	a77	0	2.0
20	0	5.5	312	a84	301	32	103	13	1,950	a47	0	1.8
21	0	7.6	120	a61	597	28	127	11	227	a36	0	1.1
22	0	19	82	a46	379	26	64	23	100	a31	0	.6
23	0	2,840	61	a38	601	473	395	29	65	a26	0	.3
24	0	10,400	48	a35	2,800	969	1,710	22	42	a20	0	1.1
25	0	11,000	97	a34	4,100	627	2,220	13	32	a15	.57	1.6
26	0	10,400	1,420	a34	3,120	196	1,300	10	40	all	.945	1.1
27	0	7,440	3,700	a33	1,430	168	261	8.2	32	a6.4	1,580	.6
28	0	4,760	5,650	a30	560	164	108	7.0	357	a2.7	2,420	.3
29	0	2,610	7,080	a29	-	131	74	6.4	1,680	al.8	661	0
30	0	467	4,520	a27	-	78	76	6.1	3,330	al.6	279	0
31	2.0	-	925	a26	-	53	-	5.8	-	al.4	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2.0	2.0	0	0.06	4.0
November	52,616.1	11,000	2.9	1,754	104,400
December	40,607	7,080	16	1,310	80,540
Calendar year 1940	166,693.6	11,000	0	455	350,700
January	4,794	1,270	25	155	9,510
February	21,108	4,100	17	754	41,870
March	25,047	6,520	26	808	49,680
April	7,282	2,220	13	243	14,440
May	33,773.5	7,200	5.8	1,089	66,990
June	98,963.6	15,800	7.6	3,295	196,100
July	9,511.9	2,220	1.4	300	18,470
August	6,021.3	2,420	0	194	11,940
September	121.0	21	0	4.03	240
Water year 1940-41	299,547.4	15,800	0	821	594,200

a No gage-height record; discharge computed on basis of recorded range in stage, engineer's notes, and weather records.

Chambers Creek near Corsicana, Tex.

Location.- Water-stage recorder, lat. 32°06'30", long. 96°22'15", at bridge on State Highway 31, 500 feet upstream from St. Louis, Southwestern Railway bridge, 6 miles east of Corsicana, Navarro County, and 17 miles upstream from Richland Creek. Datum of gage is 294.25 feet above mean sea level, datum of 1929.

Drainage area.- 958 square miles.

Records available.- March 1939 to September 1941.

Extremes.- Maximum discharge during year, 25,400 second-feet Nov. 24 (gage height, 24.40 feet); no flow Oct. 1-31, Nov. 2-9.

1939-41: Maximum discharge, that of Nov. 24, 1940; no flow at times.

Maximum stage known, about 27½ feet in December 1913, according to information furnished by local residents.

Remarks.- Records fair. No large diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1.2	398	7,070	727	803	252	516	99	350	450	35
2	0	.1	323	1,780	9,070	684	228	424	618	1,170	44	28
3	0	0	273	2,010	11,800	614	220	324	2,260	168	40	23
4	0	0	253	677	4,890	544	215	1,110	2,550	212	37	20
5	0	0	244	502	1,860	466	210	4,930	1,510	266	34	18
6	0	0	222	463	888	2,010	206	12,700	595	197	33	16
7	0	0	202	437	778	8,990	216	6,250	2,720	112	83	13
8	0	0	198	372	628	6,000	242	3,010	2,520	95	359	12
9	0	57	178	359	516	2,130	220	877	1,460	64	447	11
10	0	86	168	290	437	926	210	530	995	72	183	11
11	0	36	641	257	398	652	206	489	5,660	86	68	10
12	0	22	3,790	278	359	530	202	372	7,000	1,570	47	12
13	0	10	4,570	406	326	489	198	333	4,280	3,430	51	12
14	0	5.3	2,110	2,380	296	424	194	a290	1,520	4,250	220	12
15	0	3.2	1,760	1,780	252	398	190	a242	588	4,880	973	12
16	0	2.4	5,690	783	242	385	312	a210	1,760	6,110	1,040	11
17	0	1.5	5,950	470	233	346	402	186	3,390	1,540	144	11
18	0	.8	3,290	359	224	290	f164	170	2,980	480	f72	9.4
19	0	.6	1,080	296	215	267	f188	154	1,200	232	f52	8.7
20	0	.4	726	272	913	267	646	1,130	544	204	41	8.2
21	0	2.0	586	267	1,260	267	343	1,700	424	1,010	34	7.3
22	0	29	502	257	1,880	252	a202	960	359	2,120	32	6.4
23	0	5,080	450	242	2,470	650	2,140	1,100	372	654	287	5.7
24	0	013,700	398	228	9,990	1,630	5,460	540	426	162	877	7.0
25	0	014,800	434	220	9,320	819	4,580	202	656	130	565	7.9
26	0	010,900	800	210	4,600	390	3,140	182	443	109	166	6.1
27	0	6,720	3,520	206	1,800	810	955	154	314	96	69	5.5
28	0	3,700	4,950	186	1,090	909	586	134	1,230	84	46	6.5
29	0	1,030	3,190	174	-	495	502	123	1,570	a71	37	6.9
30	0	484	1,280	170	-	296	476	120	1,300	a64	61	5.3
31	20	-	726	178	-	267	-	109	-	a57	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	20	20	0	0.65	40
November.....	61,671.5	18,700	0	2,056	122,300
December.....	48,692	5,950	168	1,577	96,980
Calendar year 1940.....	241,706.0	18,700	0	660	479,400
January.....	23,579	7,070	170	761	46,770
February.....	67,162	11,800	215	2,399	133,200
March.....	33,990	8,990	252	1,096	67,420
April.....	23,305	5,460	164	777	46,220
May.....	39,571	12,700	109	1,276	78,490
June.....	51,333	7,000	99	1,711	101,800
July.....	29,053	6,110	57	937	57,630
August.....	6,244	1,040	32	201	12,380
September.....	357.9	35	5.3	11.9	710
Water year 1940-41.....	385,178.4	18,700	0	1,055	763,900

Peak discharge.- Nov. 24 (2:30 p.m.) 25,400 sec.-ft.; Feb. 3 (4 a.m.) 13,400 sec.-ft.; Feb. 24 (6 p.m.) 12,600 sec.-ft.; Mar. 7 (3 p.m.) 10,500 sec.-ft.; May 6 (7 a.m.) 14,800 sec.-ft.
 a No gage-height record; discharge computed on basis of recorded range in stage, engineer's notes, and weather records.

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

Richland Creek near Richland, Tex.

Location.- Water-stage recorder, lat. 31°57', long. 96°25', at bridge on U. S. Highway 76, 750 feet downstream from Texas & New Orleans Railroad bridge, 1 mile north of Richland, Navarro County, and 3½ miles downstream from Pinoak Creek. Datum of gage is 299.0 feet above mean sea level, datum of 1929.

Drainage area.- 760 square miles.

Records available.- December 1924 to February 1925 (discharge measurements only), March 1939 to September 1941.

Extremes.- Maximum discharge during year, 43,000 second-feet Nov. 24 (gage height, 22.42 feet); no flow Oct. 1 to Nov. 1.

1939-41: Maximum discharge, that of Nov. 24, 1940; no flow at times.

Maximum stage known, 25.5 feet in December 1913, according to information furnished by engineers of Texas & New Orleans Railroad.

Remarks.- Records good. No large diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		65	161	392	854	365	80	383	59	59	41	14
2		25	128	512	7,170	317	75	145	63	50	36	13
3		4.8	104	237	11,300	297	481	148	237	45	33	11
4		2.0	92	181	4,840	264	155	911	744	48	30	9.8
5		.8	87	153	968	224	68	2,600	165	145	28	9.1
6		.6	82	145	390	2,250	59	8,700	106	59	27	8.2
7		.4	77	134	365	11,000	85	9,480	3,050	44	47	5.7
8		.2	75	124	270	11,400	92	3,170	3,890	59	74	5.4
9		2.0	68	114	211	5,260	81	351	680	34	37	5.2
10		318	64	104	185	1,070	58	185	934	31	33	5.0
11		48	558	95	169	335	53	161	4,460	152	26	5.0
12		11	3,750	92	153	264	49	128	6,040	4,440	23	16
13		4.0	4,280	164	142	239	48	120	1,970	9,800	20	13
14		1.9	3,360	3,360	128	202	48	101	220	10,300	55	9.6
15		.9	1,620	4,150	110	173	46	90	1,860	6,080	68	8.9
16		.7	4,120	1,320	107	165	129	82	3,580	4,280	26	8.6
17		.7	4,580	230	104	149	1,090	72	8,720	4,280	20	7.9
18		.7	2,780	150	95	131	278	68	6,760	2,070	16	7.0
19		.5	406	117	90	138	106	73	646	251	14	6.2
20		.4	244	104	156	157	595	2,470	177	1,020	13	6.5
21		.4	198	98	189	138	318	2,700	245	460	12	6.2
22		.7	165	95	777	128	98	2,150	137	138	11	6.0
23		4,080	145	87	1,740	131	1,500	771	107	107	111	4.8
24		33,700	131	82	6,360	236	4,120	128	178	92	139	4.8
25		23,000	117	80	10,800	134	4,750	128	130	82	110	5.0
26		14,300	275	75	5,010	107	2,760	104	91	72	38	4.4
27		8,140	2,990	72	1,010	121	420	92	395	66	25	4.2
28		4,170	3,790	65	460	156	305	82	1,250	59	20	4.8
29		562	2,260	64	-	101	224	72	197	53	17	8.4
30		202	387	62	-	84	303	70	80	48	16	7.0
31		-	249	66	-	82	-	66	-	45	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	88,612.7	33,700	.2	2,954	175,800
December	37,343	4,580	64	1,205	74,070
Calendar year 1940	171,732.5	33,700	0	469	340,700
January	12,725	4,150	62	410	25,240
February	54,163	11,300	90	1,934	107,400
March	35,810	11,400	82	1,155	71,030
April	19,272	4,750	46	609	36,240
May	35,858	9,480	66	1,157	71,120
June	47,111	8,720	59	1,570	93,440
July	44,379	10,300	31	1,452	88,020
August	1,181	139	11	38.1	2,340
September	231.7	16	4.2	7.72	460
Water year 1940-41	376,686.4	33,700	0	1,029	745,200

Peak discharge.- Nov. 24 (5:15 p.m.) 43,000 sec.-ft.; Feb. 3 (1:30 a.m.) 15,200 sec.-ft.; Mar. 7 (11:00 p.m.) 14,400 sec.-ft.; May 6 (9:00 p.m.) 13,600 sec.-ft.

West Fork of San Jacinto River near Conroe, Tex.

Location.- Water-stage recorder, lat. 30°15', long. 95°28', at bridge on U. S. Highway 75, 285 feet upstream from bridge of International-Great Northern Railroad, 3 1/2 miles downstream from Lake Creek, and 4 1/2 miles south of Conroe, Montgomery County. Datum of gage is 100.3 feet above mean sea level, datum of 1929.

Drainage area.- 832 square miles.

Records available.- May 1924 to September 1927, July 1939 to September 1941.

Extremes.- Maximum discharge during year, 110,000 second-feet Nov. 25 (gage height, 25.85 feet), from rating curve extended above 43,000 second-feet on basis of velocity-area studies; minimum, 11 second-feet Oct. 20-25.

1924-27, 1939-41: Maximum discharge, that of Nov. 25, 1940; minimum, 9.3 second-feet Oct. 1, 2, 1939.

Maximum stage prior to 1940, 25.2 feet, present site and datum, in December 1913, according to information furnished by Missouri Pacific Railroad engineers, at railroad bridge 285 feet downstream (discharge, 101,000 second-feet, from rating curve extended above 43,000 second-feet on basis of velocity-area studies).

Remarks.- Records fair except those above 45,000 second-feet, which are poor. No large diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	75	799	1,180	271	732	271	684	201	222	72	26
2	13	57	560	712	1,300	458	245	698	253	166	66	28
3	13	74	451	586	2,600	342	a641	952	173	140	61	28
4	13	55	342	544	5,210	300	a1,620	984	147	122	58	27
5	13	72	271	550	4,320	271	a1,370	1,300	115	109	57	26
6	13	108	262	490	2,110	604	a1,180	1,650	98	100	53	26
7	13	89	770	464	1,080	3,360	a1,080	2,260	1,840	93	55	26
8	12	88	1,340	451	800	4,240	a530	1,710	2,080	88	64	27
9	12	106	1,240	425	698	6,300	438	1,280	988	84	69	31
10	12	136	1,500	388	588	3,640	245	566	647	82	63	32
11	12	186	2,080	342	400	1,520	201	271	4,120	85	62	32
12	12	320	6,110	310	320	619	173	208	11,100	172	61	31
13	12	222	19,900	290	290	425	159	173	13,800	353	56	31
14	12	143	20,200	1,190	271	353	150	153	5,750	659	51	30
15	13	155	11,300	2,320	253	320	142	138	3,000	1,050	46	31
16	13	135	9,300	3,500	238	300	128	a121	2,190	1,040	42	48
17	13	91	6,310	4,140	230	300	115	a110	4,260	1,530	41	50
18	12	69	5,360	3,770	222	433	111	a104	3,930	1,140	38	41
19	12	55	3,440	3,270	241	690	106	a100	1,670	655	36	37
20	12	46	1,680	1,760	1,570	3,280	105	a98	673	320	35	35
21	11	42	961	759	1,560	4,480	162	94	464	194	34	33
22	11	42	742	503	1,560	4,390	1,310	160	698	150	32	31
23	12	208	551	400	1,950	3,560	6,790	310	550	126	32	52
24	11	36,700	451	376	2,700	1,950	19,700	490	427	110	32	1,740
25	12	92,900	412	364	2,850	790	13,000	321	456	98	31	1,070
26	12	40,600	920	412	3,380	477	7,370	137	238	89	29	388
27	14	18,600	1,180	503	3,550	600	3,760	137	230	82	28	262
28	16	8,400	1,670	464	1,840	670	1,740	353	208	79	27	194
29	52	3,580	2,360	354	-	614	845	343	290	89	27	152
30	29	1,660	3,220	300	-	477	755	201	271	75	27	132
31	25	-	2,340	280	-	342	-	155	-	74	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	455	52	11	14.7	902
November	205,010	92,900	42	6,834	406,600
December	108,002	20,800	262	3,484	214,200
Calendar year 1940	598,993	92,900	11	1,090	791,500
January	31,387	4,140	280	1,012	62,260
February	42,372	5,210	222	1,513	84,040
March	46,817	6,300	271	1,510	92,860
April	64,742	19,700	105	2,158	128,400
May	16,241	2,260	94	524	32,210
June	60,847	13,800	98	2,028	120,700
July	9,354	1,530	74	302	18,560
August	1,412	72	27	45.5	2,800
September	4,697	1,740	26	157	9,320
Water year 1940-41	591,336	92,900	11	1,620	1,173,000

Peak discharge.- Nov. 25 (5 a.m.) 110,000 sec.-ft.; Dec. 13 (10 p.m.) 27,500 sec.-ft.; Apr. 24 (5 p.m.) 21,200 sec.-ft.; June 12 (11 p.m.) 20,400 sec.-ft.

* No gage-height records; discharge computed on basis of recorded range in stage, records for station near Humble, and weather records.

West Fork of San Jacinto River near Humble, Tex.

Location.- Water-stage recorder, lat. 30°01'35", long. 95°15'30", at bridge on U. S. Highway 59, 1,160 feet upstream from Texas & New Orleans Railroad bridge, about half a mile downstream from Spring Creek, and 2½ miles north of Humble, Harris County. Datum of gage is 30.53 feet above mean sea level, datum of 1929.

Drainage area.- 1,811 square miles.

Records available.- October 1928 to September 1941.

Average discharge.- 12 years (1929-41), 1,059 second-feet.

Extremes.- Maximum discharge during year, 187,000 second-feet Nov. 25, 26; maximum gage height, 32.7 feet Nov. 26, affected by backwater from East Fork; minimum discharge, 29 second-feet Oct. 10-13, 22-25.

1928-41: Maximum discharge, 187,000 second-feet May 31, 1929, Nov. 25, 26, 1940; maximum gage height, 32.7 feet, present recorder site and datum, May 31, 1929, Nov. 26, 1940 (flood of Nov. 26, 1940, affected by backwater from East Fork and it is believed flood of May 31, 1929, occurred under similar conditions); minimum discharge observed, 14 second-feet Sept. 8-10, 1931.

Remarks.- Records good except those above 30,000 second-feet and those for periods of no gage-height record, which are poor. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	449	3,120	2,680	a473	2,400	664	2,800	1,900	928	250	64
2	34	345	2,170	1,520	1,250	1,350	557	2,300	1,520	805	195	67
3	32	275	1,750	1,180	3,010	a958	1,040	2,200	1,260	777	156	139
4	31	a195	1,430	1,040	4,270	a716	2,050	2,300	920	735	146	134
5	31	a156	1,210	950	6,280	545	1,750	2,910	631	644	182	109
6	31	a235	1,010	898	4,390	634	1,520	5,900	365	527	199	85
7	31	a345	1,070	840	2,280	4,600	1,080	6,800	2,930	315	203	89
8	30	a320	2,030	777	1,520	7,160	1,070	5,160	7,720	216	192	207
9	30	a315	2,250	749	1,220	8,600	1,030	3,460	4,890	171	245	826
10	29	a398	2,220	716	a912	8,420	690	2,300	2,510	178	365	497
11	29	a295	2,360	696	a819	4,640	443	1,480	8,320	174	280	335
12	29	a386	12,800	a650	a690	2,160	398	1,140	13,500	355	199	408
13	29	491	31,900	a587	a557	1,340	340	898	19,900	735	149	345
14	30	330	46,200	2,270	a551	965	310	670	18,600	1,380	114	191
15	32	225	37,400	5,000	a545	670	280	533	9,460	2,150	109	160
16	31	195	23,400	6,290	a533	527	255	473	5,100	2,250	93	1,970
17	31	156	17,200	8,060	a521	557	230	414	4,400	2,560	85	1,340
18	31	114	13,200	7,520	a509	1,310	212	370	6,880	2,980	78	1,080
19	30	91	9,320	6,440	a497	2,630	195	340	5,150	2,400	72	728
20	30	74	5,730	4,860	a512	9,850	186	345	2,480	1,800	69	533
21	30	64	3,520	2,560	2,400	12,400	225	325	1,610	1,380	67	414
22	29	58	2,620	1,560	2,450	13,500	1,560	295	1,480	1,060	66	310
23	29	92	2,100	a1,240	2,970	10,000	11,500	431	1,850	791	64	739
24	29	8,040	1,610	a1,020	5,240	6,280	30,200	612	1,840	533	66	11,300
25	29	103,000	1,380	a868	5,960	3,340	48,700	756	1,340	403	64	12,100
26	30	137,000	1,790	a819	6,280	2,000	30,900	497	1,260	350	61	6,910
27	31	63,400	2,300	a861	5,800	1,610	14,700	340	950	370	61	3,630
28	34	27,300	2,560	a861	4,490	1,520	7,290	1,070	840	360	61	2,350
29	78	12,000	2,980	a749	-	1,380	3,990	2,140	958	310	67	1,660
30	171	5,570	3,700	a593	-	1,100	3,220	3,840	1,260	320	76	1,260
31	238	-	3,840	a521	-	854	-	2,800	-	275	66	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,344	238	29	43.4	2,670
November	361,914	137,000	58	12,060	717,800
December	247,570	48,200	1,010	7,986	491,000
Calendar year 1940	744,712	137,000	29	2,035	1,477,000
January	65,365	8,060	521	2,109	129,600
February	66,929	6,280	473	2,390	132,800
March	114,016	13,500	527	3,678	226,100
April	166,685	48,700	186	5,556	330,600
May	55,799	6,800	295	1,800	110,700
June	131,874	19,900	631	4,396	261,600
July	28,222	2,980	171	910	56,980
August	4,090	365	61	132	8,110
September	49,980	12,100	64	1,666	99,130
Water year 1940-41	1,293,788	137,000	29	3,545	2,566,000

Peak discharge.- Nov. 25 (11 p.m.) to Nov. 26 (1 a.m.) 187,000 sec.-ft.; Dec. 14 (5 p.m.) 52,300 sec.-ft.; Apr. 25 (11 a.m.) 52,300 sec.-ft.; June 13 (8 p.m.) 23,900 sec.-ft.
 a No gage-height record; discharge computed on basis of recorded range in stage and records for West Fork of San Jacinto River near Conroe and Spring Creek near Spring.

San Jacinto River near Huffman, Tex.

Location.- Water-stage recorder, lat. 29°59'40", long. 95°08'00", at Beaumont, Sour Lake & Western Railway bridge 0.4 mile downstream from confluence of East and West Forks of San Jacinto River and 3.4 miles southwest of Huffman, Harris County. Prior to July 10, wire-weight gage at same site and datum. Datum of gage is 1.93 feet above mean sea level, datum of 1929.

Drainage area.- 2,791 square miles.

Records available.- October 1936 to September 1941.

Extremes.- Maximum discharge observed during year, 253,000 second-feet Nov. 26 (gage height, 51.2 feet); minimum observed, 58 second-feet Oct. 8-10.

1936-41: Maximum discharge, that of Nov. 26, 1940; minimum observed, 49 second-feet Sept. 1, 1939, and Sept. 13, 14, 1940.

Flood of May 31, 1929, reached a stage of 50.3 feet, according to information furnished by Beaumont, Sour Lake & Western Railway Co. (discharge, 237,000 second-feet). Flood of April 1876 reached a stage about 1½ feet lower, according to information furnished by local resident.

Remarks.- Records fair. Gage read once daily Oct. 1 to July 9, oftener during high water. No large diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	569	6,080	4,010	920	3,690	1,310	5,570	4,410	980	416	182
2	69	471	3,650	2,360	3,400	1,940	1,210	4,410	4,090	1,240	354	182
3	68	411	2,540	1,800	5,960	1,420	1,870	4,010	2,640	1,140	322	234
4	67	354	2,010	1,660	7,310	1,110	3,240	3,850	2,360	1,110	314	258
5	67	380	1,820	1,450	9,790	920	2,500	4,490	1,800	980	333	240
6	63	467	1,480	1,280	9,790	1,180	2,010	8,090	1,280	860	329	210
7	61	519	1,380	1,210	5,480	6,130	1,560	9,210	7,860	682	443	288
8	58	554	2,610	1,110	3,540	11,400	1,420	9,940	10,400	524	420	281
9	58	564	3,390	1,040	2,720	12,000	1,520	7,820	12,900	452	610	587
10	60	584	3,390	980	2,360	12,900	1,140	4,730	12,000	443	534	752
11	62	632	3,200	860	1,760	8,230	788	2,720	16,800	514	467	621
12	63	584	14,400	711	1,480	3,540	626	1,940	29,400	758	380	519
13	64	621	55,300	740	1,180	2,220	579	1,560	32,100	980	318	443
14	67	676	83,000	1,870	980	1,660	549	1,240	35,500	1,520	278	284
15	68	476	78,600	5,480	860	1,310	514	950	20,400	2,290	255	252
16	66	384	48,600	8,090	758	1,040	457	800	9,710	2,860	234	1,970
17	63	325	32,000	9,790	682	1,040	429	734	5,960	2,940	221	2,280
18	63	267	22,900	10,100	616	1,620	411	654	7,060	3,690	205	1,580
19	62	246	16,300	8,790	605	4,980	388	595	7,310	3,090	203	1,040
20	62	232	9,010	6,660	1,060	16,700	375	734	3,770	2,220	198	694
21	61	203	5,200	3,160	3,930	24,000	398	1,590	2,430	1,620	193	495
22	61	186	3,700	2,220	4,010	21,000	1,720	920	2,150	1,350	186	362
23	62	210	3,200	1,730	4,940	17,800	17,700	1,010	2,360	1,040	184	838
24	62	10,900	2,260	1,450	9,490	11,700	46,600	1,380	2,720	800	184	21,100
25	64	108,000	1,870	1,180	10,200	5,660	74,200	1,110	1,940	800	193	29,900
26	62	240,000	2,940	1,110	9,210	3,160	61,600	860	1,870	549	191	20,000
27	67	172,000	3,850	1,110	8,230	2,430	32,200	860	1,560	534	184	10,600
28	87	77,200	4,090	1,080	6,600	2,430	16,800	950	1,340	569	196	5,520
29	164	27,100	4,490	1,040	-	2,360	7,570	5,220	1,380	505	221	3,360
30	148	12,300	5,030	890	-	2,010	5,960	10,100	1,450	544	213	2,290
31	336	-	5,300	776	-	1,620	-	7,440	-	452	198	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,459	336	58	79.3	4,880
November	657,415	240,000	186	21,910	1,304,000
December	433,590	83,000	138	13,990	860,000
Calendar year 1940	1,289,055	240,000	50	3,522	2,557,000
January	85,737	10,100	711	2,766	170,100
February	117,861	10,200	605	4,209	233,800
March	189,200	24,000	920	6,103	375,500
April	285,844	74,200	375	9,565	588,600
May	105,497	10,100	595	3,403	209,300
June	244,970	33,500	1,280	8,166	485,900
July	37,887	3,690	443	1,222	75,150
August	8,977	610	184	290	17,810
September	107,342	29,900	182	3,678	212,900
Water year 1940-41	2,277,579	240,000	58	6,240	4,518,000

Peak discharge.- Nov. 26 (11 a.m.) 253,000 sec.-ft.; Dec. 14 (11 p.m.) 89,400 sec.-ft.; Apr. 25 (3 p.m.) 78,600 sec.-ft.; June 14 (9 a.m.) 35,900 sec.-ft.; Sept. 25 (7:30 a.m.) 31,800 sec.-ft.

Spring Creek near Spring, Tex.

Location.- Wire-weight gage, lat. 30°06'35", long. 95°26'10", at bridge on U. S. Highway 75, 4,500 feet upstream from bridge of International-Great Northern Railroad, 2.4 miles northwest of Spring, Harris County, and 4 miles downstream from Willow Creek. Datum of gage is 78.12 feet above mean sea level, unadjusted.

Drainage area.- 400 square miles.

Records available.- April 1939 to September 1941.

Extremes.- Maximum discharge during year, 42,700 second-feet Nov. 25 (gage height, 28.6 feet, from graph based on gage readings); minimum observed, 9.7 second-feet Oct. 9, 1939-41; Maximum discharge, that of Nov. 25, 1940; minimum observed, 7.7 second-feet Sept. 13, 1940.
Maximum stage known, 29.3 feet May 30, 1929, from floodmarks identified by local resident (discharge, 42,300 second-feet).

Remarks.- Records good except those for period of no gage-height record, which are poor. Gage read twice daily, oftener during high water. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	74	274	192	91	213	129	366	242	140	54	27
2	10	124	235	187	368	158	118	328	202	108	48	29
3	10	71	202	177	609	136	172	262	136	87	44	41
4	10	41	158	197	1,080	122	213	266	94	78	41	43
5	10	58	129	182	953	112	235	818	78	71	69	30
6	10	115	126	140	304	282	118	1,420	78	66	78	28
7	10	208	166	129	353	1,870	101	1,400	1,110	62	59	34
8	10	110	276	122	434	3,080	108	1,180	1,980	58	60	261
9	10	61	464	118	257	2,210	242	434	863	56	101	183
10	10	67	330	122	167	810	126	208	292	55	72	78
11	10	70	456	104	129	316	91	158	2,290	56	55	74
12	10	65	6,760	98	118	202	84	132	2,670	78	44	81
13	10	57	15,600	91	108	162	78	122	2,440	257	41	53
14	10	54	15,200	438	101	136	76	108	1,190	280	38	36
15	10	37	5,590	1,480	91	129	72	98	420		37	34
16	11	28	3,290	2,140	84	122	70	91	246		36	91
17	10	24	3,900	1,500	78	140	67	84	257		34	246
18	11	21	1,900	1,010	76	401	66	78	874		34	118
19	10	20	791	526	81	856	64	74	643	a276	33	65
20	10	18	435	268	286	2,740	62	73	197		33	46
21	10	18	400	192	784	5,970	66	73	140		32	36
22	10	18	435	162	784	5,010	122	78	286		31	31
23	10	31	292	144	592	1,530	3,960	81	420		31	123
24	10	2,770	218	136	1,650	609	26,900	69	172	57	31	2,890
25	10	31,500	182	132	2,670	328	18,200	63	340	54	30	4,020
26	11	28,400	204	122	2,020	240	3,990	59	449	52	30	1,530
27	11	8,540	392	115	779	230	1,330	61	340	53	30	595
28	13	2,220	526	118	316	340	558	344	304	49	30	257
29	40	854	694	104	-	262	406	1,680	494	62	30	153
30	109	402	522	94	-	172	479	1,150	328	78	30	104
31	66	-	257	87	-	140	-	449	-	76	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	502	109	10	16.2	996
November.....	76,073	31,500	18	2,536	150,900
December.....	60,404	15,600	126	1,949	119,800
Calendar year 1940.....	155,764.4	31,500	7.7	426	309,000
January.....	10,627	2,140	87	343	21,080
February.....	15,363	2,670	76	549	30,470
March.....	29,028	5,970	112	936	57,580
April.....	58,303	26,900	62	1,945	115,600
May.....	11,837	1,680	59	382	23,480
June.....	19,575	2,670	78	652	38,830
July.....	4,417	-	49	142	8,760
August.....	1,344	101	28	43.4	2,670
September.....	11,325	4,020	27	378	22,460
Water year 1940-41.....	298,798	31,500	10	819	592,600

a No gage-height record; discharge computed on basis of records for nearby stations and weather records.

East Fork of San Jacinto River near Cleveland, Tex.

Location.- Water-stage recorder, lat. 30°20', long. 95°07', at bridge on State Highway 105, 83 feet downstream from bridge on Gulf, Colorado & Santa Fe Railway, 1½ miles west of Cleveland, Liberty County, and 4 miles downstream from Nebblets Creek. Datum of gage is 113.0 feet above mean sea level, datum of 1929.

Drainage area.- 330 square miles.

Records available.- April 1939 to September 1941.

Extremes.- Maximum discharge during year, 77,500 second-feet Nov. 24 (gage height, 20.37 feet), from rating curve extended above 14,000 second-feet by logarithmic plotting; minimum, 7.6 second-feet Oct. 10-13.

1939-41: Maximum discharge, that of Nov. 24, 1940; minimum, 7.2 second-feet Sept. 6, 1939.

Maximum stage known prior to 1940, 19.9 feet May 5, 1935, according to information furnished by local resident (discharge, 69,500 second-feet, from rating curve extended above 14,000 second-feet by logarithmic plotting).

Remarks.- Records good except those above 15,000 second-feet, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.9	59	278	250	104	204	128	618	573	87	45	28
2	8.9	53	228	232	656	164	121	727	388	71	45	28
3	8.6	33		219	1,120	146	121	618	211	65	41	33
4	8.3	24		204	2,800	137	117	385	130	62	39	41
5	8.6	27		190	1,530	124	162	517	101	56	53	34
6	8.6	52	a265	187	438	232	153	1,260	85	52	47	30
7	8.6	42		190	418	943	119	2,800	278	49	45	28
8	8.3	29		192	418	1,780	119	1,920	7,500	48	47	25
9	8.0	36		166	303	2,280	104	788	3,530	47	47	29
10	7.6	33	1,060	149	189	1,040	94	275	1,600	44	48	52
11	7.6	57	452	135	151	266	85	173	1,740	47	41	47
12	7.6	139	3,130	123	135	129	82	144	7,020	70	41	33
13	7.6	87	14,100	119	126	158	75	131	4,200	113	38	29
14	8.0	53	10,300	318	117	139	68	113	1,910	171	35	28
15	8.3	37	3,990	827	106	131	65	104	635	348	32	28
16	8.3	27	2,620	1,400	99	128	62	95	378	268	31	37
17	9.9	24	2,380	1,750	94	122	58	92	458	268	30	54
18	9.2	22	2,060	2,050	92	158	57	87	378	250	29	44
19	8.6	22	1,030	1,280	95	213	56	83	200	173	28	34
20	8.3	20	368	352	233	792	56	85	144	106	28	30
21	8.0	20	278	215	805	1,100	57	287	124	75	28	27
22	8.3	20	227	175	1,640	1,430	182	535	106	75	27	25
23	8.3	157	194	149	1,410	1,340	1,620	660	97	60	26	29
24	8.6	26,100	173	148	728	464	8,220	548	88	54	30	732
25	9.9	43,200	162	140	846	215	6,490	128	85	50	30	1,120
26	12	13,700	328	130	1,040	183	2,690	94	80	53	35	1,010
27	13	5,100	598	130	957	225	1,210	80	78	57	29	400
28	15	2,410	1,040	146	348	328	351	140	82	59	28	139
29	80	1,080	1,430	131	-	278	363	571	92	59	32	94
30	73	358	1,260	113	-	173	488	1,170	131	47	29	83
31	33	-	452	103	-	142	-	882	-	44	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	436.9	80	7.6	14.1	867
November.....	93,021	43,200	20	3,101	184,500
December.....	49,993	14,100	-	1,613	99,160
Calendar year 1940.....	176,025.3	43,200	7.6	481	349,100
January.....	11,916	2,050	103	354	23,640
February.....	16,498	2,300	92	589	32,720
March.....	15,224	2,280	122	491	30,280
April.....	23,562	8,220	56	785	46,730
May.....	16,070	2,800	80	518	31,870
June.....	32,422	7,500	78	1,081	64,310
July.....	3,028	348	44	97.7	6,010
August.....	1,114	53	26	35.9	2,210
September.....	4,351	1,120	25	145	8,630
Water year 1940-41.....	267,635.9	43,200	7.6	733	530,800

Peak discharge.- Nov. 24 (11 p.m.) 77,500 sec.-ft.; Dec. 13 (9 p.m.) 17,700 sec.-ft.; Apr. 24 (3:30 p.m.) 13,800 sec.-ft.; June 8 (10 a.m.) 10,300 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage, records for nearby stations, and weather records.

Buffalo Bayou at Houston, Tex.

Location.- Water-stage recorder, lat. 29°45'42", long. 95°23'52", at Waugh Drive Bridge in Houston, Harris County, half a mile upstream from bridge on Texas & New Orleans Railroad and 3½ miles upstream from Whiteoak Bayou. Datum of gage is 4.08 feet below mean sea level, datum of 1929.

Drainage area.- 326 square miles.

Records available.- May 1936 to September 1941.

Extremes.- Maximum discharge during year, 6,220 second-feet June 11 (gage height, 27.83 feet); minimum, 4.0 second-feet Oct. 21.

1936-41: Maximum discharge, 9,500 second-feet May 27, 1936 (gage height, 32.5 feet, from graph based on gage readings); minimum not determined.

Maximum stage known, 54.4 feet, present site and datum, Dec. 9, 1935 (discharge, 40,000 second-feet, furnished by M. J. McCall, engineer for Harris County). Flood of May 31, 1929, reached a stage of 48.9 feet, present site and datum (discharge, 19,000 second-feet at bridge on Capitol Avenue, 2 miles downstream from rating curve extended above 15,300 second-feet, stage-discharge relation materially affected by interference of bridge; furnished by W. E. White, assistant engineer, city of Houston).

Remarks.- Records fair except those below 100 second-feet and those for periods of no or doubtful gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	568	2,090	215	895	d350	98	2,340	457	457	a38	35
2	12	421	1,510	167	204	d204	84	2,100	437	437	a36	40
3	9.4	290	1,100	170	225	d128	78	1,420	407	206	a33	46
4	8.0	158	769	161	398	96	70	1,020	296	118	a30	42
5	7.3	532	516	125	342	84	66	1,380	163	d81	a63	44
6	5.2	797	314	101	290	88	61	1,780	98	d62	a11	44
7	5.2	915	221	80	264	98	61	2,130	1,010	d56	181	50
8	4.5	855	200	56	427	218	54	2,370	1,560	d56	273	51
9	4.5	674	209	e42	378	303	52	1,950	2,280	d55	471	35
10	4.5	463	176	e35	d266	239	48	1,280	2,470	d54	260	40
11	5.2	347	181	e30	d167	187	46	728	f4,040	a96	136	72
12	4.4	230	330	e27	d115	118	44	295	5,380	296	90	197
13	4.3	227	950	e24	d98	92	44	111	5,760	849	66	266
14	6.0	149	2,250	639	d84	75	42	108	5,870	1,090	51	239
15	21	89	24,480	1,300	d72	67	41	81	4,500	1,050	39	308
16	4.4	53	25,340	2,040	d65	61	39	65	3,300	1,190	d29	1,980
17	4.4	34	24,750	2,370	d58	89	39	54	2,450	1,120	d25	1,610
18	4.4	23	3,710	2,160	d52	363	38	46	1,850	872	d23	1,530
19	4.3	19	2,830	1,670	d45	1,020	38	42	1,350	592	d21	1,560
20	4.1	15	2,200	1,120	d56	2,740	37	44	942	249	d20	1,290
21	4.1	14	1,770	676	d67	3,050	474	56	571	125	d22	990
22	4.1	15	1,550	296	d219	3,820	474	34	407	122	d19	782
23	4.3	101	1,480	219	d239	3,550	1,560	66	427	86	d19	1,060
24	4.3	645	1,230	150	d255	2,880	1,870	64	500	70	d18	4,280
25	4.4	2,540	885	e105	675	2,250	2,390	49	347	61	d44	3,820
26	12	3,480	714	e82	895	1,470	3,460	41	284	55	d19	4,920
27	5.6	5,110	568	e70	804	905	3,730	40	427	d52	44	4,440
28	14	4,990	518	e64	592	497	3,360	114	571	146	50	3,330
29	420	3,920	477	e58	-	250	2,840	390	655	a45	47	2,570
30	371	2,860	393	e55	-	158	2,600	317	498	a44	40	1,980
31	718	-	302	e52	-	122	-	350	-	a40	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,702.9	718	4.1	54.9	3,380
November	30,534	5,110	14	1,018	60,560
December	44,021	5,340	176	1,420	87,310
Calendar year 1940	89,610.3	5,340	4.0	245	177,700
January	14,359	2,370	24	463	28,480
February	7,471	895	45	267	14,820
March	25,552	3,820	61	824	50,660
April	23,858	3,730	37	795	47,320
May	20,845	2,340	34	672	41,350
June	49,007	5,760	98	1,634	97,200
July	9,742	1,190	40	314	19,320
August	2,351	471	18	75.8	4,660
September	37,651	4,920	35	1,255	74,680
Water year 1940-41	267,093.9	5,760	4.1	732	529,800

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

d Gage height doubtful; discharge computed on basis of engineer's notes and weather records.

e Stage-discharge relation doubtful (control dam being removed); discharge computed on basis of gage heights, engineer's notes, records for nearby stations, and weather records.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

g Computed from graph based on gage readings.

Whiteoak Bayou at Houston, Tex.

Location.- Water-stage recorder, lat. 29°46'31", long. 95°23'54", at Yale Street Bridge, in Houston, Harris County, just downstream from Texas & New Orleans Railroad bridge and 2 miles upstream from Little Whiteoak Bayou. Datum of gage is 4.08 feet below mean sea level, datum of 1929.

Drainage area.- 87.0 square miles.

Records available.- May 1936 to September 1941.

Extremes.- Maximum discharge during year, 5,100 second-feet Sept. 24 (gage height, 40.27 Feet); minimum, 0.4 second-foot Oct. 14, 21-25.

1936-41: Maximum discharge, that of Sept. 24, 1941; minimum, 0.2 second-foot Aug. 7, 8, 1940.

Maximum stage known, 51.5 feet, present datum, Dec. 9, 1935 (discharge, 14,750 second-feet, furnished by M. J. McCall, engineer for Harris County).

Peak discharge for flood of May 31, 1929, 9,360 second-feet (gage height, 47.0 ± 0.5 foot, present site and datum), computed on basis of current-meter measurement at stage 1 foot below crest, made at bridge 1 block downstream; furnished by W. E. White, assistant engineer, city of Houston.

Remarks.- Records good. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	167	76	31	12	24	11	374	17	23	3.6	2.7
2	.7	115	54	22	101	18	8.9	259	13	20	3.2	2.5
3	.6	29	35	18	119	13	7.7	175	8.9	13	3.2	2.8
4	.6	11	24	15	72	11	6.8	197	6.8	7.7	3.2	3.2
5	1.6	143	17	12	36	8.6	5.8	381	5.4	5.8	3.8	3.8
6	3.2	283	13	11	57	10	5.4	752	5.0	5.4	5.6	2.7
7	1.6	173	15	9.3	126	72	5.4	597	504	5.4	13	3.2
8	1.0	47	12	8.2	81	123	5.0	287	578	6.5	22	8.2
9	.8	25	12	8.2	41	56	4.4	105	686	5.6	60	12
10	.7	35	11	9.6	24	28	4.4	58	486	4.4	26	28
11	.5	66	17	8.9	18	18	4.4	40	2,590	19	13	101
12	.6	82	212	7.7	14	13	4.2	28	3,000	145	8.0	123
13	.5	42	928	6.8	13	9.3	3.8	22	1,400	314	5.2	67
14	.4	19	1,290	487	11	7.5	3.6	17	713	121	4.0	32
15	.8	10	958	1,090	8.2	6.5	3.6	13	418	186	3.5	54
16	.6	6.3	935	696	7.2	6.0	3.5	10	255	121	3.2	1,030
17	.5	4.6	607	373	6.3	14	3.5	8.0	145	59	2.7	1,460
18	.5	3.3	371	150	6.0	174	3.3	6.5	77	36	2.2	964
19	.5	2.4	178	73	5.8	576	3.3	6.0	44	19	2.0	581
20	.5	2.1	130	44	8.2	2,300	3.3	19	32	11	1.9	326
21	.4	1.8	197	32	6.8	2,100	44	8.0	123	7.7	1.9	123
22	.4	1.8	189	25	8.6	938	126	13	213	7.2	1.8	66
23	.4	1.2	97	20	23	548	1,040	9.6	125	8.9	1.8	254
24	.4	326	58	18	132	226	2,130	6.3	170	6.3	1.7	3,980
25	.5	2,500	40	15	219	98	1,750	5.0	125	5.2	6.0	3,430
26	.9	2,460	61	13	115	59	892	4.4	149	12	5.6	2,080
27	.8	1,270	81	11	59	40	479	5.2	130	44	2.0	1,230
28	.9	598	108	10	37	30	270	43	123	32	1.9	691
29	192	318	67	8.6	-	21	332	83	60	12	2.2	426
30	291	134	40	7.5	-	16	383	62	30	7.5	2.4	244
31	259	-	31	6.8	-	13	-	25	-	4.8	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	763.7	291	0.4	24.6	1,510
November.....	8,887.3	2,500	1.8	296	17,530
December.....	6,864	1,290	11	221	13,610
Calendar year 1940.....	20,126.8	2,500	.2	55.0	39,910
January.....	3,247.6	1,090	6.8	105	6,440
February.....	1,357.1	219	5.8	48.8	2,710
March.....	7,486.9	2,300	6.0	242	14,850
April.....	7,547.3	2,130	3.3	252	14,970
May.....	3,599.0	752	4.4	116	7,140
June.....	12,232.1	3,000	5.0	408	24,260
July.....	1,275.4	314	4.4	41.1	2,530
August.....	219.4	60	1.7	7.08	435
September.....	17,331.1	3,980	2.5	578	34,380
Water year 1940-41.....	70,820.9	3,980	.4	194	140,500

Peak discharge.- Nov. 25 (8:30 a.m.) 3,220 sec.-ft.; Mar. 20 (7:30 p.m.) 2,950 sec.-ft.; Apr. 24 (6 p.m.) 2,350 sec.-ft.; June 11 (10 p.m.) 4,300 sec.-ft.; Sept. 17 (6:30 p.m.) 1,560 sec.-ft.; Sept. 24 (6:30 p.m.) 5,100 sec.-ft.

Brays Bayou at Houston, Tex.

Location.- Water-stage recorder, lat. 29°42'06", long. 95°24'06", at Old Main Street Bridge in southwest section of Houston, Harris County, three-quarters of a mile upstream from Harris Gully and about 15 miles upstream from Buffalo Bayou. Datum of gage is 3.90 feet below mean sea level, datum of 1929.

Drainage area.- 98.2 square miles.

Records available.- May 1936 to September 1941.

Extremes.- Maximum discharge during year, 6,460 second-feet Sept. 24 (gage height, 47.62 feet); minimum, 0.3 second-foot Oct. 17.

1936-41: Maximum discharge, 6,800 second-foot July 12, 1939 (gage height, 48.02 feet); minimum, 0.1 second-foot Oct. 10-13, 1937.

Maximum stage known, 50.4 feet, present site and datum, May 31, 1929 (discharge, 11,095 second-feet, from current-meter measurement at Lawndale Avenue Bridge about 12 miles below gage; furnished by Wm. E. White, assistant engineer, city of Houston).

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	169	44	27	15	13	7.5	847	38	13	2.9	2.8
2	.7	41	36	18	138	11	5.6	351	19	67	2.8	7.2
3	.7	12	20	12	72	10	5.2	362	10	18	2.6	9.2
4	.7	4.5	13	9.0	36	9.4	4.7	242	6.4	8.1	5.0	19
5	.7	702	9.4	7.4	21	8.7	4.1	1,060	5.0	5.2	190	7.5
6	.7	638	8.4	7.0	169	17	4.0	1,020	4.6	4.4	195	4.6
7	.7	327	12	7.6	216	24	5.9	356	865	4.0	82	8.2
8	.6	106	9.9	6.9	94	19	3.8	140	756	3.6	64	20
9	.6	39	8.2	6.5	51	13	3.5	72	241	3.8	170	15
10	.7	21	6.7	6.0	32	10	3.6	41	94	3.6	58	17
11	.7	44	19	5.3	25	8.7	3.2	27	1,340	23	27	31
12	.6	41	103	5.2	23	8.1	4.0	18	2,070	439	22	25
13	.4	18	480	4.8	18	7.9	3.4	12	831	447	11	10
14	.7	9.0	511	524	13	7.4	3.1	8.7	284	185	6.1	5.4
15	1.5	5.0	678	484	11	7.5	3.1	7.0	185	116	4.6	135
16	.7	3.5	623	448	9.5	7.9	2.9	5.6	189	55	3.6	3,970
17	.5	2.6	240	225	8.7	40	2.9	4.7	89	30	3.5	1,940
18	.7	2.2	96	103	8.5	748	2.8	4.7	48	18	3.2	698
19	.6	1.9	141	52	8.7	1,310	3.0	4.2	29	28	2.9	370
20	.6	1.6	444	33	10	3,130	2.6	3.8	109	79	2.6	163
21	.7	1.7	337	23	8.7	1,340	428	3.6	120	25	5.4	72
22	.7	1.5	125	18	9.2	497	594	3.5	74	11	5.6	37
23	.7	23	55	15	48	212	1,560	3.2	111	7.9	2.5	1,030
24	.7	894	31	13	192	104	1,090	3.1	57	5.9	2.4	6,060
25	.7	5,600	23	11	105	67	364	3.1	35	4.4	7.4	3,650
26	1.2	2,810	69	11	52	42	139	3.0	60	4.4	4.6	3,000
27	1.4	889	235	9.8	31	30	84	3.0	158	5.9	17	1,830
28	2.6	325	156	9.2	19	20	196	33	60	5.0	11	875
29	169	113	62	8.7	-	14	1,030	95	26	3.5	7.9	348
30	24	55	36	8.3	-	10	1,200	263	13	3.1	6.2	164
31	138	-	27	8.1	-	8.1	-	96	-	3.1	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	353.5	169	0.4	11.4	701
November.....	13,099.5	5,600	1.5	437	25,980
December.....	4,658.6	878	6.7	150	9,240
Calendar year 1940.....	23,068.7	5,600	.4	63.2	45,760
January.....	2,127.8	524	4.8	68.6	4,220
February.....	1,444.4	216	8.5	51.6	2,860
March.....	7,754.7	3,130	7.4	240	15,380
April.....	6,783.3	1,560	2.6	225	13,420
May.....	5,096.2	1,060	3.0	164	10,110
June.....	7,927.0	2,070	4.6	264	15,720
July.....	1,629.9	447	3.1	52.6	3,230
August.....	932.0	195	2.3	30.1	1,850
September.....	24,523.9	6,060	2.8	817	48,640
Water year 1940-41.....	76,311.4	6,060	.4	209	151,400

Peak discharge.- Nov. 25 (8 a.m.) 6,000 sec.-ft.; Mar. 20 (3:30 a.m.) 4,060 sec.-ft.; June 11 (8 p.m.) 3,040 sec.-ft.; Sept. 15 (9 a.m.) 4,690 sec.-ft.; Sept. 24 (4 a.m.) 5,460 sec.-ft.;

Sept. 25 (4 a.m.) 3,340 sec.-ft.

A no gage-height record; discharge computed from graph based on gage-height record for adjacent days, recorded range in stage, and weather records.

Double Mountain Fork of Brazos River at Lubbock, Tex.

Location.- Water-stage recorder and masonry control, lat. 33°35'05", long. 101°49'40", in Mackenzie State Park in Lubbock, Lubbock County, 1.9 miles downstream from Yellowhouse Creek. Datum of gage is 3,132.7 feet above mean sea level, datum of 1929.

Records available.- September 1939 to September 1941.

Extremes.- Maximum discharge during year, 892 second-feet June 6 (gage height), 6.73 feet, from rating curve extended above 120 second-feet on basis of slope-area determination at gage height 6.72 feet; no flow at times.

1939-41: Maximum discharge, that of June 6, 1941; no flow at times.

Remarks.- Records good except those above 120 second-feet, which are poor. Several pools formed by small dams affect low flow.

Rating table, water year 1940-41 (gage height, in feet, and discharge in second-feet)

4.17	0	4.60	9.5	5.4	91.0
4.20	.15	4.7	14.2	5.8	174
4.30	.90	4.8	20.2	6.2	355
4.40	3.00	5.0	38.1	6.6	720
4.50	5.9	5.2	62.5		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0		0	38	81	0	0
2						0		e24	30	30	0	0
3						0		17	.7	14	0	e.3
4						0		2.5	.1	6.6	0	0
5						0		0	e.6	4.0	0	0
6						0		0	655	2.2	0	0
7						0		0	164	1.3	0	0
8						0		0	37	1.8	0	0
9						0		0	20	2.2	0	0
10						0		0	28	1.4	0	0
11						0		0	57	.7	0	0
12						0		0	38	.1	0	0
13						0		0	15	0	0	0
14						0		0	6.2	0	0	0
15						0		0	12	0	0	0
16						0		0	9.0	e1.0	0	0
17						0		0	1.8	e.5	0	0
18						0		0	.3	0	0	0
19						0		0	0	0	0	0
20						0		e294	0	0	0	0
21						0		469	0	0	0	0
22						0		125	0	0	0	0
23						0		533	0	0	0	0
24						0		292	0	e4.8	0	0
25						0		57	e3.0	.8	0	0
26						e4.4		18	.8	0	0	0
27						0		5.9	.2	0	0	0
28						0		2.2	0	0	0	0
29						0		1.4	0	0	0	0
30						0		2.2	e2.0	0	e.2	-
31						0		16	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1940	0	0	0	0	0
January	0	0	0	0	0
February	0	0	0	0	0
March	4.4	4.4	0	.14	8.7
April	0	0	0	0	0
May	1,879.2	553	0	60.6	3,730
June	1,092.5	655	0	36.4	2,170
July	152.1	81	0	4.91	302
August	.2	.2	0	.01	.4
September	.3	.3	0	.01	.6
Water year 1940-41	3,128.7	655	0	6.57	6,210

Peak discharge.- May 20 (2:30 p.m.); 878 sec.-ft.; May 23 (10:30 a.m.); 878 sec.-ft.; June 6

(2 p.m.), 892 sec.-ft.

e Discharge (all or part) determined volumetrically on basis of change in contents in pool at gage.

Double Mountain Fork of Brazos River near Aspermont, Tex.

Location.- Water-stage recorder, lat. 33°00', long. 100°11', at bridge on U. S. Highway 83, 8 miles downstream from Mountain Creek and 10 miles south of Aspermont, Stonewall County.

Drainage area.- 7,979 square miles, of which about 6,470 square miles is probably noncontributing.

Records available.- December 1923 to September 1934, June 1939 to September 1941.

Average discharge.- 12 years (1924-34, 1939-41), 201 second-feet.

Extremes.- Maximum discharge during year, 30,500 second-feet Apr. 15 (gage height, 12.43 feet); no flow at times.
1924-34, 1939-41: Maximum discharge, 52,000 second-feet Oct. 15, 1926 (gage height, 18.14 feet, from floodmark), by slope-area method; no flow at times.

Remarks.- Records poor. Daily discharge published only to show distribution of run-off. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.3	69	0.3	78	39	100.	1,030	718	577	108	38
2	0	.1	a31	.1	54	39	74	2,010	1,160	393	130	356
3	0	.1	a14	.1	35	24	a49	17,100	846	821	39	1,120
4	0	.1	a 7.0	.1	24	13	a35	4,680	287	1,120	29	322
5	0	.1	a4.2	.1	14	7.0	a23	1,850	195	385	232	1,600
6	0	.1	a3.0	.2	9.0	6.0	a18	1,090	1,040	319	46	465
7	0	.2	a3.0	.3	5.0	3.4	a13	504	3,020	237	27	175
8	0	.6	a2.2	.3	4.2	2.2	9.0	315	832	181	20	90
9	0	.4	a1.4	.3	3.0	.9	7.0	258	396	88	16	828
10	0	.1	a1.0	.1	1.8	.4	5.0	258	309	136	10	2,630
11	0	.1	a.9	.1	.8	.9	3.4	2,100	396	162	7.0	492
12	0	0	a.8	.1	.6	.8	2.2	2,080	363	a46	3.8	323
13	0	.1	a.7	.1	.4	.6	79	908	229	a34	1.8	480
14	0	.1	a.6	.1	.5	.5	6,400	379	1,340	a25	1.0	1,260
15	0	.1	a.5	.1	.3	.4	20,500	a233	2,610	19	1.8	308
16	0	.1	a.5	.1	.3	.5	2,080	a146	7,280	14	386	241
17	0	.1	a.5	e.1	.2	.4	365	119	932	11	262	303
18	0	.1	a.4	e.1	.2	.7	225	92	408	26	155	383
19	0	.1	.4	e.1	.5	.7	188	74	a328	1,690	113	229
20	0	.3	.4	e.1	53	.6	152	189	a300	631	614	192
21	0	.1	.3	e.1	5.0	.7	119	3,090	a292	250	296	146
22	0	.2	.3	e.1	.8	131	88	7,030	a292	117	181	113
23	0	.3	.3	e.1	219	706	80	10,000	a314	44	303	78
24	0	97	.3	e.1	125	1,120	69	16,600	a91	23	254	54
25	0	1,990	.3	e.1	95	300	58	3,780	314	4,340	230	32
26	0	706	.8	f.1	139	2,350	53	1,580	245	936	122	23
27	0	323	.3	f.1	88	1,360	53	4,100	152	419	2,280	22
28	.1	222	.2	e.1	76	371	69	1,340	165	229	510	20
29	.1	151	.1	e.1	-	233	95	556	330	g149	104	18
30	.1	113	.1	.4	-	181	4,700	1,050	105	g58	a31	146
31	.2	-	.1	.9	-	136	-	1,760	-	g58	147	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0.6	0.2	0	.02	1.2
November	3,615.8	1,990	0	121	7,170
December	144.6	69	.1	4.66	287
Calendar year 1940-41	40,405.9	9,580	0	110	80,150
January	5.1	.9	.1	.16	10
February	1,032.6	219	.2	36.9	2,050
March	7,029.7	2,350	.4	227	13,940
April	35,711.6	20,500	2.2	1,190	70,830
May	86,324	17,100	74	2,785	171,200
June	25,409	7,280	105	847	50,400
July	13,268	4,340	11	428	26,320
August	6,630.4	2,250	1.0	214	13,150
September	12,487	2,630	16	416	24,770
Water year 1940-41	191,658.4	20,500	0	525	380,100

Peak discharge.- Apr. 15 (11 a.m.) 30,500 sec.-ft.; May 3 (2 p.m.) 20,400 sec.-ft.; May 23 (5 p.m.) 16,500 sec.-ft.; May 24 (5:30 a.m.) 25,600 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

e Stage-discharge relation indefinite; discharge computed on basis of weather records and discharge measurement.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

g Computed from graph based on gage readings.

Brazos River at Seymour, Tex.

Location.- Water-stage recorder, lat. 33°34', long. 99°16', at bridge on U. S. Highways 277 and 283, three-quarters of a mile upstream from Wichita Valley Railway bridge, and 1 mile southwest of courthouse in Seymour, Baylor County. Datum of gage is 1,258.7 feet above mean sea level (Texas State Highway bench mark).

Drainage area.- 14,490 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- November 1923 to September 1941.

Average discharge.- 17 years (1924-41), 508 second-feet.

Extremes.- Maximum discharge during year, 62,200 second-feet May 4 (gage height, 12.45 feet); no flow Oct. 3 to Nov. 2.

1923-41: Maximum discharge, 95,400 second-feet Oct. 16, 1926 (gage height, 15.16 feet, from floodmarks), by slope-area method; no flow at times.

Maximum stage known, about 21.0 feet, sometime prior to 1916.

Remarks.- Records poor. Daily discharge published only to show distribution of runoff. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	0	262	13	13	169	341	7,630	2,130	1,330	153	578
2	.4	0	173	12	14	127	245	10,900	1,650	2,810	122	341
3	0	38	127	11	8.6	84	177	40,000	2,020	2,230	99	256
4	0	48	101	9.8	8.6	64	169	34,700	1,530	1,920	109	1,020
5	0	32	80	11	12	53	124	8,250	1,100	1,980	127	971
6	0	23	67	11	12	47	101	4,550	2,050	1,860	119	2,900
7	0	18	56	13	9.8	41	84	2,870	3,900	1,250	80	1,360
8	0	14	48	12	8.2	37	67	1,350	5,470	1,020	92	895
9	0	15	42	9.8	6.7	33	56	934	3,040	907	109	3,270
10	0	13	39	7.8	6.1	29	47	846	3,140	630	60	4,180
11	0	11	35	6.4	4.9	26	40	2,120	4,230	1,110	42	3,610
12	0	9.4	32	5.8	4.6	23	35	3,340	4,260	1,270	30	2,000
13	0	6.1	31	5.2	3.4	19	34	2,440	2,500	578	84	1,030
14	0	4.6	29	4.6	2.8	19	1,020	1,300	1,730	300	23	557
15	0	3.6	33	3.6	2.4	18	21,900	858	11,000	190	21	1,350
16	0	2.8	32	3.2	2.2	16	22,300	650	22,400	144	24	907
17	0	2.0	31	2.6	1.4	14	3,900	458	9,710	122	86	599
18	0	1.0	28	2.0	1.4	15	1,570	334	4,030	101	40	512
19	0	1.2	27	2.0	2.3	14	907	384	1,920	86	20	609
20	0	4.0	25	1.4	3.2	15	609	609	1,190	100	134	761
21	0	2.8	24	1.6	3.6	15	458	4,880	961	927	314	809
22	0	4.6	23	1.4	4.0	18	392	10,800	650	442	843	475
23	0	19	22	1.4	30	29	334	10,000	620	288	609	300
24	0	21	20	1.4	88	778	256	19,800	531	224	1,690	199
25	0	458	19	1.4	201	1,390	203	16,600	502	169	1,480	147
26	0	4,640	23	1.0	285	1,430	173	6,510	1,040	2,020	716	119
27	0	2,200	22	1.0	224	5,240	160	4,860	2,990	1,100	522	99
28	0	1,040	19	1.0	177	3,100	173	5,830	1,200	630	2,460	80
29	0	650	16	1.0	-	1,150	214	2,980	620	450	1,710	73
30	0	385	15	1.2	-	728	10,400	1,440	531	334	948	71
31	0	-	13	4.0	-	442	-	912	-	199	777	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3.2	2.8	0	0.10	6.3
November.....	9,667.1	4,640	0	322	19,170
December.....	1,514	262	13	48.8	3,000
Calendar year 1940.....	92,438.8	17,800	0	253	183,300
January.....	163.6	13	1.0	5.28	324
February.....	1,240.2	365	1.4	44.3	2,460
March.....	15,133	5,240	14	490	30,120
April.....	66,489	22,300	34	2,216	131,900
May.....	209,135	40,000	334	6,746	414,800
June.....	98,645	22,400	502	3,288	195,700
July.....	26,721	2,810	86	862	53,000
August.....	13,583	2,460	20	438	26,940
September.....	30,078	4,180	71	1,003	59,660
Water year 1940-41.....	472,422.1	40,000	0	1,294	937,100

Peak discharge.- Apr. 16 (7 a.m.) 37,900 sec.-ft.; May 4 (7 a.m.) 62,200 sec.-ft.; May 24 (10 p.m.) 35,400 sec.-ft.; June 16 (3 p.m.) 27,800 sec.-ft.

Note.- No record Apr. 18-21, May 6-18, May 26 to June 6, June 14, 18-25, Sept. 11-16; discharge computed from graph based on gage readings.

Brazos River near South Bend, Tex.

Location.- Water-stage recorder, lat. 33°01'30", long. 98°38'50", at bridge on State Highway 67, 0.3 mile upstream from Wichita Falls & Southern Railroad bridge, 1.6 miles downstream from Clear Fork of Brazos River, and 2.0 miles northeast of South Bend, Young County. Datum of gage is 1,003.0 feet above mean sea level, datum of 1929.

Drainage area.- 21,600 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- September 1938 to September 1941.

Extremes.- Maximum discharge during year, 87,400 second-feet May 4 (gage height, 27.35 feet); minimum, 0.6 second-foot Nov. 5.

1938-41: Maximum discharge, that of May 4, 1941; no flow at times.

Maximum stage known, 36.2 feet in 1876, according to information furnished by Texas Highway Department and Corps of Engineers, U. S. Army.

Remarks.- Records fair. No large diversion above station. Flow partly regulated by several reservoirs above Nugent on Clear Fork of Brazos River (see p. 84), having a combined capacity of 106,000 acre-feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	5.6	554	76	3,300	504	886	31,000	1,480	693	485	1,770
2	19	3.7	426	192	5,140	388	589	12,000	1,930	2,940	387	2,160
3	18	2.5	329	211	1,170	307	444	50,800	1,960	5,920	322	1,520
4	16	1.6	272	105	631	236	344	84,300	1,520	4,400	270	588
5	14	.8	228	74	378	184	268	59,400	2,060	3,080	227	382
6	12	.8	198	60	256	152	217	28,500	1,740	2,520	224	705
7	12	.8	166	53	155	126	180	21,400	3,270	2,300	234	2,580
8	10	1.6	139	46	118	105	139	12,600	5,790	1,610	231	1,520
9	9.5	30	121	41	105	94	124	2,600	5,630	1,220	238	5,840
10	8.0	41	110	38	96	79	116	3,640	33,000	1,310	242	6,240
11	7.6	24	116	35	82	74	96	13,400	34,500	4,340	186	4,140
12	8.0	19	83	31	73	63	88	21,600	29,600	4,200	183	2,980
13	7.6	14	92	31	62	67	76	22,500	21,100	1,730	146	1,900
14	6.4	12	88	28	52	55	73	11,100	9,690	1,960	126	1,240
15	5.2	11	402	25	47	51	10,200	2,640	8,900	1,530	149	978
16	4.8	10	1,080	19	41	45	32,400	1,540	22,100	960	393	1,870
17	4.4	10	280	17	39	41	20,600	970	29,600	651	270	1,230
18	4.8	10	155	13	36	40	9,700	680	11,900	512	164	1,020
19	3.7	8.5	113	11	36	36	7,510	534	7,900	428	111	740
20	3.4	7.8	96	9.5	83	35	3,310	456	4,540	343	94	644
21	3.4	12	86	7.6	264	33	1,820	30,900	2,520	278	216	658
22	3.1	106	76	6.4	248	32	1,540	42,600	2,020	242	593	748
23	2.5	1,630	70	4.8	248	255	2,140	45,800	1,330	932	6,960	764
24	2.2	2,840	66	3.7	1,640	248	1,110	42,700	1,650	888	5,740	567
25	2.2	7,040	62	2.8	1,240	159	922	40,500	1,520	651	8,900	441
26	2.8	5,800	157	1.3	1,390	1,590	744	17,500	915	495	8,620	356
27	3.4	6,670	832	.7	1,380	2,680	617	5,940	1,020	1,330	2,880	294
28	6.4	2,960	550	.8	796	5,350	886	5,110	2,450	1,440	4,690	238
29	9.5	1,420	225	.9	-	3,040	1,980	5,340	1,770	960	2,970	196
30	6.5	550	126	1.0	-	2,210	10,500	2,860	1,370	718	2,320	188
31	6.8	-	180	19	-	1,340	-	2,080	-	584	1,530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	247.2	21	2.2	7.97	490
November	29,442.5	7,040	.8	981	58,400
December	7,473	1,080	62	241	14,820
Calendar year 1940	343,946.7	31,400	0	940	682,300
January	1,165.5	211	.7	37.6	2,310
February	19,106	5,140	36	682	37,900
March	19,609	5,350	32	633	38,890
April	109,589	32,400	73	3,653	217,400
May	624,170	84,300	456	20,130	1,238,000
June	254,775	34,500	915	8,492	505,300
July	51,133	5,920	242	1,649	101,400
August	50,101	8,900	94	1,616	99,370
September	44,467	6,240	158	1,482	88,200
Water year 1940-41	1,211,278.2	84,300	.7	3,319	2,402,000

Peak discharge.- May 4 (10 a.m.) 87,400 sec.-ft.; May 23 (2 a.m.) 50,900 sec.-ft.; June 10 (1 p.m.) 44,300 sec.-ft.; June 17 (10 a.m.) 36,500 sec.-ft.

Note.- No record Dec. 8-14, 19-25, Dec. 30 to Jan. 1, Jan. 18-27, Feb. 7-28, Mar. 1-22, Apr. 6-10, July 24-26, Sept. 15; discharge computed from graph based on gage readings.

Possum Kingdom Reservoir near Grafard, Tex.

Location.- Mercury U-tube gage, lat. 32°52', long. 98°26', in powerhouse at dam on Brazos River, 2.6 miles upstream from Loving Creek and 11.3 miles southwest of Grafard, Palo Pinto County. Prior to June 23, staff gage at same site and datum. Datum of gage is at mean sea level (levels by Brazos River Conservation and Reclamation District); add 0.10 foot elevations to reduce to elevations above mean sea level, datum of 1929.

Drainage area.- 22,550 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- March 1941 to September 1941.

Extremes.- Maximum contents observed during period, 746,000 acre-feet Sept. 21 (elevation, 1,000.8 feet); minimum after filling of reservoir late in May, 528,700 acre-feet June 3 (elevation, 988.4 feet).

Remarks.- Records good. Reservoir is formed by reinforced concrete dam of flat slab deck, massive buttress type, with 9 roof-weir (modified bear-trap) type gates, two bulkhead sections, and earthen dike section. Dam completed and storage began Mar. 21, 1941. Total capacity, 730,000 acre-feet (elevation, 1,000.0 feet, top of closed roof-weir gates). Usable capacity, 706,000 acre-feet between elevation 911.5 feet (sill of powerhouse penstock) and 1,000.0 feet (top of closed roof-weir gates). Water below elevation 911.5 feet can be withdrawn through high pressure outlet down to elevation 875 feet. Figures given herein represent total contents. Water used for power development.

Cooperation.- Records of daily elevation and capacity table furnished by Brazos River Conservation and Reclamation District.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Prepared by Brazos River Conservation and Reclamation District
from surveys and maps of the district)

870	0	900	12,000	960	208,000
875	790	930	22,000	980	408,000
880	1,800	920	38,500	1,000	730,000
885	3,190	930	64,500	1,005	830,000
890	5,050	940	98,500		
895	7,800	950	147,000		

Monthly elevation and contents, for period Mar. 21 to Sept. 30, 1941

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Mar. 31	918.4	35,860	
Apr. 30	963.0	232,000	+196,100
May 31	990.0	553,000	+321,000
June 30	989.5	545,400	-7,600
July 31	996.5	646,800	+101,400
Aug. 31	1,000.0	730,000	+83,200
Sept. 30	1,000.0	730,000	0
The period			+694,100

† Elevation at midnight Mar. 21 to Aug. 30; average of twice-daily elevations at 1 a.m. and 1 p.m. Aug. 31 to Sept. 30.

Brazos River near Palo Pinto, Tex.

Location.- Water-stage recorder, lat. 32°51'45", long. 98°18'10", at bridge on Palo Pinto-Graford highway, 300 feet downstream from Dark Valley Creek and 6½ miles north of Palo Pinto, Palo Pinto County. Datum of gage is 831.23 feet above mean sea level, datum of 1929.

Drainage area.- 22,760 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- November 1933 to September 1941. January 1924 to November 1933, at site near Mineral Wells.

Extremes.- Maximum discharge during year, 38,500 second-feet (regulated) May 26 (gage height, 14.53 feet); minimum, 3.4 second-feet Nov. 5.
1933-41: Maximum discharge, 64,900 second-feet May 20, 1935 (gage height, 15.60 feet, from floodmarks), from rating curve extended above 32,000 second-feet; no flow at times.
Maximum stage known was reached by flood of 1876, according to data of Corps of Engineers, U. S. Army, and was several feet higher than any subsequent flood. A stage of about 24.0 feet was reached in June 1930, according to information furnished by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Flow regulated by Possum Kingdom Reservoir on Brazos River (see preceding page) and several smaller reservoirs above Nugent on Clear Fork of Brazos River, having a combined capacity of 836,000 acre-feet. No large diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	201	8.6	1,700	402	4,750	2,320	18	206	5,980	al,100	226	633
2	159	8.0	1,040	308	6,830	1,800	18	532	4,580	al,200	191	2,610
3	83	6.8	771	272	2,490	1,420	17	1,720	3,370	al,500	155	al,140
4	61	6.2	570	249	3,210	1,060	17	2,010	3,370	1,900	138	al,030
5	53	4.4	378	267	2,380	848	17	22,900	2,380	2,100	130	a984
6	43	4.1	350	284	1,170	712	17	34,100	1,320	al,600	134	950
7	38	4.4	332	232	796	586	24	29,800	1,440	al,000	138	890
8	36	5.6	314	196	570	493	26	25,100	2,260	a630	138	864
9	32	18	284	168	460	443	25	17,600	3,210	a480	196	6,720
10	31	29	243	147	389	429	21	9,240	10,500	a420	176	3,690
11	30	31	255	134	370	408	18	9,020	31,000	a330	168	2,580
12	27	26	281	130	357	402	14	10,000	33,300	a268	159	4,180
13	28	23	285	120	344	402	13	14,000	31,700	206	155	7,860
14	23	29	261	120	332	382	13	17,300	27,300	172	151	1,160
15	20	42	2,410	116	272	376	21	12,800	20,400	163	147	864
16	19	42	2,290	112	186	370	20	9,680	18,500	159	142	916
17	18	37	1,800	102	186	363	197	7,280	22,600	142	142	1,030
18	18	32	1,440	92	168	350	378	5,740	23,900	134	142	1,080
19	17	29	636	86	172	332	120	3,990	17,700	127	142	1,060
20	15	30	389	80	290	201	66	2,770	12,500	127	142	992
21	13	61	314	74	255	116	32	4,580	9,320	127	142	907
22	13	319	290	71	243	61	24	17,800	5,620	123	225	822
23	11	377	261	68	302	74	32	33,300	5,040	120	436	788
24	10	2,030	232	61	501	61	31	37,300	4,610	142	5,120	771
25	9.8	7,960	206	61	644	42	24	36,900	4,040	181	1,560	737
26	10	9,520	325	55	1,720	107	18	36,500	2,910	134	415	635
27	10	6,780	1,450	53	2,500	89	20	26,800	2,700	130	344	546
28	9.2	6,510	2,320	48	2,700	48	83	19,000	1,840	130	314	486
29	8.0	3,840	2,000	198	-	31	116	13,600	al,500	151	255	443
30	8.6	2,500	1,130	296	-	24	285	10,400	al,250	211	221	382
31	9.2	-	619	423	-	19	-	7,540	-	226	249	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,061.8	201	8.0	34.3	2,110
November.....	40,293.1	9,520	4.1	1,343	79,920
December.....	25,123	2,410	206	810	49,830
Calendar year 1940	455,385.1	-	0	1,244	903,200
January.....	5,025	423	48	162	9,970
February.....	38,577	6,830	168	1,378	76,520
March.....	14,369	2,320	19	464	28,500
April.....	1,725	378	13	57.5	3,420
May.....	479,508	37,300	206	15,470	961,100
June.....	316,140	33,300	1,260	10,540	627,100
July.....	16,433	2,100	120	498	30,610
August.....	12,393	5,120	130	400	24,580
September.....	47,450	7,860	382	1,582	94,120
Water year 1940-41	997,097.9	37,300	4.1	2,732	1,978,000

Peak discharge.- May 6 (9 a.m.) 34,500 sec.-ft.; May 26 (4 a.m.) 38,500 sec.-ft.; June 12 (5 a.m.) 33,700 sec.-ft.

a No gage-height record; discharge computed on basis of records of released flow from Possum Kingdom Reservoir and records for station near Glen Rose.

Brazos River near Glen Rose, Tex.

Location.- Water-stage recorder, lat. 32°15'40", long. 97°41'50", a quarter of a mile upstream from bridge on U. S. Highway 67, 2 miles upstream from Paluxy Creek, and 4 miles northeast of Glen Rose, Somervell County. Datum of gage is 566.66 feet above mean sea level, datum of 1929.

Drainage area.- 24,840 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- October 1923 to September 1941.

Average discharge.- 18 years, 1,698 second-feet.

Extremes.- Maximum discharge during year, 44,200 second-feet Nov. 25 (gage height, 14.90 feet); minimum not determined.

1923-41: Maximum discharge, 97,600 second-feet May 18, 1935 (gage height, 23.68 feet), from rating curve extended above 68,000 second-feet; no flow at times.

Maximum stage known, about 30 feet, May 8 or 9, 1922, according to information furnished by local residents.

Remarks.- Records good. Flow regulated by Possum Kingdom Reservoir and several smaller reservoirs (see p. 69). Many small diversions for municipal and oil field uses upstream.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	326	h72	3,950	2,160	9,330	3,410	451	806	g9,020	1,700	187	519
2	288	h250	3,000	1,590	27,800	3,200	379	699	g12,000	1,140	170	411
3	242	h355	2,230	1,240	9,020	3,000	353	761	g7,960	970	165	348
4	217	h211	1,720	1,100	7,780	2,540	295	3,930	g5,720	968	192	295
5	199	h141	1,380	840	5,050	2,030	265	15,700	g4,760	2,130	223	1,720
6	187	h115	1,140	709	3,620	1,800	235	21,100	g4,520	2,570	288	1,820
7	165	h96	922	620	2,810	1,610	318	31,100	g5,370	1,740	484	1,670
8	141	68	709	572	2,160	1,300	476	29,000	g2,590	1,700	379	1,510
9	111	133	591	562	1,730	1,100	325	24,100	g1,870	1,030	223	1,050
10	99	136	536	562	1,420	946	333	17,300	g4,410	627	235	828
11	h99	92	764	493	1,190	840	310	10,700	g27,500	582	199	3,820
12	h96	221	828	451	995	750	235	12,500	33,200	1,840	272	4,430
13	h92	318	1,040	427	828	689	217	11,200	33,200	4,520	723	2,450
14	h92	199	886	427	730	648	217	12,900	34,000	2,540	1,090	3,350
15	h85	122	4,440	411	648	638	223	17,900	32,300	1,250	427	7,240
16	h85	88	13,400	395	600	638	211	13,000	26,400	709	265	3,480
17	h81	72	4,210	356	563	591	695	10,400	g18,600	510	508	1,580
18	h75	58	2,810	318	519	562	1,430	8,500	g23,300	435	620	995
19	h65	52	2,460	295	506	572	4,240	7,460	g23,100	681	310	898
20	h62	50	2,230	280	1,190	553	1,840	6,440	g16,600	639	205	898
21	h55	52	1,790	258	817	536	1,390	5,720	g11,800	658	265	946
22	h47	240	1,280	250	750	527	1,100	6,680	g10,400	844	4,540	934
23	h44	1,190	958	235	2,040	668	886	18,500	g7,980	427	5,990	886
24	h36	3,630	750	217	3,200	730	689	31,900	g6,940	310	9,720	851
25	h28	23,400	629	205	3,520	501	668	35,700	g6,440	258	11,000	761
26	h21	34,400	1,170	193	2,720	562	536	35,700	g5,360	229	8,390	709
27	h26	11,300	2,520	187	2,900	910	699	34,900	g5,000	211	3,940	668
28	h28	7,140	4,290	175	3,200	922	591	25,300	g4,880	183	2,180	648
29	h26	6,940	3,170	170	-	817	699	g16,800	g3,950	187	1,260	620
30	h21	5,350	2,540	155	-	806	840	g13,000	g2,390	205	806	536
31	h23	-	2,460	187	-	562	-	g10,700	-	199	668	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,161	325	21	102	6,270
November	96,501	34,400	50	3,217	191,400
December	70,793	13,400	536	2,284	140,400
Calendar year 1940	631,255	37,000	3.0	1,725	1,252,000
January	16,040	2,160	165	517	31,810
February	97,636	27,800	506	3,487	163,700
March	34,958	3,410	501	1,128	69,340
April	21,116	4,240	211	704	41,880
May	490,996	35,700	699	15,840	973,900
June	391,370	34,000	1,670	13,050	776,300
July	31,992	4,520	187	1,032	63,460
August	55,931	11,000	165	1,804	110,900
September	46,871	7,240	295	1,562	92,970
Water year 1940-41	1,387,365	35,700	21	3,719	2,692,000

Peak discharge.- Nov. 25 (9 p.m.) 44,200 sec.-ft.; Feb. 2 (8 a.m.) 33,600 sec.-ft.; May 7 (11 a.m.) 31,900 sec.-ft.; May 26 (10 p.m.) 36,600 sec.-ft.; June 14 (4 p.m.) 37,500 sec.-ft.

g Computed from graph based on gage readings.

h Computed from gage readings at Rainbow 1,890 feet downstream, furnished by U. S. Weather Bureau.

Brazos River near Whitney, Tex.

Location.- Wire-weight gage, lat. 31°54'10", long. 97°23'05", on bridge on State Highway 22, 1.8 miles upstream from Towash Creek and 5 miles southwest of Whitney, Hill County. Datum of gage is 432.06 feet above mean sea level, datum of 1929 (Brazos River Conservation and Reclamation District bench mark).

Drainage area.- 26,090 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge observed during year, 50,300 second-feet May 5 (gage height, 23.93 feet); minimum observed, 42 second-feet Nov. 3.

1938-41: Maximum discharge observed, that of May 5, 1941; minimum observed, 2.0 second-feet Oct. 31, Nov. 1, 1939.

Maximum stage known, about 46 feet May 9, 1922, according to information furnished by local residents.

Remarks.- Records fair. Gage read twice daily, oftener during high water. Flow regulated by Possum Kingdom Reservoir and several smaller reservoirs (see p. 69). Many small diversions above station for municipal and oil field uses.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	444	66	5,520	3,080	8,300	3,680	1,200	1,740	8,250	2,350	277	868
2	346	48	4,670	2,650	32,800	3,760	1,000	1,590	11,400	2,080	298	672
3	304	44	3,840	2,240	16,900	3,680	868	2,850	11,600	1,690	282	598
4	282	206	3,140	1,960	9,500	3,600	834	2,240	5,300	1,910	277	530
5	243	319	2,350	1,800	9,000	3,140	797	33,300	3,380	1,910	267	628
6	243	228	1,490	1,590	4,670	3,640	702	18,200	3,160	2,410	398	1,740
7	206	162	1,340	1,340	3,540	3,470	1,290	30,600	5,960	2,710	424	1,960
8	181	134	1,240	1,240	2,950	2,770	966	32,100	4,090	2,180	545	1,960
9	166	154	1,060	1,110	2,530	2,350	884	27,300	2,590	2,080	482	1,690
10	140	140	948	1,000	2,080	2,130	740	21,700	2,000	1,540	363	1,340
11	132	219	1,590	996	1,740	1,800	695	12,000	17,100	7,440	304	1,150
12	114	162	2,650	920	1,540	1,690	732	11,400	29,500	2,710	293	4,580
13	107	146	2,530	920	1,390	1,540	658	13,100	32,800	4,160	1,590	3,400
14	99	228	2,470	1,200	1,340	1,490	635	12,000	35,400	2,950	1,740	2,470
15	80	282	6,570	1,110	1,290	1,440	642	17,400	35,000	2,470	1,540	4,770
16	80	219	14,000	816	1,200	1,340	2,580	14,600	33,600	2,130	868	4,760
17	78	162	6,220	748	1,140	1,290	1,540	11,100	19,700	1,390	469	2,950
18	68	112	3,400	650	1,040	1,240	3,530	8,000	20,000	996	424	1,740
19	68	107	2,890	598	996	1,200	4,580	7,060	23,800	808	469	910
20	66	96	2,710	508	3,360	1,200	3,760	6,180	21,000	1,910	363	757
21	66	83	2,590	346	2,770	1,160	2,350	5,400	12,200	1,490	248	868
22	63	96	2,300	304	2,240	1,100	2,350	6,180	9,500	929	6,880	1,120
23	61	11,500	1,910	437	5,510	2,620	5,110	10,500	7,280	1,290	5,830	1,120
24	56	17,400	1,640	430	10,000	3,000	3,020	26,600	5,120	725	10,500	1,080
25	56	21,900	1,490	252	3,840	1,240	2,020	33,200	5,030	552	4,580	1,070
26	52	40,100	1,800	211	3,920	1,660	1,860	35,400	4,490	748	11,000	957
27	50	18,500	2,650	252	3,210	2,130	2,020	35,400	4,240	650	5,300	893
28	50	8,750	4,240	169	3,470	1,860	2,240	31,100	6,300	277	3,470	825
29	48	5,960	4,240	215	-	1,690	1,910	20,400	4,550	185	2,410	1,020
30	50	6,620	3,020	224	-	1,540	1,690	13,700	2,890	158	1,440	893
31	56	-	3,020	298	-	1,390	-	10,600	-	194	1,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,055	444	48	131	8,040
November.....	134,143	40,100	44	4,471	266,100
December.....	99,528	14,000	948	3,211	197,400
Calendar year 1940.....	725,849.2	40,100	9.6	1,983	1,440,000
January.....	29,614	3,080	169	955	58,740
February.....	142,286	32,800	996	5,082	282,200
March.....	66,040	3,840	1,100	2,130	131,000
April.....	53,183	5,110	635	1,773	108,530
May.....	513,940	35,400	1,890	16,560	1,019,000
June.....	367,320	35,400	2,000	12,910	765,000
July.....	85,022	7,440	158	1,775	109,100
August.....	64,451	11,000	248	2,079	127,800
September.....	49,329	4,770	530	1,644	97,840
Water year 1940-41.....	1,598,811	40,100	44	4,580	3,171,000

Peak discharge.- Nov. 26 (12 m.) 42,000 sec.-ft.; Feb. 2 (7 p.m.) 34,300 sec.-ft.; May 5 (9 a.m.) 50,300 sec.-ft.; May 8 (1 a.m.) 33,200 sec.-ft.; May 27 (11 a.m.) 35,800 sec.-ft.; June 14 (5 p.m.) 37,300 sec.-ft.; (all peaks observed).

Brazos River at Waco, Tex.

Location.- Water-stage recorder, lat. 31°33'40", long. 97°07'45", at Washington Avenue Bridge in Waco, McLennan County, 2½ miles downstream from Bosque River. Datum of gage is 357.1 feet above mean sea level, datum of 1929.

Drainage area.- 28,500 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- September 1898 to September 1941 (January 1912 to September 1914, monthly records only, in Water-Supply Paper 850).

Average discharge.- 43 years, 2,694 second-feet.

Extremes.- Maximum discharge during year, 68,800 second-feet May 5 (gage height, 29.24 feet); minimum, 51 second-feet Oct. 27, 28 (regulated).

1898-1941: Maximum discharge, 246,000 second-feet Sept. 27, 1936 (gage height, 40.90 feet, levee on left bank was overtopped and broken by flood); minimum discharge for periods of daily record, 1898-1911, 1914-41, no flow Aug. 20, 21, 1918 and probably for several days in August 1923.

A stage of 39.7 feet was reached Dec. 3, 1913, when levee on left bank was broken by flood, according to information furnished by U. S. Weather Bureau.

Remarks.- Records fair. Many small diversions above station do not appreciably affect flow, except during low stages. Flow partly regulated by Possum Kingdom Reservoir on Brazos River (see p. 69) and Lake Waco, on the Bosque River, near Waco (capacity, 39,000 acre-feet).

Cooperation.- U. S. Weather Bureau furnished gage heights for periods of faulty recorder operation. U. S. Soil Conservation Service furnished results of thirteen discharge measurements.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	743	147	6,580	5,800	13,500	5,950	2,790	3,510	11,700	3,820	729	1,240
2	638	g140	4,310	5,590	48,100	5,810	1,800	2,560	11,300	3,000	610	1,070
3	502	g122	3,960	2,890	28,400	4,310	2,370	11,900	22,400	2,560	400	946
4	410	g114	2,720	2,400	13,700	5,060	1,360	8,270	8,270	2,400	370	820
5	365	g96	2,300	4,160	12,100	4,350	2,100	48,900	5,800	3,130	508	722
6	316	276	3,350	2,300	8,940	17,900	1,540	49,500	4,570	2,350	666	592
7	277	261	1,740	2,580	7,250	13,400	1,950	33,600	5,430	3,340	588	1,530
8	231	214	g1,520	1,760	6,440	7,130	2,500	34,300	7,230	2,500	673	1,870
9	217	228	g1,440	2,440	4,410	4,360	2,190	31,900	3,700	2,300	1,820	1,820
10	204	220	2,270	2,080	3,220	3,470	1,320	27,900	8,830	2,450	911	1,690
11	189	186	13,200	1,280	3,760	5,030	1,120	17,300	18,300	16,500	502	1,360
12	162	195	16,200	1,390	3,240	3,560	2,150	18,200	26,500	11,500	380	1,680
13	145	186	6,040	2,950	2,120	3,250	1,030	18,000	26,500	8,060	1,200	5,330
14	132	150	6,040	6,270	2,780	3,130	1,710	12,500	27,400	6,690	3,410	2,890
15	119	124	13,400	2,260	2,430	2,880	873	21,200	31,000	5,660	3,440	2,550
16	112	234	24,600	2,480	1,440	2,110	15,400	20,100	37,700	4,930	1,600	6,640
17	105	198	13,900	2,040	1,420	2,920	11,000	16,200	28,000	2,560	1,070	3,600
18	98	159	6,850	1,160	2,160	3,860	20,700	10,800	20,700	1,820	1,340	2,400
19	91	132	6,030	1,170	1,350	2,120	11,200	9,370	23,900	2,400	580	1,600
20	g80	114	3,820	1,970	2,550	3,580	9,410	7,620	22,200	3,180	890	1,280
21	g112	129	4,960	1,870	6,170	2,490	5,850	8,410	16,400	2,670	685	1,160
22	g82	140	3,380	1,680	3,560	1,690	4,460	12,800	13,400	2,450	8,160	1,160
23	g87	24,400	2,620	1,430	11,200	1,880	12,800	8,420	12,400	1,360	19,000	1,200
24	g85	31,200	3,540	813	27,800	4,900	15,600	26,600	8,320	1,560	12,800	1,160
25	g70	38,500	2,230	764	10,900	2,970	5,500	31,600	8,530	1,240	8,390	1,120
26	g64	51,900	4,160	722	7,520	3,390	4,340	33,600	6,610	976	12,100	1,120
27	g51	28,000	15,900	766	6,440	9,500	2,890	34,700	6,880	694	6,610	1,020
28	g51	13,400	9,660	1,480	6,130	3,950	7,960	32,600	8,390	580	3,940	953
29	g74	8,350	6,950	598	-	2,450	4,520	25,000	6,950	526	4,700	918
30	g91	8,320	5,100	592	-	3,090	4,400	19,300	5,830	478	2,020	890
31	171	-	5,800	1,280	-	3,000	-	15,100	-	454	1,440	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,074	743	51	196	12,050
November	207,635	51,900	96	6,921	411,800
December	204,570	24,600	1,440	6,599	405,800
Calendar year 1941	1,010,088	51,900	31	2,760	2,004,000
January	66,985	5,270	592	2,160	132,800
February	247,950	48,100	1,350	8,855	491,600
March	143,560	17,900	1,680	4,631	284,700
April	162,933	20,700	873	5,431	323,200
May	651,760	49,500	2,560	21,020	1,293,000
June	445,140	37,700	3,700	14,840	882,900
July	104,068	16,500	454	3,357	206,400
August	101,512	19,000	370	3,275	201,300
September	52,331	6,640	592	1,744	103,800
Water year 1940-41	2,394,498	51,900	51	6,560	4,750,000

Peak discharge.- Nov. 23 (7 p.m.) 48,100 sec.-ft.; Nov. 25 (2:30 a.m.) 45,200 sec.-ft.; Nov. 26 (2 p.m.) 56,500 sec.-ft.; Feb. 2 (10:30 p.m.) 52,400 sec.-ft.; May 5 (10:30 p.m.) 68,800 sec.-ft.; June 16 (3 p.m.) 42,400 sec.-ft.

g Computed from graph based on gage readings furnished by U. S. Weather Bureau.

BRAZOS RIVER BASIN

Brazos River near Marlin, Tex.

Location.- Wire-weight gage, lat. 31°17'20", long. 96°58'10", on bridge on State Highway 139, 1 mile upstream from Deer Creek and 4.5 miles southwest of Marlin, Falls County. Datum of gage is 312.15 feet above mean sea level, datum of 1929.

Drainage area.- 29,150 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge during year, 73,100 second-feet May 6 (gage height, 25.82 feet, from graph based on gage readings); minimum, 90 second-feet (regulated) Oct. 25, 26.

1938-41: Maximum discharge, that of May 6, 1941; minimum not determined. Maximum stage known, 35.8 feet Dec. 3 or 4, 1913, according to information furnished by local residents. Flood of Sept. 28, 1936, reached a stage of 35.2 feet.

Remarks.- Records fair. Gage read twice daily, oftener during high water. Flow partly regulated by Possum Kingdom Reservoir on Brazos River (see p. 69) and Lake Waco on the Bosque River, near Waco (capacity, 39,000 acre-feet). Many small diversions above gage which do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	960	554	5,740	5,540	6,420	5,340	3,040	5,140	11,300	4,470	525	1,710
2	718	405	4,740	5,940	52,800	6,160	2,400	3,680	9,060	3,360	768	1,320
3	546	360	3,930	4,840	356,200	5,540	3,280	6,690	20,900	2,880	694	1,080
4	421	322	3,360	4,740	19,600	4,840	2,400	11,800	13,000	2,560	460	894
5	355	236	2,480	4,940	13,300	5,940	2,800	34,200	6,600	2,720	443	718
6	304	156	1,710	3,440	8,280	28,600	1,900	68,200	5,140	3,040	574	625
7	292	149	1,450	3,440	8,020	20,000	2,720	39,900	6,160	2,460	734	587
8	274	288	1,600	2,720	5,740	11,500	2,860	34,000	7,760	3,360	670	1,720
9	270	588	1,470	2,720	4,650	5,740	2,860	33,600	4,940	2,640	718	2,260
10	255	610	1,540	2,720	3,120	3,760	2,190	27,900	7,760	2,720	837	2,050
11	232	483	7,950	2,480	3,200	5,000	1,540	20,200	19,400	7,680	1,160	1,870
12	213	380	22,900	2,260	3,040	4,420	1,350	14,000	27,500	22,800	840	1,430
13	216	292	10,400	3,850	2,190	3,440	1,400	16,100	30,300	14,000	465	2,950
14	236	226	5,740	616,300	1,980	3,120	1,670	15,300	21,900	10,100	625	3,840
15	226	178	9,610	7,160	2,190	2,640	1,390	13,600	38,700	8,540	4,800	3,360
16	216	168	29,100	4,020	2,480	2,120	8,100	19,000	47,100	7,760	3,540	4,880
17	189	293	23,100	3,440	1,300	2,780	16,100	15,700	44,600	4,510	1,950	4,930
18	172	243	9,710	1,910	1,770	6,090	13,900	11,300	25,500	2,880	1,520	4,600
19	156	213	6,380	1,430	1,500	3,540	17,200	11,000	24,000	2,330	1,500	42,640
20	136	d172	5,340	1,350	1,070	2,640	7,040	13,000	24,800	2,330	813	42,050
21	129	d146	4,560	1,270	4,440	3,440	7,040	10,400	17,100	4,520	1,040	1,660
22	127	d156	4,750	2,080	3,940	2,120	4,380	13,600	12,400	3,360	3,670	1,450
23	111	19,500	3,280	1,810	5,320	2,050	11,000	10,400	11,800	2,700	24,200	1,360
24	102	57,500	2,560	1,380	34,700	3,190	17,900	19,400	8,980	1,950	16,700	1,390
25	90	58,300	2,560	d1,120	25,800	4,110	9,020	29,900	7,760	1,980	12,600	1,420
26	90	61,300	3,200	840	9,880	2,880	4,650	33,200	6,310	1,460	9,240	1,330
27	107	48,000	9,750	702	8,280	7,240	4,380	34,900	6,820	1,180	10,500	1,320
28	132	19,800	11,900	1,220	6,600	5,740	4,980	34,000	5,940	849	5,040	1,200
29	129	10,200	6,600	1,360	-	3,440	8,020	26,700	7,280	686	4,550	1,000
30	154	7,280	6,160	786	-	2,960	5,140	19,000	6,600	632	4,560	980
31	502	-	6,160	885	-	2,880	-	10,700	-	567	2,330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,060	960	90	260	15,990
November	288,488	61,300	146	9,616	572,200
December	219,710	29,100	1,430	7,087	435,800
Calendar year 1940	1,145,712	61,300	-	3,130	2,273,000
January	98,693	15,300	702	3,184	195,800
February	277,710	52,800	1,070	9,218	550,800
March	173,260	28,600	2,050	5,589	343,700
April	172,770	17,900	1,350	5,759	342,700
May	656,510	68,200	3,680	21,180	1,302,000
June	497,410	47,100	4,940	16,580	986,600
July	133,044	22,800	567	4,292	263,900
August	117,966	24,200	443	3,805	234,000
September	56,604	4,880	567	1,887	112,300
Water year 1940-41	2,700,225	68,200	90	7,398	5,356,000

a No gage-height record; discharge computed on basis of records for nearby stations.

c Backwater from Deer Creek; discharge computed from graph based on estimated backwater effect.

d Doubtful gage-height record; discharge computed on basis of records for nearby stations.

Brazos River near Bryan, Tex.

Location.- Water-stage recorder, lat. 30°37', long. 96°29', 2.4 miles downstream from Little Brazos River and 9 miles southwest of Bryan, Brazos County. Datum of gage is 192.3 feet above mean sea level, datum of 1929.

Drainage area.- 38,430 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- September 1925 to September 1941. February 1918 to September 1925 at site near College Station, 7½ miles downstream.

Average discharge.- 22 years (1918-25, 1926-41), 6,036 second-feet.

Extremes.- Maximum discharge during year, 150,000 second-feet Nov. 27 (gage height, 42.50 feet); minimum, 244 second-feet Oct. 26.

1925-41: Maximum gage height observed, 46.1 feet, present site and datum, May 20, 1930 (discharge not determined); minimum discharge, 87 second-feet Aug. 24, 1934. Maximum stage known, about 54 feet, present datum, in December 1913.

Remarks.- Records good. Many small diversions above gage do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,660	938	c22,400	13,000	3,860	16,500	9,920	22,200	19,300	10,800	2,460	6,080
2	1,350	3,240	c19,200	12,700	26,200	15,100	9,040	15,900	15,800	6,600	2,350	5,900
3	1,120	3,840	16,200	12,500	65,700	15,100	8,000	14,000	15,300	7,600	2,200	5,220
4	950	1,850	13,700	10,800	74,900	13,500	8,820	22,500	24,500	7,000	2,400	4,740
5	787	1,180	10,600	9,700	48,600	13,000	8,600	34,200	19,800	6,800	2,140	4,740
6	687	807	7,800	9,700	32,200	12,000	6,620	65,300	17,000	7,400	1,960	4,270
7	645	585	9,170	9,040	22,200	33,800	6,260	84,200	13,200	7,600	1,960	3,330
8	633	495	8,000	8,000	19,000	37,600	7,200	67,800	17,500	6,620	2,200	2,720
9	573	460	5,900	7,600	16,700	29,900	8,500	56,600	16,100	6,800	2,400	2,850
10	506	591	4,900	7,200	15,600	23,800	7,200	51,400	12,200	6,260	2,140	3,540
11	460	693	7,930	7,400	14,000	14,200	5,720	42,700	25,300	6,620	2,850	3,400
12	440	717	28,400	6,440	13,500	12,000	4,740	33,700	36,200	24,300	2,920	3,190
13	420	705	45,000	5,720	11,000	9,920	4,900	31,800	40,400	36,600	2,400	2,920
14	410	627	40,600	25,900	8,600	8,820	5,060	32,100	39,100	32,400	1,780	3,740
15	405	573	39,300	46,600	7,800	8,200	4,580	27,400	39,800	26,200	1,960	5,220
16	378	522	50,600	45,100	7,400	7,800	4,900	26,500	47,400	23,100	4,580	4,270
17	355	485	65,300	29,700	6,800	7,200	12,400	25,900	59,400	21,300	4,740	5,220
18	331	440	58,600	15,000	6,080	6,370	14,200	22,200	54,800	15,000	3,820	6,260
19	315	420	36,600	10,500	6,220	18,200	20,700	19,600	37,900	8,550	2,920	4,900
20	303	480	22,000	8,000	7,400	24,800	15,500	27,100	34,300	5,720	2,720	3,970
21	283	460	15,600	7,000	6,080	21,400	11,800	30,200	30,600	6,080	2,080	3,260
22	272	991	13,700	6,800	8,870	14,300	10,600	25,900	24,000	6,080	1,960	2,720
23	261	10,800	12,500	6,440	9,480	9,920	9,040	26,200	21,000	5,220	5,700	2,400
24	254	50,400	10,600	a6,080	21,000	8,820	19,500	22,100	19,500	4,740	20,400	2,330
25	247	99,100	10,600	a5,720	40,000	9,700	28,100	33,900	14,500	3,970	16,200	2,200
26	247	135,000	9,920	a5,380	32,100	9,700	22,700	39,100	13,500	3,970	11,400	2,200
27	254	147,000	12,300	a4,580	22,800	8,400	15,200	39,800	12,500	3,540	12,000	2,140
28	254	c104,000	23,600	a5,580	19,300	13,700	16,200	40,800	13,200	3,260	9,700	2,020
29	291	c55,600	21,800	a4,270	-	14,000	22,500	39,100	14,000	2,980	7,000	1,900
30	307	c30,700	17,900	a3,970	-	11,800	25,000	31,500	12,500	2,850	7,000	1,780
31	361	-	14,200	3,680	-	10,400	-	24,200	-	2,590	7,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	15,759	1,660	247	508	31,280
November	654,699	147,000	420	21,820	1,299,000
December	675,120	65,500	4,900	21,780	1,359,000
Calendar year 1940	2,484,826	147,000	-	6,789	4,929,000
January	358,580	46,600	3,680	11,570	711,200
February	573,390	74,900	3,860	20,480	1,137,000
March	462,550	37,600	7,200	14,920	917,500
April	353,600	29,100	4,580	11,780	701,400
May	1,075,800	84,200	14,000	34,700	2,134,000
June	763,400	59,400	12,200	25,390	1,510,000
July	320,550	36,600	2,590	10,340	635,800
August	153,520	20,400	1,780	4,952	304,500
September	109,490	6,260	1,780	3,650	217,200
Water year 1940-41	5,514,458	147,000	247	15,110	10,940,000

a No gage-height record; discharge computed on basis of known range in stage and records for stations near Marlin and Hempstead.

c Backwater from return flow downstream; discharge computed from backwater curve based on discharge measurements made following floods of about 120,000 second-feet.

Note.- No recorder record Apr. 28 to May 5, May 10-30, Jan. 4-18, June 20 to July 25; discharge computed from graph based on once or twice-daily gage readings of outside gage.

Brazos River near Hempstead, Tex.

Location.- Wire-weight gage, lat. 30°07'25", long. 96°11'00", on bridge on U. S. Highway 290, 4,500 feet upstream from Texas & New Orleans Railroad bridge, 6.5 miles northwest of Hempstead, Waller County, and 8 miles upstream from Caney Creek. Datum of gage is 118.07 feet above mean sea level, datum of 1929. Prior to Nov. 1, chain gage 4,500 feet downstream and at datum 5.97 feet lower.

Drainage area.- 42,670 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- October 1938 to September 1941. U. S. Weather Bureau has collected gage-height records in this vicinity at intermittent periods since 1903.

Extremes.- Maximum discharge observed during year, 116,000 second-feet Nov. 30 (gage height, 44.04 feet); minimum observed, 455 second-feet Oct. 28.

1938-41: Maximum discharge, that of Nov. 30, 1940; minimum, 254 second-feet Nov. 8, 1939.

Maximum stage known, 56.1 feet (present site and datum) Dec. 9, 1913, according to data furnished by Texas & New Orleans Railroad engineers, secured at their bridge 4,500 feet downstream.

Remarks.- Records fair. Gage read twice daily, oftener during high water. Many small diversions above gage which do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,280	1,180	102,000	20,200	4,400	22,300	14,400	26,100	24,500	15,000	3,230	7,100
2	1,780	1,310	77,200	19,100	15,000	20,000	13,400	24,100	21,200	13,000	3,070	5,880
3	1,560	a3,400	50,800	18,900	34,700	19,300	13,000	20,400	19,300	10,200	2,840	5,460
4	1,290	a2,000	36,800	18,300	51,400	20,000	11,800	20,800	20,600	8,540	2,770	5,080
5	1,140	a1,200	29,000	16,200	53,500	18,900	12,400	29,200	24,300	7,580	2,700	4,400
6	1,060	a4,000	24,500	14,600	44,000	20,400	12,000	40,500	21,000	7,420	2,770	4,300
7	990	a3,800	22,100	14,200	33,800	33,800	9,980	54,100	18,000	7,900	2,640	4,110
8	890	a3,100	22,600	12,800	27,400	43,100	8,540	63,100	16,400	8,220	2,770	3,480
9	868	a2,500	19,100	11,200	24,500	42,600	9,060	58,600	19,800	6,780	2,640	2,910
10	845	a2,100	16,000	9,980	22,800	36,800	11,400	53,000	18,500	6,300	2,770	2,570
11	800	a1,700	15,800	8,700	21,700	29,700	9,790	47,900	28,200	6,460	2,840	2,840
12	755	a1,400	37,900	8,060	20,600	22,300	7,740	41,200	37,100	8,180	2,990	2,910
13	688	1,310	56,400	6,820	20,000	18,900	6,460	35,700	42,100	31,200	2,990	6,840
14	665	1,280	58,900	11,400	17,000	16,600	6,020	34,500	44,000	41,600	2,840	2,640
15	642	1,150	60,500	34,200	14,000	14,600	6,020	33,200	43,300	42,400	2,440	2,570
16	642	975	63,800	43,600	12,200	13,400	5,320	30,200	46,000	41,900	2,260	4,030
17	620	870	64,500	41,400	10,800	12,400	5,320	30,200	50,100	42,100	2,990	3,930
18	600	810	68,100	29,500	9,240	12,400	12,100	28,600	52,200	38,500	4,840	3,840
19	580	750	62,400	19,500	7,740	17,500	14,800	25,400	48,100	30,400	4,020	5,740
20	560	698	49,100	15,400	7,740	34,500	20,300	25,200	40,400	22,100	3,150	4,500
21	540	662	36,400	15,400	9,240	36,600	14,800	29,900	38,800	16,600	2,700	3,660
22	522	698	28,800	14,200	8,060	32,200	13,000	28,300	34,300	13,000	2,500	3,070
23	522	1,690	25,400	13,600	12,400	25,900	19,000	27,200	31,300	11,400	2,260	2,570
24	522	59,700	22,600	12,800	19,100	20,900	23,400	26,700	29,000	9,600	4,420	2,570
25	488	108,000	19,500	11,800	31,200	17,900	26,100	27,000	26,100	8,380	18,500	2,570
26	470	100,000	19,300	10,600	38,000	17,600	27,400	34,300	21,500	6,460	16,000	2,320
27	505	98,900	21,900	8,890	29,900	17,400	22,100	36,400	19,500	5,740	11,600	2,200
28	455	103,000	25,600	7,580	25,900	16,000	18,500	36,800	18,100	5,080	12,800	2,140
29	540	111,000	32,500	6,620	-	20,000	20,000	37,600	17,600	4,400	9,980	2,080
30	505	116,000	28,800	5,320	-	19,300	24,800	34,800	17,000	4,020	6,940	2,020
31	1,060	-	24,100	4,840	-	16,600	-	30,400	-	3,570	6,460	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	25,364	2,280	455	819	50,350
November	735,183	115,000	662	24,510	1,458,000
December	1,223,200	102,000	16,000	39,460	2,426,000
Calendar year 1940	3,479,296	116,000	299	9,506	6,901,000
January	486,500	43,600	4,840	15,690	965,000
February	626,320	53,500	4,400	22,370	1,242,000
March	709,600	43,100	12,400	22,890	1,407,000
April	418,950	27,400	5,320	13,960	831,000
May	1,071,400	63,100	20,400	34,560	2,125,000
June	888,400	52,200	16,400	29,610	1,762,000
July	484,010	42,400	3,570	15,610	960,000
August	183,690	18,500	2,250	4,254	304,600
September	106,330	7,100	2,020	3,544	210,900
Water year 1940-41	6,928,857	116,000	455	18,980	13,740,000

a No gage-height record; discharge computed on basis of records for stations near Bryan and San Felipe.

Brazos River near San Felipe, Tex.

Location.- Water-stage recorder, lat. 29°46'20", long. 96°02'10", on bridge on State Highway 73, 200 feet downstream from Missouri-Kansas-Texas Railroad bridge, 1.3 miles downstream from Irons Creek, and 5.0 miles southeast of San Felipe postoffice, Austin County. Datum of gage is 79.32 feet above mean sea level, datum of 1929.

Drainage area.- 43,690 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- December 1938 to September 1941.

Extremes.- Maximum discharge during year, 152,000 second-feet Nov. 25 (gage height, 41.10 feet); minimum, 520 second-feet Oct. 28.

1938-41: Maximum discharge, that of Nov. 25, 1940; minimum, 278 second-feet Oct. 9, 13, 1939.

Maximum stage known, 49.0 feet Dec. 13, 14, 1913, according to information furnished by local resident.

Remarks.- Records fair. Many small diversions above station which do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,980	3,950	109,000	22,000	5,700	24,400	13,000	32,200	28,600	16,200	3,700	6,600
2	2,220	4,180	98,400	18,900	9,660	19,900	12,000	25,600	22,700	12,600	3,420	6,800
3	2,040	1,820	79,200	18,600	27,100	18,300	11,300	25,400	19,600	10,800	3,280	6,060
4	1,710	1,920	52,800	18,300	52,400	18,900	11,000	25,400	17,400	9,000	3,070	5,820
5	1,410	4,750	32,700	17,000	63,900	18,300	9,890	30,800	25,100	8,800	3,210	4,980
6	1,230	8,220	27,100	14,900	60,000	18,700	10,800	43,200	22,700	7,200	3,210	4,660
7	1,080	8,000	24,600	13,800	46,900	36,600	9,660	59,300	21,600	7,200	3,420	4,340
8	1,010	3,480	23,400	13,300	33,700	50,600	8,800	69,800	18,900	7,600	4,820	4,340
9	921	2,960	21,600	11,800	26,600	51,300	7,800	72,200	19,300	7,600	3,700	4,180
10	882	2,680	17,900	10,600	22,700	46,400	8,800	67,400	20,200	6,800	2,940	3,210
11	854	1,930	15,500	9,660	20,900	36,600	9,660	60,800	32,800	6,800	2,940	3,210
12	840	1,610	40,600	8,800	19,300	25,400	8,200	52,800	44,800	8,290	2,820	3,360
13	805	1,510	76,200	8,200	18,600	19,300	6,800	43,200	48,700	26,700	2,760	3,210
14	742	1,320	80,600	14,700	16,700	16,400	6,060	38,400	50,600	48,400	2,940	3,000
15	707	1,280	75,400	35,200	13,800	13,800	5,700	38,000	50,600	55,500	2,880	2,880
16	682	1,140	80,200	49,800	11,600	12,600	5,700	33,700	55,100	49,800	2,640	3,630
17	664	996	79,000	51,300	10,600	11,600	5,340	31,900	61,200	50,200	2,340	4,660
18	646	896	79,400	41,000	9,430	12,000	6,230	31,500	62,700	47,200	2,940	4,180
19	622	826	79,400	25,000	8,400	14,500	14,400	27,900	61,200	37,300	4,180	3,940
20	598	770	73,000	16,400	7,800	31,400	17,100	24,000	52,100	25,800	3,780	4,980
21	586	700	56,000	14,000	8,000	44,700	19,100	29,000	46,100	17,000	3,070	4,500
22	564	700	38,400	13,300	8,400	36,600	16,200	32,600	42,400	12,500	2,700	3,630
23	552	799	29,400	12,800	9,200	28,600	40,600	29,000	36,600	10,100	2,820	3,280
24	542	49,600	25,100	12,000	19,400	21,300	49,100	29,700	31,600	9,000	2,240	3,420
25	530	137,000	20,900	11,300	30,000	16,400	36,600	26,800	30,100	7,800	8,840	3,140
26	542	132,000	19,300	10,600	43,200	14,900	34,400	34,800	24,400	7,000	15,200	2,890
27	532	106,000	22,000	9,660	39,600	16,100	28,600	39,800	22,000	5,880	12,900	2,580
28	533	103,000	29,300	8,400	30,100	14,900	20,900	41,000	19,300	5,520	9,800	2,400
29	1,280	102,000	33,000	7,600	-	15,600	19,300	42,800	17,300	4,980	11,000	2,340
30	2,100	106,000	33,700	6,800	-	18,300	29,900	41,700	16,100	4,660	8,200	2,290
31	1,120	-	27,200	6,060	-	18,500	-	35,800	-	4,180	6,600	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	30,574	2,220	530	986	60,640
November	791,037	137,000	700	26,370	1,569,000
December	1,499,300	109,000	15,600	48,360	2,974,000
Calendar year 1940	3,865,722	137,000	354	10,560	7,667,000
January	531,780	51,300	6,060	17,150	1,055,000
February	672,590	53,900	5,700	24,010	1,334,000
March	739,000	51,300	11,600	23,840	1,466,000
April	482,940	49,100	5,340	16,100	957,900
May	1,219,500	72,200	24,000	39,340	2,419,000
June	1,020,700	62,700	16,100	34,020	2,025,000
July	537,610	55,800	4,180	17,340	1,066,000
August	148,150	15,200	2,240	4,779	293,900
September	118,190	6,800	2,290	3,940	234,400
Water year 1940-41	7,791,171	137,000	530	21,350	15,450,000

Note.- No record Nov. 25, 26, Jan. 30 to Feb. 1, Feb. 18-23, Apr. 8-18, July 3-11, 26-30, Sept. 5-19, 21-30; discharge computed from graph based on twice-daily gage readings.

Brazos River at Richmond, Tex.

Location.- Water-stage recorder, lat. 29°35', long. 95°45', on bridge on U. S. Highway 90 in Richmond, Fort Bend County, about 1,500 feet downstream from bridge of Texas & New Orleans Railroad (formerly Galveston, Harrisburg & San Antonio Railway). Datum of gage is 40.8 feet above mean sea level, datum of 1929.

Drainage area.- 44,050 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- January 1903 to June 1906, June 1931 to September 1941. October 1922 to September 1931, at site at Rosenberg, 7.6 miles upstream; records equivalent except for diversion by Richmond Irrigation Co.'s canal. U. S. Weather Bureau has collected gage-height records in this vicinity since 1914.

Average discharge.- 21 years (1903-5, 1922-41), 7,924 second-feet.

Extremes.- Maximum discharge during year, 117,000 second-feet Nov. 28 (gage height, 38.40 feet); minimum, 555 second-feet Oct. 24.

1903-6; 1931-41: Maximum discharge, that of Nov. 28, 1940; minimum, 33 second-feet Aug. 23, 24, 1934.

Flood of June 8, 1929, reached a stage of 40.6 feet, present datum, from floodmarks, (discharge, 120,000 second-feet). Flood of December 1913 reached a stage of 45.4 feet, present datum, from floodmarks.

Remarks.- Records fair. Considerable water diverted above station for irrigation and municipal supply. See records of Brazos Valley Irrigation Co.'s canal near Fulshear and Richmond Irrigation Co.'s canal near Richmond.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,120	1,560	111,000	25,700	6,760	26,500	16,200	34,400	33,200	15,400	3,760	7,120
2	1,840	3,390	113,000	22,100	6,730	22,900	14,400	32,300	28,600	13,700	3,360	7,480
3	2,180	3,310	108,900	20,800	18,700	20,600	13,500	29,600	21,700	11,800	3,160	7,120
4	2,040	2,040	88,800	20,300	45,600	20,000	13,000	27,900	15,400	9,640	2,960	6,240
5	1,800	3,070	56,200	19,700	60,100	20,300	12,500	30,000	21,100	7,840	2,760	5,760
6	1,560	5,680	37,700	18,200	61,700	19,500	11,800	38,500	24,300	6,940	2,960	5,180
7	1,360	8,020	28,900	16,400	51,700	32,100	12,100	51,500	27,000	6,400	2,880	4,660
8	1,220	5,540	24,600	15,400	38,000	47,200	11,000	63,200	25,000	6,580	3,260	4,660
9	1,120	3,360	23,200	14,400	28,700	51,700	10,300	69,000	21,000	6,940	4,420	4,420
10	1,060	2,960	20,000	13,000	24,800	49,000	8,800	69,900	21,800	6,400	3,620	4,090
11	1,000	2,670	18,400	12,100	22,900	40,000	11,200	66,300	30,200	5,600	2,670	3,760
12	940	2,130	29,000	11,200	21,300	30,600	10,700	59,700	43,500	5,760	2,580	3,980
13	880	1,840	67,000	10,700	20,000	22,400	9,420	50,200	48,400	15,400	2,400	3,760
14	850	1,800	77,500	12,400	19,200	19,000	8,020	42,200	50,400	38,800	2,310	3,560
15	778	1,680	78,100	30,200	17,100	16,400	7,300	39,600	51,400	50,600	2,490	3,260
16	790	1,440	78,700	48,100	14,400	14,200	7,120	37,400	52,000	49,800	2,400	4,310
17	718	1,260	79,100	50,700	13,000	13,200	6,760	33,800	58,000	48,100	2,130	7,120
18	700	1,160	78,700	45,300	11,800	13,500	6,240	33,500	61,100	46,500	1,880	6,680
19	700	1,030	79,106	32,700	10,300	15,600	10,700	31,700	62,400	40,200	2,620	5,460
20	690	940	75,700	22,000	9,420	28,200	17,400	28,500	57,400	30,200	3,870	5,460
21	650	880	65,300	17,900	8,800	46,000	22,300	27,600	48,800	21,400	3,460	6,240
22	748	820	49,700	15,900	9,200	43,400	20,800	33,700	44,400	15,800	2,760	5,180
23	940	820	35,900	16,100	9,200	33,200	30,900	32,300	39,900	12,100	2,310	4,660
24	585	13,600	29,000	14,400	14,500	26,300	47,700	31,400	32,800	10,300	2,080	7,460
25	595	82,800	25,400	13,700	26,200	21,300	44,600	30,200	29,300	8,800	2,210	6,240
26	600	102,000	22,100	12,700	39,400	17,700	37,400	31,700	26,400	7,480	12,200	5,180
27	630	110,000	22,100	11,600	42,200	17,400	33,800	39,000	22,600	6,580	14,700	4,310
28	768	116,000	25,700	10,700	33,300	17,700	27,300	41,400	21,000	5,760	11,400	3,660
29	1,220	116,000	30,000	9,420	-	16,400	22,600	43,000	17,900	5,180	10,700	3,160
30	1,240	112,000	33,500	8,200	-	19,000	26,300	44,300	16,600	4,660	10,300	2,960
31	2,040	-	30,400	7,480	-	19,000	-	40,000	-	4,200	8,020	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	33,362	2,180	585	1,076	66,170
November	708,800	116,000	820	23,630	1,406,000
December	1,638,800	113,000	18,400	52,960	3,251,000
Calendar year 1940	3,911,693	116,000	460	10,690	7,759,000
January	598,700	50,700	7,480	19,310	1,188,000
February	684,010	61,700	6,730	24,430	1,367,000
March	800,200	51,700	13,200	25,810	1,587,000
April	531,360	47,700	6,240	17,710	1,054,000
May	1,264,000	69,900	27,600	40,770	2,507,000
June	1,053,400	62,400	16,600	35,110	2,089,000
July	524,850	50,600	4,200	16,930	1,041,000
August	139,510	14,700	1,880	4,468	274,700
September	153,030	7,480	2,960	5,101	303,500
Water year 1940-41	8,129,022	116,000	585	22,270	16,120,000

Note.- No record Oct. 1, 7-30, Nov. 13-23, Jan. 8-14, Jan. 22 to Feb. 2, Feb. 18-23, Apr. 8-18, July 5-12, July 26 to Aug. 4, Sept. 4-30; discharge computed from graph based on once-daily gage readings furnished by U. S. Weather Bureau.

Salt Fork of Brazos River near Aspermont, Tex.

Location.- Water-stage recorder, lat. 33°20', long. 100°14', at bridge on U. S. Highway 83, 5½ miles downstream from Dove Creek and 13.2 miles northwest of Aspermont, Stone-wall County. Datum of gage is 1,568.7 feet above mean sea level, datum of 1929.

Drainage area.- 4,834 square miles, of which about 2,770 square miles is probably non-contributing.

Records available.- December 1923 to August 1925, June 1939 to September 1941.

Extremes.- Maximum discharge during year, 24,300 second-feet May 3; maximum gage height, 10.44 feet June 16; no flow at times.

1923-25, 1939-41: Maximum discharge, 26,600 second-feet Aug. 16, 1940 (gage height, 11.05 feet), from rating curve extended above 20,000 second-feet; no flow at times.

Maximum stage known, 14.4 feet, present site and datum, in December 1913; flood of November 1934 reached a stage of 13.7 feet according to information furnished by local residents.

Remarks.- Records poor. Daily discharge published only to show distribution of runoff. No large diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	38		0	5.0	54	a88	1,580	170	1,510	58	20
2	.3	22		0	12	41	a63	7,490	673	721	13	11
3	.3	12		0	11	25	a46	17,500	472	1,400	7.0	a595
4	.1	3.8		0	7.0	14	a30	4,660	136	a705	5.8	709
5	0	1.2	a35	0	4.2	10	a21	1,830	75	a530	5.8	2,660
6	0	.2		.8	3.8	8.5	a14	1,070	291	a401	4.2	a502
7	0	.2		2.6	2.8	6.6	a10	a530	3,600	282	5.8	a354
8	0	1.0	1.2	1.8	1.8	5.4	a6.2	a490	1,520	255	2.4	a404
9	0	2.8	.9	.7	1.0	3.4	5.4	a445	2,460	408	1.0	a150
10	0	2.6	.6	.5	.8	1.4	3.8	a405	2,780	328	.5	934
11	0	2.2	.6	.2	.4	.8	2.8	a360	3,330	144	.3	a320
12	0	2.0	.6	.2	.1	.5	2.6	a315	1,140	85	.3	a358
13	0	2.0	.8	.5	0	.2	2.4	a275	a757	68	.3	1,020
14	.4	1.8	1.0	.3	0	0	7,230	a230	a653	51	.3	585
15	0	1.6	1.8	.5	0	.1	1,940	a185	4,540	38	.1	444
16	0	1.6	2.0	0	0	0	410	a140	9,190	31	10	312
17	0	1.6	1.6	0	0	0	185	a103	a1,410	45	23	195
18	0	1.6	1.2	0	0	.5	a111	61	a492	22	19	242
19	0	1.6	.9	0	0	2.0	a72	104	a384	27	6.2	786
20	0	2.0	.7	0	2.0	1.8	52	542	a342	40	1.4	410
21	0	4.2	.6	0	.8	1.2	35	7,670	a328	56	2.8	195
22	0	5.0	.4	0	1.2	15	26	3,060	a312	25	10	111
23	0	4.2	.3	0	76	484	25	2,010	a305	17	693	75
24	0		.2	0	75	373	24	8,960	401	56	195	54
25	0		.2	0	63	478	18	2,480	588	124	62	40
26	0	a750	0	0	105	1,980	14	1,370	350	65	21	30
27	0		0	0	108	1,230	18	2,060	160	140	10	22
28	.4		0	0	75	312	42	757	140	72	106	18
29	.2		0	0	-	243	4,730	268	46	42	513	17
30	0		0	0	-	160	9,600	248	26	22	189	2,350
31	73	-	0	.4	-	a114	-	217	-	47	56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	75.0	73	0	2.42	149
November	5,365.2	-	.2	179	10,640
December	260.6	-	0	8.41	517
Calendar year 1940	38,580.5	9,240	0	105	76,530
January	8.5	2.6	0	.27	17
February	558.9	108	0	19.9	1,100
March	5,565.8	1,980	0	180	11,040
April	24,827.2	9,600	2.4	828	49,240
May	67,412	17,500	61	2,175	133,700
June	37,071	9,190	26	1,236	73,530
July	7,756	1,510	17	250	15,380
August	2,022.2	693	.1	65.2	4,010
September	17,953	4,150	11	598	35,610
Water year 1940-41	168,872.1	17,500	0	463	334,900

Peak discharge.- Apr. 14 (11 a.m.) 22,400 sec.-ft.; Apr. 30 (1 a.m.) 23,600 sec.-ft.; May 2 (12 m.) 15,600 sec.-ft.; May 3 (1 p.m.) 24,300 sec.-ft.; May 21 (4 p.m.) 16,700 sec.-ft.; June 16 (3 a.m.) 23,600 sec.-ft.

a No gage-height record; discharge computed on basis of records for Double Mountain Fork of Brazos River near Aspermont and Brazos River near Seymour.

White River at Plainview, Tex.

Location.- Water-stage recorder, lat. 34°11', long. 101°41', at bridge on Broadway Street at Plainview, Hale County, 0.7 mile upstream from bridge at Atchison, Topeka, and Santa Fe Railway. Datum of gage is 3,341.1 feet above mean sea level, datum of 1929.

Records available.- June 1939 to September 1941.

Extremes.- Maximum discharge during year, 12,000 second-feet June 6 (gage height, 8.75 feet, by slope-area method; no flow at times.

1939-41: Maximum discharge, that of June 6, 1941; no flow at times.

A stage of 8.50 feet occurred in May 1927 (discharge, about 1,100 second-feet), according to information furnished by local resident. Flood of May 24, 1937, reached about the same stage (discharge for this flood, published in Water-Supply Paper 850, believed to be too high).

Remarks.- Records good except those above 1,000 second-feet, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	0	0	0	0	0	0.3	335	9.7	0.3	1.5
2	0	0	0	0	0	0	0	4.9	373	6.7	0	.2
3	0	0	0	0	0	0	0	2.4	38	34	0	.3
4	0	0	0	0	0	0	0	.7	15	18	0	.6
5	0	0	0	0	0	0	0	.4	105	40	0	.4
6	0	0	0	.1	0	0	0	.3	3,710	25	0	0
7	0	.2	.4	0	0	0	0	.1	2,560	14	0	0
8	0	.6	0	0	0	0	0	.2	1,120	11	1.2	.2
9	0	0	0	0	0	0	0	.1	464	6.7	.8	0
10	.4	0	0	0	0	0	0	0	261	4.3	0	0
11	.1	0	0	0	0	0	0	0	284	.7	0	0
12	0	0	0	0	0	0	0	0	138	0	0	.4
13	0	0	0	0	0	0	0	0	56	.4	0	0
14	0	0	0	0	0	0	0	0	32	0	0	0
15	0	0	0	0	0	0	0	0	26	0	0	0
16	0	0	0	0	0	0	0	0	128	0	0	0
17	0	0	0	0	0	0	0	0	122	0	0	.2
18	0	0	0	0	0	0	0	0	311	0	0	0
19	0	0	0	0	0	0	0	.3	0	102	0	0
20	0	.5	0	0	0	0	0	.1	0	44	0	0
21	0	0	.1	0	0	0	0	6.0	26	0	.2	0
22	0	0	.2	0	0	1.4	0	.3	17	0	.1	0
23	0	.1	0	0	.1	0	0	6.1	14	4.7	.3	0
24	0	7.8	0	0	0	0	0	6.2	20	7.0	69	0
25	0	1.0	.1	0	.2	2.3	0	194	89	.5	26	0
26	0	0	.3	0	.3	.5	.2	351	103	152	10	0
27	0	0	0	0	0	0	.8	515	41	52	1.5	0
28	.8	0	0	0	0	0	.7	349	24	14	.1	1.2
29	0	0	0	0	0	0	.7	46	24	6.4	4.3	.6
30	0	0	0	0	0	0	.3	25	14	2.1	1.6	6.2
31	0	0	0	0	0	0	0	311	0	.9	5.3	0

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1.3	0.8	0	0.04	2.6
November	10.2	7.8	0	.34	20
December	.7	.3	0	.02	1.4
Calendar year 1940	20.7	7.8	0	.06	41
January	.5	.4	0	.02	1.0
February	.6	.3	0	.02	1.2
March	4.2	2.3	0	.14	8.3
April	3.1	.8	0	.10	6.1
May	1,819.0	515	0	59.7	3,610
June	10,896.0	3,710	14	353	21,020
July	410.1	152	0	13.2	813
August	120.9	69	0	3.90	240
September	11.8	6.2	0	.39	23
Water year 1940-41	12,978.4	3,710	0	35.6	25,750

Peak discharge.- May 28 (12:30 a.m.) 760 sec.-ft.; May 31 (8 p.m.) 760 sec.-ft.; June 2 (2:30 a.m.) 760 sec.-ft.; June 6 (4:30 p.m.) 12,000 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and some gage readings.

Clear Fork of Brazos River at Nugent, Tex.

Location.- Water-stage recorder, lat. 32°41', long. 99°40', at county highway bridge in Nugent, Jones County, 4 miles upstream from Deadman Creek.

Drainage area.- 2,220 square miles.

Records available.- February 1924 to September 1941.

Average discharge.- 17 years, 176 second-feet.

Extremes.- Maximum discharge during year, 6,960 second-feet May 4 (gage height, 14.18 feet); minimum, 3.3 second-feet Nov. 14, 15.

1924-41: Maximum discharge observed, 47,000 second-feet Sept. 8, 1932 (gage height, 27.05 feet, at site then in use), from rating curve extended above 25,000 second-feet; no flow at times.

Maximum stage known, about 30.0 feet in 1876, according to information furnished by local residents.

Remarks.- Records fair. Flow regulated by Fort Phantom Hill Reservoir (see p. 84) and five smaller reservoirs having a combined capacity of 106,000 acre-feet. Small diversions above station for municipal supply and for use in mining.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.2	3.7	9.4	5.2	148	a5.6	15	38	40	47	18	400
2	6.2	3.7	7.5	5.2	40	a5.6	11	597	38	479	18	76
3	6.2	4.1	6.2	5.2	27	a5.6	10	3,850	38	428	18	60
4	6.2	4.1	6.2	5.2	16	a5.2	9.4	5,680	36	668	23	65
5	5.6	3.7	6.2	5.2	13	a5.2	8.8	2,690	38	247	41	45
6	5.2	3.7	6.2	5.2	11	5.2	6.2	1,360	38	125	21	40
7	5.2	3.7	5.6	4.8	8.8	5.2	6.9	404	116	73	20	38
8	5.2	4.5	5.6	4.8	7.5	5.2	7.5	129	171	169	16	42
9	5.2	8.8	5.6	4.8	a7.5	4.8	6.9	111	286	166	16	174
10	5.2	6.9	5.6	4.8	a7.5	4.8	6.2	375	1,320	50	15	105
11	5.2	4.5	5.6	4.5	a7.5	4.8	6.2	222	1,720	275	14	65
12	5.2	3.7	5.6	4.5	a7.5	4.5	6.2	129	1,240	956	13	53
13	5.2	3.7	8.2	4.5	a7.5	4.5	6.9	92	248	346	13	60
14	5.2	3.3	6.2	4.5	a7.5	4.5	106	67	753	69	13	40
15	5.2	3.3	11	4.5	a6.9	4.5	1,640	56	1,010	45	14	45
16	4.8	3.7	13	4.5	a6.9	4.5	3,460	51	2,000	34	40	51
17	4.8	4.1	9.4	4.5	a6.2	4.5	2,120	46	1,660	28	207	32
18	4.8	4.5	7.5	4.5	a6.2	4.8	1,560	45	1,500	28	290	31
19	4.8	4.8	6.9	4.5	a23	5.2	240	45	910	40	68	80
20	4.5	5.6	6.2	4.5	a18	5.2	260	86	1,220	216	33	58
21	4.5	5.6	6.2	4.1	a14	5.2	127	1,250	675	222	23	46
22	4.5	14	6.2	4.1	a8.8	5.2	90	4,460	344	94	54	32
23	4.5	5.2	6.2	4.1	a38	20	88	1,750	69	36	739	28
24	5.6	43	6.2	4.1	a27	12	45	197	265	52	1,380	27
25	13	313	6.2	4.1	a10	11	39	135	192	31	1,200	26
26	5.2	374	6.2	4.1	a8.2	150	34	142	166	28	674	25
27	4.1	50	6.2	3.7	a6.9	610	40	80	88	22	80	23
28	3.7	29	5.6	3.7	a6.2	594	302	62	62	21	122	23
29	3.7	19	5.6	3.7	-	278	329	53	50	21	935	22
30	3.7	11	5.6	4.1	-	39	65	46	45	20	1,220	22
31	3.7	-	5.6	5.2	-	22	-	42	-	19	1,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	164.3	13	3.7	5.30	326
November	951.9	374	3.3	31.7	1,890
December	211.5	13	5.6	6.82	420
Calendar year 1940	31,505.0	5,150	.7	86.1	62,500
January	140.4	5.2	3.7	4.53	278
February	502.6	148	6.2	18.0	997
March	1,845.8	610	4.5	59.5	3,660
April	10,523.2	3,460	6.2	351	20,870
May	24,290	5,680	38	784	48,180
June	16,338	2,000	36	545	32,410
July	5,058	956	19	163	10,030
August	8,838	1,500	13	285	17,530
September	1,834	400	22	61.1	3,640
Water year 1940-41	70,694.7	5,680	3.3	194	140,200

Peak discharge.- Apr. 16 (7:30 a.m.) 3,640 sec.-ft.; May 4 (2 a.m.) 6,960 sec.-ft.; May 22 (10:30 a.m.) 5,490 sec.-ft.; June 12 (12:30 a.m.) 2,350 sec.-ft.; June 16 (2 p.m.) 2,290 sec.-ft.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for station at Fort Griffin.

Clear Fork of Brazos River at Fort Griffin, Tex.

Location.- Water-stage recorder, lat. 32°56', long. 99°13', at bridge on Fort Griffin-Throckmorton highway, half a mile east of Fort Griffin, Shackelford County, and 1.3 miles upstream from Mill Creek. Datum of gage is 1,174.53 feet above mean sea level, datum of 1929.

Drainage area.- 3,974 square miles.

Records available.- December 1923 to September 1941.

Average discharge.- 17 years (1924-41), 315 second-feet.

Extremes.- Maximum discharge during year, 18,300 second-feet May 4 (gage height, 31.90 feet); no flow Oct. 18 to Nov. 18.

1923-41: Maximum discharge, 33,600 second-feet Sept. 10, 1932 (gage height, 35.09 feet); no flow at times.

Maximum stage known, about 38.0 feet in 1900, according to information furnished by local residents.

