UNITED STATES DEPARTMENT OF THE INTERIOR
HAROLD L. ICKES, Secretary

GEOLOGICAL SURVEY
W. C. MENDENHALL, Director

Water-Supply Paper 878

SURFACE WATER SUPPLY *of the* UNITED STATES 1939

PART 8
WESTERN GULF OF MEXICO BASINS

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ILLUSTRATION

SURFACE WATER SUPPLY OF WESTERN GULF OF MEXICO BASINS, 1939

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, 1939. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of flow of streams and measurements of stage and contents of lakes and reservoirs have been made at about 8,240 gaging stations in the United States and also at many gaging stations in Alaska and Hawaii. In July 1939, 4,160 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. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 10.

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

"Second-feet 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 run-off is distributed uniformly both as regards time and area.

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

An "acre-foot," equivalent to 43,560 cubic feet, is the quantity of water required to cover an acre to the depth of 1 foot. 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 run-off of 0.0372 inch from one square mile.

"Stage-discharge relation" is an abbreviation for the term "relation of gage height to discharge."

"Control" is a term used to designate the natural section or reach of the channel or artificial structure below the gage that determines the stage-discharge relation at the gage.

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 gage heights 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. Gaging station structures are shown on plate 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the mean daily gage height to these rating tables gives the mean daily discharge, from which the monthly and yearly mean discharge are computed.

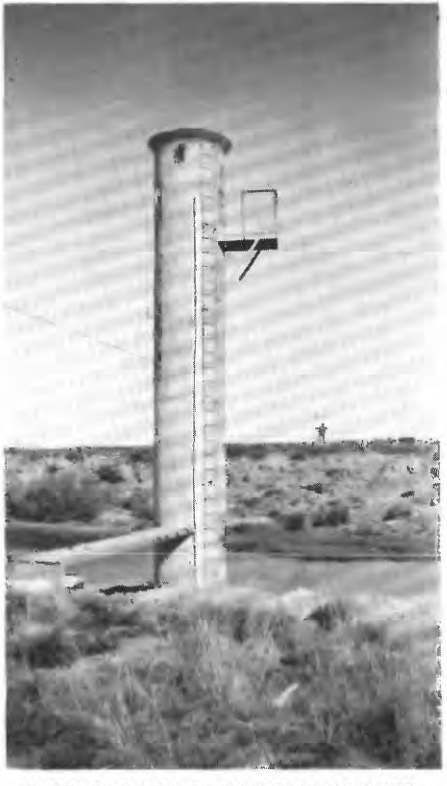
The data presented for each gaging station in the area covered by this report usually comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off. Skeleton rating tables are published except for those stations whose 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 (except when it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum represents the lowest discharge, unless otherwise qualified. The peak discharge for the year with the time of its occurrence is given below the table of monthly discharge for some stations. Selected lower peaks are also given if the peak discharge exceeded the mean discharge for that day by more than 10 percent. This supplementary information is generally not given for stations having drainage areas of less than 10 square miles or more than 10,000 square miles.

The table of daily discharge gives, for stations equipped with nonrecording gages, the discharge in second-feet corresponding to once-daily readings of the gage or the mean of twice-daily readings. For flashy floods the mean daily 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 mean daily gage height. For stations subject to such fluctuation the mean daily gage height may not indicate the true mean daily discharge, which must be obtained by averaging the discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining the mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the figures for that month given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge and not the discharge when the water surface was at crest height. Likewise, in the column headed "Minimum" the quantity

A. SABINE RIVER NEAR GLADEWATER, TEX.



B. PECOS RIVER AT RED BLUFF, N. MEX.

C. COLORADO RIVER NEAR EAGLE LAKE, TEX.

GAGING-STATION STRUCTURES.

given is the minimum daily discharge. The column headed "Mean" gives the average flow in cubic feet per second during the month.

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 observation 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 indicated by monthly means at some stations may vary widely from natural yield, owing to diversions, amount consumed, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations figures of "second-feet per square mile" and "run-off in inches" are not published unless reservoir records are included indicating the extent of the regulation, or 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 run-off 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, so that 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 gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published, and that greater degrees of refinement in computations and records may be warranted with the increase in data and the use of improved equipment.

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 in regard to 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., Georgia School of Technology.
Augusta, Maine, Statehouse.
Boston, Mass., 945 Post Office Building.
Charlottesville, Va., House B, University 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., 203 Federal Building.
Indianapolis, Ind., 316 Federal Building.
Louisville, Ky., 652 Federal Building.
Madison, Wis., 666 State Office Building.
Montgomery, Ala., 507 Post Office Building.
Ocala, Fla., Post Office Building.
St. Paul, Minn., 808 New Post Office Building.
South Charleston, W. Va., Armor Park School Building.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex.

West of the Mississippi River:
Austin, Tex., 300 State Highway Building.
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.
Los Angeles, Calif., G-31 Post Office and Courthouse.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
St. Louis, Mo., 906 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 208 Federal Office Building.
Santa Fe, N. Mex., 204 United States Courthouse.
Tacoma, Wash., 406 Federal Building.
Topeka, Kans., 305 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.

Stream-flow data in reports of the Geological Survey--Continued

Report	Character of data	Year
W 15.....	Descriptions, measurements, and gage heights for streams east of the Mississippi River and Missouri River and tributaries above Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights for 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 for streams east of the Mississippi River and Missouri River and tributaries.	1898.
W 28.....	Measurements, ratings, and gage heights for 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.- The reports that contain records for years after 1901 are given in the 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 1939. The data for any particular station will, in general, be found in the reports covering the years during 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, and 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.

Numbers of water-supply papers containing results of stream measurements, 1899-1939

(For basins included see p. 3)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b 35, 35	36	36	36	c 36, 37	37	37	d 37, 38	38, e 39	38, f 39	38	38	38
1900 g...	47, h 48	48	48, i 49	49	49	49, j 50	50	50	50	51	51	51	51	51
1901....	65, 75	65, 75	65, 75	65, 75	k 66, 66, 75	66, 75	k 65, 66, 75	66, 75	66, 75	66, 75	66, 75	56, 75	66, 75	66, 75
1902....	82	b 82, 83	83	m 82, 83	k 83, 85	84	k 83, 84	84	85	85	85	85	85	85
1903....	97	b 97, 98	98	97	k 98, 99, n 100	99	k 98, 99	99	100	100	100	100	100	100
1904....	o 124, p 125, q 126	q 126, 127	128	129	k 128, 130	130, r 131	k 128, 131	132	133	133, s 134	134	135	135	135
1905....	o 155, p 166, q 167	q 167, 168	169	170	171	172	k 169, 173	174	175, t 177	175, s 177	177	178	178	u 177, 178
1906....	o 201, p 202, q 203	q 203, 204	205	206	207	208	k 205, 209	210	211, t 213	212, s 213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s 251	251	252	252	252
1909....	261	262	263	264	265	266	267	268	269	270, s 271	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	305	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
1935....	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

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. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Wissahickon and Schuylkill Rivers to James River.
i 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 junction with Gila River.
u Rogue, Umpqua, and Siletz Rivers only.

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, Surface water supply of the southern 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, 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
395	1914	Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization, 1916.
617	1927	Colorado River, upper (Colo., Utah), and its utilization, 1929.
517	1920	Great Salt Lake Basin, Water powers of, 1924.
618	1926	Green River (Utah, Wyo.) and its utilization, 1930.
198	1906	Kennebec River Basin (Maine), Water resources of, 1907.
		Milk River. (See St. Mary and Milk Rivers.)
536	1920	New-Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of, 1925.
279	1909	Penobscot River Basin (Maine), Water resources of, 1912.
192	1906	Potomac River Basin (Md., Va., W. Va., etc.), 1907.
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, 1920.
109	1904	Susquehanna River Basin (Pa., Md.), Hydrography of, 1905.

In addition to the records contained in the reports noted above, records of discharge have been published 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 following table 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.
Georgia.....	1920	Bull. 38, Water powers of Georgia....	Geological Survey of Georgia.
Illinois....	1937	Stream-flow data of Illinois.....	Division of Waterways.
Do.....	1911	Water resources of Illinois.....	Rivers and Lakes Commission.
Indiana.....	1927	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	[a]1930	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1932	Stream-flow records of Iowa.....	Iowa State Planning Board.

a Includes records for the years 1927-30.

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State reports containing compilation of records of discharge--Continued

State	Year ending	Report	Issued by
Kansas.....	[b]1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	[c]1924	....do.....	Do.
Do.....	[d]1928	....do.....	Kansas State Board of Agriculture.
Do.....	[e]1935	Stream-flow data of Kansas.....	Do.
Kentucky...	1920	Surface waters of Kentucky.....	Kentucky Geological Survey.
Minnesota..	1912	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri...	1926	Reports of Bureau of Geology and Mines, vol. 20, 2d series, Water Resources of Missouri.	Missouri Geological Survey and Water Resources.
Nebraska...	1914	1st hydrographic report.....	Bureau of Water Power, Irrigation and Drainage.
Do.....	[f]1928	2d hydrographic report.....	Do.
New Jersey.	1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	[g]1934	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.....	[h]1936	Bull. 39, Discharge records of North Carolina streams.	Do.
Oregon.....	1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	[i]1924	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	[j]1930	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	[k]1936	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1911	Report of Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	[l]1932	Stream-flow records of Pennsylvania....	Department of Forests and Waters.
Tennessee..	1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	[m]1930	Bull. 40, Surface waters of Tennessee..	Do.
Utah.....	1905	5th Biennial Report, State Engineer....	Office of the State Engineer.
Virginia...	1927	Bull. 31, Water resources of Virginia..	Conservation and Development 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.....	[n]1923	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

b Includes records for the years 1895-1919.
c Includes records for the years 1919-24.
d Includes records for the years 1924-28.
e Includes records for the years 1928-35.
f Includes records for the years 1914-28.
g Includes records for the years 1928-34.
h Includes records for the years 1889-1936; records of daily and monthly discharge are not included.
i Includes records for the years 1914-24.
j Includes records for the years 1924-30.
k Includes records for the years 1930-36.
l Includes records for the years 1928-32.
m Includes average weekly discharge for the years 1920-30.
n Includes records for the years 1914-23.