Remarks.- Records good except those for period of no gage-height record, which are poor. Flow regulated by Fort Phantom Hill Reservoir (see p. 84), and several smaller reservoirs having a combined capacity of 106,000 acre-feet. Small diversions upstream for municipal, irrigation, and oil field uses materially affect low flow.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	0	55	1.9	262	121	91	1,870	136	184	25	1,690
2	4.2	0	42	1.7	220	78	51	3,510	127	827	22	764
3	5.4	0	33	1.7	210	54	29	14,200	112	1,520	20	184
4	2.9	0	26	1.9	104	36	18	16,900	112	al,150	19	128
5	2.4	0	21	4.5	60	27	9.5	14,300	107	a700	19	97
6	2.4	0	16	4.9	43	22	7.5	10,500	173	a480	18	79
7	2.2	0	12	4.9	34	18	7.1	3,030	1,020	a260	18	68
8	2.1	0	11	4.9	26	14	6.7	960	1,070	a220	20	54
9	1.7	0	9.5	4.5	18	12	6.7	398	1,170	a220	66	79
10	1.4	0	8.5	4.5	14	9.0	8.0	1,730	11,700	a300	41	171
11	1.3	0	8.5	4.2	11	6.3	9.5	6,800	10,100	a700	29	190
12	.9	0	7.5	3.6	9.0	4.9	11	8,890	7,890	a500	23	153
13	.7	0	7.1	2.9	6.7	4.5	11	3,060	2,740	al,000	19	116
14	.6	0	7.1	2.6	5.5	3.6	140	855	635	635	17	91
15	.4	0	9.5	2.2	4.9	3.6	2,960	376	755	202	14	74
16	.2	0	9.0	1.9	4.9	4.9	6,360	240	3,390	127	12	58
17	.1	0	8.5	1.3	4.2	4.9	6,920	186	4,260	102	11	57
18	0	0	8.5	.9	4.5	5.2	4,190	160	3,360	84	9.5	51
19	0	2.9	8.5	.4	7.1	5.2	1,840	140	2,320	75	90	58
20	0	3.4	7.1	.4	7.5	5.9	600	696	1,250	64	180	47
21	0	2.9	6.3	.4	6.7	6.7	356	8,550	964	60	94	41
22	0	60	5.2	.5	5.5	6.7	258	9,590	328	270	62	66
23	0	339	4.9	.5	37	58	184	8,700	429	249	48	58
24	0	225	4.9	.5	98	15	164	7,680	243	147	215	51
25	0	1,060	4.9	.6	243	8.5	142	1,820	222	90	1,340	40
26	0	2,040	6.3	.5	164	80	112	535	396	64	1,310	32
27	0	689	5.9	.5	142	228	106	368	316	54	959	28
28	0	230	4.9	.4	184	625	92	270	622	54	240	26
29	0	119	4.2	.4	-	695	90	198	560	39	448	22
30	0	75	2.9	.4	-	356	5,120	166	235	34	735	20
31	0	-	2.6	.6	-	174	-	157	-	29	1,520	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	30.5	4.2	0	0.98	60
November	4,846.2	2,040	0	162	9,610
December	367.6	55	2.6	11.9	729
Calendar year 1940	87,481.4	8,240	0	239	173,500
January	61.1	4.9	.4	1.97	121
February	1,936.5	262	4.2	69.2	3,840
March	2,692.9	695	3.6	86.9	5,340
April	29,900.0	6,920	6.7	997	59,310
May	126,505	16,900	140	4,081	250,900
June	56,742	11,700	107	1,891	112,500
July	10,430	1,520	29	336	20,690
August	7,643.5	1,520	9.5	247	15,160
September	4,593	1,690	20	153	9,110
Water year 1940-41	245,748.3	16,900	0	673	487,400

Peak discharge.- May 4 (4 a.m.) 18,300 sec.-ft.; June 10 (2:30 a.m.) 14,600 sec.-ft.; June 11 (8 p.m.) 11,000 sec.-ft.

a No gage-height record; discharge computed on basis of records for nearby stations.

Clear Fork of Brazos River near Crystal Falls, Tex.

Location.- Water-stage recorder above spillway of concrete dam, lat. 32°54', long. 96°50', at Texas Co.'s pumping plant 2½ miles downstream from Hubbard Creek, and 3¼ miles north-east of Crystal Falls, Stephens County. Datum of gage is 1,055.25 feet above mean sea level, datum of 1929.

Drainage area.- 5,658 square miles.

Records available.- July 1928 to September 1941.

Average discharge.- 13 years, 544 second-feet.

Extremes.- Maximum discharge during year, 35,800 second-feet June 11 (gage height, 33.45 feet), from rating curve extended above 23,000 second-feet; no flow at times.

1928-41: Maximum discharge, that of June 11, 1941; no flow at times.

Maximum stage known, about 34.0 feet, present datum, in 1900, according to information furnished by local residents.

Remarks.- Records good except those below 40 second-feet, which are affected by occasional accumulation of drift on control, and are fair. A large part of low flow diverted above station for municipal supply and oil field uses. Flow regulated by several reservoirs above Nugent which have a combined capacity of 106,000 acre-feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	0	102	27	3,350	280	226	8,200	244	226	46	1,510
2	.5	0	71	298	2,890	184	132	3,500	213	607	41	1,470
3	0	0	52	98	591	125	84	18,300	188	1,350	36	571
4	0	0	46	46	333	84	57	28,800	164	1,850	34	209
5	0	0	36	29	192	57	41	19,500	156	889	29	144
6	0	0	32	22	117	46	32	14,200	168	810	27	117
7	0	0	29	14	74	34	27	11,700	262	432	27	96
8	0	0	22	11	57	27	20	4,340	1,510	289	44	84
9	0	0	22	9.7	46	22	18	960	1,030	239	124	1,930
10	0	3.4	20	8.3	39	18	16	1,850	12,900	214	54	1,060
11	0	6.9	22	8.3	29	16	12	7,980	32,400	3,950	54	318
12	0	3.1	29	8.3	24	14	12	14,300	24,300	618	39	280
13	0	1.0	34	8.3	20	12	11	9,950	11,200	280	32	213
14	0	.5	36	8.3	16	9.7	8.3	3,740	3,380	1,150	29	160
15	0	0	850	8.3	14	9.7	2,600	930	1,110	568	303	125
16	0	0	430	8.3	14	8.3	5,150	535	3,850	244	83	136
17	0	0	81	5.5	12	6.9	5,840	378	4,920	168	74	144
18	0	0	54	6.9	11	5.5	6,320	289	4,590	140	34	106
19	0	0	44	3.1	12	5.5	3,970	244	3,690	117	24	74
20	0	0	36	3.1	89	4.7	1,590	289	2,040	106	51	71
21	0	0	29	3.1	318	4.7	535	12,900	1,310	95	201	68
22	0	156	27	2.3	117	5.5	617	24,400	776	98	2,730	57
23	0	1,590	18	2.3	290	237	740	21,100	384	285	8,170	63
24	0	2,090	11	2.3	780	109	333	14,900	619	270	3,940	81
25	0	6,440	9.7	2.3	420	78	222	9,190	313	168	9,520	66
26	0	3,090	70	1.5	1,040	786	156	2,360	295	117	4,010	57
27	0	1,750	832	1.5	698	1,020	121	810	415	84	1,470	52
28	0	630	205	1.0	313	445	742	617	353	74	850	46
29	0	270	81	.5	-	782	817	443	714	74	405	44
30	0	156	46	.5	-	672	3,180	358	406	60	617	49
31	0	-	36	3.1	-	405	-	294	-	54	945	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1.5	1.0	0	0.05	3.0
November.....	16,186.9	6,440	0	540	32,110
December.....	3,412.7	850	9.7	110	6,770
Calendar year 1940.....	175,856.9	11,000	0	480	348,800
January.....	651.8	298	.5	21.0	1,290
February.....	11,896	3,350	11	425	23,600
March.....	5,513.5	1,020	4.7	378	10,940
April.....	33,629.3	6,320	8.3	1,121	66,700
May.....	237,357	28,800	244	7,657	470,800
June.....	113,700	32,400	156	3,790	225,500
July.....	15,616	3,950	54	504	30,970
August.....	34,043	9,520	24	1,098	67,520
September.....	9,400	1,930	44	313	18,640
Water year 1940-41.....	481,407.7	32,400	0	1,319	954,800

Peak discharge.- May 4 (3 p.m.) 30,500 sec.-ft.; May 12 (3 p.m.) 15,900 sec.-ft.; May 22 (11 a.m.) 25,700 sec.-ft.; June 11 (6:30 p.m.) 35,800 sec.-ft.; Aug. 23 (2 p.m.) 9,270 sec.-ft.; Aug. 25 (8:30 p.m.) 10,300 sec.-ft.

Fort Phantom Hill Reservoir near Nugent, Tex.

Location.- Staff gage, lat. 32°37', long. 99°40', on outlet tower at dam in Elm Creek, 4 miles upstream from Clear Fork of Brazos River and 5 miles south of Nugent, Jones County. Datum of gage is 1,580.0 feet above mean sea level.

Drainage area.- 478 square miles.

Records available.- July 1940 to September 1941.

Extremes.- Maximum contents observed during year, 71,900 acre-feet Sept. 13-17 (gage height, 54.5 feet); minimum observed, 20,800 acre-feet Oct. 17-25 (gage height, 35.0 feet).

1940-41: Maximum contents observed, that of Sept. 13-17, 1941; minimum observed, 20,290 acre-feet Aug. 12-13, 1940 (gage height, 34.7 feet).

Remarks.- Reservoir is formed by earthfill dam with rock riprap face; dam completed and storage began in October 1938. Capacity, 69,550 acre-feet between gage heights 1.6 feet (sill of lowest outlet gate) and 54.0 feet (crest of spillway). Dead storage, 450 acre-feet. Records given herein represent total contents. Water is used for municipal supply and flood control. Gage read once daily at 6 a.m. Lake Abilene on Elm Creek, Lake Kirby on Cedar Creek, and Lytle Lake on Lytle Creek (combined capacity, 19,300 acre-feet) are smaller reservoirs upstream in Elm Creek Basin.

Cooperation.- Capacity table furnished by City of Abilene.

Monthly gage height and contents, water year October 1940 to September 1941

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 31.....	36.7	24,000	+2,300
Nov. 30.....	36.1	22,800	-1,200
Dec. 31.....	36.1	22,800	0
Calendar year	-	-	-
Jan. 31.....	36.1	22,800	0
Feb. 28.....	36.2	23,000	+200
Mar. 31.....	36.6	23,800	+800
Apr. 30.....	40.0	30,600	+6,800
May 31.....	46.2	45,700	+15,100
June 30.....	52.1	63,060	+17,360
July 31.....	52.6	64,860	+1,800
Aug. 31.....	54.3	71,140	+6,280
Sept. 30.....	54.1	70,380	-760
Water year 1940-41.....	-	-	+48,680

† Gage height at 6 a.m.

Aquilla Creek near Aquilla, Tex.

Location.- Water-stage recorder, lat. 31°51', long. 97°12', at bridge on Abbott-Aquilla County road, three-quarters of a mile upstream from Falls Branch and 1 mile south-east of Aquilla, Hill County.

Drainage area.- 309 square miles.

Records available.- December 1924 to August 1925, December 1938 to September 1941.

Extremes.- Maximum discharge during year, 8,560 second-feet Feb. 2 (gage height, 27.17 feet), from rating curve extended above 6,500 second-feet; no flow Oct. 1 to Nov. 10, Nov. 12-22.

1924-25, 1938-41: Maximum discharge, 9,860 second-feet June 19, 1939 (gage height, 28.16 feet), from rating curve extended above 6,500 second-feet; no flow at times.

Maximum stage known, about 34 feet Aug. 31, 1887, according to information furnished by local resident. Flood of Sept. 27, 1936, reached a stage of about 33 feet, from floodmark. Peak discharge of this flood as determined about 9 miles below station, 84,500 second-feet by slope-area method (drainage area, 370 square miles).

Remarks.- Records good. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	53	984	3,020	110	52	127	25	20	8.1	6.2
2		0	42	201	6,120	97	47	145	92	18	7.3	4.5
3		0	38	101	487	93	44	1,740	483	36	16.8	3.7
4		0	36	83	214	79	39	396	63	26	16.0	2.8
5		0	34	78	166	69	36	6,570	43	29	16.1	2.4
6		0	29	85	166	881	40	1,540	40	16	51	1.8
7		0	29	73	143	1,260	172	226	105	13	24	1.5
8		0	26	66	104	309	61	152	51	11	18	1.2
9		0	25	62	90	143	44	118	36	9.1	14	9.6
10		2.6	22	55	85	108	38	97	803	7.8	8.9	9.0
11		2.2	2,410	53	79	85	34	85	553	215	6.6	3.5
12		0	2,930	53	74	80	33	86	87	1,490	6.0	2.5
13		0	190	345	70	75	34	76	54	1,740	3.8	2.3
14		0	125	925	59	69	32	64	1,530	1,420	26	1.8
15		0	1,820	166	56	70	32	56	2,650	1,570	13	1.5
16		0	2,000	102	56	69	4,630	51	2,890	294	6.2	1.4
17		0	195	77	55	60	507	48	2,020	97	4.0	1.1
18		0	151	63	51	69	1,570	45	166	70	3.2	1.0
19		0	107	58	51	66	1,380	54	105	74	2.5	.8
20		0	93	58	95	66	926	105	82	298	2.2	.6
21		0	80	57	82	64	103	194	69	66	2.0	.6
22		143	72	55	392	59	797	193	92	44	367	.4
23		3,940	67	52	1,730	96	4,710	135	402	35	446	.4
24		4,980	62	52	3,750	84	3,360	63	99	30	143	.4
25		5,560	59	45	427	61	362	48	53	27	40	.4
26		2,800	288	45	274	234	215	40	45	23	19	.4
27		166	1,600	43	175	236	301	36	44	19	11	1.0
28		88	297	39	127	82	215	33	43	16	87	.8
29		70	138	38	-	65	178	34	30	14	92	.5
30		61	104	40	-	59	356	32	25	111	15	.4
31		-	181	53	-	57	-	28	-	9.4	8.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	17,812.8	5,560	0	594	35,330
December	13,281	2,930	22	428	26,340
Calendar year 1940	57,731.5	5,770	0	158	114,500
January	4,197	984	31	155	8,320
February	18,198	6,120	58	650	36,100
March	4,945	1,250	57	160	9,810
April	20,148	4,710	32	672	39,960
May	12,617	6,570	28	407	25,030
June	12,779	2,890	25	426	25,350
July	7,748.3	1,740	7.8	250	15,370
August	1,453.3	446	2.0	46.9	2,880
September	64.5	9.6	.4	2.15	128
Water year 1940-41	113,243.9	6,570	0	310	224,600

Peak discharge.- Nov. 23 (11:50 p.m.) 6,900 sec.-ft.; Feb. 2 (5 a.m.) 8,560 sec.-ft.; Apr. 16 (1:30 p.m.) 7,500 sec.-ft.; May 5 (8 a.m.) 8,200 sec.-ft.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

North Bosque River near Clifton, Tex.

Location.- Staff gage above spillway of masonry dam, lat. 31°46', long. 97°35', a quarter of a mile upstream from Gulf, Colorado, and Santa Fe Railway bridge and 1.4 miles northwest of Clifton, Bosque County. Datum of gage is 622.7 feet above mean sea level, datum of 1929.

Drainage area.- 974 square miles.

Records available.- November 1923 to September 1941.

Average discharge.- 18 years, 211 second-feet.

Extremes.- Maximum discharge observed during year, 36,400 second-feet May 5 (gage height, 22.10 feet); no flow Oct. 14 to Nov. 9.
1923-41: Maximum discharge, 38,500 second-feet Jan. 23, 1938; maximum gage height, that of May 5, 1941; no flow at times.
Flood of May 9, 1922, reached a stage of about 25 feet, according to information furnished by local resident.

Remarks.- Records good except those for period of no gage-height record and those below 5 second-feet, which are fair. Railway company pumps about 100,000 gallons a day (0.15 second-foot) from pool formed by control dam a third of a mile below gage. Gage read twice daily, more often during high stages.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	0	87	452	7,990	635	412	680	267	231	69	123
2	3.1	0	72	404	4,510	572	372	608	249	207	66	117
3	1.5	0	59	388	1,660	527	333	3,400	1,730	198	61	111
4	.9	0	51	356	880	468	311	1,100	500	189	59	102
5	.7	0	48	372	680	420	289	23,600	340	184	56	93
6	.6	0	46	325	662	1,280	267	2,530	311	176	56	87
7	.4	0	41	296	590	1,270	1,290	1,340	1,420	162	51	81
8	.3	0	33	267	536	671	436	1,040	500	155	96	75
9	.2	0	29	255	476	572	304	880	356	149	75	87
10	.2	a2.4	25	231	412	484	282	780	1,820	142	66	81
11	.1	a1.0	3,340	219	388	420	261	1,280	1,760	8,610	61	87
12	.1	.8	1,010	215	354	404	243	1,730	563	2,450	56	87
13	.1	.8	1,010	256	325	338	243	890	390	544	1,050	75
14	0	.8	388	680	282	372	249	680	651	420	618	69
15	0	.8	4,290	460	261	356	364	590	3,970	249	207	69
16	0	.7	2,050	255	255	340	7,990	518	11,200	207	149	69
17	0	.7	617	198	243	325	808	484	1,390	189	126	69
18	0	.7	436	171	231	500	10,100	452	730	171	93	66
19	0	.6	390	159	225	444	2,780	436	536	184	81	64
20	0	.6	311	162	1,910	404	1,210	420	476	914	72	59
21	0	.6	261	162	890	388	680	3,880	420	311	69	59
22	0	46	231	155	1,180	348	617	1,230	380	176	11,700	53
23	0	4,180	213	155	5,280	1,340	1,540	1,110	608	146	8,250	53
24	0	2,590	194	149	7,510	492	1,170	653	990	139	820	51
25	0	10,100	176	142	1,420	364	730	492	545	123	462	51
26	0	7,570	794	136	1,040	3,510	842	452	390	114	267	46
27	0	429	3,380	136	880	1,490	2,290	404	460	108	311	46
28	0	189	967	129	730	662	1,740	356	436	93	354	46
29	0	139	572	126	-	527	935	325	388	84	198	46
30	0	111	460	129	-	484	830	311	274	81	155	46
31	0	-	420	538	-	452	-	289	-	72	132	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	15.8	7.6	0	0.51	31
November.....	25,364.5	10,100	0	845	50,310
December.....	21,991	4,290	25	709	43,620
Calendar year 1940.....	65,394.9	10,100	0	179	129,700
January.....	8,075	680	126	260	16,020
February.....	41,810	7,990	225	1,493	82,930
March.....	20,909	3,510	325	674	41,470
April.....	39,918	10,100	243	1,331	79,180
May.....	52,930	23,600	289	1,707	105,000
June.....	35,830	11,200	249	1,128	67,100
July.....	17,278	8,610	72	557	34,270
August.....	25,876	11,700	51	835	51,320
September.....	2,174	123	46	72.5	4,310
Water year 1940-41.....	290,171.3	23,600	0	795	575,600

Peak discharge.- Nov. 25 (11 p.m.) 21,600 sec.-ft.; Feb. 1 (8 p.m.) 17,000 sec.-ft.; Apr. 16 (7:45 a.m.) 19,000 sec.-ft.; Apr. 18 (9 a.m.) 35,400 sec.-ft.; May 5 (9:30 a.m.) 36,400 sec.-ft.;

July 11 (10 p.m.) 15,400 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

Leon River near Hasse, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°57', long. 98°28', at bridge on U. S. Highway 87, 1,000 feet upstream from bridge of Gulf, Colorado & Santa Fe Railway, 0.4 mile upstream from Walnut Creek, and 2.1 miles northeast of Hasse, Comanche County. Datum of gage is 1,115.1 feet above mean sea level, datum of 1929.

Drainage area.- 1,276 square miles.

Records available.- January 1939 to September 1941.

Extremes.- Maximum discharge during year, 15,400 second-feet May 12 (gage height, 16.92 feet); no flow Oct. 3 to Nov. 9.

1939-41: Maximum discharge, 15,900 second-feet June 20, 1939 (gage height, 17.04 feet); no flow at times.

Maximum stage known, about 25.0 feet in May 1908, according to information furnished by Texas State Highway Department.

Remarks.- Records good except those for periods of backwater, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0	188	224	c1,710	540	211	1,120	138	54	18	449
2	.2	0	88	255	9,870	365	161	723	123	94	17	256
3	0	0	60	480	6,090	300	138	2,590	198	196	16	168
4	0	0	49	380	2,700	248	123	6,440	232	259	14	111
5	0	0	43	224	1,280	208	111	12,000	171	191	14	82
6	0	0	37	164	668	186	104	6,130	239	85	24	66
7	0	0	35	127	448	177	108	1,850	518	62	16	62
8	0	0	33	108	330	161	97	985	197	58	13	56
9	0	.3	32	94	270	154	91	690	130	154	13	79
10	0	1.4	30	82	232	145	85	690	c368	76	12	290
11	0	.7	42	73	200	130	79	1,990	791	82	10	340
12	0	.4	60	68	180	123	79	13,100	540	134	10	324
13	0	.6	62	79	161	108	79	8,610	498	104	122	183
14	0	1.1	52	97	145	104	79	4,910	372	68	253	127
15	0	1.1	805	91	130	108	c288	1,860	c404	54	516	94
16	0	1.0	1,240	76	115	111	1,610	892	1,570	46	293	76
17	0	.9	1,370	68	108	108	985	570	1,340	42	85	70
18	0	.8	1,160	62	104	123	612	410	598	39	43	66
19	0	.7	622	58	120	138	567	300	356	147	27	64
20	0	.7	325	54	180	138	580	260	214	280	19	62
21	0	.8	208	54	1,340	130	616	935	127	151	154	62
22	0	2.0	148	52	1,260	123	481	1,840	106	88	c941	58
23	0	c1,150	108	52	1,500	264	300	2,440	88	68	c4,030	52
24	0	1,740	94	50	4,890	410	205	1,870	145	49	7,920	56
25	0	c4,580	85	50	3,070	395	148	1,240	145	37	4,120	52
26	0	c4,510	111	49	1,420	747	200	716	115	33	2,480	46
27	0	2,000	537	47	848	1,220	590	440	148	29	1,740	42
28	0	1,370	678	44	710	965	965	310	111	26	4,200	37
29	0	674	685	44	-	707	845	232	70	24	2,900	36
30	0	310	658	44	-	400	1,240	180	60	22	1,560	35
31	0	-	344	116	-	270	-	158	-	19	871	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0.5	0.3	0	0.02	1.0
November	16,146.5	4,580	0	538	32,030
December	10,169	1,370	30	328	20,170
Calendar year 1940	52,945.9	4,580	0	145	105,000
January	3,466	480	44	112	6,870
February	40,909	9,870	104	1,461	81,140
March	9,326	1,220	104	301	18,500
April	11,777	1,610	79	393	23,360
May	76,461	13,100	158	2,466	151,700
June	10,111	1,570	60	337	20,050
July	2,771	280	19	89.4	5,500
August	32,451	7,920	10	1,047	64,370
September	3,501	449	35	117	6,940
Water year 1940-41	217,089.0	13,100	0	595	430,600

Peak discharge.- Feb. 2 (6 a.m.) 10,600 sec.-ft.; May 5 (4 p.m.) 14,900 sec.-ft.; May 12 (2:30 p.m.) 15,400 sec.-ft.; Aug. 24 (8 a.m.) 8,700 sec.-ft.

c Backwater from Walnut Creek; discharge computed from adjusted gage-height graph based on discharge measurements and weather records.

Leon River near Belton, Tex.

Location.- Water-stage recorder upstream from spillway of concrete dam, lat. 31°04'15", long. 97°26'30", 1,400 feet upstream from bridge on U. S. Highway 81 and 2 miles east of Belton, Bell County. Datum of gage is 476.9 feet above mean sea level, datum of 1929.

Drainage area.- 3,547 square miles.

Records available.- October 1923 to September 1941.

Average discharge.- 18 years, 671 second-feet.

Extremes.- Maximum discharge during year, 26,400 second-feet Nov. 25 (gage height, 14.16 feet); minimum, 3.2 second-feet Oct. 24, 25.

1923-41: Maximum discharge, 51,100 second-feet Sept. 28, 1936 (gage height, 20.0 feet), by slope-area method; no flow at times.

Maximum stages known, about 25 feet sometime in December 1913 and 21.0 feet sometime in September 1921, according to information furnished by local residents.

Remarks.- Records good except those for period of no gage-height record, which are fair. Several small pumping plants divert water above station.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 22, Jan. 15-31, Sept. 6-30)

2.2	2.2	2.6	56	3.5	674	8.0	8,050
2.3	3.8	2.7	96	4.0	1,180	10.0	13,400
2.4	8.0	2.8	143	5.0	2,400	12.0	19,300
2.5	26	3.0	267	6.0	3,950	14.0	25,700

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	407	7,140	2,270	7,190	5,850	3,060	3,210	1,760	1,060	335	2,980
2	41	41	5,770	2,400	11,000	5,650	2,830	3,130	1,560	950	313	2,980
3	29	22	2,700	2,340	6,270	5,060	2,850	7,680	2,340	930	297	3,370
4	20	20	1,820	2,010	6,270	3,370	1,880	4,950	2,080	1,700	290	2,380
5	18	20	1,150	1,640	6,270	2,760	1,700	10,300	2,270	1,700	290	1,210
6	16	18	950	1,540	6,480	10,500	1,570	9,740	1,330	1,030	282	737
7	11	18	850	1,600	6,270	5,200	2,240	6,700	1,760	893	261	571
8	9.5	18	746	1,830	7,140	5,020	1,560	7,820	1,570	1,040	254	463
9	8.0	29	683	1,440	7,820	3,610	1,460	12,300	1,488	841	247	398
10	7.0	44	640	1,280	5,440	2,830	1,470	13,400	1,920	746	406	359
11	7.0	41	7,880	1,190	2,830	2,340	1,320	11,400	3,910	5,190	282	335
12	6.0	29	6,760	1,140	2,840	2,140	1,200	11,400	3,210	6,280	240	350
13	6.0	29	5,450	2,290	2,060	1,940	1,170	7,690	3,130	3,780	234	297
14	5.7	32	4,130	4,730	1,820	1,820	1,150	6,060	3,290	2,140	297	290
15	6.0	26	7,640	2,200	1,700	1,760	1,140	5,850	3,060	2,300	622	438
16	5.4	22	6,880	1,560	1,570	1,700	1,150	6,920	6,390	2,220	367	512
17	5.4	18	5,060	1,370	1,470	1,700	1,470	7,820	4,390	1,140	247	504
18	5.2	18	4,220	1,110	1,390	3,780	1,390	10,100	3,950	930	240	390
19	4.9	18	4,220	982	1,330	2,610	1,820	8,780	4,490	920	351	305
20	4.9	22	3,450	920	1,680	2,270	2,080	7,360	5,250	812	554	267
21	4.6	35	3,130	880	1,580	2,140	2,830	5,450	5,650	657	471	240
22	4.1	144	3,060	793	1,580	2,010	2,980	5,920	g3,290	605	328	220
23	3.8	11,100	2,760	755	3,040	1,880	2,830	4,980	g2,010	588	261	213
24	3.5	17,600	2,010	719	7,210	1,820	3,330	4,680	g1,640	764	234	207
25	3.3	20,500	1,640	683	5,060	1,700	2,540	4,870	g1,640	719	250	200
26	4.9	13,600	2,110	665	5,650	3,630	2,690	4,490	1,540	588	2,110	189
27	4.9	6,700	3,950	614	6,060	4,770	3,920	3,260	1,940	512	2,540	189
28	6.0	6,270	3,060	614	6,270	3,700	4,480	4,040	1,720	463	2,540	177
29	6.0	6,480	2,760	597	-	4,040	3,210	3,660	1,270	422	3,610	172
30	5.7	6,920	2,540	588	-	4,040	3,130	2,980	1,140	382	2,370	166
31	2,520	-	2,270	588	-	3,290	-	2,140	-	359	2,370	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,838.8	2,520	3.3	91.6	5,630
November	90,239	20,500	16	3,008	179,000
December	107,129	7,980	640	3,456	212,500
Calendar year 1940	300,717.9	20,500	3.3	822	596,500
January	43,138	4,730	588	1,392	85,660
February	124,810	11,000	1,330	4,468	247,600
March	109,930	10,500	1,700	3,546	218,000
April	66,440	4,480	1,140	2,215	131,800
May	209,780	13,400	2,140	6,767	416,100
June	80,680	6,390	1,140	2,689	160,000
July	42,331	6,280	359	1,366	83,960
August	26,603	3,780	234	858	52,770
September	21,079	3,370	166	703	41,810
Water year 1940-41	924,997.8	20,500	3.3	2,534'	1,835,000

Peak discharge.- Nov. 24 (7:20 a.m.) 24,500 sec.-ft.; Nov. 25 (4:40 a.m.) 26,400 sec.-ft.; Nov. 26 (7 a.m.) 17,500 sec.-ft.; Dec. 11 (9 p.m.) 17,200 sec.-ft.; Feb. 2 (1 a.m.) 18,700 sec.-ft.; Mar. 6 (5:30 p.m.) 20,300 sec.-ft.

No gage-height record; discharge from graph based on occasional gage readings and weather records. g Computed from graph based on gage readings.

Little River at Cameron, Tex.

Location.- Water-stage recorder, lat. 30°50', long. 96°57', at site of old McCowan bridge, 2,100 feet upstream from bridge on U. S. Highway 77 and 2 miles southeast of Cameron, Milam County. Datum of gage is 281.9 feet above mean sea level, datum of 1929.

Drainage area.- 7,034 square miles.

Records available.- November 1916 to September 1941.

Average discharge.- 24 years (1917-41), 1,971 second-feet.

Extremes.- Maximum discharge during year, 98,000 second-feet Nov. 25 (gage height, 37.35 feet); minimum, 49 second-feet Oct. 23, 25, 26.

1916-41: Maximum discharge, 647,000 second-feet, Sept. 10, 1921 (gage height, about 53.2 feet, present datum, from floodmarks), by slope-area method; minimum, 2.6 second-feet, Sept. 3, 5, 7, 1918.

The flood of 1852 reached a stage of about 52.4 feet, according to information furnished by State Highway Department.

Remarks.- Records good. Many small diversions for irrigation, municipal supply, and by pumping above station affect very low flows.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used Oct. 1 to Nov. 21)

		Nov. 21-30				Dec. 1 to Sept. 30					
3.2	47	5.0	498	24.0	8,650	34.0	27,700	4.7	381	12.0	2,990
3.4	56	6.0	878	28.0	10,800	35.0	41,700	5.0	480	14.0	3,860
3.6	94	12.0	3,210	31.0	12,700	36.0	61,000	6.0	810	16.0	4,780
3.8	131	16.0	4,910	32.0	13,600	37.0	86,000	7.0	1,140	18.0	5,700
4.0	174	20.0	6,700	32.6	15,500			8.0	1,470	21.0	7,180
4.5	314	21.0	7,150	33.0	18,400			10.0	2,180		

Note.- Same as preceding table above 21.0 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	1,530	8,850	5,080	3,070	8,450	6,460	11,100	4,410	g2,340	1,010	3,730
2	115	3,820	8,700	4,870	13,600	8,350	5,790	8,350	3,640	g2,180	942	3,610
3	131	1,140	8,500	4,780	26,100	7,950	5,420	10,200	3,290	g2,030	909	2,910
4	108	468	6,960	4,640	21,000	7,600	6,220	21,700	6,760	g1,990	876	3,250
5	96	308	4,260	4,410	13,200	6,270	4,960	22,700	10,500	g2,950	843	3,030
6	87	232	3,080	3,950	10,700	4,920	3,950	20,900	7,110	g3,160	876	1,880
7	79	193	2,950	3,640	10,100	8,970	3,910	15,200	6,570	g2,260	876	1,140
8	75	170	2,660	3,600	9,980	16,500	6,600	15,300	7,330	g1,920	876	876
9	70	165	2,260	3,550	9,590	16,900	5,290	12,200	4,140	g1,680	810	777
10	67	174	2,030	3,380	9,920	10,300	3,770	11,100	3,640	g1,610	760	678
11	65	278	2,400	3,080	9,860	6,900	g3,460	12,100	8,130	g4,570	909	645
12	60	276	16,500	2,910	7,850	5,520	g3,250	16,800	10,700	18,700	876	612
13	60	252	30,000	2,830	5,560	4,870	g3,080	16,400	7,350	22,200	711	596
14	58	214	23,400	12,600	4,870	4,500	g2,990	13,500	5,650	13,000	662	562
15	59	179	15,500	29,900	4,320	4,180	g2,990	11,100	5,330	11,000	694	546
16	58	170	32,300	15,700	3,950	4,040	g2,950	8,600	7,850	13,100	1,300	579
17	63	159	27,700	7,220	3,770	3,950	g2,950	8,250	9,540	10,900	1,170	711
18	58	152	19,200	4,600	3,640	6,280	g3,550	8,650	9,590	5,870	777	728
19	55	148	11,900	3,910	3,510	15,200	3,420	9,930	7,000	g2,990	662	678
20	53	142	9,060	3,600	3,330	14,800	3,380	16,200	6,120	g2,460	645	596
21	52	144	8,050	3,420	3,380	9,900	3,680	12,100	6,950	g2,100	777	530
22	52	922	7,000	3,290	3,770	6,950	4,230	11,000	7,650	g1,850	843	496
23	49	4,840	6,360	3,160	3,680	5,940	5,240	10,500	6,950	g1,710	711	464
24	50	24,900	5,980	2,990	5,320	5,470	9,420	11,900	4,870	g1,640	620	447
25	50	86,000	5,290	2,870	8,550	5,060	12,600	11,400	3,860	g1,610	579	447
26	50	64,800	4,800	2,740	9,860	4,790	8,750	8,250	3,420	g1,610	546	434
27	53	36,500	4,960	2,660	8,750	5,380	9,700	7,250	4,180	1,400	810	421
28	76	22,800	7,550	2,540	8,350	8,550	14,900	6,360	4,040	1,270	1,540	411
29	91	13,900	7,750	2,420	-	9,100	18,800	5,940	g3,550	1,210	2,100	404
30	123	10,000	6,360	2,300	-	7,500	17,700	5,840	g2,740	1,110	2,330	394
31	146	-	5,520	2,260	-	6,950	-	5,470	-	1,070	3,380	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,292	146	49	73.9	4,550
November	274,976	86,000	142	9,166	545,400
December	307,620	32,300	2,030	9,923	610,200
Calendar year 1940	1,055,533	86,000	49	2,884	2,094,000
January	158,880	29,900	2,260	5,125	315,100
February	229,580	26,100	3,070	8,199	455,400
March	241,950	16,800	3,950	7,804	479,900
April	188,410	18,800	2,950	6,280	373,700
May	366,290	22,700	5,470	11,520	726,500
June	182,840	10,700	2,740	6,095	362,700
July	143,290	22,200	1,070	4,622	284,200
August	31,920	3,380	546	1,030	63,310
September	32,482	3,730	394	1,063	64,430
Water year 1940-41	2,160,510	86,000	49	5,919	4,285,000

Peak discharge.- Nov. 25 (5:30 a.m.) 98,000 sec.-ft.; Dec. 16 (3 p.m.) 41,700 sec.-ft.; Jan. 15 (4 a.m.) 37,200 sec.-ft.

g Computed from graph based on gage readings.

Lampasas River at Youngsport, Tex.

Location.- Water-stage recorder, lat. 30°57', long. 97°43', 300 feet upstream from bridge on county highway and half a mile southeast of Youngsport, Bell County.

Drainage area.- 1,242 square miles.

Records available.- February 1924 to September 1941.

Average discharge.- 17 years, 302 second-feet.

Extremes.- Maximum discharge during year, 21,400 second-feet Nov. 24 (gage height, 18.55 feet); minimum, 11 second-feet Oct. 11, 12.

1924-41: Maximum discharge, 53,200 second-feet Sept. 28, 1936 (gage height, 33.5 feet, from floodmarks), from rating curve extended above 40,000 second-feet; no flow July 17 to Aug. 18, 1925, July 22, 23 and Aug. 9 to Sept. 8, 1934.

Flood of September 1873 reached a stage of about 44.2 feet, and that of Dec. 2, 1913, reached a stage of 33.6 feet present datum, according to information furnished by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Small diversion above station for municipal supply.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	336	815	1,060	7,760	978	1,170	1,880	f778	f603		a69
2	13	108	702	1,030	6,640	936	1,170	1,810	f740	f569		a63
3	13	51	659	952	2,390	918	1,160	8,580	3,170	901		a60
4	12	35	631	910	1,940	854	995	3,280	1,880	1,190		51
5	12	28	596	902	1,770	800	936	3,090	1,120	596		51
6	12	25	562	878	1,770	4,910	1,150	3,940	952	f436		48
7	13	21	549	838	1,610	2,680	1,730	2,100	927	f554		48
8	12	26	495	808	1,410	1,510	1,090	1,820	927	f298		45
9	13	35	475	770	1,310	1,360	986	1,560	870	f259		51
10	12	48	462	732	1,240	1,230	952	1,510	1,460	315		54
11	11	45	9,540	725	1,160	1,110	f910		1,880	755		54
12	12	37	3,330	702	1,110	1,060	f878		1,120	671		57
13	12	35	1,720	2,610	1,050	1,010	886		961	360		57
14	12	35	1,460	1,740	936	970	894		910	453		54
15	13	35	6,160	1,100	910	970	902	a1,180	894	814		51
16	13	35	3,180	978	894	936	1,140		1,830	950		51
17	13	35	1,990	870	862	1,070	1,370		1,320	336		57
18	13	35	1,770	808	815	2,690	822		740	269		54
19	12	37	1,610	778	800	1,820	822	870	659	238		48
20	12	37	1,460	770	970	1,560	944	862	617	223		48
21	12	42	1,340	748	902	1,460	710	1,980	603	209		45
22	12	915	1,220	718	854	1,340	748	3,100	617	194		42
23	13	11,000	1,140	688	1,560	1,270	1,460	2,430	624	180		42
24	13	13,400	1,030	666	2,700	1,240	2,930	1,310	715	172		45
25	15	9,570	1,050	638	1,360	1,140	1,220	1,120	638	163		45
26	14	4,220	1,590	631	1,240	3,440	3,000	1,050	624	155		42
27	14	1,510	2,210	596	1,140	2,960	4,100	f1,000	1,410	146		42
28	16	1,190	1,460	569	1,040	1,660	4,390	f952	854	138		42
29	23	1,040	1,220	556	-	1,410	2,330	f910	680	131		40
30	30	910	1,130	549	-	1,320	2,040	f970	f631	123		40
31	1,360	-	1,120	590	-	1,260	-	822	-	a112		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,770	1,360	11	57.1	3,510
November.....	44,876	13,400	21	1,496	89,010
December.....	52,726	9,540	462	1,701	104,600
Calendar year 1940	143,746	13,400	11	393	285,100
January.....	26,910	2,610	549	868	53,380
February.....	48,243	7,760	800	1,723	95,690
March.....	47,862	4,910	800	1,544	94,930
April.....	43,835	4,390	710	1,461	86,950
May.....	56,386	8,580	822	1,819	111,600
June.....	31,154	3,170	603	1,038	81,790
July.....	12,311	1,190	112	397	24,420
August.....	6,200	-	-	200	12,300
September.....	1,496	69	40	49.9	2,970
Water year 1940-41	373,769	13,400	11	1,024	741,400

Peak discharge.- Nov. 23 (4 a.m.) 14,300 sec.-ft.; Nov. 24 (5:30 a.m.) 21,400 sec.-ft.; Nov. 25 (5 a.m.) 18,300 sec.-ft.; Dec. 11 (7 p.m.) 18,400 sec.-ft.; Feb. 1 (11 p.m.) 14,700 sec.-ft.; May 3 (8 p.m.) 13,200 sec.-ft.

a No gage-height record; discharge computed from graph based on engineer's notes and weather records.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

San Gabriel River at Georgetown, Tex.

Location.- Water-stage recorder and concrete control, lat. 30°39'10"; long. 97°39'20", 100 feet downstream from Missouri-Kansas-Texas Railroad bridge, 1½ miles downstream from confluence of North and South Forks, and 1½ miles northeast of Georgetown, Williamson County. Datum of gage is 643.34 feet above mean sea level, datum of 1929.

Drainage area.- 415 square miles.

Records available.- July 1934 to September 1941. February 1924 to August 1925 at site 1 mile upstream; records equivalent except those for extremely low flow.

Extremes.- Maximum discharge during year, 30,000 second-feet Nov. 23 (gage height, 16.95 feet); minimum, 1.3 second-feet (regulated) Aug. 18.
1924-25, 1934-41: Maximum discharge, 34,500 second-feet June 30, 1940 (gage height, 18.46 feet), from rating curve extended above 24,000 second-feet; minimum, 0.3 second-foot (regulated) June 9-12, Oct. 28, 29, 1939.
Maximum stage known, 39.36 feet, present datum, September 1921 (discharge, 160,000 second-feet, by slope-area method), according to information furnished by Missouri-Kansas-Texas Railroad Co.

Remarks.- Records good except those for period of no gage-height record, which are fair. Several small diversions have some effect on low flow which is also regulated at times by gates in recreation dam 3,000 feet upstream.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	311	491	545	6,010	320	443	728	282	172	65	29
2	10	76	437	497	1,640	308	413	1,470	265	164	61	28
3	9.5	45	413	491	966	304	621	4,450	4,450	349	59	23
4	9.0	35	398	469	776	282	403	1,070	961	360	62	27
5	9.0	32	380	458	728	279	394	993	448	199	64	26
6	9.0	27	362	443	760	1,340	384	840	418	150	58	26
7	11	24	358	437	658	634	1,230	728	413	152	57	25
8	10	a36	328	418	604	443	418	652	349	152	64	25
9	8.1	a75	316	403	558	408	371	604	320	123	73	26
10	7.6	a48	304	384	527	371	353	571	1,500	130	58	30
11	7.2	a44	4,870	380	497	353	340	545	718	139	53	32
12	7.2	a40	1,380	366	485	353	344	533	432	170	50	32
13	7.2	38	984	1,600	458	340	353	497	375	149	48	30
14	7.6	36	894	1,340	422	324	349	469	325	276	47	27
15	8.1	35	3,220	558	413	332	340	448	324	280	44	26
16	7.6	35	1,560	480	403	320	320	422	489	155	43	30
17	7.6	35	1,110	427	389	648	312	408	344	135	40	32
18	7.6	35	957	398	375	3,360	290	334	308	124	39	29
19	7.6	35	867	384	366	975	300	394	282	123	34	27
20	8.1	36	816	380	371	824	276	384	264	124	36	26
21	8.1	37	752	366	358	712	253	1,020	253	113	36	26
22	8.1	1,880	696	349	371	645	293	870	336	104	35	26
23	7.6	9,850	652	336	483	610	3,300	778	282	100	34	26
24	7.2	10,700	617	332	585	558	645	443	366	95	32	25
25	10	3,460	597	316	408	533	458	394	266	90	32	25
26	18	1,170	820	312	380	741	3,580	362	235	86	31	25
27	14	776	1,080	296	358	688	2,480	340	262	83	30	25
28	30	645	666	286	332	545	1,380	311	228	81	30	25
29	45	584	604	279	-	503	1,350	324	185	75	30	24
30	38	539	571	279	-	485	876	440	182	70	30	24
31	1,160	-	564	276	-	464	-	308	-	67	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,506.0	1,150	7.2	48.6	2,990
November	30,719	10,700	24	1,024	60,930
December	29,064	4,870	304	905	55,660
Calendar year 1940	105,305.8	10,700	2.1	288	208,900
January	14,285	1,600	276	461	28,330
February	20,661	6,010	332	738	40,960
March	19,002	3,360	279	613	37,990
April	22,969	3,580	253	762	45,360
May	22,180	4,450	308	715	43,990
June	15,982	4,480	182	529	31,500
July	4,641	360	67	150	9,210
August	1,404	73	29	45.3	2,780
September	613	32	24	27.1	1,610
Water year 1940-41	182,026.0	10,700	7.2	499	361,000

Peak discharge.- Nov. 23 (2:30 a.m.) 30,000 sec.-ft.; Nov. 24 (1 a.m.) 24,500 sec.-ft.; Feb. 1 (2 p.m.) 18,300 sec.-ft.; Apr. 23 (2 p.m.) 17,100 sec.-ft.; May 3 (1:30 a.m.) 15,300 sec.-ft.; June 3 (6 a.m.) 16,300 sec.-ft.

a No gage-height record; discharge computed from graph based on recorded range in stage and information furnished by local residents.

Yegua Creek near Somerville, Tex.

Location.- Water-stage recorder, lat. 30°19', long. 96°30', at bridge on State Highway 36, 760 feet downstream from Gulf, Colorado & Santa Fe Railway bridge, 2 miles south of Somerville, Burleson County, and 5 miles upstream from Davidson Creek. Datum of gage is 199.29 feet above mean sea level, datum of 1929.

Drainage area.- 990 square miles.

Records available.- May 1924 to September 1941.

Average discharge.- 17 years, 349 second-feet.

Extremes.- Maximum discharge during year, 16,100 second-feet July 13 (gage height, 13.00 feet); no flow Oct. 5, 6, 14, 17-27.

1924-41: Maximum discharge, 56,800 second-feet July 1, 1940 (gage height, 19.27 feet); no flow at times.

Maximum stage known, 22.0 feet, present site and datum, Dec. 5, 1913, according to information furnished by chief engineer, Gulf, Colorado & Santa Fe Railway Co.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	302	1,070	436	122	195	143	2,260	67	175	33	2.5
2	-1	368	404	240	667	144	121	1,700	56	110	29	2.5
3	-1	167	158	160	772	116	137	2,500	49	75	26	2.4
4	-1	46	105	132	758	100	212	3,650	43	60	23	2.1
5	0	672	79	116	556	88	180	4,680	38	141	21	1.8
6	0	1,760	66	104	695	1,850	156	5,060	34	142	20	2.0
7	-1	2,320	502	94	1,020	5,300	151	2,740	374	65	27	3.4
8	-1	325	1,080	85	300	3,070	142	1,550	418	42	51	2.9
9	-1	137	1,130	78	400	727	101	1,070	3,550	34	80	2.4
10	-1	66	822	72	220	220	83	618	4,550	30	64	2.1
11	-1	88	1,390	67	160	150	81	299	7,340	205	60	1.9
12	-1	174	5,540	63	128	120	69	164	8,200	4,350	37	7.8
13	-1	165	8,800	64	105	99	60	155	5,190	14,500	26	9.4
14	0	77	9,760	1,110	88	85	59	187	3,240	11,800	21	13
15	-1	32	7,060	2,570	78	78	50	210	2,230	13,700	18	10
16	-1	20	6,520	2,500	70	76	48	250	1,790	13,700	16	7.0
17	0	16	4,260	1,400	64	96	46	228	1,220	8,590	13	5.3
18	0	13	2,820	822	61	478	43	153	1,150	4,650	11	4.1
19	0	11	2,410	654	58	1,320	41	96	946	2,720	9.4	3.3
20	0	9.2	2,740	470	62	4,880	40	93	771	1,590	8.2	2.5
21	0	8.6	2,330	232	158	4,680	40	92	1,080	869	7.0	1.9
22	0	8.0	1,220	141	440	2,820	52	151	1,310	385	6.0	1.4
23	0	57	510	112	480	1,600	458	228	1,260	164	5.2	1.2
24	0	1,190	235	97	899	1,150	1,400	414	813	111	4.6	3.9
25	0	7,220	166	89	1,260	779	2,260	465	567	85	4.1	3.1
26	0	10,100	189	83	1,400	414	1,870	455	298	70	3.9	1.8
27	0	7,060	933	77	716	364	1,300	440	357	60	3.6	1.3
28	-1	4,880	1,500	70	360	436	1,210	302	555	52	3.2	1.1
29	108	3,160	1,650	64	-	292	1,400	169	390	46	2.9	.9
30	184	1,990	947	60	-	208	1,930	136	256	41	2.8	.8
31	121	-	567	58	-	169	-	100	-	36	2.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	414.5	184	0	13.4	822
November	42,731.8	10,100	8.0	1,424	84,760
December	66,963	9,760	66	2,160	132,800
Calendar year 1940	253,517.2	49,900	0	693	502,800
January	12,318	2,570	58	397	24,430
February	12,587	1,400	58	450	24,990
March	32,102	5,300	76	1,036	63,670
April	13,853	2,260	40	463	27,540
May	30,635	5,080	92	988	60,760
June	48,142	8,200	34	1,605	95,490
July	78,588	14,500	30	2,535	155,900
August	639.6	80	2.7	20.6	1,270
September	105.8	13	.8	3.53	210
Water year 1940-41	339,119.7	14,500	0	929	672,600

Peak discharge.- Nov. 25 (11:30 p.m.) 12,500 sec.-ft.; Dec. 14 (5 a.m.) 10,800 sec.-ft.; June 12 (7 a.m.) 9,120 sec.-ft.; July 13 (4 p.m.) 16,100 sec.-ft.; July 15 (6 p.m.) 15,300 sec.-ft.

Navasota River near Easterly, Tex.

Location.- Water-stage recorder, lat. 31°10'10", long. 96°17'55", at bridge on U. S. Highway 79, 1 mile upstream from bridge of Missouri Pacific Railroad and 6 miles northeast of Easterly, Robertson County. Datum of gage is 276.42 feet above mean sea level, datum of 1929.

Drainage area.- 949 square miles.

Records available.- March 1924 to September 1941.

Average discharge.- 17 years, 442 second-feet.

Extremes.- Maximum discharge during year, 34,300 second-feet Nov. 24 (gage height, 19.58 feet); minimum, 1.9 second-feet Sept. 18.

1924-41: Maximum discharge, 53,200 second-feet Sept. 5, 1932 (gage height, 21.9 feet, from floodmark), from rating curve extended above 35,000 second-feet; no flow at times.

Maximum stage known, about 24.0 feet in 1900, according to information furnished by local residents (discharge, about 71,000 second-feet, from rating curve extended above 35,000 second-feet).

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	8.9	911	854	359	1,180	123	246	35	126	11	78
2	3.4	18	258	329	1,820	388	110	186	35	82	9.4	28
3	3.3	30	174	234	2,810	272	436	130	38	61	8.1	20
4	3.6	16	132	180	4,400	228	716	110	40	49	6.9	16
5	3.4	30	106	160	4,400	198	580	128	49	40	6.7	12
6	3.1	19	94	128	3,000	382	690	192	259	138	6.7	8.3
7	2.9	11	137	115	1,320	730	388	570	258	142	7.2	5.6
8	2.7	8.0	97	106	450	996	234	995	307	116	7.2	3.9
9	2.6	8.7	83	98	298	1,260	204	1,610	790	70	29	4.9
10	2.5	11	74	90	222	3,000	150	2,100	2,510	50	49	4.9
11	2.4	11	234	84	180	2,430	110	996	3,820	42	43	4.4
12	2.4	10	330	80	150	866	87	170	2,740	50	31	5.4
13	2.3	6.6	1,110	86	135	259	77	102	2,590	118	22	3.2
14	2.4	23	1,350	2,270	122	192	70	80	3,910	318	15	2.2
15	2.8	27	1,970	12,800	108	162	64	66	3,220	745	11	2.1
16	11	16	3,840	9,700	102	145	59	56	1,980	1,300	8.3	2.2
17	9.6	11	5,580	4,700	94	148	56	48	1,500	1,630	6.4	2.1
18	4.6	9.6	5,400	2,660	86	610	56	42	1,670	1,100	41	2.1
19	3.5	7.2	3,440	1,160	86	1,250	217	39	1,600	379	62	5.9
20	4.6	5.8	2,000	359	106	1,630	234	46	1,230	131	61	11
21	4.4	4.8	670	222	172	1,100	192	49	776	82	60	6.2
22	3.7	323	250	186	333	660	222	248	182	62	60	4.6
23	3.2	6,650	186	162	812	428	186	492	102	48	47	2.9
24	2.9	29,700	145	150	2,020	316	162	670	85	40	24	30
25	2.7	23,200	215	145	5,310	332	256	742	72	32	88	31
26	2.6	21,700	1,500	145	7,660	444	590	222	62	26	283	83
27	2.6	11,800	5,990	130	4,800	340	750	96	68	23	111	43
28	2.6	6,630	5,400	112	2,760	272	564	71	72	19	75	22
29	2.6	3,960	4,900	101	-	216	219	56	219	17	60	16
30	2.6	2,280	3,230	92	-	180	204	47	210	14	44	13
31	8.5	-	1,980	87	-	145	-	40	-	12	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	115.5	11	2.3	3.73	229
November	110,535.6	29,700	4.8	3,685	219,200
December	52,286	5,990	74	1,687	103,700
Calendar year 1940	195,803.0	29,700	1.1	555	388,300
January	37,695	12,800	80	1,216	74,770
February	44,115	7,660	96	1,576	87,500
March	20,759	3,000	145	670	41,170
April	8,016	750	56	267	15,900
May	10,645	2,100	39	343	21,110
June	30,419	3,910	35	1,014	60,340
July	7,060	1,630	12	228	14,000
August	1,317.8	283	6.4	42.5	2,610
September	484.6	83	2.1	16.2	961
Water year 1940-41	323,448.5	29,700	2.1	896	641,500

Peak discharge.- Nov. 24 (4 p.m.) 34,300 sec.-ft.; Jan. 15 (6 p.m.) 15,100 sec.-ft.; Feb. 26 (12:30 a.m.) 9,400 sec.-ft.

Brazos Valley Irrigation Co.'s canal near Fulshear, Tex.

Location.- Water-stage recorder, lat. 29°39', long. 95°54', 1 mile downstream from point of diversion and 3 miles south of Fulshear, Fort Bend County.

Records available.- October 1931 to September 1941.

Average discharge.- 10 years, 52.6 second-feet.

Extremes.- Maximum daily discharge during year, 329 second-feet Aug. 27; no flow at times.

1931-41: Maximum daily discharge, 339 second-feet May 21, 1939; no flow several months each year.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Station above all diversions from canal. Flow controlled by pumping plant. Canal diverts water from left bank of Brazos River 18 miles above Richmond for irrigation near Sugarland. Discharge shown is water actually pumped from Brazos River into canal.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	110	233	209	100
2								0	110	225	201	100
3								0	167	217	201	100
4								0	217	209	201	96
5								0	225	201	188	154
6								0	233	201	209	201
7								0	53	186	217	201
8								0	0	187	203	201
9								0	0	209	75	201
10								0	0	160	201	201
11								0	a24	181	201	217
12								57	0	a260	209	217
13								77	0	a276	241	165
14								172	0	a147	273	120
15								249	0	a305	273	105
16								249	0	a302	273	0
17								249	11	a304	265	0
18								249	124	a0	265	0
19								249	241	a0	265	0
20								249	281	a0	265	0
21								249	273	221	289	0
22								249	265	182	289	0
23								249	265	136	281	0
24								241	249	217	249	0
25								233	249	225	257	0
26								241	194	225	321	0
27								249	159	225	329	0
28								249	182	217	285	0
29								249	241	217	235	0
30								214	241	217	124	0
31								120	-	217	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1940.....	23,852	275	0	65.2	47,310
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	0	0	0	0	0
May.....	4,343	249	0	140	8,610
June.....	4,114	281	0	137	8,160
July.....	6,104	305	0	197	12,110
August.....	7,195	329	75	232	14,270
September.....	2,379	217	0	79.3	4,720
Water year 1940-41.....	24,135	329	0	66.1	47,870

a No gage-height record; discharge computed on basis of pump records.

Richmond Irrigation Co.'s canal near Richmond, Tex.

Location.- Water-stage recorder, lat. 29°34', long. 95°47', 600 feet downstream from crossing of U. S. Highway 90, 1½ miles downstream from point of diversion, and 1½ miles west of Richmond, Fort Bend County.

Records available.- October 1931 to September 1941.

Average discharge.- 10 years, 29.9 second-feet.

Extremes.- Maximum daily discharge during year, 130 second-feet July 16; no flow at times. 1931-41: Maximum daily discharge, 234 second-feet June 5, 6, 1938; no flow at times.

Remarks.- Records good except those for period of no gage-height record, which are poor. All diversions from canal are below station. Flow controlled by pumping plant. Canal diverts water from right bank of Brazos River 6 miles upstream from Richmond for irrigation south of Richmond.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	0	a100	85	103
2								0	0	83	97	103
3								0	0	60	94	106
4								0	0	37	97	103
5								0	0	2.7	100	103
6								0	0	0	94	106
7								0	0	0	97	109
8								0	0	0	91	106
9								0	0	0	78	77
10								0	0	0	90	62
11								0	0	0	88	49
12								0	0	0	94	17
13								0	0	0	97	19
14								0	0	23	97	17
15								0	0	81	91	83
16								0	0	130	97	48
17								0	0	82	91	15
18								3.0	0	9.2	91	14
19								12	a17	8.9	94	8.2
20								24	a100	20	100	8.2
21								25	a100	123	100	4.6
22								34	a100	97	100	3.4
23								32	a100	97	97	0
24								35	a100	94	97	0
25								46	a92	103	88	0
26								44	a100	103	103	0
27								31	a100	100	112	0
28								80	a100	94	83	0
29								75	a100	81	106	0
30								0	a92	81	106	0
31								0	-	91	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1940.....	12,314.5	126	0	33.6	24,440
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	0	0	0	0	0
May.....	441.0	80	0	14.2	875
June.....	1,101	100	0	36.7	2,180
July.....	1,720.8	130	0	55.5	3,410
August.....	2,948	112	78	95.1	5,850
September.....	1,264.4	109	0	42.1	2,510
Water year 1940-41.....	7,475.2	130	0	20.5	14,820

a No gage-height record; discharge computed on basis of pump records.

Colorado River at Robert Lee, Tex.

Location.- Water-stage recorder, lat. 31°53'05", long. 100°28'45", at bridge on State Highway 208 in Robert Lee, Coke County, half a mile upstream from Mountain Creek. Datum of gage is 1,771.7 feet above mean sea level, datum of 1929, (levels by Bureau of Reclamation).

Drainage area.- 15,770 square miles, of which 11,500 square miles is probably noncontributing.

Records available.- April 1939 to September 1941. September 1915 to September 1920 (October 1918 to October 1920, gage heights only), at site near Bronte, 16 miles downstream; October 1923 to December 1927, at site near Robert Lee, 9 miles downstream. Records equivalent except during periods of local runoff between sites.

Extremes.- Maximum discharge during year, 22,400 second-feet Apr. 17 (gage height, 16.50 feet); no flow Oct. 22-24.

1939-41: Maximum discharge, 31,700 second-feet June 22, 1939 (gage height, 21.70 feet, from graph based on gage readings), by slope-area method; no flow Aug. 3-6, Oct. 22-24, 1940.

Remarks.- Records fair. About 2,200 acres irrigated above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	4.5	35	4.0	466	11	90	166	2,760	112	64	88
2	.6	3.6	27	4.0	478	9.3	62	1,540	1,700	1,340	53	86
3	.2	2.8	21	4.2	172	7.4	43	6,390	a979	2,220	45	72
4	.1	3.0	16	4.0	81	7.4	33	8,560	a380	1,510	38	55
5	a.1	3.4	14	4.0	49	6.3	27	4,290	a296	a790	34	150
6	a.1	2.8	12	3.8	35	6.3	22	1,550	a866	f838	33	172
7	a.1	3.6	11	3.6	28	5.8	19	4710	3,220	a442	42	97
8	a.1	8.0	9.3	3.6	22	5.0	16	a375	f1,980	a430	45	62
9	a.1	8.6	8.6	3.6	17	4.5	14	a195	f863	648	103	58
10	a.1	9.3	8.0	3.4	14	4.0	12	1,770	2,130	369	38	46
11	a.1	10	8.0	3.4	12	3.6	11	2,530	738	1,560	26	41
12	a.1	8.6	8.0	3.4	9.3	3.6	10	931	257	896	23	68
13	a.1	6.3	11	3.6	7.4	3.6	11	357	152	350	23	92
14	a.1	5.2	44	3.4	6.3	3.2	106	216	3,980	186	21	257
15	a.1	4.7	45	3.2	5.8	3.2	5,020	163	3,190	125	69	228
16	a.1	4.2	30	2.8	5.0	3.0	16,700	130	10,400	120	28	331
17	a.1	3.8	17	2.8	4.7	3.8	14,500	112	5,140	90	17	192
18	a.1	3.4	13	2.8	4.5	5.8	f1,890	94	1,700	83	14	97
19	a.1	3.2	11	2.6	4.5	4.7	f885	79	718	70	14	211
20	a.1	3.8	10	2.6	26	4.7	497	70	375	1,800	13	175
21	.1	4.0	8.6	2.4	94	4.7	307	1,270	251	626	13	112
22	0	3.8	7.4	2.4	81	5.0	231	306	195	253	2,200	68
23	0	3.8	6.9	2.4	42	5.2	189	1,940	172	141	968	49
24	197	303	5.8	2.4	28	5.3	158	1,580	322	94	916	41
25	469	144	5.0	2.2	21	4.37	133	3,630	260	310	662	31
26	21	146	5.2	2.0	16	4,950	1,490	2,800	228	618	276	24
27	6.9	77	4.7	2.2	14	3,130	476	2,010	149	613	235	20
28	4.7	52	4.7	2.2	13	1,010	311	f2,340	130	311	422	17
29	3.0	46	4.0	2.4	-	522	334	f1,760	120	191	149	15
30	2.6	42	4.0	2.6	-	251	213	f862	108	120	251	14
31	5.8	-	4.0	4.7	-	144	-	2,730	-	88	146	-

	Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October		713.7	469	0	23.0	1,420
November		934.4	303	2.8	31.1	1,850
December		419.2	45	4.0	13.5	831
Calendar year 1940		48,805.9	12,100	0	133	96,800
January		96.7	4.7	2.0	3.12	192
February		1,756.5	478	4.5	62.7	3,480
March		10,618.1	4,950	3.0	343	21,060
April		43,810	16,700	10	1,460	86,900
May		51,456	8,560	70	1,660	102,100
June		43,749	10,400	108	1,458	86,770
July		17,324	2,220	70	559	34,360
August		6,981	2,200	13	225	13,850
September		2,969	331	14	99.0	5,890
Water year 1940-41		180,827.6	16,700	0	495	358,700

Peak discharge.- Apr. 17 (11 a.m.) 22,400 sec.-ft.; May 4 (7 a.m.) 10,400 sec.-ft.; June 16 (8 a.m.) 15,200 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

Colorado River at Ballinger, Tex.

Location.- Water-stage recorder, lat. 31°43'50", long. 99°56'25", at bridge on U. S. Highway 83 in Ballinger, Runnels County, 2,000 feet upstream from Elm Creek. Datum of gage is 1,593.7 feet above mean sea level, datum of 1929.

Drainage area.- 16,840 square miles, of which about 11,500 square miles is probably non-contributing.

Records available.- June 1907 to September 1941 (June 1907 to November 1915, monthly records only, in Water-Supply Paper 850). U. S. Weather Bureau has collected gage-height records in this vicinity from 1903 to 1929.

Average discharge.- 34 years, 431 second-feet.

Extremes.- Maximum gage height, 20.88 feet May 21 (discharge not determined; affected by backwater from Elm Creek); minimum discharge, 0.9 second-foot Oct. 21.

1907-41: Maximum discharge, 75,400 second-feet Sept. 18, 1936 (gage height, 28.6 feet); no flow at times.

Maximum stage known, about 36.0 feet sometime in 1884, present site and datum, according to information furnished by local residents. A stage of about 32.0 feet occurred Aug. 6, 1906, present site and datum, from floodmarks (affected by backwater from Elm Creek).

Remarks.- Records good except those for periods of no gage-height record and those affected by backwater, which are poor. Small diversions above station for irrigation affect low flow.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.4	18	53	10	249	22	a157	306	c3,580	164	112	185
2	4.8	11	46	11	663	18	a122	4,280	c1,860	239	90	129
3	4.2	7.6	44	10	400	17	103	e17,500	1,700	1,980	79	96
4	3.6	6.0	33	10	200	14	85	10,200	793	1,930	68	96
5	3.6	4.2	30	12	116	13	71	6,810	786	1,190	68	79
6	2.8	4.2	26	11	79	11	58	2,780	3,170	542	63	96
7	2.6	6.0	20	10	58	9.2	49	a1,540	2,230	1,050	56	192
8	2.4	11	19	10	44	9.2	44	a1,180	f2,920	645	58	136
9	2.2	19	18	10	37	8.4	37	a986	f1,340	946	53	150
10	2.0	4.4	16	9.2	31	7.6	33	690	4,360	699	102	239
11	2.0	24	14	8.4	26	6.8	30	3,310	4,820	988	82	109
12	1.9	17	14	7.6	22	6.0	28	a1,440	481	1,530	56	85
13	1.9	11	16	10	18	4.8	24	a554	875	636	44	109
14	1.9	10	a39	10	18	4.2	30	a370	1,260	393	179	150
15	1.8	11	a35	9.2	14	3.6	3,870	a311	4,340	248	170	369
16	1.6	10	a31	7.6	13	3.6	11,000	280	c9,020	182	71	464
17	1.4	9.2	a28	7.6	13	6.0	15,500	239	6,700	164	79	960
18	1.2	8.4	a24	6.0	12	10	8,480	219	2,810	140	49	340
19	1.0	8.4	a20	6.0	12	11	5,180	188	a1,160	122	35	150
20	1.0	7.6	a18	5.4	88	12	1,130	171	a670	953	30	183
21	.9	6.8	18	5.4	119	12	635	e12,500	a487	1,090	28	196
22	1.0	6.8	17	4.8	68	13	436	c5,350	a448	522	159	132
23	1.3	30	14	4.8	129	13	345	3,310	a426	291	2,160	93
24	1.2	492	14	4.8	76	11	280	1,800	a400	186	1,190	82
25	1,140	461	13	5.4	61	165	234	2,670	a360	132	1,290	66
26	358	196	12	4.8	39	3,170	1,190	2,920	a330	330	649	56
27	101	136	12	4.8	31	4,780	3,180	1,970	a298	716	977	46
28	63	109	11	4.8	28	a2,320	2,110	2,630	275	519	4,310	41
29	37	71	10	4.8	-	g865	523	1,700	185	322	495	37
30	31	63	10	4.8	-	a535	458	1,440	154	214	207	37
31	26	-	10	34	-	a275	-	860	-	146	288	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,809.7	1,140	0.9	58.4	3,590
November.....	1,819.2	492	4.2	60.6	3,610
December.....	685	53	10	22.1	1,360
Calendar year 1940.....	80,809.3	11,800	.9	221	160,300
January.....	264.2	34	4.8	8.52	584
February.....	2,659	668	12	95.0	5,270
March.....	12,476.4	4,780	3.6	402	24,750
April.....	55,422	15,500	24	1,847	109,900
May.....	90,493	17,500	171	2,919	179,500
June.....	58,238	9,020	154	1,941	115,500
July.....	19,088	1,980	122	616	37,860
August.....	13,297	4,310	28	429	26,370
September.....	5,103	960	37	170	10,120
Water year 1940-41.....	261,354.5	17,500	.9	716	518,400

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

c Backwater from Elm Creek; discharge computed from graph based on records for Elm Creek at Ballinger.

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

g Computed from graph based on gage readings.

Colorado River at Winchell, Tex.

Location.- Water-stage recorder, lat. 31°28'05", long. 99°09'45", on bridge on State Highway 23, 0.3 mile south of Winchell, Brown County, and 6.2 miles downstream from Home Creek. Datum of gage is 1,264.66 feet above mean sea level, datum of 1929.

Drainage area.- 24,580 square miles, of which about 11,800 square miles is probably non-contributing.

Records available.- January 1939 to September 1941. November 1923 to September 1934 at site near Milburn, 4.2 miles downstream.

Average discharge.- 12 years (1924-34, 1939-41), 869 second-feet.

Extremes.- Maximum discharge during year, 32,700 second-feet May 23, June 7; maximum gage height, 33.64 feet June 7; minimum discharge, 5.1 second-feet Oct. 18, 19, 23, 24, 1923-34, 1939-41; Maximum discharge, 76,100 second-feet Oct. 15, 1930, at site then in use (gage height, 51.8 feet, present site and datum); no flow Aug. 8-10, Sept. 1-5, 1929, Aug. 15-25, 1934.
Maximum stage known, 62.2 feet Sept. 19, 1936, present site and datum, at railway bridge 1,000 feet above present gage, according to information furnished by Gulf, Colorado & Santa Fe Railway engineers.

Remarks.- Records good. Diversions for irrigation and municipal use above station. Flow partly regulated by reservoirs on Concho River.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	138	267	44	584	136	857	1,300	1,180	601	296	680
2	18	88	173	44	227	116	656	3,090	5,210	548	364	656
3	18	76	126	45	288	99	469	17,900	11,300	1,020	342	518
4	15	69	104	45	1,150	86	306	27,800	15,710	4,910	246	425
5	14	56	88	46	728	79	229	20,300	3,680	2,680	186	368
6	14	50	79	44	570	80	184	9,550	11,300	1,650	151	311
7	13	48	74	45	443	79	147	14,020	28,400	1,180	128	219
8	12	49	67	46	293	69	121	2,390	5,850	1,360	109	165
9	9.8	63	62	46	194	64	106	1,680	13,950	1,090	117	623
10	9.0	90	59	46	143	58	91	1,370	3,390	1,740	110	803
11	9.0	69	62	45	119	54	80	2,130	9,440	2,030	123	509
12	8.2	63	62	45	101	50	71	4,160	8,100	1,620	134	606
13	6.7	76	59	49	86	50	64	2,230	12,460	2,060	145	456
14	6.7	91	220	48	76	49	62	1,440	1,400	1,300	159	385
15	6.7	77	358	49	71	49	69	1,060	1,830	971	177	328
16	6.7	64	325	49	67	48	4,630	728	12,100	857	378	272
17	5.9	56	288	46	84	54	12,500	533	12,500	614	496	602
18	5.9	52	254	45	59	110	15,500	438	7,720	412	368	1,120
19	5.9	50	153	48	56	110	9,440	389	3,860	909	252	752
20	5.9	50	114	46	52	110	4,920	798	2,000	531	186	630
21	5.9	54	99	45	166	110	2,020	14,300	1,440	500	132	1,130
22	5.9	59	80	45	427	107	1,060	22,600	1,120	1,510	102	584
23	5.1	165	70	48	968	110	857	14,000	942	1,060	85	526
24	5.1	143	60	48	739	116	623	4,650	830	680	1,650	426
25	8.2	212	55	49	434	213	412	3,110	728	421	1,970	266
26	224	866	54	48	425	4,010	1,070	3,570	728	1298	3,060	212
27	1,260	884	52	45	217	7,790	8,120	3,620	12,100	1234	1,900	167
28	622	562	48	44	165	6,680	15,700	2,790	1,530	435	2,230	138
29	306	438	46	40	-	3,040	6,160	3,060	942	803	5,950	117
30	175	404	44	38	-	1,720	1,860	1,930	575	566	1,500	101
31	136	-	43	40	-	1,150	-	1,760	-	385	857	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,861.6	1,260	5.1	92.3	5,680
November	5,162	884	48	172	10,240
December	3,655	358	43	118	7,260
Calendar year 1940	236,219.6	20,400	5.1	645	468,500
January	1,411	49	38	45.5	2,800
February	8,812	1,150	52	315	17,480
March	26,596	7,790	48	858	52,760
April	88,234	15,700	62	2,942	175,100
May	178,426	27,500	389	5,756	353,900
June	159,395	25,400	575	5,313	316,200
July	34,675	4,910	234	1,128	69,370
August	23,803	5,950	85	768	47,210
September	14,103	1,130	101	470	27,970
Water year 1940-41	547,483.6	27,600	5.1	1,500	1,066,000

Peak discharge.- May 4 (4 p.m.) 30,700 sec.-ft.; May 23 (12:30 a.m.) 32,700 sec.-ft.; June 7 (4 a.m.) 32,700 sec.-ft.

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

Colorado River near San Saba, Tex.

Location.- Water-stage recorder, lat. 31°13'05", long. 98°33'50", at bridge on State Highway 190, 5.2 miles downstream from San Saba River and 9.2 miles east of San Saba, San Saba County. Datum of gage is 1,096.22 feet above mean sea level, datum of 1929.

Drainage area.- 30,600 square miles, of which about 11,800 square miles is probably non-contributing.

Records available.- August 1930 to September 1941. October 1915 to October 1922 at site near Chadwick, 1.2 miles upstream. October 1923 to December 1934 at site near Tow, 4.4 miles downstream.

Average discharge.- 16 years (1916-19, 1920-22, 1930-41), 2,022 second-feet.

Extremes.- Maximum discharge during year, 42,600 second-feet May 6 (gage height, 26.18 feet); minimum, 68 second-feet Oct. 24.

1915-22, 1930-41: Maximum discharge, 224,000 second-feet July 23, 1938 (gage height, 63.2 feet, present site, based on floodmarks at site then in use); minimum observed, 1.5 second-feet Aug. 22, 23, 1915.

Maximum stage known prior to 1938, 58.4 feet, present site, based on floodmarks at former site, Sept. 25, 1900 (discharge, 184,000 second-feet).

Remarks.- Records good. Diversions above station for irrigation and municipal use.

Flow partly regulated by reservoirs on Pecan Bayou and Concho River, having a combined capacity of 151,000 acre-feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	515	640	355	2,560	1,090	2,130	6,900	22,550	1,780	714	1,460
2	113	522	570	368	6,310	930	1,540	5,700	2,080	1,540	600	1,230
3	113	324	447	350	1,920	840	1,420	18,900	7,150	1,500	555	1,000
4	108	264	377	337	990	746	1,300	26,500	12,700	1,730	600	1,090
5	98	227	337	320	1,370	692	1,090	31,500	7,640	5,130	560	960
6	95	210	308	316	1,300	930	990	40,300	5,320	3,360	485	900
7	92	203	287	312	1,200	1,700	930	38,000	9,030	2,400	442	870
8	92	210	272	308	1,090	1,130	840	16,900	22,200	2,040	409	785
9	90	272	260	299	900	1,635	774	5,910	17,300	1,960	381	812
10	85	363	249	291	785	485	730	14,240	5,500	1,950	363	1,420
11	82	377	926	283	686	419	615	13,460	8,240	4,430	355	1,660
12	82	308	1,420	279	625	368	670	3,520	10,200	6,440	346	1,300
13	85	276	650	273	575	359	660	5,230	12,200	2,500	485	1,260
14	85	234	530	283	535	575	485	3,570	4,620	2,800	608	1,160
15	82	217	2,660	295	495	585	570	2,700	3,240	2,080	818	1,020
16	85	220	3,720	324	555	590	900	2,220	10,400	1,740	520	960
17	90	227	1,350	308	615	605	6,020	1,860	17,900	1,660	452	870
18	103	224	900	287	605	1,060	12,900	1,620	15,600	1,380	660	990
19	90	210	719	276	595	1,300	15,800	1,500	12,300	1,200	665	3,210
20	80	206	615	264	595	1,120	14,300	1,380	6,190	2,500	555	3,760
21	80	206	515	256	660	930	7,420	3,540	3,790	1,850	461	2,060
22	75	281	433	256	428	840	3,630	17,600	2,910	1,200	404	2,040
23	70	1,990	390	256	1,480	785	3,060	22,800	2,450	2,060	400	1,380
24	70	9,420	368	260	3,890	812	3,500	25,400	2,260	1,740	372	1,230
25	887	7,390	363	256	3,000	785	1,860	11,800	2,000	1,340	964	1,160
26	736	3,020	372	256	1,960	3,750	2,960	5,100	2,080	1,120	2,020	1,020
27	316	1,190	474	252	1,540	9,490	9,590	4,720	3,600	960	3,650	960
28	716	1,300	612	249	1,300	9,710	30,400	4,360	15,000	768	2,800	840
29	930	930	580	249	-	8,960	26,000	3,360	4,800	555	2,580	785
30	730	708	437	249	-	4,150	17,400	64,190	2,400	909	5,410	736
31	466	-	377	252	-	2,700	-	64,120	-	900	2,150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,942	930	70	224	13,770
November	32,044	9,420	203	1,068	63,560
December	22,358	3,720	249	721	44,350
Calendar year 1941	434,377	21,400	70	1,187	861,600
January	8,922	368	249	288	17,700
February	38,464	6,310	428	1,374	76,290
March	59,071	9,710	359	1,906	117,200
April	170,444	30,400	465	5,681	338,100
May	328,890	40,300	1,380	10,610	652,300
June	233,650	22,200	2,000	7,788	463,400
July	63,492	6,440	555	2,048	125,900
August	31,661	5,410	348	1,021	62,800
September	39,128	3,760	736	1,304	77,610
Water year 1940-41	1,035,066	40,300	70	2,836	2,053,000

Peak discharge.- Apr. 28 (12 m.) 38,400 sec.-ft.; May 6 (11 p.m.) 42,600 sec.-ft.; May 24 (12 m.) 26,700 sec.-ft.; June 8 (10 p.m.) 24,000 sec.-ft.
 f Fragmentary gage-height record; discharge computed from partly estimated gage height.
 g Computed from graph based on one reading daily, furnished by U. S. Soil Conservation Service.

Buchanan Reservoir near Burnet, Tex.

Location.- Selsyn indicator, lat. 30°45'05", long. 98°25'00", at Buchanan Dam on Colorado River, 1 mile upstream from bridge on State Highway 29 and 10 miles west of Burnet, Burnet County. Datum of gage is at mean sea level (levels by Lower Colorado River Authority); add 0.48 foot to reduce to mean sea level, datum of 1929. Elevations herein are to mean sea level (unadjusted).

Drainage area.- 31,250 square miles, of which about 11,800 square miles is probably non-contributing.

Records available.- May 1937 to September 1941.

Extremes.- Maximum contents observed during year, 990,000 acre-feet Mar. 24, June 4; maximum elevation, 1,019.9 feet June 4; minimum contents observed, 629,000 acre-feet Nov. 19-22 (elevation, 1,012.5 feet).

1937-41: Maximum contents, 1,004,000 acre-feet July 27, 1938 (elevation, 1,020.5 feet; several Taintor gates were open); minimum after filling of reservoir in July 1938, 596,000 acre-feet Apr. 5, 1940 (elevation, 1,000.5 feet).

Remarks.- Reservoir is formed by two reinforced concrete multiple arch sections, three banks of Taintor gates, and a 1,088-foot reinforced concrete spillway section. Dam completed and storage began May 20, 1937. Total capacity, 992,000 acre-feet below elevation, 1,020.0 feet, top of spillway section. Usable capacity, 955,000 acre-feet between elevations 937.0 feet (sill of powerhouse penstock) and 1,020.0 feet (top of spillway section). Water below elevation 937.0 feet can be withdrawn through two 5-foot emergency gates down to elevation of 890.0 feet. Figures given herein represent total contents. Records of elevation as furnished are from readings at 8 a.m.; gage read hourly by power-plant operator. Water used for power development and irrigation of rice on several districts below Columbus.

Cooperation.- Records of daily elevation furnished by Lower Colorado River Authority.

Monthly elevation and contents, water year October 1940 to September 1941

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 31.....	1,013.62	850,000	-54,000
Nov. 30.....	1,016.28	909,000	+59,000
Dec. 31.....	1,018.57	960,000	+51,000
Calendar year 1940	-	-	+225,000
Jan. 31.....	1,017.63	937,000	-23,000
Feb. 28.....	1,019.49	980,000	+43,000
Mar. 31.....	1,019.31	976,000	-4,000
Apr. 30.....	1,019.01	969,000	-7,000
May 31.....	1,019.07	971,000	+2,000
June 30.....	1,019.46	980,000	+9,000
July 31.....	1,018.60	960,000	-20,000
Aug. 31.....	1,017.29	931,000	-29,000
Sept.30.....	1,017.40	933,000	+2,000
Water year 1940-41	-	-	+29,000

† Elevation at 8 a.m.

Marshall Ford Reservoir near Austin, Tex.

Location.- Mercury pressure gage, lat. 30°23'20", long. 97°54'35", in powerhouse at dam on Colorado River, 7.3 miles downstream from Sandy Creek and 12 miles northwest of Austin, Travis County. Prior to Dec. 26, staff gage at same site and datum. Datum of gage is at mean sea level (levels by U. S. Bureau of Reclamation); add 0.12 foot to reduce to mean sea level, datum of 1929. Elevations herein are to mean sea level.

Drainage area.- 37,900 square miles, of which about 11,800 square miles is probably non-contributing.

Records available.- September 1940 to September 1941.

Extremes.- Maximum contents observed during period, 363,000 acre-feet June 9 (elevation, 618.0 feet).

Remarks.- Records good. Reservoir is formed by concrete gravity-type dam. Storage began Sept. 9, 1940, dam completed in early part of 1942. Total capacity, 1,950,000 acre-feet below elevation, 714.0 feet, top of spillway. Usable capacity, 1,889,000 acre-feet between elevations 552.0 feet (sill of powerhouse penstock) and 714.0 feet (top of spillway). Water below 552.0 feet can be withdrawn through 24 8½-foot diameter Paradox gates down to elevation of 535.8 feet. Figures given herein represent total contents. Records of elevation as furnished are from readings at 8 a.m.; gage read hourly by power-plant operator. Water used for power development and for irrigation of rice in several districts below Columbus, Tex.

Cooperation.- Records of daily elevation furnished by Lower Colorado River Authority.

Monthly elevation and contents, water year October 1940 to September 1941

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30.....	550.7	52,300	-
Oct. 31.....	548.2	47,800	-4,500
Nov. 30.....	595.5	211,000	+163,000
Dec. 31.....	615.0	339,000	+128,000
Calendar year 1940	-	-	-
Jan. 31.....	614.0	331,000	-8,000
Feb. 28.....	614.9	338,000	+7,000
Mar. 31.....	614.0	331,000	-7,000
Apr. 30.....	614.5	335,000	+4,000
May 31.....	613.0	323,000	-12,000
June 30.....	614.0	331,000	+8,000
July 31.....	612.0	316,000	-15,000
Aug. 31.....	615.4	342,000	+26,000
Sept.30.....	614.7	337,000	-5,000
Water year 1940-41	-	-	+284,000

† Elevation at 8 a.m.

Colorado River at Austin, Tex.

Location.- Water-stage recorder, lat. 30°14'40", long. 97°41'20", at southeast edge of Austin, Travis County, at Montopolis bridge on U. S. Highway 290, 2.8 miles upstream from Walnut Creek, 3.8 miles downstream from Waller Creek, and 5 miles downstream from Barton Creek. Datum of gage is 407.3 feet above mean sea level, datum of 1929.

Drainage area.- 38,160 square miles, of which about 11,800 square miles is probably non-contributing.

Records available.- February 1898 to September 1941. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 43 years, 2,780 second-feet.

Extremes.- Maximum discharge during year, 47,600 second-feet (partly regulated) Apr. 29 (gage height, 18.55 feet); minimum, 464 second-feet Aug. 10 (regulated); minimum daily, 702 second-feet Aug. 10.

1898-1941: Maximum discharge, 481,000 second-feet June 15, 1935 (gage height, 45.0 feet, present site and datum, from floodmark); minimum, 13 second-feet Aug. 18, 1918.

Maximum stage known, 46.0 feet (revised), present site and datum, July 7, 1899 (adjusted to present site on basis of records for flood of June 15, 1935), determined from information concerning stage at former site furnished by Prof. T. U. Taylor.

Remarks.- Records good. Flow partly regulated by Marshall Ford and Buchanan Reservoirs (see page 100), and smaller reservoirs, having a combined capacity of 3,130,000 acre-feet. About 36,000 acres irrigated above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,050	1,500	1,450	1,920	5,600	2,820	8,500	39,800	2,840	5,140	2,350	1,020
2	1,090	1,460	1,440	3,770	19,000	2,120	3,590	15,600	2,540	4,550	1,850	1,170
3	1,260	1,930	1,510	2,770	9,040	2,770	4,370	17,000	2,700	4,700	1,080	1,280
4	1,360	1,860	1,640	1,660	5,020	3,220	3,480	33,700	4,740	4,250	1,630	1,410
5	1,290	1,370	1,460	2,210	3,000	3,060	3,250	39,300	10,100	3,720	1,900	1,350
6	984	1,130	1,360	2,010	2,080	6,920	4,120	40,000	9,820	4,250	1,810	1,090
7	1,040	1,190	1,330	2,250	2,400	17,400	5,000	40,400	24,300	3,800	1,440	1,690
8	1,120	1,350	1,410	2,500	2,520	13,000	3,340	40,000	9,610	4,700	1,150	1,820
9	1,150	1,720	1,270	2,040	4,060	4,770	2,460	28,000	21,700	5,320	1,030	2,230
10	1,170	2,040	1,580	2,020	5,000	2,630	3,070	10,800	26,400	4,850	702	1,700
11	1,570	1,390	2,660	2,830	5,000	2,820	3,410	9,160	25,700	4,550	1,330	1,930
12	882	1,690	2,130	2,620	3,140	3,460	3,950	9,420	17,200	4,400	1,230	1,510
13	990	1,340	1,900	2,570	3,220	3,150	3,320	8,290	9,800	3,950	1,290	2,080
14	1,100	1,300	1,740	2,250	3,110	2,900	2,810	4,250	7,590	5,130	1,390	1,570
15	1,650	1,540	7,880	2,930	3,130	1,950	3,350	4,100	4,400	5,400	1,090	2,040
16	1,150	1,550	20,700	3,910	2,860	1,240	3,540	6,730	7,440	6,010	1,120	2,380
17	1,250	1,360	9,780	2,310	3,250	2,250	6,480	6,800	16,100	5,020	979	1,400
18	1,250	1,360	7,000	2,960	3,320	4,510	8,410	3,700	17,700	5,310	990	1,550
19	1,400	1,420	5,230	1,960	3,320	11,300	11,500	3,650	15,800	4,700	1,720	1,710
20	894	1,490	5,100	1,780	3,340	11,400	12,900	8,110	14,500	4,250	1,630	1,350
21	1,320	1,500	3,690	2,550	3,340	5,590	11,400	9,320	7,420	4,250	1,820	1,150
22	1,760	1,790	3,600	2,650	3,250	4,850	16,400	17,700	4,400	4,850	1,320	1,540
23	2,100	2,200	4,060	2,080	5,480	13,600	13,600	22,400	3,770	4,700	1,420	2,420
24	2,190	3,560	2,260	1,900	3,140	4,700	5,170	22,700	5,320	4,700	1,010	2,290
25	1,920	2,360	2,970	1,870	3,960	3,080	6,220	22,700	5,180	5,000	1,120	2,470
26	1,510	1,670	2,740	2,370	3,750	5,720	11,500	18,000	5,190	4,850	1,120	2,400
27	930	1,630	3,770	2,180	3,310	11,900	21,100	8,970	5,160	4,400	1,860	2,690
28	2,190	1,480	5,410	2,040	3,250	11,700	35,800	4,250	4,600	3,800	2,100	1,770
29	1,870	1,510	5,900	2,300	-	11,400	45,200	4,250	4,660	2,890	1,870	2,060
30	1,850	1,480	3,950	2,170	-	11,700	45,200	4,250	3,950	2,700	1,250	2,290
31	1,120	-	3,360	2,450	-	12,300	-	4,100	-	2,980	1,160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	42,400	2,190	882	1,368	84,100
November	49,170	3,560	1,130	1,639	97,530
December	120,280	20,700	1,270	3,880	238,600
Calendar year 1940	755,826	28,100	248	2,065	1,499,000
January	72,380	3,910	1,450	2,335	143,600
February	118,660	19,000	2,080	4,238	235,400
March	192,110	17,400	1,240	6,197	381,000
April	312,540	45,200	2,460	10,420	619,900
May	507,350	40,400	3,650	16,370	1,006,000
June	299,320	26,400	2,540	9,977	593,700
July	139,050	6,010	2,700	4,485	275,800
August	43,771	2,360	702	1,412	86,820
September	53,640	2,690	1,020	1,795	106,800
Water year 1940-41	1,950,871	45,200	702	5,345	3,869,000

Peak discharge.- Apr. 29 (9 p.m.) 47,600 sec.-ft.; Apr. 30 (11 p.m.) 46,800 sec.-ft.; May 7 (12:30 a.m.) 41,100 sec.-ft.; June 7 (3:30 a.m.) 45,200 sec.-ft.
 a No gage-height record; discharge computed on basis of graph from two gage readings daily and record of operation of power plant about 8 miles upstream, furnished by Lower Colorado River Authority.

Colorado River at Smithville, Tex.

Location.- Water-stage recorder, lat. 30°01', long. 97°10', 1,200 feet upstream from bridge on State Highway 71 at Smithville, Bastrop County, and 3.7 miles downstream from Alum Creek. Datum of gage is 270.14 feet above mean sea level, datum of 1929.

Drainage area.- 39,650 square miles, of which about 11,800 square miles is probably non-contributing.

Records available.- July 1930 to September 1941. U. S. Weather Bureau has collected gage-height records in this vicinity since 1920.

Average discharge.- 11 years, 3,892 second-feet.

Extremes.- Maximum discharge during year, 93,700 second-feet June 8 (gage height, 24.27 feet); minimum, 833 second-feet (regulated) Oct. 22.

1930-41: Maximum discharge, 305,000 second-feet June 16, 1935 (gage height, 42.5 feet, from floodmarks), by slope-area method; minimum, 76 second-feet Nov. 2, 1934.

Maximum stage known, about 47.4 feet sometime in December 1913, according to information from local residents.

Remarks.- Records good. Many diversions above station for irrigation and municipal uses. Regulation same as that for Colorado River at Austin.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,180	2,940	1,650	3,390	2,540	3,480	13,400	47,400	4,700	4,600	3,090	1,440
2	1,240	1,900	1,590	2,600	12,800	3,090	9,320	36,600	3,820	5,770	2,680	1,110
3	1,160	1,560	1,500	3,730	15,500	2,620	5,970	27,200	2,740	5,370	2,220	1,140
4	1,180	2,030	1,480	2,940	6,780	2,610	5,770	29,000	3,020	5,770	1,840	1,250
5	1,370	2,680	1,550	2,220	5,670	3,320	4,500	37,900	4,500	4,980	1,440	1,440
6	1,430	1,960	1,600	2,290	3,820	3,320	3,980	40,800	9,650	4,160	2,220	1,480
7	1,380	1,480	2,290	2,290	2,880	9,850	4,700	40,200	57,200	4,600	2,160	1,420
8	920	1,270	1,900	2,360	2,620	15,800	5,770	40,200	59,600	4,160	2,420	1,260
9	1,130	1,360	1,350	2,550	2,740	10,100	3,980	40,200	16,300	4,980	1,680	1,840
10	1,150	1,730	1,320	2,220	3,980	5,670	3,240	24,000	24,700	5,770	1,360	2,030
11	1,170	2,100	4,710	2,100	5,170	3,160	3,320	15,700	41,400	5,570	1,200	1,900
12	1,300	1,960	19,000	2,550	5,370	3,160	3,640	15,100	23,600	9,860	1,190	1,900
13	1,380	1,840	7,360	2,810	3,560	3,730	4,160	12,100	17,200	6,880	1,390	1,840
14	1,030	1,440	3,620	9,660	3,390	3,390	3,980	9,910	11,600	4,970	1,360	1,960
15	960	1,390	9,650	5,930	3,240	3,160	2,880	5,770	8,990	11,600	1,500	1,960
16	1,500	1,420	30,700	3,090	3,240	2,620	3,390	4,980	7,630	9,260	1,420	1,840
17	1,380	1,540	18,900	3,900	3,020	2,290	3,820	7,630	12,500	7,840	1,300	2,360
18	1,260	1,540	10,000	3,390	3,160	7,290	6,470	7,630	17,100	5,970	1,270	1,630
19	1,250	1,380	7,840	2,940	3,320	13,100	9,460	4,700	17,400	5,700	1,080	1,730
20	1,370	1,370	5,670	2,290	3,390	13,900	11,600	9,940	16,000	5,170	1,310	1,520
21	1,420	1,480	4,980	3,900	3,390	12,900	12,900	9,080	15,000	4,600	1,900	1,720
22	910	2,730	3,900	2,420	3,390	7,630	11,900	14,600	11,100	4,160	1,670	1,520
23	1,460	10,700	3,560	2,480	3,820	6,170	21,200	19,600	6,670	4,980	1,770	1,250
24	1,900	6,750	4,070	2,220	5,370	6,370	18,900	21,100	5,570	4,790	1,480	2,160
25	2,360	16,100	2,620	1,900	4,160	5,970	8,300	21,100	6,370	4,790	1,440	2,480
26	2,100	5,660	2,740	1,770	4,320	4,600	9,440	20,800	6,590	5,170	1,130	2,440
27	2,050	2,680	3,160	2,220	4,070	9,470	22,300	16,800	7,210	4,980	1,160	2,480
28	1,680	2,100	3,980	2,290	3,640	13,100	27,400	9,520	6,370	4,500	1,390	2,580
29	1,490	1,900	5,170	2,030	-	13,100	43,800	5,570	5,770	3,820	2,030	2,480
30	2,030	1,730	5,970	2,220	-	12,600	49,400	5,170	5,770	3,090	1,960	1,840
31	2,620	-	4,160	11,960	-	12,900	-	4,980	-	2,680	1,770	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	44,740	2,620	910	1,443	88,740
November	86,920	16,100	1,270	2,897	172,400
December	177,880	30,700	1,320	5,738	352,800
Calendar year 1940	970,333	46,900	418	2,651	1,925,000
January	88,660	9,660	1,770	2,860	176,900
February	130,250	15,500	2,540	4,652	258,300
March	220,370	16,800	2,290	7,109	437,100
April	338,890	49,400	2,880	11,300	672,200
May	604,180	47,400	4,700	19,490	1,198,000
June	435,860	59,600	2,740	14,530	864,500
July	170,540	11,600	2,680	5,501	338,300
August	51,820	3,090	1,080	1,672	102,800
September	54,100	2,680	1,110	1,803	107,300
Water year 1940-41	2,404,200	59,600	910	6,587	4,768,000

Peak discharge.- Apr. 30 (12:30 a.m.) 50,800 sec.-ft.; June 8 (3:30 a.m.) 93,700 sec.-ft.; June 11 (1 p.m.) 45,000 sec.-ft.

h Computed from wire-weight gage reading.

Colorado River at La Grange, Tex.

Location.- Wire-weight gage, lat. 29°53'45", long. 96°52'15", on bridge on U. S. Highway 77 in La Grange, Fayette County, 1.2 miles downstream from Buckner Creek. Datum of gage is 211.23 feet above mean sea level, datum of 1929.

Drainage area.- 40,200 square miles, of which about 11,800 square miles is probably noncontributing.

Records available.- July and August 1938 (flood, discharge measurements only), November 1938 to September 1941.

Extremes.- Maximum discharge observed during year, 104,000 second-feet June 8 (gage height, 25.6 feet); minimum observed, 846 second-feet Oct. 23 (regulated).
 1938-41: Maximum discharge observed, 182,000 second-feet June 30, 1940 (gage height, 40.18 feet); minimum observed, 430 second-feet Mar. 7, 1940 (regulated).
 Maximum stage known, about 56.7 feet probably July 9, 1869 (from marble high-water marker in La Grange). Data on other floods are as follows: Dec. 5, 1913, stage 56.4 feet, from floodmarks (discharge not determined); June 17, 1935, stage 50.84 feet, from floodmarks (discharge, 255,000 second-feet from rating curve extended as a straight line above 200,000 second-feet); July 27, 1938, stage 42.95 feet, observed (discharge, 200,000 second-feet).

Remarks.- Records good. Gage read twice daily and oftener during periods of rapidly changing stage. Diversions above station for irrigation and municipal supply. Regulation same as that for station at Austin.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,240	6,830	2,020	4,700	2,840	4,220	13,400	47,300	5,980	5,180	3,260	1,490
2	1,160	3,590	1,860	4,380	3,080	3,980	12,500	41,800	5,500	5,340	3,340	1,400
3	1,120	2,140	1,800	3,020	18,800	3,680	8,400	36,500	3,900	5,660	2,660	1,200
4	1,120	2,230	1,690	4,220	11,300	2,950	7,000	29,100	5,500	5,660	2,260	1,280
5	1,160	18,600	1,690	3,660	7,000	3,580	5,980	39,000	4,380	5,980	1,860	1,280
6	1,280	9,710	1,800	2,730	6,150	7,860	5,180	42,900	8,770	4,700	2,520	1,360
7	1,280	2,590	3,660	3,100	4,540	6,610	5,660	41,800	49,200	4,700	3,020	1,440
8	1,200	1,690	3,590	2,880	3,600	15,700	5,820	41,800	94,200	4,380	2,660	1,400
9	914	1,580	1,860	3,100	3,500	14,500	5,180	42,400	22,900	4,540	2,390	1,440
10	1,080	1,540	1,640	3,100	3,740	7,510	4,540	31,100	27,800	5,660	1,740	1,690
11	1,080	1,960	5,060	2,800	5,500	5,180	3,900	16,200	58,600	6,320	1,540	1,960
12	1,120	2,800	27,000	2,730	5,980	3,980	4,060	22,100	35,400	12,100	1,320	1,800
13	1,280	1,860	15,900	3,580	5,180	3,900	4,540	13,900	22,100	15,200	1,490	1,860
14	1,160	1,800	6,320	10,900	4,060	4,060	5,020	12,900	15,600	12,500	1,540	1,740
15	1,080	1,490	11,500	13,500	3,980	3,980	4,060	8,040	12,000	10,900	1,440	1,860
16	1,360	1,440	35,100	4,380	3,820	3,820	3,820	6,320	10,300	12,700	1,580	1,800
17	1,360	1,540	22,100	4,060	3,740	3,820	4,060	7,510	11,600	10,100	1,440	1,960
18	1,160	1,640	13,400	4,540	3,500	6,430	4,700	9,310	19,400	8,220	1,320	2,320
19	1,120	1,540	9,800	3,980	3,820	16,800	5,410	7,340	21,700	6,490	1,280	2,080
20	1,120	1,440	9,500	3,580	3,980	16,800	9,900	7,390	19,400	6,320	1,200	1,580
21	1,240	1,440	7,000	2,730	3,980	14,700	12,500	12,700	16,800	5,660	1,540	1,640
22	1,200	1,580	5,660	2,460	4,060	9,760	19,200	12,400	12,900	4,860	1,640	1,540
23	921	8,300	4,860	2,950	4,700	7,000	27,400	24,100	9,500	5,180	1,690	1,440
24	1,540	24,200	5,020	2,950	7,340	6,320	29,800	25,000	6,490	5,180	1,540	1,440
25	1,800	41,000	4,700	2,590	5,820	6,830	11,500	24,600	6,150	5,500	1,440	2,260
26	1,800	12,600	5,340	2,390	4,860	6,150	9,490	24,600	7,170	5,340	1,320	2,320
27	1,800	5,020	6,830	2,520	5,020	7,510	20,100	21,300	7,000	5,500	1,240	2,520
28	2,220	3,180	5,980	2,730	4,540	11,800	26,400	13,200	7,340	5,020	1,240	2,520
29	7,950	2,460	5,800	2,660	-	12,900	39,000	7,680	6,830	4,540	1,080	2,950
30	2,950	2,140	7,340	2,460	-	13,200	50,000	6,660	5,980	3,980	1,280	2,200
31	5,760	-	5,660	2,590	-	12,700	-	6,320	-	3,100	1,640	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	52,575	7,950	914	1,695	104,300
November.....	169,920	41,000	1,440	5,664	337,000
December.....	241,160	35,100	1,540	7,779	478,300
Calendar year 1940.....	1,300,309	124,000	457	3,553	2,579,000
January.....	117,970	13,500	2,390	3,805	254,000
February.....	154,330	18,800	2,840	5,512	306,100
March.....	249,210	16,800	2,950	8,007	492,300
April.....	371,520	50,000	3,820	12,380	736,900
May.....	683,270	47,300	6,320	22,040	1,355,000
June.....	540,390	94,200	3,900	18,010	1,072,000
July.....	206,510	15,200	3,100	6,662	409,600
August.....	55,510	3,340	1,080	1,791	110,100
September.....	53,670	2,950	1,200	1,789	106,500
Water year 1940-41.....	2,895,035	94,200	914	7,932	5,742,000

Colorado River at Columbus, Tex.

Location.- Water-stage recorder, lat. 29°42'20", long. 96°32'05", on bridge on U. S. Highway 90 at eastern edge of Columbus, Colorado County, 340 feet downstream from Texas & New Orleans Railroad bridge and 2.6 miles downstream from Cummins Creek. Datum of gage is 155.57 feet above mean sea level (preliminary figure).

Drainage area.- 40,840 square miles, of which about 11,800 square miles is probably noncontributing.

Records available.- January 1903 to December 1911, May 1916 to November 1930, May 1939 to September 1941. September 1930 to June 1939 at site near Eagle Lake, 23 miles downstream. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 23 years (1904-11, 1916-30, 1939-41), 3,428 second-feet.

Extremes.- Maximum discharge during year, 136,000 second-feet Nov. 24 (gage height, 35.40 feet); minimum, 1,050 second-feet Oct. 24 (regulated).

1903-11, 1916-30, 1939-41: Maximum discharge, 152,000 second-feet July 1, 1940 (gage height, 36.2 feet); minimum observed, about 80 second-feet Sept. 9, 10, 1910.

Maximum stage known, 41.6 feet, present datum, in July 1869 and on Dec. 6, 1913, according to information furnished by local resident. River divided each time and left Columbus on an island. Data on other floods are as follows: June 18, 1935, stage 38.5 feet, present datum, furnished by U. S. Weather Bureau (discharge, 190,000 second-feet, computed on basis of records for station near Eagle Lake, 23 miles downstream); July 29, 1938, stage 38.4 feet, present datum, furnished by U. S. Weather Bureau (discharge, 175,000 second-feet, computed on basis of records for station near Eagle Lake).

Remarks.- Records fair. Diversions above station for irrigation and municipal supply. Regulation same as that for station at Austin.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	gl. 460	9,770	2,550	4,660	2,810	4,050	13,100	44,800	6,220	6,030	3,140	1,930
2	gl. 310	4,470	2,350	4,050	8,820	3,810	13,400	43,600	5,690	4,920	3,360	1,660
3	gl. 270	2,800	2,160	3,580	17,200	3,580	10,300	48,000	4,920	5,690	3,250	1,500
4	gl. 310	2,020	2,060	3,690	13,900	3,140	6,350	g34,600	4,170	5,690	2,810	1,340
5	gl. 270	19,900	1,980	3,690	8,800	2,810	5,220	g40,600	4,660	5,690	2,550	1,340
6	gl. 270	20,200	1,980	3,140	6,980	6,890	4,290	g44,000	4,790	5,520	2,350	1,460
7	gl. 340	4,900	2,330	2,750	6,080	18,800	4,290	g45,400	30,000	4,410	5,470	1,580
8	gl. 340	2,450	4,170	2,920	4,170	13,600	4,790	g41,600	86,100	4,660	4,590	1,580
9	gl. 270	1,930	3,050	2,760	3,470	16,600	5,520	40,400	43,900	4,410	3,360	1,580
10	gl. 160	1,750	2,020	2,920	3,470	10,500	4,170	37,600	23,700	4,790	2,600	1,750
11	gl. 230	1,990	5,410	2,760	4,050	7,170	3,810	22,400	54,000	12,900	2,060	1,930
12	1,230	2,650	35,800	2,500	5,220	4,790	3,690	23,100	43,600	20,000	1,880	2,060
13	1,230	2,300	28,900	2,560	5,690	4,290	4,060	18,800	22,900	21,200	1,660	1,840
14	1,380	1,700	10,900	15,000	4,280	4,530	4,530	18,600	18,000	22,100	1,840	1,930
15	1,270	1,620	15,800	14,300	3,690	4,410	4,790	12,400	14,000	12,200	1,800	1,840
16	1,160	1,420	27,600	7,600	3,690	4,170	3,690	8,180	14,000	14,600	1,800	2,060
17	1,120	1,380	24,300	4,410	3,690	4,050	3,810	6,980	12,800	11,800	1,840	1,930
18	1,420	1,420	17,100	4,530	3,690	6,850	4,170	9,990	16,600	9,210	1,660	2,110
19	1,310	1,420	11,100	4,410	3,690	15,700	5,870	9,690	20,700	6,790	1,660	2,160
20	1,270	1,580	16,800	3,810	3,690	21,100	8,730	6,800	16,400	6,220	1,540	1,660
21	1,270	1,310	9,760	3,360	3,810	16,700	20,100	12,400	20,400	5,860	1,500	1,620
22	1,340	1,340	6,790	2,810	3,690	14,000	23,100	13,200	17,000	5,220	1,890	1,660
23	1,270	1,930	5,070	2,920	4,320	9,450	38,700	20,400	12,900	4,560	1,680	1,620
24	1,160	75,300	4,530	3,140	8,250	7,590	40,800	22,300	8,380	5,370	1,930	1,540
25	1,540	79,400	4,790	3,030	7,200	7,170	18,600	23,000	6,030	5,370	1,700	1,620
26	1,880	28,800	4,470	2,700	4,950	6,600	9,690	23,000	8,780	5,220	1,660	2,300
27	2,020	9,370	10,200	2,500	4,410	7,860	20,300	22,200	12,000	5,370	1,500	2,250
28	1,980	4,720	8,450	2,600	4,410	11,500	27,600	16,500	8,490	5,520	1,420	2,400
29	14,700	3,360	4,790	2,810	-	13,400	33,800	11,500	7,170	4,920	1,450	2,500
30	6,090	2,920	5,660	2,650	-	13,100	44,700	7,580	6,410	4,290	1,840	2,660
31	4,760	-	6,810	2,650	-	12,200	-	6,300	-	3,810	2,060	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	63,630	14,700	1,120	2,053	126,200
November	295,920	79,400	1,310	9,864	586,900
December	287,680	35,800	1,980	9,280	570,600
Calendar year 1940	1,540,373	142,000	506	4,209	3,055,000
January	127,110	15,000	2,500	4,100	252,100
February	187,790	17,200	2,810	5,635	313,000
March	230,310	21,100	2,810	9,042	556,000
April	395,960	44,700	3,690	13,200	785,400
May	729,590	48,000	6,600	23,540	1,447,000
June	557,610	86,100	4,170	18,590	1,106,000
July	244,440	22,100	3,810	7,885	484,800
August	70,050	5,470	1,420	2,260	138,900
September	56,400	2,650	1,340	1,847	109,900
Water year 1940-41	3,265,490	86,100	1,120	8,947	6,477,000

Peak discharge.- Nov. 24 (5:30 p.m.) 136,000 sec.-ft.; June 8 (9 p.m.) 89,500 sec.-ft.; June 11 (1 p.m.) 60,800 sec.-ft.

g Computed from graph based on gage readings furnished by U. S. Weather Bureau.

Colorado River at Wharton, Tex.

Location.- Wire-weight gage, lat. 29°18'30", long. 96°06'15", on bridge on U. S. Highway 96 in Wharton, Wharton County, 1,000 feet downstream from Texas & New Orleans Railroad bridge and 12 miles upstream from Jones Creek. Datum of gage is 65.42 feet above mean sea level, datum of 1929.

Drainage area.- 41,150 square miles, of which about 11,800 square miles is probably noncontributing.

Records available.- July 1916 to September 1925, July and August 1938 (flood, discharge measurements only), October 1938 to September 1941. U. S. Weather Bureau has collected gage-height records in this vicinity since 1935.

Extremes.- Maximum discharge observed during year, 92,000 second-feet Nov. 26 (gage height, 35.20 feet); minimum observed, 915 second-foot Aug. 22 (affected by pumping). 1919-25, 1938-41: Maximum discharge observed, 100,000 second-foot July 3, 1940 (gage height, 35.99 feet); no flow Aug. 6, 1925 (affected by pumping).

Maximum stage known, 38.9 feet, present datum, Dec. 8, 1913, according to information furnished by local residents; below Wharton floodwater combined with floodwater of Brazos River. Flood of about July 12, 1869, reached about same height.

Flood of June 20, 1935, reached a stage of 38.2 feet, present datum (discharge, 159,000 second-feet, from rating curve extended above 145,000 second-feet), furnished by U. S. Weather Bureau. Flood of July 30, 1938, reached a stage of 37.4 feet, present datum, observed by Geological Survey engineers (discharge, 145,000 second-feet).

Remarks.- Records fair. Diversions above station for irrigation and municipal supply. Regulation same as that for station at Austin, Tex.

Cooperation.- Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,670	6,600	3,990	7,120	3,120	4,650	12,500	46,800	6,060	7,120	3,980	1,990
2	1,640	9,420	3,540	5,580	3,820	4,280	12,900	46,800	5,700	6,570	3,620	1,830
3	1,480	5,700	3,200	4,850	11,100	4,070	12,900	47,100	5,280	5,700	3,710	1,640
4	1,370	4,260	2,940	4,460	15,600	3,890	9,800	48,300	4,450	6,310	3,540	1,410
5	1,370	7,240	2,790	4,460	13,300	3,620	7,260	39,300	3,980	5,820	3,200	1,190
6	1,340	27,300	2,600	4,460	8,170	3,540	6,440	44,300	4,250	5,820	2,940	1,160
7	1,340	15,000	2,600	3,980	7,260	16,800	5,700	44,100	7,340	5,580	3,030	1,220
8	1,410	5,900	2,860	3,620	6,180	13,900	5,700	41,800	38,400	4,750	7,650	1,410
9	1,450	3,890	4,160	3,710	4,650	15,400	5,820	41,200	59,800	4,950	5,630	1,640
10	1,410	3,200	3,620	3,540	3,980	14,700	6,180	40,600	42,200	4,650	4,070	1,750
11	1,220	2,940	2,940	3,620	3,890	8,490	5,050	36,900	29,500	6,260	3,370	1,870
12	1,260	3,030	14,800	3,540	4,250	6,440	4,450	19,600	49,500	23,800	2,690	2,030
13	1,300	3,620	39,300	3,370	5,150	5,050	4,160	20,800	40,700	21,000	2,350	2,190
14	1,300	3,460	27,200	6,120	5,360	4,550	4,250	14,200	23,400	27,100	1,950	1,990
15	1,370	2,860	13,700	17,000	4,450	4,650	4,550	12,200	16,000	18,700	1,670	2,030
16	1,410	2,690	27,000	14,400	4,070	4,650	4,750	9,330	13,100	13,700	1,480	2,690
17	1,220	2,520	31,900	7,220	3,980	4,550	4,070	6,570	13,900	14,800	1,300	2,690
18	1,160	2,350	24,300	4,950	3,890	5,940	3,980	6,180	12,700	12,000	1,300	2,350
19	1,450	2,350	17,000	4,850	3,890	13,200	4,250	8,010	17,300	9,690	2,220	2,190
20	1,450	2,440	15,600	4,750	3,800	23,700	5,770	7,400	19,300	7,700	1,160	2,440
21	1,370	2,350	17,900	4,350	3,980	22,300	9,720	6,180	19,300	7,120	1,080	1,910
22	1,340	2,270	10,600	3,890	3,980	16,900	26,100	11,100	19,300	6,440	948	1,790
23	1,450	2,270	7,400	3,540	3,980	12,200	34,700	12,700	15,000	5,700	1,190	1,910
24	1,450	13,200	6,060	3,460	5,940	8,820	44,700	19,300	11,800	5,050	1,620	2,110
25	1,220	63,300	5,580	3,620	8,010	7,550	39,600	20,100	8,490	5,360	1,620	1,870
26	1,520	84,400	5,700	3,540	6,440	7,580	18,800	20,600	8,170	5,250	1,480	1,950
27	1,870	36,400	7,300	3,280	5,050	6,980	14,200	20,600	13,400	5,250	1,340	2,440
28	2,110	11,200	11,000	3,120	4,750	8,170	24,500	18,800	12,100	5,360	1,340	2,520
29	3,730	6,260	6,980	3,120	-	12,200	28,400	13,700	9,160	5,360	1,160	2,600
30	12,800	4,650	5,820	3,280	-	13,100	38,800	10,300	7,850	5,050	1,160	2,690
31	6,460	-	6,700	3,200	-	12,900	-	6,840	-	4,650	1,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	62,940	12,800	1,160	2,030	124,800
November	343,060	84,400	2,270	11,440	680,400
December	336,970	39,300	2,600	10,870	668,400
Calendar year 1940	1,557,908	90,600	399	4,267	3,090,000
January	153,970	17,000	3,120	4,967	305,400
February	165,040	18,600	3,120	5,894	327,400
March	294,710	23,700	3,540	9,507	584,500
April	410,000	44,700	3,980	13,670	813,200
May	741,710	48,300	6,180	23,930	1,471,000
June	537,400	59,800	3,980	17,910	1,066,000
July	272,610	27,100	4,650	8,794	540,700
August	74,158	7,650	948	2,332	147,100
September	59,500	2,690	1,160	1,933	118,000
Water year 1940-41	3,452,068	84,400	948	9,458	6,847,000

Elm Creek at Ballinger, Tex.

Location.- Water-stage recorder upstream from spillway of masonry dam, lat. 31°45'00", long. 99°56'50", in Ballinger, Runnels County, 1½ miles upstream from mouth. Datum of gage is 1,617.72 feet above mean sea level, datum of 1929.

Drainage area.- 458 square miles.

Records available.- April 1932 to September 1941.

Extremes.- Maximum discharge during year, 12,200 second-feet May 21 (gage height, 7.98 feet); no flow at times.

1932-41: Maximum discharge, about 26,100 second-feet Sept. 3, 1935 (gage height, 10.30 feet, from floodmarks, probably slightly affected by backwater from Colorado River), from rating curve extended in a straight line above 15,000 second-feet; no flow at times.

Remarks.- Records good except those for period of no gage-height record and those below 50 second-feet, which are poor. Stage-discharge relation affected below about 50 second-feet by wind action and occasional accumulation of drift on dam. Low flow affected by diversions to Ballinger city pumping plant.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0.1		7.0	2.5	1.0	27	455	11	0	4.5
2		0	0		45	2.5	.7	866	2,590	37	0	2.5
3		0	0		4.5	1.2	0	5,760	378	52	0	1.0
4		0	0		4.5	0	0	314	99	16	0	.2
5		0	0		2.5	0	0	202	263	11	0	0
6		0	0		1.0	0	0	99	1,880	7.0	0	0
7		0	0		.1	0	0	66	584	2.5	0	0
8		0	0		0	0	0	39	90	2.5	0	0
9		0	0		0	0	0	27	45	2.5	0	45
10		0	0		0	0	0	65	1,580	2.5	0	80
11		0	0		0	0	0	21	1,150	56	0	16
12		0	0		0	0	0	16	117	16	0	7.0
13		0	0		0	0	0	11	52	7.0	20	4.5
14		0	0		0	0	0	7.0	45	4.5	4.5	2.5
15		0	0		0	0	1,670	4.5	52	2.5	2.5	2.5
16		a0	0		0	0	507	4.5	3,910	2.5	1.0	11
17		a0	0		0	0	45	4.5	554	1.5	.2	4.5
18		a0	0		0	0	732	77	99	1.5	0	2.5
19		a0	0		0	0	2,210	137	59	1.5	0	2.5
20		a0	0		561	0	425	52	45	1.5	0	2.5
21		a0	0		96	0	52	6,250	33	1.0	0	2.5
22		a0	0		33	0	27	1,070	27	.6	0	1.5
23		a0	0		39	7.7	7.0	137	27	.2	0	1.0
24		a3.5	0		74	56	7.0	74	106	0	.2	1.0
25		a425	0		27	45	4.5	45	59	0	112	1.0
26		a74	0		7.0	438	59	33	27	0	27	.6
27		11	0		4.5	90	776	27	352	0	11	.2
28		4.5	0		4.5	21	1,820	21	74	0	425	0
29		2.5	0		-	4.5	166	16	21	0	127	0
30		1.0	0		-	1.5	59	11	11	0	27	0
31		-	0		-	1.0	-	11	-	0	7.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	521.5	425	0	17.4	1,030
December	.1	.1	0	.003	.2
Calendar year 1940	15,273.5	3,540	0	41.7	30,290
January	0	0	0	0	0
February	910.6	561	0	32.5	1,810
March	670.9	438	0	21.6	1,330
April	8,578.2	2,210	0	286	17,010
May	15,494.5	6,250	4.5	500	30,730
June	14,764	3,910	11	492	29,280
July	220.3	52	0	7.11	437
August	764.4	425	0	24.7	1,520
September	196.5	80	0	6.55	390
Water year 1940-41	42,121.0	6,250	0	115	85,540

Peak discharge.- Apr. 19 (1 a.m.) 5,880 sec.-ft.; May 3 (3:30 a.m.) 9,330 sec.-ft.; May 21 (12 m.) 12,200 sec.-ft.; June 2 (1:30 a.m.) 7,920 sec.-ft.; June 16 (10 a.m.) 7,270 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage, engineer's notes, and weather records.

South Concho River at Christoval, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°13', long. 100°30', at Panhandle & Santa Fe Railway bridge at Christoval, Tom Green County. Datum of gage is 2,010.22 feet above mean sea level, datum of 1929.

Drainage area.- 434 square miles.

Records available.- February 1930 to September 1941.

Average discharge.- 11 years, 60.4 second-feet.

Extremes.- Maximum discharge during year, 1,980 second-feet May 3 (gage height, 5.05 feet); minimum not determined.

1930-41: Maximum discharge, 100,000 second-feet July 23, 1938 (gage height, 21.95 feet, from floodmarks), from rating curve extended above 9,000 second-feet on basis of slope-area determination at gage height 20.5 feet; minimum, 2.1 second-feet July 17-19, 26-29, Aug. 28 to Sept. 5, 1934.

Flood of Aug. 6, 1906, reached a stage about 1.1 feet higher than flood of July 23, 1938, at a point 0.5 mile downstream from gage, according to information furnished by local residents.

Remarks.- Records good except those for periods of no or doubtful gage-height record in June and July, and those above 60 second-feet, all of which are poor. Low flow materially affected by diversions of South Concho Irrigation Co.'s canal 600 feet upstream.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	10	13	13	18	18	33	30	43	a28	24	27
2	14	10	13	13	18	17	33	167	41	28	22	27
3	13	a10	13	13	20	17	33	664	40	28	22	24
4	13	a10	13	13	18	17	34	55	38	27	22	24
5	13	a10	13	13	18	17	34	43	38	a28	22	25
6	12	a11	13	13	18	17	34	43	40	d28	22	22
7	12	a11	13	13	18	17	34	43	38	d28	22	18
8	12	a12	13	13	18	17	34	45	38	d28	22	18
9	12	a12	13	13	18	17	34	45	38	d28	18	24
10	a12	13	13	13	18	17	34	45	38	28	17	25
11	a12	13	13	13	18	17	33	47	43	27	17	25
12	a12	13	13	13	18	17	30	49	43	27	17	25
13	12	14	13	14	18	18	30	49	43	25	18	28
14	12	14	13	13	18	18	30	49	41	27	17	28
15	12	14	13	13	18	18	28	49	45	27	17	30
16	12	14	13	13	18	18	25	49	45	25	16	31
17	12	13	13	13	18	20	24	52	43	25	17	31
18	12	13	13	13	18	20	24	52	41	25	16	149
19	11	13	13	13	18	18	25	52	41	25	16	58
20	11	13	13	13	18	18	25	50	45	25	16	30
21	11	13	13	13	18	18	25	50	41	25	18	28
22	12	13	13	13	18	18	25	50	a43	24	17	30
23	11	13	13	13	20	20	25	50	45	24	17	31
24	12	13	13	13	18	18	25	50	41	24	13	31
25	13	13	13	13	18	44	25	50	41	24	16	31
26	13	13	13	13	18	140	30	50	41	24	16	31
27	13	13	13	13	18	33	31	49	a28	24	16	28
28	12	13	13	13	18	31	28	49	a28	24	16	24
29	11	13	13	13	-	33	28	45	a28	24	16	24
30	10	13	13	13	-	33	28	47	a28	24	25	25
31	10	-	13	14	-	33	-	45	-	24	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	373	14	10	12.0	740
November	373	14	10	12.4	740
December	403	13	13	13.0	799
Calendar year 1940	7,407	679	10	20.2	14,690
January	405	14	13	13.1	803
February	510	20	18	18.2	1,010
March	774	140	17	25.0	1,540
April	881	34	24	29.4	1,750
May	2,213	664	30	71.4	4,390
June	1,186	45	28	39.5	2,350
July	802	28	24	25.9	1,590
August	561	25	16	16.7	1,150
September	952	149	18	31.7	1,890
Water year 1940-41	9,453	664	10	25.9	18,750

Peak discharge.- Mar. 26 (12:30 a.m.) 573 sec.-ft.; May 3 (3 a.m.) 1,980 sec.-ft.; Sept. 18

(4 p.m.) 534 sec.-ft.

a No gage-height record; discharge computed or interpolated on basis of regulated flow in South Concho Irrigation Co.'s canal upstream, and weather records.

d Doubtful gage-height record; discharge computed on basis of discharge measurement and flow in canal upstream.

South Concho River at San Angelo, Tex.

Location.- Water-stage recorder above spillway of San Angelo waterworks concrete dam, lat. 31°26'45", long. 100°25'30", at bridge on U. S. Highways 87 and 277, half a mile south of San Angelo, Tom Green County, and 1 mile upstream from confluence with North Concho River. Datum of gage is 1,802.94 feet above mean sea level, datum of 1929.

Drainage area.- 2,687 square miles, of which about 152 square miles is probably non-contributing.

Records available.- October 1931 to September 1941.

Average discharge.- 10 years, 177 second-feet.

Extremes.- Maximum discharge during year, 23,500 second-feet June 5 (gage height, 8.23 feet); minimum, 1.0 second-foot Oct. 5.

1931-41: Maximum discharge, 111,000 second-feet Sept. 17, 1936, by slope-area method (gage height, 23.4 feet, of which about 2.4 feet was caused by backwater from North Concho River); no flow at times.

Maximum stage known, 29.7 feet, Aug. 6, 1906 (not affected by backwater), according to information furnished by local residents.

Remarks.- Records good except those for period of no gage-height record, which are fair.

Diversions above station for irrigation, municipal supply and power. Flow partly regulated by reservoirs (combined capacity, about 11,000 acre-feet), the largest of which is Lake Nasworthy (capacity, 10,500 acre-feet), 6.5 miles upstream.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

2.0	2.65	2.15	19.3	2.35	72.5	2.80	555	4.00	3,490
2.02	4.0	2.20	29.0	2.40	98	3.00	885	4.60	5,200
2.04	5.7	2.25	41.0	2.50	183	3.30	1,510	5.00	7,200
2.10	12.0	2.30	54.0	2.60	285	3.50	2,000	5.50	9,560

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	19	23	15	274	29	a15	246	29	174	13	243
2	4.8	21	25	18	253	29	13	501	30	257	11	243
3	6.6	21	27	19	264	31	12	5,930	4,950	36	9.7	127
4	3.8	23	25	21	257	31	8.6	285	466	59	9.7	8.6
5	2.8	19	25	23	38	36	9.7	285	2,520	274	9.7	8.6
6	4.0	21	29	23	25	36	9.7	274	9,730	285	9.7	4.0
7	4.0	29	29	21	21	33	7.6	274	761	297	18	9.7
8	4.0	38	29	25	21	33	6.6	285	285	235	16	11
9	4.0	41	37	25	25	33	4.8	274	297	285	15	148
10	4.0	36	253	25	27	33	11	264	3,310	274	16	274
11	4.8	29	253	25	25	36	18	264	2,310	285	13	253
12	4.8	31	253	27	25	29	19	246	285	264	20	134
13	8.6	31	253	29	21	31	23	34	274	253	51	15
14	6.6	33	253	27	23	29	25	19	274	241	253	13
15	19	33	136	29	23	29	141	23	284	28	212	15
16	12	33	19	33	25	25	274	27	285	25	16	18
17	7.6	33	15	33	25	31	264	29	274	36	12	21
18	7.6	38	15	31	27	31	264	78	274	145	11	160
19	7.6	41	12	33	27	27	264	274	285	285	9.7	1,070
20	7.6	36	12	27	29	31	209	285	274	285	9.7	243
21	6.6	36	12	25	29	31	19	7,360	274	165	7.6	159
22	6.6	33	12	16	31	31	16	308	234	18	127	12
23	7.6	33	12	16	31	31	16	274	39	18	233	16
24	15	122	13	18	33	31	15	264	41	16	2,000	13
25	15	274	15	23	29	418	15	285	44	15	253	12
26	13	253	13	27	29	4,190	38	249	44	15	243	15
27	13	245	12	29	27	264	2,010	38	68	16	253	16
28	19	36	13	31	29	253	323	31	264	18	136	19
29	18	21	16	31	-	253	274	33	253	140	93	133
30	19	23	16	31	-	253	264	36	264	253	243	243
31	19	-	16	154	-	a145	-	33	-	146	243	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	281.8	19	2.8	9.09	559
November	1,682	274	19	55.1	3,346
December	1,872	253	12	60.4	3,710
Calendar year 1940	23,215.7	3,400	.9	63.4	46,060
January	910	154	15	29.4	1,800
February	1,693	274	21	60.5	3,360
March	6,523	4,190	25	210	12,940
April	4,598	2,010	4.8	153	9,100
May	16,798	7,350	19	606	37,200
June	23,711	9,730	29	957	56,800
July	4,892	297	15	158	9,700
August	4,565.8	2,000	7.6	147	9,060
September	3,652.3	1,070	4.0	122	7,240
Water year 1940-41	78,168.9	9,730	2.8	214	155,000

Peak discharge.- May 3 (1:45 a.m.) 14,200 sec.-ft.; May 21 (2:15 p.m.) 29,400 sec.-ft.; May 27 (5:30 p.m.) 13,100 sec.-ft.; June 5 (1 p.m.) 23,500 sec.-ft.

a No gage-height record; discharge computed on basis of records for nearby stations.

Concho River near San Angelo, Tex.

Location.- Water-stage recorder, lat. 31°27'10", long. 100°24'40", half a mile downstream from confluence of North Concho and South Concho Rivers and 1½ miles southeast of San Angelo, Tom Green County. Datum of gage is 1,776.8 feet above mean sea level, datum of 1929.

Drainage area.- 4,492 square miles, of which about 275 square miles is probably non-contributing.

Records available.- September 1915 to September 1941.

Average discharge.- 26 years, 199 second-feet.

Extremes.- Maximum discharge during year, 27,600 second-feet June 5 (gage height, 24.13 feet); minimum, 1.0 second-foot Oct. 23.

1915-41: Maximum discharge, 230,000 second-feet Sept. 17, 1936 (gage height, 46.6 feet, from floodmarks), by slope-area method; no flow, Nov. 29, 1921.

Maximum stage known, 47.5 feet Aug. 6, 1906 (discharge, about 246,000 second-feet), according to information furnished by local residents.

Remarks.- Records good. Many diversions above station for irrigation and municipal supply. Flow partly regulated by diversions and reservoirs above station (combined capacity, about 11,000 acre-feet), the largest of which is Lake Nasworthy (capacity, 10,500 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.9	20	23	18	345	35	34	304	55	280	23	284
2	4.5	21	24	21	325	34	28	708	58	799	18	268
3	6.1	22	24	20	284	34	24	7,190	4,790	228	17	169
4	5.3	23	26	19	264	28	19	670	522	130	16	22
5	3.3	22	24	22	56	32	19	466	4,650	339	14	16
6	3.7	22	28	22	30	35	19	384	10,500	335	14	13
7	5.3	34	26	22	26	35	17	345	937	310	20	17
8	3.3	50	28	24	26	33	15	320	361	301	22	19
9	4.5	55	30	27	29	36	14	305	361	297	19	144
10	3.3	37	245	23	31	32	17	297	3,850	301	20	268
11	a4.2	30	257	24	26	34	23	297	2,630	501	19	257
12	a5.1	31	250	25	30	31	25	289	372	297	36	180
13	a6.0	30	254	30	22	31	29	83	320	299	38	23
14	7.0	31	243	25	25	40	31	48	297	276	233	22
15	16	32	140	30	25	36	931	48	337	74	236	23
16	14	32	18	30	27	32	953	48	463	45	50	30
17	7.0	35	17	31	27	58	372	49	700	50	22	65
18	7.0	40	17	30	29	48	305	78	423	121	17	256
19	7.0	45	16	33	29	41	305	320	325	276	16	1,120
20	6.5	37	15	26	30	41	242	330	301	268	14	264
21	6.5	34	15	25	30	42	42	10,100	289	170	11	200
22	5.3	35	15	16	33	43	28	631	258	29	92	207
23	3.9	41	15	a19	38	41	28	722	67	25	276	35
24	536	148	15	a22	35	40	25	401	54	27	1,990	29
25	82	284	17	a25	34	374	23	330	60	28	268	25
26	15	272	16	a27	32	4,490	648	296	65	29	272	26
27	13	257	14	27	32	696	5,350	85	77	29	272	27
28	42	41	15	30	34	340	662	63	293	27	724	29
29	24	23	16	30	-	284	412	63	284	116	490	125
30	22	23	17	32	-	272	345	63	276	250	355	272
31	17	-	17	156	-	170	-	61	-	179	305	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	890.7	536	3.3	28.7	1,770
November.....	1,803	284	20	60.1	3,580
December.....	1,877	257	14	60.5	3,720
Calendar year 1940.....	38,848.5	11,300	2.1	106	77,040
January.....	911	156	16	29.4	1,810
February.....	1,953	345	22	69.8	3,870
March.....	7,518	4,490	26	242	14,910
April.....	10,985	5,350	14	366	21,790
May.....	25,414	10,100	48	820	50,410
June.....	35,955	10,500	54	1,132	67,350
July.....	6,226	799	25	201	12,350
August.....	5,917	1,990	11	191	11,740
September.....	4,235	1,120	13	141	8,400
Water year 1940-41.....	101,682.7	10,500	3.3	279	201,700

Peak discharge.- May 3 (3 a.m.) 15,400 sec.-ft.; May 21 (2:30 p.m.) 25,600 sec.-ft.; June 3 (4 p.m.) 12,200 sec.-ft.; June 5 (11 p.m.) 27,600 sec.-ft.; June 10 (7 p.m.) 10,400 sec.-ft.
 a No gage-height record; discharge computed on basis of records for nearby stations.

Concho River near Paint Rock, Tex.

Location.- Water-stage recorder upstream from spillway of masonry dam, lat. 31°31', long. 99°55', at bridge on U. S. Highway 83, a quarter of a mile north of Paint Rock, Concho County. Datum of gage is 1,574.43 feet above mean sea level, datum of 1929.

Drainage area.- 5,538 square miles, of which about 275 square miles is probably non-contributing.

Records available.- September 1915 to September 1941.

Average discharge.- 26 years, 263 second-feet.

Extremes.- Maximum discharge during year, 24,900 second-feet June 6 (gage height, 22.78 feet); minimum, 4.2 second-feet Oct. 3-5.

1915-41: Maximum discharge, 301,000 second-feet Sept. 17, 1936 (gage height, 43.4 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good except those during periods of rapidly changing stage, which are fair. Many diversions above station for irrigation and municipal supply. Low flow materially affected by diversions and storage above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	23	34	26	117	44	220	355	70	289	210	284
2	4.5	20	29	29	335	44	92	487	88	339	86	267
3	4.2	19	27	32	324	44	56	8,330	1,230	667	39	267
4	4.2	20	27	32	295	39	41	2,070	4,170	267	26	200
5	4.2	23	29	39	278	39	37	625	365	170	24	61
6	4.8	23	29	37	152	37	32	441	14,700	306	27	41
7	4.8	24	29	37	70	34	26	365	2,890	312	23	27
8	4.8	32	29	37	46	39	27	341	441	301	52	23
9	5.0	49	29	37	44	39	26	324	383	295	55	49
10	4.8	62	29	37	41	39	24	312	987	337	34	87
11	4.8	55	154	41	39	37	21	301	5,040	582	26	257
12	4.8	39	257	39	39	39	20	295	1,400	318	23	257
13	5.7	32	262	41	44	37	26	294	389	295	23	205
14	6.4	29	262	41	37	37	34	162	341	289	66	84
15	5.7	29	257	44	32	37	80	61	329	273	249	44
16	5.0	29	205	39	32	41	1,170	66	389	144	256	212
17	5.0	32	34	39	32	51	454	58	529	70	116	77
18	7.8	32	46	41	34	62	329	59	523	62	46	120
19	16	34	37	44	37	77	301	61	371	85	32	713
20	13	39	34	44	39	58	284	226	329	257	26	697
21	11	44	29	46	39	51	252	4,920	312	262	21	278
22	9.4	41	29	44	41	51	117	7,360	301	205	21	230
23	8.5	41	27	39	46	51	58	461	267	79	23	109
24	9.4	51	26	37	49	51	41	997	134	44	437	66
25	559	134	26	29	49	81	39	371	88	34	1,750	55
26	172	267	24	27	46	3,610	58	324	73	32	278	41
27	55	262	24	27	46	1,810	3,590	295	77	29	538	34
28	32	252	26	34	44	441	3,330	157	73	29	1,250	32
29	54	130	26	39	-	324	492	106	241	29	357	32
30	37	51	24	44	-	295	377	81	273	32	389	41
31	29	-	26	46	-	278	-	73	-	225	318	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,096.6	559	4.2	35.4	2,180
November	1,918	267	19	63.9	3,800
December	2,176	262	24	70.2	4,320
Calendar year 1940	52,862.3	12,300	4.2	144	104,900
January	1,168	46	26	37.7	2,320
February	2,427	335	32	86.7	4,810
March	7,917	3,610	34	255	15,700
April	11,653	3,590	20	388	23,110
May	30,356	8,330	51	979	60,210
June	36,803	14,700	70	1,227	73,000
July	6,458	667	29	208	12,810
August	6,801	1,750	21	219	13,490
September	4,900	713	23	163	9,720
Water year 1940-41	113,673.6	14,700	4.2	311	225,500

Peak discharge.- Apr. 28 (4:30 a.m.) 8,880 sec.-ft.; May 3 (1 p.m.) 16,500 sec.-ft.; May 22 (2 a.m.) 23,000 sec.-ft.; June 4 (2 a.m.) 11,800 sec.-ft.; June 6 (11:30 a.m.) 24,900 sec.-ft.; June 11 (4 a.m.) 10,400 sec.-ft.