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

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 1938 to September 1939 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	Operated by	Remarks
Alamito Creek.....	Near Presidio, Tex...	1932-39	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Arrey Canal.....	Near Arrey, N. Mex...	1918, 1920-39	Bureau of Reclamation...	Unpublished.
Devils River.....	Near Del Rio, Tex....	*1931-39	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
East Side canal....	At Mesilla Dam, near Mesilla Park, N. Mex.	1916-18 1920-39	Bureau of Reclamation...	Unpublished.
Goodenough Springs.	Near Comstock, Tex...	*1931-39	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Las Vacas Arroyo...	Near Villa Acuna, Coahuila, Mexico	1938-39	International Boundary Commission, Mexican Section.	Do.
Leasburg Canal.....	At head, at Selden, N. Mex.	1917-18, 1920-39	Bureau of Reclamation...	Unpublished.
Pecos River.....	Near Comstock, Tex...	*1931-39	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Pinto Creek.....	Near Del Rio, Tex....	*1931-39	....do.....	Do.
Rio Alamo.....	Mier, Tamaulipas, Mexico.	1925-39	International Boundary Commission, Mexican Section.	Do.
Rio Escondido.....	At Villa Fuente, Coahuila, Mexico.	1922-39	....do.....	Records for 1923-24 and 1928 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 Fuente; records for 1932-39 published in water bulletins of International Boundary Commission.
Rio Grande.....	Below American Dam, near El Paso, Tex.	1938-39	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Do.....	Below Brownsville, Tex.	1934-39	....do.....	Do.
Do.....	County line station near El Paso, Tex.	1938-39	....do.....	Do.
Do.....	Near Del Rio, Tex.	*1931-39	....do.....	Do.
Do.....	Eagle Pass, Tex.....	*1931-39	....do.....	Do.
Do.....	Near El Paso, Tex...	*1931-39	....do.....	Do.
Do.....	Below old Fort Quitman, Tex.	*1931-39	....do.....	Do.
Do.....	Hidalgo, Tex.....	*1931-39	....do.....	Do.
Do.....	At Johnson ranch, Tex.	1936-39	....do.....	Do.
Do.....	At Island station near El Paso, Tex.	1938-39	....do.....	Do.
Do.....	Juarez, Mexico.....	1938-39	International Boundary Commission, Mexican Section.	Do.
Do.....	Langtry, Tex.....	*1931-39	International Boundary Commission, U. S. Section.	Do.
Do.....	La Nutria, 9.5 miles above Candelaria, Tex.	1935-39	....do.....	Do.
Do.....	Laredo, Tex.....	*1926-39	International Boundary Commission, Mexican Section.	Do.
Do.....	Leasburg Dam, at Selden, N. Mex.	1919-39	Bureau of Reclamation...	Unpublished.
Do.....	Matamoras, Tamaulipas, Mexico.	†1926-39	International Boundary Commission, Mexican Section.	Published in water bulletins of International Boundary Commission.
Do.....	At Percha Dam, near Arrey, N. Mex.	1922-39	Bureau of Reclamation...	Unpublished.
Do.....	Mercedes Bridge station, Tex.	1932-39 (fragmentary)	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Do.....	Above Presidio, Tex..	*1926-39	....do.....	Do.
Do.....	Below Presidio, Tex..	*1926-39	....do.....	Do.
Do.....	Rio Grande City, Tex.	1932-39	....do.....	Do.
Do.....	Roma, Tex.....	*1925-28 1931-39	....do.....	Do.

*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	Operated by	Remarks
Rio Grande.....	Zapata, Tex.....	1932-39	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Rio Salado.....	Near Guerrero, Tamaulipas, Mexico.	1923-39	International Boundary Commission, Mexican Section.	Do.
Rio San Diego.....	Jimenez, Coahuila, Mexico.	1924-39	....do.....	Records for 1924-28 published in report of International Water Commission, United States and Mexico, U. S. Section; records for 1932-38 published in water bulletins of International Boundary Commission.
Rio San Juan.....	Santa Rosalia, Tamaulipas, Mexico.	1923-39	....do.....	Published in water bulletins of International Boundary Commission.
Rio San Rodrigo....	Near El Moral, Coahuila, Mexico.	1922-39	....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 1932-39 published in water bulletins of International Boundary Commission.
San Felipe Creek...	Near Del Rio, Tex....	1931-39	International Boundary Commission, U. S. Section.	Published in water bulletins of International Boundary Commission.
Terlingua Creek....	Near Terlingua, Tex..	1932-39	....do.....	Do.
West Side canal....	At Mesilla Dam, near Mesilla Park, N. Mex.	1916-18, 1920-39	Bureau of Reclamation.	Unpublished.

Note.- The Soil Conservation Service made studies of run-off from 6 areas of less than 100 acres each near Garland, Tex.; 20 areas, of which 12 were less than 50 acres and 8 were between 50 and 6,000 acres, near Riesel, Tex.; 3 areas of less than 800 acres each near Santa Fe, N. Mex.; and 3 areas of less than 210 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 as follows: In Colorado, with the State engineer, M. C Hinderlider; in Louisiana, with the Department of Conservation, W. G. Rankin and E. S. Clements, directors; in New Mexico, with the State engineer, T. M. McClure, and the Interstate Stream Commission, T. M. McClure, secretary; and in Texas, with the Board of Water Engineers, consisting of C. S. Clark, chairman, A. H. Dunlap, and J. W. Pritchett.

Funds for the construction and operation of gaging stations in the Pecos River Basin in New Mexico and Texas were allocated by the Public Works Administration and the Bureau of Reclamation to the Pecos River Joint Investigation, sponsored by the National Resources Planning Board.

Funds for the maintenance and operation of gaging stations on the Indian Pueblo lands in New Mexico were allocated by the Office of Indian Affairs.

Funds for the construction and operation of one gaging station in the Pecos River Basin were allocated by the Corps of Engineers, U. S. Army, from funds made available by the Flood Control Act.

Acknowledgments are due the Corps of Engineers, United States Army, the International Boundary Commission (U. S. Section), the Bureau of Reclamation, and the Weather Bureau for assistance in collecting the records published herein.

Assistance in collecting records was rendered also by the following organizations: In New Mexico, by the Agua Pura Co., the Alamogordo Community Ditch, the town of Alamogordo, and the New Mexico Power Co., in Texas, by 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, and the Brazos River Conservation and Reclamation District.

DIVISION OF WORK

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; in New Mexico, Berkeley Johnson; and in Texas, C. E. Ellsworth.

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.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during year, 2,510 second-feet Feb. 8 (gage height, 18.40 feet, from graph based on gage readings); minimum, 0.4 second-foot May 15, 16 (gage height, 1.17 feet).

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

Rating tables, water year 1938-39 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 15

1.1	0.1	4.8	143	15.0	1,340
1.5	2.3	6.6	277	16.0	1,560
2.0	7.6	9.0	500	17.0	1,880
2.5	19.7	11.0	720	18.3	2,460
3.7	75	13.0	1,010		

May 16 to Sept. 30

1.2	0.5	2.5	28.2
1.6	4.2	3.5	71
2.0	12.0	4.8	143

Note.- Same as preceding table above 4.8 feet.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	2.0	8.3	331	2,000	1,100	1,520	1.5	0.8	0.8	1,550	86
2	9.3	2.0	6.0	221	2,310	1,180	1,220	1.5	100	1.1	1,560	81
3	8.6	2.0	7.5	164	2,360	1,230	901	1.3	237	.9	1,450	76
4	6.2	283	5.5	129	2,310	1,250	424	1.3	367	.6	1,320	71
5	5.0	550	5.0	123	2,260	1,150	192	1.0	592	.6	1,170	71
6	4.0	647	3.1	190	2,410	931	129	1.5	647	18	866	66
7	3.6	695	6.0	358	2,410	683	117	1.4	614	19	592	66
8	3.1	581	18	368	2,460	683	105	1.7	462	8.8	550	71
9	2.3	386	81	237	2,460	707	99	1.8	295	3.3	500	94
10	2.3	237	129	150	2,260	603	87	1.4	164	1.8	377	78
11	2.3	157	129	168	2,000	472	65	1.0	91	27	261	58
12	2.0	111	81	535	1,720	313	45	.8	58	63	185	49
13	1.6	81	50	1,010	1,270	206	29	.6	37	131	143	40
14	1.7	62	33	1,270	746	157	18	.5	28	113	113	32
15	1.7	47	25	1,480	405	117	13	.4	21	71	86	26
16	1.7	35	20	1,630	237	87	11	1.1	18	51	81	23
17	1.7	24	17	1,690	192	65	10	.8	13	34	71	16
18	1.7	24	13	1,880	185	40	8.3	16	8.1	22	446	24
19	2.4	36	9.7	2,080	164	31	7.3	91	13	16	1,170	28
20	3.7	65	7.6	2,210	143	23	6.9	66	26	8.6	1,480	24
21	9.3	105	8.6	2,080	253	20	6.5	86	42	5.9	1,520	19
22	19	93	4.8	1,810	322	16	4.5	86	49	3.6	1,400	16
23	21	65	6.8	1,340	349	11	2.7	58	48	2.4	1,090	14
24	18	55	25	888	253	8.6	2.3	44	26	21	695	12
25	23	40	168	636	260	22	2.0	38	18	12	462	11
26	10	21	550	550	625	434	1.8	22	14	8.8	322	7.9
27	7.9	15	856	424	931	814	5.2	12	8.6	7.9	229	6.2
28	6.2	15	1,040	304	1,090	1,140	3.6	5.9	5.5	16	178	6.4
29	4.7	11	1,060	492	-	1,340	1.8	3.7	1.9	299	143	7.3
30	3.5	9.7	856	1,180	-	1,380	1.7	2.3	1.2	931	125	11
31	2.6	-	520	1,580	-	1,340	-	1.4	-	1,290	101	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	199.6	23	1.6	6.44	396
November	4,456.7	695	2.0	149	8,840
December	5,749.9	1,060	3.1	185	11,400
Calendar year	-	-	-	-	-
January	27,496	2,210	123	887	54,540
February	34,385	2,460	143	1,228	68,200
March	17,553.6	1,380	8.6	566	34,820
April	5,039.6	1,520	1.7	168	10,000
May	551.9	91	.4	17.8	1,090
June	4,006.1	647	.8	134	7,950
July	3,189.1	1,290	.6	103	6,330
August	20,276	1,580	71	654	40,220
September	1,190.8	94	6.2	39.7	2,360
Water year 1938-39	124,094.3	2,460	.4	340	246,100

Bayou Des Cannes near Eunice, La.

Location.- Wire-weight gage, lat. 30°29'00", long. 92°29'25", in SW¼SE¼ 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, La.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during year, 611 second-feet June 6 (gage height, 10.86 feet, from graph based on gage readings); no flow May 7, 10-18, July 10.

Remarks.- Records fair. Gage read twice daily. Diversions above station for irrigation. Some regulation May to October caused by storage behind small diversion dams for irrigation.

Rating tables, water year 1938-39 (gage height, in feet, and discharge, in second-feet)

Oct. 23 to Apr. 26						Apr. 27 to Sept. 30					
1.1	0.3	3.2	39	8.7	391	1.0	0	2.2	16	8.0	337
1.6	2.7	5.0	118	10.5	571	1.2	0.5	3.4	50	9.3	451
2.0	8.3	6.0	167			1.5	2.0	4.0	75	10.8	601
2.7	24	7.3	265			1.7	5.5	6.0	189		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		1.1	3.1	63	337	301	61	0.3	29	0.1	313	27
2		1.2	2.9	27	346	411	95	.3	99	.2	230	26
3		1.4	2.7	15	225	471	63	.2	258	58	177	35
4		208	2.6	14	137	501	29	.1	442	50	171	38
5		285	4.2	18	99	411	16	.1	561	19	171	38
6		249	11	24	213	301	10	0	601	12	265	38
7		209	12	27	391	188	6.9	0	581	3.7	370	41
8		145	27	25	491	85	4.7	.1	471	1.0	415	32
9		81	71	27	551	47	3.1	0	258	.1	397	21
10		57	83	33	541	27	2.4	0	117	1.4	297	16
11	1	19	75	51	411	19	1.8	0	58	129	177	11
12		11	49	100	160	14	1.5	0	33	289	88	11
13		8.9	27	241	45	10	1.4	0	22	289	56	13
14		6.6	16	337	27	8.3	1.0	0	5.4	183	25	22
15		5.3	8.9	401	34	6.4	.8	0	1.2	100	17	17
16		.4	1.5	421	95	5.0	.8	0	.3	58	18	10
17		2.5	3.5	441	122	4.0	1.1	0	.4	38	12	9.2
18		15	4.7	511	91	3.3	1.1	2.5	.9	22	142	4.8
19		34	3.6	541	49	2.8	.9	15	1.0	12	313	3.1
20		110	3.1	551	63	2.4	.8	17	8.5	7.7	361	3.0
21	2	132	2.9	571	24	2.0	.7	20	5.1	4.6	370	2.2
22		107	2.9	491	21	1.9	.6	85	1.5	1.6	345	1.5
23	2.1	61	3.6	257	21	1.9	.5	75	.6	.9	251	1.2
24	1.6	54	5.0	73	16	1.6	.5	54	1.0	.5	141	1.0
25	1.1	19	84	33	39	5.6	.5	36	6.5	.1	75	.9
26	1.0	13	319	33	217	251	.4	22	4.2	.1	50	.7
27	1.0	12	411	55	364	431	.5	13	1.6	.5	33	.6
28	.8	6.2	441	63	364	521	.7	16	1.2	2.4	29	.4
29	.8	5.2	441	117	-	431	.6	15	.8	6.3	33	.4
30	.9	3.3	346	274	-	241	.4	23	.4	147	36	1.0
31	1.1	-	188	292	-	97	-	35	-	305	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	34.4	2.1	0.8	1.11	68
November	1,817.1	283	.4	60.6	3,600
December	2,656.2	441	1.5	85.7	5,270
Calendar year	-	-	-	-	-
January	6,127	571	14	198	12,150
February	5,494	551	16	196	10,900
March	4,803.2	521	1.6	155	9,530
April	307.7	95	.4	10.3	610
May	429.6	85	0	13.9	852
June	3,570.6	601	.3	119	7,080
July	1,742.2	305	.1	56.2	3,460
August	5,395	415	12	174	10,700
September	426.0	41	.4	14.2	845
Water year 1938-39	32,805.0	601	0	89.9	65,060

Calcasieu River near Oberlin, La.

Location.- Water-stage recorder, lat. 30°38'25", long. 92°48'50", in NW¼NE¼ 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 mouth of Whiskey Chitto Creek. Prior to August 18, 1939, wire-weight gage at same site and datum.

Drainage area.- 753 square miles (revised).

Records available.- August 1922 to January 1925, September 1938 to September 1939.

Extremes.- Maximum discharge during period September 1938 to September 1939, 9,670 second-feet Jan. 18 (gage height, 17.60 feet, from graph based on gage readings); minimum, 49 second-feet Sept. 27 (gage height, 3.16 feet).
1922-25, 1938-39: Maximum discharge, 34,700 second-feet Apr. 7, 1923 (gage height, 18.48 feet, former datum) from rating curve extended above 14,000 second-feet; minimum, 42 second-feet Aug. 16, 1924.

Remarks.- Records good. Wire-weight gage read twice daily. Water used by paper mill at Elizabeth is pumped from wells and later discharged into Mill Creek about 20 miles upstream from station. This discharge, estimated at about 5 second-feet, is continuous and fairly constant.

Discharge in second-feet, Sept. 12-30, 1938

Sept.12	94	Sept.19	86	Sept.26	78
13	94	20	82	27	78
14	111	21	82	28	74
15	124	22	90	29	67
16	106	23	90	30	67
17	94	24	90		
18	86	25	78		

Note.- Mean discharge Sept. 12-30, 87.9 second-feet; run-off, 3,310 acre-feet.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	54	78	503	2,750	2,080	545	129	202	86	1,340	96
2	64	54	76	524	2,620	2,110	503	120	179	144	1,220	91
3	60	59	82	545	2,230	2,190	440	102	202	124	1,020	86
4	60	124	82	587	1,870	2,680	379	102	259	199	660	80
5	60	162	78	783	2,080	3,980	359	106	503	339	1,190	77
6	60	172	78	1,080	2,190	4,090	359	106	738	440	1,080	74
7	60	129	86	1,020	2,400	3,580	482	106	694	482	760	72
8	60	111	94	852	2,970	2,970	503	106	587	482	545	70
9	57	139	102	694	3,130	2,500	482	102	482	419	440	68
10	57	160	102	900	2,890	2,190	440	98	461	399	199	65
11	57	186	98	1,550	2,350	1,830	440	94	503	359	139	65
12	57	202	102	2,150	2,190	1,380	461	94	545	299	120	69
13	57	211	106	2,890	2,110	950	482	86	566	299	111	67
14	57	194	129	4,550	2,040	783	482	86	524	239	102	64
15	57	172	139	6,900	1,870	672	440	82	379	172	102	61
16	57	154	154	6,690	1,660	566	359	82	259	144	98	59
17	54	144	160	6,460	1,520	503	279	82	186	129	94	63
18	54	134	166	9,370	1,100	461	186	101	172	124	98	63
19	57	124	149	8,020	925	419	194	715	149	90	156	57
20	67	111	134	6,100	950	359	172	1,900	134	102	193	55
21	67	102	120	4,930	1,000	319	160	1,970	120	102	429	54
22	60	94	111	3,880	975	299	154	1,550	115	102	379	52
23	57	86	106	3,130	900	279	172	875	111	98	339	52
24	57	90	120	2,680	806	239	239	716	106	94	389	52
25	57	86	379	2,350	829	220	279	716	102	90	419	50
26	64	82	524	2,110	1,380	1,160	249	829	98	82	339	50
27	64	78	587	1,900	2,010	1,590	211	1,100	94	90	209	49
28	60	78	461	1,660	2,080	1,220	166	1,100	90	82	151	50
29	57	78	419	1,620	-	900	149	950	90	212	126	51
30	54	78	419	2,270	-	650	139	440	86	1,080	112	52
31	54	-	461	2,620	-	566	-	259	-	1,590	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,830	67	54	59.0	3,630
November	3,648	211	54	122	7,240
December	5,904	587	78	190	11,710
Calendar year	-	-	-	-	-
January	91,318	9,370	503	2,946	181,100
February	51,825	3,130	806	1,851	102,800
March	43,735	4,090	220	1,411	86,750
April	9,905	545	139	330	19,650
May	14,904	1,970	82	481	29,560
June	6,736	738	86	291	17,330
July	6,693	1,590	82	280	17,240
August	12,651	1,340	94	408	25,090
September	1,914	96	49	63.8	3,800
Water year 1938-39	255,063	9,370	49	699	505,900

Calcasieu River near Kinder, La.

Location.- Water-stage recorder, lat. 30°30'10", long. 92°54'55", in NW¼SE¼ sec. 30, T. 6 S., R. 5 W. Louisiana meridian, at bridge on State Highway 7, 0.5 mile downstream from mouth of Whiskey Chitto Creek and 4 miles west of Kinder. Prior to July 10, 1939, wire-weight gage at same site and datum.

Drainage area.- 1,700 square miles.

Records available.- August 1922 to January 1925, October 1938 to September 1939.

Extremes.- Maximum discharge during year, 17,000 second-feet Jan. 16 (gage height, 17.96 feet, from graph based on gage readings); minimum, 294 second-feet Sept. 28 (gage height, 2.38 feet).

1922-25, 1938-39: Maximum discharge, 68,000 second-feet Jan. 23, 1924 (gage height, 21.69 feet, former datum) from rating curve extended above 40,000 second-feet; minimum, 200 second-feet Aug. 9, 10, 1924 (gage height, 0.81 foot, former datum).

Remarks.- Records good. Wire-weight gage read twice daily Oct. 1 to July 10. Water used by paper mill at Elizabeth is pumped from wells and later discharged into Mill Creek about 36 miles upstream from station. This discharge, estimated at about 5 second-feet, is continuous and fairly constant. Diversion from left bank of Calcasieu River 5 miles above station for irrigation.