South Concho Irrigation Co.'s canal at Christoval, Tex.

Location.- Water-stage recorder, lat. 31°13', long. 100°30', at Christoval, Tom Green County, 85 feet downstream from point of diversion and 100 feet downstream from bridge on U. S. Highway 277. Datum of gage is 2,017.0 feet above mean sea level, datum of 1929.

Records available.- November 1939 to September 1941. November 1921, February 1930 to September 1939 (miscellaneous discharge measurements only).

Extremes.- Maximum discharge during year, 44 second-feet May 3 (gage height, 4.49 feet), from rating curve extended above 25 second-feet by logarithmic plotting; minimum, 3.8 second-feet Sept. 18.
1939-41: Maximum discharge, 66 second-feet June 9, 1940 (gage height, 5.25 feet), from rating curve extended above 25 second-feet by logarithmic plotting; minimum, 3.7 second-feet Dec. 26, 27, 1939.

Remarks.- Records fair. Station above all diversions from canal. Canal diverts water for irrigation from right bank 600 feet upstream from gaging station on South Concho River.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	15	14	14	8.2	7.9	8.5	10	a14	20	17	7.6
2	15	15	14	14	8.2	7.9	8.6	12	a14	20	17	7.8
3	15	14	14	14	8.2	8.0	8.8	29	14	20	17	9.0
4	15	14	14	14	8.2	8.1	9.0	13	14	20	17	8.7
5	15	14	14	14	8.2	8.2	8.7	12	14	20	17	8.0
6	15	14	14	14	8.1	8.2	8.8	12	14	20	17	11
7	15	14	14	14	8.1	8.3	9.0	12	14	20	17	13
8	15	16	14	14	8.1	8.5	8.8	12	13	20	18	13
9	15	14	14	14	8.1	8.5	9.0	12	13	19	20	12
10	15	14	14	14	8.1	8.5	9.3	13	17	19	20	7.9
11	15	14	14	14	8.1	8.2	11	13	15	19	20	7.7
12	15	14	14	14	8.0	7.9	11	13	14	19	20	6.8
13	15	14	14	14	8.1	7.9	11	13	14	19	20	6.3
14	15	14	14	14	8.2	7.9	11	13	14	19	20	6.8
15	15	14	14	14	8.1	7.9	10	13	14	19	20	5.4
16	15	14	14	14	8.0	7.9	10	13	14	19	20	5.2
17	15	14	14	14	8.0	8.0	10	13	14	19	20	4.7
18	15	14	14	14	8.0	8.1	9.7	13	14	19	20	9.4
19	15	14	14	15	8.0	7.9	9.8	13	14	19	20	6.6
20	15	14	14	15	7.9	7.9	9.8	13	14	19	20	7.1
21	15	14	14	15	7.9	7.9	9.7	13	14	19	20	6.7
22	15	14	14	15	7.9	7.9	9.7	13	14	18	20	6.1
23	15	14	14	15	7.7	7.9	9.7	13	14	18	20	6.3
24	15	14	14	15	7.7	7.9	9.7	13	14	18	20	6.4
25	15	14	14	15	7.7	8.0	9.7	13	14	18	20	6.1
26	15	14	14	15	7.7	14	10	13	14	18	20	5.9
27	15	14	14	15	7.7	8.1	10	13	21	18	20	8.4
28	15	14	14	15	7.9	8.1	10	13	21	18	20	13
29	15	14	14	15	-	8.5	10	13	20	18	11	12
30	15	14	14	15	-	8.5	10	14	20	17	7.7	11
31	15	-	14	13	-	8.5	-	a14	-	17	7.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	465	15	15	15.0	922
November	423	15	14	14.1	839
December	434	14	14	14.0	861
Calendar year 1940	4,740.3	30	5.3	13.0	9,400
January	445	15	13	14.4	883
February	224.1	18.2	7.7	8.00	444
March	257.0	14	7.9	8.29	510
April	290.3	11	8.5	9.68	576
May	412	21	10	13.3	817
June	448	29	13	14.9	889
July	585	20	17	18.9	1,160
August	563.4	20	7.7	18.2	1,120
September	244.9	13	4.7	8.16	486
Water year 1940-41	4,791.7	29	4.7	13.1	9,510

a No gage-height record; discharge interpolated.

Middle Concho River near Tankersly, Tex.

Location.- Water-stage recorder and masonry control, lat. 31°22'35", long. 100°36'50", at Twelvemile Bridge, 3 miles northeast of Tankersly, Tom Green County, and 9½ miles upstream from Spring Creek. Datum of gage is 1,919.5 feet above mean sea level, datum of 1929.

Drainage area.- 1,280 square miles, of which about 152 square miles is probably noncontributing.

Records available.- February 1930 to September 1941.

Average discharge.- 11 years, 52.3 second-feet.

Extremes.- Maximum discharge during year, 25,100 second-feet June 5 (gage height, 24.17 feet), from rating curve extended above 11,000 second-feet on basis of computed peak flow over Nasworthy Dam; no flow at times.

1930-41: Maximum discharge, about 35,000 second-feet Sept. 26, 1936 (gage height, 24.2 feet), computed on basis of records of flow over Nasworthy Dam, 12 miles downstream, adjusted for inflow and storage; no flow at times.

Maximum stage known, about 27.2 feet in April 1922, according to information furnished by State Highway Department.

Remarks.- Records good except those above 11,000 second-feet, which are poor. Small diversions above station for irrigation affect low flow.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					196	0	4.5	16	12	36	16	39
2					8.9	0	3.1	1,390	11	193	18	35
3					1.2	0	2.3	1,630	2,000	344	14	31
4					0	0	1.4	328	294	294	13	30
5					0	0	1.1	106	6,490	200	13	28
6					0	0	.7	50	6,240	94	13	25
7					0	0	.5	31	1,230	299	12	24
8					0	0	.3	21	340	96	12	23
9					0	0	0	15	188	62	106	31
10					0	0	0	11	2,140	62	36	28
11					0	0	0	8.4	1,720	52	24	24
12					0	0	0	7.1	320	62	18	26
13					0	0	.5	6.1	191	46	16	32
14					0	0	1.3	5.1	138	44	20	28
15					0	0	4.99	4.2	114	157	40	26
16					0	0	14	3.5	114	68	28	50
17					0	0	10	3.1	89	52	22	35
18					0	0	6.1	3.1	75	41	16	126
19					0	0	5.3	3.5	68	36	15	68
20					0	0	2.9	2.8	62	34	13	38
21					0	0	2.0	7,980	57	30	128	32
22					0	0	1.8	414	52	28	134	30
23					0	0	1.8	119	48	26	38	30
24					0	0	1.8	66	47	26	1,040	31
25					0	248	1.3	41	48	24	239	30
26					0	917	449	32	51	23	106	26
27					0	96	1,310	26	48	22	58	26
28					0	45	239	22	42	21	514	26
29					-	21	50	19	37	19	200	25
30					-	11	26	16	36	18	66	26
31					-	6.3	-	14	-	17	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1940	3,389.2	2,000	0	9.26	6,720
January	0	0	0	0	0
February	206.1	196	0	7.36	409
March	1,344.3	917	0	43.4	2,670
April	2,635.5	1,310	0	87.8	5,230
May	12,393.9	7,980	2.8	400	24,580
June	22,303	6,490	11	743	44,240
July	2,526	344	17	81.5	5,010
August	3,031	1,040	12	97.8	5,010
September	1,029	126	23	34.3	2,040
Water year 1940-41	45,468.8	7,980	0	125	90,190

Peak discharge.- May 21 (10 a.m.) 23,400 sec.-ft., June 3 (4 p.m.) 6,940 sec.-ft., June 5 (7:30 p.m.) 25,100 sec.-ft.

Spring Creek near Tankersly, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°21'30", long. 100°32'05", 2½ miles upstream from mouth and 6½ miles east of Tankersly, Tom Green County. Datum of gage is 1,874.6 feet above mean sea level, datum of 1929.

Drainage area.- 734 square miles.

Records available.- February 1930 to September 1941.

Average discharge.- 11 years, 40.5 second-feet.

Extremes.- Maximum discharge during year, 7,100 second-feet June 3 (gage height, 12.05 feet); minimum, 1.4 second-feet Oct. 5, 6.

1930-41: Maximum discharge, 23,900 second-feet Sept. 17, 1936 (gage height, 20.3 feet); no flow at times.

Maximum stage known, about 26.0 feet in 1882, according to information furnished by local residents.

Remarks.- Records good. Several small diversions above station for irrigation.

Correction.- Corrected figures for the month of September 1936 and the water year 1935-36, superseding those published in Water-Supply Paper 808, are given herein:

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
September.....	19,109.0	6,300	0	637	37,900
Water year 1935-36	23,923.3	6,300	0	65.4	47,460

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	17	26	21	57	24	50	36	47	35	14	41
2	1.6	15	23	21	46	24	48	1,060	62	48	14	38
3	1.6	15	23	24	32	24	46	1,520	1,670	57	12	36
4	1.5	16	23	24	26	22	43	196	182	52	14	34
5	1.5	16	22	25	24	21	42	110	95	54	15	34
6	1.5	16	22	25	25	20	42	83	206	50	14	32
7	1.5	19	22	25	26	9.0	39	81	144	57	14	33
8	1.5	39	22	25	26	6.9	37	78	81	58	18	32
9	1.6	41	22	25	26	7.6	36	78	72	55	22	43
10	1.6	33	22	25	25	7.1	35	72	245	169	25	39
11	1.7	26	22	25	24	6.2	24	69	146	104	23	37
12	1.7	22	22	26	24	6.2	18	88	86	66	23	38
13	1.7	21	23	30	22	5.5	19	67	80	64	24	42
14	1.6	21	23	29	22	5.1	21	64	78	63	27	42
15	1.5	21	23	28	22	3.8	318	61	81	51	27	39
16	1.5	23	23	25	23	4.0	59	60	81	43	27	43
17	1.5	24	22	25	24	7.0	24	58	80	43	26	78
18	1.5	18	22	25	24	15	15	61	76	39	19	90
19	1.5	18	22	26	25	14	14	64	72	38	17	88
20	1.5	24	22	26	25	13	10	57	71	37	15	58
21	2.9	24	22	26	25	16	7.8	426	71	36	170	51
22	6.0	24	22	26	25	17	7.1	67	69	33	156	48
23	6.2	31	22	26	28	18	10	47	69	32	43	50
24	4.8	71	22	26	28	17	11	133	64	26	372	52
25	10	46	22	25	27	1,040	12	63	61	23	57	50
26	7.1	35	22	23	26	1,620	27	55	66	19	39	48
27	7.3	28	21	22	25	259	383	52	64	17	37	47
28	196	26	20	24	25	80	149	51	55	21	47	47
29	72	26	20	27	-	61	57	54	44	22	41	47
30	24	26	20	27	-	54	55	50	41	19	39	47
31	16	-	22	32	-	52	-	47	-	16	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	383.5	196	1.5	12.4	761
November.....	780	71	15	26.0	1,550
December.....	686	26	20	22.1	1,360
Calendar year 1940	8,661.9	1,370	.6	23.7	17,180
January.....	788	32	21	25.4	1,560
February.....	757	57	22	27.0	1,500
March.....	3,459.4	1,620	3.8	112	6,860
April.....	1,658.9	383	7.1	55.3	3,290
May.....	5,008	1,520	36	162	9,930
June.....	4,261	1,670	41	142	8,450
July.....	1,447	169	16	46.7	2,870
August.....	1,432	372	12	46.2	2,840
September.....	1,404	90	32	46.8	2,780
Water year 1940-41	22,064.8	1,670	1.5	60.5	43,750

Peak discharge.- Mar. 25 (12 p.m.) 5,520 sec.-ft.; May 2 (10:30 p.m.) 4,860 sec.-ft.; June 3 (12:30 p.m.) 7,100 sec.-ft.

North Concho River at Sterling City, Tex.

Location. - Water-stage recorder, lat. 31°50', long. 100°59' at county highway bridge 0.3 mile south of Sterling City, Sterling County, and 4 miles upstream from Sterling Creek. Datum of gage is 2,242.4 feet above mean sea level, datum of 1929.

Drainage area. - 690 square miles, of which about 75 square miles is probably noncontributing.

Records available. - September 1939 to September 1941.

Extremes. - Maximum discharge during year, 2,950 second-foot Mar. 26 (gage height, 16.47 feet), from rating curve extended above 1,000 second-feet by logarithmic plotting; no flow at times.

1939-41: Maximum discharge, that of Mar. 26, 1941; no flow at times.

Maximum stage known, 23.3 feet May 6, 1891, according to information furnished by local residents.

Remarks. - Records good except those for period of no gage-height record, which are poor. Small diversions above station for irrigation.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

1.85	0	2.8	18	7.0	315
2.0	.2	3.2	35	8.0	409
2.15	.7	3.6	55	9.0	553
2.2	1.0	4.0	77	10.0	746
2.3	2.0	4.5	113	11.0	966
2.4	3.8	5.0	153		
2.5	6.7	6.0	233		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	0.5	3.6	1.0	3.1	2.8	0.8	720	0.3	0.6
2	0		0	.6	3.1	1.1	3.1	21	1.3	110	1.3	1.5
3	0		.2	.7	2.4	1.0	2.4	58	3.8	22	.5	.6
4	0		.2	.6	1.3	1.0	2.2	47	3.6	9.6	.6	.4
5	0		.3	.6	.9	.9	2.0	14	2.3	6.7	.5	1.3
6	0		.3	.6	1.0	.8	4.6	7.8	26	4.0	.6	.5
7	0		.3	.7	1.0	1.0	2.8	5.7	44	5.1	.6	.6
8	0		.4	.6	.9	1.0	1.8	4.3	21	4.3	.6	2.3
9	0		.4	.6	.8	.9	.7	1.5	8.8	3.8	.6	3.3
10	0		.4	.6	.8	.9	.4	3.1	70	3.6	1.7	3.1
11	0		.4	.6	.8	.8	.3	4.3	30	6.5	.5	a2.4
12	0		.4	.6	.8	.8	.3	2.0	6.4	5.4	.2	a2.0
13	0		.7	.6	.7	1.0	1.5	2.8	3.1	3.6	.2	a1.8
14	0		1.4	.6	.8	1.1	1.7	2.9	3.3	3.1	.3	a1.4
15	0		1.6	.8	.8	.8	44	2.0	3.1	2.4	.4	a5.4
16	0		1.0	.6	.8	.7	4.6	2.4	513	2.4	.4	a66
17	0		.7	.8	.9	1.1	1.8	2.4	78	2.3	.7	a1.2
18	0		.5	.6	.8	1.2	1.4	3.3	15	2.3	.4	a1.8
19	0		.5	.6	.8	1.3	1.7	2.3	8.4	2.3	6	1.4
20	0		.5	.6	.9	1.3	1.2	2.3	5.4	1.8	.6	1.4
21	0		.5	.7	1.1	1.5	.9	2.2	3.3	1.9	.6	1.2
22	0		.6	.7	1.0	1.4	1.0	2.0	3.6	1.8	.6	1.1
23	0		.6	.6	1.1	1.7	1.3	2.2	3.3	1.7	.4	1.4
24	13		.5	.5	1.2	1.6	1.3	1.9	3.1	1.6	.5	1.4
25	4.7		.6	.4	1.2	213	1.3	1.3	2.6	.6	1.3	2.4
26	1.0		.4	.4	1.2	920	321	2.4	3.3	.4	.5	1.5
27	.3		.5	.3	1.0	34	28	1.1	3.1	.6	1.0	1.2
28	0		.6	.3	1.0	12	5.7	1.2	2.4	.9	5.0	1.2
29	0		.4	.7	-	6.4	3.6	1.6	2.0	.6	3.1	1.1
30	0		.4	.8	-	4.3	2.9	.7	1.9	.4	1.9	.7
31	0		.5	3.6	-	3.8	-	.5	-	.4	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	19.0	13	0	.61	38
November	0	0	0	0	0
December	15.6	1.6	0	.50	31
Calendar year 1940	1,609.5	318	0	4.40	3,190
January	21.5	3.6	.3	.69	43
February	32.7	3.6	.7	1.17	65
March	1,219.4	920	.7	39.3	2,420
April	448.6	321	.3	15.0	890
May	209.0	58	.5	6.74	415
June	875.9	513	.6	29.2	1,740
July	934.1	720	.4	30.1	1,850
August	27.2	5.0	.2	.88	54
September	112.2	66	.4	3.74	223
Water year 1940-41	3,915.2	920	0	10.7	7,770

Peak discharge - Mar. 26 (4 a.m.) 2,950 sec.-ft.; Apr. 26 (9 a.m.) 878 sec.-ft.; June 16 (5:15 a.m.) 1,150 sec.-ft.; July 1 (6 p.m.) 2,610 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, available gage heights, and records for station near Carlsbad.

North Concho River near Carlsbad, Tex.

Location.- Water-stage recorder above spillway of State Sanatorium Dam, lat. 31°36', long. 100°40', 2 miles upstream from Carlsbad, Tom Green County. Datum of gage is 2,000.8 feet above mean sea level, datum of 1929.

Drainage area.- 1,529 square miles, of which about 123 square miles is probably noncontributing.

Records available.- March 1924 to September 1941.

Average discharge.- 17 years, 59.6 second-feet.

Extremes.- Maximum discharge during year, 43,400 second-feet June 5 (gage height, 13.90 feet); no flow at times.

1924-41: Maximum discharge, 94,800 second-feet Sept. 26, 1936 (gage height, 16.0 feet, from highest floodmarks known), by slope-area method; no flow at times.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Diversions by pumping above station affect low-water flow (pump capacity, 40 second-feet), which is also partly regulated by small reservoir above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0	1.7	3.9	87	4.5	10	26	8.3	17	a5.0	11
2	.1	0	1.5	3.9	7.8	5.2	10	528	8.3	783	a4.6	8.9
3	.1	0	1.5	4.5	5.8	4.5	8.3	909	10	85	a4.2	8.2
4	.1	0	1.7	3.4	5.0	4.5	8.3	203	10	61	a3.8	7.4
5	.1	0	2.0	2.8	5.0	4.5	7.5	78	f4,180	34	3.4	6.6
6	.1	0	2.6	2.8	4.4	3.9	6.7	44	f107	24	3.9	5.9
7	.1	0	3.0	2.8		3.9	5.9	32	31	28	3.9	5.3
8	.1	0	3.6	2.8		3.9	5.9	27	46	20	3.9	4.7
9	.1	0	3.6	2.4		3.9	5.9	21	37	17	3.9	6.0
10	.1	0	3.0	2.0		3.9	5.9	19	902	17	4.0	5.3
11	.1	0	3.6	2.0		3.9	5.2	18	139	19	3.4	5.4
12	.1	0	3.6	2.4		3.9	4.5	15	.57	20	1.8	6.8
13	.1	0	4.7	2.8		3.9	5.2	15	36	21	6.0	7.6
14	.1	0	4.7	2.4		3.9	5.2	13	26	18	12	6.8
15	.1	0	4.1	2.0		3.9	1,040	12	24	16	6.9	6.1
16	.1	0	3.6	1.7		3.4	172	12	12	16	6.1	36
17	.1	0	3.6	1.7		4.5	40	12	273	14	5.4	24
18	.1	0	4.1	1.7		5.2	22	12	75	33	4.7	14
19	.1	0	4.1	2.0		5.2	19	10	43	12	4.8	11
20	.1		4.6	2.0		4.5	12	10	35	12	4.8	9.3
21	.1	a.2	4.6	2.0		3.9	12	2,970	27	12	4.8	8.5
22	.1		3.4	2.0		3.9	10	63	24	11	4.8	7.7
23	.1	1.3	2.9	2.0		3.9	9.4	25	21	8.6	5.6	7.7
24	.1	8.8	4.0	2.0		3.9	9.4	19	20	7.8	7.9	8.5
25	.1	6.6	4.0	2.0	4.5	15	9.4	15	21	7.7	7.1	7.7
26	.1	2.7	2.9	1.7	3.9	773	2,140	15	20	7.6	4.9	7.7
27	.1	2.3	5.0	1.7	3.9	135	1,850	13	18	6.7	24	7.7
28	.1	2.0	5.4	2.4	3.9	44	130	12	16	6.6	253	7.7
29	.1	1.7	4.5	2.4	-	25	57	10	16	a6.2	182	7.7
30	.1	1.7	5.9	2.4	-	15	36	10	14	a5.8	31	7.7
31	.1	-	5.9	2.0	-	13	-	9.4	10	a5.4	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3.1	0.1	0.1	0.10	6.1
November	27.7	8.8	0	.92	55
December	113.4	19	1.5	3.66	225
Calendar year 1940	5,286.3	1,440	0	14.4	10,450
January	77.6	5.0	1.7	2.50	154
February	203.0	87	-	7.25	403
March	1,120.6	773	3.4	36.1	2,220
April	5,662.7	2,140	4.5	189	11,230
May	5,140.4	2,970	9.4	156	10,200
June	8,318.6	4,180	8.3	217	12,930
July	1,322.4	783	5.4	42.7	2,620
August	637.6	253	1.8	20.6	1,260
September	274.9	36	4.7	9.16	545
Water year 1940-41	21,100.0	4,180	0	57.8	41,850

Peak discharge.- Apr. 15, (1:30 p.m.) 2,720 sec.-ft.; Apr. 26, (11:50 p.m.) 6,350 sec.-ft.; May 21, (7 a.m.) 10,920 sec.-ft.; June 5, (1:40 p.m.) 43,400 sec.-ft.; June 10, (3 p.m.) 2,980 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, engineer's notes, and records for station at Sterling City.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Note.- Discharge for period Oct. 1-31 represents estimated seepage under control.

Pecan Bayou at Brownwood, Tex.

Location.- Water-stage recorder above spillway of city dam, lat. 31°44'10", long. 98°58'30", at bridge of Gulf, Colorado & Santa Fe (Fort Worth & Rio Grande) Railway, 1 mile north of Brownwood, Brown County, 6 miles downstream from Salt Creek, and 10 miles downstream from Brownwood Reservoir. Datum of gage is 1,318.58 feet above mean sea level, datum of 1929.

Drainage area.- 1,614 square miles.

Records available.- May 1917 to June 1918, October 1923 to September 1941.

Average discharge.- 16 years (1924-28, 1929-41), 228 second-feet.

Extremes.- Maximum discharge during year, 26,500 second-feet May 4 (gage height, 15.00 feet); minimum, 1.9 second-feet (regulated) Oct. 18, 17.

1917-18, 1923-41: Maximum discharge, 52,700 second-feet Oct. 14, 1930 (gage height, 16.92 feet), from rating curve extended above 38,000 second-feet; no flow at times.

Maximum stage known, 21.7 feet in September 1900, according to information furnished by Gulf, Colorado & Santa Fe Railway Co. Flood of July 3, 1932, probably the greatest known, reached a discharge of about 235,000 second-feet as it entered Brownwood Reservoir (computed from rate of change of contents in reservoir; data furnished by engineers of Brown County Water Improvement District No. 1).

Remarks.- Records good except those below 10 second-feet, which are poor. Stage-discharge relation for low flows affected by occasional accumulation of drift on dam. Flow regulated by Brownwood Reservoir (capacity, 140,000 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.9	16	2.8	4.7	848	370	104	1,770	330	466	4.7	298
2	7.4	4.7	2.8	4.7	65	324	337	1,820	356	410	6.0	298
3	7.4	3.7	3.7	7.4	26	305	311	10,600	473	356	7.4	298
4	7.4	3.7	3.7	7.4	18	292	298	21,900	473	330	7.4	298
5	7.4	3.7	3.7	6.0	28	292	298	12,300	410	337	7.4	292
6	7.4	2.8	3.7	7.4	147	167	298	4,840	1,050	337	8.9	292
7	6.0	4.7	3.7	8.9	147	7.4	292	2,880	800	337	8.9	292
8	6.0	7.4	3.7	8.9	147	6.0	298	1,890	596	337	7.4	298
9	6.0	11	3.7	8.9	143	4.7	217	1,330	496	330	6.0	343
10	6.0	8.9	4.7	8.9	143	4.7	286	984	879	330	6.0	305
11	7.4	12	6.0	8.9	143	31	292	760	850	343	6.0	298
12	6.0	6.0	7.4	8.9	143	267	151	620	810	330	6.0	298
13	6.0	3.7	12	11	138	273	80	496	638	330	7.4	298
14	6.0	3.7	7.4	8.9	172	273	284	431	588	330	11	298
15	3.7	6.0	162	8.9	280	280	197	376	564	330	26	298
16	1.9	6.0	16	6.0	280	286	2,620	343	2,050	330	11	298
17	1.9	6.0	7.4	6.0	286	292	2,010	337	2,190	330	6.0	298
18	2.8	4.7	6.0	6.0	286	298	1,370	337	1,650	324	6.0	298
19	3.7	2.8	6.0	6.0	247	292	1,550	73	1,080	337	4.7	298
20	3.7	3.7	4.7	6.0	111	292	1,710	343	770	337	3.7	298
21	4.7	4.7	4.7	6.0	109	298	1,280	3,970	580	324	3.7	298
22	6.0	4.7	6.0	6.0	440	298	910	5,780	575	324	4.7	298
23	7.4	322.0	6.0	6.0	1,210	305	692	3,200	459	324	2.8	8.9
24	11	55.0	6.0	4.7	1,100	184	580	2,130	383	324	4.7	115
25	14	67.0	6.0	6.0	870	50	466	1,450	370	324	3.7	286
26	11	16	16	6.0	683	702	371	1,000	396	218	3.7	286
27	11	6.0	30	7.4	556	1,270	1,190	720	1,190	14	20	286
28	11	3.7	8.9	7.4	452	1,160	3,910	556	1,160	8.9	42	280
29	4.7	3.7	7.4	7.4	-	525	4,210	452	820	8.9	119	280
30	6.0	3.7	6.0	8.9	-	438	2,560	383	596	6.0	305	164
31	11	-	4.7	209	-	305	-	343	-	4.7	305	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	210.8	14	1.9	6.80	418
November.....	607.7	322	2.8	20.3	1,210
December.....	372.6	162	2.8	12.0	739
Calendar year 1940.....	54,259.3	4,770	0	148	107,600
January.....	424.6	209	4.7	13.7	842
February.....	9,218	1,210	18	329	18,280
March.....	9,891.8	1,270	4.7	319	19,620
April.....	29,172	4,210	60	972	57,860
May.....	84,414	21,900	73	2,723	167,400
June.....	23,492	2,190	330	783	46,600
July.....	8,771.5	466	4.7	283	17,400
August.....	972.2	305	2.8	31.4	1,930
September.....	8,235.9	343	8.9	275	16,340
Water year 1940-41.....	175,783.3	21,900	1.9	482	346,600

Peak discharge.- Apr. 28 (9:30 p.m.) 5,700 sec.-ft.; May 4 (7 a.m.) 26,500 sec.-ft.; May 22 (3 a.m.) 7,100 sec.-ft.

San Saba River at Menard, Tex.

Location.- Water-stage recorder, lat. 30°55', long. 99°47', on bridge on U. S. Highway 83 in Menard, Menard County, 0.7 mile downstream from Las Moras Creek. Datum of gage is 1,863.05 feet above mean sea level, datum of 1929.

Drainage area.- 1,151 square miles.

Records available.- September 1915 to September 1941.

Average discharge.- 26 years, 75.3 second-feet.

Extremes.- Maximum discharge during year, 7,000 second-feet May 3 (gage height, 11.70 feet); minimum, 5.8 second-feet Oct. 17 (regulated).

1915-41: Maximum discharge, 117,000 second-feet July 23, 1938 (gage height, 22.2 feet, present site and datum, from floodmark), from rating curve extended above 60,000 second-feet on basis of slope-area determinations at gage heights 21.0 and 22.2 feet; no flow at times.

Maximum stage known, 23.3 feet, present site and datum, June 5 or 6, 1899, according to information furnished by local residents.

Remarks.- Records good. Low flow during irrigation season regulated by diversions to Noyes Canal, 4 miles above Menard. About 4,300 acres above and 7,700 acres below gage have been declared irrigated (see records of Noyes Canal at Menard).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.1	15	40	17	53	41	50	67	31	30	24	36
2	6.6	14	39	18	51	41	49	94	31	31	23	35
3	6.6	14	39	18	43	42	49	2,450	33	40	23	35
4	6.8	14	39	18	39	41	46	313	38	45	24	34
5	8.3	17	39	18	39	40	45	163	34	36	24	33
6	8.3	17	38	17	42	63	45	196	37	34	24	33
7	8.0	18	30	17	40	61	44	126	69	34	24	29
8	7.6	28	17	18	42	47	45	94	37	34	25	20
9	7.3	34	17	18	42	43	44	80	33	34	26	44
10	8.3	35	18	18	41	42	36	74	55	f39	26	43
11	8.5	39	23	17	40	40	26	a73	58	49	25	32
12	8.5	38	23	18	47	42	25	a73	39	39	24	31
13	7.1	37	19	19	48	41	26	a72	36	35	26	31
14	6.4	36	18	20	46	41	27	a72	34	34	30	29
15	7.6	38	19	19	40	42	25	72	44	35	29	29
16	6.6	38	18	17	40	42	29	72	82	34	27	32
17	6.4	38	17	17	38	48	28	74	42	35	26	37
18	6.4	39	17	17	36	66	24	60	37	34	26	3,150
19	6.8	40	17	17	37	58	29	41	35	68	25	1,240
20	6.8	40	17	17	36	50	28	39	35	35	25	169
21	7.8	41	17	17	41	45	25	38	34	32	26	84
22	7.3	41	17	17	42	46	25	38	34	31	27	56
23	8.0	42	17	17	47	46	27	38	36	30	26	68
24	8.3	46	16	17	45	43	27	37	36	30	a27	88
25	16	47	17	18	41	64	27	37	35	29	28	56
26	16	41	17	23	42	1,000	43	36	38	29	36	50
27	14	40	18	37	42	329	1,370	35	41	28	39	48
28	14	39	17	38	41	134	275	34	38	26	45	48
29	16	39	17	38	-	80	139	34	35	25	40	47
30	15	39	17	38	-	60	88	33	31	24	37	46
31	14	-	18	41	-	53	-	32	-	24	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	282.4	16	6.4	9.11	560
November	1,006	47	14	33.5	2,000
December	692	40	16	22.3	1,370
Calendar year 1940	11,435.5	612	6.4	31.2	22,680
January	656	41	17	21.2	1,300
February	1,181	53	35	42.2	2,340
March	2,831	1,000	40	91.3	5,620
April	2,766	1,370	24	92.2	5,490
May	4,697	2,450	32	152	9,320
June	1,198	82	31	39.9	2,380
July	1,062	68	24	34.3	2,110
August	873	45	23	28.2	1,730
September	5,713	3,150	20	190	11,330
Water year 1940-41	22,957.4	3,150	6.4	62.9	45,550

Peak discharge.- Mar. 26 (3 p.m.) 2,790 sec.-ft.; Apr. 27(1:30 p.m.) 4,630 sec.-ft.; May 3 (9 a.m.) 7,000 sec.-ft.; Sept. 18 (9 p.m.) 6,760 sec.-ft.

a No gage-height record; discharge computed on basis of records for Noyes Canal at Menard and weather records.

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

San Saba River at San Saba, Tex.

Location.- Water-stage recorder, lat. 31°12'10", long. 98°42'15", at bridge on San Saba-Chadwick Mill highway, three-quarters of a mile northeast of San Saba, San Saba County, and 15 miles upstream from mouth. Datum of gage is 1,153.3 feet above mean sea level, datum of 1929.

Drainage area.- 3,046 square miles.

Records available.- August 1930 to September 1941. December 1904 to December 1906 and September 1915 to August 1930 at site 4½ miles upstream.

Average discharge.- 26 years (1915-41), 295 second-feet.

Extremes.- Maximum discharge during year, 27,200 second-feet Apr. 28 (gage height, 33.25 feet); minimum, 43 second-feet Oct. 10.

1904-6, 1915-41: Maximum discharge, 203,000 second-feet July 23, 1938 (gage height, 45.18 feet, from floodmarks at highest stage known), by slope-area method; no flow Aug. 9, 10, 1918.

Remarks.- Records good except those above 500 second-feet, which are fair. Diversions above station for irrigation and municipal supply affect low flow.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	461	176	226	360	185	322	960	391	360	162	188
2	53	212	167	219	625	181	300	835	383	330	156	177
3	52	114	157	205	423	183	378	4,620	525	315	152	169
4	48	95	153	205	322	180	262	3,790	1,240	330	151	162
5	47	85	161	198	278	171	248	2,700	665	338	150	155
6	48	86	148	197	262	271	240	1,900	545	315	155	151
7	49	87	144	192	255	1,220	233	1,260	608	300	159	147
8	49	94	142	190	240	474	226	1,010	1,190	g578	153	144
9	46	135	158	184	233	322	219	826	605	g262	153	190
10	43	194	135	180	233	278	212	725	625	g255	153	421
11	44	183	311	173	212	248	212	665	1,180	811	153	345
12	48	149	338	170	212	226	212	777	786	147	255	177
13	49	130	262	176	198	212	212	605	491	368	146	322
14	48	115	226	188	194	205	205	585	407	322	495	240
15	49	110	672	195	187	205	212	545	912	292	362	212
16	52	105	725	178	190	198	262	527	3,270	300	226	192
17	64	103	415	167	188	205	330	509	1,660	g285	195	191
18	54	101	315	160	183	344	265	491	665	g262	178	365
19	48	100	270	155	178	473	255	491	473	g248	166	2,820
20	50	100	248	153	176	375	278	545	407	1,140	157	2,460
21	48	101	226	153	174	330	292	1,190	375	417	152	788
22	46	103	219	153	178	300	240	1,310	352	315	150	455
23	44	259	205	155	240	278	226	706	345	a255	151	352
24	45	948	198	152	300	262	255	565	358	a219	153	509
25	76	1,000	195	150	278	255	240	491	330	a205	146	431
26	414	454	219	151	240	581	603	455	322	a198	155	330
27	151	292	360	151	212	1,160	4,340	439	3,780	a195	939	292
28	117	233	352	153	198	1,280	15,700	423	2,230	190	585	262
29	354	205	285	153	-	636	3,280	415	641	184	402	240
30	176	191	248	144	-	439	1,460	407	423	178	255	233
31	121	-	233	153	-	368	-	399	-	170	212	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,586	414	43	83.4	5,130
November	6,545	1,000	85	218	12,980
December	8,033	726	135	259	15,930
Calendar year 1940	71,124	3,270	43	194	141,100
January	5,379	226	144	174	10,670
February	6,969	625	171	249	13,820
March	12,045	1,280	171	389	23,890
April	31,739	15,700	205	1,058	62,950
May	31,012	4,620	399	1,000	61,510
June	26,155	3,780	322	872	51,880
July	10,423	1,140	170	336	20,670
August	7,069	939	146	228	14,020
September	13,188	2,820	144	440	26,160
Water year 1940-41	161,143	15,700	43	441	319,600

Peak discharge.- Apr. 28 (1:30 a.m.) 27,200 sec.-ft.; May 3 (3 p.m.) 6,550 sec.-ft.; May 4 (5 p.m.) 4,570 sec.-ft.; June 16 (3 p.m.) 3,900 sec.-ft.; June 27 (5 p.m.) 7,510 sec.-ft.; Sept. 20 (6:30 a.m.) 3,260 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage, available gage heights, and weather records.

g Computed from graph based on gage readings.

Noyes Canal at Menard, Tex.

Location.- Water-stage recorder, lat. 30°55', long. 99°47', at intersection of Canal and Gay Streets in Menard, Menard County, 4½ miles downstream from headgates. Datum of gage is 1,878.1 feet above mean sea level, datum of 1929.

Records available.- March 1924 to September 1941.

Average discharge.- 16 years (1924-37, 1938-41), 15.0 second-feet.

Extremes.- Maximum daily discharge during year, 29 second-feet June 7, Sept. 19; no flow at times.

1924-41: Maximum daily discharge (exclusive of times canal was submerged by waters of San Saba River), 50 second-feet Apr. 15, 1925 (probably affected by local runoff between point of diversion and station); no flow at times.

Remarks.- Records good. Discharge represents flow diverted from San Saba River not including local runoff between point of diversion and station. Canal diverts water from right bank of San Saba River 4 miles above Menard, for irrigation near Menard; 10 acres irrigated above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	23	0	24			0	0	26	22	18	0
2	22	23	0	24			0	e.2	26	22	17	0
3	22	23	0	24			0	e2.0	27	23	18	0
4	22	24	0	24			0	e4.0	28	23	18	0
5	22	24	0	23			0	1.1	26	22	18	0
6	22	24	0	23			0	1.2	e26	21	17	0
7	22	24	10	23			0	.8	29	21	17	7.6
8	20	24	22	23			0	.5	27	20	18	15
9	22	24	23	23			0	.4	28	20	18	e19
10	23	15	24	23			8.4	.3	e27	e20	17	19
11	24	.6	24	23			17	.2	28	22	17	15
12	24	0	24	23			16	.2	27	20	16	15
13	24	0	24	24			18	.1	26	20	e17	16
14	24	0	24	24			19	.1	25	20	20	15
15	24	0	24	23			19	0	e25	19	19	15
16	24	0	24	23			e21	0	e26	19	16	17
17	24	0	24	22			22	0	26	18	14	e18
18	24	0	24	22			22	13	24	18	14	e28
19	24	0	24	23			e24	25	24	e20	14	29
20	24	0	24	23			24	26	a24	17	14	26
21	24	0	24	23			22	26	a24	16	16	22
22	23	0	24	23			22	26	a24	16	17	20
23	23	0	24	23			22	26	23	16	16	e20
24	23	0	24	23			23	26	24	16	17	23
25	24	0	24	23			22	26	25	16	16	20
26	24	0	24	14			e25	27	e23	15	e3.0	19
27	24	0	24	.1			e22	27	23	16	e2.4	19
28	e24	0	24	0			e12	27	23	18	e2.2	19
29	24	0	24	0				1.2	27	22	18	.2
30	23	0	24	0				.1	26	22	19	0
31	23	-	24	0					26	-	19	0

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	719	24	20	23.2	1,430
November	228.6	24	0	7.62	453
December	583	24	0	18.8	1,160
Calendar year 1940	5,715.8	30	0	15.6	11,350
January	593.1	24	0	19.1	1,180
February	0	0	0	0	0
March	0	0	0	0	0
April	381.7	23	0	12.7	757
May	385.1	27	0	11.8	724
June	758	29	22	25.3	1,500
July	592	23	15	19.1	1,170
August	426.8	20	0	13.8	847
September	454.6	29	0	15.2	902
Water year 1940-41	5,101.9	29	0	14.0	10,120

a No gage-height record; discharge computed on basis of known range in stage and weather records.
 e Gage height not representative; discharge computed on basis of records for San Saba River at Menard, Tex.

Brady Creek at Brady, Tex.

Location.- Water-stage recorder, lat. 31°08'15", long. 99°19'55", just upstream from bridge on North Bridge Street in Brady, McCulloch County, and 0.4 mile downstream from Live Oak Creek. Datum of gage is 1,646.50 feet above mean sea level, datum of 1929.

Drainage area.- 575 square miles.

Records available.- May 1939 to September 1941.

Extremes.- Maximum discharge during year, 13,900 second-foot Apr. 27 (gage height, 16.81 feet), from rating curve extended above 8,000 second-foot; no flow Oct. 1-24.

1939-41: Maximum discharge, that of Apr. 27, 1941; no flow at times.

Maximum stage known, 29.1 feet, July 23, 1936, present site and datum (discharge at site 5 miles downstream, 86,000 second-foot, by slope-area method).

Remarks.- Records good. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.2	0.2	1.2	24	1.8	9.0	a63	5.4	7.8	0.6	0.4
2	0	.2	.2	1.1	11	1.6	7.5	a280	5.2	5.7	.2	.4
3	0	.1	.2	1.0	4.9	1.5	6.4	675	76	5.6	.1	.1
4	0	.2	.2	.8	3.5	1.2	5.4	163	65	6.1	.1	.1
5	0	.2	.2	.9	3.4	1.1	4.6	288	67	4.4	.2	.1
6	0	.2	.2	.8	4.2	20	4.2	155	105	3.5	.2	.1
7	0	.2	.2	.8	3.4	6.7	4.0	72	639	3.1	.1	.1
8	0	1.9	.2	.7	3.4	3.0	3.6	44	96	3.1	.1	.1
9	0	2.4	.2	.6	2.3	2.2	3.5	32	40	2.7	.1	9.9
10	0	.5	.2	.5	2.2	1.7	3.4	28	335	2.4	.1	1.8
11	0	.2	2.9	.4	1.9	1.4	3.3	21	162	6.2	.1	1.2
12	0	.1	1.3	.4	1.7	1.4	3.2	19	52	41	.2	4.8
13	0	.1	.8	1.3	1.4	1.1	3.2	17	26	15	.3	2.4
14	0	.1	a.7	1.2	1.1	1.1	21	14	17	8.8	5.3	5.3
15	0	.1	a3.4	.9	1.0	1.1	7.0	13	15	6.9	1.9	4.7
16	0	.1	4.1	.6	1.0	1.1	33	12	88	4.9	.9	3.8
17	0	.1	2.2	.4	.8	4.3	11	11	28	3.7	.2	38
18	0	.1	1.6	.3	.8	15	4.2	10	13	3.2	.1	136
19	0	.1	1.3	.3	.8	8.5	23	12	16	20	.1	113
20	0	.1	1.1	.3	.8	5.6	9.2	10	12	12	.1	49
21	0	.1	.8	.3	.9	4.6	4.2	24	9.0	5.2	.1	23
22	0	.3	.8	.3	1.1	4.6	3.7	16	7.0	4.1	.1	14
23	0	.8	.6	.3	7.2	4.4	17	13	5.6	3.3	.1	12
24	.6	2.0	.6	.3	6.0	3.6	18	12	5.2	2.9	.1	10
25	1.0	1.4	.6	.4	3.2	104	5.8	9.4	4.8	2.6	.1	7.3
26	.2	.4	9.9	.4	2.8	415	401	8.0	222	2.6	.2	4.8
27	.1	.4	7.7	.3	2.4	64	4,870	7.4	412	2.1	.4	4.0
28	2.7	.3	3.3	.3	2.2	30	537	6.9	62	1.9	.4	3.6
29	3.3	.2	2.2	.3	-	20	155	6.4	20	1.9	.1	3.1
30	1.2	.2	1.5	.4	-	14	a82	6.1	11	1.4	.1	2.7
31	.6	-	1.3	1.5	-	11	-	6.0	-	1.2	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	9.7	3.3	0	0.31	19
November.....	13.3	2.4	.1	.44	26
December.....	50.7	9.9	.2	1.64	101
Calendar year 1940.....	7,808.1	2,250	0	21.3	15,480
January.....	19.3	1.5	.3	.62	38
February.....	99.4	24	.8	3.55	197
March.....	756.6	415	1.1	24.4	1,500
April.....	6,563.4	4,870	3.2	219	13,020
May.....	2,054.2	675	6.0	66.3	4,070
June.....	2,219.2	839	4.8	94.0	5,590
July.....	195.3	41	1.2	6.30	387
August.....	12.6	5.1	.1	.41	25
September.....	455.8	136	.1	15.2	904
Water year 1940-41.....	13,049.5	4,870	0	35.8	25,880

Peak discharge.- Apr. 27 (1 p.m.) 13,900 sec.-ft.; June 7 (4:30 a.m.) 1,940 sec.-ft.; June 26 (10 p.m.) 2,300 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

North Llano River near Junction, Tex.

Location.- Water-stage recorder, lat. 30°30', long. 99°47', about 1,000 feet above remains of old Wilson Dam, 3 miles northwest of Junction, Kimble County, and 4 miles upstream from confluence with South Llano River. Datum of gage is 1,699.9 feet above mean sea level, datum of 1929.

Drainage area.- 914 square miles.

Records available.- September 1915 to September 1941.

Average discharge.- 26 years, 79.9 second-feet.

Extremes.- Maximum discharge during year, 6,120 second-feet Mar. 25 (gage height, 6.57 feet); minimum, 10 second-feet Oct. 15.

1915-41: Maximum discharge, 94,800 second-feet Sept. 16, 1936 (gage height, 29.2 feet, present site, based on gage-height relation curve), by slope-area method; no flow at times.

Remarks.- Records good. Diversions for irrigation reduce low flow materially.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	18	20	21	25	19	84	23	38	23	16	26
2	15	15	20	21	25	19	80	65	36	22	15	24
3	15	15	19	22	24	18	73	470	42	23	14	24
4	15	16	19	22	23	18	69	174	51	23	14	21
5	15	17	19	22	23	17	64	134	48	21	13	18
6	14	17	19	22	24	35	58	49	44	20	13	16
7	15	17	20	22	23	24	57	32	41	19	12	15
8	14	32	19	22	24	24	53	28	40	19	13	13
9	14	29	19	22	24	23	49	25	36	19	13	31
10	14	26	20	21	24	21	48	27	44	27	12	24
11	15	23	62	21	24	19	48	36	51	89	12	31
12	15	19	30	21	23	19	44	82	41	44	12	29
13	15	18	28	23	21	19	44	75	36	34	12	23
14	15	17	26	23	21	18	44	71	35	164	17	20
15	14	17	26	22	21	19	44	69	38	114	25	19
16	15	17	24	22	20	18	41	69	38	58	22	36
17	15	17	24	21	19	22	40	66	35	46	19	37
18	15	17	23	21	19	29	38	64	32	38	18	126
19	15	17	23	21	19	26	36	62	30	58	17	60
20	15	18	23	22	19	25	34	60	29	48	16	44
21	15	18	23	21	19	24	34	58	29	36	16	38
22	15	18	22	21	19	24	34	57	28	32	16	35
23	15	18	21	20	20	24	35	57	29	30	15	38
24	15	32	21	20	21	23	35	57	29	27	15	40
25	17	31	21	20	21	1,400	34	53	28	25	137	36
26	17	24	21	20	21	1,410	49	49	29	24	231	34
27	16	22	20	19	20	331	1,120	48	27	22	154	32
28	17	21	20	20	19	162	272	46	25	21	178	30
29	16	21	20	20	-	124	126	42	24	19	62	29
30	15	21	21	20	-	104	40	41	23	18	41	28
31	26	-	21	21	-	94	-	40	-	17	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	479	26	14	15.5	950
November.....	608	32	15	20.3	1,210
December.....	714	62	19	23.0	1,420
Calendar year 1940.....	12,112	1,000	11	33.1	24,030
January.....	656	23	19	21.2	1,300
February.....	605	25	19	21.6	1,200
March.....	4,152	1,410	17	134	8,240
April.....	2,627	1,120	34	94.2	5,610
May.....	2,229	470	23	71.8	4,420
June.....	1,056	51	23	35.2	2,090
July.....	1,180	164	17	38.1	2,340
August.....	1,200	231	12	38.7	2,380
September.....	977	126	13	32.6	1,940
Water year 1940-41.....	16,683	1,410	12	45.7	33,100

Peak discharge.- Mar. 25 (4 p.m.) 6,120 sec.-ft.; Apr. 27 (12:30 p.m.) 4,820 sec.-ft.; Aug. 25 (9:30 p.m.) 2,010 sec.-ft.
 a No gage-height record; discharge computed on basis of recorded range in stage and records for Llano River near Junction.

Llano River near Junction, Tex.

Location.- Water-stage recorder, lat. 30°30', long. 99°44', 960 feet upstream from bridge on Junction-Mason county road, 2 miles downstream from confluence of North Llano and South Llano Rivers, and 2½ miles east of Junction, Kimble County. Datum of gage is 1,636.32 feet above mean sea level, datum of 1929.

Drainage area.- 1,762 square miles.

Records available.- September 1915 to September 1941.

Average discharge.- 26 years, 235 second-feet.

Extremes.- Maximum discharge during year, 7,250 second-feet Apr. 27 (gage height, 9.05 feet); minimum, 65 second-feet Sept. 8, 9.

1915-41: Maximum discharge, 319,000 second-feet June 14, 1935 (gage height, 41.4 feet, present site and datum, from floodmarks), by slope-area method; minimum, 13 second-feet Aug. 23-28, 1918.

Remarks.- Records excellent. About 2,500 acres above and 1,300 acres below station have been declared irrigated. Diversions slightly reduce low flow. Slight regulation by power plant on South Llano River.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	81	84	83	87	71	141	294	122	81	80	83
2	70	77	83	81	92	73	135	304	118	80	78	78
3	70	76	83	81	87	71	126	861	124	81	77	78
4	67	76	83	81	84	70	120	447	141	84	77	76
5	67	77	83	81	83	70	114	358	135	80	76	73
6	67	78	84	81	84	87	111	312	128	78	74	69
7	69	76	84	81	83	86	107	291	124	78	74	67
8	67	95	83	78	84	78	105	277	120	80	78	66
9	67	94	81	78	84	77	102	258	116	81	80	98
10	67	92	83	77	81	74	100	249	131	204	78	98
11	67	89	158	77	78	74	98	240	135	218	77	113
12	67	84	135	77	77	73	98	246	124	139	74	118
13	67	83	107	83	76	73	97	223	118	113	92	102
14	67	81	97	83	73	71	97	212	111	213	92	94
15	69	80	100	80	73	73	97	198	111	314	81	89
16	67	80	95	78	73	73	95	190	114	158	81	113
17	69	80	90	77	71	80	95	185	111	133	80	137
18	69	80	89	76	71	95	94	180	105	120	77	232
19	67	80	87	77	71	92	90	178	102	160	76	f165
20	67	81	86	78	71	87	89	170	100	162	76	f135
21	67	81	86	80	71	86	87	165	98	126	76	120
22	67	83	84	77	73	86	89	160	97	114	76	111
23	67	83	83	77	76	81	92	158	97	109	76	111
24	67	87	83	77	77	81	92	156	92	104	74	116
25	76	104	81	76	74	936	92	150	78	98	97	109
26	74	94	83	76	74	1,570	124	143	86	94	400	105
27	71	87	80	76	73	526	269	139	87	90	218	104
28	73	86	80	76	71	261	2,070	137	87	87	236	100
29	71	86	78	74	-	193	532	131	84	84	128	98
30	70	84	80	76	-	168	358	128	81	83	100	98
31	115	-	81	77	-	152	-	122	-	80	89	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,178	115	67	70.3	4,320
November.....	2,517	104	76	83.9	4,990
December.....	2,774	168	78	89.5	5,500
Calendar year 1940.....	39,725	1,070	67	109	78,790
January.....	2,430	83	74	78.4	4,820
February.....	2,172	92	71	77.6	4,310
March.....	5,690	1,570	70	184	11,290
April.....	5,916	2,070	87	197	11,730
May.....	7,262	861	122	234	14,400
June.....	3,277	141	78	109	6,500
July.....	3,726	314	78	120	7,390
August.....	3,148	400	74	102	6,240
September.....	3,156	232	66	105	6,260
Water year 1940-41.....	44,246	2,070	66	121	87,750

Peak discharge.- Mar. 25 (6 p.m.) 3,940 sec.-ft.; Apr. 27 (3 p.m.) 7,250 sec.-ft.; May 3 (3 a.m.) 1,480 sec.-ft.; Aug. 26 (12:30 a.m.) 1,480 sec.-ft.
 f Fragmentary gage-height record; discharge computed from partly estimated gage height.

Llano River at Llano, Tex.

Location.- Water-stage recorder, lat. 30°45', long. 98°40', in Llano, Llano County, 0.4 mile downstream from bridge on State Highway 81 and 7 miles upstream from Little Llano River. Datum of gage is 970.0 feet above mean sea level, datum of 1929.

Drainage area.- 4,000 square miles.

Records available.- September 1939 to September 1941.

Extremes.- Maximum discharge during year, 26,700 second-feet Apr. 27 (gage height, 12.64 feet), from rating curve extended above 13,000 second-feet; minimum, 6.1 second-feet (regulated) July 30, Aug. 9; minimum daily, 37 second-feet Oct. 1.

1939-41: Maximum discharge, 28,200 second-feet June 20, 1940 (gage height, 12.90 feet), from rating curve extended above 13,000 second-feet; minimum, 5.1 second-feet (regulated) Aug. 6, 7, 1940.

Maximum stage known, 41.5 feet June 14, 1935, according to information furnished by local resident.

Remarks.- Records good except those for period of no gage-height record, which are poor. Low flow regulated by power plant half a mile upstream. No large diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	377	213	297	2,910	249	405	1,380	310	144	103	226
2	66	271	196	278	1,630	238	375	2,470	290	149	117	172
3	81	199	168	267	694	234	360	6,180	690	162	92	139
4	59	142	150	260	496	224	341	2,290	775	171	77	104
5	58	130	172	267	436	210	319	2,910	508	165	113	147
6	53	116	131	256	440	210	312	2,310	396	157	67	103
7	60	114	172	245	409	920	312	1,270	352	135	103	97
8	52	139	136	234	390	500	293	994	325	141	108	96
9	54	182	145	227	364	390	282	866	300	126	56	150
10	44	245	156	216	334	334	275	775	756	124	113	177
11	44	196	7,570	210	315	297	271	708	1,120	626	65	369
12	80	166	1,370	210	301	262	275	679	616	974	116	257
13	61	126	741	234	282	267	290	644	413	502	59	226
14	69	122	585	282	280	256	286	616	336	358	114	210
15	58	117	3,290	241	241	249	286	554	305	408	144	234
16	85	102	1,180	234	241	260	654	534	1,290	547	112	178
17	82	121	688	199	230	363	409	508	755	508	169	162
18	77	89	545	181	224	2,250	326	489	435	336	101	756
19	76	103	480	178	220	864	301	471	325	266	65	1,440
20	77	108	440	167	226	580	308	459	285	244	115	609
21	75	114	401	165	252	492	a260	1,550	285	280	97	418
22	75	128	371	172	278	452	a252	829	300	239	54	310
23	76	1,060	341	168	493	416	a241	514	257	239	79	280
24	75	1,230	319	171	538	382	a230	495	237	174	78	325
25	128	3,410	308	184	371	367	a224	430	233	155	74	374
26	139	839	595	159	319	821	a904	402	223	140	100	285
27	189	419	1,090	183	293	1,820	10,100	390	244	142	2,070	234
28	1,370	315	484	156	267	877	10,300	358	206	130	1,560	208
29	568	260	382	166	-	595	3,930	347	173	139	930	185
30	192	224	334	181	-	480	1,980	325	145	88	465	181
31	295	-	319	195	-	436	-	320	-	95	295	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,433	1,370	37	143	8,790
November	11,164	3,410	89	372	22,140
December	23,472	7,570	131	757	46,560
Calendar year 1940	126,762	9,950	-	346	251,400
January	6,573	297	156	212	13,040
February	13,454	2,910	220	480	26,690
March	19,015	2,910	210	613	37,720
April	35,301	10,300	224	1,177	70,070
May	33,057	6,180	320	1,066	65,570
June	12,887	1,290	145	430	25,560
July	8,064	974	88	260	15,990
August	7,610	2,070	54	245	15,090
September	8,652	1,440	96	288	17,180
Water year 1940-41	183,682	10,300	37	503	364,300

Peak discharge.- Nov. 25 (10 a.m.) 6,780 sec.-ft.; Dec. 11 (8:30 a.m.) 22,200 sec.-ft.; Apr. 27 (9 p.m.) 26,700 sec.-ft.; May 2 (12 p.m.) 13,900 sec.-ft.
 a No gage-height record; discharge computed on basis of engineer's notes and records for stations upstream.

Pedernales River near Johnson City, Tex.

Location.- Water-stage recorder, lat. 30°18', long. 98°24', on bridge on U. S. Highway 281, 1.5 miles north of Johnson City, Blanco County, and 1.9 miles downstream from Buffalo Creek. Datum of gage is 1,096.6 feet above mean sea level, unadjusted.

Drainage area.- 947 square miles.

Records available.- May 1939 to September 1941.

Extremes.- Maximum discharge during year, 21,100 second-feet Apr. 27 (gage height, 12.83 feet), from rating curve extended above 12,000 second-feet on basis of one slope-area determination at gage height 17.53 feet; minimum, 8.0 second-feet Oct. 5, 6, 20-23, 1939-41; Maximum discharge, 42,900 second-feet Oct. 25, 1939 (gage height, 17.53 feet, from floodmark), by slope-area method; minimum, 1.2 second-feet Oct. 1-3, 1939. Maximum stage known, about 33 feet in July 1869, according to information furnished by local residents.

Remarks.- Records good except those for period of no gage-height record, which are poor. No diversions for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	496	80	254	5,640	219	390	779	243	109	43	24
2	9.8	114	70	219	1,650	214	708	2,280	229	106	42	35
3	9.4	60	64	210	662	210	645	5,580	1,340	100	40	70
4	8.9	43	62	196	498	196	365	1,180	290	181	40	34
5	8.4	37	58	196	440	187	336	2,350	254	142	48	24
6	8.4	31	56	187	459	923	352	2,790	238	106	48	22
7	11	26	56	175	390	421	847	389	243	95	43	22
8	11	34	52	172	408	254	369	736	219	92	42	21
9	11	58	48	164	440	229	313	655	200	87	42	31
10	9.4	52	48	156	359	200	301	595	269	85	40	217
11	8.9	38	4,680	152	318	187	290	607	384	278	45	98
12	8.4	32	1,090	149	301	183	301	552	254	156	40	64
13	8.4	25	378	230	280	179	324	518	196	209	37	50
14	8.9	24	248	368	248	175	336	495	175	299	36	42
15	9.8	23	5,810	187	243	187	336	453	164	533	46	38
16	9.4	23	833	156	238	183	307	427	1,330	323	37	35
17	9.4	22	384	139	233	1,390	307	421	341	216	34	35
18	9.4	22	296	126	219	5,960	307	396	210	123	31	300
19	8.9	22	254	126	214	1,110	248	384	179	98	29	188
20	8.4	22	229	126	210	779	a233	371	168	87	28	87
21	8.4	136	200	126	214	639	a313	1,050	152	80	26	60
22	8.4	496	179	123	229	588	744	149	75	26	48	
23	8.4	998	164	120	423	531	a910	440	142	70	26	45
24	28	1,550	152	117	471	485	365	136	66	25	42	
25	154	589	149	114	313	453	336	133	62	25	38	
26	86	336	1,150	114	280	640	3,480	307	142	60	24	35
27	52	164	1,730	112	248	647	8,680	290	264	56	24	35
28	101	120	446	120	224	472	3,780	280	152	54	24	34
29	127	100	324	117	-	434	1,440	274	123	50	25	32
30	78	90	285	112	-	414	955	280	114	48	25	32
31	2,620	-	274	120	-	402	-	274	-	46	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,458.2	2,620	8.4	112	6,860
November	5,783	1,550	22	193	11,470
December	19,849	5,810	48	640	39,370
Calendar year 1940	74,818.8	5,810	7.4	204	148,400
January	4,983	368	112	161	9,680
February	15,832	5,640	210	565	31,400
March	19,111	5,980	176	616	37,910
April	29,317	8,680	233	977	59,150
May	27,067	5,580	274	874	53,750
June	8,433	1,340	114	281	16,730
July	4,092	533	46	132	8,120
August	1,068	48	24	34.5	2,120
September	1,838	300	21	61.3	3,650
Water year 1940-41	140,851.2	8,680	8.4	386	279,400

Peak discharge.- Dec. 11 (9 a.m.) 15,200 sec.-ft.; Dec. 15 (8 a.m.) 14,500 sec.-ft.; Apr. 27 (2:30 p.m.) 21,100 sec.-ft.; May 2 (12 p.m.) 14,500 sec.-ft.; May 5 (11 p.m.) 14,200 sec.-ft. A no gage-height record; discharge computed on basis of floodmark, engineer's notes, and weather records.

Barton Springs at Austin, Tex.

Location.- Lat. 30°16, long. 97°46'. Springs issue from channel and along banks of Barton Creek for a distance of 1,000 feet in Zilker Park at Austin, Travis County. The main spring is near right bank of creek 500 feet upstream from concrete dam forming swimming pool, 1,800 feet upstream from Austin-Bee Cave highway bridge and 0.6 mile upstream from mouth of Barton Creek.

Records available.- October 1918 to September 1926 and October 1940 to September 1941 (discharge measurements only). November 1894 to September 1918 and October 1926 to September 1940, discharge published as miscellaneous measurements. Summary of all discharge measurements prior to October 1937 is contained in Water-Supply Paper 850. Daily discharge record of Barton Creek at Austin published for period April 1917 to September 1918 closely approximates the flow of Barton Springs.

Extremes.- Maximum discharge measured during year, 166 second-feet May 10; minimum measured, 22.6 second-feet, Oct. 19.
1894-1941: Maximum discharge measured, that of May 10, 1941; minimum measured, 12.1 second-feet, Feb. 26, 1918.

Remarks.- Flow of Barton Creek is measured both above and below springs. Determinations of discharge represent total flow of springs including Old Mill Spring which is on right bank and about 1,000 feet downstream from main spring. Flow of springs emerges from Edwards limestone outcrop in Balcones fault zone and responds to local rainfall on Edwards Plateau. Water used for recreational purposes.

Discharge measurements, in second-feet, of Barton Creek and determination of discharge of Barton Springs, water year October 1940 to September 1941

Date	Barton Creek below springs	Barton Creek above springs	Barton Springs
Oct. 5	29.8	0	29.8
12	25.2	0	25.2
19	22.6	0	22.6
Nov. 2	67.4	31.7	35.7
16	25.8	0	25.8
Dec. 10	142.9	68.8	74.1
Jan. 5	194.1	112	82.1
11	149.9	82.1	67.8
18	114.5	44.1	70.4
25	100.8	32.4	68.4
Feb. 4	162.8	122	60.8
15	158.8	70.5	88.3
22	118.9	51.0	67.9
Mar. 1	142.6	70.3	72.3
15	176.9	111	65.9
29	357	221	136
Apr. 6	301	152	149
12	215	102	111
May 10	394	228	166
June 23	202	102	100
July 2	-	36.4	-
3	131.3	33.0	98.3
19	174.0	87.1	86.9
31	103.3	16.8	86.5
Aug. 14	94.2	4.27	89.9
27	79.4	1.94	77.5
Sept. 15	73.8	1.24	72.6
28	61.2	.25	60.9

Dry Creek at Buescher Lake, near Smithville, Tex.

Location.- Water-stage recorder above concrete spillway of dam, lat. 30°03', long. 97°09', in Bastrop-Buescher State Park, 1.9 miles upstream from mouth and 2.2 miles north of Smithville, Bastrop County. Datum of gage is 327.9 feet above mean sea level, datum of 1929.

Drainage area.- 1.48 square miles (area above dam).

Records available.- October 1939 to September 1941.

Extremes.- Maximum discharge during year, 903 second-feet June 7 (gage height, 23.28 feet); maximum gage height, 23.62 feet June 7; no flow at times.

1939-41: Maximum discharge, 1,870 second-feet June 30, 1940 (gage height, 24.82 feet); maximum gage height, 24.96 feet June 30, 1940; no flow at times.

Remarks.- Records fair. They represent flow into Buescher Lake. No flow from area except during and immediately following precipitation. Discharge below gage height 22.27 feet (spillway crest) determined from change in contents in lake; that above gage height 22.27 feet determined by algebraic summation of flow over spillway (computed from spillway curve) and change in contents in lake (computed from capacity curve and reduced to equivalent second-feet). No adjustments made for evaporation or seepage losses. Capacity of lake, 255 acre-feet. No diversions above station or from lake.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	0	0	2.8	0	0	0	0	0		
2	0	0	0	0	.3	0	0	e8.9	0	0		
3	0	0	0	0	0	0	0	e12	0	0		
4	0	2.2	0	0	0	0	0	e3.1	0	0		
5	0	5.0	0	0	0	.5	0	e.8	0	0		
6	0	0	1.4	0	.6	3.0	0	0	0	0		
7	0	0	1.0	0	0	0	0	0	e60	0		
8	0	0	0	0	0	0	0	0	e1.9	0		
9	0	0	0	0	0	0	0	0	0	0		
10	0	0	0	0	0	0	0	0	e25	0		
11	0	.7	9.1	0	0	0	0	.9	e4.3	2.7		
12	0	0	15	0	0	0	0	0	e.4	e19		
13	0	0	1.6	e16	0	0	0	0	0	e8.4		
14	0	0	.3	e8.7	0	0	0	0	0	e24		
15	0	0	e19	e4.9	0	0	0	0	0	e7.1		
16	0	0	e8.8	0	0	0	0	0	e5.0	e2.9		
17	0	0	e2.0	0	0	1.7	0	0	0	e2.0		
18	0	0	0	0	0	e9.9	0	0	0	0		
19	0	0	e13	0	1.0	e7.3	0	0	0	0		
20	0	0	e5.0	0	0	e4.4	0	0	0	e5.9		
21	0	0	e.4	0	0	e1.4	2.0	5.3	e1.9	0		
22	0	0	0	0	.4	e.5	3.3	e12	0	0		
23	0	.7	0	0	6.1	0	e32	e3.3	0	0		
24	0	27	0	0	1.9	0	e7.9	0	0	0		
25	0	5.0	.6	0	0	0	e2.0	0	0	0		
26	0	.3	.7	0	0	e6.6	e17	0	0	0		
27	0	0	0	0	0	e1.9	e5.8	0	0	0		
28	0	0	0	0	0	0	e3.1	0	0	0		
29	0	0	0	0	0	0	e1.5	0	0	0		
30	0	0	0	0	-	0	e.7	0	0	0		
31	2.0	-	0	0	-	0	-	0	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2.0	2.0	0	0.06	4.0
November	41.9	28	0	1.40	83
December	77.9	19	0	2.51	155
Calendar year 1940	664.5	383	0	1.82	1,310
January	29.6	16	0	.95	59
February	13.1	6.1	0	.47	26
March	37.2	9.9	0	1.20	74
April	76.3	32	0	2.54	151
May	46.3	12	0	1.49	92
June	104.4	60	0	3.48	207
July	66.1	24	0	2.13	131
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1940-41	494.8	60	0	1.36	982

Note.- No gage-height record July 23-29, July 31 to Aug. 20, Sept. 25-30; range in stage and weather records indicate no flow.

e Flow passing over spillway.

Lavaca River at Hallettsville, Tex.

Location.- Water-stage recorder and wire-weight gage, lat. 29°26', long. 96°57', at bridge on U. S. Highway 77, in Hallettsville, Lavaca County, and 0.4 mile upstream from Texas & New Orleans Railroad bridge. Datum of gage is 186.7 feet above mean sea level, datum of 1929.

Drainage area.- 101 square miles.

Records available.- July 1939 to September 1941.

Extremes.- Maximum discharge during year, 17,000 second-feet Nov. 24 (gage height, 29.36 feet); minimum, 0.8 second-foot Oct. 5-11.

1939-41: Maximum discharge, 93,100 second-feet June 30, 1940 (gage height, 40.60 feet, from floodmarks to highest flood known), by slope-area method; minimum, 0.4 second-foot Sept. 23, 1939.

Maximum stage known prior to 1940, 32.8 feet, July 16, 1936, according to information furnished by local resident.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Subsequent to Jan. 24, discharge computed from available recorder record and graph based on two or more daily gage readings. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	156			557	19	20	123	22		7.0	6.3
2	1.0	14			372	19	21	198	20		6.8	6.3
3	.9	9.4	a25		18	19	77	2,440	19		7.0	6.1
4	.9	7.0			19	18	24	109	19		6.8	6.0
5	.9	1,980			17	17	19	1,490	18		8.4	5.8
6	.9	40			153	1,270	19	116	15	a26	40	5.6
7	.9	9.2		a21	44	311	834	58	23		212	5.5
8	.9			a81	92	37	49	42	27		64	5.5
9	.9				44	24	30	33	16		48	5.5
10	.9				26	17	24	28	39		25	80
11	.9		1,100		24	17	21	1,280	994		13	14
12	.9		1,690		21	17	20	618	941		10	7.0
13	.9		255		19	17	20	66	71	33	9.3	6.0
14	.9		49	1,230	17	16	20	45	43	112	8.8	5.6
15	1.2	a7.9	1,720		17	16	19	37	36	31	8.6	5.6
16	1.2		117		17	16	16	32	189	24	8.0	6.1
17	1.2		39	a275	17	188	15	31	50	24	7.8	13
18	1.2		a35		16	1,200	13	29			7.4	8.2
19	1.2		128		16	542	13	27	a37		7.0	6.1
20	1.2		1,200		18	416	13	26			7.0	5.6
21	1.1		123		17	62	603	234	102		6.6	5.3
22	1.1			a21	16	42	1,810	2,240	77		6.6	5.0
23	1.2	10			17	68	647	569	55	a13	6.6	5.0
24	1.3	8,370			372	34	198	84	23		6.4	5.0
25	1.7	2,130	a78		204	30	63	82	20		6.3	5.0
26	2.6	967		16	26	27	893	59	373		6.3	4.7
27	2.0	39		15	21	27	392	38	249		6.3	4.6
28	1.9		218		14	19	163	38	36		6.3	4.5
29	1,180			14	-	22	95	38	24		6.4	4.4
30	14		a30		14	-	22	244	30	20	7.4	6.4
31	845	-		14	-	21	-	25	-	7.2	6.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,071.8	1,180	0.9	66.8	4,110
November	13,940.1	8,370	-	465	27,650
December	7,778	1,720	-	251	15,430
Calendar year 1940	63,442.9	33,600	.8	173	125,800
January	3,086	1,230	-	99.5	6,120
February	2,234	557	16	79.6	4,430
March	4,535	1,270	18	146	9,000
April	6,395	1,310	13	213	12,680
May	10,265	2,440	25	331	20,360
June	3,632	994	15	121	7,200
July	706.6	-	-	22.8	1,400
August	582.5	212	6.3	18.8	1,160
September	257.7	80	4.4	8.59	511
Water year 1940-41	55,483.7	8,370	.9	182	110,100

Peak discharge.- Nov. 24 (3 p.m.) 17,000 sec.-ft.; Dec. 11 (10 p.m.) 6,160 sec.-ft.; May 11 (10:30 a.m.) 4,880 sec.-ft.; May 22 (8 p.m.) 7,400 sec.-ft.

a No gage-height record; discharge computed on basis of available gage heights, records for station near Edna, engineer's notes, and weather records.

Lavaca River near Edna, Tex.

Location.- Wire-weight gage, lat. 28°58', long. 96°42', on bridge on U. S. Highway 96, 550 feet upstream from Texas & New Orleans Railroad bridge, and 2.8 miles southwest of Edna, Jackson County. Datum of gage is 13.88 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 687 square miles.

Records available.- August 1938 to September 1941.

Extremes.- Maximum discharge during year, 51,200 second-feet Nov. 26 (gage height, 29.7 feet, from graph based on gage readings); minimum observed, 18 second-feet Oct. 16-24, 1938-41: Maximum discharge, 73,000 second-feet July 1, 1940 (gage height, 32.51 feet); minimum observed, 5.2 second-feet July 10, 1939.
Maximum stage known, 33.8 feet May 25, 1936, according to information furnished by local resident (discharge, 83,400 second-feet).

Remarks.- Records good. Gage read twice daily; more often during high stages. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	4,620	c380	284	160	162	210	1,010	476	420	110	81
2	22	1,990	333	263	1,050	152	204	605	393	350	107	74
3	22	313	284	243	1,990	144	640	4,680	308	338	101	70
4	21	174	250	224	388	142	620	15,400	2,220	300	99	68
5	21	1,540	230	210	256	135	298	c9,950	1,460	270	101	65
6	21	7,000	210	204	395	146	217	c6,500	425	242	138	63
7	21	5,930	319	204	940	2,260	422	c4,150	409	221	546	63
8	20	700	1,520	191	636	3,420	1,170	c703	425	207	1,490	63
9	20	277	604	184	1,210	493	422	c490	353	196	799	65
10	20	204	277	175	601	270	236	c400	285	186	315	130
11	20	164	224	170	312	224	204	393	301	246	221	164
12	20	142	298	165	250	191	191	3,730	4,480	2,080	172	166
13	20	137	4,330	160	217	172	178	5,580	9,990	810	150	112
14	20	93	5,860	1,880	191	157	175	801	2,530	794	134	83
15	20	79	2,650	5,920	175	148	173	425	546	1,350	125	73
16	18	71	6,600	4,610	161	146	166	345	667	1,910	118	181
17	18	68	5,850	700	158	352	160	300	1,570	425	114	155
18	18	67	864	416	155	4,900	153	270	723	393	109	101
19	18	64	680	312	155	11,900	149	242	385	300	105	112
20	18	62	3,680	263	151	8,750	142	228	315	242	101	86
21	18	60	7,280	243	152	c2,750	140	256	442	207	99	72
22	18	66	3,770	224	152	c693	234	3,940	425	186	95	65
23	18	62	704	217	172	c520	2,810	7,660	459	173	91	65
24	18	151	496	204	908	432	5,920	9,990	442	164	88	68
25	23	25,200	400	198	1,060	863	3,720	2,990	417	151	86	68
26	40	39,500	432	191	333	600	912	660	647	144	82	99
27	31	c12,100	858	191	224	365	5,290	720	7,210	138	78	58
28	58	c1,130	1,100	173	184	333	8,700	510	17,400	139	75	53
29	1,490	c530	566	170	-	263	3,040	707	4,560	125	84	60
30	2,470	c440	348	168	-	230	1,120	1,700	581	120	84	60
31	1,470	-	298	162	-	217	-	918	-	114	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,054	2,470	18	195	12,010
November	102,934	39,500	60	3,431	204,200
December	51,685	7,280	210	1,667	102,500
Calendar year 1940	299,492.4	49,600	7.9	818	594,100
January	18,924	5,820	160	607	37,340
February	12,786	1,990	151	457	25,360
March	41,560	11,900	135	1,341	82,430
April	38,016	8,700	140	1,267	75,400
May	86,273	15,400	228	2,783	171,100
June	60,844	17,400	285	2,028	120,700
July	12,932	2,080	114	417	25,550
August	6,108	1,490	75	197	12,120
September	2,663	181	60	88.8	5,280
Water year 1940-41	440,679	39,500	18	1,207	874,100

c Backwater from return flow below station; discharge computed from backwater curve based on discharge measurements.

Navidad River near Ganado, Tex.

Location.- Wire-weight gage, lat. 29°02', long. 96°33', on bridge on U. S. Highway 96, 100 feet upstream from Texas & New Orleans Railroad bridge, a quarter of a mile downstream from Sandy Creek, and 2½ miles southwest of Ganado, Jackson County. Datum of gage is 13.62 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,116 square miles.

Records available.- May 1939 to September 1941.

Extremes.- Maximum discharge during year, 64,500 second-feet Nov. 26 (gage height, 36.50 feet, from floodmark); minimum observed, 9.2 second-feet Oct. 21.

1939-41: Maximum discharge, 64,500 second-feet July 2, 1940 and Nov. 26, 1940; maximum gage height, 36.54 feet July 2, 1940, from floodmark; minimum observed, 4.0 second-feet Nov. 1, 1939.

Maximum stage known, 39.8 feet May 27, 1936, according to information furnished by engineers of Texas & New Orleans Railroad (discharge, 94,000 second-feet, from rating curve extended above 60,000 second-feet).

Remarks.- Records good. Gage read twice daily; more often during high stages. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	7,160	666	542	144	271	218	4,090	3,580	c549	90	172
2	16	5,630	614	470	247	218	204	3,380	1,270	c333	83	136
3	14	1,680	506	363	1,090	197	463	4,720	560	325	76	127
4	13	443	426	341	672	183	770	9,860	417	271	72	127
5	12	2,740	383	301	632	169	355	14,900	333	226	73	126
6	12	7,550	366	278	417	162	226	14,900	271	197	82	105
7	12	c7,980	488	271	551	472	278	c9,600	264	176	852	122
8	11	c3,890	750	256	1,200	2,600	1,580	c3,740	1,350	166	3,580	163
9	11	c1,400	667	241	1,390	2,410	936	c775	1,210	143	4,420	144
10	11	c596	408	226	810	454	294	578	810	135	2,560	172
11	11	c400	341	211	542	286	211	c506	506	564	748	186
12	10	c366	789	204	400	241	179	c434	4,040	5,080	417	234
13	10	c349	4,120	197	301	204	168	1,330	6,340	6,950	317	294
14	11	301	7,720	2,600	226	190	162	717	2,790	8,230	264	133
15	12	341	11,800	7,430	183	183	150	392	1,120	7,380	211	138
16	11	183	c8,640	6,480	169	183	136	333	596	5,330	180	211
17	10	142	c7,680	3,000	156	466	133	286	933	3,230	161	496
18	10	134	c3,760	1,000	150	4,280	125	256	836	1,380	162	620
19	11	130	c1,780	614	150	8,580	113	241	578	614	142	211
20	10	122	3,260	417	162	11,400	113	226	426	392	134	124
21	9.5	120	6,020	325	176	c9,640	113	484	374	286	127	94
22	10	125	6,080	286	211	c3,620	1,740	1,500	942	226	140	77
23	9.6	122	2,160	266	248	c989	5,680	2,360	1,260	186	130	78
24	10	474	938	234	1,330	c650	9,170	2,070	452	164	115	98
25	14	31,200	850	218	2,390	c578	16,500	969	408	135	109	134
26	15	59,700	1,150	197	990	c542	12,100	650	857	120	101	211
27	15	39,500	2,300	189	542	c452	c5,570	650	4,910	106	111	177
28	50	17,000	3,350	179	341	c408	c5,090	560	11,200	101	125	159
29	1,240	c2,960	3,370	168	-	c341	c4,160	1,770	c8,480	97	153	115
30	2,970	c760	1,320	150	-	278	c2,510	4,860	c1,560	92	189	106
31	5,150	-	670	142	-	241	-	6,880	-	97	190	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,729.0	5,150	9.5	314	19,300
November	193,498	59,700	120	6,450	383,800
December	83,972	11,800	341	2,709	166,600
Calendar year 1940	413,952.9	59,700	4.1	1,131	821,100
January	27,806	7,430	142	897	55,150
February	16,210	2,390	144	579	32,150
March	50,888	11,400	162	1,642	100,900
April	69,447	16,500	113	2,315	137,700
May	94,007	14,900	226	3,032	186,500
June	58,713	11,200	264	1,957	116,500
July	43,285	8,230	92	1,396	85,850
August	16,104	4,420	72	519	31,940
September	5,279	620	77	176	10,470
Water year 1940-41	668,938	59,700	9.5	1,833	1,327,000

c Backwater from return flow below station; discharge computed from backwater curve based on discharge measurements.

Guadalupe River at Comfort, Tex.

Location.- Water-stage recorder, lat. 29°58', long. 98°54', at bridge on U. S. Highway 87, a quarter of a mile downstream from Cypress Creek and half a mile east of Comfort, Kendall County. Datum of gage is 1,372.0 feet above mean sea level, datum of 1929.

Drainage area.- 986 square miles.

Records available.- May 1939 to September 1941. December 1917 to August 1924, at site near Comfort, 5 miles upstream, and August 1924 to September 1932, at site near Comfort, 4 miles upstream (records equivalent during flood runoff originating above upper site and during extremely low flow at which times Cypress Creek contributes no appreciable flow).

Extremes.- Maximum discharge during year, 15,400 second-feet Apr. 27 (gage height, 19.14 feet); minimum, 36 second-feet Oct. 20, 22, 23.
1917-32, 1939-41: Maximum discharge, 182,000 second-feet July 1, 1932 (gage height, 38.4 feet, present site and datum, from floodmarks, according to data furnished by Texas Highway Department), by slope-area method (flood originated above Cypress Creek drainage); minimum observed, 0.4 second-foot Aug. 2, 1918, at site then in use.
Flood of July 16, 1900, reached about the same stage as that of July 1, 1932.

Remarks.- Records good except those above 4,000 second-feet and those for period of no gage-height record, which are poor. Several small diversions above station for irrigation. Slight regulation during low water periods caused by power plants above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48			171	3,500	273	417	984	361	166	105	81
2	46			164	1,600	271	495	2,070	351	162	107	110
3	45			160	858	271	504	2,450	361	160	105	91
4	45			157	660	257	396	1,360	361	168	107	84
5	44			155	552	257	375	1,470	331	173	105	78
6	43			153	516	306	555	1,090	319	157	105	75
7	43			151	438	282	589	948	297	147	103	72
8	40			149	516	262	399	876	279	145	304	71
9	39			145	498	254	368	804	273	147	209	1,090
10	38			140	442	241	358	768	297	142	173	335
11	39			140	414	253	351	771	335	185	149	199
12	39			138	403	233	355	732	291	233	132	162
13	40			147	375	225	355	696	265	168	120	151
14	42			153	355	222	378	660	248	269	118	132
15	40			142	348	230	368	654	248	233	114	120
16	39			138	344	228	420	588	285	271	112	116
17	38			134	335	496	372	570	248	204	107	750
18	38			262	130	322	1,560	341	534	230	171	99
19	37			233	128	319	822	335	516	222	162	96
20	36			217	128	309	660	306	498	212	199	94
21	37			202	126	300	588	297	645	207	175	103
22	36			189	130	306	552	312	532	202	162	168
23	36			185	126	400	516	341	534	197	149	105
24	40			177	126	365	476	355	570	189	140	98
25	56			173	128	325	459	331	480	180	134	89
26	58			192	126	309	665	977	452	243	128	83
27	71			212	126	288	588	6,200	434	225	122	81
28	63			187	132	279	498	4,400	451	194	122	84
29	58			177	126	-	459	1,820	410	164	118	86
30				173	124	-	448	1,170	403	171	114	83
31				171	190	-	431	-	378	-	110	81

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,894	-	36	93.4	5,740
November	5,200	-	-	175	10,510
December	18,910	-	-	449	27,690
Calendar year 1940	59,412	-	26	162	117,900
January	4,383	190	124	141	8,690
February	15,676	3,500	279	560	31,090
March	13,263	1,560	222	428	26,310
April	24,030	6,200	297	901	47,660
May	24,298	2,450	378	784	46,190
June	7,775	351	164	259	15,420
July	5,141	271	110	166	10,200
August	3,573	304	81	115	7,090
September	6,376	1,090	71	213	12,650
Water year 1940-41	126,520	6,200	36	347	250,900

Peak discharge.- Apr. 27 (8:30 p.m.) 15,400 sec.-ft.; May 2 (8:30 p.m.) 7,180 sec.-ft.

a No gage-height record; discharge computed on basis of floodmarks, records for station near Spring Branch, and weather records.

Guadalupe River near Spring Branch, Tex.

Location.- Water-stage recorder, lat. 29°51'40", long. 98°23'00", at bridge on State Highway 46, 4 miles southeast of Spring Branch, Comal County and 6 miles downstream from Curry Creek. Datum of gage is 948.13 feet above mean sea level, datum of 1929.

Drainage area.- 1,432 square miles.

Records available.- June 1922 to September 1941.

Average discharge.- 19 years, 286 second-feet.

Extremes.- Maximum discharge during year, 15,300 second-feet Feb. 1 (gage height, 17.98 feet); minimum, 40 second-feet Oct. 4-6, 9-13.

1922-41: Maximum discharge, 121,000 second-feet July 3, 1932 (gage height, 42.10 feet), from rating curve extended above 70,000 second-feet; minimum, 2.2 second-feet July 11, 1939, from rating curve extended below 15 second-feet.

Maximum stage known, between 45 and 50 feet in 1900, according to information furnished by local residents.

Remarks.- Records good. Small diversions above station for irrigation. Slight regulation during periods of low flow by power plants above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	1,100	138	296	7,340	565	1,020	2,270	711	364	209	123
2	44	183	128	286	5,080	560	985	2,390	683	347	199	120
3	42	150	121	275	2,320	555	1,220	6,000	666	372	193	138
4	40	130	116	264	1,680	535	1,020	3,390	678	378	187	135
5	40	114	114	261	1,400	520	918	3,230	650	347	190	123
6	40	102	114	258	1,260	726	885	4,150	634	343	187	114
7	58	95	114	251	1,140	723	1,550	2,480	952	323	187	109
8	52	93	111	248	985	595	1,030	2,210	617	304	183	104
9	40	93	107	245	1,100	565	855	2,030	575	290	340	123
10	40	93	107	236	965	550	807	1,910	570	283	304	1,080
11	40	93	1,290	233	885	515	795	1,900	622	472	254	436
12	40	91	2,440	230	825	505	753	2,260	600	493	226	283
13	40	86	2,000	233	801	495	795	1,740	555	536	206	225
14	44	92	510	254	723	480	783	1,630	610	637	193	205
15	45	78	4,730	254	694	485	807	1,620	490	996	183	190
16	44	71	1,970	239	672	490	777	1,430	555	569	177	171
17	45	71	763	230	661	654	825	1,360	565	658	171	177
18	45	73	571	218	628	3,720	753	1,500	490	414	165	951
19	45	71	480	215	617	2,560	717	1,220	455	355	159	633
20	45	69	425	212	595	1,870	683	1,140	432	323	153	378
21	45	128	378	212	570	1,630	683	1,240	409	339	150	297
22	45	552	353	212	565	1,490	688	1,560	400	327	144	261
23	47	1,200	329	212	690	1,400	717	1,180	382	304	159	236
24	49	430	311	209	885	1,260	729	1,100	373	286	156	229
25	60	314	300	203	723	1,180	694	1,060	364	272	147	236
26	65	239	300	203	656	1,250	1,950	918	756	257	141	216
27	82	209	378	203	622	1,640	4,500	855	1,550	247	135	199
28	86	174	378	206	575	1,300	9,620	825	1,200	233	129	133
29	95	158	337	203	-	1,180	4,770	807	432	226	126	190
30	91	148	314	203	-	1,100	2,760	783	378	223	126	187
31	605	-	303	200	-	1,100	-	747	-	212	126	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,143	605	40	69.1	4,250
November.....	6,490	1,200	69	216	12,870
December.....	20,030	4,730	107	646	39,730
Calendar year 1940.....	76,837	4,730	29	210	152,400
January.....	7,204	296	200	232	14,290
February.....	35,677	7,340	565	1,274	70,760
March.....	32,198	3,720	480	1,039	63,660
April.....	45,119	9,620	683	1,504	89,490
May.....	56,435	6,000	747	1,820	111,900
June.....	17,564	1,550	364	585	34,840
July.....	11,730	996	212	378	23,270
August.....	8,605	340	126	181	11,120
September.....	8,067	1,080	104	269	16,000
Water year 1940-41.....	248,262	9,620	40	680	492,400

Peak discharge.- Dec. 15 (9:30 a.m.) 7,990 sec.-ft.; Feb. 1 (12:30 p.m.) 15,300 sec.-ft.; Apr. 27 (3:30 p.m.) 7,570 sec.-ft.; Apr. 28 (8 p.m.) 13,200 sec.-ft.; May 3 (3:30 p.m.) 7,470 sec.-ft.; May 6 (8 a.m.) 6,120 sec.-ft.

Guadalupe River above Comal River, at New Braunfels, Tex.

Location.- Water-stage recorder and concrete control, lat. 29°42'55", long. 98°06'40", at New Braunfels, Comal County, 1.1 miles upstream from Comal River. Datum of gage is 536.6 feet above mean sea level, datum of 1929.

Drainage area.- 1,666 square miles.

Records available.- December 1927 to September 1941. March 1898 to December 1899 and January 1915 to December 1927, at site 1 mile below Comal River.

Average discharge.- 13 years (1928-41), 411 second-feet.

Extremes.- Maximum discharge during year, 14,500 second-feet Apr. 29 (gage height, 12.20 feet); minimum, 38 second-feet Oct. 14, 15.

1927-41: Maximum discharge, 101,000 second-feet June 15, 1935 (gage height, 32.95 feet); minimum, 9.6 second-feet July 9-11, 1939.

Maximum stage known, about 36 feet sometime in 1869 and in December 1913, according to information furnished by local residents.

Remarks.- Records good. Small diversions above station for irrigation. Some regulation during low water period by small power plants above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	971	190	447	2,710	773	1,320	3,070	1,010	608	357	215
2	48	642	170	423	47,510	763	1,260	2,780	960	589	350	211
3	45	224	153	401	2,850	753	1,220	5,750	938	713	357	207
4	42	163	146	386	1,980	733	1,400	5,600	926	787	318	207
5	40	150	136	372	1,650	693	1,150	4,160	914	608	318	211
6	41	119	133	357	1,490	960	1,100	5,320	880	572	330	199
7	46	107	130	343	1,400	1,120	1,220	3,280	1,180	554	318	190
8	48	100	123	337	1,260	926	1,660	2,780	1,130	520	312	183
9	50	96	119	324	1,220	816	1,130	2,490	869	495	305	194
10	54	96	115	312	1,290	773	1,040	2,340	859	479	463	289
11	46	100	356	305	1,130	743	995	3,000	892	479	431	962
12	40	92	2,740	299	1,060	703	972	2,920	892	748	386	471
13	39	91	2,810	312	1,020	673	960	2,340	837	654	357	343
14	39	88	1,250	305	938	654	972	2,120	773	1,180	330	286
15	40	86	4,460	324	859	645	960	1,980	733	1,240	312	270
16	40	83	4,440	318	848	645	972	1,860	899	1,200	293	254
17	40	82	1,640	293	826	683	960	1,780	880	892	286	270
18	40	78	1,100	275	794	2,330	960	1,700	794	794	275	264
19	40	77	869	259	773	3,980	892	1,630	723	636	264	972
20	40	77	805	254	753	2,490	848	1,540	683	580	259	608
21	41	78	693	249	733	2,120	816	1,500	645	546	254	415
22	41	189	626	249	703	1,890	848	1,650	636	546	249	345
23	40	652	580	249	773	1,750	869	1,570	617	520	244	305
24	40	1,320	554	244	1,030	1,620	892	1,460	599	479	249	280
25	46	599	520	238	1,060	1,500	869	1,400	580	455	254	264
26	51	455	504	233	926	1,500	1,230	1,270	652	431	244	270
27	51	337	512	233	859	1,780	4,570	1,190	1,910	415	238	254
28	56	280	580	244	805	1,790	9,500	1,150	1,040	401	233	244
29	62	233	554	233	-	1,520	9,680	1,100	753	386	224	233
30	69	211	495	233	-	1,430	3,860	1,070	664	379	224	228
31	107	-	471	233	-	1,390	8	1,040	-	365	220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,474	107	39	47.5	2,920
November	7,883	1,320	77	263	15,640
December	27,974	4,460	115	902	55,490
Calendar year 1940	87,894	4,460	30	240	174,300
January	9,284	447	233	299	18,410
February	39,250	7,510	703	1,402	77,850
March	40,136	3,980	645	1,295	79,610
April	55,126	9,680	816	1,838	109,300
May	72,840	5,750	1,040	2,350	144,500
June	25,968	1,910	580	862	51,310
July	19,251	1,240	365	621	36,180
August	9,234	463	220	298	18,320
September	9,642	972	183	321	19,120
Water year 1940-41	317,961	9,680	39	871	630,600

Peak discharge.- Dec. 15 (7:30 p.m.) 9,660 sec.-ft.; Feb. 1 (11:30 p.m.) 13,500 sec.-ft.; Apr. 29 (5:30 a.m.) 14,500 sec.-ft.; May 4 (1 a.m.) 8,940 sec.-ft.

c Backwater from Comal River; discharge computed from graph based on discharge of Comal River.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Guadalupe River at Victoria, Tex.

Location.- Water-stage recorder, lat. 28°47', long. 97°01', at bridge on U. S. Highway 95 in Victoria, Victoria County, 1,300 feet upstream from Texas & New Orleans (Galveston, Harrisburg & San Antonio) Railroad bridge, and 10 miles upstream from Coletto Creek. Datum of gage is 29,23 feet above mean sea level, datum of 1929.

Drainage area.- 5,676 square miles.

Records available.- November 1934 to September 1941. Gage-height records collected in this vicinity since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 60,100 second-feet May 3 (gage height, 29.73 feet); minimum, 365 second-feet (regulated) Oct. 20; minimum daily, 365 second-feet Oct. 20.

1934-41: Maximum discharge, 179,000 second-feet July 3, 1936 (gage height, 31.22 feet); minimum, 277 second-feet (regulated) Sept. 5, 1939; minimum daily, 308 second-feet Sept. 5, 1939.

Remarks.- Records good. Numerous small diversions above station do not materially affect flow. Low flow partly regulated by diurnal operation of water power plants upstream.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	467	4,400	1,960	2,190	1,230	2,440	25,420	17,200	2,890	3,300	1,470	1,160
2	456	5,050	1,640	2,040	2,120	2,300	25,200	27,400	2,540	2,590	1,440	1,100
3	478	7,220	1,500	2,820	5,780	2,210	25,140	49,700	2,440	2,210	1,370	1,100
4	478	5,310	1,400	2,710	2,800	2,120	25,360	30,600	4,750	2,160	1,270	970
5	456	4,040	1,230	2,640	10,900	2,080	25,360	25,400	4,580	2,160	1,300	970
6	467	10,400	1,230	2,500	9,970	2,180	25,910	25,400	4,460	2,160	1,370	1,030
7	435	12,200	1,460	2,540	5,560	2,740	25,190	30,200	3,860	2,080	1,500	910
8	467	15,600	2,740	2,540	4,820	2,340	25,060	30,000	2,740	2,180	1,540	940
9	478	18,700	6,840	2,540	4,820	2,640	25,000	24,400	2,440	2,180	2,690	1,000
10	456	5,280	5,470	1,470	4,460	3,300	24,450	18,200	5,070	2,180	2,840	940
11	467	1,540	2,330	1,440	3,960	2,540	25,200	9,970	7,430	2,180	2,590	880
12	489	2,300	1,580	1,400	3,280	2,300	25,890	6,450	9,360	2,180	2,160	820
13	456	2,130	4,990	1,370	2,790	2,180	25,640	5,870	8,200	4,130	1,500	1,130
14	456	2,850	9,410	2,670	2,640	2,040	25,490	6,940	7,220	3,860	1,370	1,270
15	478	2,820	10,900	9,320	2,540	1,930	2,340	7,850	5,720	4,520	1,330	2,230
16	445	2,880	12,100	10,400	2,440	1,930	2,300	5,900	3,960	3,530	1,300	1,180
17	456	2,820	12,000	12,000	2,340	2,170	2,300	4,700	5,180	4,090	1,270	970
18	456	2,792	11,900	5,940	2,210	6,480	2,260	4,460	7,080	5,480	1,200	1,060
19	415	2,756	12,400	2,190	2,120	9,960	2,160	4,190	9,530	3,560	1,250	1,610
20	365	2,736	15,300	2,190	2,080	9,180	2,040	3,910	7,580	2,540	1,130	2,000
21	425	2,792	15,900	2,270	2,160	10,800	2,120	4,240	3,930	2,210	1,100	2,120
22	435	2,555	10,600	2,160	2,180	12,100	2,260	6,300	3,250	2,000	1,130	1,590
23	395	736	7,880	2,300	1,960	10,200	2,780	9,600	2,140	2,180	1,030	1,400
24	467	3,470	5,030	2,240	2,340	5,440	4,520	8,410	2,990	2,180	1,100	1,300
25	500	22,000	3,090	2,440	4,140	5,440	5,090	7,780	2,840	1,680	1,030	1,160
26	511	19,200	2,940	1,300	6,190	25,740	8,360	7,010	2,480	1,610	1,100	1,000
27	511	17,200	2,440	1,300	4,780	24,240	12,100	4,480	5,050	1,610	1,070	1,070
28	680	16,700	2,340	1,270	2,890	24,020	13,600	3,520	4,240	1,500	880	970
29	1,550	10,700	2,440	1,440	-	24,700	12,300	4,520	3,960	1,570	1,130	1,000
30	1,650	2,640	2,590	1,680	-	24,700	18,800	3,520	4,300	1,500	1,130	1,030
31	3,240	-	2,210	1,600	-	25,960	-	3,300	-	1,500	1,130	-

Month	Second-foot-days	Maximum*	Minimum	Mean	Runoff in acre-feet
October	19,505	3,240	385	629	38,690
November	191,897	22,000	655	6,397	380,600
December	175,840	15,900	1,230	5,672	348,800
Calendar year 1940	764,970	51,000	365	2,090	1,517,000
January	79,650	12,000	1,160	2,570	158,000
February	110,980	10,900	1,230	3,964	220,100
March	136,350	12,100	1,930	4,398	270,400
April	141,260	13,600	2,040	4,721	280,900
May	402,650	49,700	3,300	12,990	798,600
June	143,470	9,530	2,440	4,782	284,600
July	78,140	5,480	1,500	2,521	165,000
August	43,700	2,940	880	1,410	86,680
September	34,910	2,120	820	1,164	69,240
Water year 1940-41	1,558,722	49,700	365	4,270	3,092,000

Peak discharge.- Nov. 9 (10 a.m.) 20,400 sec.-ft.; Nov. 25 (11 a.m.) 24,400 sec.-ft.; May 3 (1 p.m.) 60,100 sec.-ft.

* Computed from graph based on once-daily readings furnished by U. S. Weather Bureau.

Comal River at New Braunfels, Tex.

Location.- Water-stage recorder, lat. 29°42'05", long. 98°07'10", 200 feet upstream from San Antonio Street viaduct in New Braunfels, Comal County, and 1.1 miles upstream from mouth. Datum of gage is 582.80 feet above mean sea level, datum of 1929.

Records available.- December 1927 to September 1941. 1882 to November 1927 (miscellaneous discharge measurements only).

Extremes.- Maximum gage height during year, 10.50 feet, Apr. 27 (affected by backwater from Guadalupe River; discharge not determined); minimum, 160 second-feet Oct. 28 (regulated); minimum daily, 259 second-feet Nov. 13-17.

1927-41: Maximum gage height, 30.71 feet June 15, 1935, from floodmarks (affected by backwater from Guadalupe River; discharge not determined); minimum discharge, about 142 second-feet Dec. 11, 1928 (gage height, 2.12 feet, regulated); minimum daily, 245 second-feet July 17, 20, 1939.

Maximum stage known, 35.4 feet, December 1913, from floodmarks (probably some backwater from Guadalupe River).

Remarks.- Records good except those for periods of backwater effect which are poor. Flow partly regulated by steam power plant half a mile above station. Entire flow of river comes from Comal Springs, about 1 mile upstream, except during periods of local rain.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	285	281	281	300	c512	308	331	c562	373	373	354	342
2	285	281	277	296	c327	312	338	c548	373	377	346	346
3	277	274	270	296	c334	312	338	c743	361	377	346	342
4	277	277	274	296	327	315	331	c600	361	373	350	342
5	274	277	274	293	308	315	327	c744	373	373	350	346
6	281	270	277	293	304	323	338	c702	361	373	354	338
7	270	266	274	293	308	315	334	c548	361	369	354	342
8	274	266	274	289	308	315	346	480	377	373	354	342
9	270	266	274	293	304	315	342	444	369	373	354	354
10	266	262	270	296	308	319	338	420	377	365	358	338
11	277	262	281	293	308	315	338	c640	377	369	362	342
12	277	262	404	296	312	315	334	c576	377	369	369	342
13	270	259	416	304	308	315	338	436	361	369	373	338
14	274	259	293	308	308	323	334	408	369	365	373	338
15	274	259	e870	300	312	323	334	393	377	362	377	342
16	274	259	e632	300	312	327	334	397	352	362	369	346
17	274	259	312	300	312	331	338	389	377	350	373	342
18	270	262	296	296	308	e406	336	365	377	350	377	342
19	270	270	296	300	312	c338	334	361	377	346	369	346
20	270	262	300	296	308	c334	331	365	377	346	373	338
21	270	266	296	296	308	c334	338	442	369	342	369	338
22	266	319	296	300	312	334	334	389	369	342	373	342
23	270	281	296	300	319	327	358	365	369	342	365	338
24	270	319	296	300	319	319	346	361	373	342	373	342
25	270	281	300	300	319	319	338	361	377	342	369	342
26	270	281	300	296	315	331	795	373	369	342	377	342
27	270	285	300	300	315	331	e1,630	377	c369	342	354	338
28	270	281	300	296	315	331	c870	377	377	342	342	342
29	270	281	300	296	-	327	c510	361	373	342	346	338
30	274	281	300	296	-	323	c365	373	373	346	342	338
31	296	-	304	300	-	327	-	361	-	346	342	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	8,485	296	266	274	16,830
November.....	8,208	319	259	274	16,280
December.....	10,133	870	270	327	20,100
Calendar year 1940.....	105,084	870	252	287	208,400
January.....	9,218	308	289	297	18,280
February.....	8,762	334	304	313	17,380
March.....	10,061	408	308	325	20,000
April.....	12,620	1,630	327	421	25,030
May.....	14,221	744	362	459	28,210
June.....	11,745	832	369	392	23,300
July.....	11,104	385	342	358	22,020
August.....	11,197	377	342	361	22,190
September.....	10,248	354	338	342	20,330
Water year 1940-41.....	126,012	1,630	259	345	250,000

c Backwater from Guadalupe River; discharge computed from graph based on records for station, Guadalupe River above Comal River at New Braunfels, and weather records.

San Marcos River at Luling, Tex.

Location.- Water-stage recorder, lat. 29°39'55", long. 97°39'05", 390 feet downstream from Bridge on State Highway 80, 1 mile south of Luling, Caldwell County, and 8 miles upstream from Plum Creek. Datum of gage is 322.0 feet above mean sea level, datum of 1929.

Drainage area.- 833 square miles.

Records available.- April 1939 to September 1941.

Extremes.- Maximum discharge during year, 15,300 second-feet Nov. 22 (gage height, 30.00 feet); minimum, 11 second-feet (regulated) Nov. 4; minimum daily, 63 second-feet Oct. 13.

1939-41: Maximum discharge, 23,400 second-feet June 30, 1940 (gage height, 32.81 feet), from rating curve extended above 16,000 second-feet; minimum, 10 second-feet (regulated) Aug. 6, 1940; minimum daily, 55 second-feet Oct. 15, 1939.

Maximum stage known, 40.4 feet in 1869 and 1870, according to information furnished by engineers of State Highway Department.

Remarks.- Records good except those for periods of rapidly changing stage, which are poor. Flow regulated by power plant 800 feet above station. Most of the basic flow is from large springs near San Marcos. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	209	217	464	604	512	736	1,560	592	608	328	225
2	84	123	202	448	3,720	496	720	1,470	576	592	328	225
3	95	93	195	432	1,420	496	768	8,350	560	576	312	225
4	77	111	181	400	928	480	752	3,820	576	560	320	225
5	87	612	174	392	800	464	672	2,580	560	640	320	217
6	65	144	178	384	752	464	656	2,270	528	544	344	217
7	68	116	893	376	720	1,090	1,210	1,890	1,070	528	344	217
8	84	103	202	368	688	784	752	1,360	5,710	496	320	217
9	84	107	173	360	556	624	640	1,240	1,150	496	312	217
10	84	95	166	344	656	592	608	1,150	976	496	304	225
11	90	126	1,410	356	608	560	592	1,080	1,180	496	296	240
12	95	93	3,360	356	576	528	576	1,850	1,090	683	288	225
13	63	99	2,590	353	544	512	576	1,470	912	512	288	217
14	83	96	816	1,900	528	496	576	1,110	800	512	272	210
15	78	108	5,420	432	496	480	576	1,010	752	1,840	272	210
16	86	112	6,750	384	480	496	576	944	2,140	668	264	240
17	86	100	1,250	336	464	512	860	912	2,610	688	264	272
18	77	90	864	312	464	1,650	544	864	1,100	544	256	225
19	74	98	768	304	448	2,960	528	965	896	480	256	217
20	77	110	976	296	448	1,450	512	880	816	464	256	210
21	80	100	704	296	432	1,220	580	944	768	448	248	202
22	84	4,810	576	288	416	1,080	1,010	816	800	432	248	202
23	91	1,440	528	280	1,090	1,010	2,690	832	736	416	248	195
24	104	2,130	496	280	1,220	928	2,920	784	736	384	240	217
25	136	1,810	464	272	752	880	656	720	656	384	240	202
26	118	608	464	264	608	928	2,440	688	672	376	225	195
27	110	384	480	256	560	1,350	8,000	672	1,060	368	232	195
28	105	312	592	264	528	960	10,200	656	1,030	360	232	189
29	95	264	560	256	-	816	3,000	656	720	352	232	195
30	90	232	496	256	-	784	1,880	624	656	344	232	189
31	1,200	-	480	248	-	752	-	608	-	336	225	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,836	1,200	63	124	7,610
November	14,835	4,810	90	494	29,420
December	32,625	6,750	166	1,052	64,710
Calendar year 1940	91,341	6,750	63	250	181,200
January	11,917	1,900	248	384	23,640
February	21,606	3,720	416	772	42,850
March	25,354	2,960	464	850	52,270
April	46,506	10,200	512	1,550	92,240
May	44,795	8,350	608	1,445	88,850
June	32,428	5,710	528	1,081	64,320
July	16,623	1,840	336	536	32,970
August	8,546	344	225	276	16,950
September	6,457	272	189	215	12,810
Water year 1940-41	266,528	10,200	63	730	528,600

Peak discharge.- Nov. 22 (3:30 p.m.) 15,300 sec.-ft.; Dec. 15 (10 p.m.) 11,200 sec.-ft.; Apr. 28 (5 a.m.) 13,000 sec.-ft.; May 3 (11:30 a.m.) 10,700 sec.-ft.; June 8 (6 a.m.) 10,900 sec.-ft.

San Marcos River at Ottine, Tex.

Location.- Water-stage recorder, lat. 29°36', long. 97°35', at highway bridge a quarter of a mile southwest of Ottine, Gonzales County and 4 miles downstream from Plum Creek. Datum of gage is 285.2 feet above mean sea level, datum of 1929.

Drainage area.- 1,249 square miles.

Records available.- June 1915 to September 1941.

Average discharge.- 26 years, 453 second-feet.

Extremes.- Maximum discharge during year, 17,400 second-feet Apr. 28 (gage height, 33.42 feet); minimum, 42 second-feet Oct. 19 (regulated); minimum daily discharge, 83 second-feet Oct. 19.

1915-41: Maximum discharge, about 202,000 second-feet May 29, 1929 (gage height, 43.32 feet), from rating curve extended above 12,000 second-feet on basis of slope-area determination at gage height 40.6 feet; no flow (result of regulation) July 29, 1923, Mar. 31, 1925, June 24, 1926; minimum daily, 40 second-feet Sept. 16, 1917.

Maximum stage known, about 44.0 feet in December 1913, according to information furnished by local residents.

Remarks.- Records good except those above 3,000 second-feet, which are fair, and those for periods of no gage-height record, which are poor. Low water flow regulated by several small power plants above station. Most of basic flow is from large springs near San Marcos.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	1,010	256	511	751	559	808	a2,000		655	364	263
2	102	174	249	482	4,310	543	815	a1,600		623	355	289
3	113	105	228	459	2,780	527	898	8,930		607	345	256
4	91	130	227	434	1,040	511	844	10,300	a700	623	347	255
5	102	3,140	209	428	862	511	759	4,040		671	363	282
6	90	574	215	416	826	511	715	3,210		575	448	249
7	86	156	1,590	395	773	1,190	1,800	a2,550		543	413	250
8	82	126	442	398	756	1,190	957	a1,520	6,500	511	557	249
9	102	112	232	362	705	705	705	a1,400	4,570	511	331	247
10	98	117	208	372	722	639	639	a1,340	1,100	511	353	253
11	104	162	1,020	360	639	607	607	a1,300	2,080	511	344	272
12	99	157	5,620	354	607	575	607		2,660	804	337	263
13	90	112	7,420	350	575	559	591		1,170	982	329	254
14	95	102	1,780	2,960	559	543	607		916	527	323	251
15	90	107	3,610	3,220	527	543	591		844	2,110	315	248
16	99	108	14,200	549	511	543	591		2,130	2,730	309	259
17	94	113	4,300	413	495	575	575		3,130	801	308	266
18	90	107	1,020	371	479	5,150	575		1,670	623	300	278
19	83	105	988	345	453	5,150	559		1,010	543	298	256
20	86	108	1,580	334	463	2,540	527			495	294	252
21	88	112	1,220	328	447	1,460	571	a1,230		463	291	244
22	93	1,740	739	322	447	1,230	1,330			479	287	242
23	90	8,600	607	314	1,310	1,120	2,220			439	288	237
24	99	2,830	559	309	2,360	1,020	10,700			423	278	248
25	124	4,430	527	299	1,070	952	2,840		a1,000	392	285	240
26	148	1,460	511	299	698	1,000	2,380			404	264	237
27	127	507	655	292	623	2,100	11,600			390	270	231
28	113	377	739	297	591	1,390	15,600			389	268	230
29	112	319	655	293	-	952	8,180			379	271	228
30	91	278	559	284	-	862	3,100			376	265	227
31	1,420	-	527	282	-	826	-			367	260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,414	1,420	83	142	8,760
November.....	27,478	8,600	102	916	54,500
December.....	52,752	14,200	208	1,702	104,600
Calendar year 1940.....	150,438	14,200	76	411	298,400
January.....	16,852	3,220	292	544	33,430
February.....	26,379	4,310	447	942	52,320
March.....	32,963	5,150	511	1,063	65,350
April.....	75,251	15,600	527	2,442	145,300
May.....	62,790	10,300	-	2,025	124,500
June.....	43,657	6,500	-	1,455	86,590
July.....	20,457	2,730	367	660	40,580
August.....	10,107	557	260	326	20,050
September.....	7,598	366	227	253	15,070
Water year 1940-41.....	378,698	15,600	83	1,038	751,100

Peak discharge.- Nov. 23 (5:30 p.m.) 10,800 sec.-ft.; Dec. 16 (10:45 a.m.) 16,900 sec.-ft.; Apr. 24 (8 a.m.) 13,800 sec.-ft.; Apr. 28 (8 a.m.) 17,400 sec.-ft.; May 3 (9 p.m.) 13,000 sec.-ft. a No gage-height record; discharge computed on basis of records for stations at Luling and Plum Creek near Luling.

Blanco River at Wimberley, Tex.

Location.- Water-stage recorder, lat. 29°59', long. 98°04', 800 feet downstream from Cypress Creek and a quarter of a mile south of Wimberley, Hays County. Datum of gage is 802.2 feet above mean sea level, datum of 1929.

Drainage area.- 378 square miles.

Records available.- August 1924 to September 1926, June 1928 to September 1941.

Average discharge.- 15 years, 111 second-feet.

Extremes.- Maximum discharge during year, 23,700 second-feet June 7 (gage height, 16.27 feet); minimum, 2.9 second-feet Oct. 5, 6, 1924-26, 1928-41. Maximum discharge, 113,000 second-feet May 28, 1929 (gage height, 31.10 feet, from floodmarks), by slope-area method; minimum, that of Oct. 5, 6, 1940.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	23	51	202	3,530	298	448	932	235	260	79	43
2	4.0	27	47	192	1,240	290	433	1,410	228	239	76	43
3	4.0	8.9	43	182	719	290	519	3,020	224	259	74	41
4	4.0	5.8	39	175	595	278	408	1,310	228	327	74	41
5	3.5	5.2	37	168	524	262	379	1,300	210	228	74	41
6	4.0	5.8	a35	159	509	732	379	1,510	210	210	74	39
7	8.9	5.2	a35	152	448	493	448	963	4,760	199	74	39
8	6.4	6.4	a35	146	443	351	347	839	578	192	71	39
9	4.6	7.0	33	139	458	333	324	751	458	182	69	44
10	4.6	7.9	29	133	398	324	307	677	612	175	66	43
11	4.6	11	1,710	130	365	294	294	1,540	551	178	64	41
12	5.2	12	1,050	126	342	286	286	1,040	428	178	62	41
13	4.6	13	523	126	333	278	294	689	641	194	60	41
14	5.2	12	254	152	298	266	290	612	351	341	57	41
15	6.4	12	4,070	139	286	262	286	556	333	241	57	41
16	6.4	13	822	126	274	258	270	519	2,170	335	55	41
17	6.4	13	473	117	270	432	270	498	640	192	53	44
18	7.0	13	365	112	262	2,810	254	473	468	152	53	41
19	7.9	9.8	316	109	250	1,190	250	453	408	142	51	41
20	8.9	9.8	298	112	247	963	243	423	370	133	51	41
21	8.9	9.8	254	109	235	811	262	403	342	126	49	41
22	6.4	25	224	106	235	745	311	408	324	123	49	39
23	5.8	2,180	210	100	426	671	282	383	316	117	49	39
24	5.8	697	199	100	483	607	282	356	286	114	49	39
25	6.4	314	188	95	374	568	250	329	270	109	49	37
26	5.8	152	196	95	351	636	1,440	311	724	106	47	37
27	5.2	103	371	95	324	671	3,110	294	840	100	44	37
28	4.6	79	270	95	307	546	1,860	282	342	95	43	35
29	4.6	64	239	95	-	509	1,370	270	294	92	43	35
30	4.6	55	216	89	-	488	1,110	262	270	87	43	35
31	24	-	213	89	-	468	-	250	-	84	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	193.3	24	3.5	6.24	383
November.....	3,899.6	2,180	5.2	130	7,730
December.....	12,845	4,070	29	414	25,480
Calendar year 1940.....	25,329.4	4,070	3.5	69.2	50,250
January.....	3,965	202	89	128	7,860
February.....	14,526	3,530	235	519	28,810
March.....	17,410	2,810	258	562	34,530
April.....	17,006	3,110	243	567	33,730
May.....	23,062	3,020	250	744	45,740
June.....	18,111	4,760	210	604	35,920
July.....	5,500	341	84	177	10,910
August.....	1,802	79	43	58.1	3,570
September.....	1,200	44	35	40.0	2,380
Water year 1940-41.....	119,519.9	4,760	3.5	327	237,000

Peak discharge.- Dec. 15 (12 m.) 9,150 sec.-ft.; Feb. 1 (5 p.m.) 10,500 sec.-ft.; Apr. 27 (8 p.m.) 6,850 sec.-ft.; May 3 (4 a.m.) 7,130 sec.-ft.; June 7 (6 a.m.) 23,700 sec.-ft.
 a No gage-height record; discharge computed on basis of known range in stage and weather records.

Plum Creek near Luling, Tex.

Location.- Water-stage recorder, lat. 29°42', long. 97°37', at county highway bridge 1 mile downstream from West Fork of Plum Creek, 2 miles upstream from Texas & New Orleans (Galveston, Harrisburg and San Antonio) Railroad bridge, and 3 miles northeast of Luling, Caldwell County. Datum of gage is 326.6 feet above mean sea level, datum of 1929.

Drainage area.- 356 square miles.

Records available.- March 1930 to September 1941.

Average discharge.- 11 years, 101 second-feet.

Extremes.- Maximum discharge during year, 10,800 second-feet Apr. 24 (gage height, 18.07 feet); minimum, 1.4 second-feet Oct. 11, 14.

1930-41: Maximum discharge, 78,500 second-feet July 1, 1936 (gage height, 25.7 feet, from floodmarks), from rating curve extended above 54,000 second-feet; minimum, 0.7 second-foot Oct. 24, 1939.

Flood in December 1913 reached about the same stage as that of July 1, 1936, according to information furnished by local residents.

Remarks.- Records good. No diversion above station. Slight regulation during low water by oil field operations above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	296	15	31	567	27	33	165	26	20	8.6	4.6
2	2.3	16	12	31	1,470	25	31	130	24	18	8.6	4.6
3	2.8	6.4	11	29	224	24	64	3,520	22	17	8.6	4.6
4	2.6	8.7	9.6	27	47	23	42	2,700	269	123	7.8	4.3
5	2.2	734	9.0	26	36	22	28	594	71	24	36	4.3
6	3.0	154	11	25	36	24	31	542	27	16	135	4.0
7	2.2	14	345	25	36	437	627	160	369	12	136	4.0
8	2.2	7.0	78	24	37	110	96	37	3,610	11	187	a8.6
9	2.5	6.0	17	24	40	38	30	60	627	11	19	a8.6
10	2.2	6.0	12	24	42	30	23	a48	141	11	11	a8.2
11	1.8	36	815	23	30	26	21	152	1,960	11	9.0	a8.2
12	3.3	18	3,760	22	26	23	20	860	829	464	8.6	a8.2
13	2.5	a17	2,390	24	25	22	19	108	134	280	7.8	a7.8
14	2.0	a15	171	2,920	22	21	21	a48	64	28	6.7	a7.8
15	3.3	a14	1,930	104	20	20	22	a34	a40	1,580	6.4	a7.8
16	3.8	a12	5,140	74	18	20	23	a27	506	1,350	6.4	a19
17	2.5	all	240	41	18	26	24	a23	745	83	6.4	a30
18	2.5	a9.3	a63	32	19	768	23	a22	129	38	6.0	a16
19	2.6	a7.8	70	26	17	2,110	22	a99	60	22	5.7	a13
20	2.8	6.4	415	25	18	297	19	224	a48	17	5.4	a12
21	3.5	6.7	298	22	18	129	33	228	59	16	5.1	a12
22	2.8	1,720	73	20	18	59	273	888	152	14	5.1	5.1
23	2.5	3,760	46	20	325	48	2,850	1,390	f59	14	5.1	5.1
24	2.8	674	38	19	839	40	5,780	124	122	12	5.4	5.4
25	6.4	2,020	36	19	165	36	509	a52	f52	12	4.8	5.7
26	12	279	36	17	50	140	1,060	a37	f47	12	4.3	5.1
27	5.7	52	200	16	38	895	5,290	a38	750	12	4.3	4.6
28	4.8	28	145	17	32	190	4,380	46	125	11	4.8	4.6
29	6.7	20	47	17	-	51	1,970	142	a46	11	4.8	4.6
30	3.3	17	35	17	-	38	360	43	a31	9.6	4.8	4.6
31	424	-	33	17	-	36	-	31	-	9.0	4.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	525.9	424	1.8	17.0	1,040
November	9,971.3	3,760	6.0	332	19,780
December	16,501.6	5,140	9.0	532	32,730
Calendar year 1940	39,713.4	5,140	1.4	109	78,770
January	3,758	2,920	16	121	7,450
February	4,033	1,470	17	144	8,000
March	5,755	2,110	20	186	11,410
April	23,704	5,780	19	790	47,020
May	12,622	3,520	22	407	25,040
June	11,164	3,610	22	372	22,140
July	4,268.6	1,580	9.0	138	8,470
August	678.9	187	4.3	21.9	1,350
September	242.4	30	4.0	8.08	481
Water year 1940-41	93,224.7	5,780	1.8	255	184,900

Peak discharge.- Nov. 23 (8 p.m.) 6,850 sec.-ft.; Dec. 16 (4 a.m.) 9,000 sec.-ft.; Apr. 24 (1 a.m.) 10,800 sec.-ft.; Apr. 27 (3 p.m.) 5,780 sec.-ft.; June 8 (12:30 p.m.) 5,520 sec.-ft.

a No gage-height record; discharge computed on basis of records for stations on San Marcos River at Ottine and Luling.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Coleta Creek near Victoria, Tex.

Location.- Water-stage recorder and concrete control, lat. 28°43', long. 97°08', at bridge on U. S. Highway 96, 100 feet upstream from bridge of Texas & New Orleans Railroad, 1.1 miles downstream from Perdido Creek, and 9.4 miles southwest of Victoria, Victoria County. Datum of gage is 49.2 feet above mean sea level, datum of 1929.

Drainage area.- 514 square miles.

Records available.- June 1939 to September 1941.

Extremes.- Maximum discharge during year, 48,200 second-feet Nov. 25 (gage height, 24.25 feet); minimum, 1.3 second-foot Oct. 5, 6.
1939-41: Maximum discharge, that of Nov. 25, 1940; minimum, 0.5 second-foot July 9, 1939.

Maximum stage known, 27.2 feet July 1, 1936, at railroad bridge 100 feet downstream, according to information furnished by railroad company.

Remarks.- Records fair except those above 5,000 second-feet and those for period of no gage-height record, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	2,200	146	66	27	29	56	177	a90	60	27	18
2	1.4	406	117	57	72	27	51	569	a72	51	25	18
3	1.6	195	103	50	61	27	49	13,400		48	24	17
4	1.4	138	92	48	32	27	42	1,170		44	23	17
5	1.4	1,380	84	46	27	24	38	2,240		42	23	16
6	1.3	1,620	79	43	66	34	38	2,300		40	30	16
7	2.0	326	363	42	85	159	1,190	874		39	161	16
8	3.0	179	384	41	169	81	372	298	a481	38	117	16
9	2.2	140	124	39	216	46	116	195		37	76	24
10	1.8	117	73	38	80	33	76	184		36	53	48
11	2.0	100	73	36	48	27	59	134		38	40	65
12	2.7	87	208	35	40	24	52	123		3,140	33	48
13	2.2	79	284	35	35	21	48	103		2,450	31	32
14	2.2	73	126	581	31	21	43	92		2,700	28	25
15	19	68	960	551	31	22	41	79		716	27	23
16	6.9	64	950	45	30	24	38	72		356	25	33
17	4.9	60	214	35	29	31	35	66		199	24	31
18	4.0	57	103	31	27	1,610	33	60		140	23	24
19	3.3	54	110	30	27	1,400	33	56		116	22	27
20	2.7	52	3,140	29	27	608	32	52		101	21	20
21	2.7	53	1,460	30	27	290	29	66	a65	82	21	18
22	2.4	54	381	30	34	156	38	2,060		72	20	17
23	2.4	54	213	30	44	103	39	1,220		63	20	17
24	2.4	8,840	154	28	72	87	82	1,100		56	19	18
25	5.4	14,200	286	28	59	676	58	336		49	19	17
26	166	865	570	28	42	287	479	154	81	44	18	18
27	93	394	489	28	35	124	3,290	105	585	39	18	18
28	61	270	200	52	30	84	5,770	165	261	36	18	17
29	990	213	117	34	-	72	1,410	416	105	32	20	16
30	508	179	87	27	-	64	484	a197	73	30	21	16
31	2,450	-	74	24	-	60	-	a108	-	29	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,350.9	2,450	1.3	140	8,630
November	32,517	14,200	52	1,084	64,500
December	11,744	3,140	73	379	23,290
Calendar year 1940	80,828.9	18,600	1.3	221	160,300
January	2,217	591	24	71.5	4,400
February	1,503	216	27	53.7	2,900
March	6,278	1,610	21	203	12,450
April	14,121	5,770	29	471	28,010
May	28,141	13,400	52	908	55,820
June	8,170	-	-	272	16,200
July	10,922	3,140	29	352	21,660
August	1,047	161	18	33.8	2,080
September	706	65	16	23.5	1,400
Water year 1940-41	121,716.9	14,200	1.3	333	241,400

Peak discharge.- Oct. 31 (4:30 p.m.) 7,460 sec.-ft.; Nov. 25 (12:30 a.m.) 48,200 sec.-ft.; Apr. 28 (2:30 a.m.) 9,600 sec.-ft.; May 3 (7 a.m.) 23,600 sec.-ft.; July 12 (11 a.m.) 8,460 sec.-ft.; July 13 (9 p.m.) 7,300 sec.-ft.

a No gage-height record; discharge computed on basis of weather records.

San Antonio River at San Antonio, Tex.

Location.- Water-stage recorder, lat. 29°24'35", long. 98°29'40", at South Alamo Street Bridge in San Antonio, Bexar County, 2.1 miles upstream from San Pedro Creek. Datum of gage is 612.3 feet above mean sea level, datum of 1929.

Drainage area.- 38 square miles.

Records available.- January 1915 to November 1929, February 1939 to September 1941. Estimated monthly ground-water discharge contained in Water-Supply Paper 773-B.

Average discharge.- 16 years (1915-29, 1939-41), 70.6 second-feet.

Extremes.- Maximum discharge during year, 1,470 second-feet Apr. 28 (gage height, 5.76 feet); minimum, 6.3 second-feet (regulated) Dec. 4, 5; minimum daily, 10 second-feet Dec. 4.

1915-29, 1939-41: Maximum discharge, 15,300 second-feet Sept. 10, 1921 (gage height, 20.14 feet, from floodmark), by slope-area method; no flow at times because of regulation.

Flood of July 5, 1819, equalled or exceeded that of Sept. 10, 1921.

Remarks.- Records poor. Normal flow of river comes from springs. Diurnal fluctuation caused by industrial pumping from wells (depleting the under-ground reservoir) above station. Diversions above station for irrigation and industrial uses.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	35	13	24	86	63	92	135	129	126	76	59
2	17	16	14	24	57	64	93	221	129	124	74	51
3	16	16	14	24	34	70	87	319	128	123	74	48
4	17	16	10	22	37	63	87	143	132	119	74	47
5	17	28	12	23	42	64	87	224	129	116	73	40
6	16	16	16	23	53	66	100	236	129	105	76	42
7	90	16	14	22	43	62	91	151	134	105	76	44
8	25	15	13	23	70	60	91	147	128	98	77	50
9	16	16	16	22	55	63	88	149	132	95	79	72
10	16	15	13	22	64	64	92	147	140	97	79	59
11	16	16	18	22	60	59	88	149	132	118	80	59
12	17	14	49	22	63	50	89	149	130	100	76	62
13	16	15	14	32	63	53	93	149	132	105	74	61
14	28	14	31	25	56	55	96	147	128	108	74	59
15	12	14	177	24	63	54	95	147	128	108	73	89
16	12	14	38	24	64	56	95	142	208	112	70	64
17	16	14	21	23	71	160	99	143	128	105	71	400
18	12	15	24	24	64	118	95	140	125	105	76	93
19	12	15	27	22	64	70	85	140	128	100	67	87
20	14	16	32	22	64	75	86	138	124	100	70	88
21	20	15	23	22	57	77	93	154	124	102	70	88
22	14	44	25	24	66	80	96	142	124	97	67	92
23	14	22	24	24	88	81	113	149	126	93	62	90
24	49	26	26	18	68	87	89	142	123	88	62	88
25	122	18	26	23	64	88	86	142	124	88	67	80
26	37	14	28	26	64	119	231	138	146	97	62	82
27	16	15	27	26	64	95	527	138	126	87	56	82
28	16	14	27	37	56	87	597	136	125	85	56	82
29	23	14	26	27	-	88	135	135	130	80	52	88
30	17	14	24	25	-	89	126	134	130	79	50	87
31	205	-	24	56	-	91	-	130	-	77	51	87

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	632	205	12	30.1	1,850
November	532	44	14	17.7	1,060
December	842	177	10	27.2	1,670
Calendar year 1940	8,181	311	10	22.4	16,230
January	835	86	18	26.9	1,660
February	1,700	88	34	60.7	3,370
March	2,361	150	50	76.2	4,680
April	3,921	597	85	131	7,780
May	4,856	319	130	157	9,530
June	3,953	208	123	132	7,840
July	3,132	126	77	101	6,210
August	2,144	80	50	69.2	4,250
September	2,426	400	40	80.9	4,810
Water year 1940-41	27,634	597	10	75.7	54,810

Peak discharge.- Oct. 31 (10 a.m.) 760 sec.-ft.; Apr. 28 (12:30 a.m.) 1,470 sec.-ft.; May 3 (2 a.m.) 810 sec.-ft.; June 16 (5:30 a.m.) 1,280 sec.-ft.; Sept. 17 (3:30 a.m.) 1,370 sec.-ft.

San Antonio River near Falls City, Tex.

Location.- Water-stage recorder, lat. 28°57'05", long. 98°03'55", at highway bridge half a mile upstream from Scared Dog Creek and 3.4 miles southwest of Falls City, Karnes County. Datum of gage is 285.5 feet above mean sea level, datum of 1929.

Drainage area.- 2,067 square miles.

Records available.- April 1925 to September 1941.

Average discharge.- 16 years, 294 second-feet.

Extremes.- Maximum discharge during year, 6,620 second-feet Nov. 6 (gage height, 8.70 feet); minimum, 83 second-feet Oct. 6.

1925-41: Maximum discharge, 16,200 second-feet July 3, 1936; maximum gage height, 22.3 feet June 13, 1935 (affected by backwater); minimum discharge, 36 second-feet May 11, 12, 1928 (gage height, 0.97 foot).

Maximum stage known, 28.36 feet in October 1913, according to information furnished by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Flow partly regulated by Medina Reservoir (capacity, 254,000 acre-feet). Medina Canal diverts water above station.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1-25, Dec. 19 to Jan. 26)

1.1	87	3.0	1,270	6.0	4,320
1.4	196	3.5	1,760	7.0	5,260
1.8	395	4.0	2,260	8.0	6,080
2.0	515	4.5	2,780		
2.5	860	5.0	3,300		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	1,810	137	155	488	238	a310	1,470	362	278	196	189
2	98	2,670	130	152	1,320	225	a295	1,140	340	278	189	170
3	98	1,110	130	145	3,400	225	a280	2,980	419	253	192	166
4	94	286	127	145	3,620	234	a270	2,670	1,760	243	189	163
5	94	2,850	127	145	1,030	234	a265	2,110	430	238	189	163
6	87	6,160	123	145	660	225	a260	2,010	368	234	196	163
7	94	3,290	254	148	558	221	a400	2,410	346	221	440	170
8	123	412	318	152	577	a218	a400	1,120	340	230	309	166
9	248	253	152	145	552	a215	a310	666	340	234	324	166
10	145	204	134	137	478	a212	263	565	330	221	213	163
11	123	185	137	134	395	a208	238	546	364	217	204	192
12	112	174	141	130	362	a205	234	515	2,170	213	196	181
13	105	166	365	127	330	a202	234	509	629	263	196	181
14	109	152	1,050	185	314	a199	234	540	395	243	192	178
15	169	141	1,070	225	288	a197	253	484	362	243	185	181
16	123	141	3,200	174	278	a194	253	454	602	263	174	192
17	112	141	2,060	148	273	a230	248	436	957	243	174	2,380
18	98	137	766	137	273	a500	253	407	820	258	174	2,110
19	98	130	390	137	268	a1,000	258	390	590	238	178	1,460
20	91	130	518	137	258	a600	243	373	401	221	174	530
21	94	127	560	141	253	a410	238	512	335	221	166	319
22	94	416	685	145	248	a350	234	430	309	230	163	263
23	101	296	304	148	258	a330	253	448	293	230	163	234
24	101	786	209	148	298	a400	258	521	309	221	163	230
25	123	296	185	145	340	a490	304	590	319	217	166	250
26	694	217	174	137	293	a410	503	497	304	209	163	230
27	630	192	178	1,110	253	a370	1,740	436	401	209	159	213
28	467	166	174	1,750	243	a360	3,620	448	373	204	174	209
29	213	141	166	815	-	a355	4,020	644	368	204	174	209
30	166	141	163	660	-	a350	4,320	454	288	204	178	209
31	1,370	-	155	608	-	a340	-	368	-	204	178	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,352	1,370	87	205	12,600
November	23,320	6,160	127	777	46,250
December	14,282	3,200	123	461	28,330
Calendar year 1940	101,774	6,160	69	278	201,900
January	8,810	1,750	127	284	17,470
February	17,908	3,620	243	640	35,520
March	9,947	1,000	194	321	19,730
April	20,981	4,320	234	699	41,620
May	27,143	2,980	368	876	53,840
June	15,624	2,170	288	521	30,990
July	7,185	278	204	232	14,250
August	6,131	440	159	198	12,160
September	11,610	2,380	163	387	23,030
Water year 1940-41	169,293	6,160	87	464	335,800

Peak discharge.- Nov. 6 (6 p.m.) 6,620 sec.-ft.; Feb. 4 (4 a.m.) 4,510 sec.-ft.; Apr. 27 (12 p.m.) 4,890 sec.-ft.; Apr. 30 (5 a.m.) 4,980 sec.-ft.; May 3 (1 a.m.) 4,700 sec.-ft.; June 4 (5 a.m.) 4,120 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, records for station at Goliad, and weather records.

San Antonio River at Goliad, Tex.

Location.- Water-stage recorder, lat. 28°39', long. 97°23', at bridge on State Highway 29, 1.3 miles southeast of courthouse in Goliad, Goliad County, and 10 miles upstream from Manahulla Creek. Datum of gage is 90.6 feet above mean sea level, unadjusted.

Drainage area.- 3,914 square miles.

Records available.- June 1924 to March 1929, February 1939 to September 1941.

Extremes.- Maximum discharge during year, 15,700 second-feet May 1 (gage height, 34.55 feet); minimum, 107 second-feet Oct. 22.