Rating tables, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 12 to Jan. 8, Jan. 23, 24, June 4, 5)

Oct. 1 to June 5

2.6	347	9.5	2,810	15.0	8,240
3.4	568	10.8	3,590	16.5	12,100
4.2	821	12.0	4,500	17.9	16,600
8.0	2,140	13.5	6,030		

June 6 to Sept. 30

2.3	272	8.0	2,290	12.0	4,500
3.0	478	9.5	2,960		
5.0	1,180	10.8	3,680		

Note.- Same as preceding table above 12.0 feet.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	347	482	1,300	4,960	4,860	1,230	510	628	356	3,440	379
2	373	347	482	1,250	5,060	5,060	1,130	539	722	430	2,570	368
3	373	347	482	1,230	4,770	4,860	1,060	510	722	737	2,180	376
4	373	722	454	1,250	4,170	4,170	957	482	690	807	1,630	365
5	373	855	454	1,680	4,170	3,940	889	482	923	702	1,480	365
6	373	1,330	510	2,300	4,330	4,250	923	464	1,330	702	1,960	365
7	373	1,600	628	2,510	4,500	4,590	889	454	1,370	702	1,660	376
8	373	1,680	659	2,300	4,500	4,500	957	427	1,220	650	1,300	365
9	373	1,330	628	1,710	4,410	4,090	991	427	1,070	632	930	359
10	373	923	659	1,570	4,330	3,520	991	400	930	615	650	353
11	347	855	787	2,340	4,010	3,030	889	400	895	755	528	345
12	347	787	754	3,900	3,660	2,510	889	400	895	755	462	345
13	347	722	659	6,150	3,270	2,020	889	373	860	685	415	350
14	347	659	598	8,440	3,090	1,640	889	373	842	615	400	339
15	347	628	598	12,700	2,810	1,430	889	373	720	580	385	339
16	347	598	598	16,600	2,560	1,300	821	373	580	494	365	334
17	347	568	598	15,900	2,300	1,200	754	373	478	400	385	331
18	347	539	628	14,500	2,060	1,130	690	427	462	350	430	339
19	373	539	598	14,200	1,850	1,060	690	1,130	415	320	632	336
20	373	539	598	12,700	1,850	991	722	2,810	400	311	667	322
21	427	568	568	9,100	2,140	923	690	3,870	415	308	1,000	317
22	510	539	539	7,210	2,340	889	628	4,090	446	336	1,370	311
23	510	510	539	5,260	2,220	855	598	3,210	462	311	1,100	311
24	482	510	722	4,330	1,880	821	598	1,820	462	311	895	308
25	427	482	991	4,010	1,780	821	628	1,230	430	320	860	306
26	400	482	1,600	3,590	2,810	2,230	628	1,130	400	325	825	303
27	373	482	2,460	3,210	4,250	3,330	659	1,200	362	317	667	297
28	373	510	2,660	2,810	4,770	3,150	628	1,200	350	314	511	303
29	347	510	2,340	2,810	-	2,660	598	1,090	342	950	446	308
30	347	482	1,920	3,800	-	1,880	568	889	339	3,010	415	334
31	347	-	1,500	4,590	-	1,400	-	690	-	3,860	400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11,822	510	347	381	23,450
November	20,990	1,680	347	700	41,630
December	27,693	2,660	454	893	54,930
Calendar year	-	-	-	-	-
January	175,110	16,600	1,230	5,649	347,300
February	94,850	5,060	1,780	3,388	188,100
March	79,010	5,060	821	2,549	156,700
April	24,362	1,230	568	812	48,320
May	32,136	4,090	373	1,037	63,740
June	20,160	1,370	339	672	39,990
July	21,960	3,860	308	708	43,560
August	30,958	3,440	365	999	61,400
September	10,149	379	297	338	20,130
Water year 1938-39	549,200	16,600	297	1,505	1,089,000

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 to September 1939.

Extremes.- Maximum discharge during period, 2,210 second-feet May 19 (gage height, 11.47 feet, from graph based on gage readings); minimum discharge observed, 102 second-feet Sept. 19 (gage height, 3.72 feet).

Remarks.- Records fair. Gage read twice daily.

Rating tables, water year 1938-39 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used May 21 to June 3)

Jan. 27 to July 27				July 28 to Sept. 30			
4.0	146	7.5	800	3.7	102	6.5	599
5.0	312	9.5	1,420	4.2	178	7.5	861
6.5	564	11.4	2,170	5.5	397	8.8	1,250
7.0	665						

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	1,490	1,930	413	279	245	229	698	154
2				-	1,390	1,810	396	262	229	446	491	154
3				-	1,070	1,220	379	245	245	642	380	154
4				-	1,320	950	363	245	379	446	397	146
5				-	1,490	800	346	245	513	346	433	131
6				-	1,530	743	363	229	446	312	433	154
7				-	1,360	716	346	229	463	245	346	154
8				-	1,100	621	379	229	446	212	312	154
9				-	950	582	396	229	396	170	279	154
10				-	771	547	363	229	346	170	246	154
11				-	743	513	346	229	346	170	245	138
12				-	716	513	329	229	346	363	212	138
13				-	665	480	312	229	279	279	162	116
14				-	582	463	312	229	195	229	162	123
15				-	547	430	296	229	212	229	170	138
16				-	530	413	279	212	245	212	178	138
17				-	530	396	312	220	229	186	195	138
18				-	530	396	329	390	220	178	195	123
19				-	547	379	346	1,970	220	162	212	116
20				-	690	363	363	2,170	220	154	413	123
21				-	950	363	329	1,890	220	154	833	131
22				-	980	363	296	1,040	220	154	716	131
23				-	743	363	296	430	229	162	397	131
24				-	564	363	279	346	245	162	312	131
25				-	710	363	279	279	229	162	279	131
26				-	1,890	564	279	262	229	170	245	123
27				743	2,050	860	279	245	220	154	203	123
28				621	1,930	800	296	245	212	178	212	116
29				716	-	690	279	229	212	880	178	109
30				1,190	-	530	279	229	212	1,280	162	123
31				1,530	-	446	-	245	-	805	154	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October						
November						
December						
Calendar year						
January 27-31	4,800	1,530	621	960	1.88	0.35
February	28,358	2,050	530	1,013	1.99	2.07
March	19,970	1,930	363	644	1.26	1.45
April	9,859	413	279	329	.645	.72
May	13,968	2,170	212	451	.884	1.02
June	8,448	613	195	282	.553	.62
July	9,641	1,280	154	311	.610	.70
August	9,849	833	154	318	.624	.72
September	4,049	154	109	135	.265	.30
Water year	-	-	-	-	-	-

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 confluence with Whiskey Chitto Creek.

Drainage area.- 238 square miles.

Records available.- January to September 1939.

Extremes.- Maximum discharge during period, 1,110 second-feet Feb. 26 (gage height, 17.58 feet, from graph based on gage readings); minimum, 49 second-feet Sept. 20-28; minimum gage height, 9.69 feet Sept. 24, 25.

Remarks.- Records fair. Gage read twice daily.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Apr. 2 to May 18)

9.7	49	11.2	176	13.5	443
10.2	81	11.8	234	15.0	678
10.7	120	12.5	299	17.5	1,060

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	925	1,060	164	88	99	125	266	58
2				-	678	859	152	88	103	88	249	58
3				-	505	458	130	84	107	81	136	58
4				-	678	366	120	81	103	81	77	58
5				-	727	299	116	77	103	74	107	55
6				-	646	276	111	77	99	74	120	55
7				-	551	266	111	77	95	71	120	55
8				-	427	249	111	77	95	67	111	55
9				-	381	226	125	77	92	64	107	55
10				-	325	199	120	77	88	64	95	55
11				-	299	209	111	74	88	64	88	55
12				-	287	199	103	74	88	64	74	52
13				-	266	188	99	74	84	64	71	55
14				-	241	188	95	71	81	64	67	52
15				-	226	176	95	67	77	64	92	52
16				-	234	164	95	67	74	61	120	52
17				-	234	152	95	67	74	61	103	52
18				-	218	152	116	107	74	61	81	52
19				-	249	141	125	520	74	61	74	52
20				567	489	135	120	842	81	61	74	49
21				427	582	135	111	842	88	58	74	49
22				352	396	130	103	842	84	58	77	49
23				276	276	130	92	412	81	55	88	49
24				266	226	130	88	170	77	55	88	49
25				299	309	141	88	130	77	55	88	49
26				299	1,060	427	84	111	74	58	77	49
27				266	1,040	598	84	99	74	58	74	49
28				241	1,040	489	88	95	74	64	67	52
29				272	-	338	88	92	71	417	61	61
30				727	-	226	88	95	144	842	61	64
31				892	-	188	-	99	-	793	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October						
November						
December						
Calendar year						
January 20-31	4,884	892	241	407	1.71	0.76
February	13,515	1,060	218	483	2.03	2.11
March	8,894	1,060	130	287	1.21	1.40
April	3,226	164	84	108	.454	.51
May	5,755	842	67	186	.782	.90
June	2,623	144	71	87.4	.367	.41
July	3,927	842	55	127	.534	.62
August	3,045	266	58	98.2	.413	.48
September	1,605	64	49	55.5	.225	.25
Water year	-	-	-	-	-	-

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 International-Great Northern Railroad bridge and 16.5 miles upstream from Lake Fork of Sabine River. Zero of gage is 304.2 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,445 square miles.

Records available.- May to September 1939.

Extremes.- Maximum discharge during period, 488 second-feet June 25, July 3; maximum gage height, 8.24 feet June 25; no flow at times.
Maximum stage since about 1919, 20.6 feet Jan. 25, 1938, according to information furnished by local resident.

Remarks.- Records fair. Discharge for days of missing gage heights, Aug. 6 to Sept. 1, computed from graph drawn on basis of known range of stage and weather records. No large diversion above station.

Rating table for period May 12 to Sept. 30, 1939 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 27 to July 1)

0.6	0	1.4	2.9	4.0	108
.7	.2	1.5	5.7	5.0	180
.8	.5	2.0	14	6.0	260
.9	.8	2.5	29	7.0	358
1.0	1.1	3.0	49	8.0	464
1.2	1.7	3.5	76		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	40	55	0.1	0.1
2								-	79	300	.1	.1
3								-	38	445	0	0
4								-	23	313	0	0
5								-	36	180	0	0
6								-	80	108	0	0
7								-	122	98	0	0
8								-	67	33	0	0
9								-	173	18	0	0
10								-	399	10	0	0
11								-	416	6.6	0	0
12								*9.7	212	4.4	0	0
13								7.6	69	2.9	0	0
14								6.1	28	2.3	0	0
15								5.1	16	1.9	0	0
16								4.3	10	1.6	0	0
17								6.5	6.8	1.4	0	0
18								9.6	4.7	1.2	0	0
19								7.6	4.7	1.0	0	0
20								8.6	5.7	.9	0	0
21								11	4.3	.7	0	0
22								9.7	8.2	.5	0	0
23								40	192	.3	0	0
24								110	435	.2	0	0
25								140	435	.1	0	0
26								74	224	.1	0	0
27								38	96	0	0	0
28								37	46	0	0	0
29								156	29	0	0	0
30								96	39	.1	0	0
31								51	-	.3	0	0

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 12-31	827.9	156	4.3	41.4	1,640
June	3,338.4	435	4.3	111	6,620
July	1,586.5	445	0	51.2	3,150
August	.2	.1	0	.01	.4
September	.2	.1	0	.01	.4
Water year	-	-	-	-	11,410

Peak discharge.- June 11 (2 a.m.) 464 sec.-ft.; June 25 (2 a.m.) 488 sec.-ft.; July 3 (2 p.m.) 488 sec.-ft.
*Discharge based on partial gage-height record.

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. Zero of gage is 243.85 feet above mean sea level (Texas Reclamation Department bench mark based on Geological Survey datum).

Drainage area.- 2,846 square miles.

Records available.- October 1932 to September 1939.

Extremes.- Maximum discharge during year, 7,860 second-feet Mar. 5 (gage height, 28.75 feet); minimum, 5.6 second-feet Aug. 16.
1932-39: Maximum discharge, 40,600 second-feet Jan. 28, 1938 (gage height, 38.34 feet); minimum, that of Aug. 16, 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 good. Several small diversions above station for oil-field operations and municipal supply.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	22	66	234	890	6,770	2,540	388	220	142	16	14
2	12	22	78	214	790	7,170	2,870	436	199	176	14	14
3	12	28	122	202	1,020	7,440	3,170	464	279	214	14	12
4	12	36	114	192	1,150	7,720	3,360	398	221	342	14	14
5	12	46	110	185	1,270	7,790	3,490	297	261	464	15	20
6	12	94	118	178	1,190	7,790	3,590	234	243	464	15	17
7	12	148	132	175	1,020	7,650	3,620	200	234	342	15	13
8	12	154	122	176	830	7,380	3,620	190	223	223	14	11
9	12	193	107	334	730	6,970	3,460	180	239	161	13	9.7
10	13	261	102	521	673	6,300	2,950	166	229	119	13	10
11	12	205	97	559	616	5,150	2,230	159	202	98	12	10
12	12	146	89	894	540	3,670	1,820	154	333	86	12	9.1
13	12	113	86	1,220	474	2,100	1,760	144	426	71	14	9.1
14	12	95	83	1,190	490	1,090	1,790	146	369	56	13	9.4
15	12	86	80	1,190	741	693	1,660	142	238	48	7.0	9.4
16	12	78	78	1,130	730	559	1,260	132	153	42	5.6	9.7
17	14	72	79	972	741	502	830	164	107	36	7.3	8.5
18	25	71	81	830	1,330	454	578	261	80	32	14	8.8
19	22	70	83	730	1,990	426	578	342	81	27	18	8.5
20	22	69	84	692	2,940	407	730	415	67	24	17	8.2
21	22	67	89	616	3,360	398	950	342	79	22	10	9.1
22	24	64	88	540	3,520	388	1,220	270	92	21	6.8	8.5
23	24	62	212	483	3,660	369	1,480	229	89	18	12	9.1
24	20	60	324	502	4,040	369	1,790	175	81	18	10	8.8
25	20	58	315	559	4,820	398	2,030	141	73	18	14	8.2
26	21	57	454	692	5,660	578	2,230	149	292	16	15	7.9
27	22	57	464	770	6,050	673	2,280	225	407	16	17	7.9
28	22	59	388	790	6,410	892	1,850	241	360	16	16	8.2
29	22	51	342	890	-	1,360	1,080	190	225	18	16	8.2
30	22	64	315	1,020	-	1,760	483	154	170	18	14	7.9
31	22	-	270	1,040	-	2,140	-	170	-	16	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	517	25	12	16.7	1,030
November	2,598	261	22	86.6	5,150
December	5,172	464	66	167	10,260
Calendar year 1938	1,004,577.1	40,600	9.1	2,752	1,993,000
January	19,720	1,220	175	636	39,110
February	57,675	6,410	474	2,060	114,400
March	97,256	7,790	369	3,137	192,900
April	51,259	3,620	483	2,041	121,500
May	7,298	464	132	235	14,480
June	6,272	426	67	209	12,440
July	3,364	464	16	109	6,670
August	407.7	18	5.6	13.2	809
September	309.2	20	7.9	10.3	613
Water year 1938-39	261,827.9	7,790	5.6	717	519,400

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. Zero of gage is 204.2 feet above mean sea level (general adjustment of 1929), based on data of Corps of Engineers, U. S. Army.

Drainage area.- 3,586 square miles.

Records available.- January to September 1939.

Extremes.- Maximum discharge during period, 7,200 second-feet Mar. 12 (gage height, 20.2 feet, from graph based on gage readings); minimum observed, 9.6 second-feet Sept. 27, 28.

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

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

Rating table, Jan. 20 to Sept. 30, 1939 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 30 to May 18)

1.6	7.4	2.6	47	4.0	218	12.0	2,340
1.8	12.5	2.8	62	5.0	368	14.0	3,310
2.0	18.8	3.0	84	6.0	560	18.0	5,710
2.2	26.4	3.2	110	8.0	1,060	20	7,060
2.4	35.4	3.5	149	10.0	1,630	21	7,760

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	1,230	7,060	2,000	1,060	291	291	29	20
2				-	1,280	6,850	2,190	680	321	246	29	19
3				-	1,630	6,640	2,430	540	404	218	27	18
4				-	1,790	6,570	2,660	540	460	246	25	17
5				-	1,760	6,640	2,890	520	500	276	24	17
6				-	1,760	6,710	3,210	460	480	336	24	16
7				-	1,790	6,780	3,420	386	460	440	24	15
8				-	1,660	6,920	3,540	336	404	422	24	15
9				-	1,400	6,990	3,540	291	368	336	24	15
10				-	1,280	7,130	3,540	276	352	291	23	18
11				-	1,140	7,200	3,370	261	336	246	22	16
12				-	1,030	7,130	3,000	232	306	218	22	14
13				-	956	6,920	2,340	232	291	156	21	14
14				-	852	6,360	1,960	204	368	136	20	14
15				-	904	5,190	1,820	204	422	110	20	12
16				-	1,060	3,040	1,820	204	386	90	20	12
17				-	1,170	1,570	1,820	276	306	73	20	12
18				-	1,420	1,090	1,760	833	232	56	23	14
19				-	2,310	930	1,420	1,140	190	54	22	12
20				1,340	3,540	852	1,090	1,300	204	50	20	11
21				1,170	4,060	800	956	1,690	218	46	22	11
22				1,060	4,240	752	1,060	1,630	204	43	22	11
23				966	4,360	704	1,230	1,280	190	42	21	10
24				982	4,180	704	1,370	956	204	38	22	10
25				1,030	4,700	704	1,570	704	204	33	25	10
26				982	6,160	800	1,760	520	168	31	34	9.8
27				956	6,570	956	1,930	368	156	31	35	9.6
28				1,010	6,920	1,060	2,070	336	276	30	31	9.6
29				1,060	-	1,120	2,040	368	386	29	22	10
30				1,140	-	1,510	1,630	386	368	29	20	10
31				1,230	-	1,820	-	336	-	29	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January 20-31	12,916	1,340	956	1,076	25,620
February	71,152	6,920	852	2,541	141,100
March	119,502	7,200	704	3,855	237,000
April	65,436	3,540	956	2,181	129,800
May	18,549	1,690	204	598	36,790
June	9,455	500	156	315	18,750
July	4,672	440	29	151	9,270
August	737	35	20	23.8	1,460
September	402.0	20	9.6	13.4	797
The period	-	-	-	-	600,600

Sabine River at Logansport, La.

Location.- Chain gage, lat. 31°58', long. 94°00', on bridge of Houston East & West Texas (Southern Pacific) Railway at Logansport, De Soto Parish, and 3 miles upstream from Bayou Castor. Zero of gage is 147.72 feet above mean sea level (general adjustment of 1929).

Drainage area.- 4,858 square miles.

Records available.- July 1903 to September 1939 (January 1907 to September 1923, monthly records only, in Water Supply Paper 850).

Average discharge.- 33 years (1903-19, 1922-39), 2,795 second-feet.

Extremes.- Maximum discharge observed during year, 13,600 second-feet Mar. 4 (gage height, 25.98 feet); minimum observed, 16 second-feet Sept. 26-28.

1903-39: Maximum discharge observed, 47,000 second-feet May 5, 1915 (gage height, 36.9 feet); minimum observed for periods of daily records, 1903-6, 1923-39, that of Sept. 26-28, 1939.

Maximum stage known, 39.4 feet, present datum, in May 1884.