1924-29, 1939-41: Maximum discharge, that of May 1, 1941; minimum observed, 44 second-feet several periods in 1927.

Maximum stage known, about 45.6 feet, present site and datum, in October 1913, from floodmark at former site, according to information furnished by local residents.

Remarks.- Records poor. Low flow partly regulated by Medina Reservoir (capacity, 254,000 acre-feet). Water diverted at Medina Reservoir for irrigation and in city of San Antonio for industrial use and municipal supply.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	3,960	371	344	801		452	15,000	596	725	335	249
2	121	7,000	353	355	870		407	9,800	524	560	325	249
3	114	4,960	326	317	3,130		380	7,000	458	506	308	263
4	114	2,280	308	308	4,760		371	9,200	297	470	299	240
5	114	801	290	290	4,790		362	11,900	6,240	434	299	229
6	110	3,760	290	290	2,930		344	13,200	5,600	407	299	225
7	118	8,600	326	281	1,210		344	10,000	1,140	398	488	229
8	118	10,600	474	272	986		614	8,760	725	399	2,920	227
9	114	4,210	1,870	281	1,120		986	5,200	614	371	2,280	236
10	128	706	821	272	1,350		560	1,720	560	371	687	238
11	241	524	407	263	881	290	389	1,230	1,050	371	488	254
12	162	470	488	250	725	281	344	1,160	3,250	1,110	371	245
13	135	452	744	243	596	281	317	1,440	4,210	1,480	344	263
14	125	380	1,640	240	272	299	299	1,720	3,100	8,300	317	252
15	120	344	2,200	386		263	290	986	1,370	4,100	308	247
16	232	326	2,650	1,240		263	290	902	772	1,230	299	250
17	196	317	5,170	506		254	299	782	2,000	650	281	272
18	144	299	7,130	335		317	299	744	4,490	542	263	3,580
19	128	308	3,170	263		2,770	290	687	2,960	470	263	7,680
20	116	299	4,210	231		3,550	299	632	1,160	470	254	6,360
21	116	299	8,170	222		1,960	290	706	760	434	263	1,720
22	108	299	4,580	211		1,030	281	1,440	770	407	247	763
23	111	638	1,400	207		706	281	1,280	7614	398	240	560
24	110	3,600	902	211		578	272	1,280	578	398	236	470
25	974	10,800	632	209		650	308	944	7560	380	232	425
26	1,430	7,610	578	204		1,790	614	744	7560	371	232	407
27	1,030	1,570	506	209		899	1,010	725	7801	362	234	371
28	902	725	445	840		578	6,560	632	801	353	231	362
29	687	542	398	5,140	-	614	11,200	596	632	344	240	335
30	744	434	380	3,600	-	668	14,400	668	893	335	263	326
31	371	-	362	986	-	542	-	820	-	335	247	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,361	1,430	108	302	18,570
November	77,213	10,800	299	2,574	153,100
December	51,291	8,170	290	1,655	101,700
Calendar year 1940	248,402	11,300	100	679	492,600
January	18,986	5,140	204	612	37,650
February	30,289	4,790	-	1,082	60,080
March	21,456	3,550	254	692	42,560
April	43,152	14,400	272	1,438	85,590
May	111,898	15,000	596	3,610	221,900
June	48,851	6,240	498	1,628	96,890
July	27,471	8,300	335	886	54,490
August	14,094	2,920	231	455	27,960
September	27,527	7,680	225	918	54,600
Water year 1940-41	481,569	15,000	108	1,319	955,100

a No gage-height record; discharge computed on basis of records for San Antonio River near Falls City and Cibolo Creek near Falls City.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Medina River near San Antonio, Tex.

Location.- Water-stage recorder, lat. 29°15', long. 98°28', at U. S. Highway 281, 5.2 miles upstream from San Antonio River and 9 miles south of San Antonio, Bexar County.

Drainage area.- 1,225 square miles (587 square miles is above dam forming Medina Lake).

Records available.- July 1939 to September 1940 (October 1940 to September 1941 withheld from publication). October 1929 to December 1930, records below about 50 second-feet, at Losoya, 1.5 miles downstream, collected in connection with seepage investigation.

Extremes.- 1939: Maximum discharge during period July to September, 142 second-feet Aug. 5 (gauge height, 3.54 feet); minimum, 27 second-feet July 27, 28.

1939-40: Maximum gage height during water year, 15.97 feet June 30 (discharge not determined); minimum, 21 second-feet Aug. 9, 13.

Maximum stage known, about 55 feet in 1912 (prior to construction of Medina Dam, 60 miles upstream), according to information furnished by State Highway Department.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Flow partly regulated by Medina Lake (capacity, 254,000 acre-feet) and diversion dam reservoir (capacity, 4,500 acre-feet). About 5,000 acres are irrigated by water released from Medina Lake above station.

Discharge, in second-feet, 1939-40

1939											
Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	29	29	11	-	37	38	21	-	31	36
2	-	30	29	12	-	36	41	22	-	30	39
3	-	34	29	13	-	36	41	23	-	30	36
4	-	34	31	14	-	34	39	24	-	30	34
5	-	80	30	15	-	33	38	25	-	31	33
6	-	79	31	16	-	32	39	26	-	30	32
7	-	45	32	17	-	30	45	27	27	29	33
8	-	39	32	18	-	30	37	28	27	29	34
9	-	38	32	19	-	42	37	29	28	31	34
10	-	37	34	20	-	50	39	30	30	30	34
								31	30	29	-

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	35	41	39	43	37	43	40	40	127	43	35
2	34	36	41	39	46	36	42	39	37	71	80	34
3	34	36	41	38	52	34	40	37	36	115	41	33
4	36	36	41	38	52	32	39	36	36	63	43	32
5	37	36	40	38	61	35	39	36	36	55	45	30
6	38	37	37	40	52	34	978	38	39	41	38	29
7	37	38	37	41	48	37	295	37	45	32	37	29
8	37	38	37	41	60	36	69	38	29	31	36	29
9	37	38	37	40	63	34	52	323	28	43	36	30
10	39	38	39	40	124	31	46	240	36	43	34	30
11	40	39	39	40	124	41	43	61	39	36	27	31
12	41	43	41	40	124	43	41	47	37	36	22	31
13	41	45	348	40	120	45	40	41	41	37	29	31
14	41	39	228	40	112	43	40	39	74	271	35	32
15	40	38	248	39	103	43	40	37	81	281	35	32
16	39	37	37	39	83	45	41	36	265	1,060	35	33
17	39	36	37	40	76	45	39	36	82	277	34	34
18	39	36	39	41	63	45	38	36	53	83	34	34
19	40	35	37	40	57	45	38	347	200	63	64	34
20	37	36	38	40	51	43	37	121	127	64	54	33
21	36	36	38	41	52	46	37	66	148	55	41	34
22	36	36	38	44	45	55	37	44	75	47	39	36
23	36	35	39	45	41	51	36	55	52	46	37	37
24	35	35	40	45	41	56	40	91	62	50	37	37
25	33	36	67	44	40	60	42	72	49	45	36	79
26	34	36	78	44	39	48	45	45	40	43	35	48
27	36	36	48	43	39	49	43	54	41	39	35	39
28	36	36	45	43	39	50	45	55	38	32	32	36
29	36	39	43	43	38	55	45	135	993	36	43	35
30	36	40	41	43	-	70	43	68	1,080	40	51	36
31	36	-	41	43	-	47	-	45	-	60	38	-

Monthly discharge, in second-feet, 1939-40

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 27-31, 1939	142	30	27	28.4	282
August	1,135	80	29	36.6	2,250
September	1,048	45	29	34.9	2,080
The period	-	-	-	-	4,610
October 1939	1,149	41	33	37.1	2,280
November	1,117	45	35	37.2	2,220
December	2,001	348	37	64.5	3,970
January 1940	1,271	46	38	41.0	2,520
February	1,888	124	38	65.1	3,740
March	1,569	70	31	44.2	2,720
April	2,482	978	36	81.7	4,860
May	2,394	347	36	77.2	4,750
June	3,939	1,080	28	131	7,810
July	3,292	1,060	31	106	6,530
August	1,224	80	22	39.5	2,430
September	1,053	79	29	35.1	2,090
Water year 1939-40	23,149	1,080	22	63.2	45,920

Cibolo Creek near Falls City, Tex.

Location.- Water-stage recorder, lat. 29°01', long. 97°56', at bridge on State Highway 123, 9 miles upstream from mouth and 5.5 miles northeast of Falls City, Karnes County. Datum of gage is 264.0 feet above mean sea level, unadjusted.

Drainage area.- 831 square miles.

Records available.- November 1930 to September 1941.

Average discharge.- 10 years, 124 second-feet.

Extremes.- Maximum discharge during year, 11,500 second-feet Nov. 5 and Apr. 28, from rating curve extended above 6,000 second-feet; maximum gage height, 22.53 feet Nov. 5; minimum, 4.9 second-feet Oct. 23.

1930-41: Maximum discharge, 28,600 second-feet June 14, 1935 (gage height, 32.0 feet, present site and datum, based on floodmarks at site then in use), from rating curve extended above 16,000 second-feet; minimum, 4.9 second-feet Aug. 27, 28, Oct. 23, 1940.

Flood in October 1913 reached a stage about 3 feet higher than that of June 14, 1935.

Remarks.- Records good except those above 6,000 second-feet, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.9	2,120	26	34	528	36	36	525	53	91	28	23
2	8.9	317	24	35	2,290	34	32	678	52	65	26	22
3	8.9	83	22	31	2,620	32	34	5,420	70	55	27	23
4	8.9	44	21	30	443	32	31	2,800	176	48	27	22
5	8.9	5,370	21	30	234	31	27	1,450	165	46	31	22
6	8.9	3,870	21	29	209	31	28	4,420	73	43	32	22
7	14	186	344	29	141	36	329	2,200	61	42	137	21
8	11	77	495	28	360	36	275	522	53	40	63	20
9	8.3	50	102	28	198	30	75	306	50	39	80	34
10	8.3	40	44	27	139	30	47	236	52	38	37	27
11	8.3	44	209	27	99	28	39	196	154	38	31	26
12	7.6	31	285	26	70	27	34	1,130	1,070	38	30	27
13	7.6	28	2,120	26	58	27	32	388	619	230	30	23
14	7.6	27	240	394	49	25	31	222	213	132	29	23
15	8.3	26	2,460	116	44	25	30	179	73	86	29	24
16	8.3	24	5,300	78	42	26	30	132	1,620	40	28	28
17	7.0	22	1,110	48	41	355	30	112	3,080	36	27	2,310
18	6.5	22	290	35	39	1,390	30	97	260	36	27	1,780
19	6.5	22	233	30	38	916	29	87	120	37	26	348
20	6.5	22	1,420	27	37	269	28	81	83	36	25	116
21	6.5	22	278	27	36	121	28	93	67	34	24	57
22	6.0	1,560	111	26	37	75	30	355	60	33	24	42
23	5.4	798	72	25	46	55	33	138	56	32	24	36
24	5.4	1,260	58	25	86	175	315	122	50	32	22	32
25	11	490	50	24	131	404	159	74	50	31	23	30
26	29	200	46	24	71	77	583	66	51	30	23	28
27	45	75	44	2,370	50	105	4,330	59	63	30	23	27
28	24	44	41	1,210	42	200	9,960	63	249	30	24	27
29	140	34	37	195	-	83	5,280	146	369	30	24	27
30	17	29	35	84	-	52	1,380	69	144	29	24	27
31	1,750	-	35	54	-	41	-	58	-	28	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,188.5	1,730	5.4	70.6	4,340
November	16,937	5,370	22	565	33,590
December	15,594	5,300	21	503	30,930
Calendar year 1940	55,247.6	5,530	5.4	151	109,600
January	5,172	2,370	24	167	10,260
February	8,178	2,620	36	292	16,220
March	4,774	1,390	25	154	9,470
April	23,325	9,960	27	778	46,260
May	22,422	5,420	58	723	44,470
June	9,256	3,080	50	309	18,360
July	1,555	230	28	50.2	3,080
August	1,031	137	23	33.3	2,040
September	5,274	2,510	20	176	10,460
Water year 1940-41	115,706.5	9,960	5.4	317	229,500

Peak discharge.- Nov. 5 (7 p.m.) 11,500 sec.-ft.; Dec. 16 (6 a.m.) 8,300 sec.-ft.; Jan. 27 (9:40 p.m.) 8,100 sec.-ft.; Apr. 28 (9:30 p.m.) 11,500 sec.-ft.

Mission River at Refugio, Tex.

Location.- Wire-weight gage, lat. 28°17', long. 97°17', on bridge on U. S. Highway 77, 500 feet upstream from Missouri Pacific Railroad bridge and a quarter of a mile southwest of Refugio, Refugio County. Datum of gage is 1.7 feet above mean sea level, datum of 1929.

Drainage area.- 643 square miles.

Records available.- July 1939 to September 1941.

Extremes.- Maximum discharge during year, 10,500 second-feet May 4 (gage height, 28.4 feet, from graph based on gage readings); minimum observed, 0.7 second-foot Oct. 7, 9, 1939-41; Maximum discharge, that of May 4, 1941; minimum observed, that of Oct. 7, 9, 1940.

Maximum stage known, 32.3 feet, in August 1914, and May 17, 1938, from information furnished by local residents.

Remarks.- Records fair. Gage read twice daily. No large diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	2,180	40	18	13	14	12	958	all 9	38	34	21
2	1.1	452	33	18	14	12	12	479	87	35	32	20
3	1.2	286	30	15	13	11	13	4,880	73	32	30	18
4	1.1	162	35	14	12	9.7	12	6,860	64	a30	29	18
5	1.2	55	35	13	13	9.2	11	2,440	63	29	47	17
6	.8	40	41	13	92	22	11	2,460	58	27	286	16
7	.7	36	237	12	183	55	12	1,230	53	26	1,290	a14
8	.9	33	134	11	167	11	14	482	53	26	1,140	13
9	.8	30	87	11	116	15	11	266	53	25	429	12
10	.8	28	52	11	90	8.8	10	207	52	25	a171	12
11	.9	22	25	10	66	8.8	10	237	62	55	128	22
12	1.0	17	22	11	37	9.2	10	247	890	890	109	56
13	.9	17	23	10	17	9.2	10	195	1,220	3,060	81	75
14	1.0	17	170	10	15	9.7	10	125	322	4,330	60	a60
15	.9	16	286	10	12	13	9.2	102	146	3,110	44	30
16	.9	16	160	9.9	11	19	10	87	93	827	40	25
17	1.0	16	64	10	9.9	45	10	75	81	349	a35	24
18	1.0	16	54	10	9.0	109	9.7	a72	74	179	31	33
19	.9	14	224	10	7.7	160	10	72	69	135	30	42
20	1.0	14	1,620	9.9	7.3	229	a10	75	62	116	28	62
21	.9	14	909	9.9	7.9	154	10	292	53	99	27	a56
22	1.0	14	315	9.9	29	90	10	1,890	50	81	25	49
23	1.0	14	195	10	579	63	9.7	4,710	48	69	24	33
24	1.0	65	136	10	670	68	9.7	2,830	44	62	a53	21
25	40	3,740	69	9.9	291	177	11	795	44	54	22	20
26	177	1,640	208	10	150	423	26	382	40	50	23	19
27	108	256	225	11	48	199	450	266	40	46	23	18
28	14	143	132	12	17	24	5,940	235	42	43	23	17
29	7.6	78	99	11	-	18	6,850	1,310	40	41	22	16
30	1,420	50	42	11	-	15	2,550	343	40	38	21	15
31	3,670	-	40	11	-	11	-	a163	-	36	a20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,459.8	3,670	0.7	176	10,830
November.....	9,481	3,740	14	316	18,810
December.....	5,742	1,620	22	185	11,390
Calendar year 1940.....	29,507.1	3,740	.7	80.6	58,530
January.....	350.5	18	9.9	11.3	695
February.....	2,696.8	670	7.3	96.3	5,350
March.....	2,021.6	423	9.8	65.2	4,010
April.....	16,043.3	6,850	9.2	535	31,820
May.....	34,565	6,860	72	1,115	68,560
June.....	4,135	1,220	40	138	8,200
July.....	13,963	4,330	25	450	27,700
August.....	4,327	1,290	20	140	8,580
September.....	854	75	12	28.5	1,690
Water year 1940-41.....	99,639.0	6,860	.7	273	197,600

a No gage-height record; discharge interpolated.

Nueces River at Laguna, Tex.

Location.- Water-stage recorder, lat. 29°25'45", long. 99°59'50", half a mile downstream from Sycamore Creek and 1 mile northeast of Laguna, Uvalde County. Datum of gage is 1,119.72 feet above mean sea level, datum of 1929.

Drainage area.- 764 square miles.

Records available.- October 1923 to September 1931.

Average discharge.- 18 years, 160 second-feet.

Extremes.- Maximum discharge during year, 1,060 second-feet May 3 (gage height, 4.53 feet); minimum, 32 second-feet Oct. 11, 15, 19-24, 26-30.

1923-41: Maximum discharge, 222,000 second-feet July 13, 1939 (gage height, 26.40 feet), from rating curve extended above 40,000 second-feet on basis of one float measurement (110,000 second-feet) and one slope-area measurement (213,000 second-feet); minimum, 7.8 second-feet Nov. 3-15, 18, 1934.

Flood of June 1913 reached a stage of approximately 29 feet, based on the statement of local resident that the stage exceeded that of the flood of Sept. 21, 1923 by 2 or 3 feet. Flood of Sept. 21, 1923, reached a stage of 26.5 feet (discharge, 226,000 second-feet, based on rating curve mentioned above).

Remarks.- Records good except those above 400 second-feet, which are poor. All or part of the flow of Nueces River and its tributaries is lost when it enters the Edwards limestone in the Balcones fault zone which crosses basin just north of Uvalde and downstream from the station. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	36	44	58	73	61	84	306	71	93	97	58
2	35	35	44	58	68	61	84	382	70	93	91	57
3	35	34	44	58	67	61	82	805	68	91	87	58
4	35	34	44	58	67	60	78	611	102	91	85	55
5	35	37	44	58	67	58	76	513	142	91	85	55
6	34	36	44	58	68	61	75	459	137	89	85	53
7	35	39	45	58	64	60	75	401	134	87	85	52
8	34	40	46	58	70	58	73	348	129	87	98	50
9	34	41	45	58	67	58	71	310	122	85	151	64
10	33	40	47	58	67	58	71	279	122	84	112	61
11	32	39	55	58	67	58	73	256	122	101	97	70
12	33	39	70	58	65	58	71	233	122	151	89	82
13	33	39	78	58	65	57	71	215	145	208	85	85
14	33	40	71	58	64	57	71	201	191	227	80	85
15	32	41	71	58	63	57	75	188	244	172	78	84
16	33	42	68	58	61	58	75	175	229	184	75	87
17	33	42	68	57	61	73	71	162	201	218	73	110
18	33	43	68	57	61	93	70	154	178	267	71	120
19	32	43	67	57	61	104	68	145	151	226	73	108
20	32	43	65	57	60	104	68	137	142	208	75	108
21	32	44	64	57	60	95	67	137	129	184	73	106
22	32	43	63	57	61	91	67	134	122	168	71	95
23	32	43	63	56	63	87	68	134	117	156	70	97
24	32	46	61	56	61	84	67	122	112	148	68	95
25	33	44	61	56	61	82	65	115	106	140	67	93
26	32	44	61	55	61	89	110	106	106	132	68	91
27	32	44	60	56	60	89	358	100	100	124	71	91
28	32	44	58	55	60	91	587	93	101	115	64	91
29	32	44	58	53	-	91	506	87	97	110	63	91
30	32	44	58	52	-	89	367	82	95	104	61	91
31	42	-	60	57	-	85	-	76	-	100	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,034	42	32	33.4	2,050
November	1,223	46	34	40.8	2,430
December	1,795	78	44	57.9	3,560
Calendar year 1940	26,624	419	32	72.7	52,820
January	1,766	58	52	57.0	3,500
February	1,793	73	60	64.0	3,560
March	2,286	104	56	73.7	4,530
April	3,744	587	65	125	7,430
May	7,466	805	76	241	14,810
June	3,907	244	68	130	7,750
July	4,334	257	84	140	8,600
August	2,509	151	61	80.9	4,980
September	2,441	120	50	81.4	4,840
Water year 1940-41	34,298	805	32	94.0	68,040

Peak discharge.- Apr. 27 (6:30 p.m.) 674 sec.-ft.; May 3 (2 a.m.) 1,060 sec.-ft.

Nueces River below Uvalde, Tex.

Location.- Water-stage recorder, lat. 27°08', long. 99°54', on Smyth Ranch, 4 miles upstream from bridge on U. S. Highway 83, 9 miles southwest of Uvalde, Uvalde County, and 15 miles downstream from West Nueces River. Datum of gage is 796.1 feet above mean sea level, datum of 1929. Station is 5 miles downstream from station published as Nueces River near Uvalde which was discontinued Apr. 30, 1939.

Drainage area.- 1,947 square miles.

Records available.- April 1939 to September 1941.

Extremes.- 1939: Maximum gage height during period April to September, 19.25 feet July 13 (discharge not determined); minimum, 8.8 second-feet June 30.
 1939-40: Maximum discharge during water year, 4,990 second-feet Oct. 10 (gage height, 6.71 feet); minimum, 11 second-feet Sept. 25, 26.
 1940-41: Maximum discharge during water year, 212 second-feet May 4 (gage height, 3.42 feet); minimum, 8.0 second-feet Mar. 8.
 Maximum stage known, 40.4 feet, from floodmarks, June 14, 1935 (discharge at former station, 5 miles upstream, 616,000 second-feet, by slope-area method).

Remarks.- Records good. Part of the flow of Nueces River enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde. At low stages most of the headwater flow enters this formation. No diversion.

Discharge, in second-feet, 1939-41

1939													
Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	14	14	10	36	26	16	12	15	12	578	33	26
2	-	14	14	10	36	26	17	12	15	12	310	32	32
3	-	14	14	10	37	26	18	13	14	12	208	33	31
4	-	14	14	10	68	26	19	14	14	12	153	32	26
5	14	15	14	10	71	26	20	14	14	12	120	32	24
6	14	14	14	10	42	26	21	14	14	12	92	30	23
7	14	14	13	10	39	26	22	14	13	11	72	30	23
8	14	14	13	10	41	26	23	14	13	11	61	30	23
9	13	14	12	10	47	26	24	14	13	11	54	28	22
10	12	14	12	10	37	26	25	14	22	11	48	28	22
11	11	14	12	10	36	27	26	14	14	11	44	27	21
12	12	14	14	17	34	30	27	15	14	11	42	27	21
13	13	16	14	21,500	33	32	28	16	14	11	39	27	21
14	14	15	13	6,120	33	27	29	14	15	10	38	27	20
15	13	15	12	1,360	33	25	30	14	15	9.6	41	27	19
							31	-	15	-	41	27	-

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	62	36	28	24	20	17	15	14	22	15	16
2	20	57	36	28	24	18	18	15	14	21	15	16
3	20	52	36	28	31	19	17	14	14	20	15	16
4	20	50	36	27	26	19	17	14	14	20	15	15
5	20	48	34	27	23	19	20	14	14	19	15	14
6	20	47	34	28	22	19	52	14	14	19	15	14
7	20	46	34	27	22	18	28	15	14	19	14	14
8	20	44	33	27	22	18	23	14	13	19	14	14
9	20	43	33	26	27	19	21	20	15	19	14	14
10	2,430	43	33	26	25	19	20	16	15	18	14	14
11	1,480	52	32	26	23	20	18	15	14	18	14	14
12	443	46	32	26	23	19	16	14	15	18	14	14
13	218	44	31	26	21	18	16	14	17	18	15	14
14	153	43	31	24	22	18	17	14	18	18	15	14
15	118	43	31	25	22	18	17	14	20	18	15	14
16	92	43	31	25	22	18	17	14	18	21	15	14
17	75	42	31	25	18	18	16	16	17	20	15	13
18	65	42	31	24	20	18	14	14	17	19	16	13
19	58	41	30	24	20	17	15	54	18	19	15	14
20	54	41	28	24	20	17	15	31	17	18	14	14
21	50	41	28	25	20	18	15	21	17	18	14	14
22	47	39	30	26	21	18	15	19	17	17	14	14
23	46	39	27	25	21	18	15	69	17	17	14	14
24	44	39	27	26	20	18	15	26	64	16	14	14
25	44	39	34	25	20	20	16	19	46	16	14	12
26	42	38	31	25	21	19	17	17	23	16	14	12
27	42	38	30	25	21	19	17	16	21	16	14	12
28	42	38	28	24	20	19	18	15	21	15	14	12
29	80	39	28	24	20	19	17	14	38	15	15	12
30	88	41	27	24	-	19	16	14	28	15	28	12
31	74	-	27	23	-	19	-	14	-	15	17	-

Discharge, in second-feet, of Nueces River below Uvalde, Tex., 1939-41--Continued

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	11	10	13	22	11	12	24	55	43	28	24
2	12	10	10	13	15	11	12	34	54	42	28	24
3	12	10	10	13	14	10	11	41	59	41	28	24
4	12	11	11	13	14	10	11	159	61	39	27	24
5	12	14	11	13	14	10	11	205	52	39	27	24
6	12	11	11	13	14	11	11	191	50	39	28	24
7	14	13	11	13	13	8.8	10	180	50	38	30	24
8	13	13	11	13	14	8.8	11	166	50	38	32	23
9	12	13	11	13	13	8.8	11	155	48	38	33	24
10	12	13	11	12	13	8.8	11	138	47	38	30	24
11	12	11	31	12	12	8.8	12	128	46	55	28	28
12	13	11	21	12	12	9.6	13	114	44	42	28	27
13	13	10	20	12	11	8.8	13	107	45	41	28	24
14	12	10	20	11	11	8.8	13	102	43	41	28	23
15	11	10	23	11	11	8.8	25	98	50	39	28	23
16	12	10	20	10	11	9.6	25	92	46	39	28	23
17	12	10	19	10	10	40	18	86	43	39	28	31
18	12	10	18	10	10	38	19	80	44	38	27	26
19	12	10	18	10	10	22	17	80	48	37	27	25
20	11	10	17	11	10	19	17	77	51	37	27	25
21	11	10	16	11	10	17	17	100	51	37	27	24
22	11	10	16	11	12	17	17	86	50	37	26	23
23	11	10	15	11	13	16	18	80	48	34	26	23
24	12	11	15	11	12	15	17	80	48	33	26	22
25	12	10	14	11	12	15	17	75	48	33	25	23
26	12	10	11	11	12	16	34	70	47	33	25	23
27	12	10	12	13	12	14	28	67	46	33	25	23
28	13	10	13	13	11	14	26	62	46	31	25	23
29	12	10	13	11	-	14	26	61	44	31	25	23
30	12	10	13	11	-	14	24	59	44	31	25	23
31	28	-	13	14	-	14	-	58	-	31	25	-

Monthly discharge, in second-feet, 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 5-30, 1939	352	16	11	13.5	698
May	449	22	13	14.5	891
June	371.6	18	9.6	12.4	737
July	31,048	21,600	10	1,002	61,590
August	1,093	71	27	35.3	2,170
September	754	32	19	25.1	1,500
The period	-	-	-	-	67,580
October 1939	5,965	2,430	20	192	11,630
November	1,320	62	38	44.0	2,620
December	970	36	27	31.3	1,920
Calendar year	-	-	-	-	-
January 1940	793	28	23	25.6	1,570
February	641	31	18	22.1	1,270
March	575	20	17	18.5	1,140
April	555	52	14	18.5	1,100
May	595	69	14	19.2	1,180
June	604	64	13	20.1	1,200
July	559	22	15	18.0	1,110
August	486	28	14	15.0	924
September	413	16	12	13.8	819
Water year 1939-40	13,466	2,430	12	36.8	26,680
October 1940	387	26	11	12.5	768
November	322	14	10	10.7	639
December	465	31	10	15.0	922
Calendar year 1940	6,375	69	10	17.4	12,640
January 1941	366	14	10	11.8	726
February	348	22	10	12.4	690
March	437.6	40	8.8	14.1	868
April	505	34	10	16.8	1,000
May	3,055	205	24	98.5	6,060
June	1,456	61	43	48.5	2,890
July	1,187	55	31	37.6	2,310
August	848	33	25	27.4	1,680
September	725	31	23	24.2	1,440
Water year 1940-41	10,081.6	205	8.8	27.6	19,990

Nueces River near Asherton, Tex.

Location.- Water-stage recorder, lat. 28°30', long. 99°42', at bridge on Asherton-Brundage highway, 1.2 miles downstream from El Moro Creek and 5.5 miles northeast of Asherton, Dimmit County. Datum of gage is 470.9 feet above mean sea level, datum of 1929.

Drainage area.- 4,082 square miles.

Records available.- October 1939 to September 1941.

Extremes.- Maximum discharge during year, 3,140 second-feet Feb. 4 (gage height, 19.07 feet); no flow at times.

1939-41: Maximum discharge, 5,200 second-feet Apr. 7, 1940 (gage height, 24.65 feet); no flow at times.

Maximum stage known, 32 feet June 17, 1935, according to information furnished by local residents.

Remarks.- Records good. Part of the flow of the Nueces River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde. At low stages most of the headwater flow enters this formation. Flow partly regulated by several small reservoirs above station. About 12,000 acres irrigated from river or jointly from wells and river above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0	1,290	0.7	6.9	1,660	34	0	0	0
2			0	0	2,080	.6	6.9	737	26	0	0	0
3			0	0	2,940	.8	6.3	1,270	20	0	0	0
4			0	0	2,970	1.1	4.8	1,740	19	0	0	0
5			0	0	1,850	1.2	3.4	1,260	23	0	0	0
6			0	0	571	1.1	2.1	1,110	36	0	18	0
7			0	0	264	.9	1.4	793	73	0	4.8	0
8			0	0	148	.7	1.0	480	73	0	19	0
9			0	0	100	.6	.6	303	59	0	4.2	16
10			0	0	70	.5	.3	200	46	0	1.4	719
11			0	0	49	.4	.2	148	34	0	1.3	1,251
12			0	0	37	.3	.2	114	26	0	.6	298
13			0	0	28	.3	.2	88	20	4.6	.3	80
14			0	0	19	.2	.2	71	15	8.9	.1	27
15			0	0	14	.2	.1	60	11	2.6	0	9.3
16			4.2	0	8.4	.2	.1	52	9	.6	0	12
17			1.5	0	5.2	.2	.1	45	6.3	.2	0	37
18			.6	0	3.6	.3	0	41	4.0	.1	0	5.2
19			.3	0	2.5	.3	0	49	2.6	0	0	2.8
20			5.0	0	1.9	.2	0	126	1.8	0	0	1.3
21			3.5	0	1.5	.2	0	222	1.3	0	0	1.4
22			1.0	0	1.3	.3	0	303	1.2	0	0	1.4
23			.6	0	1.8	.5	0	371	1.0	0	0	1.0
24			.3	0	1.5	.7	0	333	.8	0	0	.9
25			.2	0	1.2	2.4	0	241	.7	0	0	.5
26			.2	0	.9	3.7	10	166	.6	0	0	.3
27			.1	0	.8	2.8	198	114	.4	0	0	.2
28			.1	18	.7	2.2	1,410	83	.3	0	0	.1
29			0	203	-	1.9	1,760	63	.2	0	0	.1
30			0	1,230	-	1.6	1,650	50	.1	0	0	0
31			0	1,670	-	1.4	-	42	-	-	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	17.5	5.0	0	.57	35
Calendar year 1940.....	45,065.4	4,380	0	123	89,400
January.....	3,121	1,670	0	101	6,190
February.....	12,441.3	2,970	.7	444	24,680
March.....	28.5	3.7	.2	.92	57
April.....	5,062.8	1,760	0	169	10,040
May.....	12,335	1,740	41	398	24,470
June.....	545.3	73	.1	18.2	1,080
July.....	17.0	8.9	0	.55	34
August.....	49.7	19	0	1.60	99
September.....	2,464.5	1,250	0	82.2	4,890
Water year 1940-41.....	36,082.7	2,970	0	98.9	71,580

Peak discharge.- Feb. 4 (4 a.m.) 3,140 sec.-ft.; May 1 (3 a.m.) 1,960 sec.-ft.; Sept. 11 (1:30 a.m.) 1,740 sec.-ft.

Nueces River at Cotulla, Tex.

Location.- Wire-weight gage, lat. 28°26', long. 99°16', at bridge on U. S. Highway 81 at Cotulla, La Salle County, a third of a mile upstream from bridge of International-Great Northern Railroad. Datum of gage is 368.08 feet above mean sea level, datum of 1929.

Drainage area.- 5,260 square miles.

Records available.- October 1923 to September 1941. July 1915 to June 1918 at site 4 miles upstream. Gage-height records collected in this vicinity 1914-17 and since 1922 are contained in reports of U. S. Weather Bureau.

Average discharge.- 18 years, 335 second-feet.

Extremes.- Maximum discharge observed during year, 4,220 second-feet May 2 (gage height, 13.98 feet); no flow Oct. 30, 31, Jan. 25.
1923-41: Maximum discharge, 82,600 second-feet June 18, 1935 (gage height, 32.4 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records fair. Part of the flow of Nueces River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde. At low stages most of the headwater flow enters this formation. Most of low flow is diverted above station by pumping. Low flow partly regulated by small storage reservoirs above station. Gage read once daily.

Cooperation.- Gage-height record furnished by U. S. Weather Bureau.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.1	0.6	0.4	633	2.4	1.9	3,420	54	1.2	0.3	0.2
2	.8	.2	.6	.4	1,120	2.4	1.0	4,080	38	.9	.2	.1
3	.8	.4	.6	.3	1,360	2.8	1.3	3,660	32	.5	.2	.2
4	.8	.5	.6	.3	1,840	1.7	1.2	2,980	30	.3	.2	.1
5	.8	.6	.7	.2	3,420	1.6	.6	2,420	32	.3	.2	.1
6	.8	.6	.8	.2	3,080	1.4	.5	2,240	47	.3	.3	.1
7	.8	.5	1.1	.2	2,080	1.9	1.0	2,420	76	.4	.4	.1
8	.8	.6	1.0	.3	1,480	2.4	.7	2,160	124	.2	.4	.1
9	.6	.6	.8	.3	562	1.7	1.0	1,580	119	.2	.4	.1
10	.6	.5	.6	.2	229	1.4	.6	1,090	95	.4	.3	.1
11	.4	.4	.6	.2	136	1.6	.6	471	82	.32	.3	1.0
12	.3	.4	.4	.3	102	1.6	.6	272	155	.84	.2	358
13	.4	.4	.4	.4	76	2.0	.6	136	44	16	.2	1,080
14	.4	.4	.4	.4	47	5.1	.6	133	42	5.1	.2	896
15	.4	.4	.4	.4	38	4.5	.6	100	36	1.9	.2	228
16	.3	.4	.4	.4	30	3.1	.6	75	55	39	.2	91
17	.3	.3	.4	.4	30	3.9	.6	49	25	10	.2	76
18	.3	.4	.5	.3	22	12	.6	43	11	17	.2	83
19	.3	.5	.5	.3	14	9.7	.7	52	6.4	7.9	.2	57
20	.2	.4	.5	.3	13	1.7	.9	45	5.8	2.8	.1	46
21	.3	.4	.5	.3	14	1.9	.9	66	4.5	1.7	.1	41
22	.3	.4	.6	.2	11	1.7	1.3	126	3.9	1.2	.1	32
23	.3	.3	.4	.1	8.8	1.7	1.3	224	2.8	1.3	.1	23
24	.4	.6	.4	.1	12	2.0	1.0	314	2.4	1.2	.2	19
25	.4	.6	.3	.1	8.8	7.0	3.1	385	1.9	1.6	.2	15
26	.3	.5	.2	.1	5.8	3.9	36	367	1.9	.9	.2	13
27	.2	.5	.2	.4	3.9	2.8	151	289	1.6	.6	.1	13
28	.2	.5	.3	1.9	3.5	1.3	1,150	133	1.4	.4	.1	5.1
29	.2	.6	.4	.3	-	.7	1,080	146	1.2	.4	.1	2.8
30	0	.6	.4	.7	-	1.0	1,800	93	1.2	.4	.1	2.0
31	0	-	.6	2.3	-	3.9	-	71	-	.4	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	13.5	0.8	0	0.44	27
November.....	13.6	.6	.1	.45	27
December.....	16.2	1.1	.2	.52	32
Calendar year 1940.....	88,347.4	5,240	0	241	175,200
January.....	12.7	2.3	.1	.41	25
February.....	16,379.8	3,420	3.5	585	32,490
March.....	92.8	12	.7	2.99	184
April.....	4,240.8	1,800	1.4	141	8,410
May.....	29,750	4,080	43	980	59,010
June.....	1,132.0	155	1.2	37.7	2,250
July.....	323.5	103	1.2	10.4	642
August.....	6.4	.4	.1	.21	13
September.....	3,083.1	1,080	0	103	6,120
Water year 1940-41.....	55,064.4	4,080	0	151	109,200

Nueces River near Three Rivers, Tex.

Location.- Water-stage recorder, lat. 28°26'10", long. 98°11'10", 100 feet downstream from San Antonio, Uvalde & Gulf (Missouri Pacific) Railroad bridge, half a mile downstream from Frio River, and 2 miles southeast of town of Three Rivers, Live Oak County. Datum of gage is 101.16 feet above mean sea level, datum of 1929.

Drainage area.- 15,600 square miles.

Records available.- July 1915 to September 1941. Gage-height records collected in this vicinity since 1922 are contained in reports of U. S. Weather Bureau.

Average discharge.- 24 years (1915-18, 1920-41), 821 second-feet.

Extremes.- Maximum discharge during year, 34,400 second-feet Sept. 19 (gage height, 41.22 feet); minimum, 6.0 second-feet Oct. 3, 4.

1915-41: Maximum discharge observed, 85,000 second-feet Sept. 18, 1919 (gage height, 46.0 feet), from rating curve extended above 55,000 second-feet; no flow at times.

Remarks.- Records good. Part of the flow of the Nueces River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde. At low stages most of the headwater flow enters this formation. About 5,000 acres from river and about 12,000 acres jointly from wells and river irrigated above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.4	1,980	41	76	806	93	429	17,700	970	1,660	38	20
2	7.4	3,070	38	67	1,470	81	304	10,000	460	1,660	37	18
3	6.4	1,350	37	60	2,450	73	320	11,600	344	830	34	16
4	6.2	310	36	56	1,230	69	312	21,200	1,370	344	33	14
5	6.8	223	34	54	1,030	65	268	28,300	3,830	235	30	13
6	6.8	1,560	34	51	2,260	63	165	24,400	3,090	148	45	13
7	55	3,280	34	49	5,170	57	119	20,000	822	112	227	25
8	139	2,780	36	48	6,470	55	158	19,300	1,090	33	1,640	21
9	152	434	91	46	4,140	57	128	16,900	1,970	25	1,160	27
10	65	324	59	45	2,020	59	96	12,300	2,920	22	169	52
11	38	334	43	43	1,690	51	76	9,180	6,320	1,080	70	34
12	22	248	41	42	1,720	50	65	7,020	5,750	4,300	50	95
13	14	193	42	42	1,870	46	59	5,320	5,030	7,440	372	30
14	12	140	39	41	2,080	43	54	4,240	4,060	9,130	778	22
15	77	104	207	43	2,260	43	52	3,260	2,840	6,070	661	307
16	124	82	1,180	52	962	43	50	3,100	3,130	3,350	230	296
17	63	69	2,230	41	372	44	48	2,000	4,280	2,080	142	4,500
18	54	63	987	37	286	250	112	840	4,580	1,460	102	17,200
19	178	57	408	37	230	1,200	246	665	4,110	758	76	32,600
20	125	51	2,930	36	193	755	174	581	2,110	438	63	26,900
21	81	48	3,820	36	165	420	133	1,640	1,340	268	52	14,900
22	54	61	2,400	36	161	228	117	3,140	904	174	43	7,430
23	39	206	826	36	165	684	116	5,770	486	119	44	3,790
24	32	223	485	35	184	980	133	4,460	505	89	39	3,000
25	180	526	386	35	205	1,160	119	3,360	815	73	34	1,140
26	1,680	220	422	34	169	936	1,670	1,860	924	64	31	441
27	1,570	67	247	34	133	472	7,560	1,340	924	61	28	794
28	557	54	180	897	108	315	15,800	1,260	1,150	54	27	484
29	835	45	142	3,400	-	258	23,300	1,880	1,460	48	28	334
30	924	42	110	1,820	-	199	24,400	1,660	1,630	44	26	315
31	1,090	-	91	1,600	-	240	-	2,530	-	41	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	8,202.0	1,680	6.2	265	16,270
November.....	18,144	3,280	42	605	35,990
December.....	17,629	3,820	34	569	34,970
Calendar year 1940.....	448,326.8	19,000	6.2	1,225	889,300
January.....	8,929	3,400	34	288	17,710
February.....	39,999	6,470	108	1,429	79,340
March.....	9,089	1,200	43	293	18,030
April.....	76,581	24,400	48	2,553	151,900
May.....	245,106	28,300	581	7,907	486,200
June.....	68,814	6,320	344	2,294	136,500
July.....	42,210	9,130	22	1,362	83,720
August.....	6,366	1,640	22	205	12,630
September.....	114,731	32,600	13	3,824	227,600
Water year 1940-41.....	656,800.0	32,600	6.2	1,797	1,301,000

Peak discharge.- Apr. 30 (3 a.m.) 25,500 sec.-ft.; May 5 (1 p.m.) 28,800 sec.-ft.; July 14 (6 a.m.) 9,970 sec.-ft.; Sept. 19 (5 p.m.) 34,400 sec.-ft.

Nueces River near Mathis, Texas

Location.- Water-stage recorder, lat. 97°52', long. 28°02', at bridge on U. S. Highway 96, 200 feet downstream from bridge of Texas & New Orleans Railroad, 0.8 mile downstream from Lake Corpus Christi Dam, and 4 miles southwest of Mathis, San Patricio County. Datum of gage is 27.50 feet above mean sea level, unadjusted.

Drainage area.- 16,660 square miles.

Records available.- August 1939 to September 1941.

Extremes.- Maximum discharge during year, 29,600 second-feet May 3 (gage height, 32.04 feet); minimum, 19 second-feet Mar. 15-17 (regulated); minimum daily, 19 second-feet Mar. 15-17.

1939-41: Maximum discharge, that of May 3, 1941; minimum, 3.7 second-feet (regulated) Aug. 15, 1940; minimum daily, 6.8 second-feet Aug. 15, 1940.

Maximum stage known, 36.0 feet June 18, 1935, from floodmark at railroad bridge, 200 feet upstream (discharge, 44,000 second-feet, computed flow over Lake Corpus Christi Dam).

Remarks.- Records good except those for period of no gage-height record and those below 20 second-feet, which are poor. Flow partly regulated by Lake Corpus Christi (capacity at spillway crest, 54,000 acre-feet, revised, when dam was completed in 1930; capacity in June 1942 at spillway crest, 43,400 acre-feet). The revised figure of original capacity and the present usable capacity are based on a detailed survey by U. S. Soil Conservation Service in 1942. Part of the flow of the Nueces River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde. At low stages most of the headwater flow enters this formation. About 5,000 acres irrigated from river and about 12,000 acres jointly from river and wells above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	1,510		34	1,510	165	244	20,200	2,000	1,260	216	111
2	36	1,510		32	1,410	164	237	23,900	1,360	1,350	209	109
3	36	1,640		31	1,350	162	237	27,400	877	1,350	209	98
4	34	1,640		30	1,510	160	230	18,600	1,230	957	209	87
5	34	1,430	a90	29	1,410	159	230	15,600	1,660	554	209	56
6	34	1,180		28	1,390	60	230	18,900	2,480	357	202	52
7	34	1,700		27	1,870	30	237	24,600	2,720	244	202	52
8	34	1,730		26	3,920	72	230	25,600	1,380	188	216	52
9	30	1,960	87	26	5,570	114	230	22,200	1,140	215	272	51
10	30	1,700	47	25	4,950	112	118	19,200	1,340	320	296	50
11	30	1,700	22	25	2,990	109	22	16,800	2,730	349	304	48
12	30	1,400	22	25	2,230	107	22	14,000	5,430	1,600	265	48
13	29	237	22	25	2,180	106	22	10,500	6,080	3,900	259	48
14	29	216	22	25	2,130	89	22	6,970	5,320	6,250	251	48
15	28		23	25	2,100	20	22	4,860	4,260	8,390	251	48
16	29		22	25	2,100	19	22	3,720	3,000	8,080	244	48
17	29		22	25	1,960	19	22	3,190	2,890	4,840	244	160
18	29		610	26	1,120	19	20	2,320	3,620	2,410	237	865
19	29		1,110	24	223	20	20	2,070	4,110	1,520	224	5,300
20	29		1,110	24	202	323	20	1,540	3,880	928	161	12,800
21	29		1,700	24	195	692	20	3,810	2,510	571	145	22,700
22	29	a235	2,830	23	188	353	20	4,650	2,070	378	131	27,400
23	29		2,310	22	182	223	20	7,870	1,470	281	120	21,800
24	29		1,360	22	177	223	21	8,100	885	216	115	10,200
25	526		1,080	22	173	509	21	5,990	652	232	114	4,100
26	1,140		1,260	22	172	878	411	3,840	734	354	112	2,060
27	1,140		1,300	22	169	1,050	2,110	2,420	790	345	112	1,020
28	1,230		952	22	166	1,050	8,380	1,770	790	295	112	485
29	1,600		368	167	-	1,050	11,100	1,540	877	216	112	376
30	1,290		198	1,020	-	594	15,100	1,730	1,110	216	112	354
31	1,730		36	1,540	-	244	-	1,700	-	216	111	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,400	1,730	28	303	18,640
November	23,313	1,960	7	777	46,240
December	17,233	2,830	22	556	34,180
Calendar year 1940	465,812.8	18,400	6.8	1,275	923,800
January	3,454	1,640	22	111	6,850
February	43,517	5,570	166	1,554	86,310
March	8,925	1,050	19	288	17,700
April	39,640	15,100	20	1,321	78,620
May	325,820	27,400	1,540	10,500	645,900
June	69,395	6,080	652	2,313	137,600
July	48,382	8,390	188	1,561	95,960
August	6,976	304	111	193	11,850
September	110,606	27,400	48	3,687	219,400
Water year 1940-41	705,461	27,400	19	1,933	1,399,000

Peak discharge.- May 3 (7 a.m.) 29,600 sec.-ft.; May 8 (5 a.m.) 26,000 sec.-ft.; July 16 (12:30 a.m.) 8,840 sec.-ft.; Sept. 22 (10 a.m.) 27,800 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and record at Callallen.

Notes.- Discharge July 22 to Sept. 16, Sept. 27-30 computed from graph based on one or more daily reference gage readings.

Nueces River at Calallen, Tex.

Location.- Staff gage, lat. 27°52'40", long. 97°37'35", at old pump house of city of Corpus Christi, half a mile northwest of Calallen, Nueces County, and half a mile upstream from tidewater and breakwater dam. Datum of gage is 1.12 feet above mean sea level, datum of 1929.

Drainage area.- 16,920 square miles.

Records available.- August 1915 to September 1941. (1918-41, gage heights only).

Extremes.- Maximum gage height observed during year, 11.97 feet May 4; minimum observed, 3.34 feet Apr. 18.

1915-41: Maximum gage height observed, 12.40 feet June 19, 27, 1935; no flow Aug. 23-29, 1918 (only period of no flow known).

Remarks.- Discharge not computed. Gage read twice daily.

Cooperation.- Gage readings furnished by city of Corpus Christi.

Gage height, in feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.50	5.98	3.80	3.72	5.50	3.96	4.10	9.73	5.67	5.58	4.00	3.85
2	3.52	5.54	3.74	3.60	5.49	3.96	4.10	10.13	5.83	5.76	3.99	3.86
3	3.53	5.53	3.80	3.53	5.40	3.96	4.10	11.48	5.25	5.84	4.00	3.85
4	3.51	5.54	3.80	3.49	5.42	3.96	4.08	11.90	4.79	5.85	3.96	3.85
5	3.52	5.45	3.80	3.54	5.54	3.96	4.07	11.23	5.33	5.29	3.99	3.84
6	3.50	5.31	3.78	3.56	5.51	3.96	4.08	10.65	5.67	4.77	3.98	3.85
7	3.54	5.26	3.77	3.54	5.44	3.80	4.10	10.45	6.56	4.43	4.02	3.81
8	3.61	5.35	3.80	3.51	6.07	3.60	4.10	11.06	6.78	4.23	4.02	3.59
9	3.58	5.63	3.78	3.50	6.92	3.65	4.08	11.47	5.68	4.10	4.08	3.59
10	3.57	5.70	3.80	3.50	7.70	3.86	4.06	11.29	5.32	4.24	4.25	3.69
11	3.58	5.63	3.78	3.50	8.10	3.88	3.87	10.88	5.68	4.69	4.41	3.81
12	3.55	5.55	3.57	3.50	7.69	3.88	3.56	10.65	6.65	5.10	4.26	3.68
13	3.54	5.15	3.50	3.50	6.72	3.87	3.51	10.31	8.10	6.47	4.16	3.55
14	3.54	4.07	3.52	3.50	6.24	3.85	3.50	9.95	8.56	7.46	4.14	3.61
15	3.57	4.00	3.53	3.50	6.06	3.88	3.43	9.58	8.77	8.28	4.12	3.57
16	3.50	3.95	3.51	3.53	6.00	3.64	3.48	9.19	8.60	8.86	4.15	3.62
17	3.50	3.70	3.50	3.45	5.99	3.53	3.48	8.55	8.17	9.19	4.30	3.65
18	3.48	3.63	3.50	3.50	5.88	3.57	3.37	7.87	7.72	9.12	4.19	4.16
19	3.48	3.60	4.86	3.50	4.73	3.54	3.41	7.12	7.84	8.26	4.13	5.62
20	3.50	3.60	5.43	3.50	4.12	3.53	3.41	6.32	8.10	6.73	4.09	6.85
21	3.50	3.60	5.50	3.50	4.00	4.06	3.40	6.53	8.17	5.27	3.87	8.13
22	3.50	3.61	6.85	3.48	4.00	4.67	3.40	8.20	7.61	4.74	3.83	9.22
23	3.50	3.64	6.39	3.48	4.15	4.25	3.40	8.83	7.68	4.46	3.86	11.13
24	3.50	3.67	6.38	3.45	4.20	3.98	3.43	8.91	6.48	4.25	3.98	11.29
25	3.80	3.85	5.45	3.47	4.10	4.17	3.40	9.18	5.29	4.15	3.86	10.56
26	4.80	4.59	5.20	3.49	4.00	4.65	3.41	9.12	4.95	4.10	3.86	9.57
27	5.20	4.60	5.40	3.50	4.00	4.97	6.63	8.54	5.25	4.35	3.86	8.35
28	6.20	4.55	5.33	3.53	3.97	5.03	8.60	7.42	5.17	4.30	3.86	6.16
29	5.28	4.22	4.71	3.63	-	5.04	9.58	5.99	5.18	4.22	3.82	4.85
30	5.56	3.82	4.25	3.85	-	5.03	9.60	5.55	5.32	4.06	3.61	4.62
31	6.01	-	3.97	5.22	-	4.35	-	5.65	-	4.04	3.85	-

West Nueces River seepage investigation

A series of discharge measurements was made on May 13, 1941, on the West Nueces River and tributaries, Texas, between a point 1,000 feet above gaging station near Brackettville and a point 37 miles downstream (0.8 mile upstream from mouth), to determine the seepage gains or losses. The river was falling about 0.5 second-foot per day at gaging station. All flowing tributaries were measured.

Discharge measurements of West Nueces River and tributary between point 1,000 feet above gaging station near Brackettville, Tex., and a point 0.8 mile above mouth, May 13, 1941, to determine seepage gains or losses

Date	Stream	Location	Distance below initial point (miles)	Discharge in second-feet			
				Main stream	Tributary	Gain or loss in section	Total gain or loss
May 13	West Nueces River.	1,000 feet above gaging station near Brackettville, Tex.	0	2.3	-	-	-
13	....do.....	2.6 miles above Live Oak Creek.	9.2	8.3	-	+6.0	+6.0
13	Live Oak Creek.	0.5 mile above mouth of creek.	11.8	-	4.8	-	-
13	West Nueces River.	1.6 miles below Live Oak Creek.	13.4	21.1	-	+8.0	+14.0
13	....do.....	0.8 mile above mouth of river.	37.0	0	-	-21.1	-7.1

Frio River at Concan, Tex.

Location.- Water-stage recorder, lat. 29°29', long. 99°42', half a mile southeast of Concan post office, Uvalde County, and 15 miles upstream from Dry Frio River. Datum of gage is 1,203.71 feet above mean sea level, datum of 1929.

Drainage area.- 485 square miles.

Records available.- October 1923 to September 1941.

Average discharge.- 16 years (1924-29, 1930-41), 119 second-feet.

Extremes.- Maximum discharge during year, 6,720 second-feet Apr. 27 (gage height, 7.04 feet); minimum, 24 second-feet Oct. 17-22.

1923-41: Maximum discharge, 162,000 second-feet July 1, 1932 (gage height, 34.44 feet, from floodmarks), by slope-area method; minimum observed, 8.1 second-feet Aug. 2, 3, 1928.

Remarks.- Records good except those above 400 second-feet, which are fair. Part of the flow of the Frio River enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde and downstream from the station. Most of the low flow enters this formation. No diversions above gage.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

1.30	17	1.70	98	3.00	805
1.35	24	1.80	122	3.50	1,290
1.40	32	2.00	184	4.00	1,840
1.45	41	2.20	270	4.50	2,460
1.50	52	2.50	445		
1.60	74	2.80	650		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	42	43	a58	91	72	103	458	166	115	74	96
2	30	32	41	a57	76	72	103	605	166	112	74	93
3	30	30	41	a56	74	70	100	846	163	110	72	93
4	29	30	41	a56	76	70	100	615	160	108	72	91
5	29	34	41	a55	76	70	98	545	156	105	74	91
6	29	34	41	a54	79	79	98	484	152	105	74	88
7	41	37	41	a53	74	72	96	438	149	103	72	88
8	30	45	41	a52	79	70	93	406	146	103	1,010	86
9	27	45	41	a52	79	67	93	386	144	100	564	240
10	27	a45	41	61	79	67	93	393	146	100	255	305
11	27	a45	140	61	76	65	93	368	144	130	180	225
12	27	a45	84	61	76	65	93	350	249	112	152	419
13	27	a44	72	61	74	65	96	332	194	105	138	344
14	27	a44	70	61	74	65	96	315	149	108	133	290
15	27	a44	84	59	74	65	104	300	186	103	127	243
16	26	a44	81	59	74	65	126	285	160	100	122	234
17	24	a44	79	59	74	103	100	275	144	105	120	256
18	24	a44	a78	59	74	125	96	261	141	98	115	252
19	24	a44	a78	56	74	108	93	261	138	96	112	238
20	24	a44	a77	56	74	105	88	255	136	96	110	225
21	24	a43	a76	54	74	106	86	243	138	93	108	217
22	24	a43	a75	54	74	105	88	234	138	91	105	204
23	26	a43	a74	54	81	103	91	225	136	91	105	200
24	26	43	a74	54	79	100	91	221	130	88	105	200
25	29	48	a73	52	79	100	91	209	130	86	103	188
26	30	43	a72	52	76	115	277	200	130	86	103	180
27	29	43	a72	54	74	110	2,340	196	127	84	103	177
28	29	41	a71	54	72	108	1,360	188	122	81	110	170
29	30	43	a70	52	-	105	681	184	120	81	100	166
30	29	43	a69	50	-	105	531	180	117	79	96	160
31	28	-	a68	64	-	103	-	174	-	76	93	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	925	88	24	29.8	1,830
November	1,249	45	30	41.6	2,480
December	2,049	140	41	66.1	4,060
Calendar year 1940	22,748	585	24	62.2	45,110
January	1,630	68	50	59.0	3,630
February	2,136	91	72	76.3	4,240
March	2,699	125	65	87.1	5,350
April	7,598	2,340	86	253	15,070
May	10,433	846	174	337	20,690
June	4,477	249	117	149	8,880
July	3,050	130	76	98.4	6,050
August	4,781	1,010	72	154	9,480
September	5,849	419	66	195	11,600
Water year 1940-41	47,076	2,340	24	129	93,360

Peak discharge.- Apr. 27 (6 p.m.) 6,720 sec.-ft.; May 2 (10:30 p.m.) 1,360 sec.-ft.; Aug. 8 (1 p.m.) 3,210 sec.-ft.

a No gage-height record Nov. 10-23, Dec. 18 to Jan. 9; discharge computed on basis of known range in stage and engineer's notes.

Frio River near Derby, Tex.

Location.- Water-stage recorder and concrete control, lat. 28°44'10", long. 99°08'45", at bridge on U. S. Highway 81, 150 feet upstream from International-Great Northern Railroad bridge, 750 feet downstream from Leona River, and 2.4 miles south of Derby, Frio County. Datum of gage is 449.3 feet above mean sea level, datum of 1929.

Drainage area.- 3,493 square miles.

Records available.- August 1915 to September 1941.

Average discharge.- 26 years, 175 second-feet.

Extremes.- Maximum discharge during year, 20,000 second-feet Feb. 3 (gage height, 13.82 feet); no flow Oct. 1 to Nov. 1.
1915-41: Maximum discharge, 230,000 second-feet July 4, 1932 (gage height, 29.60 feet, present site, from floodmarks at former site), by slope-area method; no flow at times.

Remarks.- Records good except those for period of no gage-height record, which are poor. Part of flow of Frio River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses basin just north of Uvalde. At low stages all of headwater flow, with few exceptions, enters this formation. Diversions for irrigation above station.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Nov. 11 to Jan. 9)

0.08	0	0.6	38	3.0	8.0
.10	.1	.8	66	4.0	1,220
.15	.4	1.0	98	5.0	1,620
.20	1.0	1.5	199	6.0	2,070
.30	5.0	2.0	340	7.0	2,650
.40	14.	2.5	550		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		1.1	7.7	5.0	176	17	68	2,180	64	17	3.6	20
2		117	7.7	5.0	6,720	16	60	1,180	61	14	4.2	10
3		25	7.7	5.0	13,000	17	52	920	55	13	4.2	6.8
4		24	8.6	5.9	2,460	17	47	2,250	55	11	4.2	5.0
5		17	9.5	6.8	664	17	46	3,070	58	10	5.0	5.0
6		167	10	6.8	258	17	38	1,960	64	10	5.0	5.9
7		158	10	6.8	184	18	28	1,340	51	10	5.0	5.9
8		95	9.5	6.8	148	19	24	855	46	10	6.8	5.9
9		66	8.6	6.8	118	19	21	698	42	9.5	6.21	5.0
10		28	9.5	6.8	100	19	18	546	38	7.7	2,060	9.2
11		13	9.5	7.7	92	22	16	444	36	6.8	f380	564
12		7.7	10	7.7	76	20	13	368	32	189	f166	251
13		4.2	85	8.6	63	18	11	312	30	364	f112	532
14		2.8	168	8.6	51	18	11	279	26	164	f82	558
15		2.1	72	7.7	42	19	9.5	258	26	88	f56	199
16		2.1	456	5.9	36	18	10	227	376	46	f41	135
17		2.8	470	3.6	28	16	11	201	1,290	33	f28	109
18		2.8	143	3.2	24	17	11	184	377	27	f21	126
19		3.2	87	3.6	19	726	11	173	100	20	f18	124
20		3.6	51	3.6	19	1,320	17	160	58	16	17	93
21		3.6	30	3.2	18	460	30	150	42	11	13	88
22		4.2	17	3.2	17	241	24	141	33	10	11	76
23		4.2	11	3.6	17	160	19	133	27	9.5	8.6	69
24		6.8	7.7	4.2	17	122	16	127	25	9.5	5.9	64
25		6.8	5.9	5.0	16	102	13	122	21	8.6	4.2	60
26		6.8	5.0	6.8	16	85	21	111	19	6.8	2.8	54
27		6.8	4.2	6.8	17	76	83	112	17	4.2	1.8	52
28		7.7	4.2	5.9	17	456	1,220	98	51	4.2	1.7	47
29		7.7	4.2	93	-	236	4,620	87	48	3.6	1.2	42
30		7.7	4.2	184	-	120	4,800	79	24	3.6	19	41
31		-	5.0	153	-	82	-	72	-	3.6	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	804.7	187	1.1	26.8	1,600
December	1,738.7	470	4.2	56.1	3,450
Calendar year 1940	8,972.5	902	0	24.5	17,790
January	590.6	184	3.2	19.1	1,170
February	24,413	13,000	16	872	48,420
March	4,610	1,320	16	145	8,950
April	11,368.5	4,800	9.5	379	22,550
May	18,837	3,070	72	608	37,360
June	3,192	1,280	17	106	6,330
July	1,140.6	1,090	3.6	36.8	2,280
August	3,752.2	2,060	7	121	7,440
September	3,342.7	564	5.0	111	6,630
Water year 1940-41	73,690.0	13,000	0	202	146,200

Peak discharge.- Feb. 3 (3 a.m.) 20,000 sec.-ft.; Mar. 20 (4:30 a.m.) 1,800 sec.-ft.; Apr. 29 (9:30 p.m.) 8,240 sec.-ft.; May 5 (7 a.m.) 3,470 sec.-ft.; June 17 (8 a.m.) 1,490 sec.-ft.; Aug. 10 (9 a.m.) 2,650 sec.-ft.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Frio River at Calliham, Tex.

Location.- Water-stage recorder and concrete control, lat. 28°29'30", long. 98°20'45", at bridge on Calliham-Whitsett highway, 1 mile north of Calliham, McMullen County, and 9.7 miles below mouth of San Miguel Creek. Datum of gage is 153.47 feet above mean sea level.

Drainage area.- 5,491 square miles.

Records available.- October 1924 to April 1926, April 1932 to September 1941.

Average discharge.- 10 years (1924-25, 1932-41), 316 second-feet.

Extremes.- Maximum discharge during year, 21,900 second-feet Sept. 18 (gage height, 31.44 feet); minimum, 0.7 second-foot Oct. 6, 7.

1924-26, 1932-41: Maximum discharge, 109,000 second-feet July 6, 1932 (gage height, 39.20 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good. Part of flow of the Frio River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses basin just north of Uvalde. At low stages all of the headwater flow, with few exceptions, enters this formation. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	1,170	7.5	20	474	26	390	3,700	133	44	8.7	6.2
2	1.4	843	7.1	17	1,140	26	199	2,560	113	55	8.3	5.2
3	1.4	330	6.5	16	750	26	166	10,100	103	58	7.5	4.3
4	1.0	80	5.5	15	724	24	94	14,100	605	44	6.5	3.8
5	.9	68	5.2	14	962	21	94	8,680	1,060	34	5.5	4.5
6	.7	430	5.2	12	3,360	20	79	6,150	550	30	4.8	1.8
7	4.6	810	5.2	12	6,980	20	65	4,020	164	26	6.8	1.4
8	133	342	5.2	12	4,100	18	54	3,330	109	22	12	10
9	38	94	5.2	12	1,280	17	49	3,000	94	20	17	9.2
10	14	190	5.5	12	426	17	44	2,620	147	29	12	9.2
11	7.1	156	6.3	11	268	18	36	1,840	207	246	11	7.1
12	4.3	116	8.3	11	185	17	30	1,190	80	580	77	6.5
13	2.9	82	7.5	11	148	16	27	780	69	557	600	5.5
14	2.2	52	5.5	11	125	13	24	585	367	264	825	174
15	57	36	198	11	109	12	22	501	219	182	430	347
16	6.8	27	635	11	92	12	20	454	1,580	475	158	373
17	3.1	21	728	10	79	16	19	417	1,400	283	107	4,880
18	5.2	18	385	10	68	270	17	377	948	138	79	20,800
19	5.8	15	346	10	60	460	15	334	475	84	58	17,400
20	3.6	14	1,620	9.2	52	166	13	294	765	61	46	6,580
21	3.1	12	1,170	8.7	44	90	12	563	848	44	38	2,520
22	2.2	12	632	8.7	42	326	12	1,090	297	37	31	503
23	1.8	12	338	8.7	40	820	14	1,420	148	30	25	230
24	1.7	11	135	7.8	38	912	14	545	96	24	21	170
25	438	11	105	6.8	37	708	13	364	75	20	17	145
26	833	11	80	6.2	36	453	1,420	268	63	17	15	125
27	222	12	61	6.5	32	268	6,000	199	56	15	12	113
28	60	8.7	44	2,150	29	168	13,600	195	48	13	11	105
29	34	7.5	31	1,480	-	121	13,800	170	227	12	10	105
30	29	7.8	26	1,460	-	103	6,960	360	66	11	8.7	105
31	27	-	22	1,170	-	340	-	191	-	10	7.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,946.4	833	0.7	62.8	3,860
November	4,999.0	1,170	7.5	167	9,920
December	6,692.2	1,620	5.2	216	13,270
Calendar year 1940	107,715.5	9,110	.3	294	215,700
January	6,560.6	2,150	6.2	212	13,010
February	21,700	6,980	29	775	43,040
March	5,502	912	12	177	10,910
April	43,292	13,800	12	1,443	85,870
May	70,397	14,100	170	2,271	139,600
June	11,111	1,580	48	370	22,040
July	3,465	580	10	112	6,870
August	2,675.9	825	4.8	86.3	5,310
September	56,578.5	20,800	3.8	1,886	112,200
Water year 1940-41	234,919.6	20,800	.7	644	465,900

Peak discharge.- Feb. 7 (3:30 p.m.) 7,430 sec.-ft.; Apr. 29 (3 a.m.) 16,400 sec.-ft.; May 4 (4 a.m.) 16,400 sec.-ft.; Sept. 18 (9 a.m.) 21,900 sec.-ft.

Leona River spring flow near Uvalde, Tex.

Location.- Water-stage recorder, lat. 29°09', long. 99°44', at old road crossing on White's Ranch, 3 1/4 miles downstream from Cooks Slough and 5.6 miles southeast of Uvalde, Uvalde County.

Records available.- January 1939 to September 1941. Occasional discharge measurements since 1925 in connection with seepage investigations.

Extremes.- Maximum daily discharge during year, 26 second-feet July 15, Sept. 19-26; maximum gage height (flood runoff), 5.10 feet May 3; minimum daily, 12 second-feet several days in February, March, and April.

1939-41: Maximum daily discharge, 27 second-feet Jan. 10, 11, 1940; maximum gage height (flood runoff), 12.67 feet July 13, 1939; minimum daily, that of February, March, and April, 1941.

Remarks.- Records good. Discharge represents flow from several springs that enter river above station and below Uvalde. Surface runoff from precipitation is excluded. Many small diversions by pumping from river channel above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	13	14	13	13	13	12	16	19	23	22	22
2	13	13	14	13	12	13	12	16	20	23	22	22
3	13	13	14	13	12	13	12	17	20	22	22	22
4	13	13	14	13	12	13	12	17	22	23	22	22
5	13	13	14	13	12	13	13	18	22	24	22	22
6	13	13	14	13	12	13	13	18	22	24	22	22
7	14	13	14	13	12	13	12	18	22	24	22	22
8	13	14	14	13	12	13	13	18	22	24	22	22
9	13	14	14	13	12	13	13	18	22	24	23	24
10	13	14	14	13	12	13	13	18	22	24	23	24
11	13	14	14	13	12	13	13	18	21	24	23	24
12	13	14	14	13	12	13	13	18	21	24	23	24
13	13	14	14	13	12	13	13	18	21	24	22	24
14	14	14	14	13	12	13	13	18	22	24	22	24
15	13	14	14	13	12	13	13	18	22	26	22	24
16	13	14	14	13	12	13	13	18	22	25	22	24
17	14	14	14	13	12	13	13	18	22	24	22	24
18	14	14	14	13	12	13	14	18	22	24	22	24
19	14	14	14	13	12	13	14	18	22	24	22	26
20	14	14	13	13	12	13	14	18	22	24	22	26
21	14	14	13	13	12	13	14	18	22	24	22	26
22	14	14	13	13	12	13	14	18	22	24	21	26
23	14	14	13	13	12	13	12	18	22	24	22	26
24	14	14	13	13	13	12	14	19	22	25	22	26
25	14	14	13	13	12	12	14	19	23	22	22	26
26	14	14	13	13	12	12	14	19	23	22	22	26
27	14	14	13	13	13	12	14	19	24	22	22	25
28	14	14	13	13	13	12	14	19	24	22	22	25
29	14	14	13	13	-	12	15	19	23	22	22	25
30	14	14	13	13	-	12	15	19	23	22	22	25
31	14	-	13	13	-	12	-	19	-	22	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	420	14	13	13.5	833
November	413	14	13	13.8	819
December	422	14	13	13.6	837
Calendar year 1940	6,625	27	13	18.1	13,140
January	403	13	13	13.0	799
February	341	13	12	12.2	675
March	394	13	12	12.7	781
April	401	15	12	13.4	795
May	560	19	16	18.1	1,110
June	658	24	19	21.9	1,310
July	727	26	22	23.5	1,440
August	685	23	21	22.1	1,360
September	724	26	22	24.1	1,440
Water year 1940-41	6,148	26	12	16.8	12,200

Atascosa River at Whitsett, Tex.

Location.- Water-stage recorder and wooden control, lat. 28°39', long. 96°18', 0.9 mile west of Whitsett, Live Oak County, and 4 miles downstream from La Parita Creek. Datum of gage is 159.0 feet above mean sea level, datum of 1929.

Drainage area.- 1,171 square miles.

Records available.- September 1924 to May 1926, May 1932 to September 1941.

Average discharge.- 10 years (1924-25, 1932-41), 142 second-feet.

Extremes.- Maximum discharge during year, 25,300 second-feet Sept.118 (gage height, 34.0 feet, from floodmarks); minimum, 2.5 second-feet, Oct. 5, 6.

1924-26, 1932-41: Maximum discharge, 38,300 second-feet June 14, 1935 (gage height, 38.0 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	1,620	32	42	128	30	34	605	162	47	13	6.7
2	3.6	1,640	30	40	1,240	29	34	591	88	41	12	6.7
3	3.4	290	29	37	1,040	29	76	7,580	65	37	11	6.4
4	3.0	74	28	36	157	28	225	11,600	870	35	11	5.8
5	2.7	254	27	35	83	26	76	3,820	2,620	33	11	5.5
6	2.7	2,340	26	34	83	26	38	719	505	32	12	5.2
7	32	3,350	28	33	85	25	30	464	109	30	701	4.9
8	33	702	74	32	147	25	105	245	64	29	1,900	4.6
9	41	164	68	32	302	36	46	177	45	26	414	6.6
10	14	122	37	31	147	28	33	142	41	42	74	9.0
11	7.8	96	31	29	79	25	25	122	96	32	36	19
12	6.1	77	31	29	55	25	22	104	250	25	25	12
13	5.2	66	29	29	45	22	22	94	1,600	560	19	8.6
14	4.9	57	55	29	41	21	21	85	1,340	157	15	7.0
15	57	52	242	46	37	22	21	79	477	188	14	6.4
16	55	48	1,400	35	36	22	21	73	473	151	13	9.4
17	41	45	1,080	29	33	24	36	68	910	66	12	14,400
18	15	43	159	27	33	386	136	64	1,450	33	11	21,000
19	9.4	41	258	25	32	677	248	61	974	28	11	5,680
20	6.7	39	1,710	25	31	260	52	57	198	24	10	456
21	5.8	37	2,210	25	30	98	28	369	154	22	9.8	163
22	4.9	37	396	25	31	64	25	1,150	203	21	9.0	96
23	4.9	129	137	25	47	50	32	1,510	100	21	8.6	66
24	4.6	69	91	25	83	54	38	1,870	77	19	8.2	51
25	65	338	74	25	74	278	25	1,290	67	18	7.8	43
26	976	77	67	25	53	222	717	248	61	18	7.4	38
27	604	48	69	38	39	94	3,500	121	64	17	7.0	35
28	119	39	64	886	33	73	10,600	92	71	16	8.9	31
29	52	35	54	1,080	-	76	13,100	252	101	15	8.6	30
30	34	33	48	149	-	48	5,820	1,520	62	15	7.8	44
31	118	-	44	69	-	38	-	1,260	-	13	7.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,335.5	976	2.7	75.3	4,630
November	11,962	3,350	33	399	23,730
December	8,628	2,210	26	278	17,110
Calendar year 1940	51,328.0	4,330	-	140	101,800
January	3,027	1,080	25	97.6	6,000
February	4,823	1,240	30	151	8,380
March	2,851	677	21	92.3	5,670
April	35,186	13,100	21	1,173	69,790
May	36,433	11,600	57	1,175	72,260
June	13,197	2,620	41	440	26,180
July	1,811	560	13	58.4	3,590
August	3,415.1	1,900	7.0	110	6,770
September	42,256.8	21,000	4.6	1,409	83,820
Water year 1940-41	165,335.4	21,000	2.7	453	327,900

Peak discharge.- Nov. 7 (6 a.m.) 3,840 sec.-ft.; Apr. 29 (5 a.m.) 15,000 sec.-ft.; May 4 (7 a.m.) 13,000 sec.-ft.; Sept. 18 (4 a.m.) 25,300 sec.-ft.;

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Rio Grande at Thirtymile Bridge, near Creede, Colo.

Location.- Water-stage recorder, lat. 37°44', long. 107°16', in sec. 13, T. 40 N., R. 4 W., 500 feet upstream from Squaw Creek, three-quarters of a mile downstream from Rio Grande Reservoir, and 20 miles southwest of Creede.

Drainage area.- 163 square miles.

Records available.- June 1909 to September 1913 and October 1933 to September 1941 in reports of Geological Survey. June 1909 to September 1941 in reports of State engineer.

Average discharge.- 28 years (1910-23, 1926-41), 227 second-feet.

Extremes.- Maximum discharge during year, 2,680 second-foot June 19 (gage height, 5.08 feet); minimum daily, 3.0 second-foot Nov. 10 to Mar. 29.
1909-41: Maximum discharge, 7,500 second-foot June 23, 1927 (gage height, 7.03 feet); minimum daily, 0.6 second-foot at times when reservoir was about empty and gates were closed.

Remarks.- Records good except those for period of ice effect, which are fair. Flow regulated by Rio Grande Reservoir (capacity, 45,900 acre-feet), just above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	210	51	3	3	3	3	46	296	688	1,240	811	384
2	190	60	3	3	3	3	46	321	392	1,340	732	360
3	169	60	3	3	3	3	46	318	14	1,400	673	329
4	139	53	3	3	3	3	46	318	16	1,430	590	321
5	177	52	3	3	3	3	47	314	18	1,430	564	321
6	248	80	3	3	3	3	37	314	20	1,360	624	318
7	207	47	3	3	3	3	30	202	23	1,300	748	229
8	188	55	3	3	3	3	30	27	25	974	779	134
9	169	3.3	3	3	3	3	30	3.3	53	1,160	740	132
10	154	3	3	3	3	3	30	4.2	193	1,200	740	139
11	139	3	3	3	3	3	30	5.4	314	1,230	718	116
12	128	3	3	3	3	3	30	6.8	392	1,240	652	106
13	125	3	3	3	3	3	28	7.6	468	1,220	603	106
14	107	3	3	3	3	3	27	9.2	590	974	484	106
15	112	3	3	3	3	3	27	10	725	610	448	106
16	107	3	3	3	3	3	27	12	956	577	614	104
17	102	3	3	3	3	3	27	14	1,790	624	610	119
18	95	3	3	3	3	3	37	16	2,310	659	645	172
19	92	3	3	3	3	3	52	239	2,480	695	532	223
20	80	3	3	3	3	3	54	835	2,250	803	484	348
21	86	3	3	3	3	3	55	1,160	2,160	763	372	107
22	84	3	3	3	3	3	55	1,310	2,210	688	337	164
23	86	3	3	3	3	3	55	1,290	2,250	725	281	27
24	78	3	3	3	3	3	55	1,290	2,250	695	288	7.6
25	80	3	3	3	3	3	55	1,290	1,920	748	329	8.0
26	84	3	3	3	3	3	57	886	1,940	753	360	8.4
27	73	3	3	3	3	3	97	673	2,030	827	360	8.8
28	64	3	3	3	3	3	177	673	2,000	869	360	9.2
29	67	3	3	3	-	3	220	680	1,820	779	356	9.3
30	80	3	3	3	-	20	239	680	1,240	718	380	9.6
31	*48	-	3	3	-	28	-	688	-	811	388	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,768	248	48	122	7,470
November	504.3	80	3	16.8	1,000
December	93	3	3	3.0	184
Calendar year 1940	43,853.3	1,310	3	120	86,980
January	93	3	3	3.0	184
February	84	3	3	3.0	167
March	132	25	3	4.3	262
April	1,792	239	27	59.7	3,550
May	13,892.5	1,310	3.3	448	27,560
June	33,537	2,480	14	1,118	65,520
July	29,852	1,430	577	963	59,210
August	16,482	811	268	532	32,690
September	4,532.4	384	7.6	151	8,990
Water year 1940-41	104,762.2	2,480	3	287	207,800

* winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Oct. 28 to Mar. 31 (no gage-height record Nov. 10 to Mar. 31).

Rio Grande at Wason, below Creede, Colo.

Location.- Water-stage recorder, lat. 37°49', long. 106°53', in NE¼ sec. 8, T. 41 N., R. 1 E., at Wason, 1½ miles downstream from Willow Creek and 3 miles southeast of Creede.

Drainage area.- 705 square miles.

Records available.- April 1907 to September 1913 and October 1933 to September 1941 in reports of Geological Survey. April 1907 to September 1941 in reports of State engineer.

Average discharge.- 34 years, 636 second-feet.

Extremes.- Maximum discharge during year, 5,200 second-feet June 19 (gage height, 5.00 feet); minimum daily, 48 second-feet Feb. 2.
1907-41: Maximum discharge, 9,750 second-feet June 28, 1927 (gage height, 7.65 feet); minimum not determined.

Remarks.- Records good except those for period of ice effect, which are fair. Diversions above station for irrigation. Flow regulated by three reservoirs (total capacity, 117,600 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	535	172	75	52	51	107	228	740	1,990	2,500	1,500	748
2	483	188	74	51	48	86	185	785	1,990	2,550	1,430	710
3	415	204	74	65	62	92	188	895	1,530	2,620	1,410	606
4	365	207	*74	72	65	93	188	839	1,800	2,700	1,310	548
5	427	151	78	77	88	86	201	863	1,470	3,220	1,290	523
6	688	175	80	77	90	95	166	1,080	1,460	2,780	1,410	523
7	535	194	80	85	93	97	157	1,220	1,640	2,500	1,610	580
8	457	188	78	88	95	90	169	1,090	1,710	2,260	1,730	568
9	427	188	78	93	90	97	178	1,120	1,490	2,070	1,680	481
10	390	142	78	95	95	92	194	1,350	1,390	2,140	1,640	457
11	352	70	63	97	111	105	175	1,700	1,400	2,200	1,570	380
12	329	86	60	92	105	93	188	2,120	1,420	2,310	1,430	295
13	312	77	52	88	109	101	182	2,990	1,520	2,220	1,310	307
14	299	*90	70	86	105	88	182	2,670	1,700	1,940	1,210	405
15	278	107	90	85	101	88	194	2,100	1,950	1,610	1,260	347
16	262	99	97	81	88	95	201	1,840	2,280	1,470	1,330	329
17	250	92	91	80	99	99	198	1,910	3,270	1,480	1,350	324
18	238	86	57	80	*86	95	191	2,100	4,350	1,610	1,380	390
19	224	76	58	77	85	97	191	2,120	4,850	1,640	1,310	499
20	221	72	62	*71	88	101	204	2,100	4,690	1,710	1,220	652
21	224	71	72	68	92	111	218	2,310	4,580	1,590	1,130	808
22	221	101	77	65	97	107	211	2,600	4,580	1,430	1,030	548
23	218	77	81	58	103	105	207	2,630	4,690	1,380	938	847
24	211	71	80	57	95	101	221	2,620	4,830	1,450	800	511
25	207	77	72	57	86	85	242	2,840	4,440	1,490	808	451
26	204	71	72	56	95	95	266	2,770	4,210	1,490	863	400
27	246	87	86	58	88	103	312	2,450	4,070	1,450	847	365
28	194	101	85	58	95	105	499	2,260	3,940	1,420	831	342
29	214	99	92	63	-	111	626	2,100	3,530	1,370	823	433
30	221	81	67	63	-	103	718	2,020	2,820	1,410	770	469
31	194	-	56	52	-	111	-	1,940	-	1,450	762	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,821	688	194	317	19,480
November	3,479	207	87	116	6,900
December	2,309	97	52	74.5	4,580
Calendar year 1940	106,809	1,860	52	292	211,800
January	2,247	97	51	72.5	4,460
February	2,501	111	48	89.3	4,960
March	3,034	111	85	97.9	6,020
April	7,280	718	157	243	14,440
May	58,072	2,990	740	1,873	115,200
June	85,290	4,850	1,390	2,843	169,200
July	59,430	3,220	1,370	1,917	117,900
August	37,972	1,730	762	1,225	75,320
September	14,846	847	295	495	29,450
Water year 1940-41	286,281	4,850	48	784	567,900

* winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 11 to Feb. 17

Rio Grande near Del Norte, Colo.

Location.- Water-stage recorder, lat. 37°41' long. 106°28', near east line of sec. 30, T. 40 N., R. 5 E., 5 miles upstream from Pinos Creek and 6 miles west of Del Norte. Datum of gage is 7,962.21 feet above mean sea level, datum of 1929.

Drainage area.- 1,320 square miles.

Records available.- July 1869 to November 1906 (at site 4 miles downstream), April 1908 to September 1913 and October 1933 to September 1941 in reports of Geological Survey. July 1889 to September 1905 and April 1908 to September 1941 in reports of State engineer. May to September 1907 (at site 4 miles downstream), unpublished, in files of State engineer.

Average discharge.- 52 years, 961 second-feet.

Extremes.- Maximum discharge during year, 7,960 second-feet June 19 (gage height, 5.56 feet); minimum daily, 117 second-feet Nov. 26.
1889-1941: Maximum discharge, 18,000 second-feet Oct. 5, 1911 (gage height, 6.80 feet), from rating curve extended above 6,000 second-feet; minimum daily, 90 second-feet Dec. 3, 1934.

Remarks.- Records excellent except those for periods of ice effect, which are fair. Small diversions above station for irrigation. Flow regulated by three main reservoirs (total capacity, 117,600 acre-feet) and several smaller ones.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	682	270	141	185	155	172	*338	1,280	4,110	4,110	1,810	834
2	604	261	140	174	150	178	331	1,290	4,110	3,990	1,690	826
3	556	274	141	*140	*145	175	340	1,590	3,860	3,970	1,660	762
4	503	287	*150	150	148	*175	338	1,520	3,780	4,010	1,530	682
5	543	244	150	150	150	180	380	1,460	3,700	4,710	1,450	650
6	1,100	229	160	155	150	180	326	1,980	3,620	4,240	1,630	642
7	838	249	164	160	150	185	308	2,370	3,950	3,800	1,830	666
8	711	240	160	160	152	190	308	2,410	4,410	3,680	2,080	698
9	653	244	154	160	154	185	332	2,640	3,900	3,290	2,030	650
10	590	240	164	165	156	180	386	3,020	3,480	3,250	1,980	596
11	543	159	170	170	160	175	356	3,580	3,290	3,250	1,890	554
12	497	158	174	170	165	170	362	4,320	3,190	3,340	1,740	470
13	465	137	170	175	165	170	368	5,600	3,190	3,290	1,620	440
14	447	*137	165	170	168	180	356	5,810	3,380	2,970	1,490	642
15	417	159	160	160	168	190	380	5,170	3,680	2,550	1,690	596
16	400	170	150	145	170	210	404	4,520	4,070	2,260	1,590	519
17	378	149	*150	150	165	240	410	4,630	5,030	2,260	1,600	505
18	367	140	168	150	*162	260	380	4,980	6,380	2,520	1,630	554
19	342	154	170	150	163	*280	350	4,820	7,590	2,430	1,530	690
20	332	178	168	*156	160	300	344	4,280	7,620	2,570	1,390	810
21	322	118	170	155	165	315	374	4,180	7,360	2,370	1,340	1,220
22	327	144	174	160	165	295	368	4,490	7,280	2,140	1,210	834
23	327	170	178	155	162	295	362	4,430	7,360	2,030	1,120	1,210
24	327	149	182	150	165	280	362	4,560	7,510	2,100	960	894
25	313	133	190	150	168	260	398	4,960	7,050	2,100	894	746
26	304	117	192	155	165	225	446	5,240	6,670	2,050	949	666
27	367	168	188	155	165	210	540	4,960	6,280	1,940	927	610
28	337	154	185	155	168	215	706	4,820	6,060	1,890	894	568
29	304	158	185	160	-	218	938	4,490	5,440	1,770	905	666
30	318	135	190	165	-	222	1,180	4,220	4,760	1,770	883	834
31	318	-	193	160	-	234	-	4,010	-	1,740	861	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	14,532	1,100	304	469	26,820
November.....	5,515	287	117	184	10,940
December.....	5,196	193	140	168	10,310
Calendar year 1940.....	187,501	2,590	112	430	312,400
January.....	4,914	185	140	159	9,750
February.....	4,479	170	145	160	8,880
March.....	6,734	315	170	217	13,360
April.....	12,771	1,180	308	426	25,330
May.....	117,630	5,810	1,280	3,795	233,300
June.....	152,110	7,620	3,190	5,070	301,700
July.....	88,390	4,710	1,740	2,851	175,300
August.....	44,803	2,080	861	1,445	88,870
September.....	21,034	1,220	440	701	41,720
Water year 1940-41.....	478,108	7,620	117	1,310	948,300

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 12 to Mar. 31, Apr. 2-4 (no gage-height record Dec. 1 to Mar. 28, Apr. 2-4).

Rio Grande near Monte Vista, Colo.

Location.- Water-stage recorder, lat. 37°37', long. 106°09', at west line of sec. 19, T. 39 N., R. 8 E., 2 miles north of Monte Vista. Datum of gage is 7,654.54 feet above mean sea level, datum of 1929.

Drainage area.- 1,590 square miles (revised).

Records available.- October 1933 to September 1941 in reports of Geological Survey (no winter records in earlier years). May 1926 to September 1941 in reports of State engineer.

Extremes.- Maximum discharge during year, 5,240 second-feet June 25 (gage height, 6.22 feet); minimum daily, 9.5 second-feet Apr. 24.
1926-41: Maximum discharge, 18,500 second-feet June 30, 1927 (gage height, 7.85 feet); minimum daily, 4 second-feet Apr. 18, 1926.

Remarks.- Records excellent except those for July 1 to Sept. 30, which are good, and those for period of ice effect, which are fair. Many diversions for irrigation above station. Flow regulated by three main reservoirs (total capacity, 117,600 acre-feet) and several smaller ones.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	41	217	204	165	178	108	413	2,150	3,010	444	35
2	35	26	220	195	160	182	111	439	2,080	2,510	392	26
3	32	18	217	180	155	182	74	645	1,950	2,440	318	24
4	31	15	213	170	157	182	36	550	1,730	2,400	232	26
5	26	31	219	168	160	182	34	281	1,600	2,670	140	26
6	104	28	219	170	160	188	26	439	1,500	2,850	84	15
7	148	22	219	175	160	195	15	764	1,670	2,060	151	19
8	69	21	208	175	160	210	12	968	2,500	1,660	309	38
9	42	17	191	172	165	206	12	1,060	2,620	1,300	613	93
10	51	22	193	175	165	192	15	1,220	2,180	1,140	550	106
11	28	31	202	182	170	206	23	1,710	1,970	1,060	494	80
12	23	69	219	182	172	210	19	2,330	1,790	1,300	397	80
13	21	*123	215	181	172	206	15	3,210	1,680	1,580	326	78
14	26	140	209	180	172	185	12	3,860	1,770	1,340	232	80
15	34	162	200	175	175	192	12	3,670	1,960	1,020	344	159
16	30	178	195	164	177	202	12	2,850	2,240	715	354	78
17	40	217	*184	160	175	199	11	2,600	2,850	500	413	51
18	40	210	187	160	172	213	11	2,840	3,940	556	434	54
19	34	195	187	160	*167	*192	19	2,880	4,760	575	382	67
20	26	185	185	170	170	185	13	2,260	5,130	667	309	111
21	19	182	187	170	170	192	11	1,870	5,080	607	258	478
22	16	172	195	165	172	178	13	1,960	4,950	402	199	455
23	18	172	205	165	172	188	18	2,500	4,890	318	143	506
24	21	210	210	*155	172	178	9.5	2,510	4,930	363	108	562
25	28	210	215	158	172	133	12	2,860	5,210	556	65	289
26	30	186	215	159	170	111	15	3,310	5,050	653	43	217
27	25	182	213	160	170	112	12	3,280	4,860	543	44	185
28	26	185	208	160	175	120	31	3,100	4,700	512	36	182
29	19	210	208	165	-	116	125	2,790	4,440	382	36	266
30	49	224	211	170	-	104	296	3,040	3,890	413	42	556
31	44	-	215	165	-	99	-	2,160	-	413	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,201	148	16	38.7	2,360
November.....	3,686	224	15	123	7,310
December.....	6,381	220	184	206	12,660
Calendar year 1940.....	55,269	940	8	151	109,600
January.....	5,290	204	155	171	10,490
February.....	4,702	177	155	168	9,330
March.....	5,417	213	99	175	10,740
April.....	1,132.5	296	9.5	37.8	2,250
May.....	64,370	3,860	281	2,076	127,700
June.....	96,070	5,210	1,500	3,202	190,800
July.....	36,515	3,010	318	1,178	72,430
August.....	7,932	613	36	266	15,730
September.....	4,942	562	15	165	9,800
Water year 1940-41.....	237,638.5	5,210	9.5	651	471,400

*Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 5 to Mar. 5 (no gage-height record Dec. 5-17, Jan. 14 to Feb. 19).

Rio Grande at Alamosa, Colo.

Location.- Water-stage recorder, lat. 37°29', long. 105°53', in SE¼ sec. 4, T. 37 N., R. 10 E., a quarter of a mile northwest of Alamosa and 7 miles upstream from Alamosa Creek. Datum of gage is 7,533.66 feet above mean sea level, datum of 1929.

Drainage area.- 1,710 square miles (revised).

Records available.- May 1912 to September 1913 and October 1933 to September 1941 in reports of Geological Survey. May 1912 to September 1941 in reports of State engineer.

Average discharge.- 29 years, 331 second-feet.

Extremes.- Maximum discharge during year, 4,910 second-feet June 26 (gage height, 7.81 feet); minimum daily, 3.4 second-feet Nov. 13.

1912-41: Maximum discharge, 14,000 second-feet July 1, 1927 (gage height, 8.37 feet); minimum daily, 2 second-feet Oct. 24-29, 1933.

Remarks.- Records fair. Many diversions above station for irrigation. During irrigation season, low-water flow is water returned from irrigated lands above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	5.0				190	173	38	1,320	2,850	46	34
2	21	5.0				200	154	89	1,270	2,100	44	33
3	19	4.2				210	161	103	1,170	1,650	45	32
4	17	4.2				240	141	180	1,050	1,600	46	28
5	17	5.8				245	110	186	854	1,860	49	27
6	17	5.0				242	87	101	722	2,290	51	26
7	17	5.0				242	78	118	625	2,490	44	26
8	16	4.2				242	72	334	863	1,910	49	26
9	16	4.2				246	68	436	1,500	1,440	57	25
10	16	4.2				250	64	523	1,700	904	92	25
11	15	4.2				252	63	701	1,430	684	75	27
12	15	3.8				262	59	1,050	1,180	632	66	28
13	15	3.4				272	59	1,330	1,050	635	59	26
14	15	3.8				285	54	1,750	940	945	56	27
15	16	26				300	51	2,690	1,040	648	54	26
16	15	32				320	48	2,750	1,080	475	64	27
17	8.1	41				346	45	2,110	1,230	330	76	26
18	8.1	50				368	41	1,730	1,580	246	58	25
19	8.1	58				*362	43	1,730	2,210	206	52	25
20	7.3	62				282	43	1,710	3,490	162	49	25
21	6.5	65				285	36	1,250	4,520	144	51	25
22	5.0	70				300	32	935	4,730	127	48	35
23	4.2	80				313	31	1,120	4,560	107	45	48
24	4.2	110				309	30	1,360	4,390	89	43	136
25	3.8	154				294	30	1,450	4,520	80	42	181
26	3.8	158				258	29	1,730	4,870	72	41	113
27	4.2	152				228	29	2,100	4,710	63	40	72
28	5.8	148				217	29	2,260	4,320	53	39	54
29	5.8	142				215	28	2,180	4,010	53	38	57
30	5.0	142				208	29	1,900	3,600	52	36	161
31	5.0	-				195	-	1,570	-	50	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	349.9	21	3.4	11.3	694
November	1,552.0	158	3.4	51.7	3,080
December	4,960	-	-	160	9,840
Calendar year 1940	24,884.8	300	3.4	70.7	51,340
January	5,115	-	-	165	10,150
February	4,760	-	-	170	9,440
March	8,175	368	190	264	16,220
April	1,917	173	28	6.39	3,800
May	37,524	2,750	38	1,210	74,430
June	70,534	4,870	625	2,351	139,900
July	25,038	2,850	50	808	49,660
August	1,689	92	35	51.3	3,150
September	1,426	181	25	47.5	2,830
Water year 1940-41	162,940.9	4,870	3.4	446	323,200

*Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 16 to Mar. 19.

Rio Grande above mouth of Trinchera Creek, near La Sauses, Colo.

Location.- Water-stage recorder, lat. 39°19', long. 105°45', in sec. 35, T. 36 N., R. 11 E., a quarter of a mile upstream from Trinchera Creek and 5 miles north of La Sauses.

Records available.- May 1936 to September 1941.

Drainage area.- 5,740 square miles (includes 2,940 square miles in closed basin).

Extremes.- Maximum discharge during year, 4,740 second-feet June 28 (gage height, 8.77 feet), from rating curve extended above 4,000 second-feet; minimum daily, 13 second-feet Nov. 9.

1936-41: Maximum discharge, that of June 28, 1941; minimum daily, 0.4 second-foot July 4, 1940.

Remarks.- Records good except those for period of ice effect, which are fair. Storage and several diversions above station for irrigation. During irrigation season, low flow is water returned from irrigated lands above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	15			(*)	260	368	180	2,120	3,920	175	104
2	20	15				270	318	259	1,890	3,320	159	102
3	28	15				280	295	355	1,790	2,480	148	100
4	36	14		(*)		300	290	410	1,760	2,010	114	97
5	31	18				310	270	504	1,690	1,950	94	91
6	55	14				305	248	495	1,390	1,970	91	83
7	28	14				300	226	468	1,260	2,250	84	75
8	23	14				300	206	572	1,330	2,260	81	70
9	22	13				300	187	814	1,720	1,860	79	66
10	20	15				295	176	910	2,110	1,420	126	64
11	20	16				295	174	1,040	2,110	1,110	179	64
12	20	19				300	163	1,370	1,880	965	161	68
13	19	20				310	187	1,920	1,710	946	145	70
14	19	20				320	161	2,320	1,560	1,110	128	80
15	19	22		170	185	*330	161	2,770	1,430	1,020	117	81
16	19	24				355	143	3,280	1,530	902	111	79
17	18	62				400	131	3,370	1,560	777	130	97
18	18	66				440	112	2,830	1,760	646	148	79
19	17	66				470	112	2,510	2,040	541	128	72
20	15	66				480	116	2,600	2,570	496	138	77
21	15	72				460	112	2,390	3,220	425	143	81
22	15	82				462	114	1,930	3,780	448	152	93
23	15	140				474	115	1,710	4,280	402	152	171
24	15	170				486	108	1,890	4,370	358	142	188
25	15	*184		(*)		486	105	2,020	4,340	318	128	310
26	15	185				495	106	2,120	4,420	298	117	313
27	15	184				492	99	2,350	4,650	265	110	342
28	15	155				468	103	2,590	4,390	255	111	188
29	15	155				442	117	2,880	4,480	228	108	209
30	16	150				418	129	2,770	4,240	205	111	220
31	15	-				385	-	2,450	-	194	107	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	631	55	15	20.4	1,250
November	2,015	185	13	67.2	4,000
December	5,270	-	-	170	10,450
Calendar year 1940	27,177.5	345	.4	74.3	53,900
January	5,735	-	-	185	11,380
February	5,880	495	-	210	11,660
March	11,698	495	260	377	23,180
April	5,116	358	99	171	10,150
May	54,157	3,370	180	1,747	107,400
June	77,580	4,680	1,280	2,565	153,900
July	35,329	3,920	194	1,140	70,070
August	3,917	179	79	126	7,770
September	3,634	313	64	121	7,210
Water year 1940-41	210,952	4,680	13	578	418,400

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 17 to Mar. 19 (no gage-height record).

Rio Grande near Lobatos, Colo.

Location.- Water-stage recorder, lat. 37°05', long. 105°45', in sec. 22, T. 33 N., R. 11 E., 6 miles north of Colorado-New Mexico State line, 7 miles downstream from Culebra Creek, and 10 miles east of Lobatos. Datum of gage is 7,426.79 feet above mean sea level, datum of 1929.

Drainage area.- 7,700 square miles (includes 2,940 square miles in closed basin).

Records available.- June 1899 to September 1913 and October 1933 to September 1941 in reports of Geological Survey. June 1899 to September 1941 in reports of State engineer.

Average discharge.- 42 years, 752 second-feet.

Extremes.- Maximum discharge during year, 8,090 second-feet May 16 (gage height, 6.83 feet); minimum daily, 36 second-feet Oct. 1.

1899-1941: Maximum daily discharge, 13,100 second-feet June 8, 1905, from rating curve extended above 8,000 second-feet; minimum daily, 5.0 second-feet Aug. 4, 1940.

Remarks.- Records excellent except those for period of ice effect, which are fair. Many diversions above station for irrigation. Flow regulated by many reservoirs on headwaters.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	46	*185	230	220	305	537	460	4,390	5,650	247	143
2	39	61	185	230	210	315	501	682	4,100	4,910	209	134
3	42	45	180	210	205	340	447	928	3,980	3,940	186	134
4	44	49	180	*200	200	360	440	1,190	4,010	3,150	158	127
5	58	42	185	195	*200	410	421	1,390	3,880	2,940	123	123
6	58	49	190	200	195	*420	389	1,520	3,610	3,210	110	120
7	93	51	195	200	200	400	364	1,840	3,270	3,580	130	118
8	74	49	198	205	205	390	324	2,310	3,480	3,720	116	110
9	68	*44	205	205	205	370	302	2,820	4,200	3,260	143	96
10	61	44	220	215	*210	350	302	3,480	4,390	2,750	130	93
11	58	39	224	220	215	340	313	3,930	4,090	2,140	213	93
12	61	46	224	225	220	341	313	4,540	3,560	1,970	223	96
13	61	66	220	230	220	389	308	5,440	3,160	1,980	204	106
14	61	71	210	230	220	414	308	6,360	2,790	2,050	172	120
15	58	85	195	225	220	*408	282	7,430	2,580	1,970	155	127
16	61	79	200	*220	225	460	276	7,890	2,620	1,800	151	123
17	58	79	195	205	*225	522	266	7,600	2,610	1,580	177	127
18	58	85	200	200	225	588	232	6,610	2,850	1,370	223	138
19	56	79	220	195	240	619	237	6,140	3,300	1,250	209	116
20	51	99	225	200	250	674	266	6,300	3,960	1,130	177	113
21	54	186	*215	205	260	690	252	5,600	4,810	1,180	190	130
22	56	215	200	210	270	698	247	4,540	5,420	1,120	186	120
23	54	220	210	210	280	698	252	4,010	6,180	1,040	200	218
24	46	237	220	220	*300	730	247	3,940	6,420	901	186	256
25	44	241	225	215	310	730	237	4,220	6,480	780	168	313
26	46	233	215	205	315	755	242	4,540	6,610	682	151	414
27	54	252	210	205	310	755	237	5,030	7,180	580	138	353
28	54	219	205	200	305	730	237	5,540	7,180	494	138	282
29	56	185	220	205	-	674	292	5,960	6,810	421	138	287
30	51	181	225	205	-	611	359	5,610	6,240	384	138	318
31	42	-	230	210	-	573	-	4,960	-	308	143	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,713	93	36	56.3	3,400
November.....	3,368	252	39	112	6,680
December.....	6,411	230	180	207	12,720
Calendar year 1940.....	53,298.0	1,100	5.0	146	105,700
January.....	6,530	230	195	211	12,950
February.....	6,660	315	195	238	13,210
March.....	16,049	755	305	618	31,830
April.....	9,430	537	252	314	18,700
May.....	132,810	7,890	460	4,284	263,400
June.....	134,110	7,180	2,580	4,470	266,000
July.....	62,220	5,650	308	2,007	123,400
August.....	5,233	247	110	169	10,380
September.....	5,056	414	93	169	10,030
Water year 1940-41.....	389,590	7,890	36	1,067	772,700

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 21 to Mar. 11.

Rio Grande below Taos Junction Bridge, near Taos, N. Mex.

Location.- Water-stage recorder, lat. 36°19', long. 105°46', in sec. 15, T. 24 N., R. 11 E., 2 miles downstream from Taos Creek and bridge on Taos-Taos Junction highway, and 12 miles southwest of Taos.

Drainage area.- 9,730 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- October 1930 to September 1941 in reports of Geological Survey. July 1925 to December 1931 in reports of State engineer.

Average discharge.- 16 years (1925-41), 835 second-feet.

Extremes.- Maximum discharge during year, 9,630 second-feet May 17 (gage height, 9.41 feet); minimum daily, 233 second-feet Nov. 13.

1930-41: Maximum discharge, that of May 17, 1941; minimum daily, 140 second-feet (estimated) Aug. 21, 1931.

Flood of July 4, 1927, reached a stage of 11.0 feet (discharge, 8,700 second-feet).

Remarks.- Records good. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	251	256	401	532	464	553	910	900	6,520	7,150	704	395
2	238	251	395	518	464	560	840	1,190	6,110	6,520	608	395
3	242	251	419	*490	464	592	801	1,630	5,710	5,510	525	389
4	246	260	432	b410	444	592	738	2,030	5,710	4,570	490	371
5	246	256	451	b410	444	648	774	2,420	5,710	4,120	458	371
6	260	251	451	b450	444	688	696	2,640	5,510	4,120	425	365
7	260	256	451	419	464	720	664	3,030	5,130	4,480	413	365
8	265	265	444	b390	458	696	640	3,600	5,130	4,750	477	371
9	290	265	451	b400	464	680	608	4,480	5,510	4,480	470	365
10	275	270	464	b390	484	648	592	5,130	6,110	4,030	477	354
11	265	260	490	413	470	616	584	5,710	5,910	3,600	438	348
12	260	246	511	438	484	616	608	6,520	5,320	3,110	497	348
13	260	233	532	438	497	616	680	7,560	4,940	2,950	560	354
14	260	238	504	444	525	616	656	8,470	4,210	3,030	553	354
15	260	251	490	458	560	624	664	9,160	4,120	3,030	504	371
16	260	275	458	432	556	696	656	9,630	4,030	2,720	484	377
17	260	275	458	b420	688	774	648	9,390	4,030	2,500	477	371
18	260	288	458	b410	640	840	664	8,950	4,120	2,270	504	371
19	260	316	444	b420	672	900	640	8,470	4,390	2,020	518	369
20	260	332	425	b440	656	a940	608	8,240	4,940	1,860	525	395
21	256	290	432	464	656	1,000	616	7,800	5,910	1,760	497	395
22	251	300	438	451	608	1,020	600	6,940	6,520	1,820	497	389
23	246	401	458	470	553	1,030	600	6,110	7,360	1,710	484	432
24	246	451	477	458	568	1,050	576	6,110	8,020	1,620	484	438
25	246	451	490	470	600	1,130	568	6,110	8,240	1,430	477	525
26	242	477	484	464	592	1,140	584	6,520	8,240	1,290	451	553
27	246	464	470	464	568	1,140	648	6,940	8,240	1,200	425	672
28	256	484	497	470	553	1,130	696	7,360	8,470	1,080	407	648
29	251	464	497	470	-	1,080	720	7,800	8,240	960	395	704
30	251	432	511	*470	-	1,010	774	7,800	7,800	840	401	648
31	256	-	525	464	-	950	-	7,150	-	756	389	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	7,925	290	238	256	15,720
November.....	9,506	484	233	317	18,850
December.....	14,408	532	395	465	28,580
Calendar year 1940.....	139,695	1,630	202	382	277,100
January.....	13,837	532	390	446	27,450
February.....	15,140	688	444	541	30,030
March.....	25,295	1,140	553	816	50,170
April.....	20,053	910	568	668	39,770
May.....	185,790	9,630	900	5,993	368,500
June.....	180,200	8,470	4,030	6,007	357,400
July.....	91,286	7,150	756	2,945	181,100
August.....	15,014	704	389	484	29,760
September.....	12,823	704	348	427	25,430
Water year 1940-41.....	591,277	9,630	233	1,620	1,173,000

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station at Embudo.

b Stage-discharge relation affected by ice.

Rio Grande at Embudo, N. Mex.

Location.- Water-stage recorder, lat. 36°12', long. 105°57', in SW¼ sec. 23, T. 23 N., R. 9 E., a quarter of a mile downstream from bridge at Embudo and about 2¼ miles below Embudo Creek.

Drainage area.- 10,400 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley in Colorado).

Records available.- January 1889 to December 1903, September 1912 to September 1916 and October 1930 to September 1941 in reports of Geological Survey. January 1889 to December 1903 and September 1912 to December 1931 in reports of State engineer.

Average discharge.- 41 years (1889-93, 1894-1903, 1912-16, 1917-41), 1,073 second-feet.

Extremes.- Maximum discharge during year, 12,000 second-feet May 16 (gage height, 13.95 feet); minimum daily, 252 second-feet Nov. 14.

1889-1903 and 1912-1941: Maximum discharge, 15,900 second-feet June 19, 1903 (gage-height, 15.8 feet); minimum daily, 35 second-feet Dec. 31, 1903.

Remarks.- Records good. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	306	306	440	540	500	668	1,020	1,340	7,700	7,960	782	436
2	290	302	431	550	495	680	950	1,790	7,260	7,070	675	432
3	292	293	460	495	490	674	920	2,070	6,820	6,090	591	413
4	294	306	470	431	475	668	860	2,390	6,710	5,010	567	410
5	298	302	485	422	470	722	860	2,570	6,930	4,360	516	400
6	322	298	490	470	480	764	860	2,930	6,600	4,230	485	392
7	322	302	485	422	500	770	800	3,470	6,380	4,360	506	382
8	322	302	475	418	495	752	770	4,130	6,080	4,490	621	382
9	350	302	480	422	490	740	746	5,130	6,380	4,360	675	374
10	368	306	495	422	510	716	764	6,940	6,710	3,990	648	364
11	359	286	520	445	510	680	764	6,600	6,490	3,510	579	360
12	338	270	545	465	510	674	800	7,700	5,940	3,160	682	360
13	326	260	555	470	520	680	950	9,230	5,430	2,980	859	360
14	326	252	545	450	545	674	920	10,700	5,030	2,980	768	374
15	326	270	495	480	602	674	890	11,500	4,630	2,930	701	400
16	322	298	450	470	800	746	890	11,700	4,430	2,760	675	405
17	318	306	465	440	800	800	920	11,700	4,430	2,540	627	405
18	314	310	480	445	710	860	950	11,200	4,530	2,270	701	414
19	310	359	460	450	770	920	890	10,600	4,830	2,120	651	423
20	306	377	426	460	752	950	800	10,100	5,400	1,970	639	511
21	302	342	426	485	728	1,020	800	9,710	6,230	1,970	621	460
22	290	318	440	470	728	1,060	770	8,870	7,210	1,920	597	470
23	286	422	455	470	662	1,050	764	a7,500	9,110	1,820	573	555
24	286	490	500	470	662	1,090	746	a7,400	9,160	1,720	567	516
25	290	505	525	485	674	1,120	752	a7,300	9,460	1,520	538	579
26	286	520	490	470	680	1,160	770	a7,700	9,310	1,390	506	609
27	290	525	480	470	662	1,120	890	8,030	9,310	1,340	470	701
28	322	515	515	480	662	1,160	950	8,510	9,610	1,120	446	727
29	306	530	510	490	-	1,120	1,020	8,990	9,310	1,020	436	688
30	314	490	525	495	-	1,090	1,090	8,990	8,710	873	446	803
31	310	-	540	500	-	1,060	-	8,270	-	845	436	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,681	368	282	312	19,200
November	10,669	530	252	356	21,160
December	15,058	555	426	486	29,870
Calendar year 1940	65,276	1,890	201	452	327,800
January	14,432	540	418	466	28,630
February	16,882	900	470	603	33,480
March	26,872	1,160	668	987	55,300
April	25,876	1,090	746	865	51,320
May	224,060	11,700	1,340	7,228	444,400
June	205,100	9,610	4,430	6,837	406,800
July	94,668	7,960	845	3,054	187,800
August	18,581	859	436	599	36,850
September	14,310	888	360	477	28,380
Water year 1940-41	676,189	11,700	252	1,853	1,341,000

a No gage-height record; discharge computed on basis of weather records and records for station below Taos Junction Bridge.

Rio Grande at Otowi Bridge, near San Ildefonso, N. Mex.

Location.- Water-stage recorder, lat. 35°52', long. 106°09' at Denver & Rio Grande Western Railroad bridge in San Ildefonso Pueblo Grant, 2 miles southwest of San Ildefonso, Santa Fe County, and 3 miles downstream from Rio Pojoaque. Datum of gage is 5,488.48 feet above mean sea level (datum of 1929).

Drainage area.- 14,300 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- February 1895 to December 1905, June 1909 to December 1914 and October 1930 to September 1941 in reports of Geological Survey. February 1895 to December 1905 and June 1909 to December 1931 in reports of State engineer.

Average discharge.- 14 years (1927-41), 1,548 second-feet.

Extremes.- Maximum discharge during year, 22,500 second-feet May 16; maximum gage height, 13.70 feet May 14; minimum daily discharge, 341 second-feet Nov. 14.
1930-41: Maximum discharge, that of May 16, 1941; maximum gage height, that of May 14, 1941; minimum daily discharge, 128 second-feet June 21, 1934.

Remarks.- Records good. Flow partially regulated by El Vado Reservoir on upper Rio Chama which stores water for irrigation. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	856	490	578	680	530	827	2,200	3,860	13,500	9,030	1,130	1,060
2	550	475	550	644	518	841	2,010	6,020	12,300	8,150	1,210	1,080
3	455	475	555	632	1,460	883	1,950	6,400	11,800	7,090	1,270	1,090
4	425	406	560	530	1,110	869	2,460	7,020	11,800	5,670	1,520	1,010
5	440	396	572	505	869	922	2,740	7,670	12,000	5,670	1,520	990
6	460	392	566	555	896	1,060	2,400	9,080	12,300	5,670	1,780	990
7	470	388	572	560	962	1,070	1,950	10,700	12,300	5,670	1,900	1,030
8	470	388	572	525	970	1,070	1,950	11,800	12,800	5,670	1,900	742
9	475	388	566	555	922	1,000	2,010	13,000	14,000	5,670	1,950	694
10	475	396	584	545	978	938	2,200	14,200	13,000	5,100	1,780	694
11	475	383	632	566	986	869	1,950	14,800	12,500	4,650	1,620	694
12	465	357	674	626	1,000	841	1,720	16,500	10,600	4,370	1,570	735
13	460	357	687	626	984	834	2,460	19,400	9,030	3,860	2,010	1,160
14	460	341	674	608	736	898	2,260	21,400	7,930	3,680	1,840	1,320
15	465	353	602	632	722	938	2,010	21,700	7,610	3,600	1,780	1,380
16	460	378	*b490	614	799	922	2,070	22,000	7,090	3,510	1,840	1,330
17	435	401	520	578	1,060	1,210	2,330	21,700	7,090	3,350	1,780	1,230
18	425	670	614	566	862	1,280	2,330	20,600	6,670	3,030	1,780	1,310
19	425	1,020	596	584	938	1,410	2,010	19,300	6,670	2,960	1,680	1,330
20	954	1,180	530	620	978	1,510	1,660	18,000	7,090	2,880	1,920	2,020
21	994	962	510	644	978	1,610	1,610	17,200	7,930	2,800	2,000	1,460
22	966	602	530	614	1,050	1,830	1,460	15,500	8,810	2,660	1,570	1,160
23	862	578	545	608	1,060	1,660	1,510	14,200	9,470	2,360	1,020	2,410
24	722	668	626	620	1,000	1,950	1,890	13,700	10,400	2,320	950	1,190
25	701	687	674	644	1,030	2,200	1,780	14,000	11,100	2,320	868	926
26	701	662	632	650	994	2,140	2,010	14,000	10,600	1,900	798	868
27	722	674	632	620	922	2,010	2,460	15,000	10,400	1,840	721	862
28	813	638	590	596	834	2,010	2,960	16,000	10,600	1,680	688	974
29	736	656	650	608	-	2,140	3,280	16,700	10,400	1,520	634	1,700
30	540	608	644	602	-	2,200	3,200	16,000	9,470	1,380	676	1,780
31	510	-	668	590	-	2,010	-	15,000	-	1,220	1,060	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	18,177	994	425	586	36,050
November	16,369	1,180	341	546	32,470
December	16,395	687	490	593	36,490
Calendar year 1940	294,677	2,200	317	805	584,500
January	18,547	680	505	598	36,790
February	26,110	1,460	518	932	51,790
March	41,982	2,200	827	1,354	83,270
April	64,930	3,280	1,460	2,164	128,800
May	482,150	22,000	3,860	14,590	896,800
June	307,160	14,000	6,670	10,240	609,200
July	121,190	9,030	1,220	3,909	240,400
August	44,725	2,010	534	1,443	88,710
September	35,279	2,410	694	1,176	69,970
Water year 1940-41	1,165,014	22,000	341	3,192	2,311,000

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Rio Grande at Cochiti, N. Mex.

Location.- Water-stage recorder, lat. 35°38', long. 106°19', at highway bridge 1 mile northeast of Cochiti, Sandoval County, 4 miles north of Pena Blanca, and 8 miles upstream from Galisteo Creek.

Drainage area.- 14,600 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- October 1930 to September 1941 in reports of Geological Survey. January 1925 to December 1931 in reports of State engineer.

Average discharge.- 16 years (1925-41) 1,558 second-feet.

Extremes.- Maximum discharge during year, 23,400 second-feet May 15 (gage height, 10.93 feet); minimum daily, 232 second-feet October 4.
1930-41: Maximum discharge, that of May 15; minimum daily, 1 second-foot Aug. 10-12, 1934.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	539	315	578	e690	564	868	2,050	4,360	14,500	9,030	1,240	1,150
2	517	329	564	e650	539	886	1,900	6,320	13,200	8,180	1,240	976
3	280	422	539	e630	1,250	922	1,620	6,760	12,400	7,220	1,150	932
4	232	440	550	550	1,360	940	2,180	7,530	12,000	6,040	1,620	872
5	274	404	564	e500	976	994	2,520	8,010	12,000	5,630	1,620	889
6	315	395	550	578	e920	1,110	2,440	9,030	12,000	5,600	2,180	994
7	262	451	578	578	e960	1,150	1,760	10,800	12,000	5,630	2,030	940
8	294	356	578	550	e970	1,210	1,800	11,200	12,000	5,630	2,030	644
9	294	395	578	550	e950	1,130	1,960	13,200	12,000	5,830	2,260	604
10	356	422	592	648	e1,000	994	2,200	15,300	12,400	5,560	2,030	598
11	359	413	634	634	e1,020	968	2,000	16,700	12,000	4,720	1,820	578
12	413	377	676	e640	e1,030	868	1,830	18,000	10,500	4,720	1,820	591
13	484	274	662	e630	e1,000	886	2,120	19,900	8,680	4,130	2,030	1,060
14	329	244	676	606	e800	968	2,000	21,400	7,850	3,600	1,960	1,240
15	308	244	634	578	e750	1,050	1,780	22,400	7,530	3,700	1,890	1,330
16	287	287	564	606	e760	1,030	1,860	22,400	7,220	3,600	1,960	1,240
17	294	329	539	e590	1,110	1,250	2,020	21,900	7,060	3,400	1,890	1,170
18	280	564	606	e560	976	1,290	2,080	21,400	6,620	3,300	1,890	1,230
19	301	1,030	578	e590	994	1,380	1,830	20,400	6,470	3,110	1,680	1,300
20	786	1,210	528	e610	1,070	1,480	1,480	19,400	6,760	3,200	1,840	1,720
21	1,070	1,110	517	e650	1,050	1,570	1,400	18,500	7,550	2,920	1,800	1,750
22	1,080	676	517	e630	1,010	1,850	1,290	17,100	8,510	2,920	1,690	1,010
23	850	578	528	610	1,130	1,760	1,440	15,300	9,030	2,870	1,130	2,010
24	620	662	620	e820	1,090	1,920	1,640	14,900	10,100	2,330	976	1,310
25	506	722	690	e640	1,140	2,060	1,510	15,300	10,500	2,410	838	906
26	564	706	662	e660	1,090	1,980	1,730	15,300	10,500	2,250	768	831
27	690	706	592	e630	994	1,860	2,220	16,200	10,500	2,100	700	906
28	722	676	631	e600	922	1,860	2,650	16,700	10,500	1,960	651	1,080
29	786	662	676	e610	-	2,000	3,140	17,100	10,500	1,680	651	1,650
30	473	634	e660	620	-	2,150	3,170	16,700	9,740	1,500	722	1,690
31	386	-	e690	648	-	2,000	-	15,800	-	1,340	1,060	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	14,861	1,070	232	480	29,520
November	16,043	1,210	244	535	31,220
December	18,551	690	517	598	36,800
Calendar year 1940	278,587	2,280	185	761	552,600
January	18,876	690	500	609	37,440
February	27,425	1,360	539	979	54,400
March	42,504	2,150	868	1,365	83,910
April	59,560	3,170	1,290	1,986	118,200
May	475,310	22,400	4,360	15,330	942,800
June	303,400	14,500	6,470	10,110	601,800
July	126,510	9,030	1,340	4,049	248,900
August	47,157	2,250	651	1,521	93,530
September	33,421	2,010	578	1,114	66,290
Water year 1940-41	1,182,458	22,400	232	3,240	2,345,000

* Shifting stage-discharge relation; discharge computed on basis of records for stations at Otowi Bridge and San Felipe.

Rio Grande at San Felipe, N. Mex.

Location.- Water-stage recorder, lat. 35°26', long. 106°26', at highway bridge in San Felipe Grant, 2,000 feet downstream from Tonque Arroyo, half a mile upstream from San Felipe Pueblo, Sandoval County, and about 12 miles northeast of Bernalillo. Datum of gage is 5,110.38 feet above mean sea level (datum of 1929).

Drainage area.- 16,100 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- October 1930 to September 1941 in reports of Geological Survey. March 1925 to December 1931 in reports of State engineer.

Average discharge.- 15 years (1926-41), 1,680 second-feet.

Extremes.- Maximum discharge during year, 22,600 second-feet May 14 (gage height, 10.53 feet); minimum daily, 288 second-feet November 15.

1930-41: Maximum discharge, 42,100 second-feet Aug. 21, 1935, from rating curve extended above 15,000 second-feet by logarithmic plotting; maximum gage height, 11.13 feet June 26, 1937; minimum daily discharge, 34 second-feet July 7, 1934.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	457	620	610	814	654	850	2,030	3,420	14,800	9,390	1,320	1,360
2	466	610	582	754	631	902	2,120	5,730	13,700	8,780	1,190	1,120
3	448	592	582	697	1,250	915	1,740	7,290	13,000	7,890	1,090	1,180
4	425	554	592	631	1,610	915	2,230	8,020	12,700	6,910	1,850	1,050
5	425	474	601	582	902	980	2,580	8,380	12,700	6,100	1,580	996
6	508	432	610	631	954	1,110	2,550	8,940	13,400	5,710	2,180	962
7	410	410	631	675	1,020	1,380	1,720	11,600	13,700	5,840	2,200	1,150
8	448	425	631	631	1,350	1,450	1,630	12,900	13,000	5,840	2,240	836
9	432	457	631	610	1,020	1,250	1,800	14,400	14,100	6,840	2,910	970
10	432	432	631	620	994	1,110	2,010	15,700	13,400	5,580	2,660	668
11	474	402	631	642	1,010	1,090	1,970	16,900	13,000	5,250	2,090	702
12	474	418	686	697	1,090	889	1,650	17,400	11,000	5,970	2,600	690
13	554	306	719	653	1,150	778	2,270	19,100	9,080	5,710	3,260	1,070
14	418	306	766	675	863	802	2,360	20,800	8,180	4,480	3,160	1,600
15	418	288	730	664	730	941	1,880	21,300	7,600	4,480	2,660	1,750
16	410	320	653	675	790	876	1,950	21,300	7,320	4,250	2,660	1,680
17	372	339	601	601	1,180	1,220	2,120	20,800	7,040	4,020	2,570	1,500
18	418	440	708	563	1,020	1,500	2,320	20,400	6,640	3,690	2,400	1,430
19	466	994	708	554	915	1,690	2,140	19,500	6,640	3,370	2,110	1,630
20	850	1,180	610	631	1,080	1,950	1,650	18,600	6,770	3,580	2,100	2,130
21	1,080	1,110	554	697	1,140	2,070	1,400	17,800	7,600	3,080	2,330	3,950
22	1,060	719	572	675	1,020	2,320	1,260	16,500	8,780	3,250	3,060	1,750
23	980	601	631	631	1,280	2,010	1,430	14,400	9,700	2,780	1,600	3,840
24	790	686	697	620	1,180	2,070	1,800	14,000	10,300	2,270	1,240	1,660
25	838	790	766	620	1,110	2,500	1,860	14,000	11,600	2,510	954	1,020
26	889	754	730	708	1,110	2,210	2,030	14,400	11,000	2,160	798	774
27	902	742	697	610	1,050	2,140	2,430	15,300	11,000	2,110	762	798
28	915	693	664	620	863	1,900	2,800	17,400	11,300	1,940	810	1,090
29	1,010	686	719	653	-	2,160	3,330	17,900	11,300	1,750	750	2,040
30	754	653	730	708	-	2,250	2,680	17,400	10,300	1,370	813	2,750
31	554	-	790	730	-	2,030	-	16,300	-	1,500	1,150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	19,077	1,080	372	615	37,840
November	17,433	1,180	288	581	34,580
December	20,463	790	554	660	40,590
Calendar year 1940	305,757	2,170	246	835	606,500
January	20,272	814	554	654	40,210
February	28,676	1,610	631	1,024	56,880
March	46,238	2,500	778	1,492	91,710
April	61,940	3,330	1,260	2,055	122,900
May	467,660	21,300	3,420	15,090	927,600
June	319,650	14,800	6,640	10,660	634,000
July	137,570	9,390	1,500	4,438	272,900
August	58,794	3,260	750	1,897	116,600
September	43,836	3,950	668	1,461	86,950
Water year 1940-41	1,241,629	21,300	288	3,402	2,463,000

a No gage-height record; discharge computed on basis of records for stations near San Ildefonso and at Cochiti.

Rio Grande at San Acacia, N. Mex.

Location.- Water-stage recorders on right and left banks, lat. 34°15', long. 106°53', in NE¼ sec. 1, T. 1 S., R. 1 W., 0.2 mile downstream from San Acacia diversion dam, half a mile east of San Acacia, and 2 miles downstream from Rio Salado. Datum of right bank gage is 4,662.56, left bank gage 4,660.16 (revised) feet above mean sea level (datum of 1929).

Drainage area.- 26,770 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- April 1936 to September 1941 in reports of Geological Survey. February to December 1925 and January 1926 to September 1927 (gage heights and discharge measurements only) in reports of State engineer.

Extremes.- Maximum discharge during year, 25,400 second-feet May 18; maximum gage height 7.00 feet Sept. 24; minimum daily discharge, 82 second-feet Nov. 17, 1936-41: Maximum discharge, 27,400 second-feet Aug. 5, 1936 (gage height, 8.35 feet), from rating curve extended above 18,000 second-feet by logarithmic plotting; minimum daily, 1 second-foot June 23, 1939.

Remarks.- Records good. Socorro main canal north diverts water 0.2 mile above gage. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	797	463	700	820	1,060	990	2,490	4,720	16,200	8,500	592	2,110
2	608	354	775	854	905	939	2,060	6,480	15,400	7,910	507	973
3	430	411	775	990	820	854	2,060	8,160	13,600	6,810	411	990
4	507	275	685	905	657	922	2,040	9,960	12,400	6,550	411	579
5	392	430	592	905	1,390	973	1,730	13,500	12,800	5,700	382	465
6	441	260	745	790	1,690	922	1,930	11,700	12,000	6,130	335	402
7	364	155	700	685	1,290	1,040	2,440	13,300	12,800	4,930	485	312
8	320	118	898	670	1,170	1,230	1,730	12,000	11,600	4,350	485	305
9	305	110	715	760	1,270	1,190	1,440	14,700	12,800	3,840	1,450	402
10	268	155	605	670	1,250	1,250	1,440	15,700	13,200	4,030	1,850	312
11	282	114	775	605	1,010	1,010	1,760	15,700	12,000	4,230	3,560	175
12	190	254	990	775	1,190	905	2,120	16,200	12,000	4,440	1,440	122
13	185	218	922	905	1,100	990	2,150	17,200	9,660	5,610	2,000	130
14	206	1160	1,060	922	973	1,080	2,340	17,600	9,130	4,340	2,840	175
15	195	112	973	966	1,100	1,080	2,310	20,400	7,350	2,990	1,990	160
16	230	118	775	760	1,040	1,170	1,960	22,000	6,940	3,620	1,860	328
17	155	82	790	618	1,100	1,210	1,640	23,200	6,420	2,490	1,350	474
18	110	92	888	644	1,390	1,690	1,960	23,700	6,050	2,230	1,800	592
19	96	190	760	618	1,370	1,270	2,370	23,200	5,460	2,260	1,460	888
20	110	254	790	618	1,310	1,440	2,400	21,000	5,350	2,470	1,030	1,070
21	106	1,110	605	579	1,310	1,520	2,340	21,500	5,950	3,380	854	1,770
22	138	1,330	805	592	1,390	1,990	1,710	22,000	7,220	2,140	1,370	3,190
23	195	1,120	760	805	1,590	2,230	1,760	19,900	7,910	2,330	1,590	4,970
24	335	1,030	657	700	1,550	2,060	1,780	19,900	7,910	1,940	1,860	8,630
25	382	1,100	745	730	1,480	2,170	1,410	17,200	8,810	1,860	939	2,340
26	402	700	854	715	1,350	2,700	2,090	16,200	10,200	1,710	760	1,230
27	364	760	905	700	1,330	3,060	2,990	14,200	9,130	2,010	1,111	888
28	402	775	956	805	1,250	2,520	3,400	15,200	9,800	2,730	306	961
29	518	730	854	820	-	1,710	3,650	16,700	10,200	1,440	1,170	5,660
30	730	745	760	905	-	2,120	4,190	17,900	10,200	805	1,160	4,750
31	518	-	775	888	-	2,150	-	18,300	-	670	939	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet	
October		10,281	797	96	332	20,390
November		13,725	1,330	82	468	27,220
December		24,799	1,080	592	800	49,190
Calendar year 1940		198,970	3,860	9	544	394,600
January		23,709	990	579	765	47,030
February		34,335	1,690	657	1,226	68,100
March		46,385	3,060	854	1,496	92,000
April		65,690	4,190	1,410	2,190	130,300
May		507,540	23,700	4,720	16,370	1,007,000
June		300,460	16,200	5,350	10,020	596,000
July		114,348	8,500	670	3,669	226,300
August		37,576	3,550	305	1,212	74,630
September		45,423	8,630	122	1,514	90,100
Water year 1940-41		1,224,268	23,700	82	3,354	2,429,000

a No gage-height record; discharge interpolated.

Rio Grande at San Marcial, N. Mex.

Location.- Water-stage recorder, lat. 33°41', long. 106°58', in Pedro Armendaris Grant 34, at Atchison, Topeka and Santa Fe Railway bridge, 1.1 miles downstream from San Marcial, Socorro County.

Drainage area.- 27,700 square miles (including 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- January 1895 to September 1941 in reports of Geological Survey. January 1895 to December 1931 in reports of State engineer. Prior to January 1922 at site 0.3 mile upstream; January 1922 to February 1932 at highway bridge half a mile northeast of San Marcial and 1.8 miles above present site.

Average discharge.- 45 years (1896-1941), 1,552 second-feet.

Extremes.- Maximum discharge during year, 24,600 second-feet May 17 (gage height, 9.73 feet); minimum daily, 154 second-feet Sept. 16.

1895-1941: Maximum discharge, about 50,000 second-feet Oct. 11, 1904; no flow at times.

Remarks.- Records good. Diversions above station for irrigation. Records furnished by International Boundary Commission, U. S. Section (formerly known as U. S. Boundary Commission).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	702	562	748	793	877	1,330	2,150	4,200	18,100	9,630	868	1,240
2	836	466	675	823	979	1,130	2,250	5,020	16,900	8,510	727	1,870
3	599	329	813	856	842	987	2,160	6,260	15,200	7,540	623	1,110
4	475	274	763	890	831	974	2,300	7,810	13,500	6,790	593	977
5	536	234	709	939	762	971	2,200	9,630	13,500	6,030	523	698
6	513	548	662	852	881	1,040	1,950	12,800	13,200	5,510	461	566
7	451	360	559	816	1,650	1,110	2,040	13,300	12,400	5,550	396	597
8	347	315	622	749	1,520	1,080	2,530	11,700	12,500	4,870	416	489
9	315	218	738	598	1,320	1,170	2,280	12,300	12,300	4,570	554	325
10	316	172	727	652	1,210	1,280	1,620	14,300	12,400	4,360	1,320	321
11	251	159	656	707	1,160	1,280	1,520	15,300	13,000	4,360	2,110	346
12	251	161	686	766	1,060	1,220	1,600	16,300	12,000	4,210	3,190	244
13	274	189	700	803	1,080	923	1,990	17,500	11,200	4,180	1,990	200
14	230	343	749	747	1,110	898	2,170	17,500	9,800	4,830	2,250	178
15	248	249	950	780	1,120	1,000	2,110	18,000	8,730	3,650	2,540	169
16	281	187	875	851	1,120	1,080	2,250	21,300	7,630	3,290	1,920	154
17	301	175	816	777	1,070	1,260	2,150	23,900	7,050	3,470	1,820	324
18	237	157	818	781	953	1,100	1,850	23,200	6,490	2,900	1,390	496
19	211	178	718	795	1,110	1,300	1,980	22,300	6,010	2,820	1,600	570
20	178	172	590	729	1,180	1,410	2,360	21,300	5,500	2,760	1,420	853
21	167	281	709	681	1,380	1,490	2,430	23,400	5,560	3,450	1,170	1,230
22	159	225	824	646	1,530	1,690	2,340	23,000	5,830	3,450	963	2,070
23	205	1,160	741	646	1,530	1,930	1,930	21,600	6,350	2,600	1,310	3,360
24	204	1,030	718	644	1,560	1,700	1,780	20,100	7,300	2,530	1,440	4,940
25	374	917	673	701	1,480	2,280	1,940	20,100	8,020	2,190	1,540	4,680
26	415	1,080	690	697	1,620	2,350	1,970	17,500	8,780	1,940	951	1,550
27	376	891	779	752	1,500	2,450	2,290	16,500	9,810	1,880	756	1,080
28	378	841	861	795	1,320	2,850	2,640	13,100	9,680	1,850	472	1,320
29	365	771	850	939	-	2,560	3,130	18,400	9,270	1,960	356	3,540
30	508	800	817	913	-	2,310	3,240	17,000	9,170	1,470	1,570	6,760
31	667	-	764	841	-	2,080	-	18,200	-	990	1,470	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	11,420	836	159	368	22,650
November	13,849	1,160	157	462	27,470
December	23,020	950	559	743	45,660
Calendar year 1940	186,011	2,700	45	508	369,000
January	23,961	939	598	773	47,530
February	33,755	1,650	762	1,206	66,950
March	46,223	2,850	898	1,491	91,680
April	65,150	3,240	1,520	2,172	129,200
May	500,920	23,900	4,200	16,160	993,600
June	306,950	18,100	5,500	10,230	608,800
July	124,140	9,630	990	4,005	246,200
August	38,699	3,190	356	1,248	76,760
September	42,237	6,760	154	1,408	83,780
Water year 1940-41	1,230,324	23,900	154	3,371	2,440,000

Elephant Butte Reservoir at Elephant Butte, N. Mex.