Remarks.- Records fair except those for periods of possible backwater, which are poor. Discharge for Sept. 10 computed from graph drawn on basis of estimated gage heights. Gage-height record furnished by U. S. Weather Bureau. Gage read once daily, oftener during high stages. Several small diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	50	144	1,050	2,290	*11,870	1,810	1,930	872	300	64	26
2	48	50	144	872	*2,400	13,100	2,020	1,660	740	376	58	24
3	45	52	*144	740	*4,940	13,600	2,210	1,370	620	376	58	21
4	45	*55	164	680	*8,660	13,600	2,370	828	560	328	52	18
5	42	*50	244	866	9,060	12,900	2,530	660	620	272	50	19
6	42	*60	446	1,400	8,920	12,300	2,730	600	784	258	50	55
7	40	*192	660	1,660	9,060	11,200	2,940	560	872	258	48	61
8	40	*740	680	1,510	8,920	10,400	3,300	540	850	286	45	44
9	40	*1,400	580	1,370	8,300	9,610	3,600	500	784	360	42	31
10	38	*1,600	446	1,670	7,460	9,060	3,750	482	700	410	40	24
11	35	1,420	376	2,740	6,500	8,720	3,750	446	600	392	38	21
12	35	1,140	328	4,740	5,400	8,420	3,700	392	540	328	38	21
13	35	850	300	*6,920	4,150	8,240	3,550	328	482	286	35	21
14	35	660	286	*8,120	3,030	8,060	3,260	286	446	258	33	20
15	35	520	258	*8,720	2,960	7,940	2,690	258	410	232	33	19
16	33	428	244	9,060	2,850	7,760	2,290	244	410	232	31	19
17	33	360	220	9,440	*3,030	7,640	2,290	*359	482	208	29	19
18	35	300	220	9,520	*3,500	7,100	2,290	*1,420	500	164	29	20
19	38	258	208	9,200	*5,460	4,840	2,250	*1,930	464	144	38	20
20	38	244	208	8,360	6,740	2,680	2,100	2,060	376	126	40	20
21	38	244	196	6,980	7,460	1,630	1,690	3,400	314	109	38	19
22	38	220	196	5,180	7,880	1,270	1,350	4,410	286	101	38	19
23	35	208	208	3,300	8,060	1,140	1,140	4,050	272	94	29	19
24	35	196	232	2,290	*8,240	1,050	1,120	3,120	272	87	26	18
25	42	184	*300	1,930	*8,420	1,060	1,190	2,210	272	76	24	17
26	52	174	*571	1,870	*8,720	1,420	1,350	1,670	258	76	24	16
27	50	164	*916	1,810	*9,280	1,840	1,540	1,120	258	73	33	16
28	50	154	1,320	1,690	*10,300	1,930	1,720	872	244	70	45	16
29	50	164	1,420	1,630	-	1,870	1,870	762	220	70	31	19
30	50	144	1,370	1,780	-	1,780	1,990	916	220	73	26	17
31	50	-	1,240	2,100	-	1,690	-	958	-	70	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,272	52	33	41.0	2,520
November	12,271	1,600	50	409	24,340
December	14,269	1,420	144	460	28,300
Calendar year 1938	1,477,857	25,400	33	4,049	2,931,000
January	119,098	9,520	680	3,842	236,200
February	181,990	10,300	2,290	6,500	361,000
March	205,710	13,600	1,050	6,636	408,000
April	70,390	3,750	1,120	2,346	139,600
May	40,221	4,410	244	1,297	79,780
June	14,728	872	220	491	29,210
July	6,493	410	70	209	12,880
August	1,191	64	24	38.4	2,360
September	699	61	16	23.3	1,390
Water year 1938-39	668,332	13,600	16	1,851	1,326,000

*Affected by backwater from Bayou Castor.

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. Zero of gage is 97.96 feet above mean sea level (general adjustment of 1929).

Drainage area.- 6,543 square miles.

Records available.- January to September 1939. October 1923 to August 1925, at Sabinetown, 7.4 miles downstream; records equivalent except those for periods of extreme low flow and intense local run-off in drainage of Palo Gaucho Bayou.

Extremes.- Maximum discharge observed during period, 17,700 second-feet Feb. 20 (gage height, 31.68 feet); minimum observed, 37 second-feet Sept. 24.
Maximum stage known, 48 feet about July 28, 1933, according to information furnished by observer.

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

Rating table, Jan. 19 to Sept. 30, 1939 (gage height, in feet, and discharge, in second-feet)

5.6	32.5	7.0	290	16.0	4,710
5.8	46.0	8.0	602	20.0	7,710
6.0	67.0	10.0	1,350	25.0	11,880
6.2	97.0	12.0	2,250	30.0	16,180
6.4	140	14.0	3,380	35.0	20,680

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	3,260	16,400	5,710	2,400	1,230	318	226	94
2				-	3,850	16,200	3,960	2,450	1,190	304	200	80
3				-	10,400	16,000	3,510	2,250	1,230	346	188	66
4				-	12,600	15,800	3,640	1,870	1,910	406	142	59
5				-	15,100	15,600	3,510	1,430	2,500	436	142	67
6				-	14,800	15,300	3,770	1,150	2,620	376	152	63
7				-	15,200	15,100	3,960	998	2,470	346	176	59
8				-	15,300	14,700	4,030	960	1,820	318	140	57
9				-	15,000	14,100	4,100	1,110	1,780	318	113	81
10				-	14,700	13,900	4,290	1,270	1,390	332	103	135
11				-	14,300	13,400	4,360	1,310	1,110	406	92	122
12				-	13,600	12,600	4,430	1,270	960	468	84	86
13				-	12,200	11,700	4,360	1,190	814	436	83	75
14				-	9,920	10,700	4,290	960	706	406	77	67
15				-	6,760	10,100	4,030	742	602	361	73	62
16				-	5,200	9,330	3,770	602	568	332	70	57
17				-	4,990	8,830	3,770	602	534	332	66	55
18				-	10,400	8,510	3,900	818	500	318	66	48
19				12,600	14,900	8,190	3,510	4,970	534	290	77	48
20				12,400	17,500	7,390	3,510	7,870	534	277	122	48
21				12,000	17,500	5,710	3,380	7,390	534	258	140	48
22				11,400	16,700	3,370	2,900	7,470	500	213	133	47
23				10,200	15,600	2,300	2,100	7,710	468	200	152	41
24				7,770	14,600	1,960	1,820	7,230	436	188	142	39
25				5,260	14,300	2,200	1,690	6,010	406	152	117	40
26				3,770	15,400	6,590	1,640	4,570	346	138	113	38
27				3,080	16,200	7,550	1,740	3,140	332	140	103	38
28				2,840	16,400	6,680	1,870	2,150	332	200	92	38
29				2,840	-	6,910	2,050	1,600	318	318	71	38
30				3,020	-	9,160	2,250	1,430	332	332	73	44
31				3,200	-	7,870	-	1,270	-	258	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January 19-31	90,380	12,600	2,840	6,952	179,300
February	356,600	17,500	3,260	12,740	707,500
March	314,050	16,400	1,960	10,130	622,900
April	101,850	5,710	1,640	3,395	202,000
May	86,192	7,870	602	2,780	171,000
June	29,006	2,620	318	967	57,530
July	9,483	468	138	306	18,810
August	3,622	226	66	117	7,180
September	1,840	135	38	61.3	3,650
The period	-	-	-	-	1,970,000

Sabine River near Bon Wier, Tex.

Location.- Chain gage, lat. 30°44', long. 93°37', on bridge on U. S. Highway 190 1¼ miles east of Bon Wier, Newton County, and 2.4 miles upstream from Caney Creek. Station is at same site and datum as that which was discontinued Sept. 30, 1934. Zero of gage is 46.4 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 8,323 square miles.

Records available.- October 1923 to September 1934, January to September 1939.

Average discharge.- 11 years (1923-34), 7,109 (revised) second-feet.

Extremes.- Maximum discharge observed during period, 25,400 second-feet Mar. 3 (gage height, 19.4 feet); minimum observed, 220 second-feet Sept. 24-29.

1923-34, 1939: 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, 24, 1925.

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

Remarks.- Records fair. Gage-height record collected in cooperation with U. S. Weather Bureau. Gage read twice daily, oftener during high stages. No large diversion above station.

Rating table, Jan. 21 to Sept. 30, 1939 (gage height, in feet, and discharge, in second-feet)

1.0	195	5.0	970	6.0	3,800	16.0	17,600
1.5	335	3.5	1,300	8.0	6,200	18.0	21,600
2.0	505	4.0	1,670	10.0	8,700	19.0	24,200
2.5	715	5.0	2,670	14.0	14,400		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	8,440	24,200	16,600	3,110	2,780	760	970	335
2				-	7,790	24,800	15,800	3,340	2,450	850	905	320
3				-	7,280	24,800	13,500	3,340	2,450	905	850	305
4				-	7,790	23,600	8,570	3,340	3,280	650	760	305
5				-	12,500	21,900	7,400	3,110	4,400	850	970	305
6				-	17,600	20,600	7,160	2,890	4,900	805	970	305
7				-	19,100	19,500	7,400	2,450	4,900	760	715	290
8				-	19,700	18,900	7,790	2,120	4,650	760	585	275
9				-	19,700	18,400	7,660	1,940	4,150	760	505	275
10				-	19,100	17,800	7,040	1,850	3,400	715	505	275
11				-	18,600	17,200	6,440	1,850	2,670	715	448	305
12				-	17,800	16,600	6,320	1,760	2,230	715	430	305
13				-	17,400	16,000	6,200	1,760	1,850	760	412	305
14				-	16,700	15,200	6,200	1,760	1,670	805	395	305
15				-	15,700	14,400	6,200	1,760	1,520	805	395	305
16				-	14,000	13,500	6,320	1,670	1,370	760	395	275
17				-	12,900	12,600	6,680	1,600	1,230	760	365	275
18				-	12,600	11,800	6,920	1,800	1,160	670	365	275
19				-	13,200	11,200	6,920	3,920	1,100	670	365	245
20				-	14,000	10,700	6,320	5,000	1,040	585	545	245
21				16,200	16,200	10,100	5,600	6,440	970	585	670	245
22				15,400	18,000	9,120	5,240	7,790	970	585	585	245
23				14,800	18,900	7,400	4,760	8,340	970	585	465	245
24				14,200	19,500	5,720	4,280	8,700	970	545	430	220
25				13,500	19,700	4,880	3,600	8,570	970	545	395	220
26				12,300	21,200	5,000	3,570	7,920	905	505	395	220
27				9,540	22,600	6,680	3,340	7,160	850	505	395	220
28				7,400	23,400	9,400	3,110	6,320	850	585	395	220
29				7,660	-	11,500	3,000	5,480	760	670	380	220
30				8,180	-	12,900	3,000	4,280	760	760	365	245
31				8,310	-	14,600	-	3,110	-	905	350	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January 21-31	127,490	16,200	7,400	11,590	252,900
February	451,400	23,400	7,280	16,120	895,300
March	451,000	24,800	4,880	14,550	894,500
April	202,940	16,600	3,000	6,765	402,500
May	124,980	8,840	1,600	4,032	247,900
June	62,175	4,900	760	2,072	123,300
July	22,035	905	505	711	43,710
August	16,675	970	350	538	33,070
September	8,150	335	220	271	16,150
The period	-	-	-	-	2,909,000

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Sabine River near Ruliff, Tex.

Location.- Staff gage, lat. 30°17', long. 93°42', on Kansas City Southern Railway bridge, 1½ miles east of Ruliff, Newton County, and 8.7 miles (revised) downstream from Cypress Creek. Zero of gage is 1.92 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 9,448 square miles.

Records available.- October 1924 to September 1939.

Average discharge.- 15 years, 7,528 second-feet.

Extremes.- Maximum discharge observed during year, 31,200 second-feet Jan. 18, 19, Mar. 2-5 (gage height, 12.75 feet); minimum observed, 338 second-feet Sept. 25-27.
1924-39: Maximum discharge observed, 76,600 second-feet May 24, 25, 1935 (gage height, 16.10 feet); minimum observed, that of Sept. 25-27, 1939.

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

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 6, Sept. 15-30)

1.7	338	8.0	5,390	11.0	12,800
2.0	470	9.0	6,810	12.0	21,000
3.0	1,030	9.5	7,770	13.0	33,800
4.0	1,710	10.0	8,950		
6.0	3,340	10.5	10,600		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	730	568	1,090	3,600	10,200	28,600	9,850	3,340	4,470	1,030	1,150	470
2	788	568	1,090	3,340	10,200	29,900	10,900	3,430	3,980	1,090	1,280	447
3	788	568	1,090	3,250	10,600	31,200	11,700	3,430	3,520	1,150	1,420	424
4	788	674	1,030	3,160	10,200	31,200	13,700	3,520	3,250	1,150	1,350	402
5	730	730	1,090	3,250	9,850	29,900	14,700	3,600	3,160	1,150	1,280	380
6	674	906	1,150	4,070	10,600	29,900	14,000	3,600	3,340	1,090	1,280	447
7	674	1,780	1,280	5,650	12,200	28,600	10,800	3,520	3,600	1,090	1,350	470
8	674	2,570	1,420	6,810	14,700	27,300	8,460	3,250	4,070	1,030	1,280	494
9	702	2,740	1,490	7,770	18,800	26,000	7,550	2,820	4,370	1,030	1,090	470
10	730	2,650	1,640	8,460	22,200	24,700	7,340	2,570	4,470	1,030	908	447
11	730	2,490	1,930	8,460	23,400	23,400	6,970	2,320	4,070	1,030	788	424
12	720	2,320	2,170	8,460	23,400	22,200	6,810	2,170	3,700	1,090	730	424
13	674	2,170	2,170	9,920	23,400	21,000	6,510	2,240	3,160	1,090	702	447
14	674	2,320	2,090	13,400	22,200	19,800	6,210	2,320	2,820	1,090	647	447
15	647	2,650	1,860	17,900	22,200	18,800	6,070	2,320	2,490	1,150	594	424
16	620	2,740	1,710	21,000	21,000	17,900	6,070	2,320	2,170	1,220	620	424
17	594	2,650	1,640	26,000	18,800	17,000	5,930	2,320	1,930	1,220	647	424
18	620	2,400	1,570	29,900	17,900	16,200	5,790	2,240	1,860	1,150	620	359
19	620	2,170	1,420	31,200	17,000	15,400	5,790	2,240	1,710	968	543	359
20	620	2,010	1,420	29,900	14,700	14,000	6,070	2,820	1,570	848	518	380
21	620	1,860	1,350	28,600	12,800	12,800	6,210	4,170	1,420	788	518	380
22	647	1,640	1,280	26,000	12,800	11,700	6,070	5,020	1,350	730	647	359
23	730	1,570	1,280	23,400	13,400	10,900	5,650	5,790	1,350	730	908	359
24	848	1,490	1,280	22,200	15,400	10,200	5,390	6,660	1,350	702	968	359
25	848	1,350	1,350	19,800	18,800	9,250	4,900	7,140	1,350	674	848	338
26	788	1,280	1,640	18,800	23,400	9,850	4,470	7,550	1,280	647	730	338
27	702	1,220	2,400	17,000	26,000	9,250	4,170	7,550	1,280	647	702	338
28	647	1,220	3,340	16,200	27,300	8,000	3,880	7,550	1,220	702	674	380
29	620	1,150	4,070	14,700	-	8,000	3,520	7,140	1,090	730	702	402
30	620	1,150	4,270	12,800	-	8,460	3,340	6,360	1,090	798	518	380
31	594	-	4,070	10,900	-	9,250	-	5,390	-	968	470	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	21,443	848	594	692	42,530
November	51,606	2,740	568	1,720	102,400
December	56,680	4,270	1,030	1,828	112,400
Calendar year 1938	3,209,659	51,600	568	8,794	6,366,000
January	455,900	31,200	3,160	14,710	904,300
February	483,450	27,300	9,850	17,270	958,900
March	580,560	31,200	8,000	18,730	1,152,000
April	218,520	14,700	3,340	7,284	433,400
May	126,710	7,550	2,170	4,087	251,300
June	76,490	4,470	1,090	2,550	151,700
July	29,802	1,220	647	961	59,110
August	26,482	1,420	470	854	52,530
September	12,196	494	338	407	24,190
Water year 1938-39	2,139,939	31,200	338	6,863	4,245,000

Lake Fork of Sabine River near Quitman, Tex.

Location.- Wire-weight gage, lat. 32°46', long. 95°28', on State Highway 37, half a mile downstream from Dry Creek and 2.5 miles south of Quitman, Wood County. Zero of gage is 317.42 feet above mean sea level (general adjustment of 1929). Station is 1,000 feet upstream from site of station that was discontinued Apr. 30, 1926, same datum.

Drainage area.- 586 square miles.

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

Extremes.- Maximum discharge observed during period, 4,460 second-feet Feb. 27 (gage height, 17.20 feet); no flow July 17 to Sept. 3, Sept. 8-30.

1924-26, 1939: Maximum discharge, about 5,500 second-feet Apr. 23, 1926 (gage height, 17.9 feet, based on observed peak at former site), from rating curve extended above 3,200 second-feet; no flow at times.

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

Remarks.- Monthly records fair, daily records poor. Discharge for Feb. 6 computed on basis of one gage reading and weather records. Gage read twice daily. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	1,850	1,240	93	2.8	38		0
2					-	1,140	890	40	2.4	15		0
3					-	613	408	28	2.3	5.9		.7
4					-	318	155	20	3.1	4.1		1.0
5					-	176	99	17	4.8	5.4		.4
6					67	167	201	16	3.6	4.3		.3
7					63	204	345	14	2.9	2.5		.2
8					49	196	458	16	3.5	1.2		0
9					36	132	605	20	3.5	.8		0
10					30	95	462	25	2.4	.5		0
11					25	79	144	23	2.0	.4		0
12					23	71	75	20	3.5	.3		0
13					21	65	63	14	3.7	.2		0
14					43	59	55	11	2.7	.1		0
15					357	51	47	9.2	2.0	.1		0
16					428	45	61	7.6	1.3	.1		0
17					476	41	200	7.6	1.0	.1		0
18					772	38	340	7.8	.8	0		0
19					1,610	34	500	7.2	.8	0		0
20					2,520	33	605	6.9	.8	0		0
21					2,420	31	467	6.8	.6	0		0
22					2,820	31	131	8.2	.5	0		0
23					2,160	30	61	6.9	.4	0		0
24					1,470	30	45	7.2	.4	0		0
25					1,330	130	38	11	.4	0		0
26					1,980	641	33	9.4	.5	0		0
27					3,790	935	36	7.6	.4	0		0
28					3,420	985	138	6.1	.3	0		0
29					-	1,590	254	4.7	.2	0		0
30					-	1,270	279	3.8	1.4	0		0
31					-	1,180	-	3.2	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February 6-28	25,910	3,790	21	1,127	51,390
March	12,258	1,850	30	395	24,310
April	8,435	1,240	33	281	16,730
May	478.2	93	3.2	15.4	948
June	55.2	4.8	.2	1.84	109
July	79.0	38	0	2.55	157
August	0	0	0	0	0
September	2.6	1.0	0	.09	5.2
The period	-	-	-	-	93,650

Big Sandy Creek near Big Sandy, Tex.

Location.- Wire-weight gage, 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. Zero of gage is 281.6 feet above mean sea level.

Drainage area.- 235 square miles.

Records available.- February to September 1939.

Extremes.- Maximum discharge observed during period, 1,190 second-feet Feb. 28 (gage height, 14.24 feet); minimum observed, 7.7 second-feet Sept. 30.
Maximum stage known, 20.4 feet (probably affected by backwater from Sabine River) in January 1938, according to information furnished by observer.

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

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	1,020	445	51	21	17	11	9.9
2					-	750	535	54	21	31	11	9.5
3					-	575	429	54	23	26	11	9.5
4					-	461	328	47	24	24	11	9.2
5					-	369	254	40	40	19	11	9.0
6					-	310	215	34	44	16	10	8.7
7					-	270	192	32	40	15	9.9	8.5
8					-	222	200	34	32	14	9.7	8.5
9					-	200	254	34	27	14	9.7	8.8
10					-	185	278	34	24	14	10	8.7
11					-	178	278	31	21	14	10	8.7
12					-	164	238	31	20	15	9.5	8.5
13					-	157	185	34	19	15	9.4	8.5
14					-	144	144	38	17	15	9.5	8.5
15					-	131	119	34	17	15	9.5	8.5
16					157	125	113	31	16	14	9.5	8.5
17					171	119	119	44	15	13	11	8.5
18					254	113	119	47	15	12	11	8.5
19					347	101	119	44	16	12	13	8.7
20					600	95	119	54	23	12	12	8.7
21					515	95	138	47	29	12	12	8.4
22					662	90	150	40	26	12	12	8.0
23					1,050	84	150	36	21	12	12	8.0
24					1,810	84	131	32	19	13	13	8.0
25					810	154	107	32	17	13	14	8.0
26					840	185	84	31	17	12	13	8.0
27					772	171	73	27	15	12	13	8.0
28					1,160	200	63	26	15	11	12	8.0
29					-	254	63	26	15	11	12	8.0
30					-	270	58	24	16	11	11	7.7
31					-	348	-	23	-	12	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February 16-28	8,148	1,160	157	627	16,160
March	7,624	1,020	84	246	15,120
April	5,700	535	58	190	11,310
May	1,146	54	23	37.0	2,270
June	566	44	15	22.2	1,320
July	458	31	11	14.8	908
August	345.7	14	9.4	11.1	682
September	256.0	9.9	7.7	8.53	508
The period	-	-	-	-	48,280

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. Zero of gage is 266.8 feet above mean sea level (general adjustment of 1929), based on Corps of Engineers, U. S. Army, bench mark.