Location.- Water-stage recorder at dam on Rio Grande, lat. 33°09'15", long. 107°11'30", in NW $\frac{1}{4}$ sec. 30, T. 13 S., R. 3 W. (surveys by Bureau of Reclamation), 1 mile west of Elephant Butte post office and 4 miles northeast of Hot Springs. Datum of gage is 43.3 feet above mean sea level.

Records available.- January 1940 to September 1941.

Extremes.- Maximum daily contents during year, 1,937,700 acre-feet July 18, 19, 22-25, (gage height, 4,399.2 feet); minimum daily, 431,100 acre-feet Oct. 1 (gage height, 4,324.3 feet).

1940-41: Maximum daily contents, that of July 18, 19, 22-25, 1941; minimum daily, 418,500 acre-feet Sept. 21-23, 1940.

Remarks.- Reservoir is formed by concrete dam; storage began Jan. 6, 1915, dam completed May 13, 1916. Capacity, 2,219,000 acre-feet between gage heights 4,231.5 feet (sill of lower outlet gate) and 4,407.0 feet (spillway crest), survey of 1940. No dead storage. Figures given herein represent useable contents. Water is used for power development and irrigation on Rio Grande project of Bureau of Reclamation. Contents as herein given were computed from mean daily gage heights.

Cooperation.- Gage-height record and capacity table furnished by Bureau of Reclamation.

Revised capacity table (gage height, in feet, and contents, in acre-feet)
(Prepared by Bureau of Reclamation on basis of estimates
of silt deposit and partial survey of 1940 by the Bureau)

4,231.5	0	4,330	499,700
4,250	2,200	4,350	783,200
4,270	37,600	4,370	1,147,600
4,290	129,100	4,390	1,644,100
4,310	282,900	4,410	2,333,500

Monthly gage height and contents, water year October 1940 to September 1941

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	4,324.23	429,900	-
Oct. 31.....	4,325.74	447,500	+17,600
Nov. 30.....	4,327.61	470,100	+22,600
Dec. 31.....	4,329.12	488,500	+18,400
Calendar year 1940.....	-	-	-317,600
Jan. 31.....	4,328.83	485,500	-3,000
Feb. 28.....	4,330.14	501,600	+16,100
Mar. 31.....	4,332.68	534,000	+32,400
Apr. 30.....	4,337.37	595,700	+61,700
May 31.....	4,380.66	1,390,600	+794,900
June 30.....	4,396.60	1,850,200	+459,600
July 31.....	4,398.81	1,924,000	+73,800
Aug. 31.....	4,397.02	1,853,800	-60,200
Sept. 30.....	4,396.74	1,855,200	-8,600
Water year 1940-41.....	-	-	+1,425,300

Rio Grande below Elephant Butte Dam, N. Mex.

Location.- Water-stage recorder, lat. 33°09'10", long. 107°11'50", in NE $\frac{1}{4}$ sec. 25, T. 13 S., R. 4 W., (surveys by Bureau of Reclamation), in Pedro Armendaris Grant, 1,900 feet downstream from Elephant Butte Dam. Datum of gage is 4,240.94 feet above mean sea level.

Records available.- October 1916 to September 1941.

Average discharge.- 25 years, 1,153 second-feet.

Extremes.- Maximum daily discharge during year, 2,810 second-feet July 18; minimum daily, 67 second-feet Oct. 2.
1916-41: Maximum daily discharge, 3,200 second-feet July 29 to Aug. 3, 1917; no flow at times.

Remarks.- Records good. Considerable diversion above station for irrigation. Flow regulated by Elephant Butte Reservoir (capacity, 2,219,000 acre-feet). Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	85	101	897	1,010	882	919	1,320	1,020	1,750	2,240	1,890
2	67	77	101	1,030	714	604	910	1,300	1,070	1,740	2,280	1,490
3	72	75	101	991	973	868	908	1,320	1,070	1,860	1,960	1,210
4	79	75	104	1,000	1,020	878	894	1,190	1,060	2,190	1,430	1,110
5	81	74	118	700	933	888	879	1,250	877	2,250	2,040	1,070
6	76	89	116	950	901	836	624	1,270	1,070	2,100	2,250	1,090
7	77	99	98	956	890	863	833	1,270	1,040	2,140	2,250	958
8	75	82	95	948	932	856	877	1,250	953	2,190	2,260	1,010
9	75	78	104	938	644	587	863	1,200	1,060	2,010	2,190	899
10	73	81	98	902	903	868	467	1,240	1,070	2,300	2,150	1,070
11	71	79	89	896	933	905	861	1,230	1,090	2,500	1,940	1,070
12	76	86	87	855	942	891	856	1,250	1,120	2,530	1,760	1,070
13	69	86	100	880	916	896	613	1,230	1,050	2,210	1,030	1,080
14	71	82	564	948	949	886	876	1,210	1,200	1,850	1,000	836
15	73	75	613	931	919	851	898	1,240	1,010	1,490	1,030	1,240
16	75	81	733	921	634	604	909	1,230	1,110	1,780	1,010	1,190
17	73	78	682	940	840	868	892	1,210	1,130	2,090	948	1,100
18	74	78	654	904	833	905	931	1,140	1,130	2,810	1,050	1,080
19	93	78	686	566	881	903	985	1,170	1,130	2,300	1,070	1,080
20	90	86	768	914	873	890	921	1,180	1,050	2,190	1,080	1,010
21	84	90	704	934	880	901	1,140	1,170	2,260	2,160	1,370	851
22	74	85	540	938	858	889	1,210	1,160	2,300	2,080	1,800	705
23	72	86	611	895	573	794	1,260	865	2,310	1,470	1,550	1,070
24	72	92	852	912	873	887	1,240	1,120	2,130	1,880	1,280	1,090
25	72	98	563	900	903	817	1,150	944	2,080	2,010	1,720	809
26	72	117	852	598	888	869	1,180	1,120	2,120	2,020	1,850	1,080
27	72	117	811	848	895	870	895	1,210	1,980	2,190	1,690	736
28	72	111	893	958	893	877	1,170	1,150	1,450	1,780	1,670	998
29	94	110	748	952	-	863	1,260	1,150	1,690	1,530	1,510	909
30	91	106	963	950	-	609	1,380	1,140	1,740	1,800	1,190	606
31	80	-	1,070	960	-	850	-	1,140	-	1,920	1,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,365	94	67	76.3	4,690
November	2,634	117	74	87.8	5,220
December	14,619	1,070	87	472	29,000
Calendar year 1940	353,570	2,920	13	966	701,300
January	27,602	1,030	555	890	54,750
February	24,513	1,020	573	876	46,620
March	25,955	905	587	837	51,480
April	28,821	1,380	467	961	57,170
May	36,869	1,320	865	1,189	73,130
June	41,360	2,310	877	1,379	82,040
July	68,120	2,810	1,470	2,036	125,200
August	49,998	2,280	948	1,613	99,170
September	31,417	1,890	606	1,047	62,310
Water year 1940-41	349,273	2,810	67	957	692,800

Caballo Reservoir near Arrey, N. Mex.

Location.- Water-stage recorder, lat. $32^{\circ}53'45''$, long. $107^{\circ}17'30''$, at dam on Rio Grande, in SE $\frac{1}{4}$ sec. 19, T. 16 S., R. 4 W., 0.5 mile downstream from Apache Canyon, 0.8 mile upstream from Bojorquez Bridge, 2 miles upstream from Percha diversion dam, 3.5 miles northeast of Arrey, and 4.5 miles south of Caballo. Datum of gage is 43.3 feet above mean sea level.

Records available.- February 1938 to September 1941.

Remarks.- Reservoir is formed by earth fill dam; storage began Feb. 8, 1938, dam completed Sept. 19, 1938. Capacity, 345,870 acre-feet between gage heights 4,104 feet (bottom of tunnel entrance to gates) and 4,182 feet (maximum gage height at which spillway gates operate automatically). No dead storage. Figures given herein represent useable contents. Water released from Elephant Butte Reservoir for power development is stored in Caballo Reservoir and released for irrigation on Rio Grande project of Bureau of Reclamation. Contents as here given are computed from mean daily gage heights.

Cooperation.- Gage-height record and capacity table furnished by Bureau of Reclamation.

Monthly gage height and contents, water year October 1940 to September 1941

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	4,123.90	9,180	-
Oct. 31.....	4,126.24	12,840	+3,660
Nov. 30.....	4,128.13	16,300	+3,460
Dec. 31.....	4,138.62	42,040	+27,740
Calendar year 1940.....	-	-	-37,240
Jan. 31.....	4,150.54	88,010	+45,970
Feb. 28.....	4,156.80	124,100	+36,090
Mar. 31.....	4,156.89	124,700	+600
Apr. 30.....	4,146.86	67,900	-56,800
May 31.....	4,141.72	51,810	-16,090
June 30.....	4,129.03	18,100	-33,710
July 31.....	4,129.21	18,610	+410
Aug. 31.....	4,127.49	15,150	-3,360
Sept. 30.....	4,133.11	27,240	+12,090
Water year 1940-41.....	-	-	+18,060

Rio Grande below Caballo Dam, N. Mex.

Location.- Water-stage recorder, lat. 32°53', long. 107°18', in NE¼SW¼ sec. 30, T. 16 S., R. 4 W., 600 feet upstream from Bojorquez bridge, 4,200 feet downstream from Caballo Dam, 1½ miles downstream from Apache Canyon, 1 1/3 miles upstream from Percha diversion dam, 3 miles northeast of Arroy, and 5 miles south of Caballo. Datum of gage is 4,145.9 feet above mean sea level.

Records available.- January 1938 to September 1941.

Extremes.- Maximum daily discharge during year, 2,360 second-feet July 10; minimum daily, 1.3 second-feet Nov. 18-21, Dec. 12-27.

1938-41: Maximum daily discharge, 2,550 second-feet July 14, 1940; minimum daily, that of Nov. 18-21, Dec. 12-27, 1940.

Remarks.- Records good. Considerable diversion above station for irrigation. Flow regulated by Caballo Reservoir (capacity when constructed, 345,900 acre-feet) and Elephant Butte Reservoir (capacity, 2,219,000 acre-feet).

Cooperation.- Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	453	1.9	1.6	1.4	2.2	361	1,950	1,380	1,670	2,000	1,960	1,880
2	40	1.9	1.4	1.4	2.1	193	1,960	1,310	1,660	1,740	2,080	1,770
3	35	1.9	1.4	1.4	2.0	4.2	1,960	1,260	1,770	1,840	2,070	1,590
4	29	1.9	1.4	1.4	2.0	3.9	1,990	1,250	1,810	1,840	2,070	1,550
5	16	1.9	1.4	1.4	2.0	3.9	2,110	1,260	1,810	2,000	2,070	1,590
6	2.3	1.9	1.4	1.4	2.0	3.9	2,180	1,270	1,810	2,170	2,070	1,700
7	2.3	1.9	1.4	1.5	2.1	3.9	2,210	1,530	1,810	2,110	1,960	1,680
8	2.3	1.9	1.4	1.5	2.1	3.9	2,120	1,540	1,810	2,100	1,900	1,680
9	2.2	1.8	1.4	1.5	2.2	3.9	2,060	1,690	1,810	2,180	2,250	1,660
10	2.2	1.8	1.4	1.5	2.2	3.9	2,140	1,770	1,810	2,360	2,130	1,530
11	2.1	1.7	1.4	1.5	2.3	512	1,950	1,730	1,790	2,290	2,120	1,480
12	2.0	1.7	1.3	1.5	2.3	842	2,150	1,730	1,770	2,290	2,180	1,400
13	2.0	1.6	1.3	1.5	2.3	971	2,160	1,660	1,750	2,280	1,530	1,290
14	1.7	1.6	1.3	1.5	2.3	1,090	2,160	1,860	1,640	2,150	1,150	1,270
15	1.7	1.5	1.3	1.5	2.3	1,080	2,140	1,860	2,030	2,110	1,170	1,270
16	1.7	1.4	1.3	1.4	2.2	1,030	2,110	1,770	2,030	2,170	1,510	1,210
17	1.7	1.4	1.3	1.4	2.2	790	2,110	1,690	2,180	2,180	1,510	1,080
18	1.7	1.3	1.3	1.4	2.2	546	2,110	1,550	2,300	2,190	1,560	1,040
19	1.7	1.3	1.3	1.4	2.2	715	2,090	1,690	2,340	2,270	1,560	1,030
20	1.7	1.3	1.3	1.4	2.2	871	1,990	1,630	2,280	2,260	1,560	1,170
21	1.7	1.3	1.3	1.4	2.2	947	1,990	1,640	2,310	2,180	1,570	871
22	1.7	376	1.3	1.4	631	1,110	1,990	1,630	2,350	2,100	1,700	12
23	1.7	656	1.3	1.5	631	1,210	2,060	1,430	2,270	2,010	1,780	6.4
24	1.7	498	1.3	1.6	557	1,310	1,780	1,100	2,190	2,110	1,690	171
25	269	168	1.3	1.6	379	1,420	1,740	1,200	2,060	2,070	1,660	233
26	377	5.2	1.3	1.6	470	1,510	1,600	1,190	2,020	2,060	1,670	312
27	186	2.0	1.3	1.6	470	1,490	1,400	1,210	2,020	2,050	1,770	529
28	2.3	1.7	1.4	1.6	453	1,520	1,400	1,370	2,020	1,940	1,770	424
29	2.1	1.6	1.4	2.5	-	1,700	1,480	1,470	2,020	1,960	1,800	13
30	2.0	1.6	1.4	2.5	-	1,780	1,440	1,510	2,020	1,960	1,900	6.4
31	1.9	-	1.4	2.5	-	1,860	-	1,680	-	2,020	1,900	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,429.4	433	1.7	46.1	2,840
November	1,715.0	636	1.3	57.2	3,400
December	42.0	1.6	1.3	1.35	83
Calendar year 1940	368,993.9	2,560	1.3	1,008	731,900
January	48.9	2.5	1.4	1.58	97
February	3,661.4	631	2.0	131	7,260
March	24,859.5	1,860	3.9	802	49,310
April	58,080	2,210	1,400	1,936	115,200
May	46,860	1,880	1,100	1,512	92,960
June	59,100	2,350	1,640	1,970	117,200
July	65,010	2,360	1,740	2,097	128,900
August	55,690	2,250	1,150	1,796	110,500
September	31,447.8	1,880	6.4	1,048	62,360
Water year 1940-41	347,944.0	2,360	1.3	953	690,100

Clear Creek below Continental Reservoir, Colo.

Location.- Water-stage recorder and Parshall flume, lat. 37°53', long. 107°11', in sec. 22, T. 42 N., R. 3 W., 1,000 feet downstream from Continental Reservoir and 15 miles west of Creede.

Drainage area.- 49 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. May 1929 to September 1941 in reports of State engineer.

Average discharge.- 12 years, 29.0 second-feet.

Extremes.- Maximum discharge during year, 264 second-feet July 3 (gage height, 3.23 feet); minimum daily, 2.2 second-feet Sept. 8-15.
1929-41: Maximum discharge, 313 second-feet May 4, 1937 (gage height, 3.41 feet); no flow June 22, 23, 1935.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Continental Reservoir (capacity, 26,700 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14						14	35	179	70	a50	21
2	14						14	36	179	159	a50	16
3	12						14	37	212	262	43	13
4	a12						14	38	232	280	41	9.7
5	a12						14	39	231	262	45	9.7
6	a12					12	14	39	231	144	41	9.7
7	a14						14	a60	237	29	42	5.6
8	16						14	90	237	27	43	2.2
9	16						14	97	234	28	47	2.2
10	15						14	103	234	28	50	2.2
11	14						15	104	235	28	52	2.2
12	14						16	112	197	28	53	2.2
13	14						17	128	156	a28	41	2.2
14	13						18	150	147	a28	30	2.2
15	13						19	203	147	28	36	2.2
16	14	6	7	8	10	13	20	242	148	28	38	2.5
17	12						21	227	149	18	42	2.5
18	12						22	244	167	11	42	2.5
19	12						23	211	143	12	47	3.2
20	12						25	208	101	13	42	3.6
21	11						25	196	102	12	40	5.4
22	11						26	190	147	11	41	11
23	10						27	188	179	11	38	16
24	9.4						28	203	181	41	36	18
25	9.4						29	129	78	59	28	18
26	12					14	30	82	18	52	21	19
27	14						31	85	18	59	22	18
28	12						32	88	18	66	21	18
29	12						33	88	18	a60	19	18
30	14						34	147	18	a60	24	17
31	a6.1	-					-	179	-	a50	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	387.9	16	6.1	12.5	769
November	180	-	-	6	357
December	217	-	-	7	430
Calendar year 1940	6,309.3	136	-	17.2	12,510
January	248	-	-	8	492
February	280	-	-	10	555
March	404	-	-	13.0	801
April	631	34	14	21.0	1,250
May	3,998	257	35	129	7,930
June	4,673	237	18	152	9,070
July	1,972	262	11	63.6	3,910
August	1,190	53	19	36.4	2,360
September	276.0	21	2.2	9.20	547
Water year 1940-41	14,356.9	262	-	39.3	28,470

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of gate openings at Continental Reservoir.

Note.- Stage-discharge relation affected by ice Nov. 1 to May 7 (no gage-height record).

Goose Creek near Wagon Wheel Gap, Colo.

Location.- Water-stage recorder, lat. 37°41', long. 106°50', in NW¼ sec. 26, T. 40 N., R. 1 E., 1½ miles downstream from Roaring Fork and 6 miles south of Wagon Wheel Gap.

Drainage area.- 51 square miles.

Records available.- October 1939 to September 1941. October 1924 to July 1926 at site 1 mile upstream.

Extremes.- Maximum discharge during year, 780 second-feet June 23 (gage height, 2.99 feet), from rating curve extended above 500 second-feet; minimum daily, 11 second-feet Apr. 1, may have been less during period of ice effect.
1924-26, 1939-41: Maximum discharge, that of June 23, 1941; minimum, 8 second-feet (regulated) Nov. 29 to Dec. 16, 1924 (gage height, 0.08 foot, site and datum then in use).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow slightly regulated by Lake Humphreys (capacity, 842 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	19	16				11	53	246	410	94	32
2	46	21	16				12	56	255	398	85	31
3	44	22	16				15	71	313	400	79	29
4	39	21	16				(*)	16	65	318	415	74
5	82	16	16					18	74	304	470	74
6		82	20	16				17	97	304	398	72
7		57	19	16				18	122	343	366	70
8		51	19	16				19	158	337	340	79
9		48	18	16				20	198	272	292	81
10		45	18	16				22	227	236	296	72
11		39	14	16				20	272	212	283	67
12		38	16	16				18	348	198	310	61
13		36	14	13				19	457	195	261	60
14		34	*16	13				19	463	205	225	60
15		29	19	14				23	380	231	204	96
16		28	20	15	15			23	337	272	194	70
17		26	19	16	16			*23	364	369	208	63
18		24	19	16	16			23	396	514	261	58
19		23	18	16				19	364	532	222	*57
20		23	18		(*)			19	265	592	222	*54
21		22	16	15				20	205	580	197	*55
22		23	16	16				18	198	611	184	*55
23		23	16	16				18	202	679	175	*53
24		23	16	15				18	235	587	166	*52
25		22	16	16				21	285	561	154	*49
26		23	16					23	327	580	146	*45
27		25	16					28	343	568	132	*40
28		23	16					33	318	523	122	37
29		22	16					45	272	469	113	29
30		22	16					53	242	433	105	35
31		20	-					-	231	-	100	35

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,092	82	20	35.2	2,170
November	526	22	14	17.5	1,040
December	470	-	-	15.2	932
Calendar year 1940	10,721	123	-	29.3	21,260
January	465	-	-	15	922
February	448	-	-	16	889
March	527	-	-	17	1,050
April	656	53	11	21.9	1,300
May	7,615	463	53	246	15,100
June	11,841	679	195	395	23,490
July	7,769	470	100	251	15,410
August	1,911	96	29	61.1	3,790
September	1,194	76	21	39.8	2,370
Water year 1940-41	34,514	679	-	94.6	68,460

* Winter discharge measurement made on this day.

† No gage-height record; discharge computed on basis of record for South Fork of Rio Grande at South Fork.

Note.- Stage-discharge relation affected by ice Dec. 17 to Apr. 1 (no gage-height record).

South Fork of Rio Grande at South Fork, Colo.

Location.- Water-stage recorder, lat. 37°40', long. 106°39', in sec. 4, T. 39 N., R. 3 E., 1½ miles upstream from mouth and 1½ miles southwest of village of South Fork. Datum of gage is 8,221.79 feet above mean sea level, datum of 1929.

Drainage area.- 216 square miles.

Records available.- August 1910 to September 1913 (at site 1 mile downstream) and May 1936 to September 1941 in reports of Geological Survey. August 1910 to September 1922 (at site 1 mile downstream) and May 1936 to September 1941 in reports of State engineer.

Average discharge.- 17 years (1910-22, 1936-41), 246 second-feet.

Extremes.- Maximum discharge during year, 2,220 second-feet June 23 (gage height, 5.84 feet), from rating curve extended above 1,700 second-feet; minimum daily not determined, occurred during period of ice effect.

1910-22, 1936-41: Maximum discharge, 8,000 second-feet Oct. 5, 1911 (gage height, 9.7 feet, present site and datum, from floodmarks), from rating curve extended above 1,500 second-feet; minimum daily, 20 second-feet Jan. 1, 2, 8, 17, 23-25, 1915, Dec. 20, 1937.

Remarks.- Records excellent except those for May 14 to June 30, which are good, and those for period of ice effect, which are fair. A few small diversions for irrigation, and several small storage reservoirs above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	131	50					110	351	1,200	1,100	217	71
2	107	53					99	406	1,230	1,030	200	68
3	95	55		(*)			89	468	1,290	1,010	191	65
4	86	55					86	422	1,310	971	182	61
5	208	40					91	462	1,330	1,160	176	59
6	273	48					83	531	1,310	948	242	56
7	166	52					80	778	1,380	881	284	55
8	138	54					81	920	1,330	886	302	59
9	124	52					87	1,100	1,370	816	287	63
10	110	51					108	1,260	1,190	752	253	58
11	98						98	1,420	1,030	742	240	56
12	88						103	1,630	954	757	245	54
13	94						106	1,830	925	686	242	62
14	79	(*)					110	1,920	948	608	222	191
15	73						120	1,660	983	549	324	131
16	69		43	42	45	47	125	1,540	1,080	511	210	99
17	66						120	1,560	1,250	502	182	101
18	62				(*)		104	1,590	1,520	641	165	111
19	59					(*)	96	1,540	1,700	567	142	136
20	57						91	1,250	1,820	567	140	202
21	54	30					91	1,060	1,830	492	140	196
22	53						86	1,050	1,870	442	127	158
23	52						86	1,050	1,970	406	111	178
24	51						89	1,140	1,940	399	103	156
25	50						104	1,280	1,850	365	98	134
26	52						129	1,400	1,750	330	89	122
27	68						169	1,610	1,650	305	81	111
28	56						219	1,390	1,540	278	76	108
29	59						281	1,270	1,360	256	77	210
30	64					(*)	337	1,190	1,200	240	99	196
31	*50						-	1,160	-	229	81	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,782	273	50	89.7	5,520
November.....	1,110	-	-	37.0	2,200
December.....	1,533	-	-	43.0	2,640
Calendar year 1940.....	39,098	523	-	107	77,550
January.....	1,302	-	-	42	2,580
February.....	1,260	-	-	45	2,600
March.....	1,457	-	-	47	2,890
April.....	3,578	337	80	119	7,100
May.....	36,228	1,830	351	1,169	71,860
June.....	42,090	1,970	925	1,403	83,460
July.....	19,416	1,160	229	626	38,510
August.....	5,588	324	76	178	10,960
September.....	3,327	210	54	111	6,600
Water year 1940-41.....	119,401	1,970	-	327	236,800

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 6 to Mar. 31 (no gage-height record).

Pinos Creek near Del Norte, Colo.

Location.- Water-stage recorder and Parshall flume, lat. 37°27', long. 106°35', in sec. 29, T. 39 N., R. 5 E., just downstream from Bennett Creek and 8 miles southwest of Del Norte.

Drainage area.- 53 square miles.

Records available.- May 1936 to September 1941 in reports of Geological Survey. May 1919 to September 1924 and May 1936 to September 1941 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 416 second-feet Aug. 6 (gage height, 2.86 feet); minimum daily, 4.0 second-feet or less at times during period of ice effect. 1919-24, 1936-41: Maximum daily discharge, 2,400 second-feet June 3, 1922; minimum not determined.

Remarks.- Records good except those for period of ice effect, which are fair. One small diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	16					8.8	35	176	159	38	25
2	5.3	11					9.9	40	174	148	36	22
3	4.4	8.8					8.4	48	183	140	36	20
4	4.2	8.1					8.1	50	185	137	36	16
5	8.1	8.8					7.7	50	194	139	36	16
6	9.5	11					7.0	82	196	129	42	15
7	6.0	10					8.1	113	209	117	27	15
8	5.3	9.2					8.1	161	227	110	33	16
9	5.3	7.7					8.1	225	223	102	38	17
10	5.0	8.8					9.2	267	214	95	38	17
11	4.4	8.0					8.4	284	196	96	28	16
12	4.4	6.0					9.5	363	187	101	28	15
13	4.2	5.0				5.3	9.9	429	181	90	26	17
14	4.4	*4.4					9.5	289	179	82	39	26
15	4.4	4.0					10	269	174	79	47	18
16	5.0	4.0	4.0	4.0	4.0		11	251	185	71	34	16
17	4.7	4.0					*12	252	198	68	34	17
18	4.7	4.0			(*)		11	284	229	78	35	17
19	4.7	4.0					9.5	247	271	76	32	17
20	4.7	4.0					9.9	196	278	75	32	18
21	4.7	4.0					9.2	154	284	64	31	16
22	5.0	4.0					8.8	170	278	57	30	18
23	5.0	4.0					9.2	212	286	50	26	20
24	4.7	4.0					9.5	240	282	47	23	16
25	4.7	4.0					11	253	275	47	22	14
26	4.7	4.0				5.6	14	240	256	48	21	13
27	6.0	4.0				*6.5	19	242	236	47	19	17
28	5.3	4.0				7.0	23	225	223	43	18	17
29	7.0	4.0				7.4	30	196	187	41	18	28
30	9.5	4.0				11	34	179	165	39	20	20
31	*16	-				10	-	168	-	39	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	178.3	16	4.2	5.75	354
November.....	186.8	16	4.0	6.23	371
December.....	124.0	-	-	4.0	246
Calendar year	-	-	-	-	-
January.....	124.0	-	-	4.0	246
February.....	112.0	-	-	4.0	222
March.....	180.0	11	-	5.81	357
April.....	351.8	34	7.0	11.7	693
May.....	6,224	429	35	201	12,550
June.....	6,531	286	165	218	12,950
July.....	2,614	159	39	84.3	5,180
August.....	937	47	18	30.2	1,860
September.....	535	28	13	17.8	1,060
Water year 1940-41	18,097.9	429	-	49.6	35,890

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 11 to Mar. 27 (no gage-height record).

San Francisco Creek near Del Norte, Colo.

Location.- Water-stage recorder, lat. 37°35', long. 106°22', in sec. 31, T. 39 N., R. 6 E., $1\frac{1}{4}$ miles downstream from East Fork and 6 miles south of Del Norte.

Drainage area.- 13.1 square miles.

Records available.- April 1936 to September 1941 (no winter records most years).

Extremes.- Maximum discharge during year, 357 second-feet June 24 (gage height, 1.48 feet), from rating curve extended above 50 second-foot; minimum daily, 0.4 second-foot Nov. 14, may have been less during period of no record.

1936-41: Maximum discharge, 364 second-feet July 27, 1936 (gage height, 1.47 feet), by slope-area method; minimum daily recorded, 0.4 second-foot Oct. 30, 31, 1937, Nov. 14, 1940.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. One small diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	1.2					1.7	5.5	25	18	6.8	4.7
2	1.7	1.9					1.7	7.2	25	15	6.4	4.7
3	1.7	.8					1.7	7.9	25	16	5.9	3.8
4	1.5	.8					1.7	8.6	24	16	5.9	3.4
5	al.5	1.0					1.7	11	25	18	5.5	3.0
6	al.5	2.5					1.8	13	24	15	5.5	2.8
7	al.5	2.3					1.8	12	25	14	5.5	2.8
8	al.6	1.2					*1.8	13	28	14	6.4	2.6
9	al.6	1.7					1.9	13	30	14	7.9	2.6
10	1.7	2.3					1.9	17	25	13	6.4	2.6
11	1.5	2.1					1.7	22	25	15	5.9	2.6
12	1.5	1.6					2.6	55	20	17	5.9	2.6
13	1.5	1.2					2.6	85	19	17	5.5	3.0
14	1.5	*.4					2.1	63	19	15	5.9	3.4
15	1.5		1.5	1.5	1.5	2.0	2.1	44	19	15	6.8	3.0
16	1.0						2.1	40	20	13	5.9	2.8
17	1.2						*2.1	42	23	12	7.2	2.8
18	1.2				(*)		3.4	49	28	11	7.2	2.8
19	1.2						3.4	40	32	11	7.2	2.6
20	1.2						5.1	35	31	11	7.2	2.8
21	1.2						3.0	30	31	11	7.2	2.6
22	1.2	1.5					2.1	31	31	9.2	6.8	4.3
23	.8						1.9	32	32	8.6	6.4	4.7
24	1.0						1.9	31	44	8.6	6.4	3.0
25	1.0						2.1	36	28	8.6	6.4	2.6
26	1.0						2.6	36	29	9.2	5.9	2.3
27	.8						3.0	28	28	9.2	5.9	2.1
28	.6						3.4	26	24	9.2	5.9	2.6
29	.7						5.1	24	22	8.6	5.9	4.7
30	.7						6.4	21	19	7.9	5.5	3.0
31	*.7	-					-	21	-	6.8	5.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	39.2	1.9	0.6	1.26	78
November.....	45.0	-	-	1.5	89
December.....	46.5	-	-	1.5	92
Calendar year.....	-	-	-	-	-
January.....	46.5	-	-	1.5	92
February.....	42.0	-	-	1.5	83
March.....	62.0	-	-	2.0	123
April.....	76.4	6.4	1.7	2.55	152
May.....	895.2	83	5.5	28.9	1,780
June.....	778	44	19	25.9	1,540
July.....	386.9	18	6.8	12.5	767
August.....	194.3	7.9	5.1	6.27	385
September.....	93.3	4.7	2.1	3.11	185
Water year 1940-41.....	2,705.3	83	-	7.41	5,370

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

Note.- Stage-discharge relation affected by ice Nov. 4-6, Nov. 12 to Apr. 8 (no gage-height record Nov. 15 to Apr. 8).

Rock Creek near Monte Vista, Colo.

Location.- Water-stage recorder and 8-foot Parshall flume, lat. 37°29', long. 106°16', in SE¼ sec. 36, T. 38 N., R. 6 E., 3 miles downstream from North Fork and 9 miles southwest of Monte Vista.

Drainage area.- 33.6 square miles.

Records available.- May 1935 to September 1941 in reports of Geological Survey. April 1919 to September 1924 and May 1935 to September 1941 in reports of State engineer. (No winter records.)

Extremes.- Maximum discharge during year, 161 second-feet May 13 (gage height, 2.63 feet); minimum discharge observed, 1.3 second-feet Nov. 8 (discharge measurement), but may have been less during period of no record.
1935-41: Maximum discharge, that of May 13, 1941; minimum not determined.

Remarks.- Records excellent except those below 10 second-feet, which are good. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	2.8				-	3.8	16	68	48	14	6.8
2	3.6	3.0				-	3.6	18	69	46	13	6.4
3	3.4	-				-	3.6	21	65	43	11	6.1
4	3.2	-				-	4.0	22	66	40	11	6.1
5	3.4	-				-	4.3	22	69	41	11	5.8
6	3.4	-				-	4.3	34	66	39	11	5.1
7	2.8	-				-	5.1	45	69	34	9.8	4.9
8	2.8	†1.3				-	4.3	57	74	37	11	5.8
9	2.8	-				-	5.1	78	64	34	16	6.4
10	2.6	-				-	6.4	96	63	32	13	5.8
11	2.6	-				-	5.8	107	68	32	11	5.4
12	2.6	-				-	6.8	121	61	31	13	4.9
13	2.6	-				-	7.7	137	55	30	12	4.9
14	2.6	-				-	7.4	140	54	28	11	7.4
15	2.5	-				-	8.1	117	58	26	13	5.4
16	2.5	-				-	8.4	109	61	24	11	4.9
17	2.5	-				-	9.5	105	66	22	14	5.1
18	2.3	-				-	8.1	109	75	22	13	5.8
19	2.1	-				-	6.8	101	90	28	11	5.4
20	2.3	-				-	8.4	84	90	26	11	5.4
21	2.3	-				-	7.1	64	89	22	11	5.1
22	2.1	-				-	6.1	67	83	19	10	6.1
23	2.1	-				-	6.1	70	84	18	9.5	8.4
24	2.1	-				-	5.8	81	86	17	8.8	6.1
25	2.1	-				-	6.4	86	78	17	8.1	5.4
26	2.1	-				-	7.1	90	73	17	8.1	4.9
27	1.7	-				2.6	9.5	86	70	17	7.7	4.7
28	2.1	-				2.5	11	82	64	16	7.4	4.9
29	2.5	-				2.5	12	71	56	15	8.1	9.8
30	3.2	-				2.8	14	66	50	14	8.4	6.8
31	2.5	-				3.2	-	66	-	15	7.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	81.0	3.6	1.7	2.61	161
November.....	-	-	-	-	-
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 27-31.....	13.6	3.2	2.5	2.72	27
April.....	206.6	14	3.6	6.89	410
May.....	2,368	140	16	76.4	4,700
June.....	2,082	90	50	69.4	4,130
July.....	850	48	14	27.4	1,690
August.....	335.3	16	7.4	10.8	665
September.....	176.0	9.8	4.7	5.87	349
Water year	-	-	-	-	-

† Discharge measurement.

Closed basin in San Luis Valley, Colo.

Kerber Creek at Ashley Ranch, near Villa Grove, Colo.

Location.- Water-stage recorder, lat. 38°15', long. 106°08', in sec. 7, T. 46 N., R. 8 E., at Ashley Ranch, 10 miles west of Villa Grove.

Drainage area.- 38 square miles.

Records available.- May 1936 to September 1941 in reports of Geological Survey. June 1923 to September 1926 and May 1936 to September 1941 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 407 second-feet May 14 (gage height, 3.88 feet), from rating curve extended above 150 second-feet; minimum daily recorded, 1.9 second-feet Nov. 5, Aug. 26, may have been less during period of ice effect.
1923-26, 1936-41: Maximum discharge, that of May 14, 1941; minimum daily recorded, 1.2 second-feet Aug. 14, 16, 17, 1940.

Remarks.- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.9	2.4					4.9	20	122	41	9.2	2.7
2	4.0	2.6					4.3	25	119	37	9.1	2.7
3	3.7	3.2					4.3	30	126	32	9.0	2.5
4	3.5	2.7					4.3	31	124	28	8.8	2.1
5	4.0	1.9					5.4	32	126	27	8.4	2.1
6	4.0	*2.6					6.2	52	122	27	11	2.4
7	3.7	2.3					6.6	78	124	28	11	2.7
8	3.7	2.4					6.6	114	132	28	9.6	3.2
9	3.7	2.7					8.5	116	109	28	9.4	5.4
10	3.7	2.4					7.1	126	105	30	9.4	6.6
11	3.7						5.7	132	97	24	8.9	5.1
12	3.7						8.0	153	88	25	8.6	4.9
13	3.7						8.0	250	85	27	8.2	4.9
14	3.7						8.5	363	90	26	8.0	4.9
15	3.5						8.5	327	102	24	7.5	4.9
16	3.5		2.3	2.0			9.8	259	116	22	4.6	4.6
17	3.5						9.4	237	114	20	4.6	4.9
18	3.7						8.0	212	114	19	6.2	5.1
19	3.7						7.5	166	114	19	5.7	5.1
20	3.7						7.5	126	109	18	4.9	5.1
21	3.2	2.6					6.6	105	107	17	6.2	5.4
22	2.9						5.7	93	104	15	4.9	7.1
23	3.2						5.4	80	102	14	2.9	5.4
24	3.2						5.7	75	97	13	2.6	8.9
25	3.5						6.6	83	95	13	2.3	8.0
26	3.7					*3.2	9.4	90	75	14	1.9	7.1
27	5.1					8.5	13	131	72	13	2.3	6.6
28	3.5					3.7	13	132	64	11	2.1	6.6
29	2.7					3.7	12	122	54	10	2.4	8.9
30	3.5					4.6	17	117	48	9.4	3.2	8.9
31	2.7					13	-	117	-	9.2	2.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	112.5	5.1	2.7	3.63	223
November	77.2	-	-	2.57	153
December	71.3	-	-	2.3	141
Calendar year	-	-	-	-	-
January	62.0	-	-	2.0	123
February	70.0	-	-	2.5	139
March	124.2	-	-	4.01	246
April	233.5	17	4.3	7.78	463
May	3,994	363	20	129	7,920
June	3,066	132	48	102	6,060
July	668.6	41	9.2	21.6	1,350
August	195.6	11	1.9	6.31	388
September	164.6	8.9	2.1	5.15	307
Water year 1940-41	8,819.5	363	-	24.2	17,490

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 11 to Mar. 25 (no gage-height record). No gage-height record July 12-29, 31, Aug. 1-9, 12, 13; discharge computed on basis of record for Saguache Creek near Saguache.

Closed basin in San Luis Valley, Colo.

Saguache Creek near Saguache, Colo.

Location.- Water-stage recorder, lat. 38°09', long. 106°19', in sec. 11, T. 45 N., R. 6 E., 10 miles northwest of Saguache.

Drainage area.- 595 square miles.

Records available.- August 1910 to September 1912 and October 1933 to September 1941 in reports of Geological Survey. August 1910 to September 1912 and June 1914 to September 1941 in reports of State engineer. (No winter records some years).

Extremes.- Maximum discharge during year, 602 second-feet May 15 (gage height, 2.54 feet), from rating curve extended above 500 second-feet; minimum daily, 20 second-feet or less at times during period of ice effect.

1910-12, 1914-41: Maximum discharge, 746 second-feet June 15, 1921 (gage height, 3.45 feet, datum then in use); minimum daily recorded, 14 second-feet Oct. 1, 2, 1933, July 15, Sept. 12, 1940.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	a22					72	77	309	240	87	48
2	38	a23					56	78	312	235	84	47
3	35	a27					52	105	301	219	74	45
4	32	a33					55	125	318	211	77	43
5	30	a32					68	108	318	209	64	43
6	33	*32				36	60	110	312	206	84	40
7	32	32					42	151	315	196	96	40
8	28	31					42	175	420	188	87	40
9	28	36					43	206	432	196	92	45
10	28	32					50	243	356	198	97	43
11	28	24					45	290	356	183	92	39
12	28	22					38	318	309	190	89	39
13	28	22					45	361	259	203	82	40
14	27	26					39	477	254	190	72	43
15	27	31					37	502	262	178	80	45
16	a27	34					32	447	284	168	92	42
17	a27	38					32	420	298	156	89	40
18	a27	39					32	438	341	156	84	45
19	a27	38				(*)	34	459	390	154	72	42
20	a28	33					37	450	471	180	66	46
21	a27						36	411	453	149	68	56
22	a22						35	356	429	132	72	54
23	24						42	373	420	132	64	66
24	23						40	356	432	130	63	54
25	a23						36	350	492	128	60	48
26	a24	29				*49	39	414	456	128	55	46
27	a28						40	47	393	332	123	52
28	a25						55	63	367	341	110	50
29	a24						59	66	361	293	103	51
30	a23						63	66	350	254	96	56
31	a22						64	-	318	-	92	52

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	861	38	22	27.8	1,710
November.....	897	39	22	29.9	1,780
December.....	775	-	-	25	1,540
Calendar year	-	-	-	-	-
January.....	620	-	-	20	1,230
February.....	700	-	-	25	1,390
March.....	1,395	64	-	45.0	2,770
April.....	1,381	72	32	46.0	2,740
May.....	9,589	502	77	309	19,020
June.....	10,569	492	254	352	20,960
July.....	8,179	240	92	167	10,270
August.....	2,303	97	50	74.3	4,570
September.....	1,370	66	39	45.7	2,720
Water year 1940-41	35,639	502	-	97.6	70,700

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Kerber Creek near Villa Grove.

Note.- Stage-discharge relation affected by ice Nov. 13, 14, Nov. 21 to Mar. 25 (no gage-height record).

Closed basin in San Luis Valley, Colo.

North Crestone Creek near Crestone, Colo.

Location.- Water-stage recorder, lat. 36°01', long. 105°41', in sec. 5, T. 43 N., R. 12 E., 1 1/2 miles upstream from Crestone and 3 miles upstream from confluence with South Crestone Creek.

Drainage area.- 10.7 square miles.

Records available.- May 1936 to September 1941 (no winter records).

Extremes.- Maximum discharge during year, 375 second-feet June 22 (gage height, 2.90 feet); minimum daily recorded, 3.2 second-feet Apr. 21, 22, but may have been less during period of no record.
1936-41: Maximum discharge, 735 second-feet Aug. 6, 1936 (gage height, 4.33 feet), by slope-area method; minimum daily, 2.1 second-feet Aug. 19, 24, 1939.

Remarks.- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	4.9				-	4.1	15	132	112	29	8.1
2	13	5.2				-	3.8	18	132	109	28	7.7
3	13	5.1				-	3.8	24	132	101	25	7.2
4	12	4.9				-	3.7	24	132	103	24	7.0
5	12	4.2				-	3.7	25	130	88	22	6.6
6	12	4.8				-	3.7	33	132	82	21	6.4
7	11	4.6				-	3.7	45	137	84	21	5.8
8	11	4.6				-	3.5	57	127	82	21	6.2
9	9.9	4.3				-	3.6	76	109	78	21	6.0
10	9.6	4.3				-	3.7	89	100	76	18	5.8
11	8.8	5.2				-	3.6	99	95	65	21	5.2
12	8.2	4.7				-	3.8	104	94	62	18	5.2
13	7.6	4.6				-	3.8	130	94	60	16	5.4
14	7.2	4.5				-	3.7	148	103	60	18	5.8
15	6.7	4.1				-	3.7	122	125	58	23	5.4
16	6.6	4.0				-	3.6	122	146	58	21	5.2
17	6.4	4.0				-	3.6	144	179	58	20	5.0
18	6.4	4.0				-	3.8	170	236	65	17	5.0
19	6.4	4.0				-	3.6	144	278	63	15	5.0
20	6.4	4.0				-	3.6	117	211	64	14	5.0
21	6.1	4.0				-	3.2	103	194	58	13	4.8
22	5.8	4.0				-	3.2	101	204	56	12	6.0
23	5.8	4.0				-	3.5	101	245	55	12	8.1
24	5.8	4.0				-	3.8	108	228	52	11	6.6
25	5.7	4.0				-	4.9	125	255	51	9.8	6.6
26	5.7	4.0				-	6.0	143	196	47	9.5	6.8
27	5.7	4.0				-	7.6	137	170	45	9.0	6.6
28	6.0	4.0				-	8.8	119	152	46	8.5	6.6
29	5.4	4.0				3.7	9.9	106	124	40	8.5	12
30	5.4	4.0				3.7	12	108	114	34	8.5	14
31	5.3	-				3.8	-	119	-	31	8.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	250.9	14	5.3	8.09	498
November	130.0	5.2	4.0	4.33	258
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	137.0	12	3.2	4.57	272
May	2,976	170	15	96.0	5,900
June	4,706	278	94	157	9,330
July	2,043	112	31	65.9	4,050
August	522.9	29	8.1	16.9	1,040
September	197.1	14	4.8	6.57	391
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice (no gage-height record Nov. 18-30).

Closed basin in San Luis Valley, Colo.

Carnero Creek near La Garita, Colo.

Location.- Water-stage recorder, lat. 37°52', long. 106°20', in sec. 26, T. 42 N., R. 6 E., 3 miles northwest of La Garita.

Drainage area.- 117 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. April 1919 to September 1941 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 350 second-feet May 14 (gage height, 2.21 feet), from rating curve extended above 180 second-feet; minimum daily, 1.0 second-foot or less at times during period of ice effect.
1919-41: Maximum daily discharge, 500 second-feet Apr. 14, 1924; minimum daily, 0.5 second-foot July 9, 1940.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	a2.4					a7.0	25	107	34	19	74.1
2	3.0	a2.6					a6.4	30	102	31	18	6.8
3	2.5	a2.6					a6.0	38	96	26	14	6.1
4	2.3	a2.5					a9.0	41	100	23	14	5.6
5	2.3	a1.9					9.8	43	88	23	13	5.2
6	2.8	*a2.2					8.4	55	86	22	23	5.2
7	2.8	2.5					9.0	68	94	23	20	a4.8
8	2.5	2.5					10	88	142	22	14	a4.8
9	2.4	2.2					12	121	116	24	20	a4.6
10	2.4	2.3					11	147	114	26	23	a4.6
11	2.4	1.6					11	178	121	24	18	a4.4
12	2.3	2.2					11	201	94	32	16	a4.4
13	2.4	2.3					13	254	86	32	16	4.4
14	2.4						11	261	84	30	13	4.6
15	2.4						*10	222	86	30	13	4.8
16	2.4		1.5	1.0	1.0	1.2	8.7	181	80	27	13	4.6
17	2.3						9.4	166	82	26	14	4.8
18	2.3						8.4	172	80	22	a14	5.2
19	2.4				(*)		7.1	139	82	22	a13	5.2
20	2.3						8.0	139	77	22	a12	5.6
21	2.2	1.5					6.8	114	74	19	a13	6.1
22	2.2						6.4	126	67	18	a13	6.1
23	2.3						5.8	147	88	18	12	14
24	2.3						6.1	144	77	17	13	9.0
25	2.3						6.4	139	88	19	12	7.7
26	2.3					(*)	9.4	131	68	23	10	7.1
27	3.2						14	124	58	23	9.4	6.8
28	2.8						15	124	53	22	8.7	6.4
29	2.4						19	134	45	20	9.4	13
30	2.7						26	116	39	19	7.4	15
31	2.5						-	102	-	18	7.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	76.6	3.2	2.2	2.47	152
November	57.0	2.6	-	1.90	113
December	46.5	-	-	1.5	92
Calendar year	-	-	-	-	-
January	31.0	-	-	1.0	61
February	28.0	-	-	1.0	56
March	37.2	-	-	1.2	74
April	302.1	26	5.8	10.1	592
May	3,970	261	25	128	7,870
June	2,574	142	39	85.8	5,110
July	736	34	17	23.7	1,460
August	435.0	23	7.1	14.0	863
September	194.3	15	4.4	6.48	385
Water year 1940-41	8,487.7	261	-	23.3	16,840

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Kerber Creek near Villa Grove.

Note.- Stage-discharge relation affected by ice Nov. 14 to Mar. 31 (no gage-height record).

Closed basin in San Luis Valley, Colo.

La Garita Creek near La Garita, Colo.

Location.- Water-stage recorder, lat. 37°49', long. 106°18', in sec. 10, T. 41 N., R. 6 E., 4 miles southwest of La Garita.

Drainage area.- 61 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. April 1919 to September 1941 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 457 second-feet May 16 (gage height, 5.11 feet), from rating curve extended above 220 second-feet; minimum daily, 0.9 second-foot Nov. 11, 12.

1919-41: Maximum discharge, that of May 16, 1941; minimum daily, 0.7 second-foot Aug. 29, 1940.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	a1.8					6.7	32	122	54	14	7.4
2	3.3	a2.2					5.8	36	120	49	12	7.4
3	2.5	a2.8					5.0	41	132	45	11	7.1
4	2.5	a2.7					7.1	56	128	44	10	6.8
5	2.5	a2.6					8.6	51	130	43	10	6.4
6	4.0	*a3.5					6.3	75	133	44	14	6.1
7	3.8	3.5					6.3	92	139	40	13	5.8
8	3.3	3.5					6.7	122	156	34	15	a5.7
9	3.0	3.0					8.6	141	118	36	26	a5.6
10	2.8	2.5					10	125	99	39	31	a5.6
11	2.6	.9					8.6	166	99	33	17	a5.7
12	2.3	.9					10	222	88	36	16	5.8
13	2.3	1.0					10	266	82	33	21	6.1
14	2.3						8.6	348	82	32	12	6.8
15	2.3						11	368	86	27	12	6.4
16	2.3	1.3		2.0	2.5		10	398	91	26	14	5.8
17	2.5						10	392	103	22	14	6.1
18	2.5						10	392	116	22	16	6.4
19	2.5				(*)		8.2	368	127	24	12	6.1
20	2.5						7.1	297	110	24	10	6.1
21	2.5						8.2	a230	102	19	12	6.1
22	2.5						7.9	a190	96	18	14	7.1
23	2.5						7.9	a205	114	18	12	11
24	2.1						8.6	a195	114	16	10	8.7
25	2.1	1.4					10	a160	97	18	10	7.4
26	2.0						16	a143	95	22	8.7	6.8
27	2.6					*6.3	19	a140	87	18	9.0	6.1
28	2.3					4.7	21	139	78	17	8.7	5.5
29	1.6					5.0	28	144	69	14	9.6	6.4
30	2.1					4.7	29	134	61	14	10	11
31	1.8					5.0	-	121	-	14	8.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	79.8	4.0	1.6	2.57	158
November.....	54.0	3.5	.9	1.80	107
December.....	46.5	-	-	1.5	92
Calendar year.....	-	-	-	-	-
January.....	62.0	-	-	2.0	123
February.....	70.0	-	-	2.5	139
March.....	108.9	6.3	-	3.51	216
April.....	320.0	29	5.0	10.7	636
May.....	5,830	398	32	188	11,560
June.....	3,174	156	61	106	6,300
July.....	394	54	14	28.8	1,770
August.....	412.3	31	8.4	13.3	618
September.....	201.3	11	5.5	6.71	399
Water year 1940-41.....	11,252.8	398	-	30.8	22,320

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Camero Creek near La Garita.

Note.- Stage-discharge relation affected by ice Nov. 14 to Mar. 26 (no gage-height record).

Alamosa Creek above Terrace Reservoir, Colo.

Location.- Water-stage recorder, lat. 37°23', long. 106°21', in sec. 8, T. 36 N., R. 6 E., 3 miles upstream from Terrace Reservoir Dam and 15 miles northwest of Capulin.

Drainage area.- 107 square miles.

Records available.- September 1911 to June 1912 and October 1934 to September 1941 in reports of Geological Survey. April 1914 to October 1919, October 1923 to September 1927 and October 1934 to September 1941 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 1,800 second-feet May 13 (gage height, 4.20 feet), from rating curve extended above 1,100 second-feet; minimum discharge, 12 second-feet or less at times during period of ice effect.

1911-12, 1914-19, 1923-27, 1934-41: Maximum discharge, 5,200 second-feet Oct. 5, 1911 (gage height, 11.0 feet, datum then in use, from floodmark), computed by weir formula; minimum not determined.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. No regulation or diversion.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48						26	107	709	634	139	57
2	47						25	114	782	612	129	55
3	44						25	137	864	612	120	53
4	40						26	143	872	618	108	52
5	42						27	156	872	667	116	49
6	91						26	239	811	579	124	46
7	77						25	319	774	513	132	40
8	66	(*)					26	420	695	540	154	45
9	60						*27	536	548	496	136	45
10	56						29	787	476	464	139	46
11	52						34	896	425	469	134	43
12	46						32	1,070	420	464	124	41
13	41						31	1,330	452	442	112	44
14	40						29	1,290	512	495	124	97
15	37						31	1,040	554	370	258	82
16	39	21	18	12	14	16	35	880	592	330	154	77
17	34						39	1,030	796	339	144	72
18	32						40	1,100	1,020	486	136	69
19	31						38	1,020	1,290	458	118	80
20	30						37	784	1,210	447	110	133
21	29						35	518	1,200	385	104	120
22	28						35	512	1,170	385	97	94
23	27						34	524	1,200	326	89	89
24	27						33	599	1,170	308	79	83
25	25						38	753	1,180	276	73	80
26	26						42	936	1,060	244	69	73
27	27						55	928	928	215	66	68
28	26						69	767	596	192	62	68
29	25						91	812	744	174	62	110
30	26						95	598	657	160	69	104
31	25						-	606	-	144	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,240	91	25	40.0	2,460
November.....	630	-	-	21	1,250
December.....	558	-	-	18	1,110
Calendar year.....	-	-	-	-	-
January.....	372	-	-	12	738
February.....	392	-	-	14	778
March.....	496	-	-	16	984
April.....	1,136	95	25	37.9	2,260
May.....	20,709	1,330	107	668	41,080
June.....	24,879	1,290	420	899	49,350
July.....	12,734	657	144	411	25,260
August.....	3,593	258	62	116	7,130
September.....	2,116	133	40	70.5	4,200
Water year 1940-41.....	68,855	1,330	-	189	136,600

* Winter discharge measurement made on this day.

Note.- No gage-height record Oct. 26 to Nov. 7, Apr. 1-20, Sept. 7, 8, 15, 16, 20-23, 29, 30; discharge computed on basis of one discharge measurement and records for Conejos River at Platono, Colo. Stage-discharge relation affected by ice Nov. 10 to Mar. 31 (no gage-height record).

Alamosa Creek below Terrace Reservoir, Colo.

Location.- Water-stage recorder, lat. 37°21', long. 106°17', in sec. 23, T. 36 N., R. 6 E., half a mile downstream from Terrace Reservoir and 11 miles northwest of Capulin.

Drainage area.- 116 square miles.

Records available.- April 1909 to June 1912 and October 1933 to September 1941 in reports of Geological Survey. April 1909 to November 1912, April to October 1915, February 1917 to October 1920 and April 1922 to September 1941 in reports of State engineer.

Average discharge.- 23 years (1909-10, 1915-18, 1922-41), 123 second-feet.

Extremes.- Maximum discharge during year, 1,240 second-feet June 20 (gage height, 5.47 feet); minimum daily, 2.8 second-feet Mar. 30.
1909-12, 1915, 1917-20, 1922-41: Maximum daily discharge, 1,450 second-feet June 16-18, 1917; minimum daily, that of Mar. 30, 1941.

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion above station. Flow regulated by Terrace Reservoir (capacity, 17,700 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	23	3	3	3	3	3.4	108	742	501	342	150
2	46	23	3	3	3	3	9.6	112	738	509	342	153
3	53	24	3	3	3	3	16	112	738	517	354	162
4	58	24	3	3	3	3	16	130	738	521	296	156
5	57	23	3	3	3	3	15	145	724	529	292	153
6	69	23	3	3	3	3	15	191	657	590	292	147
7	83	23	3	3	3	3	21	219	662	585	289	142
8	85	23	3	3	3	3	26	290	652	565	306	131
9	85	23	3	3	3	3	26	313	453	565	314	119
10	85	22	3	3	3	3	26	296	303	565	314	111
11	83	21	3	3	3	3	28	325	240	569	310	91
12	81	20	3	3	3	3	29	430	240	545	296	69
13	79	20	3	3	3	3	31	554	240	465	285	66
14	61	20	3	3	3	3	44	756	244	417	281	69
15	49	19	3	3	3	3	49	788	244	377	258	69
16	49	18	3	3	3	3	49	778	377	338	244	69
17	49	18	3	3	3	3	54	796	389	272	240	69
18	44	18	3	3	3	3	57	815	517	298	237	69
19	39	18	3	3	3	3	57	810	865	357	240	81
20	39	18	3	3	3	3	57	810	1,060	361	240	87
21	39	3	3	3	3	3	57	688	1,170	385	237	87
22	33	3	3	3	3	3	55	639	1,120	417	224	85
23	28	3	3	3	3	3	55	639	1,100	441	198	78
24	28	3	3	3	3	3	55	634	1,100	445	195	78
25	28	3	3	3	3	3	55	639	1,130	441	192	79
26	28	3	3	3	3	3	57	639	1,110	441	189	83
27	26	3	3	3	3	3	57	675	925	429	189	83
28	26	3	3	3	3	3	57	724	855	417	189	83
29	26	3	3	3	-	3.1	63	765	648	393	189	79
30	24	3	3	3	-	2.8	85	760	545	385	177	76
31	23	-	3	3	-	3.1	-	752	-	342	153	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,547	85	23	49.9	3,070
November	451	24	3	15.0	895
December	93	3	3	3	184
Calendar year 1940	24,283	403	3	66.3	48,180
January	93	3	3	3	184
February	64	3	3	3	167
March	93.0	3.1	2.8	3.0	184
April	1,225.0	85	3.4	40.8	2,430
May	16,343	815	108	527	32,420
June	20,526	1,170	240	684	40,710
July	13,982	590	272	451	27,750
August	7,865	342	165	254	15,600
September	2,977	162	69	99.2	5,900
Water year 1940-41	65,279.0	1,170	2.8	179	129,500

Note.- No gage-height record Nov. 12 to Mar. 28; discharge computed on basis of gate openings at Terrace Reservoir.

La Jara Creek at Gallegos Ranch, near Capulin, Colo.

Location.- Recorder, lat. 37°09', long. 106°13', in NE $\frac{1}{4}$ sec. 32, T. 34 N., R. 7 E. 2 miles upstream from former station (published as La Jara Creek near Capulin, Colo.), 2 $\frac{1}{2}$ miles upstream from Canyon del Rancho, 11 miles southwest of Capulin, and 1 $\frac{1}{2}$ miles downstream from La Jara Reservoir.

Drainage area.- 79 square miles.

Records available.- May 1936 to September 1941 (no winter records).

Extremes.- Maximum discharge during year, 538 second-feet May 13 (gage height, 5.39 feet); minimum daily recorded, 5.5 second-feet Nov. 5, but may have been less during period of no record.
1936-41: Maximum discharge, 653 second-feet Apr. 15, 1937 (gage height, 5.94 feet); minimum daily recorded, 3.5 second-feet Nov. 28, 1936.

Remarks.- Records good except those for period of no gage-height record, which are fair. Small diversions above station for irrigation. Flow regulated by La Jara Reservoir (capacity, 14,040 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.9	6.6					a8.7	33	54	11	11	8.3
2	7.2	6.9					a8.4	47	49	10	9.8	8.3
3	6.9	7.2					a8.2	55	49	9.8	10	8.0
4	6.9	7.2					a8.0	62	47	9.5	10	7.7
5	7.2	5.5					a9.2	92	39	10	10	8.6
6	8.2	6.6					a9.0	152	36	14	10	8.9
7	7.9	a6.6					a8.3	273	41	11	11	8.6
8	7.9	a7.0					a8.8	258	118	10	12	8.6
9	7.6	-					8.9	300	90	16	16	8.8
10	7.6	-					10	341	77	13	28	9.2
11	7.6	-					9.2	349	68	12	30	9.5
12	7.2	-					8.3	324	63	13	30	9.5
13	7.2	-					9.5	347	58	13	25	9.5
14	7.2	-					8.6	300	48	13	25	10
15	7.2	-					9.2	228	45	13	24	9.8
16	6.9	-					9.8	162	46	13	21	10
17	6.9	-					11	149	45	13	13	10
18	6.9	-					10	167	34	13	13	11
19	6.9	-					9.5	140	29	13	11	11
20	7.2	-					9.2	126	25	16	11	11
21	7.2	-					10	100	22	16	10	11
22	7.2	-					9.5	156	21	15	11	11
23	7.2	-					11	151	19	13	10	14
24	6.9	-					9.5	105	18	12	10	12
25	7.2	-					10	101	18	12	10	11
26	7.2	-					10	96	16	12	10	11
27	8.2	-					11	91	14	12	9.2	11
28	7.9	-					13	94	13	9.8	9.2	11
29	7.6	-					19	83	13	9.5	8.9	15
30	8.2	-					24	77	12	10	8.9	13
31	7.2	-					-	60	-	11	8.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	228.5	8.2	6.9	7.37	453
November 1-8	53.6	7.2	5.5	6.70	106
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	308.8	24	8.0	10.3	612
May	4,979	349	33	161	9,880
June	1,227	118	12	40.9	2,430
July	378.6	16	9.5	12.2	761
August	447.6	30	8.6	14.4	898
September	306.7	15	7.7	10.2	608
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of one discharge measurement and weather records.

Trinchera Creek above Turners Ranch, near Fort Garland, Colo.

Location.- Water-stage recorder, lat. 37°22', long. 105°19', in sec. 2, T. 31 S., R. 71 W., just upstream from Turners Ranch and 7 miles southeast of Fort Garland.

Drainage area.- 45 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. April 1923 to Sept. 1941 in reports of State engineer. (No winter records.)

Extremes.- Maximum discharge during year, 478 second-feet May 15 (gage height, 2.16 feet), from rating curve extended above 200 second-feet; minimum daily recorded, 9.1 second-feet Nov. 1, but may have been less during period of no record.
1923-41: Maximum discharge, that of May 15, 1941; minimum not determined.

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	9.1					10	21	162	129	39	16
2	12	9.8					10	25	148	122	39	17
3	12	11					10	27	155	116	38	15
4	11	11					10	27	158	110	38	15
5	14	11					10	27	162	104	36	15
6	14	11					10	37	166	96	34	14
7	13	11					10	51	169	88	33	13
8	12	11					10	70	158	85	33	14
9	11	11					10	87	162	82	33	15
10	12	12					10	104	176	77	33	15
11	12	-					10	129	172	75	32	14
12	13	-					10	142	166	75	32	14
13	13	-					10	236	162	70	32	15
14	13	-					11	310	162	70	30	20
15	13	-					11	320	166	65	28	15
16	13	-					11	246	172	65	26	15
17	13	-					11	217	169	60	27	15
18	13	-					11	209	155	58	26	14
19	12	-					13	191	138	54	23	14
20	12	-					13	141	155	54	24	16
21	11	-					9.8	138	158	52	24	16
22	11	-					9.8	135	155	48	23	21
23	11	-					9.8	126	162	48	23	20
24	11	-					9.8	119	169	45	22	15
25	11	-					11	122	166	45	21	15
26	11	-					12	141	158	45	21	14
27	12	-					14	176	158	43	20	14
28	11	-					14	191	155	43	18	14
29	9.8	-					16	169	144	41	20	33
30	11	-					18	158	138	41	20	26
31	11	-					-	144	-	41	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	372.8	14	9.8	12.0	739
November 1-10.....	107.9	12	9.1	10.8	214
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	355.2	18	9.8	11.2	665
May.....	4,236	320	21	137	8,400
June.....	4,796	176	138	160	9,510
July.....	2,145	129	41	69.2	4,250
August.....	868	58	18	28.0	1,720
September.....	492	33	13	16.4	976
Water year.....	-	-	-	-	-

Note.- No gage-height record Apr. 1-15; discharge computed on basis of weather records.

Trinchera Creek above Mountain Home Reservoir, near Fort Garland, Colo.

Location.- Water-stage recorder upstream from rating flume, lat. 37°24', long. 106°32', in sec. 31, T. 30 S., R. 71 W., 1½ miles upstream from Mountain Home Reservoir Dam and 4 miles southeast of Fort Garland.

Drainage area.- 61 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. May 1923 to September 1941 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 332 second-feet May 14 (gage height, 2.41 feet), from rating curve extended above 160 second-feet; minimum daily recorded, 5.4 second-feet Sept. 11, 12.
1923-41: Maximum discharge, 385 second-feet May 24, 1926 (gage height, 1.84 feet, site and datum then in use); minimum not determined.

Remarks.- Records good except those for period of ice effect, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.3	9.2	6.8	7.6	6.6	7.8	11	16	161	94	20	7.7
2	8.3	7.0	7.0	7.0	6.4	8.0	11	21	159	97	19	7.7
3	8.3	7.0	7.0	6.4	6.3	8.2	10	23	159	82	19	7.2
4	8.8	7.0	7.2	6.2	6.0	8.2	10	22	153	79	19	6.4
5	9.2	7.4	7.2	6.2	5.8	8.2	11	21	154	83	18	6.4
6	9.7	8.4	7.2	6.8	5.8	8.0	11	25	162	81	19	5.9
7	8.8	*9.2	7.4	6.8	6.0	7.8	11	40	168	75	19	6.4
8	8.8	9.2	7.4	7.0	6.0	7.6	9.7	60	176	68	20	6.8
9	8.8	8.8	7.4	7.0	5.8	7.6	9.7	99	162	59	20	7.7
10	8.8	8.3	7.4	7.4	5.8	7.6	9.7	139	148	56	17	7.2
11	8.8	6.3	8.0	7.6	6.0	7.8	9.7	190	137	54	16	5.4
12	8.8	5.5	8.2	7.6	6.0	8.0	10	237	124	53	14	5.4
13	8.3	5.5	8.2	7.4	6.0	8.2	11	266	113	50	14	5.6
14	8.8	5.5	8.0	7.2	6.2	8.6	10	312	114	47	14	7.5
15	8.8	7.0	7.0	*7.0	6.2	9.0	10	320	119	44	14	6.7
16	8.8	6.5	5.8	6.6	6.4	8.8	10	298	119	38	15	7.5
17	8.3	7.9	6.4	6.4	*6.4	9.6	11	278	126	36	14	6.5
18	8.3	7.4	6.8	6.4	6.6	8.4	11	226	146	35	15	6.4
19	8.8	7.0	6.6	6.8	6.8	8.4	11	203	162	33	14	6.7
20	8.8	6.8	6.4	7.0	7.0	8.8	10	187	173	33	12	7.7
21	8.3	7.2	6.4	7.0	7.0	9.2	11	137	169	30	12	8.0
22	7.4	7.6	6.4	6.6	7.2	9.4	11	120	148	29	12	11
23	7.8	7.8	6.8	6.4	7.6	9.6	11	120	148	27	12	11
24	7.8	8.0	7.6	6.2	8.0	9.4	11	124	151	26	12	8.6
25	8.8	8.2	7.8	6.0	8.2	*9.0	11	131	145	26	13	8.2
26	8.8	7.0	7.2	6.2	8.2	9.7	12	148	137	26	14	7.7
27	8.8	6.6	6.4	6.4	8.0	9.2	13	157	130	25	11	7.9
28	9.2	6.4	6.6	6.6	7.6	9.7	13	161	122	24	8.0	8.8
29	8.8	6.6	7.0	6.6	-	10	13	157	114	24	7.9	16
30	8.8	6.8	7.4	6.6	-	11	15	151	104	22	8.0	19
31	9.7	-	7.6	6.8	-	11	-	166	-	21	7.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	268.5	9.7	7.4	8.66	533
November.....	221.0	9.2	5.5	7.37	438
December.....	220.6	8.2	5.8	7.12	438
Calendar year	-	-	-	-	-
January.....	209.8	7.6	6.0	6.77	416
February.....	185.9	8.2	5.8	6.64	369
March.....	270.8	11	7.6	8.74	537
April.....	328.8	15	9.7	11.0	652
May.....	4,513	320	16	146	8,950
June.....	4,303	176	104	143	8,530
July.....	1,467	94	21	47.3	2,810
August.....	447.8	23	7.9	14.4	888
September.....	240.9	19	5.4	8.03	478
Water year 1940-41	12,677.1	320	5.4	34.7	25,140

* Winter discharge measurement made on this day.

Note.-State-discharge relation affected by ice Nov. 5-7, Nov. 15 to Mar. 25 (no gage-height record).

Trinchera Creek below Smith Reservoir, near Blanca, Colo.

Location.- Water-stage recorder, lat. 37°23', long. 105°35', in sec. 5, T. 31 S., R. 73 W., 1 mile downstream from Smith Reservoir and 5 miles southwest of Blanca.

Drainage area.- 396 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. October 1929 to September 1941 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum daily discharge during year, 640 second-feet May 15; minimum daily, 0.8 second-foot or less at times in November. 1929-41: Maximum daily discharge, that of May 15, 1941; minimum daily recorded, 0.1 second-foot Nov. 3, 1937, to Feb. 28, 1938.

Remarks.- Records good except those for period of no gage-height record and those for Aug. 1 to Sept. 30, which are fair. Diversions above station for irrigation. Flow regulated by Smith Reservoir (capacity, 5,335 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	0.7					-	1.1	169	433	97	5.6	0.9	
2	.7					-	2.8	214	406	80	5.6	1.2	
3	.7					-	10	253	387	67	4.7	1.2	
4	.7					-	22	274	373	60	4.4	1.2	
5	.9					-	28	316	346	54	4.4	1.2	
6	.8					-	40	343	332	47	4.4	1.2	
7	.7					-	44	395	320	47	4.1	1.0	
8	.7					-	48	417	355	52	3.8	1.0	
9	.7					-	48	417	326	55	3.8	1.2	
10	.7					-	48	419	298	56	3.2	1.2	
11	.7					-	54	421	275	57	2.8	1.0	
12	.8					-	55	435	269	60	2.8	1.0	
13	1.0					-	56	496	244	61	2.5	1.2	
14	1.4					-	57	540	228	60	2.0	1.2	
15						-	57	640	219	64	1.8	.9	
16		0.6				-	56	630	209	66	1.8	1.0	
17						-	58	590	200	65	1.2	1.8	
18						-	63	580	189	64	.9	1.5	
19						-	68	590	194	65	.8	2.2	
20						-	68	560	194	68	1.0	3.0	
21						-	66	515	188	71	.9	2.5	
22	.8					-	67	480	188	60	1.0	2.2	
23						-	68	470	185	57	1.2	2.2	
24						-	61	480	185	57	.9	2.2	
25						-	61	485	166	46	.9	2.0	
26						-	70	475	178	24	1.0	2.0	
27						-	79	480	155	23	1.0	2.2	
28						-	95	481	142	22	1.0	2.2	
29						-	1.4	123	472	128	21	1.0	2.0
30						-	1.2	139	470	112	13	1.2	2.2
31						-	1.0	-	454	-	5.9	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	24.8	-	-	0.80	49
November	18.0	-	-	.6	36
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,710.9	139	1.1	57.0	3,390
May	13,960	640	169	450	27,990
June	7,434	433	112	248	14,750
July	1,644.9	97	5.9	53.1	3,260
August	72.7	5.6	.8	2.35	144
September	47.8	3.0	.9	1.59	95
Water year	-	-	-	-	-

Note.- No gage-height record Oct. 15 to Nov. 30 (discharge computed on basis of one discharge measurement, reservoir gates closed), and May 12-24 (discharge computed on basis of records for station above Turners Ranch).

Sangre de Cristo Creek near Fort Garland, Colo.

Location.- Water-stage recorder, lat. 37°26', long. 105°24', in sec. 23, T. 30 S., R. 72 W., 1 1/2 miles east of Fort Garland and 4 miles upstream from confluence with Ute Creek.

Drainage area.- 187 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. March to October 1916 and May 1923 to September 1941 in reports of State engineer. (No winter records most years).

Extremes.- Maximum discharge during year, 756 second-feet May 12 (gage height, 6.46 feet), from rating curve extended above 450 second-feet; minimum daily recorded, 1.8 second-feet Oct. 9, but may have been less during period of ice effect.

1916, 1923-41: Maximum discharge, 1,520 second-feet Aug. 31, 1936, by slope-area method; maximum gage height, that of May 12, 1941; no flow at times during 1934-36, 1939-40.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. A few diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.9	4.6					34	245	267	76	32	13
2	3.9	4.6					32	250	256	73	30	13
3	2.6	4.6				14	32	256	23	68	28	10
4	2.3	4.4					30	291	230	65	28	9.0
5	2.4	4.4					34	264	216	63	27	9.6
6	3.4	4.4					37	340	205	65	23	9.6
7	4.4	*4.4					38	460	204	82	23	8.0
8	3.4	4.4					39	522	*228	57	23	8.6
9	1.8	4.6					41	597	229	54	23	13
10	2.3	4.9					50	651	194	55	25	13
11	2.4	4.4					48	702	195	59	23	11
12	2.6						43	709	187	74	21	11
13	3.6						53	709	176	63	27	11
14	3.4						45	718	169	66	26	16
15	2.9						52	656	162	67	26	16
16	3.4		3				54	544	166	64	23	13
17	3.4				*2	6.5	64	460	174	58	22	12
18	3.4					(*)	67	416	160	59	31	11
19	3.6						56	377	144	48	23	12
20	3.6						55	353	134	45	23	16
21	3.6	3.7					49	306	129	48	25	23
22	3.4						46	347	127	46	22	30
23	3.4						54	432	118	40	21	35
24	3.4						52	442	116	35	18	26
25	3.6						68	435	114	37	17	20
26	3.6						17	83	418	103	45	16
27	3.9						16	28	393	93	40	14
28	4.9						20	146	350	91	39	14
29	4.9						20	176	355	83	37	14
30	4.6						23	218	315	79	32	14
31	5.2						25	281			32	13

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	108.2	5.2	1.8	3.49	215
November	120.0	4.9	-	4.00	238
December	93	-	-	3	194
Calendar year	-	-	-	-	-
January	62	-	-	2	123
February	182	-	-	6.5	361
March	496	25	-	16.0	984
April	1,924	218	30	64.1	3,820
May	13,604	718	245	439	26,980
June	4,985	267	79	166	9,890
July	1,672	76	32	53.9	3,320
August	697	32	13	22.5	1,380
September	488.7	40	8.0	16.3	969
Water year 1940-41	24,431.9	718	-	66.9	48,460

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Trinchera Creek above Turners Ranch.

Note.- Stage-discharge relation affected by ice Nov. 5-7, Nov. 11 to Mar. 25 (no gage-height record).

Ute Creek at upper station, near Fort Garland, Colo.

Location.- Water-stage recorder, lat. 37°32', long. 105°23', in sec. 12, T. 29 S., R. 72 W., 150 yards downstream from forks and 9 miles northeast of Fort Garland.

Drainage area.- 23.3 square miles.

Records available.- May to July 1936, October 1939 to September 1941 (no winter records).

Extremes.- Maximum discharge during year, 686 second-feet May 15 (gage height, 3.39 feet), from rating curve extended above 175 second-feet; minimum recorded, 8.1 second-feet Nov. 7 (discharge measurement), but was less during period of ice effect.
1936, 1939-41: Maximum discharge, that of May 15, 1941; minimum recorded, 4.3 second-feet Oct. 28, 1939, but may have been less during period of ice effect.

Remarks.- Records good except those for period of no gage-height record and those for May 14 to June 17, which are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16							59	165	152	69	30
2	16							72	165	140	64	27
3	15							79	172	131	63	25
4	14							82	158	131	59	23
5	18							102	150	133	59	22
6	20							147	148	128	57	21
7	18	(*)						161	160	120	57	21
8	16							175	142	115	56	22
9	16							190	a132	120	56	22
10	16							193	a120	122	57	22
11	15							204	111	124	56	21
12	14							188	101	126	62	20
13	14							116	97	122	57	23
14	13							398	103	120	62	43
15	13							503	120	133	62	33
16	12	7.8						405	145	126	57	26
17	12							384	175	120	75	24
18	12							345	219	115	88	23
19	12							311	249	111	63	23
20	11							256	231	115	66	33
21	11							205	216	113	52	a48
22	11							185	202	107	46	a50
23	11							145	219	99	42	a58
24	10							145	259	89	39	a42
25	10							162	249	86	36	36
26	9.9							216	216	89	35	35
27	11							225	207	84	34	31
28	a10							188	199	80	33	30
29	a10							160	180	77	33	54
30	a10							160	168	74	32	68
31	a10							162	-	70	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	406.9	20	9.9	13.1	807
November.....	234.0	-	-	7.8	464
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	6,325	503	50	204	12,550
June.....	5,178	259	27	173	10,270
July.....	3,472	152	70	112	6,890
August.....	1,646	88	30	53.1	3,260
September.....	954	68	20	31.8	1,890
Water year.....	-	-	-	-	-

* Winter discharge measurement made on this day.

a No gage height record; discharge computed on basis of records for Ute Creek near Fort Garland.

Note.- Stage-discharge relation affected by ice Nov. 1-30 (no gage-height record).

Ute Creek near Fort Garland, Colo.

Location.- Water-stage recorder upstream from rating flume, lat. 37°28', long. 105°24', in sec. 2, T. 30 S., R. 72 W., 2½ miles north of Fort Garland and 6 miles upstream from mouth.

Drainage area.- 32 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. March to October 1916 and May 1923 to September 1941 in reports of State engineer. (No winter records most years).

Extremes.- Maximum daily discharge during year, 630 second-feet May 15; minimum daily recorded, 4.8 second-feet Nov. 3-7, may have been less during period of ice effect. 1916, 1923-41: Maximum daily discharge, that of May 15, 1941; minimum daily recorded, 1.6 second-feet July 6, 1936.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. A few diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	5.8					18	55	140	130	42	26
2	13	5.4					15	70	140	129	37	25
3	12	4.8					16	73	147	123	36	25
4	11	4.8					17	73	144	123	35	26
5	12	4.8					25	74	135	126	37	24
6	18	4.8					22	100	131	121	36	22
7	16	4.8				7	18	132	155	108	35	19
8	16	5.8					18	163	158	102	32	18
9	14	7.6					18	222	135	109	31	19
10	14	7.6					18	232	117	113	33	15
11	13						17	241	109	123	35	13
12	12						18	262	98	118	40	13
13	9.2						23	277	94	107	36	17
14	7.0						21	490	95	107	40	36
15	7.0						20	630	109	126	38	26
16	8.6		6	6			20	490	131	107	35	22
17	9.7						20	445	162	101	52	18
18	9.7						20	400	176	100	92	16
19	9.7						20	360	184	96	56	15
20	9.2						20	290	186	108	51	29
21	9.2	6.2					19	230	186	99	45	43
22	9.2						18	180	173	86	39	49
23	8.6						18	130	177	77	38	52
24	8.6						16	123	188	68	38	38
25	8.1						19	138	207	63	36	33
26	8.1						22	173	196	69	35	30
27	8.6						27	177	182	62	34	26
28	9.2						29	175	172	56	33	26
29	8.1						33	155	152	53	31	58
30	7.0						46	241	135	51	29	66
31	6.2						-	132	-	45	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	326.0	18	6.2	10.5	647
November	190.2	-	-	6.01	357
December	186	-	-	6	369
Calendar year	-	-	-	-	-
January	186	-	-	6	369
February	168	-	-	6	333
March	248	-	-	8.0	492
April	631	46	15	21.0	1,250
May	6,833	630	55	220	13,550
June	4,514	207	94	150	8,950
July	3,006	130	45	97.0	5,960
August	1,213	92	26	39.1	2,410
September	845	66	13	28.2	1,680
Water year 1940-41	18,336.2	630	-	50.2	36,370

* Winter discharge measurement made on this day.

† No gage-height record; discharge computed on basis of records for upper station near Fort Garland.

Note.- Stage-discharge relation affected by ice Nov. 11 to Mar. 29 (no gage-height record).

Conejos River at Platoro, Colo.

Location.- Water-stage recorder, lat. 37°21'00", long. 106°31'30", in sec. 22, T. 36 N., R. 4 E., half a mile east of Platoro and 5 miles downstream from Adams Fork.

Drainage area.- 44.4 square miles.

Records available.- April 1937 to September 1941 (no winter records).

Extremes.- Maximum discharge during year, 1,310 second-feet June 25 (gage height, 3.15 feet), from rating curve extended above 850 second-feet; minimum daily recorded, 8.4 second-feet Dec. 12, but may have been less during period of no record.
1937-41: Maximum discharge, that of June 25, 1941; minimum daily recorded, 6.6 second-feet Dec. 13, 1937, but may have been less during periods of no record.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	24	17				16	44	506	775	176	47
2	54	23	17				18	48	572	781	159	44
3	63	21	17				20	63	653	787	140	40
4	54	16	16				27	77	670	824	126	36
5	169	22	18				24	104	664	896	132	33
6	166	20	12				27	166	625	799	150	30
7	121	17	16				34	240	681	733	134	28
8	104	19	15				30	317	598	787	143	34
9	90	17	11				30	408	446	693	150	34
10	77	13	12				27	516	366	659	153	32
11	67	21	11				27	604	334	670	137	28
12	60	19	8.4				23	733	334	670	118	26
13	54	20	-				24	855	344	636	118	52
14	48	16	-				28	793	390	567	143	195
15	44	16	-				30	659	432	516	260	118
16	40	15	-				40	604	490	480	156	97
17	37	14	-				30	670	642	521	162	104
18	34	14	-				27	704	836	625	146	116
19	29	14	-				29	583	993	614	124	143
20	28	15	-				30	441	1,010	636	108	221
21	26	16	-				22	380	1,040	541	104	180
22	24	15	-				22	370	1,010	551	90	150
23	23	15	-				26	394	1,040	451	82	150
24	22	14	-				34	470	1,040	427	73	124
25	21	16	-				27	552	1,090	380	65	106
26	20	20	-				22	651	1,040	344	60	92
27	14	34	-				26	647	993	300	54	84
28	19	17	-				29	531	958	264	52	84
29	30	18	-				33	456	824	244	56	162
30	24	13	-				42	441	775	202	67	156
31	26	-	-				-	446	-	187	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,649	769	14	53.2	3,270
November.....	541	34	13	18.0	1,070
December 1-12.....	168.4	18	8.4	14.0	334
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	824	42	16	27.5	1,630
May.....	13,947	855	44	450	27,660
June.....	21,381	1,090	334	713	42,410
July.....	17,610	896	187	565	34,730
August.....	3,692	260	52	119	7,320
September.....	2,746	221	26	91.5	5,450
Water year.....	-	-	-	-	-

Conejos River near Mogote, Colo.

Location.- Water-stage recorder, lat. 37°03', long. 106°11', in SE $\frac{1}{4}$ sec. 34, T. 33 N., R. 7 E., three-quarters of a mile downstream from Fox Creek and $5\frac{1}{2}$ miles northwest of Mogote.

Drainage area.- 282 square miles.

Records available.- September 1899 to March 1900, April 1903 to September 1913 and October 1933 to September 1941 in reports of Geological Survey. September 1899 to March 1900 and April 1903 to September 1941 in reports of State engineer.

Average discharge.- 39 years (1902-41), 378 second-feet.

Extremes.- Maximum discharge during year, 3,740 second-feet May 14 (gauge height, 5.08 feet), from rating curve extended above 3,000 second-feet; minimum daily, 42 second-feet Dec. 17, 22, 23.

1899-1900, 1903-41: Maximum discharge, 9,000 second-feet Oct. 5, 1911 (gauge height, 8.50 feet, site and datum then in use), from rating curve extended above 3,500 second-feet; minimum, 18 second-feet (discharge measurement) Dec. 19, 1939.

Remarks.- Records good except those for period of ice effect, which are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	194	78	*54	50	*50	56	130	378	1,920	2,050	378	133
2	173	83	52	50	47	60	114	399	2,010	1,960	361	125
3	173	84	50	48	48	*58	116	526	2,190	1,910	328	118
4	173	84	50	*46	49	57	111	556	2,100	1,940	294	109
5	198	65	50	45	50	72	133	628	2,150	2,090	294	102
6	548	78	52	46	48	57	114	938	1,950	2,100	313	98
7	367	78	51	46	48	62	109	1,210	2,200	1,780	298	92
8	297	79	51	47	48	54	121	1,430	2,230	1,720	294	86
9	266	*78	52	47	48	58	138	1,700	1,780	1,710	453	98
10	232	76	53	47	50	55	176	2,040	1,460	1,460	429	94
11	202	50	54	46	52	56	150	2,400	1,260	1,480	366	88
12	180	64	53	47	55	64	135	2,810	1,250	1,420	361	82
13	163	66	50	48	52	69	136	3,340	1,260	1,460	302	84
14	147	67	48	49	*51	63	114	3,350	1,310	1,260	334	228
15	136	75	46	49	51	62	127	3,050	1,450	1,140	608	248
16	124	69	*44	47	54	57	147	2,720	1,490	1,050	429	200
17	116	71	42	45	48	65	160	2,720	1,800	1,020	350	167
18	109	80	46	*44	52	69	138	2,920	2,200	1,220	366	186
19	102	68	47	44	55	71	119	2,810	2,580	1,090	302	206
20	95	67	46	45	56	76	107	2,180	2,760	1,350	260	260
21	92	66	44	45	58	81	114	1,610	2,800	1,180	248	424
22	86	69	42	46	59	76	109	1,570	2,800	1,050	248	259
23	83	69	42	47	58	76	107	1,500	2,640	900	208	355
24	81	77	44	44	59	76	93	1,700	2,700	820	186	289
25	78	74	45	45	60	65	111	1,920	2,770	750	169	244
26	76	59	46	45	58	68	121	2,230	2,910	692	156	208
27	90	63	46	45	55	75	170	2,500	2,700	652	143	186
28	76	67	44	46	54	78	216	2,270	2,650	548	137	174
29	78	60	45	48	-	84	292	1,940	2,370	498	133	289
30	95	60	48	49	-	83	326	1,870	2,100	441	158	395
31	84	-	49	50	-	95	-	1,800	-	406	149	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,914	548	76	159	9,750
November	2,124	84	50	70.8	4,210
December	1,486	54	42	47.9	2,950
Calendar year 1940	80,923	1,440	33	221	160,500
January	1,446	50	44	46.6	2,870
February	1,473	60	47	52.6	2,920
March	2,098	95	54	67.7	4,160
April	4,252	326	93	142	8,430
May	59,015	3,350	378	1,904	117,100
June	63,790	2,910	1,250	2,126	126,600
July	39,127	2,100	406	1,262	77,610
August	9,055	608	133	292	17,960
September	5,657	424	62	159	11,220
Water year 1940-41	194,437	3,350	42	533	385,700

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 3 to Mar. 2.

Conejos River near La Sauses, Colo.

Location.- Water-stage recorders (two channels), lat. 37°23', long. 105°45', in sec. 2, T. 35 N., R. 11 E., half a mile upstream from mouth and 2 miles north of La Sauses.

Drainage area.- 867 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. March 1921 to September 1941 in reports of State engineer.

Average discharge.- 20 years, 251 second-feet.

Extremes.- Maximum discharge during year, 3,890 second-feet May 15; minimum daily, 10 second-feet Aug. 5.

1921-41: Maximum discharge, that of May 15, 1941; no flow July 21 to Sept. 8, 1934.

Remarks.- Records good. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	32	56	73	*73	103	169	280	1,920	1,280	43	21
2	16	27	58	72	70	113	161	457	1,920	1,160	29	20
3	14	27	58	66	69	122	142	602	1,900	1,010	16	20
4	13	27	58	66	72	131	130	820	2,010	957	13	18
5	13	29	58	*66	76	152	121	878	1,890	1,040	10	18
6	14	30	59	60	78	136	120	1,050	1,820	1,300	11	18
7	19	28	57	64	71	135	101	1,540	1,680	1,370	12	17
8	27	22	58	64	*69	122	89	1,980	1,970	1,230	12	16
9	29	23	56	67	72	115	90	2,340	2,310	1,200	21	17
10	32	36	60	67	72	104	103	2,680	1,880	1,080	25	18
11	30	56	64	*62	74	108	117	2,990	1,510	977	31	17
12	33	37	65	69	77	107	104	3,170	1,280	993	30	16
13	33	38	65	72	81	106	104	3,430	1,130	1,030	25	17
14	33	40	63	71	84	110	108	3,720	996	984	24	24
15	32	38	64	71	84	128	83	3,820	946	900	24	26
16	33	39	*69	72	86	150	81	3,760	944	818	32	26
17	33	39	54	69	88	167	70	3,510	952	730	46	30
18	33	40	56	*65	93	194	65	3,310	1,090	651	44	30
19	31	42	55	65	93	237	73	3,350	1,320	630	40	29
20	32	42	60	68	93	264	67	3,370	1,570	628	40	24
21	34	40	58	67	95	289	53	2,680	1,760	724	38	22
22	35	40	64	66	93	286	52	2,180	1,780	613	39	47
23	28	46	64	66	98	271	54	2,120	1,820	547	41	52
24	29	51	65	65	99	276	53	1,950	1,740	474	37	69
25	31	53	68	*68	107	273	49	2,100	1,810	409	32	69
26	34	53	68	69	114	297	52	2,330	1,880	344	29	71
27	35	55	71	68	110	283	57	2,540	1,920	276	26	64
28	38	55	69	69	103	253	83	2,770	1,820	230	27	59
29	34	57	65	70	-	217	139	2,760	1,730	188	23	77
30	26	55	*73	72	-	194	209	2,420	1,520	132	23	129
31	27	-	74	71	-	180	-	2,100	-	85	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	869	38	13	28.0	1,720
November.....	1,177	57	22	39.2	2,330
December.....	1,923	74	54	62.0	3,810
Calendar year 1940.....	22,348.5	902	.1	61.1	44,320
January.....	2,100	73	60	67.7	4,170
February.....	2,393	114	69	85.5	4,750
March.....	5,623	297	103	181	11,150
April.....	2,899	209	49	96.6	5,750
May.....	73,007	3,820	280	2,555	144,800
June.....	48,818	2,510	944	1,627	96,330
July.....	23,990	1,370	85	77.4	47,580
August.....	867	46	10	28.0	1,720
September.....	1,080	129	16	36.0	2,140
Water year 1940-41.....	164,746	3,820	10	451	326,800

* Winter discharge measurement made on this day.

Note.- State-discharge relation affected by ice Dec. 15-18, 20-29, Jan. 2-22, Feb. 5, 6.

San Antonio River at Ortiz, Colo.

Location.- Water-stage recorder, lat. 37°00', long. 106°02', in New Mexico, in sec. 19, T. 32 N., R. 9 E., a quarter of a mile south of Colorado-New Mexico State line, half a mile south of Ortiz, and half a mile upstream from Los Pinos Creek.

Drainage area.- 110 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. January to October 1915, May 1919 to October 1920 and October 1924 to September 1941 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 1,380 second-feet May 13 (gage height, 4.75 feet), from rating curve extended above 1,100 second-feet; no flow Sept. 1-14 and some days in February.
1915, 1919-20, 1924-41: Maximum discharge, 1,750 second-feet Apr. 15, 1937 (gage height, 5.38 feet), from rating curve extended above 1,100 second-feet; no flow for periods in nearly every year.

Remarks.- Records good except those below 50 second-feet, which are fair. A few small diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	4.7	(*)				8	320	117	7.4	3.0	0
2	4.7	*2.1					19	387	105	6.9	1.4	0
3	2.0	2.1					18	461	93	5.9	1.1	0
4	2.6	2.1					23	424	88	3.8	.9	0
5	3.8	2.0					41	458	70	2.6	.9	0
6	5.9	2.1					39	589	59	5.1	3.4	0
7	7.4	2.4					34	640	58	4.7	2.2	0
8	4.2	2.5					34	677	83	3.4	1.7	0
9	3.0	*2.5					49	751	113	3.4	3.4	0
10	2.6	2.4					69	778	95	2.6	4.7	0
11	2.0	2.3					*55	823	88	3.0	4.7	0
12	1.9	2.2					69	922	80	3.0	3.0	0
13	1.9	2.0					58	1,050	70	4.2	10	0
14	2.0	2.0					38	970	61	9.2	8.6	0
15	2.0	2.0			(*)	*5.3	47	810	54	4.7	2.6	.1
16	2.0	2.0	2.5	1.13	0.5		58	652	58	6.9	1.7	1.2
17	1.9	2.0					77	585	47	6.9	13	.8
18	1.9	2.0					59	578	40	7.4	10	.6
19	1.6	2.0					47	492	30	5.5	3.8	.5
20	1.6	3.0					38	314	24	13	2.2	.6
21	1.7	3.5					40	281	22	11	1.9	1.6
22	1.9	4.0					39	342	21	16	3.8	3.4
23	1.9	4.0					39	308	20	9.2	2.6	26
24	1.9	3.8				(*)	36	327	21	3.8	1.9	12
25	2.0	3.8					50	370	24	4.2	1.2	5.5
26	1.1	3.5					77	324	21	2.0	.8	3.0
27	1.9	3.5					120	284	17	3.4	.5	1.9
28	7.4	3.5					181	284	14	3.0	.3	1.6
29	5.9	3.5			-		215	230	10	1.7	.2	4.2
30	3.8	3.5	(*)		-		248	183	8.0	1.6	.1	16
31	5.5	-			-	(*)	-	143	-	1.4	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	94.4	7.4	1.1	3.05	187
November.....	83.0	4.7	2.0	2.77	165
December.....	77.5	-	-	2.5	164
Calendar year	-	-	-	-	-
January.....	35.0	-	-	1.13	69
February.....	14.0	-	-	.5	28
March.....	164.3	-	-	5.3	326
April.....	1,925	248	8	64.2	3,820
May.....	15,737	1,050	143	508	31,210
June.....	1,611.0	117	8.0	53.7	3,200
July.....	166.9	16	1.4	5.38	331
August.....	95.7	13	.1	3.09	190
September.....	79.0	26	0	2.63	157
Water year 1940-41	20,082.8	1,050	0	55.0	39,840

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 2 to Apr. 5 (no gage-height record Nov. 2 to Mar. 31).

San Antonio River at mouth, near Manassa, Colo.

Location.- Water-stage recorder, lat. 37°11', long. 105°53', in sec. 21, T. 34 N., R. 10 E., 1 mile upstream from mouth and 2½ miles east of Manassa.

Drainage area.- 348 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. April 1923 to September 1941 in reports of State engineer.

Average discharge.- 18 years, 102 second-feet.

Extremes.- Maximum discharge during year, 2,620 second-feet May 14 (gauge height, 6.26 feet), from rating curve extended above 2,200 second-feet; no flow Oct. 1 to Nov. 19, Dec. 1-25, Sept. 9-13, 16-18.

1923-41: Maximum discharge, that of May 14, 1941; no flow for periods in nearly every year.

Remarks.- Records good except those for periods of ice effect or no gage-height record, and those for Sept. 15-30, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0			10	32	315	976	291	3.8	18
2		*0	0			10	31	447	900	258	2.5	20
3		0	0			11	30	574	848	210	1.3	17
4		0	0			12	29	732	860	180	.8	15
5		0	0			13	33	750	756	198	.4	12
6		0	0			13	31	996	680	230	3.4	8.6
7		0	0			13	31	1,290	704	218	3.4	4.8
8		0	0			12	32	1,490	918	182	3.8	1.7
9		0	0			11	40	1,630	956	166	9.2	0
10		0	0			12	56	1,790	722	138	12	0
11		0	0			12	64	1,870	644	128	17	0
12		0	0			15	60	2,040	592	138	15	0
13		0	0			17	70	2,260	529	138	16	0
14		0	0			20	59	2,380	490	129	12	2.5
15		0	0			25	51	2,080	477	123	8.0	2.1
16		0	*0			30	53	1,840	474	105	2.9	0
17		0	0			40	64	1,710	477	93	a2.8	0
18		0	0			48	64	1,740	484	84	a2.4	0
19		0	0			54	49	1,780	490	68	a2.4	.8
20		.1	0			62	37	1,540	518	71	a2.6	3.8
21		.1	0			72	37	1,270	515	71	a2.8	14
22		.1	0			70	34	1,290	501	68	a3.5	19
23		.1	0			68	37	1,270	501	65	5.5	28
24		.1	0			*66	36	1,290	501	59	4.2	25
25		*.1	0			69	37	1,380	532	50	11	23
26		.1	.1			68	47	1,410	568	41	14	19
27		.1	.1			55	59	1,460	515	37	12	14
28		.1	.1			47	85	1,480	477	36	7.4	8.6
29		.1	.1			39	144	1,350	426	25	8.6	8.6
30		.1	*.1			34	198	1,190	354	15	10	8.0
31		-	.1			-	*31	-	1,040	-	9.2	14

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	1.1	.1	0	.04	2.2
December	.6	.1	0	.02	1.2
Calendar year 1940	12,546.1	442	0	34.3	24,890
January	62	-	-	2	123
February	252	-	-	9	500
March	1,059	72	10	34.2	2,100
April	1,630	198	29	54.3	3,230
May	43,644	2,380	315	1,408	86,570
June	18,433	976	354	614	36,560
July	3,624.2	291	9.2	117	7,190
August	214.7	17	.4	6.93	426
September	273.5	28	0	9.12	542
Water year 1940-41	69,194.1	2,380	0	190	137,200

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Conejos River near La Sauses.

Note.- Stage-discharge relation affected by ice Nov. 20 to Mar. 24 (no gage-height record Dec. 24 to Mar. 24).

Los Pinos River near Ortiz, Colo.

Location.- Water-stage recorder, lat. 36°58', long. 106°03', in New Mexico, in N $\frac{1}{2}$ sec. 34, T. 32 N., R. 8 E., 1 mile south of Colorado-New Mexico State line, 2 miles southwest of Ortiz, and 2 $\frac{1}{2}$ miles upstream from mouth.

Drainage area.- 167 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey.

January 1914 to November 1920 and October 1924 to September 1941 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 3,160 second-feet May 12 (gage height, 5.77 feet), from rating curve extended above 1,610 second-feet; minimum daily recorded, 15 second-feet Oct. 24-26, but may have been less during periods of no record.

1914-20, 1924-41: Maximum discharge, that of May 12, 1941; minimum daily, 5 second-feet Aug. 11, Sept. 19, 1934.

Remarks.- Records good except those for periods of ice effect on no gage-height record, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	19	(*)			22	52	303	893	389	42	24
2	30	(*)				24	45	370	845	366	38	24
3	26					25	46	503	857	334	36	22
4	36					26	45	558	800	317	34	20
5	27					26	50	652	724	320	34	20
6	71					25	50	875	682	303	36	18
7	37					24	48	1,060	806	276	60	18
8	27					22	55	1,290	875	247	38	18
9	24	(*)				20	68	1,360	703	234	77	21
10	24					18	79	1,430	632	210	77	20
11	21					16	70	1,590	604	196	53	19
12	20					20	68	2,040	554	190	46	17
13	19					26	70	2,410	541	182	46	18
14	19					29	60	2,270	536	176	48	52
15	17					*32	66	1,830	536	173	60	42
16	17	18	16	16	*18	32	70	1,590	545	163	53	30
17	17					28	77	1,620	572	173	52	27
18	16					28	68	1,780	637	168	53	26
19	16					29	60	1,540	682	132	42	24
20	16					31	57	1,160	703	a150	37	42
21	16					33	58	1,010	682	a120	36	79
22	16					34	57	1,140	a650	a160	48	42
23	16					*34	57	1,150	a640	a137	36	70
24	15					*34	55	1,260	a650	85	31	55
25	16					31	68	1,560	a680	83	27	37
26	15					30	75	1,440	a620	77	26	30
27	17					30	100	1,460	a560	71	24	27
28	16					32	140	1,320	a500	64	22	26
29	20					34	173	1,350	477	57	22	81
30	25					32	237	1,040	416	50	27	100
31	21	-	(*)	-	-	*29	-	968	-	45	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	709	71	15	22.9	1,410
November	541	-	-	18.0	1,070
December	496	-	-	16	984
Calendar year	-	-	-	-	-
January	496	-	-	16	984
February	504	-	-	18	1,000
March	856	34	16	27.6	1,700
April	2,224	237	45	74.1	4,410
May	39,539	2,410	303	1,275	78,420
June	19,602	893	416	653	38,880
July	5,638	389	45	182	11,180
August	1,286	77	22	41.5	2,550
September	1,049	100	17	36.0	2,080
Water year 1940-41	72,940	2,410	-	200	144,700

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Conejos River near Mogote, Colo.

Note.- Stage-discharge relation affected by ice Nov. 2 to Mar. 31 (no gage-height record).

Culebra Creek at San Luis, Colo.

Location.- Water-stage recorder and 12-foot Parshall flume, lat. 37°11', long. 105°26', in sec. 35, T. 3 N., R. 72 W., Beaubien Grant survey, 1 mile southeast of San Luis and 1½ miles upstream from Rito Seco.

Drainage area.- 220 square miles.

Records available.- January 1910 to December 1911 and October 1933 to September 1941 in reports of Geological Survey. May 1909 to December 1910 and April 1927 to September 1941 in reports of State engineer. 1911-19 (unpublished) in files of State engineer.

Average discharge.- 24 years (1909-19, 1927-41), 65.2 second-feet.

Extremes.- Maximum discharge during year, 411 second-feet June 24 (gage height, 3.84 feet); minimum daily, 10 second-feet Feb. 9. 1909-19, 1927-41: Maximum daily discharge, 470 second-feet June 26, 1915; minimum daily, 5 second-feet Sept. 14-16, 1934.

Remarks.- Records good except those for period of ice effect, which are fair. Diversions above station for irrigation. Flow regulated by Sanchez Reservoir on Ventero Creek (capacity, 103,100 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	22	29	30	23	26	30	30	58	284	220	48
2	23	22	29	30	11	14	23	30	61	288	179	56
3	23	14	29	29	26	30	22	26	117	224	154	50
4	22	21	29	29	26	30	23	26	148	118	218	61
5	26	20	29	30	22	31	14	20	138	227	280	60
6	18	30	29	30	21	30	14	25	123	202	300	56
7	32	29	25	27	23	30	21	24	101	250	306	43
8	27	29	12	b28	21	26	23	27	85	282	261	50
9	27	26	28	b28	10	13	25	29	74	272	209	44
10	26	12	29	b26	25	29	27	27	50	247	115	38
11	24	29	29	b22	26	30	22	18	44	248	139	32
12	20	30	29	b26	26	30	22	33	35	282	126	30
13	20	30	19	30	26	30	14	45	43	230	140	31
14	23	29	20	29	26	30	23	46	50	226	150	40
15	25	29	16	*29	23	26	20	59	47	220	100	44
16	24	29	14	22	11	14	23	82	122	194	84	41
17	23	29	32	24	27	30	23	71	250	222	53	38
18	21	29	30	24	29	33	22	74	251	220	90	39
19	20	30	29	27	29	34	24	78	314	214	113	41
20	22	29	29	29	29	33	16	61	316	147	118	40
21	26	29	26	26	30	33	22	62	259	231	109	41
22	24	29	12	26	26	30	26	57	276	243	97	42
23	29	29	29	26	14	19	27	51	309	231	77	45
24	29	29	25	29	30	29	26	47	351	211	59	41
25	30	29	15	27	30	27	29	44	298	226	96	38
26	30	29	28	27	30	28	30	73	335	193	80	39
27	32	29	29	27	29	25	26	82	298	168	78	38
28	32	29	29	29	29	27	21	60	279	202	72	38
29	28	29	28	27	-	20	20	55	244	257	58	50
30	24	29	29	27	-	16	23	54	258	282	55	41
31	24	-	30	26	-	18	-	66	-	272	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	776	32	18	25.0	1,540
November.....	807	30	12	26.9	1,600
December.....	795	32	12	25.6	1,580
Calendar year 1940.....	21,094.8	302	8.8	57.6	41,830
January.....	844	30	22	27.2	1,670
February.....	878	30	10	24.2	1,340
March.....	820	34	13	26.5	1,630
April.....	677	30	14	22.6	1,340
May.....	1,482	82	18	47.8	2,940
June.....	5,334	351	35	178	10,580
July.....	7,083	284	118	228	14,060
August.....	4,168	306	32	134	8,270
September.....	1,285	60	30	42.8	2,550
Water year 1940-41.....	24,749	351	10	67.8	49,090

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Culebra Creek below San Luis, Colo.

Location.- Water-stage recorder, lat. 37°12', long. 105°26', in sec. 27, T. 3 N., R. 72 W., Beaubien Grant survey, 500 feet below bridge on State Highway 160, 600 feet downstream from Rito Seco, and a quarter of a mile southwest of San Luis.

Drainage area.- 255 square miles.

Records available.- August 1938 to September 1941 (no winter records most years).

Extremes.- Maximum discharge during year, 630 second-feet May 16 (gage height, 3.85 feet), from rating curve extended above 300 second-feet; minimum daily recorded, 25 second-feet Nov. 3, but may have been less during period of ice effect.

1938-41: Maximum discharge, that of May 16, 1941; minimum daily recorded, 18 second-feet Sept. 1, 1940, but may have been less during period of no record.

Remarks.- Records good except those for periods of ice effect, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	30				39	51	44	115	266	248	44
2	39	31				37	48	54	120	248	199	55
3	38	25				46	46	45	160	216	184	48
4	38	31				38	48	45	211	117	234	48
5	42	27				41	39	36	205	219	302	62
6	30	40				40	37	44	170	205	326	57
7	42	*37				40	40	46	147	231	320	44
8	37	40				38	42	49	129	290	295	50
9	40	39				30	42	70	111	290	265	44
10	37	26				37	49	62	71	251	151	58
11	37	40				41	42	71	62	248	147	50
12	30	39				41	41	120	57	278	126	50
13	31	39				41	33	160	57	240	142	56
14	33	38				40	40	205	60	245	150	42
15	34	37				35	40	311	61	228	100	46
16	34	37	35	(* 43)	40	29	40	470	111	202	78	49
17	33	37				36	40	361	240	222	51	42
18	32	38				39	40	254	254	225	77	42
19	30	41				43	40	242	323	225	113	48
20	33	40				45	40	228	326	157	120	48
21	34	39				44	39	214	284	242	109	49
22	33	39				43	41	194	302	251	98	48
23	36	39				36	45	160	311	242	76	57
24	39	39				48	41	106	380	228	55	54
25	42	40				*32	44	104	317	254	98	55
26	39	40				60	48	129	358	222	78	55
27	42	40				55	41	150	314	167	77	55
28	46	40				57	37	113	306	225	74	54
29	39	40				51	37	100	216	281	57	78
30	33	40				46	39	94	257	314	51	64
31	34	-				46	-	122	-	308	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,125	46	30	36.3	2,230
November	1,108	41	25	36.9	2,200
December	1,086	-	-	35	2,150
Calendar year	-	-	-	-	-
January	1,333	-	-	43	2,640
February	1,120	-	-	40	2,220
March	1,505	62	27	42.1	2,590
April	1,260	51	33	41.7	2,450
May	4,403	470	36	142	8,730
June	6,034	390	57	201	11,970
July	7,337	314	117	237	14,550
August	4,585	326	30	141	8,700
September	1,470	78	30	49.0	2,920
Water year 1940-41	31,955	470	-	87.5	63,380

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 11-17, 21-24, Nov. 26 to Mar. 26 (no gage height record).

Costilla Creek above reservoir, near Costilla, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°54'25", long. 105°15'00", in Sangre de Cristo Grant, 2½ miles by road upstream from Costilla Dam, and 17 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1941 (irrigation season only).

Extremes.- Maximum discharge recorded during year, 81 second-feet June 22 (gage height, 1.11 feet); minimum daily recorded, 2.2 second-feet Oct. 17, 18.
1937-41: Maximum discharge recorded, 175 second-feet May 15, 1938 (gage height, 1.90 feet); minimum daily recorded, 2.0 second-feet Aug. 29, 1940.

Remarks.- Records fair except those for periods of no gage-height record, which are poor.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.					
1	a4.0								-	26	10	4.6					
2	3.4								-	24	7.5	4.2					
3	3.4								-	20	8.0	3.0					
4	3.0								-	19	8.0	2.8					
5	3.0								-	20	7.5	2.8					
6	a2.9								-	20	9.0	3.4					
7	a2.8								-	17	8.0	2.8					
8	a2.7								-	16	9.0	2.6					
9	2.6								-	19	11	3.4					
10	2.6								62	17	8.0	3.4					
11	a2.6								51	26	8.5	3.0					
12	a2.6								44	20	9.5	3.0					
13	a2.6								42	15	10	3.4					
14	a2.6								42	16	7.5	4.2					
15	a2.6								49	17	8.2	4.2					
16	2.6								49	14	6.2	3.8					
17	2.2								54	13	8.0	4.2					
18	a2.2								64	15	10	4.2					
19	a2.3								58	14	6.2	4.6					
20	a2.4								55	14	5.8	4.6					
21	a2.5								52	12	7.5	6.2					
22	a2.6								62	10	7.5	15					
23	2.6								51	10	8.6	10					
24	-								52	9.5	5.0	5.4					
25	-								46	10	4.6	4.6					
26	-								39	10	5.4	4.2					
27	-							84	37	10	4.2	3.8					
28	-								32	9.0	4.2	5.4					
29	-								30	9.0	4.6	16					
30	-								27	8.6	4.6	7.5					
31	-								-	11	5.0	-					
Month													Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1-23													62.8	4.0	2.2	2.73	125
November													-	-	-	-	-
December													-	-	-	-	-
Calendar year													-	-	-	-	-
January													-	-	-	-	-
February													-	-	-	-	-
March													-	-	-	-	-
April													-	-	-	-	-
May													-	-	-	-	-
June 10-30													998	64	27	47.5	1,980
July													471.0	26	8.5	15.2	934
August													223.1	11	4.2	7.20	443
September													150.3	16	2.6	5.01	298
Water year													-	-	-	-	-

a No gage-height record; discharge interpolated.

Costilla Creek below reservoir, near Costilla, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°52'25", long. 105°16'55", in Sangre de Cristo Grant, 125 feet downstream from outlet of Costilla Dam and 18 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1941 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 212 second-feet June 23 (gage height, 2.18 feet); minimum daily recorded, 0.9 second-foot Sept. 29 and 30.
1937-41: Maximum discharge recorded, 225 second-foot July 23, 1937 (gage height, 2.24 feet); minimum daily recorded, 0.4 second-foot May 21-25 and June 15, 1940.

Remarks.- Records good. No diversion above station. Flow regulated by Costilla Reservoir (capacity, 20,750 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.9							-	57	176	92	85
2	6.0							-	57	176	62	84
3	6.0							-	61	175	91	84
4	6.0							-	91	176	164	81
5	6.0							-	97	176	164	38
6	6.0							-	98	175	164	18
7	6.0							-	98	175	164	33
8	4.0							-	98	175	81	71
9	1.9							-	106	175	39	60
10	1.7							-	141	175	72	44
11	1.9							-	138	175	153	28
12	1.9							-	138	173	152	19
13	1.9							-	102	173	147	14
14	1.9							-	59	173	141	14
15	1.9							-	55	175	70	14
16	1.9							-	69	176	40	14
17	1.9							-	106	175	61	14
18	1.9							-	138	175	88	18
19	1.9							-	169	173	38	18
20	1.9							-	183	173	50	14
21	1.9							-	183	172	74	14
22	1.9							-	197	174	50	14
23	1.9							-	197	173	30	10
24	-							-	177	172	46	4.9
25	-							-	177	172	91	4.9
26	-							-	159	170	91	5.2
27	-							-	150	169	87	5.2
28	-							33	160	166	85	2.8
29	-							48	128	152	46	.9
30	-							57	116	156	26	.9
31	-							-	-	162	40	-
Month	Second-foot-days		Maximum	Minimum	Mean	Runoff in acre-feet						
October 1-23	77.3	8.9	1.7	3.36	153							
November	-	-	-	-	-							
December	-	-	-	-	-							
Calendar year	-	-	-	-	-							
January	-	-	-	-	-							
February	-	-	-	-	-							
March	-	-	-	-	-							
April	-	-	-	-	-							
May	-	-	-	-	-							
June	3,692	197	55	123	7,320							
July	5,333	176	152	172	10,580							
August	2,699	164	26	87.1	5,360							
September	827.8	85	.9	27.6	1,640							
Water year	-	-	-	-	-							

Costilla Creek near Costilla, N. Mex.

Location.- Water-stage recorder, lat. 36°58', long. 105°32', in Sangre de Cristo Grant, half a mile upstream from diversion dam and 2 miles south of Costilla, Taos County.

Records available.- March 1936 to September 1941 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 794 second-feet May 22 (gage height, 4.98 feet), from rating curve extended above 320 second-feet by logarithmic plotting; minimum daily recorded, 13 second-feet Oct. 17-26, Nov. 1.

1936-41: Maximum discharge recorded, 892 second-feet Apr. 13, 1937, from rating curve extended above 164 second-feet; maximum gage height recorded, that of May 22, 1941; minimum daily recorded, 11 second-feet Oct. 7, 9-11, 1937.

Remarks.- Records good for October, April to July: fair for August and September, except for periods of doubtful or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	15						113	317	239	d160	a70
2	24	-						136	302	246	d120	a100
3	23	-						149	308	241	d100	a100
4	24	-						151	349	241	184	a100
5	27	-						152	330	241	186	a80
6	26	-						207	333	239	190	d40
7	22	-						261	336	230	186	d50
8	21	-						282	333	219	162	d90
9	18	-						329	320	221	d100	a80
10	16	-						298	317	221	d70	67
11	17	-						261	305	217	170	42
12	15	-						349	299	230	184	31
13	15	-						406	282	226	174	26
14	14	-						445	197	215	165	29
15	14	-						406	213	217	156	24
16	14	-					54	359	219	213	d100	21
17	13	-					53	339	276	211	d50	20
18	13	-	†16				66	457	336	232	d100	22
19	13	15					46	497	359	219	a120	30
20	13						38	349	359	219	a60	29
21	13	-					38	302	336	219	a70	33
22	13	-					35	462	349	219	a100	39
23	13	-					36	362	362	217	a70	41
24	13	-					32	330	330	217	a50	28
25	13	-					36	336	336	219	a80	21
26	13	-					38	a400	296	215	a120	20
27	16	-					53	274	209	209	a120	18
28	18	-					68	263	207	207	a110	19
29	16	-					74	346	239	190	a110	38
30	17	-					88	333	213	183	a70	34
31	15	-						323	-	195	a60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	537	35	13	17.3	1,070
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 16-30	737	86	32	49.1	1,460
May	10,112	497	113	326	20,060
June	9,098	362	197	303	18,030
July	6,827	246	183	220	13,540
August	3,697	190	50	119	7,330
September	1,342	100	18	44.7	2,660
Water year	-	-	-	-	-

† Discharge measurement.

a No gage-height record; discharge computed on basis of weather records and records for station below Costilla Reservoir.

d Doubtful gage-height record; discharge computed on basis of gage heights, weather records, and records for station below Costilla Reservoir.

Casias Creek near Costilla, N. Mex.

Location.- Water-stage recorder and concrete control, lat. $36^{\circ}54'05''$, long. $105^{\circ}15'30''$, in Sangre de Cristo Grant, 200 feet downstream from road crossing, 2.5 miles by road upstream from Costilla Dam, and 17 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1941 (irrigation season only).

Extremes.- Maximum discharge recorded during year, 110 second-feet June 24 (gage height, 1.60 feet); minimum daily recorded, 5.1 second-feet Oct. 19.

1937-41: Maximum discharge recorded, that of June 24, 1941; maximum gage height recorded, 1.90 feet June 14, 1938 (backwater from Costilla Reservoir); minimum daily discharge recorded, 3.0 second-feet Aug. 14, 1939.

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.1								-	77	25	12
2	7.6								-	69	23	11
3	8.6								-	65	23	10
4	8.1								-	63	23	9.5
5	8.6								-	63	22	10
6	8.1								-	59	27	9.1
7	7.1								-	55	20	8.6
8	7.1								-	54	20	9.1
9	6.7								-	56	24	9.1
10	7.1								-	50	19	8.6
11	6.7								62	63	21	8.6
12	6.2								61	53	26	8.6
13	6.2								a55	48	21	8.6
14	5.7								a55	48	18	11
15	5.7								a65	48	17	8.6
16	5.7								a65	47	16	8.1
17	5.4								68	42	20	8.6
18	5.7								72	42	18	8.6
19	5.1								79	43	15	8.1
20	5.4								88	38	16	9.5
21	5.4								90	37	16	12
22	5.4								94	36	15	17
23	5.4								90	34	14	15
24	-								90	31	13	11
25	-								99	31	13	10
26	-								99	29	13	10
27	-								98	29	13	9.5
28	-								92	29	12	13
29	-								86	27	13	22
30	-								82	27	12	14
31	-								-	26	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1-23.....	151.1	8.6	5.1	6.57	300
November.....	-	-	-	-	-
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	-	-	-	-	-
June 11-30.....	1,590	99	55	79.5	3,150
July.....	1,419	77	26	45.8	2,810
August.....	562	28	12	18.1	1,110
September.....	318.8	22	8.1	10.6	632
Water year.....	-	-	-	-	-

a No gage-height record; discharge computed on basis of weather records and records for Costilla Creek above Reservoir and Santistevan Creek near Costilla.

Santistevan Creek near Costilla, N. Mex.

Location.- Water-stage recorder and metal Parshall flume, lat. 36°53'05", long. 105°16'50", in Sangre de Cristo Grant, 200 feet upstream from road crossing, 0.9 mile upstream from Costilla Dam, and 16 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1941 (irrigation season only).

Extremes.- Maximum discharge recorded during year, 18 second-feet Aug. 11 (gage height, 1.73 feet); minimum daily recorded, 0.9 second-foot Oct. 20-23.
1937-41: Maximum discharge recorded, that of Aug. 11, 1941; minimum daily recorded, 0.5 second-foot, Oct. 23, 1938.

Remarks.- Records fair except those for period of no gage height record, which are poor.
No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0							-	-	13	4.4	2.6
2	1.0							-	-	12	4.3	2.3
3	1.0							-	-	11	4.8	2.3
4	1.1							-	-	11	4.1	2.3
5	1.0							-	-	11	3.7	2.2
6	1.0							-	-	9.9	3.7	2.2
7	1.0							-	-	9.1	3.5	2.2
8	1.0							-	-	8.8	3.4	2.1
9	1.0							-	-	8.8	3.7	2.1
10	1.0							-	-	8.6	3.5	2.1
11	1.0							-	9.3	9.4	4.8	2.0
12	1.0							-	8.9	8.6	4.1	1.9
13	1.0							-	8.1	8.0	4.2	2.0
14	1.0							-	7.9	8.0	3.8	2.2
15	1.0							-	8.0	8.1	3.7	2.0
16	1.0							-	8.0	7.9	3.4	1.9
17	1.0							-	6.8	7.4	3.6	2.1
18	1.0							-	a11	7.5	3.4	2.0
19	1.0							-	a11	7.4	3.3	1.9
20	.9							-	a11	7.0	3.4	2.2
21	.9							-	a12	7.2	3.4	2.2
22	.9							-	a16	6.7	3.2	2.5
23	.9							-	a13	6.3	3.2	2.1
24	-							-	a15	6.0	3.0	1.8
25	-							-	14	5.8	2.9	1.7
26	-							9.4	14	5.6	2.9	1.7
27	-							-	14	5.3	2.9	1.6
28	-							9.9	14	6.4	2.8	1.9
29	-							-	14	5.4	2.8	2.4
30	-							-	13	5.1	2.8	1.8
31	-							-	-	4.9	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1-23.....	22.7	1.1	0.9	0.99	45
November.....	-	-	-	-	-
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	-	-	-	-	-
June 11-30.....	229.0	16	6.8	11.4	454
July.....	247.3	13	4.9	7.98	491
August.....	109.3	4.8	2.6	3.53	217
September.....	62.3	2.6	1.6	2.08	124
Water year.....	-	-	-	-	-

a Doubtful or no gage-height record; discharge computed on basis of records at stations on Costilla Creek above reservoir and Casias Creek near Costilla.

Latir Creek near Cerro, N. Mex.

Location.- Water-stage recorder and concrete Parshall flume, lat. 36°49'45", long. 105°32'45", in SW $\frac{1}{4}$ sec. 15, T. 30 N., R. 13 E., at mouth of canyon, 100 feet upstream from heading of Cerro community ditch and 6 miles northeast of Cerro.

Records available.- April 1937 to September 1941 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 63 second-feet Aug. 9 (gage height, 1.96 feet), from rating curve extended above 49 second-feet; minimum daily recorded, 1.9 second-feet Nov. 12.

1937-41: Maximum discharge recorded, 71 second-feet June 13, 1938, from rating curve extended above 34 second-feet by logarithmic plotting; probably higher stages occurred during May and June 1937, discharge not determined; maximum gage-height recorded, that of Aug. 9, 1941; minimum daily discharge recorded, 0.6 second-foot May 9, 1937.

Remarks.- Records fair. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.1	3.1						-	36	35	8.4	5.9
2	4.5	3.3						-	33	35	8.2	5.7
3	5.3	3.3						-	33	31	8.0	5.3
4	4.9	3.1						-	33	31	7.5	5.1
5	5.3	3.1						-	36	29	8.0	4.9
6	5.3	3.3						-	35	27	9.7	4.9
7	4.7	3.1						-	37	25	9.0	4.5
8	4.5	3.1						-	38	27	8.0	4.7
9	4.3	3.0						-	35	29	20	4.7
10	4.1	2.6						-	32	26	19	4.5
11	3.8	2.1						-	28	29	16	4.5
12	3.4	1.9						-	26	26	20	4.7
13	3.6	2.1						-	27	23	16	5.1
14	3.8	2.4						-	30	20	14	9.0
15	3.8	3.1						-	35	18	13	6.4
16	3.6	3.1						31	38	17	14	5.3
17	3.6	3.1						32	42	16	14	5.1
18	3.3	3.1						33	48	18	11	5.3
19	3.3	3.1						29	51	15	9.5	5.3
20	3.4	3.1						28	50	14	8.0	6.8
21	3.4	3.1						25	48	14	8.0	8.0
22	3.3	3.0						28	48	13	8.4	12
23	3.4	3.0						28	46	12	7.7	12
24	3.4	3.0						28	50	12	7.5	8.4
25	3.4	3.1						32	50	11	7.0	7.3
26	3.3							34	48	11	6.8	6.8
27	2.8							34	46	11	6.6	6.4
28	3.3	a3						34	46	10	6.6	6.8
29	3.4							34	42	9.5	6.6	20
30	3.6							35	37	9.2	6.8	12
31	3.1	-						35	-	9.0	6.4	-
Month			Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet					
October			120	5.3	2.8	3.87	238					
November			88.3	3.3	1.9	2.94	175					
December			-	-	-	-	-					
Calendar year			-	-	-	-	-					
January			-	-	-	-	-					
February			-	-	-	-	-					
March			-	-	-	-	-					
April			-	-	-	-	-					
May 16-31			498	35	25	31.1	988					
June			1,184	51	26	39.5	2,350					
July			610.7	35	9.0	19.7	1,210					
August			319.7	20	6.4	10.3	634					
September			207.4	20	4.5	6.91	411					
Water year			-	-	-	-	-					

a No gage-height record; discharge computed on basis of records for Rio Colorado near Questa.

Rio Colorado near Red River, N. Mex.

Location.- Water-stage recorder, lat. 36°37'20", long. 105°23'30", in NE¼ sec. 36, T. 28 N., R. 14 E., 100 feet downstream from junction of Middle Fork and East Fork of Rio Colorado and 6 miles south of Red River.

Records available.- July 1940 to September 1941.

Extremes.- 1940: Maximum discharge during period July to September, 22 second-feet Aug. 1 (gage-height, 1.66 feet); minimum daily, 8.4 second-feet Sept. 14-16.

1940-41: Maximum discharge recorded during water year, 218 second-feet June 19 (gage-height, 2.92 feet), from rating curve extended above 160 second-feet by logarithmic plotting; minimum daily, 5 second-feet Dec. 16.

Remarks.- Records for July to December 1940 fair, others good. No diversion above station.

Discharge, in second-feet, 1940-41

1940												
Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	
1	-	16	11	11	-	12	9.7	21	14	11	13	
2	-	15	10	12	-	11	9.0	22	13	11	11	
3	-	13	9.3	13	-	11	8.6	23	13	12	11	
4	-	12	9.0	14	-	11	8.4	24	13	12	11	
5	-	12	8.6	15	-	10	8.4	25	12	11	12	
6	-	12	8.6	16	-	10	8.4	26	13	11	12	
7	-	12	10	17	-	10	9.0	27	13	10	11	
8	-	13	9.3	18	-	11	10	29	12	10	11	
9	-	12	9.0	19	13	10	13	29	13	10	11	
10	-	12	10	20	14	11	11	30	13	10	11	
								31	14	11	-	

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	7.9	6.7				-	10	146	121	40	19
2	11	8.4	6.4				-	11	125	113	38	18
3	11	8.4	6.7				-	12	125	109	37	18
4	11	8.1	6.7				-	12	132	111	37	17
5	12	7.6	6.4				-	14	141	107	35	17
6	14	8.1	6.7				-	19	143	97	35	17
7	13	8.1	6.4				-	25	148	94	33	16
8	13	8.1	6.2				-	31	150	90	33	17
9	13	7.9	6.2				-	39	156	94	34	16
10	13	6.9	6.4				-	42	113	90	34	15
11	13	6.0	6.4				-	51	97	90	33	15
12	13	6.4	6.2				-	66	88	88	36	15
13	12	b6.0	b6				-	94	88	87	34	16
14	12	b6.5	b7				-	113	94	85	32	17
15	11	b7.5	b6				-	109	105	85	30	16
16	11	8.1	a5				-	103	111	77	28	15
17	11	7.9	a6				-	105	134	75	32	15
18	10	7.6	a7				-	121	168	78	29	14
19	10	7.9	86.4				-	125	196	73	31	14
20	10	7.4	-				-	99	205	73	30	15
21	9.7	7.2	-				-	81	188	73	29	17
22	89.7	7.2	-				-	77	166	64	29	23
23	9.3	7.4	-				-	7.9	75	166	60	27
24	9.3	7.6	-				-	7.6	75	171	59	25
25	9.3	7.4	-				-	7.4	96	180	57	24
26	8.6	7.2	-				-	7.4	121	179	56	22
27	9.0	6.7	-				-	7.4	132	168	52	21
28	7.9	7.2	-				-	7.4	139	160	52	21
29	8.4	6.9	-				-	7.9	141	148	48	19
30	9.3	6.9	-				-	8.4	139	134	45	19
31	8.4	-	-				-	148	-	42	19	-

a Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for stations on Rio Hondo near Valdez and Rio Lucero near Arroyo Seco.

b Stage-discharge relation affected by ice.

Monthly discharge, in second-feet, 1940-41

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
July 19-31, 1940.....	170	14	12	13.1	337
August.....	355	16	10	11.5	704
September.....	304.3	13	8.4	10.1	604
The period.....	-	-	-	-	1,645
October 1940.....	353.9	14	7.9	10.8	662
November.....	222.5	8.4	6.0	7.42	441
December 1-19.....	120.8	7	5	6.36	240
Calendar year.....	-	-	-	-	-
January 1941.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April 23-30.....	81.4	8.4	7.4	7.68	122
May.....	2,425	148	10	78.2	4,810
June.....	4,315	295	88	144	8,560
July.....	2,445	121	42	78.9	4,850
August.....	926	40	19	29.9	1,840
September.....	530	28	14	17.7	1,050
Water year.....	-	-	-	-	-

Rio Colorado near Questa, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°42', long. 105°33', in sec. 33, T. 29 N., R. 13 E., 1½ miles upstream from Cabresto Creek and 2 miles east of Questa. Datum of gage is 7,449.88 feet above mean sea level.

Drainage area.- 112 square miles.

Records available.- October 1912 to August 1915 (fragmentary) and October 1930 to September 1941 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Average discharge.- 25 years (1915-25, 1926-41), 66.1 second-feet.

Extremes.- Maximum discharge during year, 637 second-feet May 14 (gage height, 2.12 feet), from rating curves extended above 150 and 457 second-feet by logarithmic plotting; minimum daily, 11 second-feet Dec. 16.

1930-41: Maximum discharge, 870 second-feet June 14, 1935 (gage height, 3.14 feet datum then in use), from rating curve extended above 250 second-feet by logarithmic plotting; minimum daily, 6.3 second-feet Nov. 24, 25, 1931.

Remarks.- Records fair except those for periods of no gage heights, ice effect, and those for May to September, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	22	18	b14	20	a19	26	76	489	282	90	54
2	24	23	17	b13	17	a22	26	96	456	260	92	52
3	25	23	16	12	15	a21	28	109	472	245	87	51
4	27	24	16	12	15	a21	27	106	507	238	80	51
5	26	21	16	13	16	a21	27	109	516	230	78	49
6	28	23	18	a13	17	a20	26	142	520	220	75	46
7	27	23	18	a14	20	a20	27	175	520	208	71	46
8	27	23	17	a14	17	a18	28	199	538	195	70	46
9	28	23	18	a15	16	a20	29	230	556	191	70	46
10	29	24	21	a15	19	a18	32	335	502	185	68	44
11	29	17	21	a15	18	a20	32	312	452	185	67	43
12	28	15	21	a16	18	a19	36	364	412	185	69	42
13	28	14	20	a17	19	a18	39	406	382	171	68	42
14	28	14	18	a17	18	a18	40	493	379	165	65	42
15	28	15	13	a16	19	a18	42	374	400	161	62	42
16	28	18	11	a15	20	a18	49	390	396	155	61	40
17	28	22	15	a14	20	a19	57	443	404	153	61	39
18	27	24	21	a14	20	20	62	431	452	151	64	38
19	26	25	13	a13	20	21	55	427	476	151	60	36
20	27	24	13	a13	20	22	49	413	460	149	59	36
21	27	22	15	a14	20	22	51	379	448	149	59	38
22	25	21	16	a15	20	22	47	400	428	149	59	44
23	23	22	19	a16	20	21	44	386	412	147	60	47
24	25	23	23	a17	20	23	42	372	404	144	59	44
25	23	23	24	a18	20	21	44	412	400	140	58	42
26	22	21	21	a18	17	22	42	412	390	130	58	39
27	23	20	b16	19	a17	21	49	408	376	128	56	39
28	24	15	b12	18	a18	23	51	408	354	117	56	38
29	23	16	b13	20	-	24	54	408	334	112	60	46
30	24	20	b14	21	-	24	65	456	303	97	59	46
31	24	-	b14	20	-	24	-	468	-	87	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	806	29	22	26.0	1,600
November	620	25	14	20.7	1,230
December	529	24	11	17.1	1,050
Calendar year 1940	13,307	244	11	36.4	26,410
January	481	21	12	15.5	954
February	516	20	15	18.4	1,020
March	640	24	18	20.6	1,270
April	1,226	65	26	40.9	2,430
May	10,139	493	76	32.7	20,110
June	13,138	556	303	43.8	26,060
July	5,280	282	87	17.0	10,470
August	2,059	92	56	66.4	4,080
September	1,310	54	36	43.7	2,600
Water year 1940-41	36,744	556	11	101	72,870

a No gage height record; discharge computed on basis of weather records and records for Rio Lucero near Arroyo Seco.

b Stage-discharge relation affected by ice.

Rio Hondo near Valdez, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°32'20", long. 105°33'30", in S $\frac{1}{2}$ sec. 28, T. 27 N., R. 13 E., a quarter of a mile upstream from Forest Service gate, $\frac{1}{8}$ miles east of Valdez, and 9 miles upstream from mouth.

Records available.- August 1934 to September 1941. October 1930 to September 1934 at site half a mile downstream, below two diversions.

Extremes.- Maximum discharge during year, 541 second-feet May 13, from rating curve extended above 290 second-feet by logarithmic plotting; maximum gage height, 3.08 feet Jan. 11 (during ice jam); minimum daily discharge, 9 second-feet Dec. 16. 1934-41: Maximum discharge, that of May 13, 1941; maximum gage height, 5.59 feet, datum then in use, Dec. 15, 1936 (ice jam); minimum daily discharge, 3.0 second-feet (estimated) Jan. 21, 1935.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, WHICH are poor. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	16	13	13	b11	14	23	53	272	193	72	39
2	15	16	14	12	b11	14	22	70	228	176	66	39
3	16	16	13	10	b11	14	21	81	203	176	60	37
4	17	16	13	b11	b11	13	21	80	211	164	56	36
5	17	16	14	b12	b11	14	21	84	223	160	57	35
6	20	16	14	*b12	b12	13	22	98	246	160	56	35
7	19	16	14	b12	12	13	21	122	228	158	55	34
8	19	16	13	b13	b12	12	21	151	262	154	55	35
9	21	16	14	b13	b12	b13	22	199	253	147	54	34
10	21	16	14	b13	12	b13	22	246	217	139	52	33
11	21	b13	14	b13	12	b14	24	259	180	139	51	32
12	20	b12	14	13	12	14	24	342	154	133	51	31
13	19	b12	13	13	*12	13	27	416	147	126	50	31
14	19	b12	14	13	12	13	26	416	149	124	48	34
15	19	b13	b12	13	12	13	26	376	174	130	47	32
16	18	15	b9	b12	13	14	26	331	185	124	48	31
17	18	15	b12	b11	13	14	29	313	208	120	54	30
18	18	15	*16	b12	13	14	30	331	250	115	52	29
19	18	15	b13	b12	13	16	26	313	275	115	49	29
20	18	*14	b13	b13	13	*19	22	256	289	115	50	30
21	19	14	b13	13	12	18	21	256	313	119	49	29
22	19	14	b13	b12	12	17	21	266	296	122	48	33
23	18	14	14	12	12	16	21	266	292	120	47	34
24	*18	14	13	b12	12	16	21	272	282	115	48	31
25	18	14	14	12	12	16	22	289	272	106	47	28
26	17	14	b11	b12	13	16	23	350	266	102	46	28
27	18	14	b12	12	*b13	14	23	324	237	97	43	27
28	17	*12	13	a12	b12	16	32	282	231	91	42	28
29	18	13	13	a12	-	16	34	266	203	86	43	41
30	17	13	13	a12	-	17	42	256	195	81	42	37
31	16	-	13	a12	-	18	-	259	-	76	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	564	21	15	18.2	1,120
November.....	432	16	12	14.4	857
December.....	407	15	9	13.1	807
Calendar year 1940.....	9,742.9	108	4	26.6	19,540
January.....	379	13	10	12.2	752
February.....	338	13	11	12.1	670
March.....	457	19	12	14.7	906
April.....	745	42	21	24.8	1,480
May.....	7,623	416	53	246	15,120
June.....	6,941	313	147	231	13,770
July.....	3,985	193	76	129	7,900
August.....	1,579	72	41	50.9	3,130
September.....	981	41	27	32.7	1,950
Water year 1940-41.....	24,431	416	9	66.9	48,460

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Rio Lucero near Arroyo Seco.

b Stage-discharge relation affected by ice.

Rio Hondo at Arroyo Hondo, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°31'55", long. 105°41'05", in sec. 32, T. 27 N., R. 12 E., 1 mile downstream from Arroyo Hondo and 1½ miles upstream from mouth.

Records available.- April 1910 to August 1915 (at site 200 yards above mouth, published as Rio Hondo near Arroyo Hondo) and January 1932 to September 1941 in reports of Geological Survey. April 1910 to December 1928 in reports of State engineer.

Extremes.- Maximum discharge during year, 508 second-feet May 14 (gage height, 2.91 feet), from rating curve extended above 260 second-feet by logarithmic plotting; minimum daily, 6.9 second-feet Apr. 19.

1932-41: Maximum discharge, 2,510 second-feet Aug. 23, 1935 (gage height, 5.45 feet, datum then in use), from rating curve extended above 170 second-feet by logarithmic plotting; minimum daily, 4.0 second-feet July 13-16, 1934.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	9.8	22	20	17	20	26	56	267	168	37	15
2	9.3	9.8	22	19	15	20	28	58	235	155	25	16
3	9.0	9.8	21	13	14	20	28	66	194	155	20	16
4	9.0	10	21	9.6	14	19	28	65	212	157	20	15
5	9.6	13	21	12	15	20	25	64	219	155	16	15
6	9.6	15	22	16	16	18	20	80	203	150	14	14
7	9.3	16	21	12	19	17	18	115	194	142	14	13
8	10	18	20	12	17	16	17	157	200	130	14	14
9	11	20	22	13	17	17	17	216	200	122	15	16
10	11	22	22	16	17	16	18	260	188	115	15	15
11	11	18	22	20	17	16	20	282	182	124	16	14
12	11	20	24	20	17	17	20	330	166	124	16	15
13	11	20	22	20	18	17	23	391	147	105	16	15
14	11	21	22	19	18	18	23	423	138	99	15	16
15	12	24	14	19	19	18	21	373	147	92	15	16
16	11	29	14	13	22	17	15	313	150	85	14	15
17	11	28	27	12	20	17	8.0	271	157	83	15	16
18	11	29	27	11	22	18	7.3	294	166	80	15	16
19	11	34	20	14	22	20	6.9	290	174	76	14	16
20	10	31	16	18	20	22	8.0	242	182	73	15	18
21	8.5	30	18	22	20	22	7.3	216	188	76	16	17
22	8.8	28	18	18	18	22	7.6	226	197	74	16	17
23	8.8	27	22	19	18	20	8.3	226	197	71	16	19
24	8.8	27	25	16	19	21	8.3	284	194	70	16	16
25	9.6	28	22	20	20	23	8.5	325	200	66	15	16
26	9.3	27	17	15	19	25	9.0	346	194	65	15	16
27	10	25	18	16	18	25	12	368	188	64	14	18
28	11	22	24	17	18	25	14	286	188	59	13	25
29	11	23	21	19	-	26	18	292	182	53	14	40
30	10	22	22	18	-	25	25	256	174	50	15	37
31	10	-	22	18	-	25	-	239	-	43	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	313.4	12	8.5	10.1	622
November	655.4	34	9.8	21.9	1,300
December	651	27	14	21.0	1,290
Calendar year 1940	6,430.7	85	6.2	17.6	12,760
January	506.6	22	9.6	16.3	1,000
February	506	22	14	18.1	1,000
March	622	26	16	20.1	1,230
April	495.2	28	6.9	16.5	982
May	7,360	423	36	237	14,800
June	5,623	267	138	187	11,150
July	3,081	163	43	99.4	6,110
August	505	37	13	16.3	1,000
September	525	40	13	17.5	1,040
Water year 1940-41	20,844.6	423	6.9	57.1	41,320

Rio Pueblo de Taos near Taos, N. Mex.

Location.- Water-stage recorder, lat. 36°26', long. 105°30', in sec. 36, T. 26 N., R. 13 E., 2½ miles east of Taos Pueblo, 4½ miles northeast of Taos and 5 miles upstream from Rio Lucero.

Records available.- February 1940 to September 1941.

Extremes.- Maximum discharge during year, 970 second-feet May 14 (gage height, 3.9 feet, from high-water mark in gage well), from rating curve extended above 290 second-feet by logarithmic plotting; minimum daily discharge, 4.5 second-feet Jan. 4.

1940-41: Maximum discharge, that of May 14, 1941; minimum daily, 4.4 second-feet Feb. 6, 1940.

Remarks.- Records good except those for periods of ice effect and of no gage-height record, which are fair. Diversion above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.6	7.4	7.8	8.2	6.6	11	33	109	290	109	30	16
2	7.8	7.8	7.1	7.4	6.3	13	31	154	237	100	30	16
3	7.8	7.8	6.6	4.9	*b6.3	12	28	176	237	95	29	14
4	8.2	8.2	6.8	b4.5	b6.0	9.9	27	186	244	96	28	14
5	8.2	7.1	7.1	b5.6	b6.6	12	31	206	227	91	28	13
6	12	7.8	8.2	b6.0	7.8	12	33	230	215	89	28	13
7	9.4	7.8	7.4	b6.5	b6.0	11	31	244	209	89	31	13
8	9.0	7.8	7.4	b6.5	6.8	6.8	31	230	206	85	28	13
9	9.0	7.8	7.1	b7.0	b7.2	11	32	310	197	81	35	13
10	9.9	7.1	9.0	7.8	7.8	9.9	38	a400	182	79	31	13
11	9.9	5.2	8.6	7.8	7.4	11	33	a450	173	81	27	12
12	9.0	7.1	8.6	7.8	7.8	12	34	a500	162	77	31	12
13	8.6	5.7	8.6	*7.8	7.8	12	47	a600	146	72	32	13
14	8.6	6.6	8.6	7.4	7.4	10	42	a700	140	68	29	14
15	8.2	6.8	5.2	b7.0	8.6	12	44	a650	173	66	28	13
16	8.2	8.2	4.9	6.6	9.0	11	48	a600	179	65	27	13
17	7.8	8.2	8.2	b6.0	9.0	11	57	514	197	61	28	12
18	7.8	8.6	9.9	b6.6	9.0	14	57	523	237	63	28	12
19	7.8	9.0	7.8	7.4	9.4	17	47	514	227	60	26	12
20	7.8	8.6	7.4	7.4	9.4	21	42	438	221	55	25	13
21	7.4	8.2	7.8	7.4	9.9	20	36	290	197	57	26	15
22	7.4	8.2	7.8	7.4	9.9	18	35	314	179	52	23	20
23	7.4	8.2	*8.6	7.4	9.9	17	34	307	176	47	23	18
24	7.4	8.6	9.0	7.4	*9.9	17	31	272	191	44	22	15
25	7.4	8.6	9.0	7.8	9.9	18	35	282	179	41	20	13
26	7.4	8.6	6.6	7.1	9.9	17	37	293	173	40	20	13
27	8.2	8.2	7.1	b7.0	6.8	16	45	328	162	41	19	12
28	9.4	6.8	b7.5	7.8	6.8	18	54	328	164	40	18	13
29	8.6	7.4	b8.0	7.8	-	20	68	300	143	35	18	25
30	9.0	9.0	8.2	7.4	-	22	79	293	123	33	18	21
31	8.2	-	8.2	7.4	-	27	-	304	-	31	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	261.4	12	7.4	8.43	518
November.....	232.4	9.0	5.2	7.75	461
December.....	240.1	9.9	4.9	7.75	476
Calendar year.....	-	-	-	-	-
January.....	218.0	8.2	4.5	7.03	432
February.....	227.2	9.9	6.0	8.11	451
March.....	449.6	27	6.8	14.5	892
April.....	1,218	75	27	40.6	2,420
May.....	11,044	700	109	356	21,910
June.....	5,776	290	123	193	11,460
July.....	2,042	109	31	65.9	4,050
August.....	803	35	17	26.9	1,590
September.....	428	25	12	14.3	849
Water year 1940-41.....	22,939.7	700	4.5	62.8	45,510

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of range of stage, records for station at Taos, North Channel of Rio Pueblo de Taos at Taos, and Rio Taos at Los Cordovas.

b Stage-discharge relation affected by ice.

Rio Pueblo de Taos at Taos, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°25', long. 105°34', in NE $\frac{1}{4}$ sec. 8, T. 25 N., R. 13 E., 50 feet downstream from highway bridge, half a mile upstream from Rio Lucero, and three-quarters of a mile northwest of Taos.

Records available.- June 1936 to September 1941.

Extremes.- Maximum discharge during year occurred May 14, gage height and discharge not determined; minimum daily, 0.2 second-foot Oct. 1-16.

1936-41: Maximum discharge, that of May 14, 1941; minimum daily, 0.1 second-foot Aug. 11, 1939.

Remarks.- Records good except those for periods of no gage-height, which are fair. DiverSIONS above and below station for irrigation. Records do not include discharge of north channel of Rio Pueblo de Taos, which diverts water at point about 1 mile upstream.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	1.2	4.1	6.4	5.0	5.8	22	75	a230	72	6.7	3.9
2	.2	1.2	3.9	6.4	4.3	7.8	23	117	a210	62	6.1	3.5
3	.2	1.2	3.3	4.5	4.3	8.2	21	132	a190	57	5.8	3.5
4	.2	1.2	3.0	3.0	4.3	7.5	19	152	a195	57	5.6	3.5
5	.2	1.2	3.0	2.8	4.1	8.2	20	168	a200	55	5.6	3.9
6	.2	1.2	3.1	3.5	4.3	8.6	21	202	a210	52	5.0	3.5
7	.2	1.2	3.7	3.9	5.0	8.6	22	258	222	48	4.3	3.5
8	.2	1.2	3.7	4.5	5.0	6.7	23	312	208	45	6.1	3.3
9	.2	1.3	3.9	4.5	5.0	6.4	23	380	181	44	7.0	3.0
10	.2	1.4	4.3	4.8	5.3	7.0	28	405	152	41	7.5	2.8
11	.2	1.4	5.0	5.3	5.6	6.7	27	426	129	41	7.2	2.8
12	.2	1.3	5.6	5.6	5.6	7.8	27	470	109	41	7.5	3.0
13	.2	1.3	5.8	6.1	5.8	9.3	34	568	100	40	8.9	2.7
14	.2	1.4	5.8	6.1	5.8	8.6	28	a670	102	38	8.9	2.6
15	.2	1.6	5.3	6.1	6.1	8.9	30	a620	109	36	7.2	2.4
16	.2	2.4	3.3	5.6	6.7	8.6	31	a560	107	34	6.4	2.1
17	.3	3.5	3.1	5.0	7.0	8.6	35	a460	111	32	5.6	1.9
18	.3	4.3	4.1	4.5	7.2	9.7	37	a455	127	31	5.8	1.6
19	.3	5.0	5.0	4.8	7.2	12	32	a410	138	28	5.6	1.7
20	.3	5.8	4.1	5.0	7.2	14	26	a340	136	27	5.3	1.8
21	.3	6.1	4.1	5.3	7.2	15	22	a250	129	26	5.6	2.3
22	.3	6.1	4.1	5.3	7.5	14	20	a270	117	26	5.3	5.0
23	.3	6.1	4.3	5.6	7.5	13	20	a260	111	223	5.3	5.8
24	.4	4.5	5.0	5.0	7.5	13	17	a240	117	a20	5.0	5.8
25	.4	3.5	5.8	5.3	7.5	13	20	a240	123	a18	4.5	5.3
26	.4	3.0	5.6	5.0	7.2	13	21	a270	119	a16	4.1	4.8
27	.5	3.1	4.8	5.0	7.0	13	26	a300	109	a15	3.9	5.0
28	.6	4.1	5.3	5.3	5.3	13	32	a310	103	a15	3.7	5.3
29	.7	4.1	5.8	5.6	-	14	42	a270	96	a12	3.5	9.7
30	1.1	4.1	6.1	5.6	-	15	54	a255	88	a12	3.3	8.9
31	1.2	-	6.7	5.6	-	17	-	a240	-	a8	3.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10.6	1.2	0.2	0.34	21
November.....	85.0	6.1	1.2	2.83	169
December.....	140.7	6.7	3.0	4.54	279
Calendar year 1940.....	2,270.0	46	.2	6.20	4,500
January.....	157.0	6.4	2.8	5.06	311
February.....	167.5	7.5	4.1	5.98	332
March.....	323.0	17	5.8	10.4	641
April.....	803	54	17	26.8	1,590
May.....	10,095	670	75	326	20,020
June.....	4,278	230	88	143	8,490
July.....	1,072	72	8	34.6	2,130
August.....	175.8	8.9	3.3	5.67	349
September.....	114.9	9.7	1.6	3.83	228
Water year 1940-41.....	17,422.5	670	.2	47.7	34,560

a No gage-height record; discharge computed on basis of 1 discharge measurement, and records for station near Taos, North Channel of Rio Pueblo de Taos at Taos, Acequia Madre de Taos at Taos, and Rio Taos at Los Cordovas.

Rio Taos at Los Cordovas, N. Mex.

Location.- Water-stage recorder, lat. 36°23', long. 105°39', in N $\frac{1}{2}$ sec. 23, T. 25 N., R. 12 E., in Martinez Grant, 50 feet downstream from Rio Ranchos de Taos and Arroyo Seco, half a mile northeast of Los Cordovas, and 4 miles west of Taos.

Drainage area.- 359 miles.

Records available.- April 1910 to August 1915 and October 1930 to September 1941 in reports of Geological Survey. April 1910 to December 1931 in reports of State engineer.

Average discharge.- 30 years (1910-25, 1926-41), 61.4 second-feet, (29 years, 58.1 second-feet; figure published in Water Supply, Paper 898 in error).

Extremes.- Maximum discharge during year, 1,830 second-feet May 14 (gauge height, 5.81 feet), from rating curve extended above 830 second-feet by logarithmic plotting; minimum daily, 12 second-feet Oct. 1, 23.

1910-15, 1930-41: Maximum discharge that of May 14, 1941; minimum daily, 1.4 second-feet Aug. 5, 10, 1934.

Remarks.- Records fair except those for periods of no gage height record, Jan. 5-29, Apr. 14-16, which were computed on basis of records for Rio Hondo at Arroyo Hondo and Rio Lucero near Arroyo Seco, and are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	19	27	39	29	37	83	304	718	296	28	23
2	13	19	26	36	27	42	74	496	635	253	25	24
3	13	20	25	27	25	37	71	496	595	229	24	23
4	13	20	24	23	25	34	67	526	585	215	21	20
5	13	19	26	23	26	45	72	540	630	199	19	20
6	15	19	26	25	27	44	80	640	640	186	19	20
7	15	19	27	22	25	37	72	800	640	171	20	19
8	15	19	26	23	28	32	71	910	635	145	33	20
9	15	18	25	25	28	35	72	1,030	590	130	44	20
10	16	19	27	27	29	35	88	1,090	500	128	45	20
11	16	21	32	28	28	34	92	1,090	390	147	41	20
12	16	20	37	28	34	37	105	1,210	346	155	45	23
13	16	19	37	29	40	41	164	1,490	300	141	51	24
14	15	19	34	29	48	42	190	1,710	279	128	50	24
15	15	19	25	27	50	52	180	1,560	300	118	44	24
16	16	22	20	22	88	56	170	1,320	310	104	44	22
17	16	23	23	20	60	52	186	1,150	307	90	39	20
18	15	24	28	19	60	46	186	1,180	348	81	45	21
19	15	39	25	23	56	46	164	1,150	398	106	37	21
20	14	33	23	25	54	60	144	940	430	96	32	25
21	15	32	24	30	60	52	124	772	418	96	32	25
22	13	28	25	27	49	49	110	800	394	104	32	29
23	12	28	26	25	50	49	122	800	366	96	31	41
24	13	30	29	23	48	54	99	772	451	87	31	32
25	15	36	30	27	52	67	97	772	510	80	27	31
26	13	35	25	23	46	85	108	828	465	75	26	30
27	17	34	24	24	37	78	155	855	435	72	26	29
28	19	30	27	28	34	69	179	828	404	63	25	30
29	16	28	30	30	-	67	199	800	387	49	25	74
30	17	29	39	30	-	67	229	772	345	33	25	55
31	18	-	42	30	-	72	-	718	-	31	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	452	19	12	14.6	897
November	740	39	18	24.7	1,470
December	864	42	20	27.9	1,710
Calendar year 1940	9,185.6	162	3.9	25.1	18,210
January	817	39	19	26.4	1,620
February	1,176	88	25	42.0	2,330
March	1,543	85	32	49.8	3,060
April	3,753	229	67	125	7,440
May	28,329	1,710	304	914	56,190
June	13,750	718	279	458	27,270
July	3,904	296	31	126	7,740
August	1,009	61	19	32.5	2,000
September	809	74	19	27.0	1,600
Water year 1940-41	57,146	1,710	12	157	113,300

Acequia Madre at Taos, N. Mex.

Location.- Water-stage recorder and 4-foot Parshall flume, in SW $\frac{1}{4}$ sec. 9, T. 25 N., R. 13 E., half a mile northeast of Taos, 1 mile downstream from head gate, and 1 $\frac{1}{2}$ miles upstream from gaging station on Rio Pueblo de Taos.

Records available.- February 1940 to September 1941 (monthly discharge).

Remarks.- Ditch diverts water from left bank of Rio Pueblo de Taos for irrigation. Many other ditches divert from Rio Pueblo de Taos, but no records for them were obtained.

Diversion, in acre-feet, water year
October 1940 to September 1941

October.....	104	April.....	110
November.....	118	May.....	397
December.....	18	June.....	574
January.....	0	July.....	485
February.....	0	August....	311
March.....	38	September.	88
Water year 1940-41.....		2,243	

North channel of Rio Pueblo de Taos at Taos, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°25', long. 105°34', in SE $\frac{1}{4}$ sec. 5, T. 25 N., R. 13 E., at highway bridge, 0.1 mile upstream from Rio Lucero, 1 mile downstream from point of diversion from Rio Pueblo de Taos, and 1 mile northwest of Taos.

Records available.- July 1936 to September 1941.

Extremes.- Maximum discharge during year, 48 second-feet May 14 (gage height, 1.67 feet); minimum daily, 0.2 second-foot Oct. 1-17.

1936-41: Maximum discharge, that of May 14, 1941; minimum daily, 0.1 second-foot Aug. 10-16, 1939, Sept. 9, 1940.

Remarks.- Records good except those for periods of no gage-height record, which are fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.5	0.6	0.9	1.0	1.6	7.0	25	17	5.5	0.7	a2.5
2	.2	.5	.6	.9	.9	2.2	6.2	21	15	4.1	.9	2.9
3	.2	.5	.6	.9	.9	1.9	5.3	24	15	3.4	1.3	3.2
4	.2	.6	.6	.8	.9	1.8	5.0	25	17	3.7	1.4	2.4
5	.2	.5	.6	.7	.9	2.2	5.7	27	19	4.4	1.5	1.9
6	.2	.6	.6	.8	.9	2.1	6.1	28	18	4.1	1.3	1.2
7	.2	.6	.7	.9	.9	1.9	5.9	30	18	3.3	.9	.6
8	.2	.6	.7	.8	.9	1.6	5.9	29	17	2.1	2.4	1.0
9	.2	.6	.7	.8	.9	1.7	5.7	31	16	.7	4.2	1.7
10	.2	.6	.7	.8	1.0	1.7	7.2	33	13	a.6	4.6	2.4
11	.2	.6	.7	.8	1.0	1.7	6.1	33	11	.4	3.8	2.8
12	.2	.5	.7	.8	1.0	1.7	5.3	37	a10	.4	2.9	2.9
13	.2	.5	.7	.8	1.0	1.7	12	43	a9.5	.4	4.2	2.8
14	.2	.5	.7	.8	1.1	1.5	15	46	a9	.4	3.8	2.1
15	.2	.6	.7	.8	1.2	1.6	15	44	a10	.4	1.6	2.4
16	.2	.7	.7	.8	1.3	1.6	16	38	a11	.4	3.5	1.9
17	.2	.7	.7	.8	1.4	1.7	19	36	a12	1.0	5.2	1.8
18	.3	.7	.8	.7	1.3	1.7	13	36	a13	1.5	5.3	1.9
19	.3	.8	.8	.7	1.5	2.0	17	35	a14	2.1	4.4	1.7
20	.3	.7	.9	.8	1.6	3.0	15	29	a13	1.6	a5.0	1.7
21	.3	.7	.9	.8	1.6	3.8	14	24	a11	1.2	a6	2.4
22	.3	.7	.8	.9	1.6	4.1	12	22	a10	1.2	a4.5	1.6
23	.4	.7	.9	.9	1.6	3.8	12	20	a9.5	1.3	a3	1.6
24	.4	.7	.9	.9	1.6	3.8	11	18	a10	1.3	a2.5	1.6
25	.5	.7	.9	.9	1.6	3.9	11	18	a11	1.0	a2.0	1.2
26	.5	.7	.9	.9	1.5	4.1	13	21	a9.5	1.1	a2	.9
27	.6	.7	.9	.9	1.4	3.8	14	21	a9	.6	a2	.9
28	.6	.6	.9	.9	1.3	4.6	16	22	8.6	.8	a2.5	1.5
29	.6	.6	.9	1.0	-	4.9	19	21	8.0	1.1	a2.5	3.3
30	.6	.6	.9	1.0	-	5.0	22	19	7.2	.7	a2.5	3.4
31	.6	-	.9	1.0	-	5.5	-	17	-	.7	a3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	9.7	0.6	0.2	0.31	19
November.....	18.7	.8	.5	.62	37
December.....	23.6	.9	.6	.76	47
Calendar year 1940.....	590.9	15	.1	1.61	1,170
January.....	26.2	1.0	.7	.85	52
February.....	33.8	1.6	.9	1.21	67
March.....	84.2	5.5	1.5	2.72	167
April.....	342.4	22	5.0	11.4	679
May.....	873	46	17	28.2	1,730
June.....	371.3	19	7.2	12.4	736
July.....	51.7	5.5	.4	1.67	103
August.....	91.4	6	.7	2.95	181
September.....	60.2	3.4	.6	2.01	119
Water year 1940-41.....	1,986.2	46	.2	5.44	3,940

a No gage-height record; discharge computed on basis of range of stage and records for stations on Rio Pueblo de Taos.

Carson Reservoir near Stong, N. Mex.

Location.- Staff gage, lat. 36°25', long. 105°50', in S½NW¼ sec. 12, T. 25 N., R. 10 E., on Aquaje de la Petaca, 4½ miles northeast of Stong and 4½ miles northwest of Carson, Taos County.

Records available.- January 1940 to September 1941.

Extremes.- 1940: Maximum contents observed during period January to September, 7 acre-feet Sept. 14 (gage height, 8.7 feet); no storage most of period.

1940-41: Maximum contents observed during water year, 3,620 acre-feet May 6 (gage height, 38.5 feet); no storage most of year.

Remarks.- Reservoir is formed by earth-fill dam, stone-faced; completed in 1935. Reservoir filled during succeeding spring runoff, developed leaks and was empty within a few weeks; has not held water effectively since. Usable capacity, 5,684 acre-feet between gage heights 8.0 feet (sill of outlet gate) and 45 feet (crest of spillway). Dead storage negligible. Water used for irrigation in Carson irrigation district near Carson. Gage read once weekly.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Prepared from 1941 survey and skeleton capacity table furnished by
New Mexico State engineer)

8	0	15	128	24	1,050	45	5,684
9	10	15	226	29	1,742		
10	28	17	355	34	2,598		
11.5	69	20	615	39	3,754		

Monthly gage height and contents, January 1940 to September 1941

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Mar. 31, 1941.....	-	a106	+106
Apr. 30.....	-	a2,025	+1,919
May 31.....	24.3	1,090	-935
June 30.....	8.2	2	-1,088
July 31.....	-	0	-2
Aug. 31.....	-	0	0
Sept. 30.....	-	0	0
The period.....	-	-	0

† Gage read no certain time of day.

a No gage height; contents interpolated.

Note.- Reservoir dry January 1940 to February 1941 except for temporary storage of 7 acre-feet in September 1940.

Rio Lucero near Arroyo Seco, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°30', long. 105°32', in sec. 10, T. 26 N., R. 13 E., in Antoino Leroux Grant, 200 feet upstream from diversion dam for Tenorio and Indian ditches, 2 miles southeast of Arroyo Seco, 4½ miles north of Taos Pueblo, and 7½ miles northeast of Taos.

Records available.- April 1910 to December 1916 (published as Rio Lucero near Taos) and November 1933 to September 1941 in reports of Geological Survey. January 1911 to December 1915 in reports of State engineer.

Extremes.- Maximum discharge during year, 300 second-feet May 13 (gage height, 3.12 feet); minimum daily, 7 second-feet Nov. 11, Dec. 16.

1933-41: Maximum discharge, that of May 13, 1941; minimum daily not determined.

Remarks.- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	9.1	8.8	9.5	7.7	11	16	34	198	156	47	20
2	13	9.5	b8.5	9.1	b7.5	12	16	49	166	150	46	19
3	14	9.1	*b8.5	b8	7.7	12	13	46	176	145	44	18
4	14	9.5	b9	b8.5	*7.7	11	13	45	176	139	42	17
5	16	8.4	9.5	b9	7.7	11	14	50	185	138	41	17
6	17	8.8	9.9	b9	8.1	11	14	61	185	128	40	16
7	16	8.4	b9.5	b9	8.1	10	13	77	169	121	40	16
8	16	8.8	b9	b9.5	8.1	b9	14	98	174	118	39	16
9	16	8.8	b9	b9.5	8.1	10	16	128	116	116	40	15
10	17	7.7	9.9	b10	8.1	b9	18	136	144	114	39	15
11	16	b7	9.9	b10	8.1	10	17	143	133	111	37	14
12	15	8.1	9.5	9.5	8.4	9.5	17	174	116	109	39	a14
13	15	*b7.5	9.1	9.5	8.8	9.1	17	211	114	107	39	a15
14	15	b8	9.1	*9.1	8.8	9.1	16	242	123	102	37	a16
15	15	b8.5	b8	9.1	9.1	8.8	16	216	145	96	37	18
16	14	b9	b7	b8.5	9.9	8.8	17	202	148	95	35	17
17	14	b9	b8	b8	9.9	b8	19	188	156	90	38	17
18	13	8.1	8.8	8.5	9.9	*10	19	209	200	84	35	16
19	13	8.1	7.4	9.1	9.9	12	17	205	212	84	32	16
20	13	8.1	b7.5	8.8	10	14	14	169	225	81	33	17
21	12	8.1	b8	8.4	9.9	13	14	168	216	83	32	17
22	12	8.4	9.1	8.4	9.9	12	15	180	207	76	30	18
23	11	8.4	*9.1	8.4	10	11	14	192	198	73	29	19
24	11	8.8	8.8	8.4	11	11	13	188	200	71	27	17
25	11	8.8	8.8	8.4	*11	11	14	188	226	66	26	16
26	11	8.8	b8	8.4	11	9.9	16	216	223	64	24	16
27	11	8.8	b8.5	8.1	b9	9.9	19	216	211	63	23	15
28	9.9	b8	8.8	8.1	b9	11	19	211	198	59	23	16
29	9.9	b8.5	9.1	8.1	-	12	22	203	184	54	23	25
30	10	8.8	9.1	7.7	-	12	25	202	168	52	22	23
31	9.9	-	9.1	7.7	-	14	-	203	-	50	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	414.7	17	9.9	13.4	823
November.....	254.9	9.5	7	8.50	506
December.....	272.3	9.9	7	8.78	540
Calendar year 1940.....	7,192.0	109	4.4	19.7	14,270
January.....	271.3	10	7.7	8.75	538
February.....	252.4	11	7.5	9.01	501
March.....	332.9	14	8.8	10.7	660
April.....	486	25	13	16.2	964
May.....	4,850	242	34	156	9,620
June.....	5,343	225	114	178	10,600
July.....	2,995	156	50	96.6	5,940
August.....	1,060	47	21	34.2	2,100
September.....	511	25	14	17.0	1,010
Water year 1940-41.....	17,043.5	242	7	46.7	33,800

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records, and records for Rio Pueblo de Taos near Taos and Pueblo Creek near Penasco.

b Stage-discharge relation affected by ice.

Rio Lucero below diversions, near Arroyo Seco, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°28', long. 105°34', in sec. 21, T. 26 N., R. 13 E., 80 feet downstream from head of Prado ditch, 2 miles northwest of Taos Pueblo, 3½ miles south of Arroyo Seco, and 4 miles northeast of Taos.

Records available.- May 1934 to September 1941.

Extremes.- Maximum discharge during year, 273 second-feet May 14 (gage height, 2.21 feet); no flow at times.

1934-41: Maximum discharge, that of May 14, 1941; no flow at times.

Remarks.- Records fair except those below 2 second-feet, which are poor.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.7	0.7	0.4	1.0	4.9	13	119	61	3.9	0.4
2		0	*1.0	.6	.4	1.0	4.5	26	112	61	3.7	.4
3		0	1.8	b.6	*.4	.9	4.0	23	108	64	3.4	.3
4		0	2.1	b.5	.4	b.6	4.0	27	110	67	3.1	.3
5		0	2.3	b.6	b.4	.9	4.2	33	117	69	2.5	.3
6		0	2.2	b.7	b.4	.8	4.2	35	117	66	1.9	.3
7		0	2.3	b.8	.4	.6	5.6	66	117	60	2.0	1.4
8		0	2.6	b.9	.4	b.4	6.6	92	114	49	2.1	2.4
9		0	2.5	1.0	.4	b.7	8.0	105	110	42	2.1	1.6
10		0	2.0	1.0	.4	b.6	9.8	105	96	44	2.0	.2
11		0	1.6	1.1	.4	b.8	9.4	122	88	44	1.9	.2
12		0	1.2	1.3	.4	b.6	9.4	154	86	44	2.1	.1
13		0	1.1	1.2	.4	.6	9.8	148	83	42	2.1	.1
14		0	1.1	*1.1	.5	.6	6.0	210	79	44	2.1	.1
15		.2	bl.0	1.3	.5	.6	.3	196	88	44	2.0	.1
16		.1	bl.0	b.5	.6	.9	.3	163	88	41	1.6	.1
17		.1	bl.3	b.4	.6	.8	.3	166	85	37	1.9	.1
18		.1	bl.6	b.5	.6	*.9	4.1	178	94	35	2.0	.1
19		.1	bl.4	b.7	.6	1.5	4.0	172	105	35	1.6	.1
20		0	bl.3	.6	.6	2.4	3.0	137	117	32	1.6	.1
21		0	bl.4	.6	.6	3.6	3.4	129	122	34	1.4	.1
22		0	b2.0	.6	.6	4.5	4.0	132	108	32	1.3	.1
23		0	*b2.5	.5	.6	3.9	4.0	127	108	32	1.2	.1
24		0	2.1	.4	.6	3.7	3.7	129	112	32	1.1	.1
25		0	1.6	.4	*.6	3.6	4.2	127	124	30	1.0	.1
26		0	1.2	.4	.6	3.4	5.6	163	127	27	.9	.1
27		.4	1.2	.4	.7	3.7	9.1	151	119	27	.6	.1
28		1.2	bl.7	.4	bl.0	3.7	11	140	119	25	.6	.1
29		1.6	1.6	.4	-	3.7	13	129	112	18	.5	.1
30		1.2	.8	.4	-	3.7	8.8	122	75	12	.5	.1
31		-	.7	.4	-	4.0	-	119	-	6.4	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean'	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	5.0	1.6	0	.17	9.9
December.....	48.9	2.6	.7	1.58	97
Calendar year 1940.....	629.7	32	0	1.72	1,250
January.....	20.9	1.3	.4	.67	41
February.....	14.5	1.0	.4	.52	29
March.....	58.7	4.5	.4	1.89	116
April.....	169.2	15	.3	5.64	336
May.....	3,639	210	13	117	7,220
June.....	3,159	127	75	105	6,270
July.....	1,254.4	69	6.4	40.5	2,490
August.....	55.3	3.9	.4	1.78	110
September.....	9.7	2.4	.1	.32	19
Water year 1940-41.....	8,434.6	210	0	23.1	16,740

b Stage-discharge relation affected by ice.

* Winter discharge measurement made on this day.

Principal diversions from Rio Lucero, N. Mex.

Records of discharge are collected for five ditches that divert water from the Rio Lucero between gaging stations on that stream near Arroyo Seco and below diversions, near Arroyo Seco. Each of these ditches is equipped with a water-stage recorder for collecting gage-height records. Water diverted by these ditches is used for irrigation in the valley of the Rio Lucero below the gaging station near Arroyo Seco.

Tenorio ditch diverts from right bank in sec. 10, T. 26 N., R. 13 E. (projected), 200 feet downstream from gaging station on Rio Lucero near Arroyo Seco. Records available, June 1935 to September 1941.

Indian ditch diverts from left bank in sec. 10, T. 26 N., R. 13 E. (projected), 200 feet downstream from gaging station on Rio Lucero near Arroyo Seco. Records available, July 1934 to September 1941.

Seco ditch diverts from right bank in sec. 10, T. 26 N., R. 13 E. (projected), 600 feet downstream from gaging station on Rio Lucero near Arroyo Seco. Records available, July 1934 to September 1941.

Juan Manuel ditch diverts from right bank in sec. 16, T. 26 N., R. 13 E. (projected), 1.5 miles upstream from gaging station on Rio Lucero below diversions, near Arroyo Seco. Records available, June 1935 to September 1941.

Prado ditch diverts from right bank in sec. 21, T. 26 N., R. 13 E. (projected), 80 feet upstream from gaging station on Rio Lucero below diversions, near Arroyo Seco. Records available, May 1934 to September 1941.

In addition to the ditches listed above, Bee Line ditch diverts from right bank in sec. 21, T. 26 N., R. 13 E. (projected), 20 feet upstream from gaging station on Rio Lucero below diversions, near Arroyo Seco. Miscellaneous measurements of flow in this ditch are given on page 306.

Diversions, in acre-feet, water year October 1940 to September 1941

Month	Tenorio ditch	Indian ditch	Seco ditch	Juan Manuel ditch	Prado ditch
October.....	82	292	158	6.1	138
November.....	a26	b74	c39	d2.0	e42
December.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	29	f22	282	g16	72
April.....	47	55	280	91	194
May.....	236	101	93	299	674
June.....	518	14	693	702	660
July.....	192	167	998	472	626
August.....	258	563	392	190	288
September.....	137	290	193	6.0	238

a Nov. 1-13; no record Nov. 14 to Feb. 24.
 b Nov. 1-10; no record Nov. 11 to Mar. 15.
 c Nov. 1-12; no record Nov. 13 to Feb. 24.
 d Nov. 1-13; no record Nov. 14 to Mar. 17.
 e Nov. 1-11; no record Nov. 12 to Feb. 24.
 f Mar. 16-31.
 g Mar. 18-31.

RIO GRANDE BASIN

Embudo Creek at Dixon, N. Mex.

Location.- Water-stage recorder, lat. 36°12'35", long. 105°54'35", in SW¼ sec. 20, T. N., R. 10 E., at bridge on U. S. Highway 64, 0.5 mile upstream from mouth, three-quarters of a mile east of Embudo, and 1¼ miles northwest of Dixon. Prior to Aug. water-stage recorder at site three-quarters of a mile upstream at different datum.

Drainage area.- 305 square miles.

Records available.- October 1930 to September 1941 in reports of Geological Survey. October 1923 to December 1931 in reports of State engineer.

Average discharge.- 18 years (1923-41), 91.2 second-feet.

Extremes.- Maximum discharge during year, 3,150 second-feet May 14, from rating curve tended above 320 second-feet by logarithmic plotting; maximum gage height, 5.55 feet Sept. 20, present datum; minimum daily discharge, 14 second-feet Sept. 9.

1930-41: Maximum gage height, 6.95 feet, site and datum then in use, July 8, 1930 (discharge not determined); minimum daily discharge, 1 second-foot July 23, 24, 1930.

Remarks.- Records fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	39	36	33	25	46	138	508	893	437	a55	
2	39	39	33	28	21	52	110	724	830	353	b57	
3	40	39	31	19	25	46	107	708	794	290	a65	
4	44	37	30	15	23	36	104	692	812	260	h78	
5	49	34	31	17	26	55	122	608	1,040	a240	h76	
6												
7	54	37	34	31	28	46	130	886	1,090	a220	h67	
8	47	34	32	28	30	44	114	1,040	1,090	a210	h147	
9	46	32	31	28	24	32	113	1,260	1,070	a200	h171	
10	44	37	31	28	26	40	114	1,670	992	a180	h118	
11	64	41	a35	29	26	36	146	1,510	848	a170	a100	
12												
13	57	29	a40	36	24	34	150	1,450	740	a210	h78	
14	52	30	a40	40	22	41	190	1,830	660	a180	h182	
15	49	27	a40	39	22	44	248	2,340	620	a160	259	
16	49	20	a40	31	27	52	236	2,590	612	a150	208	
17	47	27	a33	33	30	49	254	1,990	644	a140	184	
18												
19	47	32	a25	22	33	43	260	1,450	636	a130	184	
20	44	33	34	15	33	55	281	1,150	676	a120	165	
21	46	34	44	18	34	57	295	1,260	749	a110	190	
22	49	47	31	21	37	64	254	1,280	830	a150	141	
23	46	49	26	25	34	75	200	1,100	887	a120	110	1
24												
25	43	44	24	26	40	75	160	1,000	848	a120	105	
26	41	40	24	20	39	66	138	1,230	848	a140	105	1
27	40	39	20	27	44	71	134	1,240	776	a120	84	1
28	38	38	38	19	43	80	126	1,230	875	a110	76	1
29	36	40	37	17	49	83	138	1,210	1,040	a100	62	
30												
31	33	39	24	17	39	78	170	1,150	875	a130	50	
	40	37	25	24	31	73	248	1,130	767	a110	42	
	52	30	38	23	33	86	274	1,120	692	a90	36	
	47	32	32	33	-	86	302	1,010	644	a70	33	1
	47	38	32	32	-	110	348	938	532	a60	40	1
	44	-	34	30	-	110	-	902	-	a50	35	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff acre-feet
October.....	1,418	64	33	45.7	2,81
November.....	1,074	49	20	35.8	2,13
December.....	1,015	44	24	32.7	2,01
Calendar year 1940.....	25,388.6	519	5.9	69.4	50,34
January.....	814	40	15	26.3	1,61
February.....	868	49	21	31.0	1,72
March.....	1,865	110	32	60.2	3,70
April.....	5,609	348	104	197	11,13
May.....	38,175	2,590	508	1,231	75,72
June.....	24,380	1,090	532	813	48,36
July.....	5,130	437	50	165	10,18
August.....	3,303	259	33	107	6,55
September.....	1,643	190	14	54.8	3,26
Water year 1940-41.....	85,295	2,590	14	234	169,20

Peak discharge.- May 14 (6 a.m.) 3,150 sec.-ft.; Aug. 12 (5 p.m.) 817 sec.-ft.; Sept. 20 (2:30 p.m.) 1,230 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for Pecos River near Pecos and Rio Santa Cruz at Cundiyo.

b Computed from staff-gage readings.

Pueblo Creek near Penasco, N. Mex.

Location.- Water-stage recorder, lat. 36°11', long. 105°40', in SW $\frac{1}{4}$ sec. 28, T. 23 N., R. 12 E., 300 feet downstream from headgate of Picuris ditch, 1 $\frac{1}{2}$ miles east of Picuris Pueblo, 2 miles northeast of Penasco, and 3 $\frac{1}{2}$ miles upstream from Rio Santa Barbara.

Records available.- March 1936 to September 1941.

Extremes.- Maximum discharge during year, 1,440 second-feet May 13 (gage height, 2.87 feet); minimum daily, 8 second-feet Nov. 11, 13, Dec. 16, Jan. 3.
1936-41: Maximum discharge, that of May 13, 1941; no flow July 10-15, 1940.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	14	b14	15	b14	22	71	266	520	192	38	32
2	11	15	b13	11	b13	22	60	377	463	176	38	32
3	10	14	b12	b8	b13	20	55	415	439	166	57	31
4	11	15	b13	b9	b13	20	57	409	461	159	45	29
5	12	12	b14	b11	b14	24	67	409	603	156	41	26
6	12	14	b17	b13	b15	21	71	560	554	148	41	21
7	11	15	b14	b12	16	20	65	717	520	133	51	21
8	11	15	b14	b12	b13	19	67	803	494	118	66	22
9	11	16	b14	b13	14	23	77	860	451	110	102	22
10	16	16	b16	b14	13	22	92	808	382	124	87	21
11	16	b8	18	b14	14	22	99	882	350	121	a65	20
12	17	b9	17	14	12	22	127	1,020	314	121	122	21
13	16	b8	15	14	12	20	152	1,210	304	105	a170	22
14	15	b9	16	b16	16	21	138	1,240	304	94	a130	26
15	14	b10	b12	14	16	21	145	1,140	314	89	a110	27
16	13	b13	b8	b11	18	21	152	990	304	94	a100	24
17	12	b15	b12	b9	17	24	165	886	324	78	a90	23
18	12	b14	b15	b10	18	26	162	850	355	72	a80	25
19	12	16	b12	b12	18	31	138	782	371	81	72	25
20	12	14	b10	b13	18	36	112	662	376	89	63	24
21	11	13	b11	b15	20	37	97	662	355	100	60	27
22	11	13	b12	b14	19	35	87	850	340	95	55	45
23	10	16	b14	b15	20	35	83	816	304	70	50	53
24	10	16	b15	b13	20	36	83	808	388	68	45	36
25	11	17	b15	b15	20	32	92	790	433	61	41	30
26	11	18	b10	b12	19	35	107	782	366	61	36	27
27	13	16	b12	b14	17	35	141	741	314	70	35	25
28	15	b12	b15	b16	20	37	162	693	281	58	33	25
29	14	b14	15	16	42	42	150	648	253	50	33	47
30	17	b15	15	14	-	51	207	575	215	44	36	38
31	15	-	15	14	-	60	-	540	-	41	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	394	17	10	12.7	781
November	412	18	8	13.7	817
December	425	18	8	13.7	843
Calendar year 1940	11,893.2	207	0	32.5	23,590
January	400	15	8	12.9	793
February	452	20	12	16.1	897
March	892	60	19	28.8	1,770
April	3,311	207	55	110	6,570
May	23,185	1,240	266	743	45,990
June	11,442	603	215	391	22,690
July	3,134	192	41	101	6,220
August	2,025	170	33	65.3	4,020
September	846	53	20	28.2	1,680
Water year 1940-41	46,919	1,240	8	129	93,070

Peak discharge.- May 13 (9:30 p.m.) 1,440 sec.-ft.; June 24 (10 p.m.) 569 sec.-ft.; Aug. 9 (12:30 p.m.) 610 sec.-ft.; Aug. 12 (2:30 p.m.) 596 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of partly estimated gage heights, weather records, and records for Embudo Creek near Dixon and Rio Pueblo de Taos near Taos.

b Stage-discharge relation affected by ice.

Picuris ditch near Penasco, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, in SW $\frac{1}{4}$ sec. 28, T. 23 N., R. 12 E., 300 feet upstream from gaging station on Pueblo Creek near Penasco, 500 feet downstream from head gate, $\frac{1}{2}$ miles east of Picuris Pueblo, and 2 miles north-east of Penasco.

Records available.- March 1936 to September 1941.

Remarks.- Ditch diverts water from right bank of Pueblo Creek for irrigation on both sides of creek near the village of Picuris. Many other ditches also divert from Pueblo Creek, but no records for them were obtained.

Diversion, in acre-feet, water year
October 1940 to September 1941

October.....	17	April.....	0
November.....	4.2	May.....	24
December.....	-	June.....	162
January.....	-	July.....	317
February.....	a0	August.....	204
March.....	0	September....	108

a Feb. 24-28.

Note: No record Dec. 2 to Feb. 23;
probably no diversion during period.

Principal diversions from Rio Grande between Embudo Creek and the Rio Chama, N. Mex.

Records of discharge are collected for three ditches that divert water from the Rio Grande between the mouth of Embudo Creek and the Rio Chama. Each of these ditches is equipped with a water-stage recorder for collecting gage-height records and with a timber artificial control or Parshall flume.

Alcalde ditch diverts from left bank in NE $\frac{1}{4}$ sec. 19, T. 22 N., R. 9 E (projected). Gage is $\frac{5}{8}$ miles downstream from head gate. Water is used for irrigation on left bank of Rio Grande on San Juan Grant. Records available, March 1936 to March 1939 (at site half a mile upstream), March 1940 to June 1941 (discontinued).

San Rafael ditch diverts from right bank in NE $\frac{1}{4}$ sec. 35, T. 22 N., R. 8 E. Gage is 200 feet south of north boundary of San Juan Grant, $\frac{1}{2}$ miles downstream from head gate. Water is used for irrigation on right bank of Rio Grande on San Juan Grant. Records available, February 1936 to April 1941 (discontinued).

Acequia Madre (known also as Indian ditch) diverts from left bank in SE $\frac{1}{4}$ sec. 35, T. 22 N., R. 8 E. Gage is three-quarters of a mile downstream from head gate. Water is used for irrigation almost entirely on Indian lands on left bank of Rio Grande near village of San Juan. Records available, March 1936 to September 1941.

Many other ditches divert from the Rio Grande between Embudo Creek and the Rio Chama, but no records for them were obtained.

Diversions, in acre-feet, water year October 1940 to September 1941

Month	Alcalde ditch	San Rafael ditch	Acequia Madre
October.....	246	797	260
November.....	230	314	86
December.....	247	0	51
January.....	0	0	0
February.....	0	0	0
March.....	28	187	404
April.....	594	a290	462
May.....	864	-	689
June.....	1,260	-	788
July.....	(b)	-	426
August.....	-	-	995
September.....	-	-	483
The period....	3,469	1,588	4,644

a Apr. 1-9; discontinued Apr. 9.

b Discontinued July 3.

RIO GRANDE BASIN

Rio Chama at Park View, N. Mex.

ation.- Water-stage recorder, lat. 36°44'15", long. 106°34'40", in Tierra Amarilla Grant, just below present mouth of Rio Brazos, 150 feet upstream from bridge on State Highway 51 and half a mile northwest of Park View, Rio Arriba County.

Image area.- 405 square miles.

ords available.- November 1912 to November 1916, October 1930 to September 1941, in reports of Geological Survey. November 1912 to September 1916, August 1924 to December 1931 in reports of State engineer.

rage discharge.- 18 years (1913-15, 1925-41), 396 second-feet.

remes.- Maximum discharge during year, 6,360 second-feet May 26 (gage height, 8.12 feet), from rating curve extended above 4,370 second-feet by logarithmic plotting; minimum daily, 20 second-feet Nov. 13-14.

1930-41: Maximum discharge, 6,530 second-feet Apr. 16, 1937; maximum gage height, that of May 26, 1941; minimum daily, 3 second-feet July 6, 7, 1934.

arks.- Records good except those for June to September, which are fair, those for periods of ice effect and for May, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
102	36	45	59	b60	75	454	1,510	2,540	1,110	155	74
68	40	43	59	b60	82	397	1,740	2,410	983	124	74
62	44	40	*b60	b60	75	403	1,730	2,620	922	119	66
60	45	*40	b50	*b60	68	415	1,740	2,680	1,020	114	63
75	34	39	b50	b60	86	454	1,800	2,510	996	106	66
179	41	41	b50	b65	79	434	1,990	2,490	946	119	49
92	41	39	b50	b75	79	425	2,310	2,890	828	195	46
70	*43	43	b55	b75	83	515	2,240	3,640	773	180	42
60	45	41	b55	b70	75	514	2,160	3,300	740	216	46
53	45	48	b55	b70	66	702	1,750	2,890	680	216	38
48	24	45	b55	b70	68	536	1,920	2,570	650	160	35
44	b22	45	b55	b70	72	508	2,780	2,310	613	124	38
43	b20	38	b55	73	81	487	3,280	2,220	568	119	42
40	b20	34	b55	72	77	415	4,940	2,200	526	128	266
39	b25	b30	*b55	72	73	467	4,850	2,250	502	195	175
37	*b30	b30	b50	66	72	487	4,940	2,240	454	142	114
35	34	b50	b45	64	88	501	5,220	2,410	438	142	86
35	37	b55	b50	65	104	434	5,030	2,570	414	200	90
34	45	*b60	b50	*68	124	367	4,220	2,570	383	132	90
34	48	b60	b55	68	147	305	3,270	2,410	422	119	200
29	52	b65	b55	70	164	350	3,180	2,250	422	114	266
28	44	b70	b55	68	152	422	3,510	2,160	383	124	170
26	45	b75	b55	79	179	403	3,700	2,040	320	110	284
27	44	b80	b55	79	185	448	4,220	2,310	302	98	222
26	46	75	b55	77	182	606	4,490	2,970	296	94	150
26	49	b70	b50	72	179	675	5,030	2,080	278	82	119
37	45	b75	b50	64	179	960	4,580	1,840	266	78	102
39	37	b75	b55	64	210	1,310	3,950	1,660	232	74	98
37	40	75	b55	-	244	1,340	3,440	1,440	216	74	502
41	49	70	b65	-	278	1,430	2,940	1,260	195	94	383
38	-	65	b65	-	367	-	2,780	-	180	82	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,566	179	26	50.5	3,110
November	1,170	82	20	39.0	2,320
December	1,661	80	30	53.6	3,290
Calendar year 1940	87,607	1,930	10	239	173,800
January	1,693	65	45	54.6	3,360
February	1,916	79	60	68.4	3,800
March	3,978	367	66	128	7,890
April	17,267	1,430	305	575	34,250
May	101,340	5,220	1,510	3,269	201,000
June	71,730	3,640	1,260	2,391	142,300
July	17,058	1,110	180	550	33,830
August	4,029	216	74	130	7,990
September	3,986	502	35	133	7,910
Water year 1940-41	227,394	5,220	20	623	451,000

* Winter discharge measurement made on this day.

o Stage-discharge relation affected by ice.

RIO GRANDE BASIN

El Vado Reservoir near Tierra Amarilla, N. Mex.

Location.- Water-stage recorder (records above spillway floor only) and slope gage, lat. $36^{\circ}35'45''$, long. $106^{\circ}43'55''$, in SE $\frac{1}{4}$ sec. 4, T. 27 N., R. 2 E., (unsurveyed), a left end of El Vado Dam, 2 miles downstream from old town of El Vado and 13 miles southwest of Tierra Amarilla. Datum of gage is 9.565 feet above mean sea level (datum of 1929).

Records available.- January 1935 to September 1941.

Extremes.- Maximum daily contents during year, 197,700 acre-feet July 4, 13-24 (gage height, 6,901.2 feet); minimum daily, 14,910 acre-feet Feb. 13, 14 (gage height, 6,796.1 feet).
1935-41: Maximum daily contents, that of July 4, 13-24, 1941; minimum daily, 56 acre-feet Jan. 1, 1935.

Remarks.- Reservoir is formed by rock-fill dam, steel faced; storage began in January 1935. Capacity, 200,300 acre-feet between gage height 6,740.00 feet (bottom of tra rack) and 6,902.0 feet (top of spillway gate). Dead storage unknown. Figures give here represent usable contents. Water is used for irrigation by Middle Rio Grande Conservancy District. Gage read daily about 7:30 a.m. Continuous water-stage recorder registers gage height between 6,879.3 feet (floor of spillway) and 6,907.3 feet (fl of gage shelter). Contents given herein are those at 7:30 a.m.

Cooperation.- Staff gage readings and capacity table furnished by Middle Rio Grande Conservancy District.

Monthly gage height and contents, water year October 1940 to September 1941

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	6,812.9	28,150	-
Oct. 31.....	6,801.0	18,240	-9,910
Nov. 30.....	2,799.9	17,460	-790
Dec. 31.....	-	21,850	+4,400
Calendar year 1940..	-	-	+2,270
Jan. 31.....	6,811.0	26,410	+4,560
Feb. 28.....	6,798.6	16,540	-9,870
Mar. 31.....	6,829.1	45,420	+28,880
Apr. 30.....	6,875.4	124,500	+79,080
May 31.....	6,896.4	162,300	+37,800
June 30.....	6,900.4	195,100	+12,800
July 31.....	6,900.5	196,400	+300
Aug. 31.....	6,886.3	182,400	-43,000
Sept. 30.....	6,879.1	133,500	-18,900
Water year 1940-41..	-	-	+105,400

† Gage height at 7:30 a.m.

a No gage-height record; contents interpolated.

Rio Chama near Tierra Amarilla, N. Mex.

Location.- Water-stage recorder, lat. 36°34', long. 106°43', in NW¼ sec. 15, T. 27 N., R. 2 E. (projected survey), 1.5 miles downstream from El Vado Dam, 2.7 miles upstream from Rio Nutrias, and 13 miles southwest of Tierra Amarilla.

Records available.- October 1935 to September 1941 in reports of the Geological Survey. October 1913 to November 1916 at site 1.5 miles upstream (records of unregulated flow), published as Rio Chama near El Vado and near Tierra Amarilla, in reports of Geological Survey. October 1913 to September 1916 and February 1920 to December 1924 in reports of State engineer.

Extremes.- Maximum discharge during year, 6,010 second-feet May 17 (gage height, 6.89 feet); minimum daily, 1.3 second-feet Nov. 26, 1935-41 (regulated); Maximum discharge, that of May 17, 1941; maximum gage height, 9.63 feet May 30, 1937, site and datum then in use; minimum daily discharge, 1.2 second-feet Dec. 3, 1939. During period of unregulated records, there was a peak of 4,860 second-feet May 10, 1916, site then in use.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow regulated by El Vado Reservoir (capacity, 200,342 acre-feet at gage height 6,902.0 feet, which is top of spillway gate). Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	97	3.0	b5.8	512	8.2	18	20	3,280	887	430	698
2	69	18	3.0	3.8	990	8.7	340	24	3,280	601	681	686
3	69	19	3.0	3.8	651	8.7	637	176	3,280	500	958	656
4	69	18	3.0	3.8	425	9.2	1,030	724	3,280	974	1,130	674
5	69	18	3.0	b3.6	420	11	676	1,850	3,280	966	1,450	680
6	67	18	3.0	3.8	420	9.8	328	2,330	3,700	968	1,390	585
7	69	18	3.0	3.8	415	9.2	328	2,820	4,400	852	1,450	405
8	69	19	3.0	b5.6	410	8.7	332	3,200	4,310	782	1,220	395
9	69	20	3.0	b5.8	410	8.7	139	3,520	4,310	782	1,070	415
10	69	19	3.3	b5.8	406	8.2	16	3,690	4,220	602	1,070	395
11	69	15	b5.3	b5.8	400	8.2	16	3,950	3,180	516	1,030	547
12	69	5.2	b5.3	b5.8	174	8.7	16	4,220	2,260	516	1,030	817
13	69	5.7	b5.3	b5.8	8.2	8.7	17	4,500	1,800	516	1,070	817
14	71	5.7	3.3	b5.6	8.2	9.2	17	5,080	1,590	516	1,070	817
15	71	5.7	3.3	*b5.6	8.7	11	17	5,800	1,590	516	1,070	817
16	71	128	3.3	b5.8	8.7	11	17	6,010	1,440	510	1,070	810
17	73	450	b5.3	b5.8	8.2	11	17	6,010	1,070	516	1,070	810
18	319	445	3.3	b4.7	8.7	11	19	5,800	777	456	1,070	810
19	694	445	3.3	b4.7	8.7	11	19	5,800	729	420	1,030	810
20	662	190	3.3	b4.7	9.8	11	19	5,590	953	420	1,070	518
21	676	26	3.3	b4.7	11	14	19	4,680	1,230	420	852	305
22	517	26	b5.3	b4.7	9.8	11	20	3,860	1,230	425	310	305
23	415	26	b5.3	b4.7	11	12	23	3,860	1,150	425	310	243
24	410	26	3.6	4.7	11	12	18	3,950	982	425	300	128
25	410	18	3.8	4.7	11	227	19	4,040	1,280	426	296	128
26	410	1.3	3.8	4.7	8.7	375	19	4,680	1,450	430	292	128
27	405	2.6	3.8	4.7	8.7	390	25	5,590	1,500	425	292	128
28	229	3.0	b5.6	4.7	8.7	430	22	5,800	1,190	425	282	128
29	126	3.0	3.8	4.7	-	246	20	5,180	887	425	392	138
30	126	3.0	b5.8	4.7	-	19	20	4,590	887	425	716	128
31	126	-	b5.8	35	-	18	-	4,040	-	430	692	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	6,726	694	67	217	13,340
November.....	2,094.4	450	1.3	69.8	4,150
December.....	103.0	3.8	3.0	3.32	204
Calendar year 1940.....	97,397.1	1,250	1.3	266	193,200
January.....	159.9	35	3.6	5.16	317
February.....	5,751.1	980	8.2	205	11,410
March.....	1,935.2	430	6.2	62.4	3,840
April.....	4,423	1,030	16	147	8,770
May.....	121,364	6,010	20	3,016	240,800
June.....	64,515	4,400	729	2,150	128,000
July.....	17,486	974	420	564	34,680
August.....	26,163	1,450	282	844	51,890
September.....	14,921	817	128	497	29,600
Water year 1940-41.....	265,661.6	6,010	1.3	728	527,000

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Rio Chama near Chamita, N. Mex.

Location (revised).- Water-stage recorder, lat. 36°04'20", long. 106°06'40", in NE $\frac{1}{4}$ sec. 8, T. 21 N., R. 8 E., 180 feet downstream from Espanola-Ojo Caliente highway bridge, 2 $\frac{1}{2}$ miles upstream from mouth, and 2 $\frac{1}{2}$ miles northwest of Chamita.

Records available.- October 1912 to June 1915 and October 1930 to September 1941 in reports of Geological Survey. October 1912 to December 1937 in reports of State engineer.

Average discharge.- 27 years (1913-17, 1918-41), 704 second-feet.

Extremes.- Maximum discharge during year, 9,910 second-feet May 14; maximum gage height, 8.1 feet May 16; minimum daily discharge, 40 second-feet Nov. 8, 9, 1930-41; Maximum discharge, that of May 14, 1941; maximum gage height, that of May 16, 1941; no flow at times.

Remarks.- Records fair except those for periods of ice effect or no gage-height record WHICH are poor. Diversions above station for irrigation. Flow regulated by El Vado Reservoir (see p. 227).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	180	60	113	b80	180	1,060	2,680	4,720	1,140	514	671
2	172	195	62	99	b300	185	835	3,960	4,240	1,130	482	659
3	109	145	60	84	*1,200	190	980	3,630	4,240	906	753	626
4	96	87	58	b65	655	190	1,510	3,950	4,400	888	933	590
5	104	75	58	b65	610	190	1,840	4,280	4,720	1,210	1,180	599
6	118	58	55	*b60	610	280	1,320	5,510	4,680	1,130	1,480	599
7	140	42	55	b60	637	256	1,010	6,470	5,390	1,020	1,480	518
8	145	40	50	b70	594	266	1,080	6,870	6,250	906	1,380	350
9	145	40	*50	b75	546	195	1,140	7,280	6,430	942	1,380	374
10	167	44	52	b80	498	170	1,360	7,280	5,730	888	1,160	430
11	140	48	62	b85	498	170	970	7,280	5,390	834	1,070	542
12	122	50	70	81	474	155	871	7,910	3,840	897	1,050	734
13	127	50	78	*81	387	165	1,480	8,560	3,170	735	1,180	1,020
14	122	a80	78	90	150	217	1,110	8,560	2,680	642	1,140	1,000
15	140	a80	68	87	93	222	1,010	7,990	2,680	602	1,160	881
16	136	a60	*b65	b65	102	280	1,020	8,760	2,540	530	1,150	892
17	145	a200	b65	b60	160	387	1,230	8,640	2,210	594	1,110	840
18	140	429	b65	b60	160	380	1,190	8,720	1,770	610	1,060	914
19	258	546	68	b65	217	450	890	8,050	1,440	708	1,040	840
20	118	602	58	b65	234	506	673	7,330	1,390	666	1,030	860
21	664	401	68	b70	212	578	619	6,790	1,650	538	1,110	707
22	891	180	65	b70	352	664	562	5,730	1,710	522	804	829
23	522	133	62	b70	380	594	736	4,880	1,710	466	238	453
24	436	133	70	b75	317	910	990	5,390	1,710	556	238	252
25	443	141	84	b75	352	920	900	6,070	1,830	464	273	150
26	450	113	72	b80	292	920	1,140	6,070	1,890	394	308	174
27	450	105	65	b80	250	799	1,420	6,970	1,770	498	287	204
28	474	84	68	b80	206	653	1,960	7,710	1,710	474	259	252
29	331	70	78	b80	-	890	2,140	7,520	1,290	443	259	550
30	195	60	*87	b80	-	871	2,280	6,250	1,140	458	374	784
31	195	-	99	b80	-	808	-	5,730	-	458	810	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,445	718	96	272	16,750
November	4,371	602	40	146	8,670
December	2,055	99	50	66.3	4,080
Calendar year 1940	127,068	1,320	30	347	252,000
January	2,350	113	60	75.8	4,660
February	10,566	1,200	80	377	20,960
March	13,831	920	155	446	27,430
April	35,326	2,280	562	1,178	70,070
May	202,810	8,760	2,680	6,542	402,300
June	94,580	6,430	1,140	3,153	187,600
July	22,249	1,210	394	718	44,130
August	26,692	1,480	238	861	52,940
September	18,324	1,020	150	611	36,350
Water year 1940-41	441,599	8,760	40	1,210	875,900

Peak discharge.- May 14 (5 a.m.) 9,910 sec.-ft.; June 8 (11 p.m.) 8,280 sec.-ft.; June 24 (11 p.m.) 3,240 sec.-ft.; July 24 (12 p.m.) 2,080 sec.-ft.; Sept. 22 (10 p.m.) 6,780 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station below El Vado Dam near Tierra Amarilla.

b Stage-discharge relation affected by ice.

RIO GRANDE BASIN

Willow Creek near Park View, N. Mex.

ation.- Water-stage recorder, lat. 36°40'20", long. 106°42'10", in Tierra Amarilla Grant, 400 feet upstream from Willow Creek dam site, 0.3 mile downstream from Horse Lake Creek, and 7 miles southwest of Park View, Rio Arriba County.

ords available.- May 1936 to September 1941.

emes.- Maximum discharge during year, 1,980 second-feet Apr. 9 (gauge height, 6.40 feet), from rating curve extended above 580 second-feet by logarithmic plotting; minimum daily recorded, 0.3 second-foot Nov. 13, 14.

1936-41: Maximum discharge, 3,100 second-feet April 10, 1947 (gauge height, 7.59 feet); no flow at times.

orks.- Records fair except those for periods of ice effect and of partial or no gage-height record, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
10	1.3			-	57	708	a680	22	8.0	1.7	3.7
7.3	1.0			-	64	517	a560	23	7.7	1.3	2.8
6.9	.9			-	61	540	591	19	7.0	1.2	2.3
7.3	.9			-	54	675	780	28	6.3	1.1	1.9
6.9	.8			*5.6	93	728	517	29	6.0	1.1	1.4
10	.7			-	71	708	510	36	6.0	1.5	1.3
6.9	.6			-	64	709	449	38	6.3	27	1.3
3.8	.6			-	48	773	374	770	11	10	1.2
2.6	.6			-	48	356	310	192	7.7	37	1.2
2.1	.6			-	42	780	255	180	6.3	7.7	1.1
1.8	.5			-	38	662	215	102	9.8	4.6	1.1
1.4	.5			-	42	662	182	110	17	4.4	1.1
1.4	.3			-	50	708	160	54	7.7	6.6	1.8
1.3	.3			b30	51	522	124	43	5.3	3.1	28
1.3	.8			b55	93	596	99	38	6.3	12	16
1.2	*.9			b40	115	542	81	37	4.4	8.0	7.7
1.0				b40	130	542	71	30	3.7	16	12
1.1				b45	163	418	64	27	3.5	12	7.0
.9				b50	220	302	55	23	3.5	4.4	5.3
.9				b50	*242	a260	44	19	8.0	2.8	80
.9	b.8			b55	264	a240	44	17	7.3	8.4	21
.9				b55	292	a250	79	16	12	3.9	108
.8				b60	386	a290	48	16	19	2.2	81
.8				b60	426	a340	57	92	9.4	1.8	12
.7				b70	320	a400	56	77	11	1.4	6.0
.6				78	222	a480	47	25	4.9	1.2	4.2
1.4				61	257	a540	33	18	3.7	1.0	3.1
3.2				54	356	a620	63	16	3.3	.6	3.3
2.3				-	429	a720	46	13	2.4	4.8	175
1.7				-	652	a770	32	10	2.0	17	42
1.6				-	850	-	24	-	1.9	5.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
ber.	91.2	40	0.6	2.94	181
ber 1-23	16.9	1.3	.3	.75	34
ber	-	-	-	-	-
alendar year	-	-	-	-	-
ary.	-	-	-	-	-
uary 14-28	-	-	-	-	-
h.	783	78	30	52.2	1,550
h.	6,210	850	38	200	12,320
l.	16,858	858	240	562	33,440
l.	8,550	730	24	215	13,190
l.	2,120	770	10	70.7	4,300
l.	218.4	19	1.9	7.05	433
st.	211.2	37	.6	6.81	419
ember.	633.8	175	1.1	21.1	1,260
alendar year	-	-	-	-	-

ak discharge.- Apr. 9 (8 p.m.) 1,980 sec.-ft.; June 8 (2 p.m.) 1,600 sec.-ft.; Sept. 22 (11 p.m.) sec.-ft.

Winter discharge measurement made on this day.

No gage-height record; discharge computed on basis of weather records, recorded range of stage, records for El Rito Creek near El Rito.

Stage-discharge relation affected by ice.

El Rito Creek near El Rito, N. Mex.

Location.- Water-stage recorder, lat. 36°23', long. 106°13', in sec. 19, T. 25 N., R. 7 E., three-quarters of a mile upstream from boundary of Carson National Forest and 3 miles northwest of El Rito.

Records available.- May 1931 to September 1941.

Extremes.- Maximum discharge during year, 1,170 second-feet May 13 (gage height, 5.90 feet), from rating curve extended above 570 second-feet by logarithmic plotting; minimum daily recorded, 0.8 second-foot Nov. 12, 13.

1931-41: Maximum discharge not determined; minimum daily recorded, 0.3 second-foot June 21-23, 1934.

Remarks.- Records fair except those for periods of ice effect, which are poor. One diversion above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	1.5	1.5	2.2	b2.5	*b4.8	5.5	42	242	136	14	4.3	3.0	
2	1.2	1.5	*2.0	-	-	5.5	35	258	132	13	4.1	3.0	
3	1.2	1.5	2.2	-	-	4.1	35	258	138	12	4.5	2.8	
4	1.2	1.7	2.3	-	-	3.7	39	235	129	12	4.5	2.4	
5	1.3	1.4	2.2	-	-	5.5	47	272	130	12	4.8	2.4	
6	2.3	1.5	1.9	-	-	3.9	48	397	120	12	6.9	2.4	
7	1.6	1.4	1.9	*b2.8	-	4.5	52	464	115	11	8.0	2.3	
8	1.3	1.4	1.8	-	-	3.4	60	557	187	10	12	2.3	
9	1.2	1.4	1.8	-	-	4.3	77	608	124	11	11	2.5	
10	1.2	1.5	2.1	-	-	3.9	84	569	124	10	6.9	2.4	
11	1.0	.9	2.0	-	-	4.9	60	536	104	12	6.9	2.4	
12	1.0	.8	2.1	-	-	5.1	88	632	91	12	15	2.4	
13	1.0	b.8	1.8	-	-	4.1	94	746	79	9.4	10	2.7	
14	1.0	b.9	-	-	-	6.0	75	589	70	9.4	6.3	3.9	
15	1.0	b1.1	-	-	-	6.5	84	450	67	9.1	5.0	4.1	
16	1.0	b1.3	b1.5	-	-	4.1	94	424	60	10	4.5	3.6	
17	1.0	1.6	-	-	4.1	5.8	104	437	52	8.0	4.1	3.0	
18	*1.0	1.7	-	-	4.1	6.8	82	412	46	7.1	4.1	3.0	
19	1.0	2.0	-	-	4.1	9.8	88	325	38	8.0	3.6	3.0	
20	1.0	*1.5	(*)	-	4.3	13	46	214	33	12	3.3	3.6	
21	1.1	2.7	-	-	4.3	16	44	198	31	8.3	6.4	5.6	
22	1.1	2.1	-	-	3.5	15	43	286	31	7.4	4.8	4.8	
23	1.1	2.0	-	-	5.1	16	46	264	31	7.1	3.9	8.8	
24	1.1	2.2	b3	-	5.1	17	53	306	36	7.7	3.5	5.6	
25	1.1	2.3	-	-	4.7	14	76	304	37	8.0	3.3	4.1	
26	1.2	2.3	-	-	4.5	13	102	324	25	6.6	3.1	3.6	
27	1.6	1.8	-	-	4.5	11	147	273	22	5.9	3.0	3.5	
28	2.3	2.1	-	-	6.0	14	158	250	19	5.4	3.1	4.1	
29	1.8	2.4	-	-	-	16	172	210	17	5.2	3.3	32	
30	1.8	2.3	-	-	-	-	22	189	186	14	5.0	3.6	20
31	1.7	-	-	-	-	35	-	162	-	4.1	3.3	-	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	39.9	2.3	1.0	1.29	79
November.....	49.6	2.7	.8	1.65	98
December.....	75.8	-	-	2.45	150
Calendar year	-	-	-	-	-
January.....	126.4	6.0	3.5	4.51	251
February.....	301.8	35	3.4	9.74	599
March.....	2,332	189	33	77.7	4,630
April.....	11,378	746	162	367	22,670
May.....	2,238	187	14	74.6	4,440
June.....	284.7	14	4.1	9.18	565
July.....	171.1	15	3.0	5.52	339
August.....	149.3	32	2.3	4.98	296
September.....	-	-	-	-	-
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Rio Ojo Caliente at La Madera, N. Mex.

Location.- Water-stage recorder, lat. $36^{\circ}20'45''$, long. $106^{\circ}02'50''$, in NE $\frac{1}{4}$ sec. 1, T. 24 N., R. 8 E., 2.5 miles south of La Madera, 3 miles downstream from confluence of Rio Vallecitos and Rio Tusas, and 4 miles north of Ojo Caliente.

Records available.- April 1932 to September 1941.

Extremes.- Maximum discharge during year, 2,390 second-feet May 13, maximum gage height, 4.57 feet May 1; minimum daily discharge, 5 second-feet Aug. 1, 2.

1932-41: Maximum discharge, 2,570 second-feet Apr. 16, 1937, from rating curve extended above 1,100 second-feet by logarithmic plotting; maximum gage height, 7.60 feet (site and datum then in use) July 15, 1933; minimum daily discharge, 1 second-foot at times.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	15	21	38	28	79	430	1,210	555	61	5	13
2	20	14	19	31	25	94	338	1,590	474	52	5	13
3	17	13	19	23	26	79	332	1,360	460	40	8	13
4	17	14	18	21	24	61	404	1,240	469	37	13	13
5	17	14	19	23	24	91	468	1,090	410	34	11	12
6	23	13	20	29	29	68	442	1,360	390	52	10	12
7	23	14	20	25	34	73	456	1,640	405	35	24	11
8	19	14	20	23	31	59	508	1,810	518	37	24	11
9	16	14	20	22	26	63	589	1,800	464	31	50	11
10	14	14	29	22	32	57	603	1,770	375	35	38	11
11	13	13	25	24	29	50	462	1,640	312	37	29	11
12	13	10	28	26	35	46	524	1,720	289	42	25	11
13	13	9	23	25	32	48	792	2,000	262	42	25	12
14	12	9	17	23	35	46	596	1,770	268	35	25	13
15	13	10	20	25	42	55	666	1,390	262	31	23	17
16	12	12	26	22	59	63	729	1,190	253	25	21	16
17	12	13	29	21	61	112	785	1,230	231	26	20	13
18	12	15	30	21	66	144	652	1,390	215	26	20	16
19	12	30	28	22	70	172	442	1,230	175	16	21	14
20	12	21	28	24	85	190	332	945	169	38	26	16
21	12	24	29	25	100	240	314	845	141	68	24	19
22	12	20	29	23	100	190	308	1,050	150	32	34	24
23	12	24	32	25	112	246	356	945	124	18	24	50
24	12	25	37	23	97	386	344	1,050	187	14	19	42
25	11	25	34	26	112	338	456	1,080	215	11	15	32
26	12	26	29	22	100	257	645	980	130	9	13	30
27	12	24	28	24	73	195	792	945	96	8	14	17
28	15	17	34	24	66	240	888	910	82	8	15	22
29	15	17	34	28	-	272	895	767	96	7	13	63
30	15	23	35	30	-	356	948	673	99	6	13	59
31	16	-	38	32	-	398	-	607	-	7	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	450	23	11	14.5	893
November	506	30	9	16.9	1,000
December	818	38	17	26.4	1,620
Calendar year 1940	17,317	514	4	47.4	34,340
January	770	38	21	24.8	1,530
February	1,553	112	24	55.5	3,080
March	4,768	398	46	154	9,460
April	16,576	948	308	553	32,880
May	38,927	2,000	607	1,256	77,210
June	8,235	535	82	275	16,340
July	920	68	6	29.7	1,820
August	620	50	5	20.0	1,230
September	616	63	11	20.5	1,220
Water year 1940-41	74,760	2,000	5	205	148,300

Chamita ditch near Chamita, N. Mex.

Location.- Water-stage recorder, in NW $\frac{1}{4}$ sec. 5, T. 21 N., R. 8 E., 2,000 feet downstream from head gate, 1 $\frac{1}{2}$ miles upstream from gaging station on Rio Chama near Chamita, and $3\frac{1}{2}$ miles northwest of Chamita.

Records available.- March 1936 to April 1941 (discontinued).

Remarks.- Ditch diverts water from left bank of Rio Chama for irrigation on San Juan Grant. Many other ditches divert from Rio Chama, but no records for them were obtained.

Diversion, in acre-feet, October 1940 to April 1941

October.....	316	February.....	0
November.....	51	March.....	86
December.....	13	April 1-9.....	133
January.....	0		
The period.....			599

Santa Clara ditch near Espanola, N. Mex.

Location.- Water-stage recorder and 4-foot Parshall flume, in NW $\frac{1}{4}$ sec. 15, T. 20 N., R. 8 E., 300 feet upstream from siphon under Santa Clara Creek, three-quarters of a mile east of Santa Clara, 2 miles downstream from head gate, and 2 miles south of Espanola.

Records available.- March 1936 to September 1941.

Remarks.- Ditch diverts water from right bank of Rio Grande in SE $\frac{1}{4}$ sec. 3, T. 20 N., R. 8 E., for irrigation on Santa Clara Pueblo Grant.

Diversion, in acre-feet, water year
October 1940 to September 1941

October.....	0	April.....	22
November.....	0	May.....	200
December.....	0	June.....	387
January.....	0	July.....	79
February.....	29	August.....	149
March.....	0	September....	108
Water year 1940-41.....			954

Rio Santa Cruz at Cundiyo, N. Mex.

Location.- Water-stage recorder, lat. 35°58', long. 105°55', in SE¼NW¼ sec. 17, T. 20 N., R. 10 E., 135 feet downstream from highway bridge at confluence of Rio Medio and Rio Frijoles and a quarter of a mile northwest of Cundiyo.

Records available.- September 1931 to September 1941 in reports of Geological Survey. September 1915 to December 1931 (as Rio Medio at Cundiyo and Rio Santa Cruz above Chimayo, N. Mex.) in reports of State engineer.

Average discharge.- 24 years (1916-29, 1930-41), 33.9 second-feet.

Extremes.- Maximum discharge during year, 550 second-feet May 14 (gage height, 3.39 feet); minimum daily, 4.6 second-feet Nov. 11.

1931-41: Maximum discharge, 2,610 second-feet Sept. 24, 1931 (gage height, 8.20 feet, datum then in use), from rating curve extended above 170 second-feet; minimum daily, 3 second-feet Feb. 3, 1932, and Jan. 21, 1935.

Remarks.- Records good except those for March and April, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	12	b9	12	a11	19	65	167	321	138	44	32
2	18	13	b9	11	a9	23	72	254	301	128	41	31
3	18	12	b8	7.3	a10	20	55	237	289	119	42	30
4	35	13	*b8	b6	*b9	18	45	260	274	112	46	29
5	26	11	b8	b8	b10	20	50	204	278	104	45	27
6												
7	27	13	b9	b10	b10	19	53	221	271	101	42	27
8	23	12	b9	b12	11	19	43	234	278	93	58	25
9	21	12	b9	*b13	b9	21	42	244	282	85	69	25
10	20	*12	b10	a13	b10	17	45	293	271	82	83	25
11	23	9.9	11	a12	10	19	55	317	260	76	97	24
12	23	4.6	12	a14	11	24	59	313	247	80	97	24
13	20	b5	11	a16	11	23	70	365	218	76	103	24
14	19	b6	11	a16	11	19	67	437	204	67	101	26
15	18	b5	11	a13	11	19	64	482	198	62	96	26
16	18	b8	7.0	a14	13	22	75	442	198	61	89	27
17	17	b9	b6	a11	13	28	69	396	195	56	79	24
18	16	b11	b9	a9	13	28	77	368	209	52	79	23
19	16	b10	b13	a11	*13	30	79	392	224	50	70	24
20	15	b14	8.2	a12	13	30	75	396	240	50	63	28
21	15	12	b9	a14	13	44	77	370	244	57	63	44
22	14	11	b10	a15	14	51	77	349	237	59	69	31
23	14	*11	b12	a12	15	44	55	349	237	65	61	43
24	13	11	*b15	a13	17	43	45	341	221	58	54	35
25	13	11	14	a12	17	47	44	337	231	57	61	34
26	13	11	12	a14	17	56	50	337	215	53	46	46
27	14	10	b13	a11	16	50	64	345	198	50	42	41
28	15	b7	14	a12	14	46	103	361	181	63	38	39
29	14	b9	13	a13	-	53	112	353	173	53	36	43
30	14	b9	13	a13	-	53	113	349	162	47	38	106
31	13	-	13	a14	-	55	115	345	148	44	38	93
	13	-	13	a13	-	55	-	333	-	44	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	555	33	13	17.9	1,100
November	306.5	14	4.6	10.2	608
December	328.2	15	6	10.6	651
Calendar year 1940	10,820.3	150	4.6	29.6	21,460
January	374.3	16	6	12.1	742
February	345	17	9	12.3	684
March	1,015	56	17	32.7	2,010
April	2,015	115	42	67.2	4,000
May	10,211	482	167	329	20,250
June	7,005	321	148	234	13,890
July	2,242	138	44	72.3	4,450
August	1,915	103	35	61.8	3,800
September	1,126	106	23	37.5	2,230
Water year 1940-41	27,438.0	482	4.6	75.2	54,420

Peak discharge.- May 14 (6 p.m.) 550 sec.-ft.; Aug. 12 (4 p.m.) 289 sec.-ft.; Sept. 20 (1 p.m.) 264 sec.-ft.; Sept. 20 (4 p.m.) 289 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and record for Embudo Creek at Dixon and Rio Colorado near Questa.

b Stage-discharge relation affected by ice.

RIO GRANDE BASIN

Santa Clara Creek near Espanola, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°58', long. 106°11', in SW 1/4 sec. 11, T. 20 N., R. 7 E., 5 1/2 miles upstream from mouth and 5 1/2 miles south of Espanola.

Records available.- February 1936 to September 1941.

Extremes.- Maximum discharge during year, 970 second-feet Sept. 22 (gage height, 5.65 feet), from rating curve extended above 36 second-feet on basis of slope-area determination at gage height 4.19 feet; minimum daily, 0.9 second-feet Dec. 16, 1936-41; Maximum discharge, that of Sept. 22, 1941; minimum daily, 0.8 second-foot Jan. 25, 1938.

Remarks.- Records fair except those for periods of no gage-height record, doubtful gage height record, ice effect, or when the total flow bypassed the station, all of which are poor. Small diversion a quarter of a mile above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	3.4	3.6	4.2	4.5	5.1	7.6	a18	25	7.6	4.3	
2	2.9	3.6	3.6	4.2	4.0	5.1	7.4	a20	25	7.4	4.3	
3	2.9	3.5	3.5	2.3	4.5	4.9	7.4	a21	24	7.1	4.3	
4	3.0	3.7	3.5	b1.3	5.0	5.1	7.1	a22	24	7.1	4.2	
5	3.5	3.3	3.8	b1.4	5.3	5.5	7.4	a22	25	7.1	4.0	
6	3.6	3.3	3.8	b3.0	4.7	5.3	7.4	a23	22	6.6	4.0	
7	3.5	3.3	3.6	b2.5	4.3	5.3	7.6	a24	22	6.2	4.2	
8	3.5	3.2	3.6	2.9	4.2	4.7	7.9	a25	22	5.9	4.3	
9	3.6	3.1	3.6	b3.2	4.2	5.3	7.6	a26	21	5.9	4.7	
10	3.6	3.0	3.6	b3.6	4.3	4.5	8.4	27	20	5.7	4.5	
11	3.6	1.3	3.8	4.5	4.2	4.7	8.4	29	19	6.2	4.0	
12	3.5	3.0	4.0	4.9	4.3	5.1	8.7	30	18	6.6	4.2	
13	3.5	1.3	4.2	4.7	4.2	5.1	8.9	31	16	7.1	4.0	
14	3.5	1.8	4.0	4.7	4.2	5.5	8.7	35	17	6.6	3.8	
15	3.6	2.1	b1.3	4.5	4.3	5.3	8.7	34	16	6.8	3.6	
16	3.5	3.5	b.9	3.8	4.5	5.1	8.9	35	15	6.4	6.1	
17	3.3	3.0	2.7	b5.2	4.5	5.3	9.2	35	15	6.4	5.7	
18	3.3	2.8	4.3	b2.1	4.5	5.3	9.2	36	14	5.7	5.3	
19	3.3	4.5	3.0	3.6	4.5	5.7	8.7	35	13	5.3	4.9	
20	3.3	6.7	2.6	5.3	4.7	5.7	8.4	33	12	5.7	5.3	
21	3.5	5.0	2.7	5.3	4.9	6.4	8.9	31	12	5.1	5.7	
22	3.5	4.5	3.3	5.1	4.9	6.2	8.7	28	12	5.1	5.3	
23	3.5	4.5	3.6	4.9	5.1	5.9	9.2	27	12	4.9	4.9	
24	3.5	4.5	4.3	4.9	5.1	6.6	8.4	27	15	8.4	4.3	
25	3.0	3.8	4.2	4.9	5.1	6.6	8.7	28	10	6.2	3.8	
26	3.0	a4.0	3.6	4.9	4.9	6.4	9.8	27	9.5	5.3	3.8	
27	3.2	4.2	2.9	4.8	4.5	5.9	11	27	8.9	5.1	3.6	
28	3.4	3.0	4.0	4.8	4.7	6.2	12	28	8.4	4.7	3.8	
29	3.4	3.8	4.2	4.7	-	6.6	a12	27	8.1	4.3	4.0	
30	3.2	3.8	4.2	4.6	-	6.9	a14	26	7.9	4.0	4.0	
31	3.5	-	4.3	4.5	-	7.4	-	26	-	4.2	3.6	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff acre-ft
October	104.2	3.6	2.9	3.36	
November	103.5	5.7	1.3	3.45	
December	108.3	4.3	.9	3.49	
Calendar year 1940	1,426.3	19	.9	3.90	2.8
January	123.3	5.3	1.3	3.98	
February	128.1	5.3	4.0	4.58	
March	174.7	7.4	4.5	5.64	
April	266.3	14	7.1	8.88	
May	863	36	18	27.8	1.5
June	488.8	25	7.9	16.3	
July	186.5	8.4	4.0	6.02	
August	136.5	6.1	3.6	4.40	
September	141.4	42	2.0	4.71	
Water year 1940-41	2,824.6	42	.9	7.74	5.6

Peak discharge.- June 24 (4 p.m.) 106 sec.-ft.; Sept. 22 (9:30 p.m.) 970 sec.-ft.
 a No gage-height record; discharge computed on basis of records for Nambe Creek near Nambe, and Rio Tesuque above diversions, near Santa Fe.
 b Stage-discharge relation affected by ice.
 c Doubtful gage-height record; discharge computed on basis of records for Rio Tesuque above diversions near Santa Fe and Hill acequia near Espanola.
 Note.- Total flow bypassed gage Oct. 23 to Nov. 25 and Jan. 23 to Feb. 6, during construction Hill acequia diversion dam; discharge computed on basis of occasional readings of head on a 1.5-ft Cippolletti weir, five discharge measurements, weather records and records for Nambe Creek near Rio and Rio Tesuque above diversions near Santa Fe.

Principal diversions from Santa Clara Creek, N. Mex.

Records of discharge are collected for two ditches that divert water from Santa Clara Creek. Each of these ditches is equipped with a water-stage recorder for collecting gage-height records, and with a Parshall flume.

Hill acequia diverts from left bank of Santa Clara Creek in SW $\frac{1}{4}$ sec. 11, T. 20 N., R. 7 E., 300 feet downstream from gaging station on Santa Clara Creek near Santa Clara. Flow is supplemented by infiltration to concrete pipe line through which water is diverted. Water is used to supply Guachupangue ditch and for irrigation of Indian lands on the right bank of Santa Clara Creek near the village of Santa Clara. Records available, November 1940 to September 1941. Records for Hill acequia near Espanola for the period December 1939 to November 1940 not equivalent.

Guachupangue ditch diverts from left bank of Hill acequia in SW $\frac{1}{4}$ sec. 9, T. 20 N., R. 8 E., 800 feet downstream from gaging station on acequia. Water is used for irrigation of lands on the left bank of Santa Clara Creek near the village of Guachupangue. Prior to Nov. 14, 1940, ditch diverted directly from left bank of Santa Clara Creek in SE $\frac{1}{4}$ s. 8, T. 20 N., R. 8 E. Records available, March 1936 to September 1941.

These are the only diversions from Santa Clara Creek below the gaging station on that stream near Santa Clara.

Diversions, in acre-feet, water year October 1940 to September 1941					
Month	Hill acequia	Guachupangue ditch	Month	Hill acequia	Guachupangue ditch
October.....	-	0	April.....	126	55
November.....	a0	0	May.....	212	80
December.....	0	0	June.....	299	129
January.....	0	0	July.....	295	123
February.....	7.7	0	August....	214	92
March.....	71	9.3	September.	120	55
Water year 1940-41.....				1,345	543

a Nov. 14-30; new diversion completed and station placed in operation.

San Ildefonso ditch near Espanola, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, in sec. 22, T. 20 N., R. 8 E., 7,500 feet downstream from head gate and 2 $\frac{1}{2}$ miles south of Espanola.

Records available.- December 1939 to September 1941.

Remarks.- Ditch diverts water from right bank of Rio Grande in SE $\frac{1}{4}$ sec. 15, T. 20 N., R. 8 E., for irrigation near San Ildefonso. Records include seepage inflow between head gate and gage.

Diversion, in acre-feet, water year
October 1940 to September 1941

October.....	28	April.....	3.4
November.....	0	May.....	a62
December.....	0	June.....	b29
January.....	0	July.....	80
February.....	0	August....	7.5
March.....	0	September.	55

a May 1-6; no record May 7 to June 12, ditch and gage submerged by overflow from Rio Grande.

b June 13-30.

Nambe Creek near Nambe, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°52', long. 105°57', in sec. 24, T. 19 N., R. 9 E., in Nambe Pueblo Grant, 1,000 feet downstream from diversion dam for Nambe Canal, 2½ miles southeast of Nambe, and 6½ miles upstream from Rio Tesuque.

Records available.- May 1932 to September 1941.

Extremes.- Maximum discharge observed during year, 835 second-feet Sept. 20 (gage height, 6.35 feet, from highwater mark in well), from rating curve extended above 110 second-feet by logarithmic plotting on basis of slope-area determination at gage height 6.2 feet; minimum daily, 1.7 second-feet Jan. 4.
1932-41: Maximum discharge, 878 second-feet Aug. 23, 1935 (gage height, 6.43 feet), from rating curve extended above 65 second-feet by logarithmic plotting; no flow several days in October 1934.

Remarks.- Records good except those for periods of ice effect, which are fair, and those for period of doubtful or no gage-height record, which are poor. Nambe Canal diverts water 1,000 feet upstream from station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	5.3	4.4	4.6	b5.9	*5.5	17	43	118	72	24	16
2	7.8	5.5	4.4	4.4	b5.7	5.8	15	63	115	70	22	12
3	8.1	5.3	4.4	b2.5	b3.9	5.8	14	60	108	68	22	13
4	8.4	5.3	b4.2	b1.7	b4.1	5.5	14	66	106	66	19	11
5	8.1	4.8	*b4.1	b5.3	b4.2	6.0	14	64	109	64	18	9.8
6	7.8	5.3	4.6	b4.6	*b4.4	5.8	14	68	109	68	17	9.5
7	7.5	5.1	4.4	b5.7	4.4	5.5	14	75	109	59	17	9.8
8	7.2	5.1	b4.4	b5.9	4.4	b4.6	14	83	110	56	19	8.1
9	6.9	5.3	b4.4	b4.1	b4.2	5.5	14	92	102	53	21	7.8
10	8.1	4.4	4.8	b4.1	4.4	b5.1	17	96	94	50	21	7.8
11	8.1	3.5	4.8	b4.2	4.4	5.3	16	96	87	51	20	8.1
12	7.5	b4.4	4.8	4.6	4.6	6.2	18	100	77	49	23	8.1
13	7.2	b5.7	4.6	4.4	4.6	6.2	21	121	76	46	27	8.4
14	6.9	b5.3	4.6	4.4	4.4	6.4	20	140	79	44	29	8.9
15	6.9	*b4.8	2.7	4.4	4.6	6.2	21	131	80	43	27	9.5
16	6.7	b5.3	b2.4	b4.4	4.8	6.2	21	131	76	40	25	8.1
17	6.4	b5.5	5.5	*b4.1	4.6	6.9	22	129	87	50	31	7.8
18	6.2	5.8	5.1	b5.5	4.8	7.2	21	138	95	39	26	8.1
19	6.2	b6.0	4.1	b4.1	4.8	8.4	20	138	97	36	21	8.4
20	6.0	b5.1	b5.7	b4.2	4.8	*9.2	17	128	99	34	30	7.8
21	6.0	b4.6	b5.7	4.2	5.1	9.5	16	118	96	36	18	4.55
22	6.0	5.1	b4.1	b4.2	4.8	9.2	15	118	96	36	17	4.25
23	6.0	5.1	b4.8	4.2	5.1	9.2	16	115	99	34	21	4.55
24	6.0	5.1	5.1	b4.2	4.8	9.8	15	114	103	35	20	4.55
25	5.8	5.1	5.1	4.2	4.8	11	16	117	102	31	19	4.50
26	5.8	4.8	b4.4	b5.9	4.8	10	18	120	97	31	18	4.57
27	6.0	4.4	*b4.4	b4.1	b4.4	9.8	23	125	92	34	17	4.25
28	5.8	4.4	b4.6	3.9	b4.6	10	26	123	91	29	16	4.30
29	5.5	4.4	4.6	4.1	-	11	26	120	86	27	17	4.90
30	5.8	4.4	4.8	3.9	-	12	32	120	75	25	17	4.75
31	5.5	-	4.8	3.9	-	14	-	120	-	24	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	210.8	8.5	5.5	6.80	418
November.....	146.2	6.0	3.3	4.87	290
December.....	136.8	5.5	2.4	4.41	271
Calendar year 1940	3,705.1	41	2.4	10.1	7,340
January.....	124.0	4.6	1.7	4.00	246
February.....	126.4	5.1	3.7	4.51	251
March.....	238.8	14	4.6	7.70	474
April.....	547	32	14	18.2	1,080
May.....	3,272	140	43	106	6,490
June.....	2,870	118	75	95.7	5,690
July.....	1,398	72	24	45.1	2,770
August.....	655	31	16	21.1	1,300
September.....	685.2	90	7.8	22.8	1,360
Water year 1940-41	10,410.2	140	1.7	28.5	20,640

Peak discharge.- July 17 (3 p.m.) 193 sec.-ft.; Aug. 20 (1 p.m.) 225 sec.-ft.; Sept. 20 (12 m.) 835 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

d Doubtful or no gage-height record; discharge computed on basis of weather records, and records for station at Pajoaque Bridge, near Nambe, and Rio Santa Cruz at Cundiyo

Nambe Creek at Pojoaque Bridge, near Nambe, N. Mex.

cation.- Water-stage recorder, lat. 35°54', long. 106°01', in NW $\frac{1}{4}$ sec. 8, T. 19 N., R. 9 E., 300 feet downstream from head of Barranco Alto ditch, a quarter of a mile upstream from highway bridge at Pojoaque, 1 mile upstream from Rio Tesuque, and 3 miles west of Nambe.

records available.- February 1936 to September 1941.

tremes.- Maximum discharge during year, 1,700 second-feet Sept. 20 (gauge height, 5.58 feet), from rating curve extended above 660 second-feet on basis of slope-area determination at gage height 8.8 feet; minimum daily, 0.1 second-foot Nov. 10-16, Aug. 28-30.

1936-41: Maximum discharge, 4,700 second-feet July 15, 1938 (gauge height, 8.8 feet, from floodmarks), by slope-area method; no flow at times.

marks.- Records good except those for periods of ice effect or no gage-height record and those for May to September, all of which are poor.

Discharge, in second-feet, water year October 1940 to September 1941

y	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	1.7	5.3	6.0	6.5	6.8	23	77	e140	60	2.2	2.8
2	16	1.3	4.0	5.6	6.3	6.8	23	127	180	49	3.7	1.9
3	18	1.0	3.7	4.3	6.8	6.0	21	193	150	48	3.7	3.7
4	14	a1.0	3.7	b3.7	6.3	5.3	18	277	98	42	2.6	.3
5	14	a.5	*3.7	b4.3	6.3	6.3	19	274	108	40	2.0	.3
6	14	a.3	3.7	b7.0	*7.2	5.6	18	174	125	55	2.8	.3
7	13	a.2	4.0	b6.8	6.8	6.3	17	116	114	45	2.0	6.3
8	12	a.2	6.3	b7.7	6.8	6.0	17	140	127	35	1.9	1.5
9	12	a.2	7.2	b7.7	6.3	7.7	18	145	e110	27	14	1.0
0	13	a.1	8.2	b8.2	6.0	6.8	21	154	e100	28	28	.7
1	11	a.1	9.6	7.7	5.3	6.8	22	157	e85	30	16	.7
2	a9.0	a.1	8.6	8.6	5.6	8.6	25	169	75	32	20	.6
3	a8.5	a.1	8.2	9.1	5.3	9.1	31	182	70	31	a25	2.2
4	a8.0	a.1	6.8	7.7	5.3	9.6	28	199	70	25	a20	4.3
5	a7.0	.1	4.6	8.2	5.6	8.6	28	159	75	21	54	4.6
6	a6.5	.1	b4.3	7.7	6.0	8.6	25	e145	67	15	35	2.8
7	a5.5	1.3	7.2	*7.2	6.3	9.6	36	e140	80	36	28	2.2
8	a4.5	3.7	9.1	b6.0	6.8	10	34	e150	78	41	12	1.7
9	a3.0	7.2	6.8	b7.5	7.2	12	34	e135	e80	22	2.4	8.8
0	a2.5	8.2	6.0	8.2	7.7	15	28	116	e90	23	71	191
1	2.6	6.8	6.0	b6.8	7.7	18	24	e120	e85	62	37	a70
2	2.6	5.3	7.7	7.2	7.7	17	27	e115	e90	a45	24	37
3	2.6	5.6	9.1	7.7	8.6	16	28	e110	e90	34	e20	91
4	1.7	7.2	10	7.2	7.2	18	24	e105	120	44	e17	84
5	1.7	5.3	12	7.2	7.2	20	22	e130	106	25	e15	37
6	1.3	4.3	8.2	6.3	6.0	19	25	172	125	22	e8	32
7	1.5	5.3	*8.2	6.8	5.6	16	36	244	93	33	.5	30
8	1.9	5.0	8.2	7.2	5.6	15	41	187	89	27	.1	39
9	1.9	4.0	6.8	8.2	-	15	41	129	87	18	.1	174
0	1.5	5.6	5.0	7.7	-	16	50	114	70	14	.1	102
1	2.2	-	6.3	7.7	-	18	-	e108	-	6.3	6.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
tober.....	230.0	18	1.3	7.42	456
ember.....	81.9	8.2	.1	2.73	162
ember.....	208.5	12	3.7	6.73	414
Calendar year 1940.....	2,530.5	67	0	6.91	5,010
bruary.....	219.2	9.1	3.7	7.07	435
bruary.....	181.8	8.6	5.3	6.49	361
rch.....	349.5	20	5.3	11.3	693
ril.....	804	50	17	26.8	1,590
y.....	4,760	277	77	154	9,440
ne.....	2,977	180	67	99.2	5,900
ly.....	1,035.3	62	6.3	33.4	2,050
gust.....	474.9	71	.1	15.3	942
ptember.....	930.9	191	.3	31.0	1,880
Water year 1940-41.....	12,253.0	277	.1	33.6	24,290

Peak discharge.- June 24 (4:30 p.m.) 497 sec.-ft.; July 21 (3:30 p.m.) 1,080 sec.-ft.; Aug. 20 (1:30 p.m.) 760 sec.-ft.; Sept. 20 (12:30 p.m.) 1,390 sec.-ft.; Sept. 20 (4 p.m.) 1,700 sec.-ft.; Sept. 29 (8 a.m.) 665 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station near Nambe and intervening diversions.

b Stage-discharge relation affected by ice.

c Stage-discharge relation indeterminate; discharge computed on basis of gage heights, weather records, and records for station near Nambe and intervening diversions.

Principal diversions from Nambe Creek, N. Mex.

Records of discharge are collected for 12 ditches that divert water from Nambe Creek between Nambe diversion dam, 2½ miles upstream from Nambe, and confluence with Rio Tesuque. Each of these ditches is equipped with a water-stage recorder for collecting gage-height records and each one except Las Joyas, with a Parshall flume. Water diverted by these ditches is used for irrigation in the valley of Nambe Creek, except that diverted by Jacona ditch, which is used for irrigation on the left bank of Rio Pojoaque below Rio Tesuque.

Nambe Canal diverts from right bank in SE¼ sec. 24, T. 19 N., R. 9 E., 1,000 feet upstream from gaging station on Nambe Creek near Nambe. Records available, May 1932 to September 1941.

Llano Frio ditch diverts from right bank in SW¼ sec. 14, T. 19 N., R. 9 E. Records available, March 1936 to September 1941.

Llano ditch diverts from right bank in SW¼ sec. 14, T. 19 N., R. 9 E. Records available, March 1936 to September 1941.

Mocha ditch diverts from right bank in SW¼ sec. 14, T. 19 N., R. 9 E. Records available, May 1936 to September 1941.

Comunidad ditch diverts from right bank in NE¼ sec. 14, T. 19 N., R. 9 E. Records available, March 1936 to September 1941.

Ortiz ditch diverts from right bank in SE¼ sec. 10, T. 19 N., R. 9 E. Small flow diverted between gage and head gate for irrigation of about 5 acres. Records available, February 1936 to September 1941.

Canyon ditch diverts from right bank in NW¼ sec. 10, T. 19 N., R. 9 E. Records available, March 1936 to September 1941.

Acequia Rincon diverts from left bank in SE¼ sec. 9, T. 19 N., R. 9 E. Records available, March 1936 to September 1941.

Las Joyas ditch diverts from right bank in NW¼ sec. 9, T. 19 N., R. 9 E. Records available, March 1936 to September 1941.

Trujillo ditch diverts from right bank in NE¼ sec. 8, T. 19 N., R. 9 E. Records available, March 1936 to September 1941.

Barranco Alto ditch diverts from left bank in NW¼ sec. 8, T. 19 N., R. 9 E., 300 feet upstream from gaging station on Nambe Creek at Pojoaque Bridge, near Nambe, N. Mex. Records available, March 1936 to September 1941.

Jacona ditch diverts from left bank in NE¼ sec. 7, T. 19 N., R. 9 E. Gaging station is three-quarters of a mile downstream from head and 4½ miles east of San Ildefonso. Records include seepage inflow and, at times, inflow from Rio Tesuque. Records available, January 1940 to September 1941. Records not equivalent to those for Jacona ditch near Nambe collected for period April 1936 to December 1939.

Several other ditches divert from Nambe Creek, but no records for them were obtained.

Diversions, in acre-feet, water year October 1940 to September 1941

Month	Nambe Canal	Llano Frio ditch	Llano ditch	Mocha ditch	Comunidad ditch	Ortiz ditch
October.....	20	81	31	0	53	17
November.....	19	139	26	0	45	15
December.....	9.3	37	26	0	80	3.8
January.....	.4	3.0	34	0	18	1.4
February.....	0	21	32	0	6.9	4.2
March.....	33	55	52	0	0	11
April.....	16	83	48	0	36	47
May.....	70	120	123	21	94	46
June.....	92	261	189	21	161	131
July.....	121	202	139	33	186	114
August.....	104	133	157	9.7	166	108
September.....	89	76	82	15	95	29
Water year 1940-41	574	1,201	937	101	939	527
Month	Canyon ditch	Acequia Rincon	Las Joyas ditch	Trujillo ditch	Barranco Alto ditch	Jacona ditch
October.....	58	21	47	0	5.6	46
November.....	83	35	52	21	10	40
December.....	48	40	1.0	0	0	0
January.....	20	4.6	0	0	0	0
February.....	22	0	0	0	0	0
March.....	15	0	0	0	0	0
April.....	20	15	8.7	14	25	23
May.....	67	67	87	13	28	25
June.....	156	122	264	47	36	89
July.....	175	131	197	69	59	109
August.....	89	88	136	23	45	70
September.....	93	60	70	12	25	35
Water year 1940-41	846	584	863	199	234	437

Rio Tesuque above diversions, near Santa Fe, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°44', long. 105°54', in SE $\frac{1}{4}$ sec. 32, T. 18 N., R. 10 E., 1 mile upstream from Rito Tesuque and 4 miles north-east of Santa Fe.

Records available.- March 1936 to September 1941 in reports of Geological Survey. May to October 1919 at site 175 feet downstream in reports of State engineer.

Extremes.- Maximum discharge during year, 60 second-feet May 14 (gage height, 3.00 feet); minimum daily, 0.5 second-foot Jan. 4.

1936-41: Maximum discharge, 425 second-feet July 19, 1938 (gage height, 4.2 feet, from floodmarks), from rating curve extended above 10 second-feet by logarithmic plotting on basis of slope-area determination at gage height 4.0 feet; minimum daily, 0.3 second-foot Dec. 5-9, 1938.

Remarks.- Records fair except those for periods of doubtful or no gage-height record, and of ice effect, all of which are poor. Flow from small tributary spring diverted above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	1.1	1.0	1.3	1.0	2.3	6.6	21	41	14	3.7	2.8
2	1.7	1.2	1.0	1.2	.9	2.6	6.3	a25	43	13	3.5	2.8
3	1.7	1.1	.9	b.6	1.0	2.6	6.3	a24	41	12	3.5	2.7
4	1.7	1.2	1.0	b.5	1.0	2.6	6.1	a26	37	13	3.3	2.6
5	1.8	1.0	1.0	b.7	1.1	2.7	6.1	a25	36	12	3.7	2.4
6	1.7	1.2	*1.1	b.8	1.1	2.7	6.1	a26	37	12	3.5	2.3
7	1.7	1.1	1.0	b.7	*1.1	2.4	6.1	a27	36	11	3.5	2.1
8	1.7	1.1	1.1	b.8	b1.0	2.0	6.1	a29	33	10	4.1	2.3
9	1.7	1.1	1.1	b.9	1.1	2.8	6.3	3.0	32	9.6	3.9	2.3
10	2.0	1.0	1.2	1.0	1.1	2.4	6.8	3.2	32	8.9	3.9	2.1
11	1.8	.6	1.3	1.0	1.2	2.3	6.8	3.5	27	8.9	3.7	2.1
12	1.8	b.7	1.3	1.0	1.2	2.8	7.7	3.6	26	8.6	3.9	2.3
13	1.8	b.6	b1.3	1.0	1.2	3.0	8.9	3.4	24	8.3	3.9	2.3
14	1.8	.8	1.3	1.0	1.2	3.0	8.0	4.6	22	7.7	3.9	2.4
15	1.7	1.0	.7	1.0	1.3	3.0	8.3	4.0	22	8.0	3.9	2.3
16	1.7	*1.1	b.9	1.0	1.4	2.8	8.6	4.5	22	7.4	3.7	2.3
17	1.7	1.0	b1.3	b.9	1.4	3.2	9.3	4.6	22	7.7	3.9	2.3
18	1.6	1.1	1.2	*b.8	1.4	3.5	8.0	4.2	23	7.1	3.7	2.3
19	1.5	1.2	b1.0	b.9	1.5	4.1	7.4	4.5	24	5.3	3.5	2.6
20	1.6	1.1	b.9	1.0	1.5	5.1	7.1	4.3	25	5.1	3.7	3.5
21	1.5	b1.0	b.9	1.0	1.6	5.3	6.8	4.9	25	4.9	4.4	3.2
22	1.6	b.9	b1.0	1.0	1.6	5.3	6.6	4.5	23	5.3	5.0	4.4
23	1.6	b.9	1.1	1.0	1.7	4.9	6.3	4.0	22	5.1	3.9	7.1
24	1.6	1.0	1.2	1.0	1.6	5.1	6.3	4.2	22	4.7	3.7	5.6
25	1.3	1.0	1.2	1.0	1.7	5.3	6.6	4.0	21	4.5	3.5	4.4
26	1.3	1.0	b1.1	1.0	1.7	5.3	7.1	4.2	20	4.5	3.3	d5.0
27	1.4	1.0	b1.0	1.0	1.7	5.3	8.9	4.6	20	4.7	3.2	5.6
28	1.4	.9	*b1.2	1.0	*1.7	5.6	13	4.5	19	4.1	3.0	6.8
29	1.2	b.9	1.3	1.0	-	5.6	13	4.2	18	3.7	3.2	21
30	1.2	1.0	1.3	1.0	-	5.6	14	4.4	16	3.5	3.2	21
31	1.1	-	1.3	1.0	-	6.1	-	3.6	-	3.5	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	49.5	2.0	1.1	1.60	98
November.....	29.9	1.2	.6	1.00	59
December.....	34.2	1.3	.7	1.10	68
Calendar year 1940.....	1,079.0	12	.6	2.95	2,140
January.....	29.1	1.3	.5	.94	58
February.....	37.0	1.7	.9	1.32	73
March.....	117.3	6.1	2.0	3.75	233
April.....	231.5	14	6.1	7.72	459
May.....	1,148	49	21	37.0	2,280
June.....	811	43	18	27.0	1,610
July.....	238.1	14	3.5	7.68	472
August.....	113.8	5.0	3.0	3.67	226
September.....	133.0	21	2.1	4.43	264
Water year 1940-41.....	2,972.4	49	.5	8.14	5,900

Peak discharge.- May 14 (1 and 5 p.m.) 60 sec.-ft.; Aug. 22 (2 p.m.) 34 sec.-ft.; Sept. 22 (10 p.m.) 46 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Nambe Creek near Nambe.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on basis of records for Rito Tesuque near Santa Fe and Nambe Creek near Nambe.

Rio Tesuque at Tesuque, near Santa Fe, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°45', long. 105°56', in NW¼ sec. 31, T. 18 N., R. 10 E., 2,000 feet upstream from head of Acequia Medio, 3,100 feet upstream from bridge on U. S. Highways 64 and 285 at Tesuque, 1 mile downstream from Rito Tesuque, and 5 miles north of Santa Fe.

Records available.- October 1938 to September 1941. March 1936 to October 1938 at site 3,100 feet downstream (published as Rio Tesuque at Tesuque Bridge, near Santa Fe); records equivalent for flood flow only.

Extremes.- Maximum discharge during year, 500 second-feet Aug. 21 (gage height, 1.90 feet); no flow at times.
1938-41: Maximum discharge, 500 second-feet Aug. 1, 1940 (gage height 1.90 feet), by slope-area method and that of Aug. 21, 1941; no flow at times.

Remarks.- Records poor. Diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a0.1	0.1			0	0.3	12	22	44	a12	1.2	a0.6
2	a.1	.1			0	.3	11	40	44	a10	a1.1	a.6
3	a.1	.1			b0	.7	10	44	44	a8	a.9	a.5
4	a.1	.1			b0	.5	11	50	42	a9	.8	a.6
5	a.1	.1			b0	.7	11	50	38	a8	.8	a.7
6	a.1	.1	(*)		b0	.5	12	a50	38	a6	.8	.6
7	.1	0			*b0	.6	11	a50	40	5.4	1.0	.5
8	.1	0			a0	.6	10	50	40	5.0	.9	.5
9	.1	0			a0	.6	11	56	38	4.0	1.2	.5
10	.2	0			a0	1.1	12	65	34	2.6	1.5	.5
11	.1	0			a0	2.2	11	61	31	2.0	1.4	.4
12	.1	0			a0	2.2	13	65	27	1.6	1.2	.5
13	.1	0			a0	2.8	12	67	22	1.8	1.2	.6
14	.1	0			a0	3.4	9.7	65	21	1.6	1.1	.5
15	.1	0			a0	3.4	14	56	19	1.4	1.0	.5
16	.1	0			a0	3.6	15	56	18	1.3	.9	.4
17	.1	0			a0	5.0	16	52	18	1.3	1.8	.5
18	.1	0		(*)	a0	5.4	16	50	18	1.2	1.3	.4
19	.1	0			a0	8.6	16	50	18	1.2	1.0	.5
20	.1	0			a0	9.7	13	49	19	1.1	1.0	1.2
21	.1	0			a0	10	12	45	21	1.2	6.2	1.6
22	.1	0			a0	9.1	10	42	21	1.2	2.6	5.9
23	.1	0			a0	10	9.7	42	21	1.3	a3.0	10
24	.1	0			a0	10	8.6	44	20	1.2	a3.0	6.1
25	.1	0			a0	11	9.1	44	a21	1.2	a2.4	5.7
26	.1	0			a0	12	11	45	a19	1.2	a1.5	5.7
27	.1	0			a0	8.6	18	47	a18	1.2	a1.3	6.6
28	.1	0	(*)		*.1	11	20	47	a16	1.2	a1.0	18
29	.1	0			-	13	18	45	a15	1.2	a.7	31
30	.1	0			-	12	18	44	a14	1.3	a.3	26
31	.1	-			-	13	-	44	-	1.2	a.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3.2	0.2	0.1	0.10	6.3
November.....	.6	.1	0	.02	1.2
December.....	0	0	0	0	0
Calendar year 1940.....	557.4	9.7	0	1.52	1,110
January.....	0	0	0	0	0
February.....	.1	.1	0	.003	.2
March.....	172.1	13	.3	5.55	341
April.....	381.1	20	8.6	12.7	756
May.....	1,535	67	22	49.5	3,040
June.....	799	44	14	28.6	1,580
July.....	97.9	12	1.1	3.18	194
August.....	44.7	6.2	.3	1.44	89
September.....	127.7	31	.4	4.28	253
Water year 1940-41.....	3,161.4	67	0	8.66	6,280

Peak discharge.- May 13 (8:30 p.m.) 80 sec.-ft.; Aug. 21 (2 p.m.) 500 sec.-ft.; Sept. 22 (10 p.m.) 295 sec.-ft.

* Winter discharge measurement or observation of no flow made this day.

a No gage-height record; discharge computed on basis of records for station above diversions near Santa Fe, Rito Tesuque near Santa Fe, and intervening diversions.

b Stage-discharge relation affected by ice.

Rito Tesuque near Santa Fe, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°44', long. 105°53', in sec. 4, T. 17 N., R. 10 E., 0.9 mile downstream from Santa Fe National Forest boundary, 2½ miles upstream from mouth, and 5 miles northeast of Santa Fe.

Records available.- March 1936 to September 1941.

Extremes.- Maximum discharge during year, 38 second-feet May 4 (gage height, 1.80 feet); minimum, less than 0.1 second-foot Oct. 31, Nov. 1, 2, 5-7, 16-18.

1936-41: Maximum discharge, about 186 second-feet July 19, 1938 (gage height, 3.2 feet, from floodmarks), by slope-area method; minimum, less than 0.1 second-foot for extended periods.

Remarks.- Records fair except those for periods of ice-effect, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	-	0.2	0.4	b0.6	1.8	8.3	18	6.8	1.3	0.2	0.3
2	.2	-	.2	.4	b.6	2.1	8.0	29	6.5	1.2	.2	.2
3	.2	-	.2	b.3	b.7	2.1	7.4	32	6.2	1.1	.2	.2
4	.2	-	.2	b.3	b.8	2.1	6.8	35	6.2	1.2	.2	.2
5	.2	-	.2	b.4	b.8	2.2	6.8	32	6.0	1.2	.3	.2
6	.2	-	.2	.5	b.9	2.1	6.8	28	5.5	1.4	.5	.2
7	.2	-	.2	.6	1.0	2.1	6.5	26	5.8	1.2	.4	.2
8	.1	-	.2	.6	b.8	1.9	6.2	28	5.5	1.0	.6	.2
9	.1	-	.2	.6	b.7	2.2	6.5	25	5.3	.9	.9	.2
10	.2	-	.2	.6	.8	1.8	7.4	24	5.1	.9	.8	.1
11	.2	-	.2	.6	b.8	2.2	7.1	24	4.6	.8	.6	.1
12	.1	-	.2	.6	.8	2.6	7.4	24	4.2	.8	.5	.1
13	.1	-	b.2	.6	.8	2.7	8.0	22	4.0	.7	.5	.2
14	.1	-	.2	.6	.9	2.7	7.7	21	3.8	.7	.4	.2
15	.1	-	b.1	.6	1.0	2.6	8.0	20	3.6	.6	.5	.2
16	.2	-	b.1	b.6	1.1	2.7	7.7	18	3.2	.6	.4	.2
17	.2	-	.2	b.5	1.1	2.7	8.0	16	3.2	.6	.6	.1
18	.2	-	.2	b.5	1.2	3.2	7.7	15	3.2	.6	.4	.1
19	.2	b.2	b.2	b.6	1.3	3.6	7.4	14	3.2	.6	.3	.2
20	.2	b.1	b.2	.6	1.3	4.4	6.0	12	3.1	.6	.2	.6
21	.2	b.1	b.2	.5	1.4	4.8	5.5	11	2.9	.6	.7	.5
22	.1	.2	b.2	b.5	1.6	4.6	5.5	11	2.7	1.0	.5	1.1
23	.1	.2	.2	.5	1.6	4.6	5.3	9.5	2.7	.7	.7	2.6
24	.1	.2	.2	b.5	1.6	5.3	5.1	9.5	2.7	.6	.6	1.1
25	.1	.2	.3	.5	1.7	5.8	5.1	9.5	2.4	.5	.4	.9
26	.1	.2	b.2	b.5	1.6	5.5	6.0	9.5	1.8	.5	.4	.7
27	.1	.2	b.2	.6	bl.4	5.3	9.5	9.5	1.7	.6	.4	.7
28	.1	.2	.3	.6	bl.6	5.8	13	8.9	1.4	.4	.3	1.0
29	.1	.2	.3	.6	-	6.0	12	8.3	1.4	.3	.5	5.8
30	-	.2	.3	.6	-	6.2	15	7.7	1.3	.2	.4	4.8
31	-	-	.4	.6	-	7.4	-	6.8	-	.2	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4.53	0.2	0.05	0.15	9.0
November.....	3.40	.2	.05	.11	6.7
December.....	6.6	.4	.1	.21	13
Calendar year 1940.....	366.66	5.8	.01	1.00	727
January.....	16.5	.6	.5	.55	35
February.....	30.5	1.7	.6	1.09	60
March.....	111.1	7.4	1.8	3.58	220
April.....	227.7	15	5.1	7.59	452
May.....	561.2	35	6.8	18.1	1,110
June.....	118.0	6.8	1.3	3.87	230
July.....	23.6	1.4	.2	.76	47
August.....	13.9	.9	.2	.45	28
September.....	23.2	5.8	.1	.77	46
Water year 1940-41.....	1,138.23	35	.05	3.12	2,250

Peak discharge.- May 4 (2 a.m.) 38 sec.-ft.; Aug. 21 (2 p.m.) 16 sec.-ft.; Sept. 22 (9 p.m.) 32 sec.-ft.

b Stage-discharge relation affected by ice.

Note.- Discharge less than 0.1 sec.-ft. on days for which no figure is given.

Principal diversions from Rio Tesuque, N. Mex.

Records of discharge are collected for nine ditches that divert water from Rio Tesuque. Each of these ditches is equipped with a water-stage recorder for collecting gage-height records and with a Parshall flume or weir. Water diverted by these ditches is used for irrigation in the Rio Tesuque valley.

Cajon Grande ditch diverts from right bank in SW $\frac{1}{4}$ sec. 32, T. 18 N., R. 10 E., 500 feet downstream from gaging station on Rio Tesuque above diversions. Records available, March 1936 to September 1941.

De La Cruz ditch diverts from left bank in SE $\frac{1}{4}$ sec. 31, T. 18 N., R. 10 E. Records available, June 1936 to September 1941.

Acequia Madre at head diverts from right bank in SE $\frac{1}{4}$ sec. 31, T. 18 N., R. 10 E. Records available, April 1936 to September 1941.

Acequia Medio diverts from right bank in SE $\frac{1}{4}$ sec. 25, T. 18 N., R. 9 E., about 2,000 feet downstream from gaging station on Rio Tesuque at Tesuque. Records available, March 1936 to September 1941.

Hubbard ditch diverts from left bank in N $\frac{1}{4}$ sec. 25, T. 18 N., R. 9 E. Records available, June 1936 to September 1941.

Mitchell ditch diverts from infiltration pipe line along right bank near N $\frac{1}{4}$ corner sec. 25, T. 18 N., R. 9 E. Records available, June 1936 to September 1941.

Post ditch diverts from right bank in SE $\frac{1}{4}$ sec. 14, T. 18 N., R. 9 E. Records available, June 1936 to September 1941.

Qwiyo ditch diverts from right bank in SW $\frac{1}{4}$ sec. 14, T. 18 N., R. 9 E. Records available, July 1936 to September 1941.

Corral ditch diverts from left bank in NW $\frac{1}{4}$ sec. 14, T. 18 N., R. 9 E. Records available, July 1936 to April 1941 (discontinued).

Several smaller ditches divert from Rio Tesuque, but no records for them were obtained.

Diversions, in acre-feet, water year October 1940 to September 1941

Month	Cajon Grande ditch	De La Cruz ditch	Acequia Madre	Acequia Medio	Hubbard ditch	Mitchell ditch	Post ditch	Qwiyo ditch	Corral ditch
October.....	44	4.6	7.5	34	0	32	7.3	0	1.0
November.....	24	6.5	6.1	21	0	25	0	0	1.2
December.....	15	0	0	20	0	20	0	0	0
January.....	12	0	0	23	0	30	0	0	0
February.....	16	0	.6	19	0	21	0	0	0
March.....	20	0	1.6	3.6	0	32	0	0	0
April.....	30	0	43	16	6.7	42	1.6	1.2	ao
May.....	58	21	94	79	5.0	35	13	6.1	-
June.....	62	45	134	155	3.0	33	29	19	-
July.....	41	42	190	134	19	32	53	21	-
August.....	35	25	128	74	22	33	23	4.6	-
September...	42	8.7	38	56	3.4	38	7.9	6.7	-
The year or period..	398	153	643	634	61.1	373	135	68.6	2.2

a Apr. 1-9; discontinued.

Principal diversions from Rio Pojoaque, N. Mex.

Records of discharge are collected for six ditches that divert water from Rio Pojoaque between confluence of Rio Tesuque and Nambu Creek and village of San Ildefonso. Each of these ditches is equipped with a water-stage recorder for collecting gage-height records and with a Parshall flume or weir. Water diverted by these ditches is used for irrigation on each side of Rio Pojoaque, mostly along left bank.

Del Barranco ditch diverts from left bank in NE $\frac{1}{4}$ sec. 12, T. 19 N., R. 8 E. Gage is 1,800 feet downstream from head gate. Records include seepage inflow from a drain ditch. Records available, May 1936 to September 1941.

De La Otra Banda ditch diverts from right bank in SE $\frac{1}{4}$ sec. 11, T. 19 N., R. 8 E. Records available, May 1936 to September 1941.

Rancho ditch diverts from left bank in SW $\frac{1}{4}$ sec. 11, T. 19 N., R. 8 E. Records available, April 1936 to September 1941.

De Los Indios ditch diverts from left bank in SE $\frac{1}{4}$ sec. 10, T. 19 N., R. 8 E. Records available, May 1936 to September 1941.

Well ditch supplied by flow entering pipe line laid in bed of Rio Pojoaque along left bank in NE $\frac{1}{4}$ sec. 9, T. 19 N., R. 8 E. Records available, June 1938 to September 1941.

Ortiz ditch diverts from left bank in NE $\frac{1}{4}$ sec. 9, T. 19 N., R. 8 E. Records include water diverted from Well ditch, not included in records for that ditch. Records available, April 1936 to April 1941 (discontinued).

Several smaller ditches divert from Rio Pojoaque, but no records for them were obtained.

Diversions, in acre-feet, water year October 1940 to September 1941

Month	Del Barranco ditch	De La Otra Banda ditch	Rancho ditch	De Los Indios ditch	Well ditch	Ortiz ditch
October.....	38	31	17	9.7	74	0.4
November.....	48	13	4.2	4.0	43	0
December.....	25	44	5.6	0	10	0
January.....	25	4.6	1.8	0	3.6	0
February.....	28	28	7.9	0	12	0
March.....	49	34	22	0	0	0
April.....	51	53	11	15	40	0
May.....	65	163	68	139	131	-
June.....	135	155	96	92	151	-
July.....	93	143	71	106	161	-
August.....	58	81	47	35	161	-
September.....	51	25	21	15	111	-
The year or period...	666	775	372	416	898	.4

a Apr. 1-10; discontinued.

Santa Fe Creek near Santa Fe, N. Mex.

Location.- Water-stage recorder and sharp-crested concrete control, lat. 35°41', long. 105°50', in SW¼SW¼ sec. 24, T. 17 N., R. 10 E., 300 feet downstream from upper storage reservoir of New Mexico Power Co., and 6 miles east of Santa Fe.

Records available.- May to June 1910 (at site 3 miles downstream), April 1913 to December 1914 (at site 2 miles downstream) and October 1930 to September 1941 in reports of Geological Survey. January 1913 to November 1930 (at site 2 miles downstream) and November 1930 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 165 second-feet May 14 (gage height, 2.53 feet); minimum daily, 1.5 second-feet Oct. 4-7.
1930-41: Maximum discharge and gage height, those of May 14, 1941; minimum daily, 0.6 second-foot Nov. 13, 1933.

Remarks.- Records good except those for September, which are poor. No diversions above gage.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	2.5	2.1	3.0	2.5	8.1	27	63	71	28	11	7.2
2	1.7	2.5	2.1	3.8	2.5	8.1	24	94	70	25	11	7.2
3	1.7	2.5	2.1	4.5	2.5	8.1	22	84	66	23	10	6.9
4	1.5	3.0	2.3	4.7	3.0	9.9	20	77	62	23	8.3	6.9
5	1.5	4.5	2.3	4.7	4.0	11	21	75	63	21	7.9	6.9
6	1.5	4.5	2.3	4.7	4.5	11	22	86	61	22	7.9	
7	1.5	4.5	2.3	4.7	4.5	11	22	100	60	20	a7.8	
8	1.7	4.5	2.3	4.7	4.5	11	21	98	59	19	a7.8	
9	1.9	4.5	2.3	4.7	4.5	11	21	110	54	18	a7.7	
10	2.1	4.5	2.3	4.7	4.5	11	24	117	47	17	a7.7	
11	2.3	4.5	2.3	4.7	4.5	11	23	130	42	17	7.6	
12	2.5	4.5	2.3	4.7	4.5	11	26	136	37	16	7.6	
13	2.7	4.5	2.1	4.7	4.5	11	30	151	36	16	7.6	
14	2.7	4.5	2.1	4.7	4.5	11	28	144	37	13	7.6	
15	2.7	4.7	2.1	4.7	4.5	11	27	154	a40	13	7.6	
16	2.7	4.7	2.1	4.7	4.5	9.9	26	110	a40	12	7.6	a6.5
17	2.7	4.7	2.1	3.3	4.5	8.7	27	100	a45	11	7.6	
18	2.7	4.7	2.1	2.1	4.5	8.7	26	98	a45	13	7.6	
19	2.7	4.7	2.1	2.1	4.5	8.7	24	95	a50	11	7.6	
20	2.7	4.7	2.1	2.1	4.5	8.7	22	83	a50	12	7.6	
21	2.7	4.7	2.1	2.3	4.7	9.0	20	74	a50	11	7.6	
22	2.9	3.5	2.1	2.3	4.7	9.3	17	74	a50	12	7.6	
23	2.7	2.5	2.1	2.3	4.7	9.6	18	71	50	12	7.6	
24	2.7	2.5	2.1	2.3	5.7	9.9	17	70	50	11	7.6	
25	2.5	2.3	2.1	2.5	8.1	13	20	70	52	10	7.6	
26	2.5	2.3	2.1	2.5	8.1	18	25	73	48	10	7.6	
27	2.5	2.3	2.7	2.5	8.1	17	40	76	43	10	7.6	
28	2.5	2.3	3.0	2.5	8.1	17	46	76	41	10	7.6	25
29	2.5	2.3	3.0	2.5	-	20	44	74	38	11	7.6	32
30	2.5	2.3	3.0	2.5	-	22	46	71	32	12	7.6	26
31	2.5	-	3.0	2.5	-	24	-	71	-	11	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	71.7	2.9	1.5	2.31	142
November.....	110.7	4.7	2.3	3.69	220
December.....	71.1	3.0	2.1	2.29	141
Calendar year 1940.....	2,866.3	30	1.5	7.28	5,280
January.....	108.7	4.7	2.1	3.51	216
February.....	134.2	8.1	2.5	4.79	266
March.....	368.7	24	8.1	11.9	731
April.....	776	46	17	25.9	1,540
May.....	2,879	151	33	49.7	2,960
June.....	1,481	71	10	15.1	928
July.....	488	28	7.2	7.95	489
August.....	246.3	11	-	8.70	518
September.....	281.1	32	7.2	-	-
Water year 1940-41.....	6,986.5	151	1.5	19.1	13,861

a No gage-height record; discharge computed on basis of weather records, records for Rio Santa Cruz at Cundiyo, and notes by engineer for New Mexico Power Co.

San Felipe east side acequia near Domingo, N. Mex.

Location.- Water-stage recorder, in NW¹SE⁴ sec. 23, T. 15 N., R. 5 E., at siphon of Santo Domingo east riverside drain, 50 feet downstream from head gate, three-quarters of a mile west of Santo Domingo Pueblo, and 3 miles west of Domingo.

Records available.- May 1936 to September 1941.

Remarks.- Acequia diverts water from left bank of Rio Grande for irrigation between Santo Domingo and San Felipe Pueblos.

Diversion, in acre-feet, water year
October 1940 to September 1941

October	54	April.....	860
November.....	43	May.....	492
December.....	0	June.....	625
January.....	0	July.....	102
February.....	109	August.....	0
March.....	345	September.....	43
Water year 1940-41.....		2,673	

Jemez Creek near Jemez, N. Mex.

Location.- Water-stage recorder, lat. 35°39', long. 106°44', in SE¹NE⁴ sec. 32, T. 17 N., R. 2 E., 700 feet upstream from diversion dam of Jemez west side and Jemez east side ditches, 1 mile downstream from Rio Guadalupe, and 4 miles north of Jemez.

Records available.- June 1936 to May 1941 (destroyed by flood).

Extremes.- Maximum discharge recorded during period, 3,590 second-feet May 6 (gage height, 7.9 feet); minimum daily, 17 second-feet Dec. 13, 1936-41; Maximum discharge recorded, that of May 6, 1941; minimum daily, 12 second-feet July 12, 13, 1939.

Remarks.- Records good for October to February, others fair. Several diversions for irrigation upstream and downstream from station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	27	32	41	37	81	342	2,240				
2	30	27	31	38	35	85	275	2,670				
3	30	29	31	b26	38	76	259	2,390				
4	29	30	29	b20	36	71	250	2,520				
5	29	*29	31	b28	37	85	311	2,160				
6	36	29	33	*b35	37	78	501	2,800				
7	36	27	30	32	44	85	301	-				
8	30	27	31	35	40	67	363	-				
9	30	29	31	35	38	81	419	-				
10	30	29	37	33	41	72	535	-				
11	30	23	38	38	38	72	495	-				
12	29	b22	45	44	44	81	555	-				
13	27	b20	37	41	40	83	615	-				
14	27	b18	29	38	40	87	555	-				
15	27	b22	22	41	44	67	615	-				
16	27	b24	*b17	b34	51	81	655	-				
17	26	b25	32	b27	*53	93	765	-				
18	26	41	35	b32	57	107	720	-				
19	26	65	30	b41	64	126	555	-				
20	25	43	27	41	69	174	467	-				
21	24	45	b29	40	78	198	447	-				
22	25	43	32	35	74	172	389	-				
23	25	45	33	41	91	182	363	-				
24	26	41	b39	b35	85	221	400	-				
25	26	*37	b43	44	89	188	535	-				
26	25	33	33	38	71	a160	742	-				
27	27	36	b30	*41	61	a150	1,130	-				
28	33	27	40	41	64	a170	1,530	-				
29	33	33	40	b51	-	a200	1,940	-				
30	32	33	41	45	-	a230	2,240	-				
31	30	-	48	41	-	275	-	-				

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	896	36	24	28.6	1,760
November.....	949	65	18	31.6	1,880
December.....	1,036	48	17	33.4	2,050
Calendar year 1940.....	19,977	396	15	54.6	39,620
January.....	1,152	51	20	37.2	2,270
February.....	1,496	91	35	53.4	2,970
March.....	3,918	275	67	126	7,770
April.....	18,969	2,240	250	632	37,620
May 1-6.....	14,780	2,800	2,160	2,463	29,320
June.....	-	-	-	-	-
July.....	-	-	-	-	-
August.....	-	-	-	-	-
September.....	-	-	-	-	-
Water year 1940-41.....	-	-	-	-	85,650

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Rio Guadalupe near Jemez Springs.

b Stage-discharge relation affected by ice.

Jemez Creek at San Ysidro, N. Mex.

Location.- Water-stage recorder upstream from diversion dam of Zia ditch, lat. 35°34' long. 106°45', in sec. 32, T. 16 N., R. 2 E., in San Ysidro Grant, a quarter of a mile northeast of San Ysidro and 2½ miles upstream from Rio Salado.

Records available.- May 1937 to May 1941 (destroyed by flood).

Extremes.- Maximum discharge during period, 4,100 second-feet May 7 (gage height, 6. feet), from rating curve extended above 2,800 second-feet on basis of slope-area determination at gage height 6.30 feet; minimum daily, 12 second-feet Nov. 15, 1937-41; Maximum discharge, 4,100 second-feet July 28, 1939, and May 7, 1941, by slope-area method; maximum gage height, 6.30 feet July 28, 1939; minimum daily discharge, 0.7 second-foot Sept. 25, 1939.

Remarks.- Records poor. Discharge includes flow diverted by Zia ditch. Several diversions for irrigation above and below station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Se
1	31	24	49	52	46	75	e350	2,450				
2	31	22	37	47	42	103	e300	2,780				
3	32	25	34	37	47	97	e280	2,630				
4	33	25	31	24	45	79	e300	2,900				
5	33	28	32	34	46	114	e350	2,450				
6	33	24	35	46	46	108	e310	2,890				
7	33	22	34	35	52	120	342	2,960				
8	33	22	34	37	50	97	358	2,700				
9	33	28	34	38	48	97	e440	2,580				
10	33	34	42	40	49	75	e550	2,720				
11	32	31	48	44	48	79	e500	2,540				
12	32	24	51	50	51	91	e600	3,170				
13	31	b22	49	47	48	103	e550	-				
14	30	b18	38	44	48	120	514	-				
15	30	b12	33	46	50	108	e550	-				
16	29	b18	21	40	54	91	e600	-				
17	29	b22	40	34	58	114	e650	-				
18	29	b35	45	30	60	132	e700	-				
19	28	120	39	44	71	e150	792	-				
20	28	79	33	47	68	e200	708	-				
21	29	61	34	46	65	e220	526	-				
22	29	65	37	40	85	e300	490	-				
23	28	37	41	46	103	e220	466	-				
24	29	65	48	36	e90	e240	466	-				
25	27	43	59	49	e100	220	602	-				
26	26	39	46	43	e80	220	736	-				
27	29	47	40	46	62	212	e1,000	-				
28	31	36	48	48	62	204	e1,400	-				
29	30	44	47	68	-	212	e1,700	-				
30	29	46	49	54	-	240	e2,000	-				
31	27	-	56	50	-	280	-	-				

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff, acre-ft
October	937	33	26	30.2	1.8
November	1,138	120	12	37.9	2.2
December	1,264	59	21	40.8	2.5
Calendar year 1940	18,484.5	430	1.5	50.5	36.6
January	1,342	68	24	43.3	2.6
February	1,694	103	42	50.5	3.3
March	4,611	290	75	149	9.1
April	19,156	2,000	280	639	38.0
May 1-12	32,770	3,170	2,450	2,731	65.0
June	-	-	-	-	-
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	134.8

b Stage-discharge relation affected by ice.
 c Stage-discharge relation indeterminate; discharge computed on basis of records for station n Jemez and intervening diversions.

Rio Las Vacas near Cuba, N. Mex.

Location.- Water-stage recorder, lat. 35°58', long. 106°47', in sec. 13, T. 20 N., R. 1 E., 600 feet downstream from Rito Penas Negras and 10 miles southeast of Cuba.

Records available.- December 1938 to July 1941 (discontinued).

Extremes.- Maximum discharge during period, 1,530 second-foot May 13 (gage height, 3.35 feet); minimum daily, 0.7 second-foot Nov. 14, 15.
1938-41: Maximum discharge that of May 13, 1941; minimum daily, 0.2 second-foot Oct. 5, 1939.

Remarks.- Records good for April to June, others fair, except those for periods of ice effect and no gage-height record, which are poor. Several small diversions upstream and downstream from station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	1.9	1.9	4.3	b3.1	b11	44	345	580	64		
2	6.3	1.9	1.9	b4.0	b2.8	10	40	417	536	57		
3	5.8	2.1	1.9	b3.0	b3.0	b10	37	378	515	51		
4	4.3	2.6	2.1	a2.5	b3.1	b11	37	390	515	53		
5	6.3	1.9	2.1	a3.0	b3.5	12	37	424	480	57		
6	10	2.1	2.1	a3.5	b3.5	b11	37	534	508	49		
7	5.0	2.3	2.1	a3.0	4.3	b13	40	728	501	42		
8	4.3	2.6	2.1	3.1	4.0	b10	48	815	466	38		
9	3.4	2.8	2.1	3.4	b4.0	b11	67	900	352	-		
10	2.8	2.3	2.1	3.4	4.3	b9.3	76	900	274	-		
11	2.6	1.2	2.3	3.1	4.3	b11	69	1,040	248	-		
12	2.3	1.2	2.6	3.1	4.7	10	74	1,060	269	-		
13	2.1	1.0	2.3	3.1	4.3	14	74	1,150	333	-		
14	1.9	.7	2.6	3.1	4.7	12	69	1,080	315	-		
15	1.9	.7	b2.3	3.1	5.0	18	84	940	303	-		
16	1.7	.8	b2.0	b2.9	5.8	b13	107	828	280	-		
17	1.7	1.0	b2.5	b2.7	6.3	b14	123	788	274	-		
18	1.5	1.2	3.1	b2.0	7.2	b12	117	812	269	-		
19	1.3	b1.5	3.4	b2.0	8.2	b14	98	724	248	-		
20	1.3	1.9	3.1	b2.5	8.2	b18	90	559	223	-		
21	1.3	1.9	3.1	3.1	8.2	21	79	515	200	-		
22	1.3	1.7	3.4	b2.5	b8.0	18	71	572	214	-		
23	1.2	1.7	3.4	3.1	8.2	21	71	568	178	-		
24	1.3	1.9	3.4	b2.5	9.3	20	90	618	166	-		
25	1.2	1.5	2.8	3.1	11	27	114	625	142	-		
26	1.2	2.1	b3.5	3.1	b9.5	22	145	685	117	-		
27	2.3	1.7	4.3	b2.7	b9.0	b20	204	670	110	-		
28	3.4	1.9	4.3	3.1	b10	18	227	532	96	-		
29	3.1	1.9	4.3	3.1	-	21	274	618	81	-		
30	2.8	1.9	b4.0	3.1	-	25	333	602	69	-		
31	2.6	-	4.3	3.1	-	40	-	625	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	91.9	10	1.2	2.96	182
November.....	51.9	2.8	.7	1.73	103
December.....	87.4	4.3	1.9	2.82	173
Calendar year 1940.....	5,870.5	178	.4	16.0	11,650
January.....	93.3	4.3	2.0	3.01	185
February.....	167.5	11	2.8	5.98	332
March.....	491.3	40	9.3	15.8	974
April.....	2,981	333	37	99.4	5,910
May.....	21,641	1,160	345	698	42,920
June.....	8,862	360	59	295	17,530
July 1-8.....	421	67	38	52.6	835
August.....	-	-	-	-	-
September.....	-	-	-	-	-
The period.....	-	-	-	-	69,190

a No gage-height record; discharge computed on basis of weather records and records for Rio Guadalupe near Jemez Springs and Jemez Creek near Jemez Springs.

b Stage-discharge relation affected by ice.

Note.- Discharge for Jan. 8 to Feb. 5 computed on basis of twice-daily staff readings.

Rio Guadalupe near Jemez Springs, N. Mex.

Location.- Water-stage recorder, lat. 35°42', long. 106°46', in Canyon de San Diego Grant, 3 miles upstream from mouth, and 5½ miles southwest of Jemez Springs, Sandoval County. Prior to May 9, 1941, at datum 1.5 feet higher.

Records available.- December 1938 to September 1941.

Extremes.- Maximum discharge during year, 3,190 second-feet May 13 or 14 (gage height, 8.4 feet, from highwater mark in well), from rating curve extended above 1,000 second-feet by logarithmic plotting; minimum daily, 5.6 second-feet Dec. 16, 1938-41; Maximum discharge, that of May 13 or 14, 1941; minimum daily, 4.2 second-feet Dec. 27, 1939.

Remarks.- Records good except those for May and periods of no gage-height record, which are fair. Diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	12	11	17	15	41	210	879	728	102	33	25
2	13	12	10	15	14	43	174	1,140	634	97	32	23
3	14	11	10	9.5	15	40	160	877	594	90	34	24
4	14	12	10	7.0	15	38	153	1,080	586	87	35	22
5	13	11	10	10	16	43	172	922	586	100	36	20
6	18	10	12	15	16	38	164	1,390	558	a91	34	21
7	18	11	10	12	20	42	180	1,700	574	82	45	20
8	14	10	11	14	19	36	186	1,580	570	76	47	19
9	14	11	12	15	18	41	227	a1,800	472	72	58	18
10	13	12	14	15	19	38	272	a1,800	384	67	66	16
11	12	8.5	13	17	19	38	245	a1,900	336	59	44	16
12	12	8.0	13	18	22	45	278	a2,000	339	91	46	18
13	12	7.3	12	17	22	46	275	a2,100	369	65	50	21
14	12	6.2	10	15	21	46	252	a1,900	387	59	45	30
15	11	7.6	7.3	17	25	44	290	a1,500	339	72	59	54
16	10	9.5	5.6	13	28	44	328	a1,300	324	78	45	30
17	10	9.5	11	9.0	29	55	393	a1,200	310	64	40	24
18	10	12	12	10	32	68	348	a1,200	302	68	35	23
19	11	18	11	17	35	82	270	a1,000	278	55	28	23
20	10	12	10	17	37	93	232	a900	252	80	28	25
21	10	19	10	17	42	97	230	a800	230	64	30	25
22	10	17	12	12	41	89	216	a820	230	55	29	79
23	10	17	13	17	47	96	212	900	222	46	27	124
24	10	18	16	12	45	118	249	828	193	45	28	46
25	10	14	16	17	45	97	320	810	183	42	27	33
26	10	11	12	14	38	89	411	836	159	a40	25	28
27	10	14	10	15	33	85	559	855	148	42	23	26
28	14	9.5	15	17	34	95	673	792	135	44	22	28
29	13	12	16	18	-	109	766	764	118	a40	32	146
30	12	12	16	17	-	140	829	715	106	a36	40	106
31	12	-	17	17	-	187	-	724	-	32	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	374	18	10	12.1	742
November	354.1	19	8.2	11.8	702
December	367.9	17	5.6	11.9	730
Calendar year 1940	10,300.4	185	5.6	28.1	20,440
January	452.5	18	7.0	14.6	898
February	762	47	14	27.2	1,510
March	2,161	187	36	69.7	4,290
April	9,254	829	153	308	18,360
May	35,912	2,100	715	1,191	73,210
June	10,646	728	105	355	21,120
July	2,041	102	32	65.8	4,050
August	1,156	66	22	37.3	2,290
September	1,112	146	16	37.1	2,210
Water year 1940-41	65,592.5	2,100	5.6	180	130,100

Peak discharge.- Sept. 22 (8 p.m.) 321 sec.-ft.; Sept. 22 (9 p.m.) 492 sec.-ft.; Sept. 29 (5 p.m.) 213 sec.-ft.

a No gage-height record; discharge May 9-22 computed on basis of records for Rio las Vacas near Cuba; July 6, 26, 29, 30, on basis of weather records and partly estimated gage heights.

Diversions from Jemez Creek, N. Mex.

Records of discharge are collected for five ditches that divert water from Jemez Creek between Rio Guadalupe and the village of San Ysidro. Each of these ditches is equipped with a water-stage recorder for collecting gage-height records and a Parshall flume. Water diverted by these ditches is used for irrigation in the valley of Jemez Creek.

Jemez west side ditch diverts from right bank in NW $\frac{1}{4}$ sec. 33, T. 17 N., R. 2 E. (projected). Gage is 3,000 feet downstream from Jemez diversion dam. Records available, April 1936 to September 1941.

Jemez east side ditch diverts from left bank in NW $\frac{1}{4}$ sec. 33, T. 17 N., R. 2 E. (projected). Gage is 4,500 feet downstream from Jemez diversion dam. Records available, April 1936 to September 1941.

Antonio Pecos ditch diverts from left bank in NE $\frac{1}{4}$ sec. 16, T. 16 N., R. 2 E. (projected). Gage is 2,500 feet downstream from head gate. Records available, June 1936 to September 1941.

San Ysidro ditch diverts from right bank in NW $\frac{1}{4}$ sec. 29, T. 16 N., R. 2 E. (projected). Gage is 6,000 feet downstream from head gate. Records available, July 1936 to September 1941.

Zia ditch diverts from left bank in NE $\frac{1}{4}$ sec. 6, T. 15 N., R. 2 E. (projected). Gage is 6,500 feet downstream from Zia diversion dam. Records available, June 1936 to September 1941.

Diversions, in acre-feet, water year October 1940 to September 1941

Month	Jemez west side ditch	Jemez east side ditch	Antonio Pecos ditch	San Ysidro ditch	Zia ditch
October.....	484	270	44	128	99
November.....	67	180	11	108	8.7
December.....	.8	0	1.8	99	0
January.....	5.6	0	4.6	25	0
February.....	2.6	0	.4	0	0
March.....	0	0	1.2	1	21
April.....	2.8	1.4	2.8	.2	260
May.....	17	41	201	54	43
June.....	482	187	273	245	63
July.....	921	291	207	149	335
August.....	760	237	219	164	199
September.....	535	112	32	48	168
The year.....	3,278	1,319	998	1,021	1,197

Rio Puerco at Rio Puerco, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34°47'35", long. 106°59'15", in W¹/₂ sec. 31, T. 7 N., R. 1 W., in hamlet of Rio Puerco in San Clemente Grant, at Atchison, Topeka & Santa Fe Railway bridge 7 miles downstream from San Jose River.

Drainage area.- 5,160 square miles.

Records available.- September 1910 to October 1911, August 1912 to December 1914 (records fragmentary, gage heights only prior to March 1913) and March 1934 to September 1941 in reports of Geological Survey. January 1913 to December 1925 and September 1926 to December 1927 in reports of State Engineer.

Average discharge.- 16 years (1913-17, 1919-20, 1921-24, 1926-27, 1934-41), 111 second-feet.

Extremes.- Maximum discharge during year, 16,900 second-feet Sept. 23 (gage height, 5.37 feet), from rating curve extended above 2,500 second-feet by logarithmic plotting on basis of computation of flow over dam at gage height 7.24 feet; no flow at times.
1934-41: Maximum discharge, 28,300 second-feet Aug. 21, 1935 (gage height, 7.24 feet), by computation of flow over dam; no flow at times.

Remarks.- Records poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	300	0	9	7	103	52	58	414	310	a15	0	6
2	39	0	5	132	36	42	66	1,460	a300	a10	0	8
3	62	0	2	66	34	119	112	1,800	a350	a5	0	20
4	34	0	1	52	26	132	119	1,570	a500	a5	22	1
5	16	0	0	20	26	66	80	4,990	260	a30	a10	0
6	11	1	1	2	6	140	52	1,240	576	a20	a1	0
7	7	1	0	1	6	152	66	924	610	a15	a0	0
8	2	1	0	1	5	112	70	826	240	a10	0	0
9	8	1	0	3	4	220	66	715	1,130	a5	16	0
10	4	1	1	3	4	119	52	730	489	a40	846	0
11	1	0	1	3	4	58	42	730	179	0	541	0
12	0	0	1	2	4	34	48	610	119	13	36	0
13	20	0	1	9	23	28	70	610	86	26	1,030	0
14	16	0	2	53	75	36	93	700	58	55	126	1
15	5	0	1	100	148	100	138	655	86	48	66	93
16	2	0	0	31	375	58	100	625	112	a20	262	75
17	1	0	0	12	510	669	52	554	119	1	181	26
18	1	1	2	10	489	a500	42	502	112	0	317	16
19	0	1	0	6	260	a300	45	489	93	1	58	320
20	0	26	0	6	489	a200	48	489	106	86	12	270
21	0	10	0	4	390	a160	48	640	75	93	189	470
22	0	14	0	4	554	a250	48	1,960	70	52	48	36
23	0	11	0	3	528	a350	112	2,030	58	18	6	7,340
24	0	14	1	3	366	a500	66	2,370	75	15	1	874
25	0	26	42	3	406	a600	80	778	179	22	0	86
26	0	24	18	2	196	515	204	580	112	28	4	15
27	0	20	6	2	250	438	270	366	86	11	0	9
28	0	15	5	1	80	162	280	320	a40	80	0	15
29	0	10	3	1	-	58	240	280	a30	a15	0	2,200
30	0	10	1	1	-	52	222	438	a20	a5	4	2,770
31	0	-	1	111	-	48	-	310	-	a0	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	529	300	0	17.1	1,050
November	187	26	0	6.2	371
December	104	42	0	3.4	206
Calendar year 1940	21,689	2,580	0	59.3	43,030
January	654	132	1	21.1	1,300
February	5,397	554	4	193	10,700
March	6,250	669	28	202	12,400
April	2,989	280	42	99.6	5,930
May	30,705	4,990	280	990	60,900
June	6,580	1,130	20	219	13,050
July	754	93	0	24.3	1,500
August	3,786	1,030	0	122	7,510
September	14,652	7,340	0	488	29,060
Water year 1940-41	72,687	7,340	0	199	144,000

Peak discharge.- May 5 (8 a.m.) 11,100 sec.-ft.; May 22 (1 p.m.) 5,620 sec.-ft.; Aug. 10 (8 p.m.) 5,040 sec.-ft.; Aug. 13 (6 a.m.) 6,490 sec.-ft.; Sept. 23 (3 p.m.) 16,900 sec.-ft.; Sept. 30 (1 a.m.) 5,620 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for station near Bernardo.

Rio Puerco near Bernardo, N. Mex.

Location.- Water-stage recorder, lat. 34°24'30", long. 106°51'10", in Sevilleta Grant, at bridge on U. S. Highway 85, 1.2 miles southwest of Bernardo, 3 miles upstream from mouth, and 16 miles south of Belen.

Records available.- November 1939 to September 1941. September 1910 to August 1914 (fragmentary gage heights only), at site at Atchison, Topeka & Santa Fe Railway bridge, 1½ miles downstream, published as Rio Puerco near La Joya, N. Mex.

Extremes.- 1939-40: Maximum discharge during period November to September, 7,200 second-feet Aug. 27 (gage height, 7.55 feet), from rating curve extended above 3,400 second-feet by logarithmic plotting; no flow for extended periods.

1940-41: Maximum discharge during water year, 18,800 second-feet Sept. 23 (gage height, 9.80 feet), from rating curve extended above 7,800 second-feet by logarithmic plotting; no flow for extended periods.

Remarks.- Records poor. Many diversions above station for irrigation.

Discharge, in second-feet, 1939-41
1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0	0	4	0	26	89	9
2					5	107	0	2	0	15	32	6
3					3	47	0	1	0	8	11	4
4					1	35	0	0	0	4	9	22
5					0	14	0	0	0	2	21	53
6					0	10	0	0	0	0	30	46
7					0	8	0	0	0	0	651	35
8					0	6	0	0	0	2	356	16
9					0	6	0	0	0	3	92	8
10					0	4	0	0	0	1	37	2
11					0	1	0	0	0	0	17	459
12					0	1	0	0	0	0	6	240
13					0	0	0	0	0	263	40	118
14					0	0	0	0	0	195	68	197
15					0	0	0	0	0	26	38	88
16					0	0	0	0	0	4	209	53
17					0	0	0	157	0	8	63	16
18					0	0	0	4	0	18	47	7
19					0	0	0	478	0	111	49	3
20					0	0	0	4	0	92	20	82
21					0	0	0	0	0	14	152	66
22					0	0	0	712	0	3	211	198
23					0	0	0	100	0	2	758	624
24					0	0	0	77	0	1	2,540	200
25					0	0	0	43	0	1	1,570	80
26					0	0	34	13	0	0	1,520	40
27					0	0	24	9	0	39	1,860	18
28					0	0	11	4	0	1,270	168	20
29					-	0	3	0	2	753	47	20
30					-	0	5	0	0	602	24	21
31					-	0	-	0	-	350	15	-

Peak discharge.- May 19 (4 p.m.) 3,830 sec.-ft.; July 28 (11 p.m.) 3,930 sec.-ft.; Aug. 24 (3:30 a.m.) 5,250 sec.-ft.; Aug. 24 (5 p.m.) 5,660 sec.-ft.; Aug. 25 (8 p.m.) 5,160 sec.-ft.; Aug. 27 (3 a.m.) 7,200 sec.-ft.

* No gage-height record; discharge computed on basis of weather records and records for station at Rio Puerco.

Discharge, in second-feet, of Rio Puerco near Bernardo, N. Mex., 1939-41--Continued
1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	0	7	0	25	84	42	442	370	a0	a0	40
2	72	0	3	0	46	46	37	1,130	365	a0	a0	40
3	41	0	3	38	25	41	45	1,640	394	a0	a0	43
4	48	0	1	43	20	64	51	al,000	400	a0	a0	48
5	23	0	0	25	14	66	40	5,980	756	a0	a0	d1
6	10	0	0	11	8	45	25	1,330	360	a25	a0	40
7	5	1	0	6	6	70	23	1,050	660	a10	a0	d0
8	1	0	0	2	6	68	32	872	293	a5	a0	d0
9	0	0	0	1	4	72	25	472	371	a0	a0	d0
10	0	0	0	0	4	86	24	568	910	a0	a10	0
11	0	0	0	0	1	91	27	436	239	50	1,040	0
12	0	0	0	0	1	70	31	490	d100	15	142	0
13	0	0	0	0	0	58	47	466	d40	a10	1,110	0
14	0	0	0	0	0	49	54	568	a15	a20	491	0
15	0	0	0	4	38	55	54	484	a15	a30	195	0
16	0	0	0	33	145	70	43	400	a60	d40	295	d40
17	0	0	0	23	185	205	38	448	148	5	150	d80
18	0	0	0	15	a400	931	33	388	112	3	331	a10
19	0	0	0	4	a350	228	34	382	96	0	170	d40
20	0	0	0	3	a500	173	41	320	92	d40	45	598
21	0	0	0	3	a400	142	55	656	a60	d60	22	632
22	0	1	0	1	a500	182	64	1,160	a60	a40	71	178
23	0	4	0	1	a450	259	97	1,190	43	a15	5	4,110
24	0	5	0	0	200	359	130	2,720	d20	a10	2	2,380
25	0	7	0	0	224	484	125	al,000	d25	a5	1	178
26	0	15	0	0	116	478	160	a400	d30	a10	0	a20
27	0	20	6	0	125	490	448	a300	d10	a2	0	a5
28	0	14	6	0	130	284	293	a250	a5	a2	0	a7
29	0	12	3	0	-	84	271	a200	a3	a40	48	646
30	0	10	1	0	-	47	263	a300	a1	a10	65	3,940
31	0	-	0	0	-	40	-	412	-	a0	d5	-

Peak discharge-- May 5 (4 p.m.) 13,800 sec.-ft.; Aug. 11 (5 a.m.) 7,440 sec.-ft.; Aug. 13 (5 p.m.) 10,550 sec.-ft.; Sept. 20 (7 a.m.) 6,440 sec.-ft.; Sept. 23 (11 p.m.) 18,800 sec.-ft.; Sept. 30 (9 a.m.) 6,310 sec.-ft.

a No gage-height record; discharge computed on basis of seven discharge measurements, weather records, and records for station at Rio Puerco.
d Doubtful gage-height record and uncertain stage-discharge relation; discharge computed on basis of gage heights, weather records, and records for station at Rio Puerco.

Monthly discharge, in second-feet, 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
November 1939	0	0	0	0	0
December	0	0	0	0	0
Calendar year	-	-	-	-	-
January 1940	0	0	0	0	0
February	9	5	0	.3	18
March	241	107	0	7.8	478
April	77	34	0	2.6	153
May	1,608	712	0	51.9	3,190
June	2	2	0	.1	4.0
July	3,813	1,270	0	123	7,560
August	10,850	2,640	6	350	21,520
September	2,721	624	2	90.7	5,400
The period	-	-	-	-	39,320
October 1940	354	154	0	11.4	702
November	88	20	0	2.9	175
December	30	7	0	1.0	60
Calendar year 1940	19,793	2,640	0	54.1	39,260
January	213	43	0	6.9	422
February	3,923	500	0	140	7,780
March	5,361	931	40	173	10,630
April	2,667	448	23	88.6	5,270
May	27,444	5,980	200	885	54,430
June	6,093	910	1	203	12,090
July	447	60	0	14.4	887
August	4,198	1,110	0	135	8,330
September	12,817	4,110	0	427	25,420
Water year 1940-41	63,625	5,980	0	174	126,200

Bluewater Creek near Bluewater, N. Mex.

Location.—Water-stage recorder, lat. 35°18', long. 108°01', in SW¼ sec. 5, T. 12 N., R. 11 W., 2½ miles northwest of Bluewater and 8 miles downstream from storage reservoir of Bluewater-Toltec Irrigation District.

Drainage area.— 235 square miles.

Records available.— May 1912 to December 1914 and October 1930 to September 1941 in reports of Geological Survey. May 1912 to June 1919 and April 1921 to December 1931 in reports of State engineer.

Extremes.— Maximum discharge during year, 800 second-feet Apr. 28 (gage height, 6.25 feet); minimum daily, 0.7 second-foot Oct. 7, 8, and Jan. 4.

1930-41: Maximum discharge (corrected; published in error in Water-Supply Paper 898), 1,010 second-feet Sept. 1, 1936 (gage height, 6.15 feet, site and datum then in use), from rating curve extended above 65 second-feet by logarithmic plotting; no flow Mar. 9, 1931, and Feb. 3, 1935.

Remarks.— Records good except those for periods of ice effect or no gage-height record, which are poor. Flow regulated by Bluewater-Toltec Reservoir.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8			1.2	b0.9	3.3	11	521	50	50	53	35
2	1.0		0.8	1.0	b.9	3.6	11	632	55	42	45	22
3	.8		.8	.9	b.8	4.0	12	554	53	46	43	15
4	.8	a2.0	.8	.7	b.8	4.2	12	618	54	38	39	24
5	1.0		.8	1.1	b.9	4.3	12	558	54	32	53	32
6	.8		.8	1.0	b1.0	4.3	12	388	53	24	54	39
7	.7	*2.3	.8	b.9	1.2	4.6	13	340	51	22	55	42
8	.7	2.3	.8	1.0	1.2	4.6	13	290	32	22	50	39
9	5.2	2.2	.9	*1.0	1.1	4.8	14	213	34	36	47	36
10	6.0	2.4	1.2	1.0	1.2	4.9	14	91	33	49	34	30
11	2.7	2.0	1.2	1.0	1.2	5.2	15	48	57	47	36	26
12	1.1	1.9	1.1	1.3	1.2	5.6	16	50	62	46	35	24
13	1.4	b2.7	1.1	1.1	1.2	6.2	16	51	68	54	28	15
14	5.4	b3.2	1.0	1.0	1.2	7.1	16	51	75	60	32	14
15	2.0	b3.2	b.8	b1.0	1.2	7.3	17	50	76	73	21	13
16	1.0	b3.7	.9	.9	1.5	6.3	17	47	77	68	18	12
17	2.2	b3.8	1.0	.8	1.5	6.2	23	46	77	67	18	22
18	1.0	4.2	1.0	.8	1.5	6.3	20	43	87	68	18	24
19		1.9	*.9	1.1	1.6	6.3	19	40	87	68	21	24
20		1.4	.8	1.2	*1.8	6.7	19	39	87	67	22	18
21		1.1	.8	1.1	2.0	7.1	22	41	87	57	28	15
22		1.1	.9	1.1	2.4	7.3	21	43	87	63	36	15
23		1.1	1.0	1.2	2.8	7.8	20	44	87	58	37	12
24		1.2	1.0	1.4	2.7	8.1	20	45	77	56	37	12
25	a1.5	1.2	1.4	1.2	2.8	8.5	27	46	53	50	45	12
26		1.1	b.8	1.1	3.0	8.8	48	46	42	47	46	12
27		1.0	.9	1.1	3.0	8.5	346	44	36	47	50	12
28		.9	1.0	1.1	3.2	8.5	746	43	35	46	53	14
29		*1.0	1.1	*1.2	-	9.0	712	41	43	62	50	16
30		.9	1.1	1.1	-	9.0	607	39	43	67	40	12
31		-	1.2	1.0	-	9.5	-	37	-	67	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	54.1	6.0	0.7	1.75	107
November.....	59.8	4.2	.9	1.99	119
December.....	29.5	1.4	.8	.95	59
Calendar year 1940.....	2,320.6	56	.2	6.34	4,600
January.....	32.6	1.4	.7	1.05	65
February.....	45.8	3.2	.8	1.64	91
March.....	197.9	9.5	3.3	6.38	393
April.....	2,871	746	11	95.7	5,690
May.....	5,139	632	37	166	10,190
June.....	1,812	87	32	60.4	3,590
July.....	1,599	73	22	51.6	3,170
August.....	1,183	55	18	38.2	2,350
September.....	638	42	12	21.3	1,270
Water year 1940-41.....	13,661.7	746	.7	37.4	27,090

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of range of stage and preceding and succeeding record.

b Stage-discharge relation affected by ice.

San Jose River near Grants, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°04', long. 107°44', in SE 1/4 sec. 23, T. 10 N., R. 9 W., at west boundary of Acoma Indian Reservation, 8 1/2 miles southeast of Grants.

Records available.- June 1936 to September 1941.

Extremes.- Maximum discharge during year, 530 second-feet Apr. 30 (gage height, 3.20 feet); minimum daily, 4.4 second-feet Apr. 16.

1936-41: Maximum discharge, that of Apr. 30, 1941; minimum daily, 4.0 second-feet Apr. 17-21, 1937, Jan. 2-6, 1939 and Apr. 6, 1940.

Remarks.- Records fair. Diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	5.8	4.7	04.8	7.0	6.1	8.2	444	9.3	6.4	5.0	6.4
2	5.8	5.8	4.7	a4.8	7.0	6.1	8.2	394	9.0	6.4	5.0	6.1
3	5.5	5.8	4.7	a4.7	6.7	6.1	8.6	435	9.0	6.7	5.0	5.5
4	5.5	5.5	4.7	a4.8	6.4	5.5	8.6	417	9.3	7.0	5.0	5.5
5	5.5	5.5	4.7	a4.9	6.4	5.5	8.2	448	14	6.7	5.0	5.5
6	5.2	5.5	4.7	a4.9	6.1	5.2	8.2	417	a20	7.0	5.0	5.5
7	5.5	5.5	4.7	a4.8	7.0	5.0	7.6	274	a23	7.3	5.0	5.5
8	5.5	5.5	4.7	4.7	7.3	5.0	7.3	235	a15	7.0	6.1	5.5
9	5.5	5.5	a4.8	4.7	7.6	5.2	6.1	205	a13	6.1	5.2	5.5
10	5.5	5.5	a4.9	4.7	8.2	5.2	5.8	154	a12	6.1	5.2	5.8
11	5.8	5.5	a5.0	5.0	7.9	6.1	5.5	58	a11	5.5	5.2	5.8
12	5.5	5.2	a4.9	5.0	7.3	5.8	5.2	27	a10	5.2	6.0	5.8
13	5.8	5.2	a4.8	5.2	7.6	6.1	5.0	25	a9	5.2	143	5.8
14	5.8	5.2	a4.7	5.2	6.7	7.6	5.0	24	a8.2	5.2	a15	5.8
15	5.8	5.2	a4.7	5.2	5.8	15	5.0	a21	7.9	5.2	a9	5.5
16	5.8	5.2	a4.6	5.0	5.5	15	4.4	a18	8.6	5.8	a7	5.5
17	5.8	5.5	a4.7	4.7	5.8	12	4.7	a15	11	5.2	a6.5	5.5
18	5.8	5.2	a4.9	4.7	6.4	10	4.7	a14	9.8	5.0	a6	5.5
19	5.8	5.2	5.2	4.7	6.4	9.0	4.7	a11	8.2	5.0	a6.5	5.5
20	5.8	5.0	a5.0	5.0	6.7	8.2	4.7	8.6	7.6	5.0	a8	5.5
21	5.5	5.0	a4.9	5.2	7.3	8.6	5.2	12	13	5.8	a13	5.8
22	5.5	4.7	a4.8	5.2	7.6	12	7.3	43	8.2	6.1	a8	5.8
23	5.8	4.7	a4.9	5.2	8.6	12	7.6	56	7.3	5.5	a6	5.5
24	5.8	a4.8	a5.0	5.5	8.2	12	6.1	42	9.3	5.2	a6	5.5
25	5.8	a5.0	a5.2	6.1	8.2	11	5.8	36	9.3	5.2	a5.5	5.8
26	5.8	a4.8	a5.0	6.1	7.6	9.8	6.7	34	7.9	5.2	5.5	5.5
27	5.8	a4.7	a4.9	6.1	7.3	9.3	7.6	30	7.0	5.2	5.5	5.5
28	5.5	4.7	a4.8	6.4	7.0	9.0	75	23	6.4	5.2	5.5	5.5
29	5.5	4.7	a4.8	6.4	-	8.6	250	16	6.7	5.0	5.5	12
30	5.8	4.7	a4.7	6.7	-	8.2	426	11	6.7	5.0	5.5	11
31	5.8	-	a4.7	7.0	-	8.2	-	9.8	-	5.2	5.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	176.2	6.4	5.2	5.68	349
November.....	156.1	5.8	4.7	5.20	310
December.....	149.5	5.2	4.6	4.82	297
Calendar year 1940	2,314.5	92	4.0	6.32	4,590
January.....	163.4	7.0	4.7	5.27	324
February.....	197.6	8.6	5.5	7.06	392
March.....	258.4	15	5.0	8.34	513
April.....	923.0	426	4.4	30.8	1,830
May.....	3,957.4	448	8.6	128	7,850
June.....	306.7	23	6.4	10.2	608
July.....	177.6	7.3	5.0	6.73	352
August.....	389.2	143	5.0	12.6	772
September.....	180.9	12	5.5	6.03	359
Water year 1940-41	7,036.0	448	4.4	19.3	13,960

Peak discharge.- Apr. 30 (8 p.m.) 530 sec.-ft.; May 1 (10 a.m.) 505 sec.-ft.; Aug. 12 (6 p.m.) 340 sec.-ft.; Aug. 12 (9 p.m.) 274 sec.-ft.; Aug. 13 (2 a.m.) 480 sec.-ft.
 a No gage-height record; discharge computed on basis of weather records and records for station near San Fidel, and McCarty's north and south ditches near San Fidel.

San Jose River near San Fidel, N. Mex.

Location.— Water-stage recorder and concrete control with angle iron crest, lat. 35°04', long. 107°40', near quarter corner between secs. 27 and 28, T. 10 N., R. 8 W., at McCartys, 500 feet downstream from Atchison, Topeka & Santa Fe Railway bridge and 4½ miles west of San Fidel.

Records available.— June 1936 to September 1941.

Extremes.— Maximum discharge during year, 418 second-feet May 1 and 4 (gage height, 7.75 feet); minimum daily, 1.0 second-foot on several days during December and January. 1936-41: Maximum discharge, that of May 1 and 4, 1941; minimum daily, 0.5 second-foot Mar. 25, 26, 1937.

Remarks.— Records good except those for periods of no gage-height record, which are poor. Several diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.3	6.0	3.7	1.1	5.6	10	11	410	8.5	3.3	2.8	3.3
2	7.3	6.6	3.9	1.0	5.6	10	11	403	7.6	2.1	1.8	4.1
3	6.9	7.1	3.9	1.0	5.6	9.9	11	396	7.1	2.6	2.5	3.6
4	6.2	6.9	3.6	1.2	5.6	9.9	11	408	7.3	2.9	2.2	3.3
5	6.2	6.6	3.1	1.2	5.4	9.6	11	393	13	2.7	2.1	3.7
6	6.2	6.6	2.9	1.2	5.7	9.6	11	400	24	3.6	2.5	3.6
7	6.2	6.6	3.3	1.1	9.9	9.6	10	325	28	5.0	1.8	3.4
8	6.1	a6.7	3.4	1.1	10	9.3	10	266	23	5.6	3.9	3.9
9	5.9	a6.7	3.3	1.0	11	9.3	9.6	223	16	5.4	3.6	3.9
10	5.6	a6.7	3.3	1.2	11	9.3	9.0	167	11	4.7	1.6	4.1
11	5.7	a6.6	2.9	1.0	11	9.9	8.7	90	8.2	3.7	1.4	4.6
12	5.6	a6.4	2.6	1.1	10	9.6	8.7	35	5.0	4.7	7.8	4.3
13	6.1	a6.2	2.3	1.3	11	10	8.5	22	4.7	4.6	145	4.0
14	6.4	a5.8	2.3	1.0	10	12	8.6	24	4.4	4.0	22	3.4
15	6.4	a5.8	2.2	1.0	9.9	17	8.6	16	5.4	4.1	7.8	2.5
16	6.2	a6.0	1.8	1.1	9.3	19	8.2	12	5.9	4.3	6.6	2.7
17	6.2	a6.6	1.1	1.1	9.3	17	8.2	9.6	6.9	5.2	4.3	3.4
18	6.2	a6.4	1.0	1.1	10	15	8.0	7.6	5.9	6.6	5.4	2.2
19	6.1	a6.4	1.7	1.1	9.9	14	7.8	6.1	5.7	6.1	6.9	3.1
20	6.1	a6.3	2.8	1.0	10	13	7.8	5.0	5.2	1.4	9.0	2.3
21	6.4	a6.2	5.6	1.1	11	13	8.2	10	4.3	1.2	17	2.3
22	6.4	a6.0	1.1	1.1	11	17	11	48	7.7	1.7	9.3	2.7
23	6.1	a6.0	1.1	1.2	13	17	12	85	6.4	2.6	8.0	1.7
24	5.7	a6.9	1.2	1.1	12	13	7.8	5.2	6.9	2.7	7.8	1.8
25	5.6	a7.9	1.3	1.1	13	9.0	5.4	41	7.1	3.3	2.6	2.0
26	6.2	a7.0	1.2	1.0	12	11	5.7	38	6.2	2.2	1.8	2.1
27	6.4	a5.1	1.2	1.0	11	12	5.7	31	5.9	3.2	2.3	2.3
28	6.2	2.9	1.2	1.6	11	12	19	23	5.7	2.0	2.5	a3
29	6.2	2.9	1.1	1.6	-	11	181	17	4.9	1.8	2.2	a30
30	6.1	2.9	1.1	1.5	-	11	364	13	5.0	1.6	2.2	a15
31	6.1	-	1.1	2.3	-	11	-	11	-	2.1	3.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	192.3	7.3	5.6	6.20	381
November	182.6	7.9	2.9	6.09	363
December	72.3	5.6	1.0	2.33	143
Calendar year 1940	2,003.2	100	.8	5.47	3,970
January	36.6	2.3	1.0	1.18	72
February	269.8	13	5.4	9.64	535
March	370.0	19	9.0	11.9	734
April	807.3	364	5.4	26.9	1,600
May	3,995.3	410	5.0	129	7,920
June	262.9	28	4.3	8.76	521
July	107.0	6.6	1.2	3.45	212
August	300.0	145	1.4	9.68	595
September	132.3	30	1.7	4.41	262
Water year 1940-41	6,726.5	410	1.0	18.4	13,340

Peak discharge.— May 1 (7 p.m.) 418 sec.-ft.; May 4 (1 to 2 p.m.) 418 sec.-ft.; May 22 (11 p.m.) 208 sec.-ft.; Aug. 13 (10:30 a.m.) 322 sec.-ft.

a No gage-height record; discharge Nov. 8-27 computed on basis of weather records and records for station near Grants, and McCartys north and south ditches near San Fidel; Sept. 28-30, computed on basis of range of stage and records for stations near Grants and near Casa Blanca.

San Jose River near Casa Blanca, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°02', long. 107°27', in ~~WAGNET~~ sec. 3, T. 9 N., R. 6 W., 400 feet downstream from head of New Laguna ditch, 1 mile upstream from Encinal Creek, 1½ miles east of Casa Blanca, and 2 miles upstream from New Laguna Reservoir. Datum of gage is 5,586.1 feet above mean sea level (Atchison, Topeka & Santa Fe Railway bench mark).

Records available.- June 1936 to September 1941.

Extremes.- Maximum discharge during year, 994 second-feet May 23 (gage height, 4.92 feet), from rating curve extended above 420 second-feet by logarithmic plotting on basis of slope-area determination at gage height 5.30 feet; no flow at times.
1936-41: Maximum discharge, 1,330 second-feet July 26, 1937 (gage height, 5.60 feet, from floodmarks in gage well), from rating curve extended above 420 second-feet by logarithmic plotting on basis of slope-area determination at gage height 5.30 feet; no flow at times.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation above and below station. Records do not include flow bypassed station in New Laguna ditch wasteway. See records for New Laguna ditch wasteway near Casa Blanca.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	2.7	0	a2.5	4.2	a12	a3.5	466	17	0	0	a0
2	5.6	2.4	0	a2.3	6.7	a12	4.3	537	11	0	0	a9
3	3.9	3.2	0	b2.1	6.5	a12	3.5	442	4.6	0	0	a4
4	1.8	3.6	0	2.0	6.7	a12	4.8	502	7.1	0	0	a3
5	1.6	3.2	0	b2.2	6.7	a11	4.2	450	46	1.4	0	a3.5
6	2.0	3.5	0	b3.3	6.5	a8.5	3.2	486	22	.1	0	a3.5
7	1.6	3.2	0	2.4	10	a4.0	4.5	376	29	0	.7	a2.5
8	1.3	3.3	0	b2.4	a11	a4.0	3.5	266	25	0	3.4	0
9	1.6	2.9	0	b2.5	a12	a4.0	1.7	219	14	0	3.7	0
10	1.6	3.2	0	b2.3	a13	4.7	2.4	186	9.0	0	4.0	.2
11	1.6	b3.0	0	b2.7	a13	5.0	1.5	128	5.9	0	0	0
12	1.6	b3.0	0	3.9	a12	5.1	1.7	73	3.3	0	43	0
13	1.6	3.4	0	3.5	a13	4.8	1.7	41	.6	0	131	0
14	2.8	3.9	0	b2.7	a12	a6.0	.7	38	.1	2.3	29	0
15	3.5	4.0	0	b2.3	a12	a9.5	.3	32	0	2.9	3.2	2.4
16	4.5	4.2	.5	2.0	a11	a12	.9	15	0	0	1.6	.1
17	3.6	4.7	b2.0	1.9	a11	a11	.3	9.6	0	0	a1.0	2.2
18	4.0	5.0	b3.0	2.1	a12	a8.5	.8	11	0	0	a.5	55
19	3.8	5.0	b2.0	b2.6	a12	a7.0	.1	9.6	0	0	a1.0	39
20	3.0	3.9	b1.5	b2.7	a12	a6.5	0	6.1	0	22	13	9.3
21	3.3	1.2	b5.5	b2.7	a13	a6.0	0	27	0	1.4	14	6.7
22	2.3	1.6	b5.0	b2.5	a13	a9.0	8.4	69	0	0	6.1	5.7
23	2.2	1.3	b2.5	b2.3	a15	a9.5	3.5	456	0	0	.5	22
24	2.0	4.8	b5.5	b2.3	a14	a8.5	0	80	3.4	0	0	4.6
25	1.6	2.4	7.7	b2.8	a15	a8.5	0	a70	6.7	0	0	4.0
26	1.2	1.9	b2.5	b2.6	a14	a7.0	1.1	a60	0	.5	.6	3.3
27	2.2	.8	b4.0	b2.7	a13	a5.0	.5	51	0	8.5	.1	3.6
28	2.9	.7	a4.0	a2.6	a13	a5.0	.1	34	0	6.6	0	22
29	2.9	0	a3.5	a2.6	-	a4.0	90	33	0	3.4	0	193
30	2.6	0	a3.0	a2.7	-	a4.0	290	29	0	2.9	0	20
31	3.3	-	a3.0	b2.8	-	4.0	-	22	-	0	a1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	80.5	5.6	1.2	2.60	160
November	86.0	5.0	0	2.87	171
December	53.2	7.7	0	1.72	106
Calendar year 1940	2,257.0	300	0	6.17	4,480
January	79.5	3.9	1.9	2.56	168
February	313.3	15	4.2	11.22	621
March	230.1	12	4.0	7.42	456
April	437.2	290	0	14.6	867
May	5,239.3	437	6.1	169	10,390
June	204.7	46	0	6.82	406
July	52.0	22	0	1.68	103
August	257.9	131	0	8.32	512
September	418.6	193	0	14.0	830
Water year 1940-41	7,452.3	537	0	20.4	14,780

Peak discharge.- May 1 (11 p.m.) 872 sec.-ft.; May 23 (12:30 a.m.) 994 sec.-ft.; May 23 (5 a.m.) 990 sec.-ft.; Aug. 12 (11 p.m.) 430 sec.-ft.; Sept. 18 (9 p.m.) 670 sec.-ft.; Sept. 29 (2 a.m.) 384 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of study of gain or loss between Casa Blanca and station near San Fidel.

b Stage-discharge relation affected by ice.

San Jose River near Laguna, N. Mex.

Location.- Water-stage recorder upstream from diversion dam of Mesita ditch, lat. 35°01', long. 107°19', in sec. 12, T. 9 N., R. 5 W., 3½ miles east of Laguna and 4 miles downstream from Cebolleta Creek.

Records available.- February 1937 to September 1941.

Extremes.- Maximum discharge during year, 1,530 second-feet May 4 (gage height, 4.05 feet), from rating curve extended above 950 second-feet by logarithmic plotting on basis of computation of flow over dam; minimum daily, 0.1 second-foot Aug. 2 and 3, 1937-41; Maximum discharge, 3,400 second-feet Aug. 1, 1937 (gage height, 5.50 feet), by computation of flow over dam; no flow at times.

Remarks.- Records poor. Discharge includes flow diverted by Mesita ditch just below station. Several diversions above station for irrigation. Flow partly regulated by New Laguna Reservoir (capacity, about 700 acre-feet) and Paguete Reservoir (capacity, about 1,000 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.9	4.8	1.6	1.9	bl.4	9.8	8.8	559	20	8.6	0.7	10
2	73	4.8	1.6	1.4	bl.1	9.8	8.3	886	19	8.3	.1	7.8
3	6.9	4.8	bl.5	1.5	bl.2	9.8	7.4	614	25	8.3	.1	3.8
4	4.3	4.6	bl.5	bl.6	bl.1	7.6	8.1	594	28	2.4	1.5	2.6
5	4.2	5.4	bl.5	bl.6	bl.1	8.2	5.0	756	20	2.1	7.6	3.0
6		7.4	1.4	2.8	bl.1	10	4.8	391	14	5.0	5.7	2.9
7		5.6	bl.2	b2.4	3.0	12	4.6	598	9.9	4.8	3.8	2.5
8		4.1	bl.6	b2.4	3.3	11	5.3	380	90	4.5	4.6	2.8
9		.9	bl.9	b2.4	bl.6	9.8	4.0	318	80	4.2	5.3	3.2
10		b.4	4.1	bl.5	1.4	5.9	9.0	420	70	6.0	4.8	3.8
11	84.0	b.4	4.4	bl.6	1.2	d7	7.9	288	50	1.6	4.6	3.5
12		b.6	3.3	4.1	.9	d13	4.6	49	23	1.7	5.0	3.9
13		b.9	2.3	2.3	.8	9.7	4.0	46	16	1.8	51	5.3
14		b.9	bl.8	bl.6	.9	9.7	3.1	63	8.3	1.9	156	5.0
15		bl.4	bl.8	bl.5	1.0	5.9	1.6	80	6.6	2.6	163	4.3
16		bl.4	1.0	bl.4	.9	3.9	41	167	6.4	5.3	50	5.5
17	4.6	bl.6	1.8	1.2	.9	3.1	36	162	6.2	.6	20	4.3
18	7.2	bl.9	b3.9	bl.5	.9	2.9	18	124	3.5	.4	35	1.3
19	6.9	3.9	b2.4	bl.6	.9	1.8	12	80	2.0	8.7	5.1	1.4
20	4.4	3.5	b2.4	bl.6	1.2	1.5	11	77	1.2	7.6	14	2.4
21	4.1	bl.9	bl.8	bl.2	1.8	1.4	7.8	146	1.4	1.6	8.0	1.2
22	4.4	1.4	b2.3	bl.4	1.2	.8		326	1.4	1.2	1.6	42
23	4.4	1.2	bl.4	bl.1	2.4	.7	20	711	2.8	1.2	1.4	76
24	3.9	5.6	24	bl.4	1.5	1.6	10	389	2.6	1.0	1.6	9.5
25	4.1	5.0	15	bl.9	2.3	1.8	42	142	2.3	1.0	3.5	2.1
26	3.0	3.7	8.4	bl.4	7.6	1.3	170	108	2.1	.9	5.1	2.7
27	2.4	3.0	b4.8	1.5	9.2	3.3	192	88	4.0	2.4	5.0	1.7
28	3.7	b2.4	2.8	1.1	9.8	11	176	77	9.7	3.8	5.3	11
29	4.8	b2.6	1.6	3.5	-	12	134	39	8.6	2.2	16	316
30	5.0	2.3	1.8	3.3	-	11	232	36	8.6	.4	27	160
31	5.0	-	2.6	bl.6	-	10	-	28	-	.5	9.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	206.2	73	2.4	6.72	413
November.....	88.4	7.4	.4	2.95	175
December.....	122.1	24	1.0	3.94	242
Calendar year 1940.....	2,339.4	411	0	6.39	4,640
January.....	57.3	4.1	1.1	1.85	114
February.....	61.7	9.8	.8	2.20	122
March.....	206.3	13	.7	6.65	409
April.....	1,204.3	232	1.6	40.1	2,390
May.....	8,742	886	28	282	17,340
June.....	532.6	80	1.2	17.8	1,060
July.....	102.6	8.7	.4	3.31	204
August.....	622.1	163	.1	20.1	1,230
September.....	701.5	316	1.2	23.4	1,390
Water year 1940-41.....	12,649.1	886	.1	34.7	25,090

a No gage-height record; discharge computed on basis of weather records, one discharge measurement, and records for station near Casa Blanca.

b Stage-discharge relation affected by ice.

c Doubtful gage-height record; discharge computed on basis of records for Mesita ditch near Laguna.

San Mateo Reservoir at San Mateo, N. Mex.

Location.- Water-stage recorder in metal shelter, lat. 35°19', long. 107°38', in SE¼ sec. 25, T. 13 N., R. 8 W., over concrete outlet tower in upstream face of dam, three-quarters of a mile southeast of San Mateo.

Records available.- Dec. 19, 1939, to Sept. 30, 1941.

Extremes.- 1939-40: Maximum daily contents during period December to September, 60 acre-feet Feb. 11 (gage height, 35.1 feet); no storage Sept. 4-13.

1940-41: Maximum daily contents during water year, 63 acre-feet Jan. 12, 13, July 2-11 (gage height, 35.7 and 35.8 feet); minimum daily, 6 acre-feet Sept. 21.

Remarks.- Reservoir is formed by earth dam faced with loose rock; dam completed and storage began in 1937. Capacity, 57 acre-feet between gage height 15.1 feet (bottom of reservoir, survey of 1941) and 34.6 feet (approximate level of floor in earth channel spillway). No dead storage. Water is diverted below reservoir for irrigation.

Capacity table (gage height, in feet, and contents, in acre-feet)
(table derived from data furnished by State engineer's
office based on their 1941 survey)

15.1	0.3	22.0	11.3	31.0	40.6
17.0	2.3	25.0	19.2	34.0	54.3
19.0	5.9	28.0	28.6	36.0	64.3

Monthly gage height and contents, 1939-41

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Dec. 31, 1939.....	27.9	28	-
Calendar year.....	-	-	-
Jan. 31, 1940.....	35.5	52	+24
Feb. 29.....	34.8	53	+5
Mar. 31.....	34.8	58	0
Apr. 30.....	33.3	51	-7
May 30.....	29.8	36	-15
June 30.....	25.4	20	-16
July 31.....	20.6	9	-11
Aug. 31.....	15.5	1	-8
Sept. 30.....	20.2	8	+7
The period.....	-	-	-20
Oct. 31, 1940.....	22.6	12	+4
Nov. 30.....	29.5	35	+23
Dec. 31.....	34.6	57	+22
Calendar year 1940.....	-	-	+29
Jan. 31, 1941.....	35.2	60	+3
Feb. 28.....	31.3	42	-18
Mar. 31.....	32.1	45	+3
Apr. 30.....	33.2	50	+5
May 31.....	34.3	56	+6
June 30.....	35.6	62	+6
July 31.....	31.3	42	-20
Aug. 30.....	24.3	17	-25
Sept. 30.....	22.4	12	-5
Water year 1940-41.....	-	-	+4

† Gage height and contents at midnight.

f Partly estimated.

Faguete Creek near Laguna, N. Mex.

Location.— Water-stage recorder, lat. 35°09', long. 107°25', in sec. 30 T. 11 N., R. 5 W., 300 feet upstream from upper diversion dam, 3 miles northwest of Faguete Pueblo, 5 miles upstream from mouth, and 8½ miles northwest of Laguna.

Records available.— February 1937 to September 1941.

Extremes.— Maximum discharge during year, 172 second-feet Sept. 1 (gage height, 4.25 feet), from rating curve extended above 20 second-feet on basis of slope-area determination at gage height, 2.66 feet; minimum daily, 0.4 second-foot Aug. 6.
1937-41: Maximum discharge, 174 second-foot Aug. 1, 1937 (gage height, 4.28 feet), from rating curve extended above 20 second-feet on basis of slope-area determination at gage height, 2.66 feet; minimum daily, 0.2 second-foot several days in June and July 1937, Aug. 20, 1938.

Remarks.— Records fair except those for periods of ice effect and no gage-height record, which are poor. No diversion above station; several below.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	1.2	1.6	1.4	1.1	2.0	14	28	3.0	0.7	0.6	15
2	.7	1.2	1.6	1.4	1.0	1.9	8.4	40	2.5	.7	.5	a3.0
3	.7	1.2	1.8	1.2	1.0	1.8	7.3	20	2.4	.7	.5	a1.5
4	.7	1.2	1.8	1.0	1.0	1.9	5.7	44	2.1	.8	.6	a.9
5	.8	1.1	1.8	b1.0	1.1	1.9	9.2	26	2.0	.8	.5	a.7
6	.8	1.2	1.8	1.1	1.1	1.9	8.7	18	1.9	.9	.4	a.7
7	.8	1.4	1.8	1.0	1.2	1.9	6.6	15	1.9	.8	.9	a.6
8	.8	1.6	1.8	1.2	1.3	1.6	7.9	12	2.5	.7	.7	a.6
9	.8	1.6	1.8	1.2	b1.2	1.8	8.7	11	2.2	.9	.8	a.6
10	.8	1.6	1.8	1.2	1.3	1.8	11	9.8	1.8	.6	.7	.6
11	.8	1.6	1.8	1.2	1.3	2.0	9.2	9.0	1.6	.6	.6	.6
12	.8	1.6	1.8	1.4	b1.4	2.4	8.2	8.2	1.4	.6	3.6	.6
13	.9	1.6	1.8	1.3	b1.6	2.5	7.3	7.1	1.4	.7	.9	.6
14	.9	1.4	1.8	1.3	b1.6	2.5	5.8	6.1	1.4	.8	.7	.8
15	.9	1.8	1.3	1.2	b1.5	2.6	5.3	5.0	1.4	.7	4.6	.8
16	.9	1.9	.8	1.1	b1.8	3.7	6.4	4.4	1.4	.6	1.0	.7
17	.9	1.9	1.1	1.1	b2.0	4.6	6.4	3.9	1.7	.6	.9	.6
18	.9	1.9	1.2	1.1	2.1	5.5	5.3	3.5	1.4	.6	.7	.7
19	.9	2.0	1.2	1.2	2.1	8.8	3.5	3.3	1.1	.6	.6	.8
20	.9	2.0	1.0	1.2	2.1	13	3.3	2.6	1.1	1.0	1.4	6.2
21	.8	2.0	b1.0	1.2	2.2	9.8	4.1	14	1.0	.9	.9	1.0
22	.8	2.0	1.0	b1.1	2.2	6.8	2.6	20	1.0	.8	.7	10
23	.8	2.0	1.0	1.2	2.4	16	4.4	61	1.0	.7	.6	1.9
24	.8	2.0	1.1	1.1	2.2	19	9.8	33	1.0	.6	.6	.8
25	.9	2.0	1.4	1.3	1.9	6.4	41	a15	1.0	.6	.6	.6
26	.8	2.0	1.2	1.2	1.6	4.6	52	a9	.9	.6	.6	.6
27	.8	2.0	b.9	1.2	1.6	4.1	39	a7	.8	.8	.6	.6
28	.9	1.9	b1.0	1.2	1.6	6.8	33	5.9	.8	.7	.5	2.1
29	1.0	1.6	1.2	1.3	-	11	25	5.0	.8	.6	.9	16
30	1.0	1.6	1.3	1.2	-	15	19	4.4	.8	.6	.8	2.4
31	1.1	-	1.4	1.1	-	18	-	3.3	-	.6	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	26.0	1.1	0.6	0.84	52
November	50.1	2.0	1.1	1.67	99
December	43.9	1.8	.8	1.42	87
Calendar year 1940	396.6	5.8	.3	1.08	786
January	36.6	1.4	.9	1.18	73
February	44.5	2.4	1.0	1.59	88
March	183.6	19	1.6	5.92	364
April	377.8	52	2.6	12.6	749
May	454.5	61	2.6	14.7	901
June	45.3	3.0	.8	1.51	90
July	21.9	1.0	.6	.71	43
August	28.8	4.6	.4	.93	57
September	72.6	16	.6	2.42	144
Water year 1940-41	1,385.6	61	.4	3.80	2,750

Peak discharge.— Apr. 25 (6 p.m.) 104 sec.-ft.; May 23 (3 a.m.) 139 sec.-ft.; Aug. 12 (6 p.m.) 106 sec.-ft.; Aug. 15 (6:30 p.m.) 100 sec.-ft.; Sept. 1 (1 a.m.) 172 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for San Jose River near San Fidel.

b Stage-discharge relation affected by ice.

Principal diversions in San Jose River Basin, N. Mex.

Records of discharge are collected for seven ditches that divert water from the San Jose River and tributaries between the gaging stations on the San Jose River near Grants and near Laguna, and for two reservoir outlets. Each of these ditches is equipped with a water-stage recorder for collecting gage-height records and with a Parshall flume or weir. Water diverted by these ditches is used for irrigation in the valley of San Jose River.

McCartys south side ditch diverts from right bank in SE $\frac{1}{4}$ sec. 30, T. 10 N., R. 8 W. Records available, February 1940 to September 1941.

McCartys north side ditch diverts from left bank in SE $\frac{1}{4}$ sec. 29, T. 10 N., R. 8 W. Records available, February 1940 to September 1941.

Acomita Reservoir Outlet releases water from Acomita Reservoir which stores water diverted by McCartys north side ditch. Gage is in SE $\frac{1}{4}$ sec. 29, T. 10 N., R. 7 W., 500 feet downstream from Acomita Reservoir. Records available, June 1938 to September 1941.

Seama-Paraje ditch diverts from right bank in NW $\frac{1}{4}$ sec. 35, T. 10 N., R. 7 W. Gage is 1 mile downstream from head gate. Records available, March 1937 to September 1941.

Casa Blanca ditch diverts from right bank in NW $\frac{1}{4}$ sec. 5, T. 9 N., R. 6 W. Gage is 1 $\frac{1}{2}$ miles downstream from head gate. Records available, February 1937 to September 1941.

New Laguna ditch diverts from left bank in NE $\frac{1}{4}$ sec. 3, T. 9 N., R. 6 W., 400 feet upstream from gaging station on San Jose River near Casa Blanca. Gage is half a mile downstream from New Laguna wasteway and three-quarters of a mile downstream from head gate. Records available, February 1937 to September 1941.

Laguna ditch diverts from right bank at New Laguna Reservoir in center of sec. 1, T. 9 N., R. 6 W. Records available, October 1936 to September 1941.

Mesita ditch diverts from right bank in NW $\frac{1}{4}$ sec. 12, T. 9 N., R. 5 W., at gaging station on San Jose River near Laguna. Records available, June 1936 to September 1941.

Paguete Reservoir Outlet releases water from Paguete Reservoir on Cebolleta Creek. Gage in NW $\frac{1}{4}$ sec. 25, T. 10 N., R. 5 W., 600 feet downstream from reservoir. Records available, February 1940 to September 1941.

Several other ditches divert from San Jose River and tributaries, but no records for them were obtained.

Diversions, in acre-feet, water year October 1940 to September 1941

Month	McCartys south side ditch	McCartys north side ditch	Acomita Reservoir Outlet	Seama-Paraje ditch	Casa Blanca ditch	New Laguna ditch	Laguna ditch	Mesita ditch	Paguete Reservoir Outlet
October.....	220	152	5.9	36	65	108	0	4.0	0
November.....	17	125	0	72	72	133	0	0	0
December.....	20	400	2.0	77	34	22	0	0	0
January.....	3.8	492	5.9	0	0	0	0	0	0
February.....	0	54	10	0	0	0	4.4	0	0
March.....	0	20	12	0	0	18	1.4	80	0
April.....	35	63	12	81	114	65	1.0	97	0
May.....	111	267	14	136	75	142	0	124	0
June.....	139	237	9.4	195	100	147	9.9	177	56
July.....	146	264	300	129	71	96	20	109	98
August.....	136	239	346	133	136	108	23	163	145
September.....	178	271	168	108	87	89	12	121	109
Water year 1940-41	1,006	2,564	875	967	754	928	71.7	875	408

New Laguna ditch wasteway near Casa Blanca, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume in NW $\frac{1}{4}$ sec. 3, T. 9 N., R. 6 W., 700 feet downstream from waste gate and 1 $\frac{1}{2}$ miles east of Casa Blanca.

Records available.- March 1937 to September 1941.

Remarks.- Flow represents unused water returned from New Laguna ditch to San Jose River below station on that stream near Casa Blanca.

Runoff, in acre-feet, water year October 1940 to September 1941

October.....	150	April.....	379
November....	50	May.....	598
December....	41	June.....	230
January.....	.8	July.....	9.1
February....	0	August....	154
March.....	396	September..	1.6
Water year 1940-41.....			2,010

Socorro main canal north at San Acacia, N. Mex.

Location.- Water-stage recorder, lat. 34°15', long. 106°54', in SE¼NW¼ sec. 1, T. 1 S., R. 1 W., at San Acacia, half a mile downstream from point of diversion from Rio Grande. Datum of gage is 4,659.74 feet above mean sea level, datum of 1929.

Records available.- April 1936 to September 1941.

Extremes.- Maximum discharge during year, 260 second-feet Aug. 15 (gage height, 5.85 feet); no flow at times.

1937-41: Maximum discharge, 315 second-feet sometime in period July 22-24, 1940 (gage height 5.67 feet, from recorded range in stage); no flow at times.

Remarks.- Records fair except those for periods of fragmentary gage-height record, which are poor. Canal diverts water from right bank of Rio Grande for irrigation. Three acequias, together irrigating about 300 acres, divert water from canal above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	124				0	100	102	116	116	151	26
2	156	108				0	129	0	151	121	137	71
3	163	40				0	127	15	145	116	88	122
4	154	162				0	127	0	145	142	157	170
5	130	106				0	142	0	150	152	162	162
6	114	186				0	104	0	f142	105	174	135
7	127	169				0	80	0	151	146	180	82
8	136	132				0	110	80	134	150	180	167
9	145	134				47	153	51	131	149	69	168
10	145	79				70	138	15	128	160	99	161
11	109	157				106	150	0	162	138	30	165
12	106	139				114	118	0	94	144	148	171
13	f40	156				113	97	0	100	142	18	128
14	141	155				110	130	105	162	140	33	110
15	113	116				121	158	162	142	142	182	168
16	134	58				108	156	182	144	143	160	167
17	123	73				118	160	130	138	156	86	146
18	135	68				23	160	136	137	150	143	156
19	112	72				80	145	0	143	138	144	137
20	78	116				94	98	97	130	f156	143	72
21	148	40				100	132	0	149	138	138	0
22	145	0				57	114	0	111	130	142	0
23	137	0				0	137	0	125	136	126	7
24	125	32				74	158	0	132	135	64	1
25	133	68				74	101	0	134	128	184	0
26	116	72				69	42	0	142	122	178	30
27	104	49				81	69	0	104	94	168	132
28	154	0				116	103	0	42	130	196	46
29	f140	0				101	123	95	130	138	130	0
30	f136	0				0	148	132	150	169	78	0
31	f141	-				77	-	118	..	148	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,968	163	40	128	7,970
November.....	2,608	186	0	86.9	5,170
December.....	0	0	0	0	0
Calendar year 1940.....	30,436	218	0	83.2	60,380
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	1,853	121	0	59.8	3,680
April.....	3,709	160	42	124	7,560
May.....	1,420	182	0	45.8	2,820
June.....	3,945	162	42	132	7,820
July.....	4,274	169	94	135	8,480
August.....	3,861	196	18	128	7,860
September.....	2,889	171	0	96.3	5,730
Water year 1940-41.....	28,627	196	0	78.4	56,790

f Fragmentary gage-height record; discharge computed from partly estimated gage-heights.

Alamosa River near Monticello, N. Mex.

Location.- Water-stage recorder, lat. 33°35', long. 107°36', in SW¹/₄ sec. 31, T. 8 S., R. 7 W., at Alamosa dam site and old Fort Ojo Caliente, just downstream from Wild-horse Creek, and 15 miles northwest of Monticello.

Drainage area.- 470 square miles.

Records available.- May 1931 to September 1941 in reports of Geological Survey. October to December 1929 and May to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 910 second-feet Aug. 15 (gage height, 5.16 feet), from Rating curve extended above 120 second-feet by logarithmic plotting; minimum daily, 6.2 second-feet Mar. 26-28, Mar. 30 to Apr. 1, Apr. 7, 8.
1931-41: Maximum gage height, 13.6 feet Aug. 21, 1936 (discharge not determined); minimum daily discharge, 5.6 second-feet Jan. 9, 1932, Aug. 28-30, Sept. 3, 1938.

Remarks.- Records good below 10 second-feet, poor above. Entire normal flow diverted below station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	7.8	7.5	7.5	7.0	6.6	6.2	12	7.8	8.0	9.1	12
2	7.0	7.8	7.5	7.8	7.0	6.6	6.4	14	7.8	8.0	8.8	9.6
3	6.8	7.5	7.5	7.5	7.0	6.6	6.4	14	7.8	8.0	8.8	8.0
4	7.0	7.8	7.5	7.5	7.3	6.6	6.4	13	7.8	8.0	8.8	8.0
5	7.3	7.8	7.5	7.5	7.3	6.4	6.4	12	7.8	12	8.8	8.0
6	7.0	7.8	7.8	7.5	7.0	6.6	6.4	12	7.8	7.3	8.8	8.0
7	7.0	8.3	7.8	7.3	7.5	6.6	6.2	15	7.8	7.3	8.8	7.8
8	7.0	8.0	7.8	7.5	7.5	6.4	6.2	15	7.3	7.0	8.8	7.8
9	7.0	7.8	7.5	7.5	7.5	6.4	6.4	15	7.3	7.3	9.6	7.8
10	7.3	7.8	7.5	7.5	7.5	6.4	6.4	16	7.3	7.5	11	7.8
11	7.3	7.8	7.5	7.5	7.5	6.4	6.6	23	7.3	7.8	9.1	7.8
12	7.5	7.8	7.5	7.5	7.0	6.6	6.6	15	7.3	8.0	9.9	8.8
13	7.8	7.5	7.5	7.3	7.0	6.6	6.8	13	7.3	9.1	10	8.3
14	7.5	7.5	7.5	7.3	7.0	6.6	6.8	11	7.3	7.3	9.1	8.0
15	7.5	7.5	7.5	7.0	7.0	6.8	6.6	9.9	7.5	6.8	49	7.8
16	7.5	7.5	7.5	6.8	7.0	6.4	6.4	8.8	7.5	7.0	75	7.8
17	7.5	7.5	7.5	6.8	7.0	6.4	6.4	8.0	7.3	13	11	7.8
18	7.5	7.8	7.8	6.8	7.0	6.4	6.4	7.3	7.3	10	8.8	17
19	7.5	8.0	7.5	6.8	7.0	a6.4	6.4	7.3	7.3	6.8	8.3	10
20	7.5	8.0	7.5	6.8	6.8	a6.4	6.4	7.3	7.0	27	8.3	8.0
21	7.5	8.0	7.5	6.6	7.0	a6.3	6.4	8.0	7.0	8.1	15	8.0
22	7.5	8.0	7.3	6.6	7.0	a6.3	6.6	9.3	7.0	7.0	12	8.0
23	7.5	8.0	7.3	6.8	7.0	a6.3	6.4	8.8	7.3	20	11	7.8
24	7.5	8.3	7.3	6.6	7.0	a6.3	6.4	9.9	8.0	7.0	12	8.0
25	7.8	8.0	7.3	6.6	7.0	a6.3	6.6	10	7.8	7.0	11	8.0
26	7.8	8.0	7.0	6.8	7.0	a6.2	7.5	9.9	7.8	7.0	11	8.0
27	7.8	8.0	7.3	6.8	7.0	a6.2	11	9.1	7.8	30	10	8.3
28	7.8	7.8	7.3	7.5	6.6	6.2	14	8.6	7.8	7.8	10	9.9
29	7.8	7.8	7.3	7.3	-	6.4	13	8.3	7.8	8.3	10	82
30	7.8	7.8	7.3	7.0	-	6.2	12	7.8	7.8	8.3	10	17
31	7.8	-	7.8	6.8	-	6.2	-	7.8	-	9.6	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	230.1	7.8	6.8	7.42	456
November.....	235.0	8.3	7.5	7.83	466
December.....	231.9	7.8	7.0	7.48	460
Calendar year 1940.....	2,994.5	82	6.0	8.18	5,940
January.....	221.1	7.8	6.6	7.13	439
February.....	198.5	7.5	6.6	7.09	394
March.....	199.1	6.8	6.2	6.42	395
April.....	218.7	14	6.2	7.29	434
May.....	346.1	23	7.3	11.2	686
June.....	225.7	8.0	7.0	7.52	448
July.....	303.3	30	6.8	9.78	602
August.....	411.8	75	8.3	13.3	817
September.....	341.1	82	7.8	11.4	677
Water year 1940-41.....	3,162.4	82	6.2	8.66	6,270

Peak discharge.- May 11 (6 p.m.) 402 sec.-ft.; July 17 (9 p.m.) 345 sec.-ft.; July 20 (12:30 p.m.) 860 sec.-ft.; July 23 (1 p.m.) 650 sec.-ft.; Aug. 15 (7:30 p.m.) 910 sec.-ft.; Aug. 16 (2 p.m.) 630 sec.-ft.

a No gage-height record; discharge interpolated.

Pecos River near Pecos, N. Mex.

Location.- Water-stage recorder, lat. 35°42'25", long. 105°41'00", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 17 N., R. 12 E., at bridge on private road, 600 feet upstream from Indian Creek, 2 miles downstream from Holy Ghost Creek, and 11 miles north of Pecos.

Drainage area.- 189 square miles (contributing area).

Records available.- March 1910 to December 1914 (published as Pecos River near Cowles) and October 1930 to September 1941 in reports of Geological Survey. March 1910 to December 1931 (published as Pecos River near Cowles prior to 1926) in reports of State engineer.

Average discharge.- 11 years (1930-41), 111 second-feet.

Extremes.- Maximum discharge during year, 1,960 second-feet May 14 (gauge height, 4.57 feet); minimum daily, 23 second-feet Jan. 4.

1930-41: Maximum discharge, that of May 14, 1941; minimum daily, 6.1 second-feet Jan. 16, 1934.

Remarks.- Records good to May 15, except those for periods of ice effect, which are poor; fair thereafter.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	57	b56	43	b50	52	125	470	1,050	566	190	123
2	86	58	*b35	38	b27	53	112	603	964	508	197	114
3	88	57	b35	36	b51	49	101	596	831	464	212	105
4	112	b37	b23	b29	46	95	89	590	899	483	216	97
5	99	49	b37	b30	b31	*49	107	596	939	410	209	92
6	95	55	b41	b38	b33	44	114	785	939	410	216	90
7	86	52	b38	b34	*34	43	107	998	972	361	244	86
8	81	53*	b40	b35	b29	36	*110	704	947	366	334	81
9	81	52	b40	b35	b29	b45	112	1,260	875	338	370	79
10	84	47	41	b38	30	43	135	1,530	778	348	350	76
11	88	b33	42	b42	32	42	125	1,330	725	343	317	73
12	88	b35	42	b46	30	b44	142	1,600	676	330	352	74
13	90	b30	b41	b45	30	47	181	1,720	683	296	426	76
14	92	b33	b35	b38	32	47	194	1,720	711	271	375	76
15	88	b37	b28	b40	34	44	237	1,660	718	264	356	79
16	82	b40	b25	b33	35	42	248	1,550	732	256	338	71
17	81	b45	b28	*b25	35	53	283	1,600	830	264	352	68
18	78	49	b35	b28	36	58	267	1,440	915	237	338	73
19	76	47	b32	b33	36	71	223	1,330	955	248	300	76
20	74	b45	b30	*b36	38	66	187	1,170	964	291	279	118
21	74	b43	b33	b38	38	84	167	1,100	915	262	276	132
22	73	44	b38	b33	37	76	150	1,320	875	240	260	226
23	71	42	*b45	b36	40	73	140	1,320	838	226	226	420
24	70	42	b50	b34	39	76	130	1,270	899	212	212	283
25	68	41	b45	b38	41	76	138	1,220	915	187	194	216
26	67	43	b43	b31	38	74	153	1,180	822	190	172	181
27	67	37	b42	b33	34	75	206	1,220	755	230	158	161
28	67	b35	b45	35	43	79	256	1,160	718	197	156	187
29	64	b36	b42	*36	-	82	271	1,120	662	190	145	808
30	*65	b37	b42	38	-	86	352	1,080	590	170	142	690
31	58	-	b43	33	-	103	-	1,080	-	175	128	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,487	112	58	80.2	4,930
November	1,331	58	30	44.4	2,640
December	1,186	50	25	38.3	2,350
Calendar year 1940	35,683	460	16	97.5	70,760
January	1,101	46	23	35.5	2,180
February	951	43	27	34.0	1,890
March	1,879	103	36	60.6	3,730
April	5,166	352	95	172	10,250
May	35,912	1,720	470	1,158	71,230
June	25,192	1,050	590	840	49,970
July	9,283	566	170	299	18,410
August	8,020	426	128	259	15,910
September	5,031	808	68	168	9,980
Water year 1940-41	97,539	1,720	23	267	193,500

Peak discharge.- May 14 (8:45 p.m.), 1,960 sec.-ft.; Sept. 23 (8 a.m.) 554 sec.-ft.; Sept. 29 (1 p.m.) 1,300 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Pecos River near Anton Chico, N. Mex.

Location.- Water-stage recorder, lat. 35.10'50", long. 105°06'20", in Anton Chico Grant, 2 miles upstream from Canyon Blanco, 2½ miles southeast of Anton Chico, and 10 miles downstream from Tecolote Creek.

Drainage area.- 1,050 square miles (contributing area).

Records available.- April 1910 to December 1914 and October 1930 to September 1941 in reports of Geological Survey. April 1910 to December 1931 in reports of State engineer. Prior to July 2, 1937, station was, during successive periods, at five different sites, ranging from a sixth of a mile to 5 miles upstream from present site.

Average discharge.- 11 years (1930-41) 157 second-feet.

Extremes.- Maximum discharge during year, 17,400 second-feet June 3 (gage height, 12.62 feet), from rating curve extended above 2,750 second-feet on basis of slope-area determination at 20.34 feet; minimum daily, 20 second-feet Nov. 14.
1930-41: Maximum discharge, 40,300 second-feet June 1, 1937 (gage height, 20.34 feet, present site and datum); by slope-area method; no flow at times.

Remarks.- Records fair except those for periods of ice effect and those for periods of no gage-height record, all of which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	55	50	68	41	63	525	1,100	1,520	a700	214	a350
2	92	53	50	66	43	87	542	1,820	1,470	d900	213	a250
3	92	50	45	61	38	132	480	2,020	2,213	a750	337	a200
4	86	50	40	50	37	140	470	1,780	2,130	a600	229	a150
5	96	48	38	27	42	126	450	1,540	1,830	a700	214	a100
6	98	47	39	23	39	140	465	1,480	1,420	a450	199	a90
7	92	45	40	*b55	41	123	480	1,680	1,260	a450	187	a90
8	82	45	40	b55	45	111	455	1,820	1,210	a450	190	a70
9	73	41	39	b35	44	82	445	1,860	1,170	a400	217	a70
10	72	40	40	b40	42	91	450	2,020	1,070	a350	490	a60
11	71	40	40	43	39	109	470	2,400	971	a400	430	a55
12	76	39	47	47	42	94	450	2,960	874	a700	374	a55
13	77	b28	53	52	41	120	490	2,540	802	2,900	351	a55
14	76	*b20	50	47	41	120	548	2,600	802	848	480	a55
15	77	28	40	42	39	118	548	2,540	826	d700	426	56
16	78	30	b28	38	42	107	572	2,340	1,090	a300	394	57
17	76	40	b30	37	48	96	578	2,140	1,100	d300	357	57
18	75	41	44	31	52	111	590	2,080	1,020	a250	357	795
19	72	42	*57	26	27	135	542	1,960	1,060	a200	1,240	324
20	69	52	45	*28	58	175	a500	1,840	1,060	a200	373	168
21	66	53	40	44	61	305	a450	1,840	1,020	a400	321	693
22	64	42	43	45	64	412	373	2,340	971	a350	302	3,100
23	61	50	47	39	77	403	369	2,470	962	a350	298	2,560
24	59	b70	60	35	55	455	369	2,340	1,240	a300	226	1,150
25	57	66	50	38	98	702	345	2,280	1,390	260	202	702
26	56	59	68	40	91	604	373	2,080	971	232	165	548
27	56	55	57	38	80	480	584	1,900	866	223	1,020	421
28	56	*55	51	36	71	d430	980	1,900	802	390	1,050	1,410
29	*57	47	61	41	-	d430	971	1,900	730	246	a850	4,210
30	57	46	62	43	-	480	658	1,720	a650	214	689	2,470
31	55	-	65	43	-	490	-	1,560	-	211	a700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,266	98	55	73.1	4,490
November	1,375	70	20	45.8	2,750
December	1,459	68	28	47.1	2,890
Calendar year 1940	40,597	905	2	111	80,510
January	1,273	68	23	41.1	2,520
February	1,498	98	37	53.5	2,970
March	7,470	702	63	241	14,820
April	15,722	980	345	524	31,180
May	62,950	2,960	1,100	2,031	124,900
June	34,497	2,210	680	1,180	68,420
July	15,724	2,900	507	507	31,190
August	14,065	1,240	165	454	27,900
September	20,361	4,210	55	679	40,390
Water year 1940-41	178,660	4,210	20	489	354,400

Peak discharge.- June 3 (11 p.m.) 17,400 sec.-ft.; June 24 (11 p.m.) 7,510 sec.-ft.; July 13 (9 p.m.) 8,850 sec.-ft.; Sept. 18 (6 p.m.) 8,460 sec.-ft.; Sept. 23 (10 a.m.) 8,080 sec.-ft.; Sept. 29 (2 p.m.) 10,000 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station at Santa Rosa.

b Stage-discharge relation affected by ice.

d Doubtful or fragmentary gage-height record; discharge computed on basis of available gage heights, weather records, and records for station at Santa Rosa.

Pecos River at Santa Rosa, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34.56', long. 104°41', in sec. 2, T. 8 N., R. 21 E., at bridge on U. S. Highway 66 at Santa Rosa, 1 mile upstream from Rio Agua Negro Chiquita.

Drainage area.- 2,650 square miles (contributing area).

Records available.- May 1903 to December 1906 (gage heights only), February 1910 to July 1911, September 1912 to December 1914 and October 1930 to September 1941 in reports of Geological Survey. February 1910 to July 1911 and September 1912 to December 1931 in reports of State engineer.

Average discharge.- 22 years (1912-14, 1916-23, 1928-41), 179 second-feet.

Extremes.- Maximum discharge during year, 23,700 second-feet Sept. 29 (gage height, 14.40 feet), from rating curve extended above 13,800 second-feet by logarithmic plotting; minimum daily, 17 second-feet Jan. 18.

1930-41: Maximum discharge, 55,200 second-feet June 2, 1937 (gage height, 25.7 feet), from rating curve extended above 35,000 second-feet by logarithmic plotting; minimum daily, 2.7 second-feet June 25, 1937.

Remarks.- Records fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	21	22	20	20	29	328	2,270	1,680	501	290	265
2	40	21	21	20	20	25	363	7,390	1,620	498	231	171
3	38	20	21	20	20	21	340	2,460	1,550	1,720	145	138
4	37	20	20	19	19	25	312	2,200	6,440	357	148	98
5	35	19	21	18	20	48	285	1,550	6,250	512	115	78
6	30	21	21	23	19	51	275	1,260	1,940	306	115	64
7	32	21	21	21	18	44	301	1,390	1,260	312	95	51
8	37	21	21	21	19	53	312	1,620	1,240	328	148	47
9	34	22	21	21	20	41	280	1,680	1,170	275	141	47
10	29	21	19	20	19	37	285	1,870	1,080	231	332	41
11	26	21	20	21	18	28	290	1,870	971	255	290	36
12	26	22	22	23	18	29	301	3,730	881	1,190	355	40
13	26	19	23	22	18	37	312	2,340	800	5,000	1,450	41
14	24	23	23	21	19	43	387	2,410	958	3,790	558	41
15	22	26	19	20	20	56	412	2,480	1,330	1,370	461	41
16	23	25	18	19	21	48	440	2,270	921	240	387	41
17	23	23	25	20	20	44	454	2,000	2,450	270	318	41
18	23	24	22	17	21	40	498	1,800	1,180	208	270	41
19	23	26	21	20	21	37	462	1,740	1,210	171	1,360	1,710
20	22	26	21	19	21	41	454	1,570	962	175	961	265
21	23	24	21	18	21	56	399	1,580	925	414	1,520	679
22	22	23	21	18	22	255	363	2,960	899	1,280	1,270	9,750
23	22	25	21	19	26	275	323	4,260	890	163	1,130	7,710
24	22	23	19	25	25	393	318	3,400	800	183	1,000	3,940
25	22	41	20	19	25	614	290	3,240	1,920	753	334	1,290
26	23	30	20	19	25	809	275	2,700	1,020	159	213	809
27	22	25	19	19	31	558	312	2,200	809	302	557	542
28	21	24	20	19	31	397	630	2,060	670	251	4,560	3,820
29	23	23	20	21	-	345	990	1,940	490	195	1,040	16,600
30	22	22	20	21	-	318	863	3,630	440	384	1,050	9,020
31	21	-	20	20	-	351	-	2,130	-	314	546	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	836	43	21	27.0	1,660
November	702	41	19	23.4	1,390
December	644	25	18	20.8	1,280
Calendar year 1940	33,304	6,590	15	91.0	66,060
January	617	23	17	19.9	1,220
February	597	31	18	21.3	1,180
March	5,135	909	21	166	10,190
April	11,874	990	275	396	23,550
May	76,020	7,390	1,260	2,452	150,800
June	44,767	6,440	440	1,492	88,790
July	22,107	5,000	159	713	43,850
August	21,510	4,560	95	694	42,680
September	57,259	16,800	38	1,909	113,600
Water year 1940-41	242,071	16,600	17	663	480,200

Peak discharge.- May 2 (3 a.m.) 20,400 sec.-ft.; June 4 (5 a.m.) 18,500 sec.-ft.; Sept. 22 (12 m.) 18,500 sec.-ft.; Sept. 23 (7 p.m.) 14,900 sec.-ft.; Sept. 29 (10 a.m.) 19,900 sec.-ft.; Sept. 29 (10 p.m.) 23,700 sec.-ft.

Pecos River near Puerto de Luna, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34°43', long. 104°32', in sec. 29, T. 6 N., R. 23 E., 10 miles southeast of Puerto de Luna and 14 miles upstream from Alamogordo Dam.

Drainage area.- 3,970 square miles (contributing area).

Records available.- April 1938 to September 1941.

Extremes.- Maximum discharge during year, 26,300 second-feet May 23 (gage height, 10.50 feet), from rating curve extended above 7,400 second-feet on basis of flow at Santa Rosa; minimum daily, 82 second-feet Jan. 26.

1938-41: Maximum discharge, that of May 23, 1941; minimum daily, 59 second-feet Aug. 23, 1938.

Remarks.- Records good. Many diversions above station for irrigation. Discharge represents inflow to Alamogordo Reservoir (capacity, 157,000 acre-feet).

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	101	103	94	86	101	380	2,180	1,620	815	319	489
2	136	106	103	88	92	92	420	10,100	1,710	875	367	232
3	122	108	112	96	92	86	420	2,280	1,900	1,460	277	202
4	122	101	110	94	99	92	388	1,900	6,250	860	237	188
5	125	103	99	90	94	106	388	1,560	11,900	830	215	166
6	120	101	96	88	92	125	354	1,360	1,880	702	215	146
7	106	112	101	101	88	122	374	1,390	1,190	452	192	132
8	112	115	106	96	94	117	374	1,480	1,080	358	197	123
9	117	120	99	96	92	128	328	1,530	1,130	333	232	120
10	106	115	101	101	88	112	341	1,640	1,010	326	232	129
11	103	115	106	106	86	117	348	1,660	900	407	441	120
12	106	120	112	108	88	108	360	4,010	860	1,340	355	114
13	112	115	128	101	86	110	341	2,010	840	5,220	1,370	120
14	96	108	120	103	99	115	388	1,910	830	4,570	962	117
15	106	106	110	103	96	130	444	2,010	1,080	2,000	702	114
16	99	108	101	106	99	139	428	1,910	880	716	636	111
17	103	112	106	101	99	136	469	1,970	1,650	529	564	105
18	103	106	110	99	99	130	496	1,990	1,080	660	507	114
19	101	115	110	92	99	115	469	1,950	1,210	463	1,050	1,140
20	99	122	112	94	99	117	420	1,840	1,060	832	1,510	588
21	96	117	110	94	92	144	367	1,900	998	515	2,080	3,310
22	106	103	106	90	94	242	341	2,840	998	1,510	1,420	15,600
23	101	117	96	90	112	315	315	9,120	966	529	1,730	8,060
24	106	133	106	90	108	396	298	3,900	950	412	1,220	4,840
25	112	122	103	94	103	793	282	2,850	1,650	912	962	1,360
26	106	128	96	82	92	720	260	2,280	1,160	463	507	996
27	99	120	110	86	90	616	315	1,880	1,090	437	412	875
28	88	108	99	92	94	505	452	1,670	982	376	4,110	2,650
29	103	106	96	101	-	412	720	1,600	905	421	966	17,900
30	94	103	94	103	-	367	649	2,790	875	277	890	12,100
31	99	-	106	90	-	380	-	1,950	-	718	845	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,367	163	88	109	6,680
November.....	3,366	133	101	112	6,680
December.....	3,267	128	94	105	6,480
Calendar year 1940.....	59,844	5,770	74	164	118,700
January.....	2,969	108	82	95.8	5,890
February.....	2,652	112	86	94.7	5,260
March.....	7,188	793	86	232	14,260
April.....	11,949	720	260	398	23,700
May.....	79,450	10,100	1,360	2,563	157,600
June.....	50,624	11,900	830	1,687	100,400
July.....	30,318	5,220	277	978	60,130
August.....	25,762	4,110	192	831	51,100
September.....	70,253	17,900	105	2,342	139,300
Water year 1940-41.....	291,165	17,900	82	798	577,500

Peak discharge.- May 2 (5 a.m.) 20,500 sec.-ft.; May 23 (1:30 a.m.) 26,300 sec.-ft.; June 5 (1:30 a.m.) 18,000 sec.-ft.; June 5 (6 a.m.) 17,700 sec.-ft.; Sept. 29 (2 p.m.) 23,400 sec.-ft.; Sept. 30 (2:30 a.m.) 23,700 sec.-ft.

Pecos River near Guadalupe, N. Mex.

Location (revised).- Water-stage recorder, lat. 34°36'20", long. 104°23'10", in lot 1, sec. 2, T. 4 N., R. 24 E., 1,200 feet downstream from Alamogordo Dam, 1½ miles downstream from Alamogordo Creek, and 4½ miles northeast of Guadalupe. Datum of gage is 4,142.67 feet above mean sea level (Bureau of Reclamation datum). Prior to Sept. 27, 1941, various gages at same site but at different datums.

Drainage area.- 4,390 square miles (contributing area).

Records available.- October 1912 to December 1914, October 1930 to September 1936 (at site 1½ miles upstream), and September 1936 to September 1941 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 40,100 second-feet Sept. 22 (gage height, 13.58 feet, from floodmark), from computation of flow over spillway; no flow Feb. 20, 1930-41; Maximum discharge, that of Sept. 22, 1941; no flow at times in 1937, and Feb. 20, 1941.

Remarks.- Records good below 12,000 second-feet, fair above except those for period June 2-11, which are poor. Flow regulated by Alamogordo Reservoir (see p. 281). Many diversions above station for irrigation.

Cooperation.- Gage-height record collected in cooperation with, and results of 14 discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	35	0.4	0.6	0.7	81	76	69	d2,290	146	d984	546
2	92	1.1	.4	.6	.6	78	76	29	d1,130	866	d569	126
3	99	.7	.6	.6	.6	78	77	2	d2,410	83	d190	123
4	99	.7	.3	.6	.6	78	77	8	d17,000	88	123	123
5	97	.7	.4	.4	.6	60	77	4	d10,000	93	123	123
6	94	.6	.4	.3	.3	78	77	3	d4,000	101	126	123
7	87	.6	.6	.3	.6	76	77	34	d2,000	140	126	123
8	87	.6	.6	.3	.7	78	78	73	d1,600	177	126	123
9	80	.3	.6	.4	.6	60	78	71	d1,500	184	126	126
10	73	.3	.3	.4	.4	390	78	53	d1,700	184	149	126
11	67	.2	.6	.7	.6	494	79	74	d2,010	271	188	131
12	85	-1	.4	.9	.7	778	79	94	1,480	2,260	247	126
13	85	-2	.6	.7	.6	1,130	79	84	1,060	5,460	989	126
14	78	.3	.4	.7	.7	1,490	80	64	794	5,420	1,750	126
15	85	.2	.4	.6	.7	1,490	80	65	340	3,470	425	126
16	90	.2	.4	.6	.4	1,440	80	61	652	1,200	425	126
17	90	.4	.4	.4	.4	1,380	87	69	2,310	175	430	126
18	78	.4	.4	.6	16	1,350	87	84	1,550	155	425	126
19	82	.3	.4	.6	16	1,270	88	94	1,630	155	295	131
20	87	.4	.4	.6	0	1,190	88	94	1,360	191	1,160	d370
21	87	.4	.6	.6	.1	1,100	89	91	1,220	1,080	3,100	d5,660
22	85	.3	.6	.6	50	307	89	20	1,220	2,080	1,400	d24,000
23	87	.4	.6	.6	85	1	88	d3,930	1,180	1,410	1,390	d9,390
24	87	.3	.4	.7	82	41	86	d5,240	761	480	610	d5,210
25	90	.2	.4	.7	85	52	86	d4,260	796	d247	123	d1,140
26	92	.3	.4	.7	74	78	86	d4,260	788	d155	123	d510
27	94	.3	.6	.6	78	79	87	d3,110	1,370	d198	376	d1,110
28	92	.4	.6	.6	75	80	71	d2,130	2,010	d239	3,640	3,880
29	90	.4	.6	.7	-	76	68	d1,960	1,460	d297	2,070	14,000
30	90	.4	.6	.7	-	74	69	d4,450	842	d297	931	12,600
31	92	-	.6	.7	-	76	-	d4,260	-	d426	931	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,713	99	67	87.5	5,380
November	46.7	35	.1	1.58	93
December	15.0	.6	.3	.48	30
Calendar year 1940	89,191.4	3,240	.1	244	176,900
January	18.3	.9	.3	.59	36
February	570.9	85	0	20.4	1,130
March	15,053	1,490	1	486	29,860
April	2,417	89	68	80.6	4,790
May	34,840	5,240	3	1,124	69,100
June	68,463	17,000	340	2,282	135,800
July	27,718	5,460	83	994	54,980
August	23,870	3,540	123	764	45,950
September	83,676	24,000	123	2,789	166,000
Water year 1940-41	259,200.9	24,000	0	710	514,100

d Doubtful gage-height record; discharge computed from records of reservoir spillway gate operation, except June 2-11, which was computed on basis of two discharge measurements, weather records, staff-gage readings, and records for station near Acme.

Pecos River near Acme, N. Mex.

Location.- Water-stage recorder, lat. 33°32'10", long. 104°22'40", in NW¼ sec. 14, T. 9 S., R. 25 E., 1 mile southeast of Melena railroad station, 3½ miles downstream from Salt Creek, 5 miles southwest of Acme, and 13 miles northeast of Roswell.

Drainage area.- 11,390 square miles (contributing area).

Records available.- July 1937 to September 1941 in reports of Geological Survey. August 1921 to July 1923 in reports of State engineer.

Extremes.- Maximum discharge during year, 45,000 second-feet Sept. 23 (gage height, 13.71 feet), from rating curve extended above 26,100 second-feet by logarithmic plotting; no flow Oct. 1, Nov. 1, 2.

1937-41: Maximum discharge, that of Sept. 23, 1941; no flow at times.

Flood of May 28, 1937, reached a stage of about 14.0 feet (discharge, 53,300 second-feet), by slope-area method.

Remarks.- Records good except those for periods of fragmentary gage-height record, which are fair, and those above 18,000 second-feet, which are poor. Many diversions above station for irrigation. Flow regulated by Alamogordo Reservoir (see p. 261).

Cooperation.- Bureau of Reclamation cooperated in collecting gage-height record and furnished results of 15 discharge measurements.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	15	1.7	5.0	33	87	2,230	3,180	1,120	227	971
2	2.9	0	12	1.6	5.8	36	87	18,800	2,160	636	321	830
3	3.5	1.3	9.2	1.9	8.4	23	78	5,820	1,840	653	627	414
4	2.4	6.4	8.0	2.1	11	22	76	11,440	1,460	610	375	378
5	1.6	10	7.2	2.4	10	19	71	1,150	6,650	304	266	214
6	1.5	12	6.4	3.1	11	22	65	567	16,000	206	201	154
7	1.7	12	6.0	3.5	8.0	29	54	320	2,420	218	130	110
8	2.1	13	5.8	3.5	7.6	33	46	1,232	1,430	157	133	102
9	2.8	11	5.5	3.5	5.5	31	48	1,183	1,400	130	170	139
10	5.8	6.0	5.2	4.0	3.8	23	49	155	1,110	113	184	85
11	19	6.0	5.0	5.0	2.6	25	48	190	1,540	176	210	78
12	18	5.5	5.0	7.6	.6	89	42	2,310	1,920	1,870	107	80
13	22	3.5	6.8	9.6	.6	358	61	487	1,780	2,020	429	85
14	22	2.4	7.6	12	.4	656	54	272	1,360	6,730	407	133
15	17	1.3	8.0	13	.3	1,030	54	210	2,240	7,650	1,240	96
16	14	1.1	8.8	12	.3	1,460	71	156	1,130	3,530	812	93
17	14	.7	12	11	.4	1,380	52	118	791	1,420	540	150
18	14	.4	11	8.0	.4	1,380	32	1,107	1,600	678	489	123
19	14	.4	8.4	5.8	.5	1,290	24	1,099	1,820	420	548	99
20	17	1.5	8.0	4.8	.6	1,360	22	38	1,070	293	1,100	160
21	16	3.8	7.6	4.2	.9	1,380	21	125	1,120	227	753	680
22	15	5.5	6.8	3.3	1.2	1,790	19	1,400	1,210	436	2,290	18,200
23	13	16	6.4	2.2	1.9	1,330	22	3,160	1,280	1,360	1,740	29,500
24	11	30	5.8	2.6	2.6	389	37	13,900	1,300	1,400	1,060	12,900
25	12	28	2.6	2.4	3.5	2,020	194	9,840	1,070	602	1,320	7,790
26	13	48	3.0	2.4	5.2	1,360	501	4,170	1,010	518	618	2,680
27	12	52	2.4	2.4	5.8	344	11,100	2,900	930	453	454	850
28	7.6	36	2.2	2.6	12	177	3,440	2,540	1,170	276	363	1,940
29	5.5	26	2.2	3.3	-	133	13,370	2,920	1,890	237	2,200	7,390
30	3.3	19	1.9	4.0	-	113	1722	2,540	1,680	227	2,210	19,400
31	.6	-	1.9	4.5	-	102	-	4,720	-	206	990	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	304.3	22	0	9.82	604
November	358.8	52	0	12.0	712
December	203.7	15	1.9	6.57	404
Calendar year 1940	62,882.0	2,870	0	172	124,700
January	150.0	13	1.6	4.84	298
February	115.9	12	.3	4.14	230
March	18,437	2,020	19	595	36,570
April	20,547	11,100	19	685	40,750
May	83,089	18,800	38	2,680	164,800
June	65,571	16,000	791	2,186	130,100
July	34,936	7,660	113	1,127	69,290
August	22,494	2,290	107	726	44,620
September	105,802	29,500	78	3,527	209,900
Water year 1940-41	352,008.7	29,500	0	964	698,300

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

Pecos River near Lake Arthur, N. Mex.

Location.- Water-stage recorder, lat. 32°59'25", long. 104°19'10", on line between secs. 26 and 27, T. 15 S., R. 26 E., 1,100 feet upstream from highway bridge, 3 miles east of Lake Arthur, 10 miles upstream from Cottonwood Creek, and 11 miles northeast of Artesia.

Drainage area.- 14,760 square miles (contributing area).

Records available.- August 1938 to September 1941.

Extremes.- Maximum discharge during year, 49,600 second-feet Sept. 24 (gage height, 21.90 feet), from rating curve extended above 16,100 second-feet on basis of logarithmic plotting and slope-area measurement at gage height 21.77 feet; minimum daily, 33 second-feet Oct. 8.

1938-41: Maximum discharge, that of Sept. 24, 1941; minimum daily, 2 second-feet Aug. 29, 30, 1940.

Flood of May 30, 1937 reached a stage of 21.77 feet (discharge, 51,500 second-feet, by slope-area method), may have been exceeded by floods of 1904 and 1919.

Remarks.- Records good except those for periods of doubtful or no gage-height record and those above 5,000 second-feet, which are poor. Diversions above station for irrigation. Flow regulated to some extent by Alamogordo Reservoir 150 miles above station (see p. 281).

Cooperation.- Gage-height record collected in cooperation with, and results of 13 discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	64	130	82	88	80	215	1,320	4,830	1,470	435	1,070
2	39	65	126	75	80	78	198	6,070	3,500	1,120	450	1,150
3	43	64	120	75	80	89	188	14,800	2,360	638	738	1,010
4	46	62	118	75	78	101	172	6,830	2,410	1,100	970	602
5	44	59	115	70	79	101	165	2,470	2,990	704	533	574
6	41	59	113	70	83	94	165	1,230	9,820	422	370	354
7	42	65	111	67	83	92	153	794	10,300	455	314	289
8	33	75	100	68	92	89	140	638	3,140	366	242	258
9	34	79	106	76	96	96	128	520	2,130	322	209	268
10	41	78	106	75	90	95	111	445	1,970	268	239	334
11	47	76	94	75	83	90	110	402	1,390	258	278	306
12	53	75	82	78	82	92	124	467	1,980	653	275	278
13	79	73	76	82	80	90	124	1,970	2,050	2,470	1,680	262
14	83	83	75	78	76	304	110	644	1,510	3,480	1,310	265
15	80	90	79	78	75	956	103	508	1,360	a6,600	1,060	275
16	82	90	85	71	89	1,210	100	480	2,170	a5,600	1,850	272
17	73	90	82	72	86	1,400	92	402	1,100	d3,920	808	252
18	70	88	78	75	78	1,410	98	346	724	1,450	638	252
19	70	86	75	98	73	1,460	95	303	2,370	808	520	289
20	71	89	78	92	71	1,370	82	319	1,270	590	831	262
21	70	89	79	83	72	1,320	79	484	1,550	465	888	4,600
22	70	100	78	89	78	a1,800	76	6,450	1,290	856	1,250	9,740
23	67	106	80	103	80	a2,200	68	10,200	1,640	1,310	2,730	27,500
24	68	115	78	79	80	a1,200	67	12,400	1,750	2,300	1,440	39,800
25	66	126	79	75	83	758	80	15,900	1,380	1,740	1,240	33,600
26	65	145	76	75	96	2,290	195	9,140	1,090	858	1,080	6,930
27	62	142	73	82	96	1,020	4,000	4,140	922	921	465	2,800
28	59	151	89	83	85	440	10,500	a3,370	752	700	354	2,160
29	61	158	96	89	-	310	4,580	3,170	1,350	560	310	9,470
30	62	145	100	86	-	278	2,910	3,650	1,920	530	3,200	17,000
31	61	-	95	86	-	242	-	4,010	-	475	1,600	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,825	83	33	58.9	3,620
November	2,788	158	59	92.9	5,330
December	2,672	130	73	92.6	5,700
Calendar year 1940	85,914	2,910	2	235	170,400
January	2,462	103	67	79.4	4,880
February	2,308	96	71	82.4	4,580
March	21,155	2,290	78	662	41,960
April	25,228	10,500	67	841	50,040
May	113,869	15,900	303	3,673	225,900
June	73,068	10,300	724	2,436	144,900
July	43,429	6,600	258	1,401	86,140
August	28,317	3,200	209	913	56,170
September	162,222	39,800	252	5,407	321,800
Water year 1940-41	479,543	39,800	33	1,314	951,200

a No gage-height record; discharge computed on basis of one discharge measurement, weather records, and records for stations near Acme and near Artesia.

d Doubtful gage-height record; discharge computed on basis of available gage heights, weather records, and records for stations near Acme and near Artesia.

Pecos River near Artesia, N. Mex.

Location.- Water-stage recorder, lat. 32°50'10", long. 104°19'30", in ~~W&N~~ sec. 18, T. 17 S., R. 27 E., at new bridge on Artesia-Lovington highway, 4.2 miles east of Artesia, 6.5 miles north of mouth of Rio Penasco, and 16½ miles north of McMillan Dam. Prior to Apr. 4, 1941, water-stage recorder at old highway bridge 600 feet downstream, at different datum.

Drainage area.- 15,300 square miles (contributing area).

Records available.- March 1905 to September 1925 and October 1931 to February 1936 (published as Pecos River near Dayton), and February 1936 to September 1941 in reports of Geological Survey. March 1905 to December 1931 in reports of State engineer.

Extremes.- Maximum gage height during year 13.32 feet Sept. 25 (discharge not determined); minimum daily discharge, 41 second-feet October 9.

1905-40: Maximum gage height, 15.9 feet Sept. 18, 1919, site and datum then in use (discharge not determined). Flood of May 30, 1937, reached a discharge of 51,500 second-feet (gage height, 14.7 feet), computed by slope-area method; no flow Aug. 17-24, 1934.

Remarks.- Records fair except those above 5,000 second-feet, which are poor. Diversions above station for irrigation. Flow partly regulated by Alamogordo Reservoir (see p.231). Discharge represents inflow to Lake McMillan, which stores water for irrigation of about 25,000 acres of Carlsbad project.

Cooperation.- Bureau of Reclamation cooperated in collecting gage-height record and furnished 12 discharge measurements.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	68	145	102	98	93	245	1,420	4,860	1,600	490	1,120
2	44	70	135	90	96	90	223	6,000	3,850	1,160	478	1,120
3	42	70	134	90	91	91	201	13,500	2,320	772	563	1,090
4	43	69	128	90	93	96	194	7,320	2,500	877	1,040	750
5	45	67	126	89	88	106	181	3,050	2,580	888	701	595
6	46	66	124	86	91	103	172	1,510	8,110	490	428	415
7	45	68	122	86	95	99	170	795	11,200	465	355	355
8	43	79	117	88	96	96	154	675	5,100	440	295	305
9	41	82	109	88	104	98	140	588	2,480	390	255	295
10	43	82	114	94	104	100	130	540	2,020	325	248	345
11	51	83	114	90	99	100	122	510	1,420	295	270	345
12	59	80	98	93	95	99	125	695	1,920	305	262	325
13	91	78	94	95	94	95	132	2,270	2,160	2,250	935	295
14	88	80	91	93	93	144	126	908	1,750	3,130	1,610	285
15	82	91	90	89	89	1,060	109	695	1,240	7,260	775	285
16	85	96	93	85	88	1,440	113	640	2,600	6,390	1,630	305
17	82	96	100	79	100	1,830	98	570	1,340	3,690	927	278
18	76	99	98	84	93	1,920	109	495	870	1,820	680	285
19	72	98	93	91	86	1,900	106	423	2,210	870	565	295
20	75	96	91	109	83	1,710	101	383	1,760	645	558	305
21	77	100	96	96	84	1,610	92	952	1,390	535	932	5,270
22	75	102	96	91	85	1,820	93	3,840	1,480	622	799	9,910
23	74	111	91	103	90	2,320	87	10,000	1,600	1,190	2,400	26,900
24	74	120	90	103	90	1,460	81	14,900	1,720	2,240	1,750	32,900
25	74	126	86	90	93	733	87	17,000	1,480	2,020	1,120	44,300
26	74	135	85	88	96	1,900	136	9,120	1,160	1,040	1,310	10,900
27	72	146	83	91	100	1,170	2,720	4,860	870	890	628	4,720
28	67	145	86	96	100	537	12,100	4,090	790	910	428	3,110
29	65	160	102	96	-	369	5,490	3,410	1,060	610	345	7,530
30	67	153	106	99	-	336	3,620	3,850	1,880	565	2,560	17,200
31	68	-	107	96	-	290	-	3,860	-	550	1,940	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,986	91	41	64.1	3,940
November	2,916	160	66	97.2	5,780
December	3,244	145	83	105	6,430
Calendar year 1940	90,556	2,840	5	248	179,800
January	2,866	109	79	92.5	5,680
February	2,616	104	83	93.4	5,190
March	23,817	2,320	90	768	47,240
April	27,487	12,100	81	915	54,460
May	118,859	17,000	383	3,354	235,800
June	78,720	11,200	790	2,524	150,200
July	45,034	7,260	295	1,453	89,320
August	27,278	2,560	248	880	54,110
September	171,133	44,300	278	5,704	339,400
Water year 1940-41	502,926	44,300	41	1,378	997,600

Pecos River at Carlsbad, N. Mex.

Location.- Water-stage recorder, lat. 32°24'50", long. 104°13'20", in NW¼ sec. 6, T. 22 S., R. 27 E., at Green Street Bridge in Carlsbad, half a mile upstream from Dark Canyon. Datum of gage is 3,080.38 feet above mean sea level, datum of 1929.

Drainage area.- 18,100 square miles (contributing area).

Records available.- May 1903 to March 1908, May 1914 to September 1925, October 1928 to September 1930 and October 1931 to September 1941 in reports of Geological Survey. June 1903 to December 1906, May 1914 to December 1928 and January 1930 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, about 60,000 second-feet May 22 (gage height, 20.5 feet, affected by backwater from Dark Canyon), from rating curve extended above 34,000 second-feet by logarithmic plotting; minimum daily, 19 second-feet Mar. 8, 1903-8, 1914-41: Maximum discharge, 85,700 second-feet Aug. 7, 1916 (gage height, about 21.0 feet), from rating curve extended about 34,000 second-feet by logarithmic plotting; no flow May 9, 1904.

Remarks.- Records good except those for periods of backwater effect or no gage-height record, which are poor. Flow regulated by Alamogordo, McMillan, and Avalon Reservoirs and at low stages by power plant above station.

Cooperation.- Bureau of Reclamation cooperated in collection of gage-height record and furnished four discharge measurements.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	68	58	123	82	80	70	2,190	5,560	582	200	854
2	65	68	62	110	80	80	68	12,300	4,720	1,360	162	854
3	65	68	65	96	80	78	68	4,860	4,550	1,670	105	882
4	65	68	68	96	80	80	70	4,430	4,480	1,170	102	1,120
5	62	68	68	96	80	80	72	7,350	4,410	700	102	1,050
6	60	68	68	96	80	48	70	8,840	4,140	618	212	740
7	60	68	68	96	80	20	70	5,320	4,040	482	411	540
8	60	68	68	91	80	19	70	2,600	4,220	482	278	429
9	62	68	72	91	80	27	72	672	5,350	323	236	200
10	60	68	72	93	110	54	72	681	5,830	116	107	156
11	60	68	72	93	93	60	72	1,220	3,770	102	102	113
12	65	68	75	93	54	60	78	1,840	2,560	99	102	252
13	363	65	85	91	39	60	70	618	974	99	102	416
14	170	65	85	91	39	65	72	594	2,180	1,040	102	278
15	157	65	82	88	39	65	72	2,300	4,440	1,850	102	332
16	72	65	78	88	39	65	72	123	1,970	2,980	616	173
17	65	65	88	88	39	75	72	652	1,490	4,530	1,110	280
18	65	65	123	88	54	65	72	600	1,720	4,010	1,830	305
19	62	62	99	88	72	68	68	499	2,110	4,150	1,490	380
20	62	60	93	88	72	68	70	278	607	1,610	355	700
21	62	62	93	88	75	72	70	1,590	1,430	113	888	15,000
22	62	60	93	88	78	91	70	18,300	2,030	105	2,380	15,900
23	62	60	99	88	78	139	70	8,600	1,440	105	1,620	16,000
24	65	68	145	88	78	91	70	7,950	1,810	162	1,540	17,700
25	65	68	132	88	78	201	72	11,900	1,640	1,460	798	22,100
26	65	58	119	88	80	93	70	13,900	1,950	1,060	110	31,700
27	68	58	152	88	78	91	68	14,600	2,030	1,260	235	21,800
28	68	58	180	88	78	72	70	11,200	156	977	1,210	9,230
29	68	58	132	85	-	70	70	8,150	435	428	1,440	8,780
30	68	58	119	82	-	70	72	7,520	749	244	1,310	8,740
31	68	-	119	82	-	70	-	8,090	-	142	861	-

Month	Second-foot-days		Minimum	Mean	Runoff in acre-feet
	Second-foot-days	Maximum			
October	2,486	363	60	80.2	4,930
November	1,916	68	58	63.9	3,800
December	2,932	180	58	94.6	5,820
Calendar year 1940	25,824	563	45	70.6	51,240
January	2,837	123	82	91.5	5,650
February	1,995	110	39	71.2	3,960
March	2,275	201	19	73.4	4,510
April	2,122	78	68	70.7	4,210
May	169,737	18,300	123	5,475	336,700
June	82,791	5,830	156	2,760	184,200
July	34,029	4,530	99	1,098	67,500
August	20,218	2,350	102	652	40,100
September	174,624	31,700	113	5,821	346,400
Water year 1940-41	497,962	31,700	19	1,364	987,800

a No gage-height record; discharge computed on basis of records for station near Malaga.

c Stage-discharge relation affected by backwater from Dark Canyon; discharge computed on basis of partly estimated gage heights, estimates of peak flow of Dark Canyon, and records for station near Malaga.

g Computed from graph based on staff-gage readings obtained twice daily.

Pecos River near Malaga, N. Mex.

Location.- Water-stage recorder, lat. $32^{\circ}12'30''$, long. $104^{\circ}01'30''$, in NW $\frac{1}{4}$ sec. 19, T. 24 S., R. 29 E., 3 miles southeast of Malaga and 3 miles downstream from Black River. Datum of gage is 2,898.68 feet above mean sea level, datum of 1929.

Drainage area.- 19,190 square miles (contributing area).

Records available.- May 1920 to September 1925 and October 1931 to September 1941 in reports of Geological Survey. January 1921 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 63,700 second-feet Sept. 21, from rating curve extended above 22,500 second-feet by logarithmic plotting; maximum gage height, 32.1 feet May 22; minimum daily discharge, 62 second-feet Apr. 22.
1920-41: Maximum discharge, that of Sept. 21, 1941; maximum gage height, that of May 22, 1941; no flow Aug. 20-22, 1934.

Remarks.- Records good. Flow regulated by Alamogordo, McMillan, and Avalon Reservoirs and by several small dams that divert for power and irrigation. Many diversions above station for irrigation.

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	111	105	153	133	133	118	409	6,630	860	284	1,020
2	129	116	105	161	137	124	133	14,000	4,940	950	305	1,000
3	127	119	102	161	155	103	125	5,280	4,940	1,330	290	1,000
4	129	116	98	168	135	83	100	4,670	4,840	1,470	252	1,150
5	127	118	107	153	139	84	93	5,990	4,640	1,050	240	1,200
6	127	112	112	141	135	90	96	9,730	4,640	645	230	1,100
7	118	116	127	159	139	91	84	6,970	4,050	645	284	625
8	124	129	133	147	133	84	79	3,500	4,340	565	396	665
9	124	122	122	131	149	79	84	1,490	4,940	511	323	385
10	118	109	129	141	133	76	79	463	6,030	323	272	317
11	133	112	131	157	161	75	79	1,760	5,260	190	208	302
12	157	112	127	157	166	75	83	2,280	2,840	195	205	272
13	2,010	105	143	145	133	65	78	1,330	860	235	388	430
14	710	127	151	191	111	83	78	582	1,830	228	305	497
15	308	131	149	178	127	100	71	2,540	4,640	2,030	228	420
16	250	122	166	212	147	100	75	579	2,840	2,520	244	388
17	178	107	143	159	122	137	86	401	1,300	4,230	1,050	305
18	143	111	161	133	131	149	79	1,100	2,170	3,870	1,650	452
19	137	109	186	121	143	129	68	652	2,100	4,050	1,890	1,060
20	143	122	149	168	172	120	103	495	1,100	2,880	734	1,100
21	143	103	141	137	183	120	79	873	1,350	344	438	22,600
22	155	116	145	126	178	174	62	22,900	2,170	220	2,170	20,400
23	147	120	168	139	172	185	95	28,000	1,770	192	1,890	21,700
24	149	122	133	145	143	189	100	13,600	1,650	208	1,770	13,200
25	149	112	145	143	145	717	100	11,300	2,380	950	1,490	21,900
26	145	111	183	139	153	385	131	14,000	770	1,100	413	30,300
27	141	102	185	143	139	212	178	14,700	2,840	1,280	255	27,100
28	137	112	187	143	143	157	157	12,800	645	1,350	781	15,000
29	129	105	191	147	-	151	112	10,500	385	625	1,470	9,720
30	124	105	180	145	-	139	98	10,200	815	392	1,590	7,640
31	116	-	180	133	-	126	-	9,580	-	350	1,120	-

Month	Second-foot-days	Maximum	Minimum	Mean	runoff in acre-feet
October	6,962	2,010	116	225	13,810
November	3,433	131	102	114	6,810
December	4,483	191	98	145	8,890
Calendar year 1940	46,725	2,010	56	128	92,690
January	4,746	212	126	153	9,410
February	4,057	183	111	145	8,050
March	4,535	717	65	146	9,000
April	2,903	178	62	96.8	5,760
May	213,494	28,000	401	6,897	423,500
June	89,505	6,630	385	2,984	177,500
July	36,288	4,230	190	1,171	71,930
August	23,195	2,170	305	749	45,010
September	209,248	30,300	272	6,975	415,000
Water year 1940-41	602,949	30,300	62	1,652	1,196,000

A No gage-height record; discharge computed on basis of records for stations at Carlsbad and at Red Bluff.

Notes.- Gage heights May 24 to July 4 computed from graph based on staff-gage readings obtained twice daily.

Pecos River at Pierce Canyon Crossing, near Malaga, N. Mex.

Location.- Water-stage recorder, lat. 32°11'20", long. 103°59'00", in SE¼ sec. 28, T. 24 S., R. 29 E., a quarter of a mile upstream from Pierce Canyon Crossing and 6 miles southeast of Malaga.

Drainage area.- 19,260 square miles (contributing area).

Records available.- July 1938 to September 1941 (discontinued).

Extremes.- Maximum gage height during year, 24.8 feet May 22, from floodmarks (discharge not determined); minimum daily discharge, 63 second-foot Mar. 13, Apr. 19.
1938-41: Maximum gage height, that of May 22, 1941 (discharge not determined); minimum daily discharge, 33 second-foot Aug. 12, 13, 1933.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Flow regulated by Alamogordo, McMillan, and Avalon Reservoirs, and several small diversion and power dams below Carlsbad. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	151	128	115	177	138	144	118	128	a7,000	910	314	1,040
2	155	128	128	144	141	134	138	13,000	a5,500	860	334	1,010
3	151	134	125	181	151	115	118	7,540	a5,000	1,730	328	1,010
4	151	144	115	166	141	84	112	4,830	a4,900	1,480	283	1,130
5	144	141	122	159	141	84	89	5,740	a4,800	1,080	295	1,200
6	151	134	115	144	144	91	107	10,600	a4,600	697	259	1,130
7	141	131	141	148	141	89	107	8,220	a4,200	715	286	661
8	144	138	148	162	141	86	91	4,250	a4,300	616	430	679
9	151	138	131	131	151	80	91	1,840	a4,800	589	347	451
10	141	128	131	148	141	76	84	536	a6,000	402	314	334
11	155	128	138	151	144	73	86	a1,600	5,510	253	241	328
12	174	128	138	181	190	69	82	a2,200	2,720	224	218	295
13	2,000	122	144	141	141	63	80	a1,400	860	265	507	430
14	840	134	151	190	115	67	80	a700	1,670	334	367	508
15	351	138	155	190	138	102	73	a2,400	4,770	1,840	271	430
16	260	131	159	202	141	94	69	a800	2,850	2,340	253	430
17	207	122	166	181	144	141	73	a450	1,390	4,170	1,000	328
18	162	122	151	134	141	148	78	a1,050	2,090	3,790	1,540	430
19	151	125	194	174	151	134	63	a700	2,090	3,930	1,850	1,000
20	151	134	166	185	170	118	86	a550	1,170	3,190	815	1,050
21	151	118	138	138	194	118	104	a800	1,340	a450	451	a22,000
22	166	122	148	138	190	159	65	a22,000	2,030	a250	1,960	a21,000
23	162	128	151	141	181	190	94	a28,000	1,730	a200	1,850	a22,000
24	166	131	155	155	162	174	104	a16,000	1,610	235	1,730	a20,000
25	162	131	134	151	134	732	115	a12,000	2,400	820	1,500	a21,000
26	162	122	190	148	166	428	131	a13,500	696	1,140	494	a30,000
27	159	115	181	151	144	211	185	a15,000	2,920	1,280	295	a28,000
28	155	118	190	144	151	177	170	a13,000	1,000	1,380	704	a15,000
29	148	118	159	151	-	155	131	a11,000	350	690	1,420	a10,000
30	144	115	190	148	-	144	109	a10,500	705	444	1,560	a8,000
31	131	-	185	134	-	131	-	a10,000	-	388	1,170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,637	2,000	131	246	15,150
November	3,845	144	115	128	7,630
December	4,654	194	115	150	9,230
Calendar year 1940	49,989	2,000	60	137	99,160
January	4,888	202	131	158	9,700
February	4,227	194	115	151	8,380
March	4,611	732	63	149	9,150
April	3,033	185	63	101	6,020
May	220,334	28,000	128	7,108	437,000
June	91,211	7,000	380	3,040	180,900
July	36,692	4,170	200	1,184	72,780
August	23,388	1,960	218	754	46,390
September	213,874	30,000	295	7,129	424,200
Water year 1940-41	618,395	30,000	63	1,694	1,227,000

a No gage-height record; discharge computed on basis of records for stations near Malaga and at Red Bluff.

Note.- Gage heights for June 11-24 computed from graph based on staff-gage readings obtained two to ten times daily.

Pecos River at Red Bluff, N. Mex.

Location.- Water-stage recorder, lat. 32°04'40", long. 104°02'20", at Red Bluff, Eddy County, just downstream from Red Bluff Creek and $\frac{5}{8}$ miles upstream from Delaware River. Datum of gage is 2,850.0 feet above mean sea level, datum of 1929.

Drainage area.- 19,540 square miles (contributing area).

Records available.- October 1937 to September 1941. May 1914 to September 1937 at site 8 miles downstream near Angeles, Tex.; records comparable to combined flow of Pecos River at Red Bluff, N. Mex., and Delaware River near Red Bluff, N. Mex.

Extremes.- Maximum discharge during year, 52,600 second-feet May 24 (gage height, 28.3 feet); minimum, 62 second-feet Mar. 14, Apr. 20.

1937-41: Maximum discharge, that of May 24, 1941; minimum, 34 second-feet Aug. 13, 1938.

Maximum stage known prior to 1941, 28.0 feet in October 1904, according to information furnished by Chief Engineer of Panhandle & Santa Fe Railway Co.

Remarks.- Records excellent except those above 2,000 second-feet, which are good. Flow regulated to large extent by reservoirs above Carlsbad. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	150	118	109	191	138	138	125	138	8,320	1,060	358	1,160
2	152	118	120	138	141	127	132	7,460	5,170	907	365	1,120
3	145	123	120	188	152	120	120	9,210	4,610	1,810	350	1,120
4	148	132	118	162	155	89	184	4,750	5,030	1,700	325	1,120
5	138	127	118	165	134	80	85	4,610	4,610	1,300	300	1,300
6	138	125	127	158	148	83	97	7,960	5,730	852	304	1,270
7	136	127	136	138	134	83	107	8,200	4,540	824	265	858
8	129	141	145	175	143	87	97	4,840	4,190	666	449	708
9	141	145	134	127	141	78	89	2,100	4,330	666	383	559
10	134	127	127	143	125	75	89	804	5,730	487	372	336
11	148	120	136	141	129	71	85	1,480	5,590	361	290	332
12	168	125	141	197	180	73	83	2,150	3,580	265	232	325
13	983	114	143	134	148	68	82	1,760	1,610	322	710	343
14	1,430	123	150	168	125	62	82	714	1,410	392	475	512
15	498	136	158	199	114	82	83	1,500	3,950	1,550	332	412
16	293	134	148	180	125	95	75	1,520	3,380	2,170	276	449
17	235	123	183	214	160	125	75	347	1,720	3,680	822	350
18	172	123	136	138	116	143	87	1,030	1,940	4,050	1,510	390
19	150	120	186	148	134	141	80	787	2,090	4,050	1,920	788
20	148	129	183	211	150	123	75	642	1,770	3,910	1,260	996
21	150	118	134	134	183	116	125	477	1,100	946	535	19,000
22	150	114	152	145	180	152	85	14,800	2,060	355	1,480	10,900
23	160	123	145	127	178	197	89	27,700	2,000	304	2,150	29,800
24	155	125	175	150	168	162	114	30,200	7,740	290	1,920	13,200
25	150	127	120	145	125	689	134	11,000	2,270	513	1,780	18,900
26	150	118	186	143	155	638	138	13,300	1,380	1,370	907	25,600
27	150	112	183	155	138	252	230	14,600	2,800	1,300	401	29,800
28	145	112	188	138	141	193	208	14,000	1,590	1,420	459	18,000
29	134	116	194	158	-	152	168	10,700	496	946	1,460	10,600
30	136	112	194	162	-	152	127	9,000	724	545	1,620	7,380
31	125	-	186	138	-	136	-	8,080	-	441	1,390	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,241	1,430	125	234	14,360
November	3,707	145	112	124	7,350
December	4,675	194	109	151	9,270
Calendar year 1940	51,275	1,430	60	140	101,700
January	4,900	214	127	158	9,720
February	4,080	183	114	145	8,050
March	4,798	689	62	154	9,500
April	3,300	230	75	110	6,550
May	215,559	30,200	138	5,954	427,600
June	95,430	8,320	496	3,181	189,300
July	39,452	4,050	265	1,273	78,250
August	25,390	2,150	232	819	50,360
September	195,628	29,800	325	6,521	388,000
Water year 1940-41	604,130	30,200	62	1,655	1,198,000

Peak discharge.- May 2 (9 a.m.) 17,600 sec.-ft.; May 22 (8:30 p.m.) 43,800 sec.-ft.; May 24 (12:30 a.m.) 52,600 sec.-ft.; Sept. 21 (1 p.m.) 40,700 sec.-ft.; Sept. 23 (12:30 a.m.) 26,700 sec.-ft.; Sept. 27 (5 a.m.) 32,500 sec.-ft.

Pecos River near Orla, Tex.

Location.- Water-stage recorder, lat. 31°49', long. 103°48', in E½ sec. 26, Blk. 56, Texas & Pacific Railway Co. Survey, about 600 feet upstream from Pasotex pipe line crossing, 6 miles southeast of Orla, Reeves County, 16 miles downstream from Salt (Screwbean) Draw and 19 miles downstream from Red Bluff Dam. Datum of gage is 2,718.0 feet above mean sea level, datum of 1929.

Drainage area.- 21,300 square miles (contributing area).

Records available.- May 1937 to September 1941.

Extremes.- Maximum discharge during year, 23,700 second-feet Sept. 29 (gage height, 20.74 feet); minimum daily, 2.0 second-feet (regulated) Dec. 27.

1937-41: Maximum discharge, that of Sept. 29, 1941; minimum daily, 2.0 second-feet (regulated) June 3, 1937, Dec. 27, 1940.

Revisions.- The maximum discharge for the water year 1937 has been revised to 5,530 second-feet June 9, 1937 (gage height, 9.93 feet), superseding figures published in Water-Supply Papers 828, 858, 878, and 898. Peak discharge over spillway of Red Bluff Dam, 4 miles north of Orla has been revised to 5,500 second-feet June 9, 1937, superseding figures published in Water-Supply Papers 828 (p. 429) and 878.

Remarks.- Records good except those for periods of doubtful and no gage-height record and those above 10,000 second-feet, which are fair. Flow regulated by Red Bluff Reservoir (see p. 281) except for occasional runoff from draws between dam and station. Many diversions above station for irrigation.

Revisions.- Revised figures of discharge, in second-feet, for the high-water period in the water year 1937, superseding those published in Water-Supply Papers 828 and 878, are given herein:

June 6	2,730	June 10	3,870	June 14	3,230	June 18	3,660
7	2,870	11	2,150	15	4,090	19	2,230
8	3,800	12	4,500	16	3,580		
9	5,100	13	4,090	17	2,550		

Month	Maximum	Minimum	Mean	Runoff (acre-feet)
June.....	5,100	2	1,806	107,500
The period May 26 to Sept. 30...	-	-	-	188,100

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	41	2.7	5.4	26	2.4	11	123	all,200	1,490	817	976
2	67	12	2.7	3.6	6.1	2.4	313	160	all,0,500	1,350	708	1,080
3	67	3.9	2.7	3.3	6.4	2.3	478	46	5,560	1,280	620	942
4	65	3.0	2.7	2.7	20	2.1	601	19	6,630	1,350	571	947
5	67	3.0	2.7	2.7	4.8	2.1	614	11	2,770	1,420	474	1,180
6	65	2.7	2.7	2.7	22	2.3	614	9.6	7,190	1,380	459	1,180
7	67	3.6	2.7	2.7	6.5	2.3	614	8.9	7,770	1,120	432	1,150
8	67	6.8	2.7	2.7	29	3.0	620	41	8,030	1,210	473	1,010
9	57	4.5	2.7	2.7	5.1	3.3	644	106	6,210	1,070	h467	728
10	57	3.3	2.7	2.7	4.5	2.3	559	123	5,680	1,720	456	781
11	61	2.7	2.7	2.7	21	2.3	559	129	4,300	1,660	456	607
12	64	2.7	2.7	3.0	4.8	2.4	583	130	2,820	1,590	451	721
13	260	2.7	3.0	3.0	3.6	2.1	663	156		1,520	456	833
14	58	2.7	3.0	2.7	3.3	9.7	676	133		1,450	408	382
15	19	3.0	3.0	3.0	19	3.6	676	129		697	456	382
16	12	3.0	2.7	2.4	4.5	2.7	676	126	dl,000	754	456	377
17	9.6	3.0	2.4	2.4	3.9	3.6	676	129		1,040	456	445
18	8.2	3.0	2.4	2.4	20	4.5	676	156		1,850	462	757
19	7.5	3.0	2.4	2.4	4.5	3.0	670	163	1,670	2,590	456	1,490
20	6.8	3.0	2.4	2.7	3.3	2.7	682	219	1,530	2,340	571	1,320
21	6.1	3.0	2.4	3.0	3.3	2.7	676	192	1,730	2,540	595	2,200
22	45	3.0	2.3	4.5	18	4.5	670	1,580	2,130	2,130	571	7,270
23	73	3.0	2.4	21	5.1	4.5	620	2,110	1,550	1,720	754	15,700
24	96	3.0	2.4	7.8	4.5	3.0	614	6,780	1,750	1,380	1,040	20,500
25	120	3.0	2.7	25	18	7.7	607	7,970	1,550	1,110	1,250	21,800
26	123	2.7	2.3	4.2	3.9	3.6	589	7,700	1,660	1,090	1,320	21,800
27	123	2.7	2.0	5.0	3.0	2.4	310	9,180	1,720	1,080	1,750	23,000
28	110	2.7	2.3	22	2.4	2.4	183	10,600	1,930	1,080	976	23,700
29	41	2.7	4.2	7.3	-	2.3	126	12,200	1,790	1,150	681	23,000
30	44	2.7	15	21	-	2.3	123	12,200	1,550	1,080	976	19,300
31	43	-	44	10	-	2.3	-	all,600	-	942	1,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,976.2	260	6.1	63.7	3,920
November.....	141.4	41	2.7	4.71	280
December.....	136.7	44	2.0	4.41	271
Calendar year 1940	48,893.8	636	2.0	134	96,960
January.....	256.2	45	2.4	8.26	508
February.....	276.5	29	2.4	9.88	548
March.....	98.8	9.7	2.1	3.19	196
April.....	16,123	682	11	537	31,980
May.....	84,229.5	12,200	8.9	2,717	167,100
June.....	104,440	11,200	-	3,481	207,200
July.....	44,183	2,590	697	1,425	87,640
August.....	21,258	1,750	408	686	42,160
September.....	195,458	23,700	377	6,515	387,700
Water year 1940-41	468,577.3	23,700	2.0	1,284	929,500

a No gage-height record; discharge computed on basis of known range in stage and release records at Red Bluff Dam.

d Doubtful gage-height record; discharge computed on basis of estimated gage heights.

h Computed from one staff-gage reading.

Pecos River at Pecos, Tex.

Location.- Water-stage recorder, lat. 31°26', long. 103°28', 70 feet upstream from Texas & Pacific Railway Co. bridge, 1.7 miles east of Pecos, Reeves County, and about 11 miles upstream from Toyah Creek. Datum of gage is 2,554.0 feet above mean sea level, datum of 1929.

Drainage area.- 22,100 square miles (contributing area).

Records available.- August 1939 to September 1941. January 1898 to June 1907 at flume of Barstow Irrigation Co. (old Margueretta Canal Co.), 6.4 miles upstream, published as Pecos River near Pecos, Tex. April 1914 to August 1915 at site 7 miles downstream, published as Pecos River near Barstow, Tex. March 1922 to July 1926 at site about 10 miles upstream, published as Pecos River above Barstow, Tex.

Extremes.- Maximum discharge during year, 22,200 second-feet Sept. 30 (gage height, 17.68 feet); minimum daily, 7.8 second-feet (regulated) Jan. 18.

1898-1907, 1914-15, 1922-26, 1939-41: Maximum gage height, about 18 feet, present site and datum, Oct. 5, 1904, (discharge not determined); minimum daily not determined, affected by diversions.

Flood of August 1893 reached approximately the same stage as that of Oct. 5, 1904, according to information furnished by local residents.

Remarks.- Records good except those for periods of fragmentary or no gage-height record, which are fair. Flow regulated to large extent by reservoirs upstream from Orla. Several diversions for irrigation between Orla and this station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	25	12	11	10	9.3	9.6	86	9,600	1,360	851	885
2	34	20	12	11	10	8.8	9.6	83	10,600	1,150	749	834
3	31	23	12	11	10	8.5	9.6	140	10,600		f664	938
4	34	26	12	10	10	8.5	260	105	10,400		f613	868
5	31	23	12	10	10	9.0	384	81	8,800	al,040	f562	715
6	26	19	12	10	10	8.8	375	55	7,360		f528	902
7	27	17	12	9.9	10	8.8	384	44	6,050	938	f494	992
8	28	17	12	9.6	10	9.0	375	43	6,260	758	f443	974
9	28	15	12	9.6	10	9.3	375	42	6,870	749	f426	938
10	30	14	12	9.3	10	9.0	400	40	6,930	664	f418	715
11	63	13	12	9.0	10	9.3	477	93	6,580	596	f392	681
12	41	13	12	9.3	10	9.0	511	82	6,260	562	f384	613
13	96	13	12	9.0	10	9.0	511	89	5,500	528	392	528
14	100	13	12	8.5	12	9.3	443	87	3,440	494	367	766
15	26	13	12	8.2	14	9.3	409	73	1,410	460	335	443
16	18	13	12	8.0	13	9.3	409	56	958	418	303	375
17	16	13	11	8.0	11	11	409	49	f1,020	343	303	351
18	15	13	12	7.8	10	10	409	61	f1,750	468	295	418
19	15	13	12	8.8	10	10	418	71	2,160	810	263	545
20	15	13	12	11	9.9	9.9	418	81	1,390	1,340	224	974
21	15	13	11	11	9.9	9.9	418	93	1,520	f1,680	224	1,120
22	14	13	11	11	9.9	10	400	120	1,500	1,820	295	1,140
23	14	13	11	11	11	10	400	806	1,400	1,920	359	1,780
24	15	13	11	11	10	9.9	400	1,280	1,300	1,750	426	2,700
25	18	12	11	11	10	10	375	1,660	1,420	1,350	681	3,210
26	29	12	11	10	10	9.9	375	2,550	1,400	1,050	868	4,380
27	56	12	11	11	9.9	9.6	400	3,270	1,400	885	a974	7,300
28	66	12	11	11	9.9	9.6	305	4,600	1,340	956	974	13,000
29	68	12	11	10	-	9.6	189	6,100	1,380	902	868	19,900
30	56	12	11	10	-	9.6	120	6,100	1,520	920	749	21,400
31	25	-	11	10	-	9.6	-	7,100	-	920	800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,083	100	14	34.9	2,150
November	453	26	12	15.1	899
December	360	12	11	11.6	714
Calendar year 1940	28,237	418	10	77.2	56,010
January	306.0	11	7.8	9.87	607
February	290.5	14	9.9	10.4	576
March	292.8	11	8.5	9.45	581
April	10,377.8	511	9.6	346	20,880
May	35,110	7,100	40	1,133	69,640
June	128,128	10,600	958	4,271	254,100
July	29,951	1,920	343	965	59,410
August	16,224	974	224	523	32,180
September	90,385	21,400	351	3,013	179,300
Water year 1940-41	312,961.1	21,400	7.8	857	620,700

a No gage-height record; discharge computed on basis of known range in stage and records for station near Orla.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Pecos River below Grandfalls, Tex.

Location.- Water-stage recorder, lat. 31°18', long. 102°46', at bridge on county road between Grandfalls and Imperial, 7.1 miles southeast of Grandfalls, Ward County and about 10 miles downstream from Chacator! Draw. Datum of gage is 2,373.0 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 27,820 square miles (contributing area).

Records available.- August 1939 to September 1941. December 1921 to July 1926 at site about 12 miles downstream (published as Pecos River near Buena Vista, Tex.).

Extremes.- Maximum discharge during year, 8,080 second-feet June 6 (gage height, 18.44 feet); minimum daily, 19 second-feet (regulated) Apr. 16-22.
1921-26, 1939-41: Maximum discharge, that of June 6, 1941; minimum daily, 8.0 second-feet (regulated) July 27, 1925.

Flood of 1915 is largest known and that of September or October 1932 reached a stage of 18 feet; from information furnished by local residents.

Remarks.- Records good. Flow regulated to large extent by reservoirs upstream from Orla. Many diversions between Orla and station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	80	70	69	63	60	53	22	2,360	1,060	608	h470
2	40	85	70	69	64	59	54	30	2,950	1,060	570	h645
3	39	86	69	69	64	59	55	46	3,580	1,030	503	h772
4	35	90	69	69	63	59	54	32	4,590	940	420	hl,060
5	30	89	69	68	63	59	55	23	7,120	853	330	hl,110
6	28	88	69	66	62	58	94	32	8,080	772	248	h940
7	27	90	69	65	62	58	253	29	7,920	799	244	h822
8	27	91	69	65	62	56	125	24	7,000	882	205	hl,030
9	27	88	69	65	64	56	38	70	6,310	772	197	hl,140
10	29	86	69	64	64	56	29	68	5,930	670	207	hl,110
11	38	85	66	64	64	56	25	59	5,610	670	252	h998
12	284	85	69	64	63	55	22	69	6,310	520	150	h911
13	148	82	78	64	62	56	22	84	6,860	470	129	h826
14	92	81	75	64	60	56	21	91	6,860	470	118	h799
15	668	81	73	64	61	55	20	95	6,310	408	110	h826
16	132	80	71	63	61	55	19	97	5,810	300	62	h799
17	47	77	69	62	60	56	19	97	5,360	221	65	h670
18	30	77	69	63	61	56	19	97	3,890	147	60	h645
19	27	75	69	66	61	54	19	95	1,770	119	65	h645
20	25	75	69	62	61	55	19	100	1,510	224	94	h720
21	24	72	68	54	60	55	19	104	1,610	539	81	h745
22	23	72	68	53	59	56	19	97	1,610	799	65	h826
23	23	71	68	54	59	56	21	99	1,420	772	66	1,170
24	23	72	68	55	58	55	22	84	1,290	853	102	1,290
25	23	71	68	56	60	56	22	515	1,200	969	191	1,480
26	59	71	66	56	60	59	34	853	1,060	1,060	360	1,610
27	56	71	65	56	60	58	22	911	1,170	884	445	1,780
28	52	71	66	58	60	56	24	998	1,170	545	558	1,950
29	62	71	68	58	-	55	28	1,110	1,060	595	508	2,230
30	69	70	69	59	-	54	25	1,310	1,030	608	420	2,940
31	72	-	70	61	-	53	-	1,710	-	595	432	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,304	668	23	74.3	4,570
November.....	2,384	91	70	79.5	4,730
December.....	2,146	78	65	69.2	4,260
Calendar year 1940	19,615	668	17	55.6	38,900
January.....	1,925	69	53	62.1	3,820
February.....	1,721	64	58	61.5	3,410
March.....	1,747	60	53	56.4	3,470
April.....	1,251	253	19	41.7	2,480
May.....	9,051	1,710	22	292	17,950
June.....	118,950	8,080	1,030	3,965	235,900
July.....	20,626	1,080	119	665	40,910
August.....	7,890	608	60	255	15,660
September.....	33,019	2,940	470	1,101	65,490
Water year 1940-41	203,014	8,080	19	556	402,600

h Computed from graph based on once-daily staff-gage readings.

Pecos River near Girvin, Tex.

Location.- Water-stage recorder, lat. 31°05', long. 102°22', at bridge on U. S. Highway 87, about half a mile downstream from bridge of Panhandle & Santa Fe Railway, 2.1 miles east of Girvin, Pecos County, and about 6½ miles downstream from Comanche Creek. Datum of gage is 2,269.7 feet above mean sea level, unadjusted.

Drainage area.- 29,560 square miles (contributing area).

Records available.- August 1939 to September 1941.

Extremes.- Maximum discharge during year, 6,870 second-feet June 16 (gage height, 17.36 feet); minimum daily, 39 second-feet (regulated) Apr. 21.

1939-41: Maximum discharge, that of June 16, 1941; minimum daily, 30 second-feet (regulated) July 31, 1940.

Flood of September 1932 reached a stage of 17 feet, according to information furnished by local residents.

Remarks.- Records good. Flow regulated to large extent by reservoirs upstream from Orla. Many diversions above station for irrigation. Some water from a drain and two waste-ways returns to river between this station and that below Grandfalls.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.					
1	62	82	91	87	83	78	77	62	1,320	1,350	704	540					
2	65	85	89	88	83	76	76	106	1,650	1,390	725	540					
3	57	88	89	88	84	76	77	150	1,940	1,280	704	641					
4	55	95	88	87	84	75	78	160	2,120	1,220	662	879					
5	54	98	88	87	84	74	76	134	2,340	1,110	600	1,080					
6	52	98	87	86	84	75	76	105	2,600	911	540	1,150					
7	48	105	87	85	84	75	77	83	2,760	923	450	1,080					
8	45	120	88	85	85	74	79	151	3,050	901	410	1,040					
9	44	125	88	84	87	74	249	83	3,450	945	400	1,240					
10	42	118	88	83	86	74	135	77	4,690	901	350	1,420					
11	52	110	88	83	84	74	75	106	6,120	791	340	1,560					
12	69	106	87	85	83	74	61	144	6,300	769	350	1,240					
13	77	104	88	89	83	75	54	137	6,120	662	310	1,150					
14	512	103	91	86	82	74	52	142	5,770	620	270	1,130					
15	142	103	95	83	80	74	53	169	6,300	600	236	1,180					
16	320	103	93	83	79	75	50	185	6,680	560	218	1,080					
17	403	101	92	82	79	76	46	198	6,680	460	188	1,110					
18	148	99	89	80	77	77	42	205	6,300	400	164	945					
19	89	98	88	80	79	79	41	219	5,940	360	155	901					
20	67	98	88	83	79	77	41	226	5,600	310	144	879					
21	60	95	88	84	79	76	39	320	4,440	300	168	901					
22	54	95	88	80	79	77	40	304	2,690	508	168	968					
23	51	95	88	75	79	78	40	261	2,090	913	153	1,180					
24	49	94	87	74	78	79	41	254	1,740	879	159	1,290					
25	45	93	87	74	79	299	42	261	1,540	901	169	1,340					
26	44	92	86	75	77	104	72	293	1,420	991	250	1,460					
27	43	91	84	77	77	79	109	733	1,240	1,060	400	1,620					
28	63	91	85	78	77	90	82	861	1,240	1,010	520	1,750					
29	69	91	85	78	-	79	66	910	1,340	758	600	1,380					
30	67	91	85	79	-	78	58	968	1,240	704	620	2,080					
31	75	-	87	84	-	78	-	1,100	-	725	520	-					
Month													Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October													2,823	403	42	91.1	5,600
November													2,967	125	82	98.9	5,880
December													2,732	95	84	88.1	5,420
Calendar year 1940													26,253	403	30	71.7	52,040
January													2,552	89	74	82.3	5,060
February													2,275	87	77	81.2	4,510
March													2,513	299	74	84.3	5,180
April													2,176	249	39	72.5	4,320
May													9,055	1,100	62	292	17,960
June													106,680	6,680	1,240	3,556	211,600
July													25,192	1,390	300	813	49,970
August													11,647	725	144	376	23,100
September													35,054	2,080	540	1,168	69,530
Water year 1940-41													205,766	6,680	39	564	408,100

Pecos River near Sheffield, Tex.

Location.- Water-stage recorder, lat. 30°39', long. 101°45', at bridge on U. S. Highway 290, 3½ miles southeast of Sheffield, Pecos County, and about 4 miles upstream from Liveoak Creek. Datum of gage is 2,026.3 feet above mean sea level, datum of 1929.

Drainage area.- 31,660 square miles (contributing area).

Records available.- October 1921 to April 1925 and October 1939 to September 1941.

Extremes.- Maximum discharge during year, 5,700 second-feet June 20 (gage height, 11.00 feet); minimum, 35 second-feet Oct. 1, 2.

1921-25, 1939-41: Maximum discharge, that of June 20, 1941; minimum, 15 second-feet Aug. 15, 1923.

Maximum stage known, about 23.5 feet, at former site and datum three-quarters of a mile upstream from present site, in September 1916, according to information furnished by local residents.

Remarks.- Records good except those for periods of doubtful or no gage-height record, which are fair. Flow regulated to large extent by reservoirs above Orla. Many diversions between Orla and this station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	80	104	100	107	96	107	115	872	1,530	759	
2	36	84	107	104	104	95	107	1,560	937	1,460	728	
3	40	89	109	107	102	93	104	265	1,470	1,560	747	
4	65	93	109	104	102	93	100	157	1,360	1,460	747	
5	62	95	107	107	104	91	98	346	1,560	1,360	704	
6	58	98	107	102	104	93	100	190	1,930	1,220	654	
7	55	111	107	102	102	91	100	154	2,020	1,110	594	
8	53	127	107	102	109	89	98	135	2,160	1,000	593	
9	52	140	107	102	109	89	98	122	2,300	970	464	
10	48	130	104	102	107	87	158	113	2,990	1,000	449	
11	51	127	107	102	104	89	215	111	2,720	1,040	423	
12	74	120	107	102	102	89	145	109	2,930	872	428	
13	76	115	109	109	102	87	109		3,520	815	470	
14	92	113	118	104	100	89	98		4,210	747	419	
15	90	111	107	104	100	93	211		4,630	648	368	
16	230	111	107	100	100	95	589		4,800	618	336	
17	138	111	109	98	96	96	82		4,980	571	323	
18	341	111	107	96	96	100	80		5,250	475	297	
19	277	111	107	96	96	96	76		5,520	409	273	
20	145	111	107	95	98	96	72		5,610	363	253	
21	109	111	104	93	96	96	71	a240	5,340	319	245	
22	93	111	104	95	98	100	71		5,070	310	253	778
23	84	111	104	96	98	93	74		4,560	423	257	840
24	84	109	104	96	96	95	76		3,630	710	310	1,040
25	90	109	104	93	96	132	76		2,560	840	249	1,180
26	74	107	100	91	95	493	98		2,090	872	230	1,250
27	69	107	98	209	96	254	404		1,810	970	265	1,390
28	69	107	100	204	96	132	206		1,560	1,080		1,500
29	65	107	98	102	-	113	1,090	594	1,460	1,080		1,540
30	68	104	98	100	-	109	157	728	1,500	840		1,740
31	84	-	100	111	-	109	-	790	-	704		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,909	341	36	93.8	5,770
November	3,271	340	80	109	6,490
December	3,287	118	98	105	6,480
Calendar year 1940	34,044	902	34	93.0	67,540
January	3,328	209	91	107	6,600
February	2,815	109	95	101	5,580
March	3,579	493	87	115	7,100
April	5,070	1,090	71	169	10,060
May	9,332	1,560	-	301	18,510
June	91,349	5,610	872	3,045	181,200
July	27,376	1,560	310	883	54,300
August	13,873	-	-	448	27,520
September	33,288	-	-	1,110	66,030
Water year 1940-41	199,457	5,610	36	546	395,600

a Doubtful or no gage-height record; discharge computed on basis of records for stations near Grandfalls and Girvin.

Reservoirs on Pecos River

Alamogordo Reservoir.- Mercury gage, lat. 34°36'30", long. 104°23'10", in SW $\frac{1}{4}$ sec. 34, T. 5 N., R. 24 E., at Alamogordo Dam on Pecos River, 5 miles northeast of Guadalupe, N. Mex. Datum of gage is at mean sea level (Bureau of Reclamation datum). Drainage area, 4,390 square miles (contributing area). Records available, January 1939 to September 1941. Maximum daily contents during year, 157,000 acre-feet May 23-30, June 1-10, July 21, Sept. 22, 23, 30 (elevation, 4,275.0 feet); minimum daily, 15,300 acre-feet Mar. 22 (elevation, 4,211.4 feet). Maximum daily contents during period 1939-41, that of May 23-30, June 1-10, July 21, Sept. 22, 23, 30, 1941; minimum daily, 11,600 acre-feet Aug. 5, 1940 (elevation, 4,205.9 feet).

Reservoir is formed by Alamogordo Dam, completed and storage began in 1938. Capacity, 157,000 acre-feet between elevations 4,200.0 (sill of outlet gates) and 4,275.0 feet (top of spillway gates) above mean sea level. Dead storage, 9,000 acre-feet. Figures given herein represent total contents. Gage read once daily at 8 a.m. Contents computed from once-daily gage readings. Gage-height record and capacity curve furnished by Bureau of Reclamation.

Lake McMillan.- Staff gage, lat. 32°35'45", long. 104°20'55", in SE $\frac{1}{4}$ sec. 2, T. 20 S., R. 26 E., at McMillan Dam on Pecos River, 3 miles southeast of Lakewood, N. Mex. Datum of gage is 3,241.6 feet above mean sea level (Bureau of Reclamation datum). Drainage area, 16,990 square miles (contributing area). Records available, January 1939 to September 1941. Maximum daily contents during year, 65,500 acre-feet Sept. 26 (gage height, 29.95 feet); minimum daily, 1,500 acre-feet Oct. 6-11, Feb. 12; minimum gage height, 15.2 feet Nov. 11 (affected by wind). Maximum daily contents during period 1939-41, that of Sept. 26, 1941; minimum daily, that of Oct. 6-11, 1940, Feb. 12, 1941; minimum gage height, that of Nov. 11, 1940.

Lake is formed by McMillan Dam, completed and storage began in 1906. Capacity, 38,500 acre-feet between gage heights 0.0 (sill of outlet gates) and 26.1 feet (crest of spillway 1). No dead storage. Figures given herein represent usable contents. Water is used for irrigation on Carlsbad project of Bureau of Reclamation. Contents computed from once-daily gage readings. Gage-height record and capacity curve furnished by Bureau of Reclamation.

Lake Avalon.- Staff gage, lat. 32°29'25", long. 104°15'00", in SW $\frac{1}{4}$ sec. 12, T. 21 S., R. 26 E., at Avalon Dam on Pecos River, 5 miles north of Carlsbad, N. Mex. Datum of gage is 3,157.0 feet above mean sea level (Bureau of Reclamation datum). Drainage area, 18,070 square miles (contributing area). Records available, January 1939 to September 1941. Maximum daily contents during year, 11,000 acre-feet May 22 (gage height, 25.0 feet); no storage Oct. 2-11, when natural flow was passing through reservoir. Maximum daily contents during period 1939-41, that of May 22, 1941; no storage Sept. 7, Oct. 2-11, 1940.

Lake is formed by Avalon Dam; storage began in 1906. Capacity, 6,600 acre-feet between gage heights 0 (sill of outlet gates) and 21.0 feet (crest of spillway 1). No dead storage. Figures given herein represent usable contents. Water is used for irrigation on Carlsbad project of Bureau of Reclamation. Gage read twice daily October to December, once daily January to September. Gage-height record and capacity curve furnished by Bureau of Reclamation.

Red Bluff Reservoir.- Ashcroft Durogage (pressure type) and staff gage, lat. 31°54'05", long. 103°54'40", at Red Bluff Dam on Pecos River, 3 miles upstream from Salt (Screwbean) Draw, Tex. and 11 miles downstream from New Mexico-Texas State line. Datum of gage is 0.30 foot below mean sea level, datum of 1929. Drainage area, 20,720 square miles (contributing area). Records available, February 1937 to September 1941. Maximum contents during year, 352,000 acre-feet Sept. 27, 28 (elevation, 2,846.2 feet); minimum, 23,600 acre-feet Oct. 1, 2 (elevation, 2,795.1 feet). Maximum contents during period 1937-41, that of Sept. 27, 28, 1941; minimum, 28,000 acre-feet Sept. 17, 23-28, 1940 (elevation, 2,794.8 feet).

Reservoir is formed by earth-fill dam, rip-rap faced; storage began in 1936; dam completed early in 1937. Capacity, 307,000 acre-feet between gage heights 2,764.0 feet (penstock intake sill) and 2,842.0 feet (top of Taintor gates). Dead storage 3,000 acre-feet. Figures given herein represent total contents. Water is used for power development and for irrigation from Mentone to Grandfalls, Tex. Staff gage at service spillway used May 25 to Sept. 30. Elevation observed July 31 and Sept. 30 subject to error due to drawdown of water surface through spillway. Elevation record and capacity curve furnished by Red Bluff Water Power Control District.

Monthly elevation (or gage height) and contents, of reservoirs on Pecos River, water year October 1940 to September 1941

Date	Alamogordo Reservoir†			Lake McMillan‡		
	Elevation or gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Elevation or gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30.....	15.45	18,400	-	15.72	1,700	-
Oct. 31.....	16.55	19,200	+800	15.7	1,700	0
Nov. 30.....	23.15	25,200	+6,000	16.00	2,100	+400
Dec. 31.....	29.3	31,600	+6,400	15.85	1,900	-200
Calendar year 1940..	-	-	-62,600	-	-	-4,800
Jan. 31.....	34.05	37,700	+6,100	15.85	1,900	0
Feb. 28.....	36.85	42,000	+4,300	15.80	1,800	-100
Mar. 31.....	24.3	26,300	-15,700	24.40	29,900	+28,100
Apr. 30.....	40.4	47,800	+21,500	24.40	29,900	-
May 31.....	74.75	155,700	+107,900	25.55	35,600	+5,700
June 30.....	73.5	149,200	-6,500	24.90	32,300	-3,300
July 31.....	74.8	156,000	+6,800	25.00	32,800	+500
Aug. 31.....	74.4	153,900	-2,100	23.85	27,300	-5,500
Sept.30.....	75.0	157,000	+3,100	26.80	42,700	+15,400
Water year 1940-41..	-	-	+138,600	-	-	+41,000
Date	Lake Avalon‡			Red Bluff Reservoir††		
Sept.30.....	9.8	180	-	2,795.0	28,400	-
Oct. 31.....	19.6	5,240	+5,060	2,801.6	43,000	+14,600
Nov. 30.....	20.2	5,810	+570	2,803.9	49,700	+6,700
Dec. 31.....	20.2	5,810	0	2,806.2	57,200	+7,500
Calendar year 1940..	-	-	+1,180	-	-	-1,000
Jan. 31.....	19.0	4,700	-1,110	2,808.7	66,300	+9,100
Feb. 28.....	19.9	5,520	+820	2,810.4	73,100	+6,800
Mar. 31.....	19.5	5,150	-370	2,812.2	80,900	+7,800
Apr. 30.....	15.9	2,280	-2,870	2,805.0	53,000	-27,900
May 31.....	20.6	6,200	+3,920	2,844.0	330,000	+277,000
June 30.....	20.4	6,000	-200	2,842.9	319,000	-11,000
July 31.....	20.3	5,900	-100	‡‡2,842.6	316,000	-3,000
Aug. 31.....	20.2	5,810	-90	‡‡2,842.7	317,000	+1,000
Sept.30.....	19.15	4,840	-970	‡‡2,843.7	327,000	+10,000
Water year 1940-41..	-	-	+4,660	-	-	+298,600

† Elevations are at 8 a.m. Add 4,200 feet to obtain elevations above mean sea level.

‡ Gage heights October to December are means of 6 a.m. and 6 p.m. readings; gage heights January to September are 6 a.m. readings.

†† Elevation at 9 a.m. except as noted.

‡‡ Elevation at 6 a.m.

Gallinas River near Montezuma, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°39', long. 105°19', in Las Vegas Grant, 2 miles west of Montezuma, and 6 miles northwest of Las Vegas, San Miguel County.

Drainage area.- 84 square miles.

Records available.- October 1930 to September 1941 in reports of Geological Survey. March 1915 to December 1931 (1915-1926, no winter records) in reports of State engineer.

Average discharge.- 15 years (1926-41), 21.4 second-feet.

Extremes.- Maximum discharge during year, 3,310 second-feet Sept. 23 (gage height, 7.78 feet), from rating curve extended above 350 second-feet by logarithmic plotting; minimum daily, 2.9 second-feet Nov. 12.

1930-41: Maximum discharge, that of Sept. 23, 1941; minimum daily, 0.8 second-foot Aug. 15-18, 21, 25, 26, 30, 1934, Jan. 20, 1938.

Remarks.- Records fair except those for periods of ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.5	5.2	8.0	11	5.2	11	155	400	228	40	98	33
2	8.0	4.8	9.0	10	4.6	13	133	d520	202	40	96	29
3	8.0	4.8	8.5	b8	5.2	13	109	d480	198	35	68	27
4	8.0	4.5	11	b6	5.2	13	100	d430	190	36	60	24
5	8.5	4.5	11	b8	5.2	14	107	390	202	36	48	22
6	8.0	4.5	9.8	*b8	5.8	13	109	397	180	35	40	21
7	7.6	4.2	*8.0	b7	6.7	12	93	429	162	32	37	19
8	6.2	4.2	8.0	b7	5.8	11	86	411	151	29	55	17
9	5.8	4.5	8.5	b8	5.2	15	82	d410	141	29	73	17
10	8.0	4.2	8.0	b7	6.2	16	84	d400	126	29	63	17
11	9.8	3.2	8.0	b7	5.8	15	81	d420	113	29	54	15
12	9.4	2.9	8.5	8.0	7.2	16	94	d410	100	29	102	15
13	9.0	3.2	7.2	7.6	6.2	15	121	d460	89	76	81	15
14	8.5	3.2	b6.5	7.6	7.2	17	113	d450	91	57	70	15
15	8.0	3.9	b6.0	7.2	7.6	17	113	404	91	46	72	15
16	7.6	3.9	b5.5	b6	8.0	16	115	372	89	38	82	14
17	6.7	4.2	b8	b6	8.6	20	115	308	91	44	140	13
18	6.2	3.6	10	b9	8.5	23	104	257	86	92	155	16
19	6.2	5.5	9.4	b11	8.5	28	84	205	88	76	134	17
20	5.8	4.8	b8	b10	8.0	32	70	147	82	58	216	25
21	5.8	4.2	b9	5.8	8.5	36	64	244	74	50	222	97
22	5.5	4.8	*b10	6.2	9.4	36	54	626	76	46	170	236
23	5.8	5.8	b11	b6	11	44	52	408	74	37	123	878
24	5.5	6.2	12	5.8	9.8	88	60	517	78	37	91	236
25	5.5	4.8	13	6.2	11	96	73	469	73	44	70	126
26	5.5	7.6	10	5.2	10	70	115	341	63	50	55	78
27	5.8	6.2	b10	5.5	9.8	78	225	327	55	143	51	49
28	6.2	6.7	11	*5.8	9.8	106	251	287	50	121	44	82
29	4.8	9.8	11	6.7	-	131	202	309	47	82	46	961
30	5.5	9.8	11	5.8	-	147	192	278	41	61	47	720
31	5.5	-	11	5.5	-	151	-	263	-	92	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	215.2	9.8	4.8	6.94	427
November	149.7	9.8	2.9	4.99	297
December	284.9	13	5.5	9.19	565
Calendar year 1940	4,545.7	154	1.3	12.4	9,020
January	225.9	11	5.2	7.22	444
February	209.8	11	4.5	7.49	416
March	1,312	151	11	42.3	2,600
April	3,356	251	52	112	6,660
May	11,769	626	147	380	23,340
June	3,330	228	41	111	6,600
July	1,652	143	29	53.3	3,280
August	2,699	222	36	87.1	5,350
September	3,848	961	13	128	7,630
Water year 1940-41	29,049.5	961	2.9	79.6	57,610

Peak discharge.- July 18 (9 p.m.) 1,610 sec.-ft.; Aug. 20 (1 p.m.) 1,440 sec.-ft.; Sept. 23 (5 a.m.) 3,310 sec.-ft.; Sept. 29 (10 a.m.) 2,050 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on basis of weather records and records for station at Montezuma.

Gallinas River at Montezuma, N. Mex.

Location.- Water-stage recorder, lat. 35°39'15", long. 105°16'30", in Las Vegas Grant, at highway bridge, half a mile downstream from Montezuma and 5 miles northwest of Las Vegas, San Miguel County.

Drainage area.- 87 square miles.

Records available.- August 1903 to December 1914 (prior to October 1904, gage heights only) and October 1930 to September 1941 in reports of Geological Survey. October 1904 to December 1931 in reports of State engineer (prior to 1930, published as Gallinas River near Las Vegas).

Average discharge.- 34 years (1905-11, 1913-41), 22.3 second-feet.

Extremes.- Maximum discharge during year, 2,590 second-feet Sept. 23 (gage height, 6.23 feet), from rating curve extended above 650 second-feet by logarithmic plotting; minimum daily, 0.4 second-foot Oct. 26, Nov. 12-18, 20.
1930-41: Maximum discharge, that of Sept. 23, 1941; no flow (result of regulation) Oct. 4-7, 1934.

Remarks.- Records fair. Flow regulated by reservoirs owned by Agua Pura Co. Several diversions above station for irrigation and municipal supply.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	2.6	5.6	9.6	7.3	3.0	141	318	222	36	70	30
2	5.2	2.6	4.9	8.6	6.0	3.6	113	500	200	39	80	28
3	4.9	2.4	4.9	6.4	6.0	4.6	98	470	182	31	58	26
4	4.6	3.0	5.6	4.9	5.6	3.8	83	440	175	27	51	24
5	4.9	2.6	6.4	6.8	6.0	3.8	86	375	180	32	44	22
6	4.9	12	7.8	8.2	6.4	5.2	91	366	162	30	40	20
7	4.9	13	6.8	5.2	7.8	4.6	79	393	148	27	39	19
8	4.9	5.2	6.0	6.0	6.8	3.2	75	380	141	24	46	18
9	7.8	6.4	5.6	5.6	6.0	5.0	68	388	134	22	63	17
10	19	3.2	6.4	4.9	7.3	6.8	70	384	122	23	58	17
11	12	.7	6.8	5.2	6.8	12	69	402	113	22	52	16
12	8.2	.4	8.2	5.6	8.2	14	74	406	99	22	82	13
13	5.2	.4	6.8	5.2	7.3	13	95	455	89	54	73	14
14	6.9	.4	5.6	4.6	7.8	16	93	455	88	43	64	13
15	6.4	.4	5.2	4.2	8.2	15	95	455	86	50	61	13
16	5.6	.4	4.9	4.2	8.2	14	93	348	61	35	72	12
17	5.2	.4	5.4	4.2	8.6	17	93	302	79	38	111	12
18	4.6	.4	6.8	6.8	8.2	19	91	282	78	68	128	16
19	4.2	.6	5.2	9.6	7.3	25	78	258	77	79	108	17
20	3.8	.4	5.6	8.6	2.6	30	68	222	73	47	165	28
21	3.8	1.6	6.4	8.6	3.2	38	64	274	70	39	200	87
22	3.6	2.2	7.8	6.0	4.9	38	58	642	68	40	152	229
23	3.6	2.2	8.6	7.3	6.4	46	58	540	71	32	101	710
24	3.8	2.2	11	6.4	6.4	66	59	588	71	31	77	272
25	2.6	2.4	12	7.8	6.4	96	68	525	66	30	63	152
26	.4	3.8	8.6	6.0	3.8	73	89	435	60	47	53	101
27	1.0	5.2	7.8	6.4	2.6	73	212	384	54	97	48	72
28	8.2	4.2	11	6.8	2.4	93	258	344	49	95	41	92
29	4.6	5.6	9.1	8.2	-	109	206	344	42	69	41	821
30	3.0	6.4	9.6	7.3	-	128	191	290	38	51	44	543
31	2.6	-	10	7.8	-	132	-	250	-	68	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	166.0	19	0.4	5.35	329
November.....	93.3	13	.4	3.11	185
December.....	223.4	12	4.9	7.21	443
Calendar year 1940.....	3,536.9	110	.4	9.66	7,020
January.....	203.0	9.6	4.2	6.55	403
February.....	174.5	8.6	2.4	6.23	346
March.....	1,130.6	132	3.0	36.5	2,240
April.....	3,014	258	68	100	5,980
May.....	12,215	642	222	394	24,230
June.....	3,117	222	38	104	6,180
July.....	1,348	97	22	43.5	2,670
August.....	2,317	200	32	74.7	4,600
September.....	3,454	821	12	115	6,850
Water year 1940-41.....	27,455.8	821	.4	75.2	54,460

a No gage-height record; discharge interpolated.

Rio Ruidoso at Hondo, N. Mex.

Location.- Water-stage recorder, lat. 33°23', long. 105°17', in NW¼SW¼ sec. 4, T. 11 S., R. 17 E., a quarter of a mile upstream from confluence with Rio Bonito (which forms Rio Hondo) and half a mile southwest of Hondo.

Drainage area.- 307 square miles (contributing area).

Records available.- October 1930 to September 1941 in reports of Geological Survey. August 1930 to December 1931 in reports of State engineer.

Average discharge.- 11 years, 25.0 second-feet.

Extremes.- Maximum discharge during year, 12,400 second-feet Sept. 29 (gage height, 21.13 feet), from rating curve extended above 100 second-feet on basis of velocity-area studies; minimum daily, 1.9 second-feet Oct. 6.

1930-41: Maximum discharge, that of Sept. 29, 1941; no flow Aug. 15, 16, 1935.

Remarks.- Records fair Oct. 1 to May 11, poor thereafter. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.3	4.1	2.4	6.3	11	18	79	158	a270	56	a200	a90
2	4.7	3.4	3.7	9.0	8.3	18	72	135	a230	50	a260	a80
3	5.1	4.7	5.8	9.0	7.2	25	65	124	a200	42	202	a50
4	4.5	5.1	6.1	7.7	6.6	26	63	191	a180	40	a150	a50
5	2.8	5.5	8.0	7.2	5.8	28	57	387	a190	48	a110	a45
6	1.9	4.7	8.7	7.5	6.6	29	56	345	a200	60	a80	a60
7	2.3	3.5	9.0	8.0	8.3	26	59	327	a150	70	55	a45
8	2.3	4.1	9.0	9.0	9.0	28	56	309	a120	41	a52	a42
9	2.8	4.9	8.7	7.2	9.0	26	51	309	a100	28	a60	a70
10	2.8	5.1	9.0	7.7	9.8	20	54	306	a90	27	a58	a35
11	3.4	5.5	9.8	8.7	12	21	64	327	76	a24	57	a30
12	5.1	5.5	10	10	15	22	60	a347	69	28	59	a29
13	8.3	6.1	11	11	14	26	72	a330	63	22	a250	a28
14	8.7	5.8	11	12	14	30	85	a290	65	a90	a200	27
15	8.3	4.9	11	12	15	31	77	a250	68	a60	a250	26
16	7.7	4.7	11	11	15	30	71	a220	63	a80	a220	23
17	8.7	4.5	10	11	15	34	74	a200	54	a110	a190	20
18	8.7	5.5	9.8	11	16	36	84	a170	52	a90	a160	19
19	7.7	6.1	10	11	16	33	86	a160	53	a80	a130	25
20	8.0	5.3	9.8	12	18	32	88	a150	47	a90	a110	85
21	8.0	3.7	10	12	17	42	81	a170	60	a150	a120	593
22	5.5	6.3	9.8	12	16	57	70	a190	63	a250	a140	2,650
23	4.5	6.6	7.7	11	18	50	52	a240	42	a230	70	1,430
24	4.5	6.6	7.5	10	23	51	54	a280	50	a190	82	880
25	3.9	6.6	6.3	11	23	58	52	a450	72	a150	67	578
26	5.3	6.6	7.7	8.3	23	60	83	a420	89	a140	56	425
27	5.5	6.3	8.7	9.0	21	61	88	a400	82	a130	115	365
28	4.9	4.9	7.5	10	19	60	107	a370	77	a120	78	921
29	4.7	4.1	6.1	11	-	64	115	a450	72	a120	a64	a4,000
30	4.7	3.2	4.3	11	-	70	110	a1,300	62	a140	a78	a3,000
31	4.3	-	6.1	11	-	79	-	a2,000	-	a170	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	163.9	8.7	1.9	5.29	325
November	153.9	6.6	3.2	5.13	305
December	256.5	11	2.4	8.24	507
Calendar year 1940	3,754.1	132	.5	10.3	7,460
January	304.6	12	6.3	9.85	604
February	391.6	23	5.8	14.0	777
March	1,191	79	18	38.4	2,360
April	2,185	115	51	72.8	4,330
May	11,303	2,000	124	365	22,420
June	3,009	270	42	100	5,970
July	2,926	280	22	94.4	5,800
August	3,816	280	56	123	7,570
September	15,731	4,000	19	524	31,200
Water year 1940-41	41,430.5	4,000	1.9	114	82,170

Peak discharge.- Aug. 27 (8 p.m.) 1,000 sec.-ft.; Sept. 22 (1 a.m.) 6,720 sec.-ft.; Sept. 29 (6 a.m.) 12,400 sec.-ft.

a No gage-height record; discharge computed on basis of records for Rio Bonito at Hondo, Rio Hondo at Diamond A Ranch near Roswell, and weather records.

Rio Hondo at Diamond A Ranch, near Roswell, N. Mex.

Location.- Water-stage recorder, lat. 33°20', long. 104°50', in NE¼ sec. 20, T. 11 S., R. 21 E., at Diamond A Ranch headquarters, 8 miles upstream from Rocky Arroyo and 18 miles west of Roswell.

Drainage area.- 960 square miles (contributing area).

Records available.- May 1939 to September 1941 in reports of Geological Survey. May 1908 to August 1909 in reports of State engineer.

Extremes.- Maximum discharge during year, 26,500 sec.-ft. Sept. 22 (gage height, 28.78 feet), from rating curve extended above 5,000 second-feet on basis of slope-area determination at gage height 28.78 feet. No flow at times.
1939-41: Maximum discharge, that of Sept. 22, 1941; no flow at times.

Remarks.- Records fair except those for periods of fragmentary or no gage-height record and those above 5,000 sec.-ft., which are poor. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0	1.5		0	65	462	279	58	242	146
2		0	0	2.0		0	64	730	242	40	279	89
3		.7	0	.4		0	62	404	218	32	242	72
4		2.0	0	2.6		0	57	388	208	24	181	56
5		0	0	2.2		0	48	609	313	24	137	49
6		0	0	1.8		0	37	538	241	28	106	75
7		0	0	1.7		0	38	470	a207	92	83	53
8		0	0	1.3		0	36	444	a173	72	69	40
9		0	0	.5		0	36	396	a140	44	74	85
10		0	0	0		0	30	380	106	32	64	46
11		0	0	0		0	37	396	88	25	81	37
12		0	0	.7		0	39	470	80	114	126	35
13		0	0	.9		0	40	444	71	64	870	32
14		0	0	.4		0	64	396	60	131	269	32
15		0	0	1.7		0	56	356	61	71	309	29
16		0	0	2.2		0	53	309	72	106	340	23
17		0	0	2.5		0	45	272	52	146	249	20
18		0	0	3.7		0	49	234	46	107	201	13
19		0	0	3.6		.1	63	204	41	88	162	10
20		0	0	3.4			81	186	40	101	125	225
21		0	0	3.6		12	79	245	39	199	132	1,320
22		0	.7	2.5		17	69	292	74	326	165	12,900
23		0	1.3	3.9		28	55	546	39	324	156	2,510
24		0	.6	4.1		32	41	553	47	242	99	11,300
25		0	0	1.8		126	42	636	175	197	91	11,060
26		0	0	4.1		50	214	555	107	155	74	1690
27		0	0	3.4		55	2,170	453	89	397	57	1757
28		0	1.6	3.9		49	287	404	80	285	238	2,010
29		0	.7	3.7		42	194	1,900	70	133	69	10,100
30		0	.6	4.9		46	177	3,800	69	156	86	5,710
31		-	.5	0		56	-	411	-	208	67	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	2.7	2.0	0	.09	5.4
December.....	6.0	1.6	0	.19	12
Calendar year 1940.....	1,057.4	262	0	2.89	2,100
January.....	69.0	4.9	0	2.23	137
February.....	0	0	0	0	0
March.....	513.1	126	0	16.6	1,020
April.....	4,328	2,170	30	144	8,580
May.....	17,882	3,800	185	577	35,470
June.....	3,527	313	39	118	7,000
July.....	4,021	397	24	130	7,980
August.....	5,443	870	57	176	10,800
September.....	39,524	12,900	10	1,317	78,390
Water year 1940-41.....	75,315.8	12,900	0	206	149,400

Peak discharge.- Apr. 27 (2:30 a.m.) 11,700 sec.-ft.; May 29 (5:30 p.m.) 20,500 sec.-ft.; May 30 (8 p.m.) 11,000 sec.-ft.; Sept. 22 (5 a.m.) 26,500 sec.-ft.; Sept. 29 (9:30 a.m.) 22,700 sec.-ft.

a No gage-height record; discharge interpolated.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Rio Bonito at Hondo, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 33°23', long. 105°16', in NE¼ sec. 4, T. 11 S., R. 17 E., at Hondo, half a mile upstream from confluence with Rio Ruidoso.

Drainage area.- 306 square miles (contributing area).

Records available.- October 1930 to September 1941 in reports of Geological Survey. August 1930 to December 1931 in reports of State engineer.

Average discharge.- 11 years, 11.9 second-feet.

Extremes.- Maximum discharge during year, 11,000 second-feet Sept. 28 or 29 (gage height, 20.92 feet), from rating curve extended above 220 second-feet on basis of slope-area determination at gage height 19.0 feet; no flow at times.
1930-41: Maximum discharge, that of Sept. 28-29, 1941; no flow at times.

Remarks.- Records poor. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	0	0	0		0	0.2	136	68	11	41	35
2	.5	0	0	0		0	a.5	235	64	10	32	24
3	.2	0	0	0		0	a1.0	a200	62	7.8	29	17
4	.2	0	0	0		0	a1.3	a190	67	7.4	25	15
5	.2	0	.1	0		0	a1.5	a200	66	7.8	20	13
6	.3	0	.5	0		0	1.7	a270	53	7.4	18	13
7	.8	0	.5	0		0	2.9	a250	48	26	18	12
8	.6	0	.3	0		0	a3.0	a240	44	14	17	15
9	.4	0	.2	0		.1	3.3	a220	39	10	17	25
10	.4	0	0	0		0	a4.5	a240	31	8.8	22	12
11	.4	0	0	0		0	a5.7	274	24	6.6	22	11
12	1.0	0	0	0		0	a7.0	205	25	25	16	10
13	.9	0	0	0		0	8.3	184	20	15	28	8.8
14	1.0	0	0	0		0	11	159	a17	96	62	8.3
15	1.1	0	0	0		0	a11	134	14	41	76	8.3
16	.9	0	0	.3		0	a12	131	4.1	20	68	8.3
17	.8	0	0	.3		0	12	119	2.2	12	60	7.4
18	.8	0	0	0		0	a15	119	2.4	11	52	6.6
19	.8	0	0	0		0	a18	117	7.0	11	41	6.2
20	.9	0	0	0		0	20	112	4.9	40	34	647
21	.8	0	0	0		0	a25	131	3.7	37*	32	a1,350
22	.9	0	0	0		0	a30	124	d14	24	36	a3,560
23	1.0	0	0	0		0	a33	173	17	31	35	a960
24	.9	.1	0	0		0	a35	226	34	36	26	a385
25	.8	0	0	0		0	a36	193	76	26	24	a40
26	.6	0	0	0		0	50	184	24	24	22	16
27	0	0	0	0		0	80	159	20	37	44	1.8
28	0	0	0	0		0	a85	146	18	39	16	a1,200
29	0	0	0	0		0	a90	134	14	38	14	a2,500
30	0	0	0	0		0	a100	122	13	42	18	a1,800
31	0	-	0	0		0	-	101	-	42	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	17.9	1.1	0	0.58	36
November	.1	.1	0	.003	.2
December	1.6	.5	0	.05	3.2
Calendar year 1940	834.8	135	0	2.28	1,660
January	.6	.3	0	.02	1.2
February	0	0	0	0	0
March	.1	.1	0	.003	.2
April	703.9	100	.2	23.5	1,400
May	5,428	274	101	175	10,770
June	896.3	76	2.2	29.9	1,780
July	763.8	96	6.6	24.6	1,510
August	1,014	76	14	32.7	2,010
September	12,715.7	3,560	1.8	424	25,220
Water year 1940-41	21,542	3,560	0	59.0	42,730

Peak discharge.- Sept. 20 (2 p.m.) 3,030 sec.-ft.; Sept. 21 (1 a.m.) 6,090 sec.-ft.; Sept. 21 (5 p.m.) 1,930 sec.-ft.; Sept. 28 or 29, 11,000 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for Rio Ruidoso at Hondo and Rio Hondo at Diamond A Ranch, near Roswell.

d Doubtful gage-height record; discharge computed on basis of weather records, record for Rio Ruidoso at Hondo and record for Rio Hondo at Diamond A Ranch near Roswell.

Rio Felix at old highway bridge, near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°07'30", long. 104°20'40", in SE¼ sec. 4, T. 14 S., R. 26 E., on downstream side of bridge, 1¼ miles northwest of Hagerman and 2¼ miles upstream from mouth.

Drainage area.- 932 square miles (contributing area).

Records available.- April 1939 to September 1941. March 1932 to April 1939 at site 1 mile downstream, published as Rio Felix near Hagerman; records for periods of low flow not equivalent.

Extremes.- Maximum discharge during year, 20,000 second-feet Sept. 22 (gage height, 23.0 feet), from rating curve extended above 5,100 second-feet by logarithmic plotting; minimum daily, 0.7 second-foot Dec. 6, Jan. 20-22. 1939-41: Maximum discharge, that of Sept. 22, 1941; minimum daily, 0.4 second-foot Sept. 21, 1940.

Flood of May 29, 1937, reached a stage of 19.5 feet (discharge previously published in Water-Supply Papers 847, 878, and 898 is probably much too high).

Revisions.- The maximum discharge for the water year 1940 has been revised to 10,300 second-feet May 22, 1940 (gage height, 16.45 feet), superseding figure published in Water-Supply Paper 898.

Remarks.- Records fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year october 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	3.0	1.1	1.8	1.3	1.1	1.8	26	26	7.2	49	31
2	1.6	2.4	1.1	1.3	1.3	.9	2.1	10	26	7.2	47	35
3	1.3	2.1	.9	1.3	1.3	.9	2.1	26	28	7.2	20	35
4	1.1	1.8	.9	1.1	1.3	.9	2.4	39	45	7.2	16	32
5	1.1	1.8	.9	1.8	1.1	.9	2.4	40	52	6.6	8.0	15
6	1.1	2.1	.7	1.1	1.1	1.1	2.4	33	49	9.0	7.0	7.6
7	1.1	2.1	2.5	1.3	1.1	1.1	2.7	28	34	45	6.5	6.0
8	1.1	1.8	24	1.1	1.1	1.1	2.7	23	49	5.2	6.5	15
9	1.1	1.8	26	.9	.9	1.1	3.3	8.0	49	4.4	6.1	26
10	1.6	1.6	17	.9	1.1	1.1	1.8	7.5	45	3.6	6.5	38
11	1.3	1.6	3.3	.9	.9	1.1	2.1	15	33	3.2	6.1	47
12	1.3	1.6	2.1	.9	1.1	1.1	2.1	51	21	3.2	6.5	61
13	1.3	1.3	1.8	.9	1.1	1.1	2.1	29	23	3.6	1,520	60
14	1.3	1.3	1.6	.9	1.1	1.1	3.0	25	25	115	137	57
15	1.1	1.3	1.6	.9	1.1	1.1	2.7	22	21	64	166	49
16	1.3	1.3	1.6	.9	1.3	1.3	3.0	20	14	44	35	42
17	1.1	1.8	1.6	1.3	1.3	7.4	2.7	19	8.4	8.5	7.6	36
18	1.1	1.1	1.3	1.3	1.3	25	2.7	22	9.0	19	10	35
19	1.8	1.1	1.3	1.1	1.3	9.6	3.0	18	9.0	22	9.1	37
20	2.7	1.3	1.1	.7	1.3	1.8	2.7	24	9.6	11	8.6	74
21	1.8	3.3	.9	.7	1.3	2.1	2.7	93	10	8.0	9.6	4,910
22	1.8	1.8	.9	.7	1.3	2.7	2.7	634	9.6	17	10	7,760
23	1.6	1.6	.9	1.3	1.3	1.8	3.3	2,560	10	43	8.6	1,920
24	1.3	1.6	.9	1.1	1.3	1.6	3.7	1,250	9.6	52	13	149
25	1.3	1.3	.9	1.1	1.3	2.4	3.3	141	9.6	50	24	72
26	1.8	1.1	.9	1.3	1.1	1.8	4.0	85	9.0	47	7.6	42
27	1.6	1.1	.9	1.1	1.1	1.6	666	39	12	52	7.2	35
28	1.8	1.1	.9	1.1	1.1	1.6	92	25	11	51	6.7	62
29	1.8	1.1	13	1.1	-	1.3	18	16	9.0	51	16	4,630
30	2.7	1.1	25	1.1	-	1.3	120	10	8.4	52	44	847
31	3.3	-	12	1.1	-	1.3	-	26	-	50	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	47.3	3.3	1.1	1.53	94
November	49.3	3.3	1.1	1.64	98
December	149.6	26	.7	4.83	297
Calendar year 1940	3,312.8	2,020	.4	9.05	6,560
January	34.1	1.8	.7	1.10	68
February	33.2	1.3	.9	1.19	66
March	80.3	25	.9	2.59	159
April	985.6	686	1.8	32.8	1,950
May	5,363.5	2,560	7.6	173	10,840
June	674.2	52	9.4	22.5	1,340
July	839.1	115	3.2	28.0	1,720
August	2,247.2	1,520	6.1	72.5	4,460
September	21,162.6	7,760	6.0	705	41,980
Water year 1940-41	31,695.9	7,760	.7	86.8	62,870

Peak discharge.- May 23 (3 p.m.) 9,630 sec.-ft.; Sept. 21 (3 a.m.) 10,500 sec.-ft.; Sept. 21 (11 a.m.) 7,720 sec.-ft.; Sept. 22 (11:30 a.m.) 20,000 sec.-ft.; Sept. 29 (4 a.m.) 5,680 sec.-ft.; Sept. 29 (5:30 p.m.) 7,670 sec.-ft.

Cottonwood Creek near Lake Arthur, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°55'00", long. 104°22'00", in SW¼ sec. 15, T. 16 S., R. 26 E., 1½ miles upstream from mouth and 6 miles south of Lake Arthur.

Drainage area.- 199 square miles (contributing area).

Records available.- March 1932 to September 1941.

Extremes.- Maximum discharge during year, 334 second-feet May 24; maximum gage height, 11.72 feet Sept. 23, affected by backwater from Pecos River; minimum daily discharge, 0.1 second-foot Oct. 4, 12.

1932-41: Maximum discharge, 1,100 second-feet June 13, 1935, from rating curve extended above 15 second-feet by logarithmic plotting; maximum gage height, 13.5 feet May 30, 1937 (present datum, from floodmarks), affected by backwater from Pecos River; no flow May 19-22, 24, 1936, July 10, 11, 1936, July 18, 27, 28, 1939, Aug. 18, 19, Sept. 14, 1940.

Remarks.- Records fair except those for period of no gage-height record and those affected by backwater, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	4.1	3.2	4.3	5.0	5.4	5.5	125	a59	18	17	21
2	1.5	4.3	3.3	4.6	5.0	5.6	4.9	177	a58	14	12	21
3	1.1	4.4	3.5	4.9	4.9	4.7	5.1	123	56	11	11	20
4	.1	4.6	3.6	5.1	4.8	4.9	5.4	71	55	8.2	8.3	19
5	.2	4.8	3.7	5.2	4.7	5.5	5.9	44	53	6.5	7.2	18
6	1.6	4.9	3.7	5.4	4.6	5.3	6.1	36	61	7.7	6.5	19
7	1.4	5.2	3.8	4.5	4.7	5.3	5.5	32	80	6.5	6.2	22
8	1.5	5.4	3.8	3.6	5.2	5.2	5.8	30	42	7.1	6.9	25
9	1.6	5.4	4.0	3.6	4.9	5.1	5.6	29	41	9.7	5.9	27
10	1.6	5.3	4.2	3.9	4.9	5.3	4.2	28	40	6.1	5.4	19
11	.7	3.1	4.2	4.2	5.3	5.4	3.1	29	40	8.8	5.2	18
12	.1	.6	4.1	4.4	5.8	4.2	1.2	68	40	8.0	5.4	16
13	1.5	1.0	4.1	4.6	5.2	4.9	5.9	46	38	8.0	7.7	16
14	2.5	1.3	4.1	4.7	5.4	5.2	3.6	38	37	33	38	15
15	2.5	3.9	4.0	4.8	5.0	5.2	2.2	36	37	39	23	15
16	2.6	3.3	4.1	4.6	5.3	4.8	2.5	32	36	35	17	15
17	2.6	5.1	4.3	4.6	5.3	5.5	2.2	33	36	16	15	19
18	2.7	5.0	4.3	4.8	5.4	7.1	1.5	39	33	10	15	17
19	2.7	5.0	4.3	4.7	5.3	5.8	1.2	33	29	13	14	16
20	2.8	5.1	4.2	5.1	5.4	3.9	1.5	38	26	14	13	17
21	2.8	5.2	4.2	5.1	5.4	6.0	3.0	c199	24	13	14	c131
22	2.9	5.2	4.0	5.2	5.4	19	3.4	c263	21	15	15	c233
23	3.0	5.2	3.9	5.3	5.7	12	1.9	c299	20	15	16	c278
24	3.3	5.7	4.0	5.4	5.5	8.7	1.1	c293	22	16	57	c194
25	3.3	5.7	3.8	5.2	6.3	11	3.4	c252	20	16	33	ac130
26	3.4	3.8	3.7	4.9	6.1	11	16	c258	15	15	26	c90
27	3.4	3.2	4.1	4.9	5.7	9.5	7.6	c171	11	15	23	c60
28	3.5	3.1	4.2	5.2	5.4	8.6	43	81	11	16	21	41
29	3.6	3.2	4.4	5.6	-	6.7	155	64	12	14	21	11
30	3.8	3.2	4.6	5.4	-	5.4	60	a62	18	15	22	15
31	4.0	-	4.6	5.2	-	4.9	-	a61	-	13	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	69.8	4.0	0.1	2.25	138
November	125.3	5.7	.6	4.18	249
December	124.0	4.6	3.2	4.00	246
Calendar year 1940	1,270.9	59	0	3.47	2,520
January	149.2	5.8	3.6	4.81	296
February	147.6	6.3	4.6	5.27	293
March	206.1	18	3.9	6.65	409
April	383.3	165	1.1	12.8	760
May	3,097	299	28	99.9	6,140
June	1,071	80	11	35.7	2,120
July	443.6	39	6.1	14.3	880
August	577.0	77	5.2	18.6	1,140
September	1,558	278	11	51.9	3,090
Water year 1940-41	7,951.9	299	.1	21.8	15,760

a No gage-height record; discharge computed on basis of weather records and records for stations on Rio Bonito at Hondo and Rio Felix near Hagerman.

c Backwater from Pecos River; discharge computed on basis of gage-height record for Pecos River near Lake Arthur.

Delaware River near Red Bluff, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°01', long. 104°03', sec. 23, T. 26 S., R. 28 E., at bridge on U. S. Highway 285, 3½ miles upstream from mouth and 4 miles south of Red Bluff, Eddy County. Datum of gage is 2,900.7 feet above mean sea level, datum of 1929.

Drainage area.- 967 square miles.

Records available.- October 1937 to September 1941. April 1912 to September 1913 at site 3 miles upstream (published as Delaware River near Malaga, N. Mex.). May 1914 to June 1915, at site 2½ miles downstream (published as Delaware River near Angeles, Tex.).

Extremes.- Maximum discharge during year, 28,700 second-feet May 23 (gage height, 16.25 feet), from rating curve extended above 1,500 second-feet on basis of slope-area determinations at gage heights 8.6 and 18.0 feet; minimum, 0.4 second-foot Oct. 6, 7, 1912-13, 1914-15, 1937-41: Maximum discharge, 34,600 second-foot June 27, 1938 (gage height, 18.00 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good except those for periods of no gage-height record which are fair. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	2.5	2.5	2.4	2.8	1.8	1.6	f211	18	5.3	8.0	22
2	.6	2.5	2.4	2.6	2.9	1.7	1.5	379	11	6.1	5.6	48
3	.6	2.5	2.4	2.6	2.4	1.5	1.3	a43	8.5	13	4.8	67
4	.6	2.6	2.4	2.5	2.2	1.4	1.2	17	7.2	8.2	4.2	16
5	.6	2.4	2.4	2.4	2.3	1.4	1.3	8.5	13	5.4	4.3	16
6	.4	2.5	2.5	2.4	2.5	1.6	1.2	5.8	132	4.6	5.3	7.8
7	.4	3.3	2.5	2.4	2.4	1.6	1.1	4.2	64	109	3.8	7.0
8	.5	5.3	2.4	2.3	2.3	1.6	1.1	3.6	17	105	3.4	6.0
9	.5	4.2	2.4	2.3	2.3	1.6	1.2	3.0	9.2	26	3.4	5.4
10	.9	2.9	2.3	2.3	2.0	1.3	1.3	2.8	6.9	10	3.4	5.3
11	12	2.4	2.3	2.3	1.9	1.5	1.4	62	7.1	7.2	6.4	6.1
12	100	2.3	2.4	1.7	1.6	1.5	1.3	537	5.4	74	5.9	7.4
13	1,740	2.4	2.6	5.0	1.4	1.6	1.1	a36	5.1	25	238	6.7
14	132	2.5	2.6	2.8	1.6	1.7	1.0	a20	5.0	12	38	5.4
15	32	2.6	2.5	2.1	1.7	1.8	1.0	a16	247	7.4	12	6.3
16	15	2.6	2.4	1.8	1.8	1.6	.9	a15	132	5.8	6.9	8.2
17	9.0	2.6	2.4	1.8	1.8	2.9	.8	a17	a23	5.1	5.3	154
18	6.7	2.6	2.4	1.9	1.9	3.3	.7	51	13	4.6	4.5	44
19	5.4	2.6	2.4	2.0	1.9	2.5	.6	22	9.2	4.3	5.8	337
20	4.8	2.5	2.4	2.0	1.8	2.1	.6	a16	12	4.0	14	88
21	4.3	2.5	2.3	1.9	1.9	2.3	.8	34	26	4.0	4.2	38
22	3.8	2.6	2.3	1.9	2.1	7.2	1.3	253	16	164	3.6	587
23	3.6	2.8	2.3	1.9	3.3	4.3	1.6	4,340	8.2	90	3.6	305
24	3.4	2.9	2.3	1.9	2.8	2.6	1.6	693	6.3	24	377	39
25	3.3	2.9	2.1	1.9	2.4	15	1.9	a118	6.1	14	59	20
26	3.1	2.6	1.8	1.8	2.2	2.1	3.4	a27	9.0	8.7	20	a13
27	3.0	2.6	2.0	2.0	2.0	2.0	476.0	a20	25	17	8.0	10
28	2.6	2.6	2.0	2.4	1.8	1.9	f26	17	71	145	5.8	8.5
29	2.6	2.6	2.0	2.8	-	1.8	f81	15	8.7	42	23	8.2
30	2.6	2.6	2.2	2.6	-	1.8	f36	190	6.3	17	21	16
31	2.5	-	2.3	2.4	-	1.7	-	41	-	14	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,097.4	1,740	0.4	67.7	4,160
November	82.6	5.3	2.3	2.75	164
December	72.2	2.6	1.8	2.33	143
Calendar year 1940	3,234.9	1,740	0	8.84	6,420
January	71.1	5.0	1.7	2.29	141
February	60.0	3.3	1.4	2.14	119
March	78.7	15	1.3	2.54	156
April	651.8	476	.6	21.7	1,290
May	7,207.9	4,340	2.8	233	14,300
June	928.2	247	5.0	30.9	1,840
July	981.7	164	4.0	31.7	1,950
August	933.2	377	3.4	30.1	1,850
September	1,877.3	557	5.3	62.6	3,720
Water year 1940-41	15,042.1	4,340	.4	41.2	29,830

Peak discharge.- Oct. 13 (3:30 a.m.) 7,460 sec.-ft.; Apr. 27 (3 a.m.) 3,120 sec.-ft.; May 12 (4 a.m.) 2,620 sec.-ft.; May 23 (3:30 p.m.) 28,700 sec.-ft. Aug. 13 (12 m.) 1,900 sec.-ft.; Sept. 22 (7:30 p.m.) 4,240 sec.-ft.

a No gage-height record; discharge computed from graph based on engineer's notes and weather records.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Principal diversions from Pecos River between Red Bluff Reservoir and Imperial, Tex.

Records of discharge are collected for eight canals that divert water from Pecos River between Red Bluff Reservoir and Imperial, Tex. Each of these canals is equipped with a water-stage recorder for collecting gage-height records. All stations are located within 2 miles of canal head gate except as noted herein. Several stations were relocated during year; latitude and longitude herein are for latest locations. Water diverted by these canals is used for irrigation of lands on both sides of Pecos River in Reeves, Ward, and Pecos Counties. Stations formerly were published separately (daily discharge figures for the earlier records). Gage-height records collected in cooperation with Red Bluff Water Power Control District, Pecos, Tex.

Reeves County Water Improvement District No. 2 Canal near Mentone, diverts from right bank of Pecos River, lat. 31°38', long. 103°38'. Records available, February 1922 to July 1925 (published as Farmers Independent Canal near Porterville, Tex.) and August 1939 to September 1941.

Ward County Water Improvement District No. 3 Canal near Barstow, diverts from left bank, lat. 31°35', long. 103°31'. Records available, August 1939 to September 1941.

Ward County Irrigation District No. 1 Canal near Barstow, diverts from left bank, lat. 31°33', long. 103°28'. Records available, February 1922 to September 1925, at site about half a mile upstream (published as Barstow Canal near Barstow, Tex.) and August 1939 to September 1941.

Grandfalls-Big Valley Canal near Barstow, from left bank, lat. 31°25', long. 103°15'. Records available, March 1922 to November 1925 and September 1939 to September 1941. Water diverted through Ward County Water Improvement District No. 2 Canal irrigates most of lands formerly supplied by this canal.

Pecos County Water Improvement District No. 2 (upper diversion) Canal near Grandfalls, diverts from right bank, lat. 31°18', long. 102°55' (gage 15 miles downstream from head gates). Records available, March 1922 to July 1925 at site 11 miles upstream (published as Imperial High-line Canal near Grandfalls, Tex.) and August 1939 to September 1941.

Pecos County Water Improvement District No. 2 Canal near Imperial, diverts from right bank, lat. 31°16', long. 102°45' (gage 4 miles below outlet head gate at Imperial Reservoir). Records available, April 1940 to September 1941.

Ward County Water Improvement District No. 2 Canal near Grandfalls, diverts from left bank, lat. 31°22', long. 103°01'. Records available, August 1939 to September 1941.

Pecos County Water Improvement District No. 3 Canal near Imperial, diverts from right bank, lat. 31°18', long. 102°45'. Records available, March 1940 to September 1941.

Several smaller diversions (pumps) divert water between Red Bluff Reservoir and Imperial for irrigation of lands adjacent to Pecos River, but no records for them were obtained.

Diversions in acre-feet, water year October 1940 to September 1941

Month	Reeves County District 2 Canal near Mentone	Ward County District 3 Canal near Barstow	Ward County District 1 Canal near Barstow	Grandfalls-Big Valley Canal near Barstow
October.....	358	456	1,870	352
November.....	3.6	48	419	0
December.....	0	50	126	0
Calendar year 1940	8,020	9,230	24,340	3,280
January.....	12	54	227	0
February.....	7.1	46	358	0
March.....	6.9	16	141	0
April.....	2,060	2,910	5,990	962
May.....	a906	b396	a1,540	a.2
June.....	-	-	-	-
July.....	-	-	-	-
August.....	-	c3,760	-	-
September.....	-	d332	-	-
The period.....	3,350	-	10,570	1,310

Month	Pecos County District 2 Canal (upper diver.) near Grandfalls	Pecos County District 2 Canal near Imperials	Ward County District 2 Canal near Grandfalls	Pecos County District 3 Canal near Imperial
October.....	3,790	153	1,070	310
November.....	12	0	0	0
December.....	0	0	0	0
Calendar year 1940	8,870	-	24,670	-
January.....	0	0	0	0
February.....	0	40	0	0
March.....	0	2,480	0	0
April.....	0	2,750	7,440	3,490
May.....	3,850	391	3,170	1,420
June.....	12,980	-	6,170	3,900
July.....	4,600	-	9,050	5,930
August.....	3,320	-	7,910	4,740
September.....	452	-	d2,660	1,450
The period.....	28,980	5,810	37,470	21,240

* Canal flow represents released water from Imperial Reservoir (fed by Pecos County Water Improvement District No. 2 upper diversion canal) plus water diverted from the Pecos River by Pecos County Water Improvement District No. 2 lower diversion canal.

a No record May 23-31.

b No record May 24-31.

c No record Aug. 1.

d No record Sept. 24-30.

Madera Canyon near Toyahvale, Tex.

Location.- Water-stage recorder, lat. 30°52', long. 103°58', in Jeff Davis County, 11 miles upstream from Aguja Canyon and 12 miles southwest of Toyahvale, Reeves County.

Drainage area.- 54 square miles.

Records available.- July 1932 to September 1941.

Extremes.- Maximum discharge during year, 2,810 second-feet Sept. 1 (gauge height, 5.95 feet), from rating curve extended above 300 second-feet; no flow at times.

1932-41: Maximum gauge height, 8.00 feet Sept. 29, 1932, from floodmarks (discharge not determined); no flow at times.

Remarks.- Records good except those above 300 second-feet and those for periods of no gage-height record, which are poor. No diversions.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4	a0.1	0	0.1	0	0.3	16	3.1	29	70	228
2	0	.3	a.1	0	.3	0	.3	57	2.4	20	19	50
3	0	.3	.1	.1	.2	0	.3	57	2.1	14	18	12
4	0	.3	.1	.1	.2	0	.3	26	1.8	9.4	9.4	15
5	0	.3	.1	.1	.2	0	.2	19	1.7	6.2	6.8	7.4
6	0	.3	.1	.1	.2	0	.2	15	1.6	3.8	6.5	3.3
7	0	.4	.1	.1	.2	0	.2	12	1.2	2.8	5.9	1.5
8	0		.1	.1	.2	0	.1	9.4	1.1	33	3.8	1.1
9	0		.1	.1	.2	0	.1	7.8	1.0	76	2.8	9.0
10	.4		.1	.1	.2	0	.1	7.4	.9	57	4.9	2.1
11	2.4		.1	0	.2	0	.1	5.9	.8	14	7.4	3.4
12	35		.1	0	.1	0	.1	4.9	.8	7.4	4.9	118
13	16		.1	.1	.1	0	.1	4.3	.7	25	5.4	30
14	10		.1	.1	.1	0	0	3.6	.6	15	24	72
15	8.1		.1	.1	.1	0	0	2.9	.6	8.4	13	30
16	5.4		.1	.1	.1	0	0	2.3	.4	13	7.9	15
17	4.1		.1	.1	.1	0	0	1.7	.4	6.5	11	48
18	2.9		.1	.1	.1	0	0	2.1	3.4	3.8	5.9	316
19	2.3	a.3	.1	0	.1	0	0	2.0	8.2	2.6	4.1	307
20	1.8		.1	0	.1	0	0	1.4	4.6	1.8	2.9	108
21	1.3		.1	0	0	0	0	1.2	2.8	1.4	4.3	62
22	1.1		.1	0	0	0	0	1.2	1.4	1.3	3.3	49
23	1.0		0	0	.1	0	0	1.3	1.0	7.8	15	65
24	.8		0	0	.1	.2	0	2.0	.8	11	19	43
25	.8		0	0	.1	.3	0	1.8	.5	6.5	17	29
26	.6		0	0	.1	.2	2.2	3.8	2.3	6.5	12	21
27	.6		0	0	.1	.2	20	2.4	2.8	18	6.5	14
28	.6		0	0	0	.2	42	1.7	1.6	18	100	11
29	.5		0	0	-	.3	40	7.1	228	14	106	9.0
30	.4		0	0	-	.3	23	4.1	29	9.4	35	66
31	.4	-	0	0	-	.3	-	3.1	-	33	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	96.5	35	0	3.11	191
November	9.2	-	-	.31	18
December	2.2	.1	0	.07	4.4
Calendar year 1940	1,182.8	232	0	3.23	2,350
January	1.4	.1	0	.05	2.8
February	3.6	.3	0	.13	7.1
March	2.0	.3	0	.06	4.0
April	129.6	42	0	4.32	257
May	237.4	57	1.2	9.27	570
June	307.4	228	4.4	10.2	610
July	475.6	76	1.3	15.3	943
August	584.7	106	2.8	18.9	1,160
September	1,745.8	316	1.1	58.2	3,460
Water year 1940-41	3,645.4	316	0	9.99	7,230

Peak discharge.- June 29 (5 a.m.) 1,200 sec.-ft.; July 9 (7:30 p.m.) 938 sec.-ft.; Aug. 28 (7:30 p.m.) 1,000 sec.-ft.; Sept. 1 (3 p.m.) 2,810 sec.-ft.; Sept. 18 (7:30 p.m.) 1,480 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and weather records.

Toyah Creek below Toyah Lake, near Pecos, Tex.

Location.- Water-stage recorder, lat. 31°21', long. 103°24', SW¼ sec. 8, Blk. C-7, Public School Lands Survey, at bridge on Pecos-Grandfalls highway, at lower end of Toyah Lake, 6 miles upstream from Pecos River and 7.4 miles southeast of Pecos.

Drainage area.- 3,709 square miles (contributing area).

Records available.- August 1939 to September 1941.

Extremes.- Maximum discharge during year, 518 second-feet Oct. 15 (gage height, 2.60 feet); no flow at times.

1939-41: Maximum discharge, 5,850 second-feet Aug. 7, 1940 (gage height, 4.17 feet); no flow at times.

Flood of September 1932 reached a stage of 7.7 feet according to information furnished by local residents.

Remarks.- Records good except those for periods of fragmentary or no gage-height record, which are poor. Several diversions above station for irrigation. Flood flow materially affected by use of spread-out dams above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1.0	0	1.1	0	0		0	5.2			
2	0	.5	0	.2	.2	.5		0	2.1	a0.1		a4.7
3	0	.2	0	.6	.2	.2		4.8	.7			
4	0	.1	0	.3	0	.1		3.0	3.0	0		6.3
5	0	0	0	.3	0	0		.9			a0.1	5.2
6	0	0	0	.6	.3	0		.2				3.1
7	0	0	0	.2	.2	0		.1				2.6
8	0	.4	0	.1	.3	0		0				1.5
9	0	2.2	0	.1	.6	.2		0			0	.6
10	4.9	3.1	0	.1	f.6	0		0			0	.8
11	121	1.6	0	0	f.2	0		.3		a2.6	0	.4
12	96	1.6	0	.3	f.3	0		4.9	a55		0	.7
13	110	.3	0	.7	f2.2	0					.1	.6
14	328	.1	0	.6	f3.0	0					.6	.6
15	448	0	0	4.9	f2.1	0					.4	.2
16	258	0	0	7.6	f1.6	0						0
17	132	0	0	3.3	f.4	0						.1
18	81	0	0	3.0	f.2	0		a20				.2
19	58	0	0	1.6	f.1	0						.8
20	39	0	0	1.1	f.1	0			36		a0	.5
21	31	0	0	1.6	f0	0			21			.1
22	20	0	0	.2	f0	0				a0		0
23	13	0	.2	.5	f0	0					0	2.4
24	11	0	.7	.1	0	0		28				4.5
25	8.2	0	4.3	.7	0	0		39				2.4
26	5.6	0	4.3	.1	0	0		54	a4.6		a0	1.1
27	5.6	0	4.6	0	0	0		35				.8
28	5.6	0	2.4	0	0	0		18				.2
29	3.1	0	1.4	0	-	0		12		a3.0		.1
30	3.1	0	1.3	0	-	0		6.3			0	0
31	1.9	-	1.1	0	-	0		5.6	-		a0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,784.0	448	0	57.5	3,540
November.....	11.1	3.1	0	.37	22
December.....	20.3	4.6	0	.65	40
Calendar year 1940.....	8,434.8	3,410	0	23.0	16,730
January.....	29.9	7.6	0	.96	59
February.....	12.6	3.0	0	.45	25
March.....	1.0	.5	0	.03	2.0
April.....	0	0	0	0	0
May.....	430.1	-	0	13.9	853
June.....	934.4	-	-	31.1	1,850
July.....	48.7	-	0	1.57	97
August.....	2.1	-	0	.07	4.2
September.....	49.9	-	0	1.66	99
Water year 1940-41.....	5,324.1	448	0	9.11	6,590

a No gage-height record; discharge computed on basis of known range in stage, engineer's notes and weather records.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

San Solomon Springs at Toyahvale, Tex.

Location.- Water-stage recorder and sharp-crested weir, lat. 30°56', long. 103°47', in S₁, sec. 256, Blk. 13, Houston and Great Northern Railroad survey, on South Canal at Toyahvale, Reeves County, and 540 feet downstream from spring pool. Datum of gage is 3,311.0 feet above mean sea level, datum of 1929. Former gage at same site and datum.

Records available.- September 1900 to June 1925, February 1934 to April 1936 (occasional discharge measurements published as miscellaneous measurements). October 1931 to December 1933, March 1941 to September 1941.

Extremes.- Maximum daily discharge during period, 64 second-feet, Sept. 30; minimum daily, 32 second-feet, Mar. 28 to Apr. 9, 1931-33, 1941; Maximum daily discharge, 71 second-feet, Oct. 7-9, 1932; minimum daily, 30 second-feet, Nov. 5-11, 1931, Jan. 22 to Feb. 23, 1932.

Remarks.- Records good. Discharge represents total flow of springs and is determined by combining the flows in South Canal and two additional outlets (flow measured periodically), Middle and North Canals. Flow into each canal regulated by operation of head-gates. Water used for irrigation in vicinity of Balmorhea.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	32	36	39	40	41	43
2						-	32	36	39	40	41	46
3						-	32	36	39	40	42	47
4						-	32	37	39	40	42	48
5						-	32	38	41	40	42	48
6						-	32	38	41	39	42	48
7						-	32	38	41	39	42	48
8						-	32	38	41	39	41	47
9						-	32	38	41	39	41	47
10						‡33	33	38	40	39	41	47
11						-	33	38	40	39	40	47
12						-	33	38	39	39	40	48
13						-	33	38	39	39	40	50
14						-	33	39	39	39	39	52
15						-	33	38	39	39	39	52
16						-	33	38	39	39	40	53
17						-	33	38	38	39	39	52
18						-	33	38	38	40	39	54
19						-	34	38	38	40	39	56
20					‡34	33	34	38	38	40	39	57
21						33	34	38	38	40	39	59
22						33	34	37	38	39	39	59
23						33	34	37	38	40	39	59
24						33	34	38	38	40	39	60
25						33	34	39	38	40	39	60
26						33	34	40	38	40	39	61
27						33	34	39	38	40	39	62
28						32	34	39	38	40	39	62
29						32	35	40	39	40	40	63
30						32	36	39	40	41	41	64
31						32	-	39	-	41	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....					
November.....					
December.....					
Calendar year.....					
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 20-31.....	392	33	32	32.7	778
April.....	996	36	32	33.2	1,980
May.....	1,179	40	36	38.0	2,340
June.....	1,170	41	38	39.0	2,320
July.....	1,229	41	39	38.6	2,440
August.....	1,244	42	39	40.1	2,470
September.....	1,598	64	43	53.3	3,170
The period.....	-	-	-	-	15,500

† Average of two discharge measurements.

‡ Combined measured discharge of three outlets from spring pool.

Note.- Discharge Mar. 24-26, Apr. 7-24, May 28-31, June 19-27, July 15-18, July 21 to Aug. 4, Aug. 15-25, Sept. 25-30, computed on basis of flow in South Canal and estimated flow in two additional outlets from spring pool (Middle and North Canals; measured periodically).

Comanche Springs at Fort Stockton, Tex.

Location.- Water-stage recorder, lat. 30°53', long. 102°52', in SW¼ sec. 160, Blk. 117, George C. Thurman survey, on outlet canal of Pecos County Water Improvement District No. 1, in eastern outskirts of Fort Stockton, Pecos County, a quarter of a mile upstream from bridge on U. S. Highway 290, and 0.5 mile downstream from head of springs. Datum of gage is 2,922.8 feet above mean sea level, datum of 1929.

Records available.- February 1941 to September 1941. 1899 to September 1940 (occasional discharge measurements published as miscellaneous measurements).

Extremes.- Maximum daily discharge during period, 52 second-feet June 22, 23; minimum daily, 41 second-feet Apr. 18-22, May 1.

Remarks.- Records good. Discharge represents total flow of springs. About 6,000 acres of land irrigated below station.

Discharge, in second-feet, water year October 1940 to September 1941.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	43	44	41	43	e50	43	43
2			†42		-	43	44	e42	43	50	42	43
3					-	44	44	42	43	48	42	e43
4					-	44	44	42	43	47	42	e43
5					-	44	44	42	43	46	42	43
6					-	44	45	42	43	46	43	43
7					-	44	45	42	43	45	42	43
8					-	44	45	43	43	44	43	44
9					-	45	45	42	e43	44	43	43
10					-	45	45	42	e42	44	e44	43
11					-	44	44	43	42	44	45	44
12					-	44	43	43	42	44	e44	44
13					-	44	43	43	42	45	44	44
14					-	44	43	43	43	45	44	44
15					†44	45	43	44	e44	46	43	44
16				†42	-	44	42	43	44	46	43	44
17					-	45	42	42	45	46	43	44
18	†40				44	44	41	44	46	46	43	44
19					45	44	41	43	48	45	43	44
20					46	44	41	42	50	45	42	43
21					46	44	41	42	51	45	e42	43
22					47	44	41	43	52	45	43	43
23					48	44	42	e43	52	45	43	43
24					46	44	42	43	50	46	42	43
25					45	44	42	e43	50	46	42	43
26					45	44	e42	e43	50	45	42	42
27					42	44	43	43	51	45	42	42
28					42	44	42	43	e51	45	42	42
29					-	44	42	43	e50	44	42	42
30					-	44	42	43	e50	43	42	e42
31					-	44	-	43	-	43	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....					
November.....					
December.....					
Calendar year					
January.....	-	-	-	-	-
February 18-28.....	496	48	42	45.1	984
March.....	1,366	45	43	44.1	2,710
April.....	1,287	45	41	42.9	2,550
May.....	1,322	44	41	42.6	2,620
June.....	1,382	52	42	46.1	2,740
July.....	1,408	50	43	45.4	2,790
August.....	1,325	45	42	42.7	2,630
September.....	1,295	44	42	43.2	2,570
The period.....	-	-	-	-	19,590

a No gage-height record; discharge interpolated.

e Gage-height not representative of discharge; discharge interpolated.

† Discharge measurement.

Devils River near Juno, Tex.

Location.- Water-stage recorder, lat. 29°58', long. 101°09', 500 feet downstream from Walter Baker ranch house, 2 miles upstream from Phillips Creek, and 13½ miles southwest of Juno, Val Verde County.

Drainage area.- 2,733 square miles.

Records available.- May 1925 to September 1941.

Average discharge.- 16 years, 215 second-feet.

Extremes.- Maximum discharge during year, 652 second-feet May 2 (gage height, 3.87 feet); minimum, 60 second-feet Mar. 11, 1925-41; Maximum discharge, 370,000 second-feet Sept. 1, 1932 (gage height, 31.3 feet, from floodmarks), by slope-area method; minimum, 48 second-feet June 4-6, 1930.

Remarks.- Records good except those above 100 second-feet, which are fair. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	79	76	68	77	64	72	88	72	89	82	81
2	81	79	74	68	71	64	71	223	72	89	82	81
3	81	79	74	68	68	64	71	208	74	91	82	82
4	81	79	74	68	68	63	69	142	74	89	82	82
5	81	81	74	68	68	64	68	131	72	86	82	84
6	81	79	74	66	66	68	69	119	76	86	88	84
7	81	81	74	66	66	64	68	111	72	84	88	84
8	81	82	74	66	69	63	66	103	72	84	86	84
9	81	82	74	66	68	61	66	99	71	84	86	86
10	81	81	76	66	68	63	66	93	71	84	86	86
11	82	79	76	66	68	61	68	89	71	88	84	93
12	84	77	72	66	68	63	66	88	71	88	84	91
13	82	77	72	68	68	61	68	84	71	86	82	89
14	82	77	72	68	66	63	71	82	69	112	82	88
15	81	77	72	68	68	63	76	81	180	91	82	88
16	81	77	72	68	68	61	72	81	162	89	82	89
17	79	77	71	68	66	69	68	81	139	88	82	91
18	79	77	71	68	66	68	66	84	105	86	81	95
19	79	77	71	68	68	64	64	86	101	86	81	93
20	79	77	71	68	66	63	63	79	99	86	81	91
21	79	77	71	68	66	63	63	79	97	84	81	89
22	79	77	71	68	66	63	63	79	95	84	82	89
23	79	77	69	68	68	63	63	77	95	84	82	89
24	82	77	69	66	66	63	63	77	91	84	82	89
25	84	77	69	66	66	63	63	77	93	84	81	86
26	82	77	69	66	66	64	71	77	91	82	82	86
27	81	76	68	69	64	68	69	76	89	82	82	86
28	81	76	68	69	64	71	69	74	86	82	84	86
29	79	76	68	68	-	71	77	74	86	82	82	86
30	79	76	68	68	-	74	89	74	86	82	82	88
31	79	-	68	69	-	74	-	74	-	82	81	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,502	84	79	80.7	4,960
November.....	2,340	82	76	78.0	4,640
December.....	2,222	76	68	71.7	4,410
Calendar year 1940.....	31,371	609	68	85.7	62,210
January.....	2,091	69	66	67.5	4,150
February.....	1,887	77	64	67.4	3,740
March.....	2,011	74	61	64.9	3,990
April.....	2,058	89	63	68.6	4,080
May.....	2,990	223	74	66.5	5,930
June.....	2,703	180	69	60.1	5,360
July.....	2,678	112	82	66.4	5,310
August.....	2,566	88	81	82.8	5,090
September.....	2,616	95	81	87.2	5,190
Water year 1940-41.....	28,664	223	61	78.5	56,850

Las Moras Springs at Brackettville, Tex.

Location.- Staff gage, lat. 29°18', long. 100°25', in spring pool at Brackettville, Kinney County, a quarter of a mile upstream from bridge on Brackettville-Fort Clark road. Datum of gage is 1,095.0 feet above mean sea level (Texas Highway Department bench mark). Prior to Feb. 26, staff gage at site 1,000 feet downstream and at different datum.

Records available.- December 1895 to August 1938 (occasional discharge measurements, published as miscellaneous measurements), September 1938 to September 1941 (discharge measurements only).

Remarks.- Discharge measurements represent total flow of springs. Elevation of spring pool is regulated by operation of the outlet gate and discharge is affected to a large extent. City of Brackettville and U. S. Army (about 1 second-foot, for Fort Clark) divert water from spring pool for domestic and recreational uses.

Discharge measurements, in second-feet, water
year October 1940 to September 1941

Date	Gage height (feet)	Discharge (second-feet)
Oct. 15.....	-	15.7
Nov. 26.....	3.25	12.1
Jan. 12.....	3.25	11.7
Feb. 26.....	3.22	11.2
Apr. 13.....	†4.95	15.0
May 16.....	3.93	37.5
June 18.....	3.62	27.0
July 22.....	3.49	21.4
Aug. 29.....	3.35	15.4
Sept. 26.....	3.42	16.6

† Outlet gate closed; water flowing over top of gate.

Note.- Gage heights indicate the elevation of the water surface in the spring pool. The variation of the head on the spring pool has a material effect on the spring discharge. During the current year the elevation of the water surface ranged between 3.18 and 5.48 feet gage height.

Mimbres River near Mimbres, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°52', long. 107°59', in SE¼ sec. 33, T. 16 S., R. 11 W., 1 mile downstream from Bear Canyon and 1½ miles northwest of Mimbres.

Drainage area.- 183 square miles.

Records available.- October 1930 to September 1941 in reports of Geological Survey. May 1921 to December 1931 in reports of State engineer.

Average discharge.- 18 years (1921-24, 1926-41), 13.2 second-feet.

Extremes.- Maximum discharge during year, 887 second-feet Sept. 29 (gage height, 4.53 feet), from rating curve extended above 310 second-feet by logarithmic plotting; minimum daily, 3.3 second-feet Oct. 30 to Nov. 1, Dec. 6, 7.

1930-41: Maximum discharge, 2,060 second-feet July 17, 1933, from rating curve extended above 120 second-feet by logarithmic plotting; maximum gage height, 4.89 feet Aug. 6, 1939; minimum daily discharge, 1.4 second-feet July 11, 12, 1933.

Remarks.- Records good. Discharge partly regulated by Bear Canyon Reservoir (capacity, about 700 acre-feet). Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	3.3	3.8	33	34	49	97	76	15	7.4	8.3	16
2	7.0	3.5	3.5	28	31	65	85	85	15	6.4	7.7	12
3	7.4	3.8	3.5	22	31	68	73	73	15	6.4	8.3	11
4	7.4	3.8	3.5	17	31	63	65	76	14	7.0	9.4	9.9
5	8.0	4.0	3.5	16	33	58	63	76	14	6.7	9.0	9.0
6	8.3	4.3	3.3	14	36	52	61	88	13	7.0	8.0	9.0
7	7.7	4.5	3.3	12	47	45	58	100	13	9.4	7.0	8.7
8	7.4	4.5	3.5	12	56	42	63	104	13	15	6.4	9.0
9	7.4	4.7	3.5	11	63	41	63	100	12	16	7.0	8.3
10	7.0	4.5	3.5	10	79	37	65	100	11	15	7.0	8.0
11	6.4	4.5	4.3	11	94	36	65	94	10	14	8.0	6.4
12	6.4	4.5	13	29	107	34	68	91	9.9	13	14	5.5
13	6.4	4.3	20	41	91	42	70	82	9.0	10	23	6.7
14	6.4	4.0	13	33	76	76	61	70	9.0	11	13	8.7
15	6.4	4.0	8.3	29	68	158	56	61	9.0	17	13	8.7
16	6.4	4.0	6.4	25	68	167	54	52	8.7	17	61	8.7
17	6.4	4.3	6.4	20	70	132	56	45	6.7	12	52	9.0
18	6.0	4.0	6.7	18	70	118	58	39	5.7	11	27	9.4
19	5.7	4.5	6.7	18	65	104	54	37	6.0	8.7	18	9.0
20	5.5	4.0	6.7	18	63	100	49	33	6.0	25	18	9.9
21	5.5	4.0	7.0	16	73	54	a46	30	6.4	14	20	10
22	5.5	4.0	6.7	16	88	97	44	27	6.4	14	27	11
23	5.5	4.0	6.7	15	95	104	39	25	9.0	14	11	10
24	5.7	3.8	6.7	15	82	a100	39	22	10	16	44	10
25	5.5	3.8	22	15	73	a110	41	23	10	11	23	9.9
26	5.0	3.8	12	15	63	104	58	22	9.0	8.3	15	9.4
27	5.0	3.8	9.0	15	52	91	76	20	8.3	8.0	12	9.4
28	5.2	3.8	8.3	19	47	82	79	19	7.7	7.4	12	28
29	4.3	3.8	8.3	36	-	79	73	18	8.0	7.0	11	363
30	3.3	3.8	9.0	41	-	82	73	16	7.7	6.0	12	79
31	3.3	-	33	37	-	94	-	16	-	11	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	190.4	8.3	3.3	6.14	378
November	121.6	4.7	3.3	4.05	241
December	255.1	33	3.3	8.23	506
Calendar year 1940	5,029.5	152	2.8	13.7	9,980
January	657	41	10	21.2	1,300
February	1,776	107	31	63.4	3,520
March	2,524	167	34	81.4	5,010
April	1,852	97	39	61.7	3,670
May	1,720	104	16	55.5	3,410
June	297.5	15	5.7	9.92	590
July	351.7	25	6.0	11.3	698
August	658.1	111	6.4	21.2	1,310
September	722.6	363	5.5	24.1	1,430
Water year 1940-41	11,126.0	363	3.3	30.5	22,060

Peak discharge.- July 20 (5:30 p.m.) 180 sec.-ft.; Aug. 23 (4 p.m.) 557 sec.-ft.; Aug. 23 (6 p.m.) 535 sec.-ft.; Aug. 31 (9 p.m.) 550 sec.-ft.; Sept. 29 (6:30 a.m.) 887 sec.-ft.

a No gage-height record; discharge interpolated or computed on basis of estimated gage heights and weather records.

Mimbres River near Faywood, N. Mex.

Location.- Water-stage recorder, lat. 32°36', long. 107°53', in sec. 7, T. 20 S., R. 10 W., 6 miles northeast of Faywood Hot Springs, 10 miles northeast of Faywood, and 12 miles upstream from San Vicente Arroyo.

Drainage area.- 485 square miles.

Records available.- April 1908 to December 1914 and October 1930 to September 1941 in reports of Geological Survey. April 1908 to December 1931 in reports of State engineer.

Average discharge.- 25 years (1908-10, 1912-17, 1919-24, 1926-27, 1929-41), 23.5 second-feet.

Extremes.- Maximum discharge during year, 8,580 second-feet September 29 (gage height, 7.2 feet), from rating curve extended above 320 second-feet by logarithmic plotting; minimum daily, 2.0 second-feet July 2, 3, 5, 10, 11, Sept. 5, 15-17.
1930-41: Maximum discharge not determined; maximum gage height, 10.0 feet Aug. 4, 1939; no flow at times.

Remarks.- Records fair October to June, others poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	3.7	6.4	88	76	79	130	85	4.7	2.2	3.3	36
2	4.5	3.9	6.4	71	71	88	130	96	4.4	2.0	3.3	14
3	3.6	4.1	6.1	61	66	97	114	98	a4.2	2.0	3.3	6.1
4	3.2	4.3	6.1	50	61	89	99	88	a3.9	2.2	3.0	2.6
5	3.2	4.5	6.4	44	63	86	84	90	3.7	2.0	3.0	2.0
6	3.1	4.8	6.4	42	66	84	81	88	4.7	2.2	3.0	2.6
7	3.4	5.0	6.1	38	82	76	79	92	3.7	2.2	3.0	2.2
8	3.9	5.4	6.4	a35	104	68	76	88	2.6	2.2	14	16
9	4.1	5.4	6.4	a32	128	59	73	87	2.6	2.2	8.2	6.1
10	3.9	5.4	6.6	a30	142	54	73	88	2.6	2.0	2.8	2.4
11	4.8	5.8	7.5	a35	142	54	74	85	2.6	2.0	2.8	2.4
12	5.4	5.6	8.0	51	152	55	76	78	3.0	2.7	4.8	2.4
13	5.4	5.4	26	86	152	60	82	73	3.3	3.2	11.8	2.4
14	4.8	6.4	31	77	137	77	74	67	3.7	1.7	a5.0	2.2
15	3.9	5.4	27	68	123	144	66	64	3.0	3.9	8.3	2.0
16	4.8	5.4	a23	60	112	168	60	61	2.6	2.4	38.5	2.0
17	4.5	5.6	20	48	110	185	58	54	2.6	1.4	26.2	2.0
18	3.9	5.8	19	41	110	157	54	44	2.8	6.9	13.8	2.2
19	4.1	5.6	18	41	102	140	52	38	3.0	4.4	12.7	2.4
20	3.9	6.1	19	41	97	130	49	a33	3.3	3.7	13.2	2.6
21	3.9	6.6	17	38	100	123	46	a29	3.0	15.5	23.5	1.2
22	3.7	6.6	17	37	110	128	45	a25	3.0	2.9	20.7	all
23	3.6	7.5	16	37	128	142	43	22	3.3	2.4	13.5	a1.0
24	3.6	7.5	16	35	123	150	42	21	3.3	2.7	13.5	9.3
25	3.6	7.2	38	36	110	157	41	24	2.6	2.0	4.5	8.8
26	3.4	6.9	40	36	97	154	162	23	2.6	1.5	a3.4	6.4
27	3.4	6.9	34	36	88	144	75	19	2.6	1.2	2.3	5.0
28	3.2	6.6	32	41	82	130	94	15	2.6	2.4	1.4	9.3
29	3.6	6.9	31	68	-	121	87	12	2.8	1.0	1.2	4.10
30	3.9	6.6	31	86	-	114	82	8.8	2.6	4.4	7.8	21.0
31	3.9	-	55	81	-	117	-	6.9	-	3.7	4.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	123.4	5.4	3.1	3.98	245
November	171.9	7.5	3.7	5.73	341
December	588.8	55	6.1	19.0	1,170
Calendar year 1940	7,220.1	426	1.3	19.7	14,320
January	1,570	88	30	50.6	3,110
February	2,954	152	61	105	5,820
March	3,430	185	54	111	6,800
April	2,301	162	41	76.7	4,560
May	1,704.7	98	6.9	55.0	3,390
June	95.4	4.7	2.6	3.18	189
July	515.3	155	2.0	16.6	1,020
August	2,241.3	385	2.8	72.3	4,450
September	1,888.1	1,410	2.0	62.9	3,740
Water year 1940-41	17,563.9	1,410	2.0	48.1	34,820

Peak discharge.- Apr. 26 (9 a.m.) 1,840 sec.-ft.; July 21 (4 p.m.) 1,230 sec.-ft.; Aug. 15 (8 p.m.) 1,080 sec.-ft.; Aug. 16 (10 p.m.) 590 sec.-ft.; Aug. 21 (3 p.m.) 1,410 sec.-ft.; Sept. 29 (5:30 a.m.) 8,580 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for station near Mimbres.

Bear Canyon near Mimbres, N. Mex.

Location.- Water-stage recorder and concrete Parshall flume, lat. 32°53', long. 108°00', in S $\frac{1}{4}$ sec. 29, T. 16 S., R. 11 W., 100 feet downstream from bridge on State Highway 167, 200 feet downstream from Bear Canyon Dam, and 2 miles northwest of Mimbres.

Records available.- October 1937 to September 1941.

Extremes.- Maximum discharge during year, 76 second-feet Sept. 29 (gauge height, 2.88 feet), from rating curve extended above 21 second-feet by logarithmic plotting; no flow at times.

1937-41: Maximum discharge, that of Sept. 29, 1941; no flow at times.

Remarks.- Records fair except those for Aug. 30 to Sept. 7, which are poor. Flow regulated by Bear Canyon Reservoir (capacity, 700 acre-feet). One diversion above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4			0	4.0	6.7	8.6	3.7	0.1	0	0	0.1
2	.4			0	3.6	7.9	8.1	4.8	0	0	0	a.1
3	.3			0	3.6	7.4	7.4	3.4	0	0	.1	a.1
4	.3			0	3.7	6.6	6.6	3.7	.1	0	.1	a.1
5	.3			0	4.3	6.6	6.8	3.4	.1	0	.1	a.1
6	.2			0	5.2	6.0	6.9	2.8	.1	0	.1	a.1
7	.2			0	9.4	5.2	6.4	2.3	0	.3	.1	a.1
8	.2			0	10	4.3	5.9	2.0	0	6.7	.1	.1
9	.2			0	13	3.8	5.2	1.6	0	9.1	0	.1
10	.1			0	16	3.2	4.9	1.3	0	9.1	0	.1
11	0			0	17	3.0	4.6	1.1	0	9.1	1.0	.1
12	0			0	20	3.0	5.0	.8	0	7.6	2.8	.1
13	0			0	14	5.4	5.0	.8	0	2.4	2.1	.1
14	0			0	12	13	4.1	.3	0	2.4	1.3	.1
15	0			0	11	24	3.7	.2	0	1.1	1.3	.1
16	0			0	11	21	3.3	.2	0	0	1.4	.1
17	0			0	12	14	3.2	.1	0	0	1.3	.1
18	0			0	11	12	3.0	.1	0	0	1.3	.1
19	0			0	10	11	2.7	.1	0	0	1.3	.1
20	0			0	9.8	10	2.4	0	0	0	1.3	.1
21	0			0	11	9.4	2.1	0	0	0	1.4	.1
22	0			0	12	11	2.0	.1	.1	0	1.4	.1
23	0			0	12	13	1.8	.1	.1	.1	1.3	.1
24	0			0	12	13	1.5	.1	.1	.1	6.8	.1
25	0			0	10	13	1.7	.2	.1	.1	2.7	.1
26	0			0	8.8	13	3.7	.2	.1	.1	1.4	.1
27	0			0	7.4	11	4.8	.2	0	.1	1.3	.1
28	0			0	6.7	9.5	4.5	.1	0	.1	1.3	2.4
29	0			.1	-	8.8	4.2	.1	0	.1	.4	49
30	0			5.2	-	8.5	3.6	.1	0	0	a.1	15
31	0			4.7	-	8.2	-	.1	-	0	a.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2.6	0.4	0	0.08	5.2
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1940	799.6	30	0	2.18	1,590
January	10.0	5.2	0	.32	20
February	280.5	20	3.6	10.0	556
March	292.5	24	3.0	9.44	580
April	133.7	8.6	1.5	4.46	265
May	33.9	4.8	0	1.09	67
June	4.9	.1	0	.08	1.8
July	48.5	9.1	0	1.55	96
August	33.9	6.8	0	1.09	67
September	69.1	49	.1	2.30	137
Water year 1940-41	905.6	49	0	2.48	1,800

a No gage-height record; discharge computed on basis of recorded range in stage and engineer's notes.

Rio Tularosa near Tularosa, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 33°07', long. 105°57', in SW¹/₄ sec. 15, T. 14 S., R. 10 E., 200 feet upstream from diversion dam for Tularosa Community ditch and 3 miles northeast of Tularosa.

Records available.- December 1912 to December 1914 and October 1931 to September 1941 in reports of Geological Survey. December 1912 to December 1914 and October 1916 to July 1917 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,740 second-feet Sept. 28 (gage height, 3.15 feet), from rating curve extended above 23 second-feet on basis of slope-area determinations of 2,040 and 9,640 second-feet; minimum daily, 3 second-feet June 16.

1931-41: Maximum discharge, 9,640 second-feet Sept. 3, 1938 (gage height, 8.50 feet, from floodmarks), by slope-area method; minimum daily, 1 second-foot July 31, Aug. 1, 1934.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	12	12	13	14	13	13	11	6	10	a20	10
2	7	12	12	13	12	14	14	10	7	9	a25	9
3	6	12	12	13	12	13	13	14	11	81	a30	9
4	7	12	12	11	12	13	13	23	11	30	a25	8
5	7	11	12	12	12	14	12	14	11	17	a20	9
6	6	11	12	14	12	14	10	12	12	17	a18	9
7	5	14	12	13	14	14	9	12	12	15	a16	6
8	7	13	12	13	14	14	13	12	10	13	a15	6
9	8	12	12	12	14	13	12	11	6	11	14	11
10	7	12	13	13	13	12	12	12	6	11	12	11
11	8	12	13	14	13	9	12	12	6	48	11	12
12	9	13	15	20	13	11	12	10	6	35	a12	11
13	11	12	14	13	13	14	12	9	6	12	a30	12
14	10	11	13	14	12	14	11	10	6	80	a20	13
15	11	10	13	14	11	13	9	9	5	15	a25	14
16	10	11	11	12	12	14	10	9	3	a11	a21	12
17	10	11	12	13	12	13	11	10	11	a8	a17	12
18	10	11	12	10	12	13	11	5	12	45	a16	14
19	10	13	12	13	12	13	12	5	12	a25	a13	11
20	9	12	12	14	12	12	6	12	13	75	a12	13
21	7	12	11	13	12	13	7	15	13	50	a13	144
22	8	12	12	13	13	19	14	15	17	25	14	a60
23	8	12	12	13	15	14	13	22	23	a20	15	a40
24	11	12	12	14	13	12	13	15	14	a15	10	a30
25	11	12	12	16	14	14	15	17	41	a10	8	a25
26	11	12	12	14	16	12	17	13	15	a20	12	a20
27	12	11	12	14	14	12	14	12	13	125	12	a15
28	12	11	12	15	13	13	12	12	11	a40	14	440
29	12	12	12	16	-	13	10	11	6	a30	17	a100
30	12	12	12	14	-	13	11	11	6	a20	12	a50
31	12	-	14	14	-	13	-	10	-	a15	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	281	12	5	9.1	557
November	355	14	10	11.8	704
December	381	15	11	12.3	756
Calendar year 1940	4,182	85	3	11.4	8,300
January	420	20	10	13.5	833
February	361	16	11	12.9	716
March	408	19	9	13.2	809
April	353	17	6	11.8	700
May	375	23	5	12.1	744
June	330	41	3	11.0	655
July	938	125	8	30.3	1,860
August	560	80	8	18.1	1,110
September	1,136	440	6	37.9	2,260
Water year 1940-41	5,898	440	3	16.2	11,690

Peak discharge.- July 14 (7:30 p.m.) 1,560 sec.-ft.; July 20 (2 p.m.) 1,560 sec.-ft.; July 21 (12 m.) 1,230 sec.-ft.; Sept. 28 (3 a.m.) 1,740 sec.-ft.; Sept. 28 (9:30 a.m.) 1,560 sec.-ft.; Sept. 28 (10:30 p.m.) 1,500 sec.-ft.

a No gage-height record; discharge computed on basis of range of stage, weather records, and records for Rio Felix at old highway bridge, near Hagerman, and Rio Ruidoso at Hondo.

Alamogordo-La Luz ditch at La Luz, N. Mex.

Location.- Water-stage recorder and concrete Parshall flume, lat. 32°58'50", long. 105°55'15", in SW¼ sec. 25, T. 15 S., R. 10 E., a quarter of a mile upstream from La Luz and half a mile downstream from head gate.

Records available.- October 1934 to September 1941.

Extremes.- Maximum discharge during year, 35 second-feet July 16 (gage height, 1.66 feet), from rating curve extended above 20 second-feet by logarithmic plotting; maximum daily, 10 second-feet Aug. 20; no flow Aug. 13, 14.

1934-41: Maximum daily discharge recorded, 11 second-feet Oct. 21, 22, 1934, Sept. 11, 12, 1935, Feb. 16-22, 28, 29, 1936; no flow at times.

Remarks.- Records fair. Ditch diverts water from left bank of Rio La Luz for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	4.2	5.9	5.4	1.6	6.9	7.8	7.8	3.2	2.7	2.1	8.8
2	4.1	4.4	5.9	5.8	1.6	7.2	8.7	4.6	3.6	2.6	5.4	7.8
3	4.1	4.4	5.9	6.2	1.5	7.1	7.9	5.9	3.6	2.7	a6	6.9
4	4.2	4.7	6.2	6.2	3.8	6.7	7.4	7.6	3.3	2.7	a6.5	6.6
5	4.2	4.5	5.8	6.6	5.6	6.7	6.7	6.2	2.9	2.3	a7	6.2
6	4.7	4.2	5.8	6.6	5.9	7.2	7.6	5.3	3.2	4.8	a7.5	6.1
7	4.5	5.0	5.8	6.2	7.2	6.9	8.1	5.6	2.7	4.0	a8	5.8
8	4.7	5.8	5.9	6.2	7.1	6.9	6.4	5.6	2.7	3.3	a8.5	5.8
9	5.1	4.2	6.1	6.1	6.7	7.1	5.6	5.6	2.8	2.8	8.8	5.9
10	5.3	5.0	6.1	6.1	6.6	6.9	5.6	5.1	2.8	2.2	9.0	5.4
11	3.6	5.0	6.2	6.2	6.2	7.1	5.8	1.0	2.6	2.8	6.9	5.8
12	5.1	5.4	6.9	3.4	5.9	7.4	5.6	1.0	2.6	2.7	5.3	6.1
13	5.2	5.8	6.1	1.6	6.1	8.3	6.4	2.3	2.4	2.9	0	5.9
14	5.8	4.1	6.1	1.9	5.9	7.6	5.6	4.4	2.1	3.0	0	6.2
15	5.3	3.4	6.1	1.6	5.8	7.1	5.3	4.4	4.0	3.2	1.0	6.1
16	5.1	4.7	5.9	1.5	5.9	7.1	5.4	4.5	2.7	7.1	1.5	5.1
17	5.0	4.1	5.9	1.5	5.9	7.1	5.1	4.5	2.8	5.4	1.6	5.4
18	4.8	5.0	4.7	1.4	5.9	6.9	5.4	4.7	2.1	6.4	.3	5.6
19	4.8	5.2	4.7	2.0	5.6	6.7	5.9	4.4	2.1	5.7	4.9	6.6
20	4.8	5.0	5.0	2.0	5.6	6.7	5.9	3.6	2.3	7.1	10	7.9
21	4.7	5.1	5.9	1.4	5.4	7.1	5.6	4.4	5.1	6.2	9.6	7.9
22	4.7	4.5	6.2	1.3	6.1	5.7	4.8	5.0	4.1	5.8	9.2	6.0
23	4.4	5.1	6.1	1.6	6.4	a8.5	4.4	7.0	5.8	5.4	9.2	8.8
24	4.2	5.9	6.1	1.5	5.9	a8.5	3.7	5.0	4.1	4.7	9.4	9.8
25	4.5	5.6	6.2	1.6	7.4	a8	6.0	5.1	5.1	4.8	7.8	9.2
26	4.5	5.6	6.2	1.6	6.9	a8	8.7	5.1	3.3	4.1	7.1	8.8
27	4.7	5.1	6.2	1.6	6.6	a7.5	7.1	4.1	2.7	4.5	6.7	9.4
28	4.5	5.3	6.2	1.8	6.7	a7.5	5.6	4.5	3.4	6.3	7.9	1.7
29	4.7	5.4	5.8	1.9	-	7.2	5.6	4.2	3.0	6.4	7.6	1.4
30	4.4	5.9	5.0	1.7	-	7.6	5.3	4.1	2.8	6.6	7.9	1.0
31	4.1	-	5.5	1.7	-	7.6	-	3.7	-	4.7	8.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	145.5	5.8	3.7	4.69	289
November	147.6	5.9	3.4	4.92	293
December	182.4	6.9	4.7	5.88	362
Calendar year 1940	1,505.4	9.9	.5	4.11	2,990
January	102.2	6.6	1.3	3.30	203
February	157.8	7.4	1.5	5.64	313
March	227.8	8.7	6.7	7.35	452
April	165.0	8.7	3.7	6.17	367
May	146.3	7.8	1.0	4.72	290
June	95.9	5.8	2.1	3.20	190
July	135.9	7.1	2.2	4.38	270
August	191.0	10	0	6.16	379
September	190.0	9.8	1.0	6.33	377
Water year 1940-41	1,907.4	10	0	5.23	3,780

a No gage-height record; discharge interpolated.

Alamogordo water supply near Alamogordo, N. Mex.

Location.- Water-stage recorder and rectangular contracted weir, lat. 32°52'35", long. 105°55'50", in NW¼ sec. 33, T. 16 S., R. 10 E., at lower end of pipe line, about a mile downstream from Alamogordo Canyon, and 2 miles southeast of Alamogordo.

Records available.- October 1932 to September 1941.

Extremes.- Maximum discharge during year, 3.3 second-feet Aug. 20 (gage height, 0.65 foot); no flow Sept. 29.

1932-41: Maximum discharge, 6.2 second-feet July 8, 1936 (gage height, 0.89 foot site and datum then in use); no flow July 7, 1933, Sept. 29, 1941.

Remarks.- Records good. Water is diverted from Alamo Creek for municipal supply of Alamogordo by pipe line having one intake on Alamo Creek just above former gaging station at Wood Ranch and a second intake at Fleming Springs in Duncan Arroyo, which is tributary to Alamo Creek about 2 miles below first intake.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.6	1.7	2.0	2.6	3.0
2	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.6	1.7	2.0	2.6	3.0
3	1.4	1.4	1.4	1.4	1.0	1.4	1.4	1.6	1.7	2.0	2.6	3.0
4	1.4	1.4	1.4	1.4	1.0	1.4	1.4	1.6	1.7	2.0	2.6	2.5
5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.6	1.7	2.1	2.6	3.0
6	1.4	1.4	1.4	1.4	1.0	1.4	1.4	1.6	1.7	2.2	2.7	3.0
7	1.4	1.4	1.4	.7	1.4	1.4	1.4	1.6	1.7	2.2	2.7	3.0
8	1.4	1.4	1.4	.7	1.4	1.4	1.4	1.6	1.7	2.2	2.7	3.0
9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.6	1.7	2.2	2.7	3.0
10	1.4	1.4	1.4	1.4	1.0	1.4	1.4	1.6	1.7	2.2	2.8	3.0
11	1.3	1.4	1.4	1.4	1.0	1.4	1.5	1.6	1.7	2.2	2.7	3.0
12	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.6	1.7	2.2	2.7	3.0
13	1.4	1.4	1.4	1.4	1.0	1.4	1.5	1.6	1.7	2.3	2.8	3.0
14	1.4	1.4	1.4	.6	1.4	1.4	1.5	1.6	1.8	2.3	2.8	3.0
15	1.4	1.4	1.4	.7	1.4	1.4	1.5	1.6	1.8	2.3	2.8	3.0
16	1.4	1.4	.6	1.4	1.4	1.4	1.5	1.6	1.8	2.2	2.8	3.0
17	1.4	1.4	.6	1.0	1.4	1.4	1.5	1.6	1.8	2.3	2.8	3.0
18	1.4	1.4	.9	1.4	1.4	1.4	1.5	1.6	1.9	2.3	3.0	3.0
19	1.4	1.4	1.4	1.4	1.1	1.4	1.5	1.6	1.9	2.4	3.0	3.0
20	1.4	1.4	.8	.6	1.4	1.4	1.5	1.6	1.9	2.5	3.0	3.0
21	1.4	1.4	.2	.9	1.4	1.4	1.5	1.7	1.9	2.5	3.0	3.0
22	1.4	1.4	a.2	1.4	1.4	1.4	1.5	1.7	1.9	2.4	3.0	3.0
23	1.4	1.4	d.8	1.4	1.4	1.4	1.5	1.7	1.9	2.5	3.0	3.0
24	1.4	1.4	1.5	1.4	.6	1.4	1.5	1.7	1.9	2.6	a3.0	3.0
25	1.4	1.4	1.5	1.3	.4	1.4	1.5	1.7	1.9	2.6	a3.0	3.0
26	1.4	1.4	1.5	1.4	1.0	1.4	1.5	1.7	1.9	2.6	a3.0	3.0
27	1.4	1.4	1.5	1.0	1.4	1.4	1.5	1.7	1.9	2.6	a3.0	3.0
28	1.4	1.4	1.5	1.4	1.4	1.4	1.5	1.7	2.0	2.6	a3.0	3.0
29	1.4	1.4	1.5	1.4	-	1.4	1.5	1.7	2.0	2.6	a3.0	0
30	1.4	1.4	.6	1.4	-	1.4	1.5	1.7	2.0	2.6	3.0	.4
31	1.4	-	.7	1.4	-	1.4	-	1.7	-	2.6	3.0	-
Month												
October	43.3											
November	42.0											
December	36.8											
Calendar year 1940	521.6											
January	38.2											
February	34.3											
March	43.4											
April	44.0											
May	50.7											
June	54.3											
July	72.3											
August	88.0											
September	83.9											
Water year 1940-41	631.2											
	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet							
October	43.3	1.4	1.3	1.40	86							
November	42.0	1.4	1.4	1.40	83							
December	36.8	1.5	.2	1.19	73							
Calendar year 1940	521.6	-	.2	1.43	1,030							
January	38.2	1.4	.6	1.23	76							
February	34.3	1.4	.4	1.22	68							
March	43.4	1.4	1.4	1.40	86							
April	44.0	1.5	1.4	1.47	87							
May	50.7	1.7	1.6	1.64	101							
June	54.3	2.0	1.7	1.81	108							
July	72.3	2.6	2.0	2.33	143							
August	88.0	3.0	2.6	2.84	175							
September	83.9	3.0	0	2.80	166							
Water year 1940-41	631.2	3.0	0	1.73	1,250							

a No gage-height record; discharge interpolated.

d Incomplete gage-height record; discharge interpolated.

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow were made at the points in the western Gulf of Mexico basins indicated in the following table:

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year October 1940 to September 1941

Sabine River Basin				
Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Oct. 7	Little Cow Creek	Sabine River.....	300 feet downstream from bridge on State Highway 87, above McGraw Creek and $\frac{3}{4}$ mile south of Burkeville, Tex.	31.0
Nov. 18	.....do.....	.....do.....	.....do.....	39.5
Jan. 7	.....do.....	.....do.....	.....do.....	68.0
Feb. 18	.....do.....	.....do.....	.....do.....	60.2
Mar. 7	.....do.....	.....do.....	.....do.....	205
8	.....do.....	.....do.....	.....do.....	88.0
Apr. 11	.....do.....	.....do.....	.....do.....	58.5
May 9	.....do.....	.....do.....	.....do.....	72.0
July 24	.....do.....	.....do.....	.....do.....	49.7
Aug. 14	.....do.....	.....do.....	.....do.....	46.0
Oct. 7	McGraw Creek...	Little Cow Creek...	1 mile upstream from mouth and 2 miles southeast of Burkeville, Tex.	16.0
Nov. 18	.....do.....	.....do.....	.....do.....	16.6
Jan. 7	.....do.....	.....do.....	.....do.....	55.5
Feb. 18	.....do.....	.....do.....	.....do.....	34.6
Mar. 8	.....do.....	.....do.....	.....do.....	20.1
Apr. 12	.....do.....	.....do.....	.....do.....	30.4
12	.....do.....	.....do.....	.....do.....	39.1
May 9	.....do.....	.....do.....	.....do.....	42.5
July 24	.....do.....	.....do.....	.....do.....	35.1
Aug. 14	.....do.....	.....do.....	.....do.....	29.7
Oct. 8	Quicksand Creek.	Sabine River.....	Bridge on U. S. Highway 190, 0.7 mile upstream from mouth and near Bon Wier, Tex.	19.0
Nov. 19	.....do.....	.....do.....	.....do.....	44.0
Feb. 18	.....do.....	.....do.....	.....do.....	63.4
Mar. 7	.....do.....	.....do.....	.....do.....	361
Oct. 17	Cow Creek.....	.....do.....	Just downstream from bridge on State Highway 63, at Farrsville, Tex.	12.7
Apr. 10	.....do.....	.....do.....	.....do.....	32.4
Oct. 17	Hunter Creek...	Cow Creek.....	Bridge on State Highway 63, 3 miles west of Farrsville, Tex.	5.49
Apr. 10	.....do.....	.....do.....	.....do.....	13.8
10	Bishop Creek....	.....do.....	Bridge on State Highway 63, $\frac{3}{4}$ mile upstream from Melhouns Creek and 6 miles northeast of Jasper, Tex.	1.67
Oct. 17	Melhouns Creek..	Bishop Creek.....	Bridge on State Highway 63, $\frac{3}{4}$ mile upstream from Bishop Creek and 6 miles northeast of Jasper, Tex.	8.03
Apr. 10	.....do.....	.....do.....	.....do.....	19.4
Neches River Basin				
Oct. 29	Procella Creek..	Angelina River.....	Bridge on U. S. Highway 59, 8 miles north of Lufkin, Tex.	1.66
Oct. 18	Sandy Creek.....	Neches River.....	Just upstream from bridge on U. S. Highway 96, at Jasper, Tex.	11.4
Oct. 18	.....do.....	.....do.....	Beech Grove, Tex., 5 miles upstream from mouth.	24.1
Apr. 10	.....do.....	.....do.....	300 feet downstream from bridge on U. S. Highway 96, at Jasper, Tex.	33.5
10	Walnut Creek....	.....do.....	Bridge on U. S. Highway 96, 2 $\frac{1}{2}$ miles south of Jasper, Tex.	6.74
Brazos River Basin				
Oct. 10	Brazos River....	Gulf of Mexico....	East Columbia, Tex.....	1,540
Dec. 6	.....do.....	.....do.....	.....do.....	†60,000
11	.....do.....	.....do.....	.....do.....	22,600
31	.....do.....	.....do.....	.....do.....	32,300
Feb. 11	.....do.....	.....do.....	.....do.....	24,100
Mar. 19	.....do.....	.....do.....	.....do.....	19,500
May 8	.....do.....	.....do.....	.....do.....	59,000
July 8	.....do.....	.....do.....	.....do.....	6,660
Oct. 24	Clear Fork of Brazos River.	Brazos River.....	About 1 mile upstream from Mulberry Creek, near Hawley, Tex.	4.49
Nov. 22	.....do.....	.....do.....	.....do.....	4.37
Dec. 20	.....do.....	.....do.....	.....do.....	4.80
Jan. 27	.....do.....	.....do.....	.....do.....	†2.4
Mar. 6	.....do.....	.....do.....	.....do.....	4.72
Apr. 9	.....do.....	.....do.....	.....do.....	5.07
Oct. 24	Mulberry Creek..	Clear Fork of Brazos River.	About 1 mile upstream from mouth, near Hawley, Tex.	0
Nov. 22	.....do.....	.....do.....	.....do.....	0
Dec. 20	.....do.....	.....do.....	.....do.....	†.05
Jan. 27	.....do.....	.....do.....	.....do.....	0
Mar. 6	.....do.....	.....do.....	.....do.....	0
Apr. 9	.....do.....	.....do.....	.....do.....	0

† Discharge of main channel only; both banks overflowed.

‡ Field estimate.

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year October 1940 to September 1941--Continued

Colorado River Basin

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Nov. 27	Colorado River....	Gulf of Mexico.....	County highway bridge, 4½ miles southwest of Wadsworth, Tex.	†75,800
Feb. 11	South Concho River	Colorado River.....	On William Anson Ranch, 3.9 miles south of Christoval, Tex.	11.0
8	Cold Spring.....	.....do.....	On right bank of Colorado River, lat. 30°16', long. 97°46', at Austin, Tex.	3.0
Apr. 13	Old Mill Spring...	Barton Creek.....	400 feet downstream from main Barton Springs pool at Austin, Tex.	12.5
Feb. 8	Shoal Creek.....	Colorado River.....	5th St. Bridge in Austin, Tex...	6.56
8	Waller Creek.....	.....do.....	1st St. Bridge in Austin, Tex...	3.99
June 7	Onion Creek.....	.....do.....	Bridge on State Highway 29, 6 miles southeast of Austin, Tex.	†33,800

† Result of discharge measurement furnished by Corps of Engineers, U. S. Army.

‡ Measurement made at stage 8.0 feet below the peak.

Guadalupe River Basin

May 17	Guadalupe River...	Gulf of Mexico.....	Bridge on State Highway 39, ½ mile downstream from confluence of South and North Forks and 0.6 mile east of Hunt, Tex.	105
17	.....do.....	.....do.....	0.4 mile downstream from Methodist Dam, 1.3 miles upstream from Town Creek, and 1 3/4 miles northwest of Kerrville, Tex.	197
17	Johnson Creek....	Guadalupe River.....	About 1½ miles upstream from mouth, 1½ miles north of Ingram, Tex.	51
Oct. 20	San Marcos Springs (San Marcos River)	.....do.....	At San Marcos, Tex.....	106
Nov. 17	.....do.....	.....do.....	.....do.....	113
Dec. 7	.....do.....	.....do.....	.....do.....	113
Jan. 19	.....do.....	.....do.....	.....do.....	145
Feb. 16	.....do.....	.....do.....	.....do.....	140
Mar. 16	.....do.....	.....do.....	.....do.....	152
Apr. 20	.....do.....	.....do.....	.....do.....	178
May 17	.....do.....	.....do.....	.....do.....	246
27	.....do.....	.....do.....	.....do.....	256
June 27	.....do.....	.....do.....	.....do.....	243
Aug. 11	.....do.....	.....do.....	.....do.....	214
Sept. 30	.....do.....	.....do.....	.....do.....	164

Nueces River Basin

Oct. 14	Schwandners Spring	West Nueces River....	16.3 miles northwest of Laguna, Tex.	3.01
14	Live Oak Creek...	.....do.....	7½ miles northwest of Laguna, Tex.	.74
May 15	.....do.....	.....do.....	.....do.....	15.1
June 17	.....do.....	.....do.....	.....do.....	3.43
July 19	.....do.....	.....do.....	.....do.....	1.28
Aug. 16	.....do.....	.....do.....	.....do.....	1.50
Sept. 16	.....do.....	.....do.....	.....do.....	6.21
Aug. 9	Frio River.....	Nueces River.....	450 feet downstream from bridge on U. S. Highway 90 and 10 miles northeast of Uvalde, Tex.	283
13	.....do.....	.....do.....	.....do.....	0
Sept. 13	.....do.....	.....do.....	1,000 feet downstream from bridge on U. S. Highway 90 and 10 miles northeast of Uvalde, Tex.	51.8

Rio Grande Basin

May 15	Rio Grande.....	Gulf of Mexico.....	Lat. 35°59', long. 106°04', in SE¼ sec. 3, T. 20 N., R. 8E., at highway bridge at Espanola, N. Mex.	22,300
Oct. 23	Allen Creek.....	Costilla Creek.....	Lat. 36°58', long. 105°15', above Costilla Dam and Reservoir, about 16 miles east of Costilla, N. Mex.	†10
Aug. 6	.....do.....	.....do.....	.....do.....	2.47
Sept. 11	.....do.....	.....do.....	.....do.....	.46
July 19	Cerro ditch.....	Latir Creek.....	Lat. 36°50', long. 105°33', in SW¼ sec. 15, T. 30 N., R. 13 E., 50 feet below head and 6 miles northwest of Cerro, N. Mex.	11.0
Jan. 31	Rio Hondo.....	Rio Grande.....	Lat. 36°32', long. 105°35', 100 feet below highway bridge at Valdez, Arroyo Hondo Grant, N. Mex.	13.6
14	Rio Lucero.....	Rio Taos.....	Lat. 36°28', long. 105°34', E½ sec. 21, T. 26 N., R. 13 E., above Bee Line ditch and 3½ miles south of town of Arroyo Seco, N. Mex.	4.47

† Field estimate.

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year October 1940 to September 1941--Continued

Rio Grande Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Dec. 2	Bee Line Ditch...	Rio Lucero.....	Lat. 36°28', long. 105°34', E $\frac{1}{2}$ sec. 21, T. 26N., R. 13 E., at head, $\frac{3}{4}$ miles south of town of Arroyo Seco, N. Mex.	3.71
.....do.....	.....do.....	.....do.....	.....do.....	†3.0
Jan. 14	.....do.....	.....do.....	.....do.....	†2.0
Feb. 3	.....do.....	.....do.....	.....do.....	†1.5
.....do.....	.....do.....	.....do.....	.....do.....	†2.0
Mar. 18	.....do.....	.....do.....	.....do.....	†2.5
Apr. 8	.....do.....	.....do.....	.....do.....	†2.6
.....do.....	.....do.....	.....do.....	.....do.....	3.06
May 6	.....do.....	.....do.....	.....do.....	1.25
.....do.....	.....do.....	.....do.....	.....do.....	12.6
.....do.....	.....do.....	.....do.....	.....do.....	11.4
.....do.....	.....do.....	.....do.....	.....do.....	10.4
June 10	.....do.....	.....do.....	.....do.....	9.52
.....do.....	.....do.....	.....do.....	.....do.....	10.2
July 15	.....do.....	.....do.....	.....do.....	†7.2
.....do.....	.....do.....	.....do.....	.....do.....	†5
Aug. 18	.....do.....	.....do.....	.....do.....	1.81
Sept. 2	.....do.....	.....do.....	.....do.....	.36
.....do.....	.....do.....	.....do.....	.....do.....	†7.5
Oct. 29	Santa Fe Creek.....	Rio Grande.....	Lat. 35°41', long. 105°50', sec. 24, T. 17 N., R. 10 E., above upper reservoir, $\frac{6}{8}$ miles east of Santa Fe, N. Mex.	3.20
Nov. 8	.....do.....	.....do.....	.....do.....	2.28
Dec. 3	.....do.....	.....do.....	.....do.....	3.22
Apr. 22	.....do.....	.....do.....	.....do.....	2.12
June 6	.....do.....	.....do.....	.....do.....	57.9
July 7	.....do.....	.....do.....	.....do.....	19.3
Aug. 11	.....do.....	.....do.....	.....do.....	7.81
May 14	Jemez Creek.....	.....do.....	Lat. 35°23'40", long. 106°32'25", in S $\frac{1}{2}$ sec. 32, T. 14 N., R. 4 E., 2 miles above mouth and 6.2 miles north of Bernalillo, N. Mex.	2,860
.....do.....	.....do.....	.....do.....	.....do.....	1,830
.....do.....	.....do.....	.....do.....	.....do.....	1,820
.....do.....	.....do.....	.....do.....	.....do.....	1,270
.....do.....	.....do.....	.....do.....	.....do.....	1,300
.....do.....	.....do.....	.....do.....	.....do.....	1,390
.....do.....	.....do.....	.....do.....	.....do.....	1,170
.....do.....	.....do.....	.....do.....	.....do.....	1,210
June 3	.....do.....	.....do.....	.....do.....	974
.....do.....	.....do.....	.....do.....	.....do.....	948
.....do.....	.....do.....	.....do.....	.....do.....	622
.....do.....	.....do.....	.....do.....	.....do.....	509
.....do.....	.....do.....	.....do.....	.....do.....	451
Oct. 17	San Jose River.....	Rio Puerco.....	Lat. 35°04', long. 107°45', in NW $\frac{1}{4}$ sec. 25, T. 10 N., R. 9 W., at highway bridge, 8 miles southwest of Grants, N. Mex.	9.83
Nov. 28	.....do.....	.....do.....	.....do.....	7.79
Jan. 8	.....do.....	.....do.....	.....do.....	8.53
Feb. 19	.....do.....	.....do.....	.....do.....	9.81
Oct. 9	Pecos River.....	Rio Grande.....	Lat. 35°16', long. 105°19', in SE $\frac{1}{4}$ sec. 11, T. 12 N., R. 15 E., at Cerrito, N. Mex.	86.5
.....do.....	.....do.....	.....do.....	Lat. 35°14', long. 105°10', in SE $\frac{1}{4}$ sec. 31, T. 11 N., R. 15 E., 4 miles southeast of Cerrito and 7 miles northwest of Anton Chico, N. Mex.	90.5
.....do.....	.....do.....	.....do.....	Lat. 35°14', long. 105°10', in sec. 30, T. 11 N., R. 16 E., above diversion dam, 3 miles northwest of Anton Chico, N. Mex.	89.4
Nov. 28	.....do.....	.....do.....	Lat. 35°14', long. 105°10', in SE $\frac{1}{4}$ sec. 30, T. 11 N., R. 16 E., below diversion dam, 3 miles northwest of Anton Chico, N. Mex.	41.9
.....do.....	.....do.....	.....do.....	Lat. 35°13', long. 105°10', in NW $\frac{1}{4}$ sec. 5, T. 11 N., R. 17 E., 2 miles northwest of Anton Chico, N. Mex.	53.0
Oct. 2	.....do.....	.....do.....	At former gaging station on Pecos River near Angeles, 2 miles north of Texas-New Mexico State line, and $\frac{3}{4}$ miles northwest of Angeles, Tex.	147
Nov. 5	.....do.....	.....do.....	.....do.....	124
Dec. 3	.....do.....	.....do.....	.....do.....	121
Jan. 7	.....do.....	.....do.....	.....do.....	136
Feb. 4	.....do.....	.....do.....	.....do.....	155
Mar. 5	.....do.....	.....do.....	.....do.....	84.5
Apr. 17	.....do.....	.....do.....	.....do.....	76.3

† Field estimate.

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year
October 1940 to September 1941--Continued

Rio Grande Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Feb. 4	Pecos River.....	Rio Grande.....	Just downstream from Red Bluff Dam, 3 miles upstream from Salt (Screwbean) Draw, 4.5 miles north of Orla, Tex.	0.74
24	.....do.....	.....do.....	.....do.....	45.4
24	.....do.....	.....do.....	.....do.....	73.0
Mar. 6	.....do.....	.....do.....	.....do.....	1.39
Apr. 1	.....do.....	.....do.....	.....do.....	.84
2	.....do.....	.....do.....	.....do.....	128
2	.....do.....	.....do.....	.....do.....	168
10	.....do.....	.....do.....	.....do.....	309
2	.....do.....	.....do.....	.....do.....	463
17	.....do.....	.....do.....	.....do.....	555
30	.....do.....	.....do.....	.....do.....	702
May 8	.....do.....	.....do.....	.....do.....	126
Aug. 8	.....do.....	.....do.....	.....do.....	43.5
21	.....do.....	.....do.....	.....do.....	444
Sept. 11	.....do.....	.....do.....	.....do.....	252
May 10	Indian Creek.....	Pecos River.....	Lat. 35°42'25", long. 105°41'00", in N $\frac{1}{2}$ sec. 17, T. 17 N., R. 12 E., at mouth, 600 feet below gaging station on Pecos River and 11 miles north of Pecos, N. Mex.	45.8
Mar. 25	Rio Hondo.....	.....do.....	Lat. 35°23'50", long. 104°31'30" at Albuquerque St. Bridge in Roswell, N. Mex.	157
Aug. 15	Hope Community ditch.	Rio Penasco.....	Lat. 32°49'40", long. 104°51'50", in SE $\frac{1}{4}$ sec. 20, T. 17 S., R. 20 E., 8 miles west of Hope, N. Mex.	80.7
Oct. 7	Grijalva ditch....	Bear Canyon.....	Lat. 32°53', long. 108°00', in SE $\frac{1}{4}$ sec. 29, T. 16 S., R. 11 W., 100 feet above bridge on State High- way 167, 2 miles northwest of Mimbres, N. Mex.	.51
14	.....do.....	.....do.....	.....do.....	.05
21	.....do.....	.....do.....	.....do.....	.04
29	.....do.....	.....do.....	.....do.....	.02
Nov. 4	.....do.....	.....do.....	.....do.....	.02
12	.....do.....	.....do.....	.....do.....	0
Dec. 6	.....do.....	.....do.....	.....do.....	0
10	.....do.....	.....do.....	.....do.....	0
17	.....do.....	.....do.....	.....do.....	0
23	.....do.....	.....do.....	.....do.....	0
27	.....do.....	.....do.....	.....do.....	0
Jan. 6	.....do.....	.....do.....	.....do.....	0
14	.....do.....	.....do.....	.....do.....	0
20	.....do.....	.....do.....	.....do.....	0
30	.....do.....	.....do.....	.....do.....	.10
Feb. 14	.....do.....	.....do.....	.....do.....	.06
19	.....do.....	.....do.....	.....do.....	.01
26	.....do.....	.....do.....	.....do.....	.01
Mar. 5	.....do.....	.....do.....	.....do.....	.02
18	.....do.....	.....do.....	.....do.....	.08
26	.....do.....	.....do.....	.....do.....	.34
Apr. 4	.....do.....	.....do.....	.....do.....	.24
11	.....do.....	.....do.....	.....do.....	.14
18	.....do.....	.....do.....	.....do.....	.06
25	.....do.....	.....do.....	.....do.....	.04
May 3	.....do.....	.....do.....	.....do.....	.27
9	.....do.....	.....do.....	.....do.....	.10
16	.....do.....	.....do.....	.....do.....	.20
23	.....do.....	.....do.....	.....do.....	.16
June 5	.....do.....	.....do.....	.....do.....	.09
12	.....do.....	.....do.....	.....do.....	.01
19	.....do.....	.....do.....	.....do.....	†.01
26	.....do.....	.....do.....	.....do.....	.19
July 3	.....do.....	.....do.....	.....do.....	†.01
10	.....do.....	.....do.....	.....do.....	.18
18	.....do.....	.....do.....	.....do.....	.22
25	.....do.....	.....do.....	.....do.....	.01
31	.....do.....	.....do.....	.....do.....	.02
Aug. 11	.....do.....	.....do.....	.....do.....	0
20	.....do.....	.....do.....	.....do.....	.30
28	.....do.....	.....do.....	.....do.....	0
Sept. 8	.....do.....	.....do.....	.....do.....	.05
20	.....do.....	.....do.....	.....do.....	.06
Oct. 15	La Luz ditch.....	Alamogordo-La Luz ditch.	SW $\frac{1}{4}$ sec. 25, T. 15 S., R. 10 E., at head, $\frac{1}{2}$ mile east of La Luz and 6 miles north of Alamogordo, N. Mex.	.80
26	.....do.....	.....do.....	.....do.....	1.04
Nov. 11	.....do.....	.....do.....	.....do.....	.82
27	.....do.....	.....do.....	.....do.....	.94
Dec. 13	.....do.....	.....do.....	.....do.....	1.12
Jan. 9	.....do.....	.....do.....	.....do.....	.89
19	.....do.....	.....do.....	.....do.....	2.24

† Field estimate.

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year October 1940 to September 1941--Continued

Rio Grande Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Feb. 9	La Luz ditch.....	Alamogordo-La Luz ditch.	SW $\frac{1}{4}$ sec. 25, T. 15 S., R. 10 E., at head, $\frac{1}{4}$ mile east of La Luz and 6 miles north of Alamogordo, N. Mex.	0.92
Mar. 7	.....do.....	.....do.....	.....do.....	.73
29	.....do.....	.....do.....	.....do.....	1.24
Apr. 16	.....do.....	.....do.....	.....do.....	1.04
May 9	.....do.....	.....do.....	.....do.....	1.23
29	.....do.....	.....do.....	.....do.....	.89
June 19	.....do.....	.....do.....	.....do.....	1.05
July 12	.....do.....	.....do.....	.....do.....	.72
Aug. 9	.....do.....	.....do.....	.....do.....	1.26
22	.....do.....	.....do.....	.....do.....	1.14
Sept. 13	.....do.....	.....do.....	.....do.....	.93
Oct. 9	Rock Quarry Draw..	Pecos River.....	Just upstream from Barstow drainage ditches 2, 3, and 4, near Barstow, Tex.	†1.4
25	.....do.....	.....do.....	.....do.....	†1.13
Nov. 19	.....do.....	.....do.....	.....do.....	†1.01
Dec. 3	.....do.....	.....do.....	.....do.....	†1.81
Jan. 8	.....do.....	.....do.....	.....do.....	†1.5
Sept. 12	Phantom Lake Springs.	Phantom Lake Irrigation System Canal.	At source, near Toyahvale, Tex....	19.7
12	Giffin Springs....	Main canal of Reeves County Water Improvement District No. 1.	In middle of boundary line sec. 20, blk. 13 (Houston & Great Northern Railroad survey) at Toyahvale, Tex.	5.57
12	Saragosa Springs..	Toyah Creek.....	In SW $\frac{1}{4}$ sec. 37, blk. 13 (Houston & Great Northern Railroad survey) at Balmorhea, Tex.	4.97
Oct. 15	Mud Springs (Mud Creek).	Sycamore Creek.....	16 miles northwest of Brackettville, Tex.	.96
15	Pinto Springs.....	Pinto Creek.....	$7\frac{1}{2}$ miles northwest of Brackettville, Tex.	3.80

† Field estimate.

† Flow represents waste from Barstow Irrigation District No. 1 Canal.

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