Drainage area.- 110 square miles.

Records available.- Aug. 11 to Sept. 30, 1939.

Remarks.- No flow during period Aug. 11 to Sept. 30, 1939. No diversion above station.

Neches River near Neches, Tex.

Location.- Wire-weight gage, lat. 31°54', long. 95°26', on 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. Zero of gage is 263.9 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,129 square miles.

Records available.- February to September 1939.

Extremes.- Maximum discharge observed during period, 2,220 second-feet Mar. 4 (gage height, 14.51 feet); minimum observed, 0.2 second-foot Sept. 28.
Maximum stage known, 24.3 feet in May 1908, according to information furnished by local resident, but flood of May 1884 probably reached a higher stage.

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

Rating table, Feb. 9 to Sept. 30, 1939 (gage height, in feet, and discharge, in second-feet)

0.8	0	2.0	19	6.0	220	11.0	830
.9	.8	2.5	31	8.0	384	12.0	1,070
1.0	2.0	3.0	47	9.0	498	13.0	1,430
1.5	9.8	4.0	93	10.0	648	14.6	2,270

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	2,000	404	138	199	47	13	6.2
2					-	2,050	404	126	206	42	11	5.9
3					-	2,160	404	120	164	36	10	5.7
4					-	2,220	394	108	157	34	11	5.6
5					-	2,160	384	98	353	45	11	5.1
6					-	2,000	375	88	404	55	12	4.6
7					-	1,830	394	83	300	55	11	4.2
8					-	1,620	438	153	220	63	9.8	3.6
9					774	1,480	498	199	199	73	9.1	3.2
10					792	1,300	555	132	192	104	7.6	3.2
11					810	1,160	615	98	192	126	6.7	2.7
12					792	1,040	615	83	185	93	6.2	2.5
13					738	910	600	78	164	73	5.4	2.4
14					648	792	525	78	144	59	4.9	2.2
15					570	666	426	78	132	51	5.9	2.0
16					510	555	348	73	126	43	4.9	1.8
17					486	474	426	120	103	36	5.6	1.8
18					510	414	426	442	88	28	5.9	1.5
19					660	375	357	684	78	24	4.8	1.5
20					902	348	324	810	98	21	4.0	1.3
21					1,100	324	308	910	114	20	3.5	1.2
22					1,300	308	300	1,010	103	18	6.6	.8
23					1,480	300	284	1,070	83	17	12	.9
24					1,620	284	260	1,040	78	16	11	.8
25					1,780	300	236	930	88	15	14	.6
26					1,940	440	213	784	83	13	17	.6
27					2,000	498	192	578	73	13	15	.5
28					2,000	450	178	414	59	12	12	.3
29					-	414	164	316	47	12	10	.5
30					-	384	150	252	43	15	8.4	.5
31					-	394	-	199	-	15	6.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February 9-28	21,412	2,000	486	1,071	42,470
March	29,650	2,220	284	956	58,810
April	11,197	615	150	373	22,210
May	11,292	1,070	73	364	22,400
June	4,475	404	43	149	8,880
July	1,274	126	12	41.1	2,530
August	275.9	17	3.8	8.90	547
September	73.7	6.2	.3	2.46	146
The period	-	-	-	-	158,000

Neches River near Diboll, Tex.

Location.- Wire-weight gage, lat. 31°08', long. 94°48', on bridge on State Highway 35, 130 feet (revised) downstream from Texas & New Orleans Railroad bridge, 2.8 miles (revised) downstream from Alabama Creek, and 3.8 miles (revised) south of Diboll, Angelina County. Station is at same site and datum as station that was discontinued Aug. 31, 1925. Zero of gage is 134.46 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,670 square miles.

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

Extremes.- Maximum discharge observed during period, 2,550 second-feet Mar. 30 (gage height, 11.46 feet); minimum observed, 3.8 second-feet Sept. 27-29.

1923-25, 1939: Maximum discharge, 14,800 second-feet Dec. 23, 1923 (gage height, 15.4 feet, from floodmarks), from rating curve extended above 7,000 second-feet; 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.

Rating table, Mar. 30 to Sept. 30, 1939 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 26 to Sept. 30)

1.0	2.0	2.0	45.5	6.0	520	10.8	2,000
1.1	4.5	3.0	105	8.0	966	11.2	2,300
1.2	7.5	4.0	183	9.0	1,220	12.0	3,000
1.4	15.7	4.5	248	10.0	1,550		
1.6	25.0	5.0	330	10.4	1,740		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	2,380	366	1,010	126	46	24
2						-	2,300	312	990	119	56	34
3						-	2,000	264	1,040	112	68	38
4						-	1,740	234	1,090	112	56	38
5						-	1,520	220	1,040	105	46	33
6						-	1,340	194	942	98	40	28
7						-	1,140	174	782	92	40	25
8						-	1,060	174	694	92	38	22
9						-	966	158	716	86	35	20
10						-	918	158	738	80	34	18
11						-	826	158	782	80	32	15
12						-	738	174	804	66	31	14
13						-	694	183	760	92	29	12
14						-	650	183	628	92	26	11
15						-	628	183	480	92	24	9.1
16						-	626	174	330	105	24	8.7
17						-	716	166	264	105	23	8.3
18						-	626	174	234	105	22	6.3
19						-	918	258	207	105	21	5.4
20						-	942	543	183	92	24	5.4
21						-	966	760	174	86	30	6.0
22						-	942	918	183	76	33	5.7
23						-	894	1,040	220	74	30	5.7
24						-	804	1,160	207	68	34	5.1
25						-	694	1,310	183	62	43	5.1
26						-	584	1,440	174	59	40	4.5
27						-	500	1,520	166	54	38	3.8
28						-	460	1,480	158	51	32	3.8
29						-	420	1,340	142	48	28	4.0
30						2,550	384	1,190	134	46	24	6.9
31						2,460	-	1,060	-	46	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	29,578	2,380	384	986	58,670
May	17,668	1,520	158	570	35,040
June	15,455	1,090	134	515	30,650
July	2,646	126	46	85.4	5,250
August	1,067	68	20	34.4	2,120
September	425.8	38	3.8	14.2	845
The period	-	-	-	-	132,600

Neches River near Rockland, Tex.

Location.- Staff gage, lat. 31°01'45", long. 94°23'50", half a mile upstream from Texas & New Orleans Railroad bridge, 1 mile north of Rockland, Tyler County, and 3½ miles downstream from Billams Creek. Zero of gage is 91.4 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,539 square miles.

Records available.- July 1903 to September 1939 (July 1903 to September 1923, monthly records only, in Water-Supply Paper 850).

Average discharge.- 33 years (1903-10, 1913-39), 2,312 second-feet.

Extremes.- Maximum discharge observed during year, 9,820 second-feet Mar. 1 (gage height, 17.26 feet); minimum observed, 7.5 second-feet Sept. 27-29.

1903-39: Maximum discharge observed, 48,500 second-feet May, 22, 1935 (gage height, 28.90 feet), from rating curve extended above 36,000 second-feet; minimum observed during period 1923-39, 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.

Corrections.- August 1926: Mean discharge, 816 second-feet (erroneous figure published in Water-Supply Papers 628 and 850).

Water year 1925-26: Mean discharge, 3,480 second-feet (erroneous figure published in Water-Supply Paper 850).

January 1927: Mean discharge, 4,840 second-feet (erroneous figure published in Water-Supply Paper 850).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	18	118	415	1,690	9,680	2,840	625	1,370	236	69	39
2	29	24	110	385	2,190	9,450	2,900	587	1,280	215	63	33
3	27	58	150	371	4,480	8,620	2,840	515	1,240	195	61	30
4	26	89	158	657	5,090	7,750	2,690	481	1,460	186	67	26
5	24	82	133	1,090	5,540	6,980	2,530	447	1,780	176	87	29
6	23	61	118	784	5,480	5,940	2,330	385	1,760	167	107	35
7	22	69	118	625	5,220	5,870	2,130	385	1,780	158	84	36
8	21	101	141	551	4,790	4,250	1,730	357	1,460	158	66	33
9	23	160	150	551	4,550	3,720	1,460	318	1,070	150	55	32
10	23	258	176	704	4,130	3,330	1,280	318	906	150	49	32
11	22	281	195	1,280	3,660	3,110	1,200	293	865	150	47	33
12	20	258	205	3,450	3,280	2,640	1,110	281	906	141	44	33
13	19	226	205	4,940	2,900	2,530	988	281	906	125	41	24
14	19	205	215	5,220	2,740	2,480	947	293	906	125	39	21
15	18	186	205	5,480	2,580	2,430	906	318	865	133	38	20
16	18	176	195	5,420	2,430	2,430	988	318	744	133	34	19
17	18	167	186	5,420	2,660	2,430	1,280	357	587	141	35	18
18	23	176	176	5,540	4,010	2,430	1,240	447	481	141	44	16
19	26	167	167	5,420	4,370	2,430	1,070	551	415	150	40	16
20	30	167	158	4,970	4,610	2,480	1,070	664	371	158	39	16
21	37	158	158	4,310	4,070	2,580	1,070	664	330	150	36	15
22	39	150	158	3,660	3,830	2,530	1,110	744	318	141	36	13
23	29	150	253	3,060	3,600	2,530	1,110	906	305	125	34	11
24	25	141	515	2,900	3,550	2,480	1,070	988	318	118	36	9.8
25	21	141	589	2,480	4,970	2,430	1,030	1,150	344	104	40	8.6
26	21	141	824	2,180	7,840	2,480	988	1,460	330	100	84	8.6
27	20	133	744	1,780	8,180	2,380	865	1,590	305	107	64	7.5
28	20	125	625	1,880	9,380	2,380	784	1,370	281	101	58	7.5
29	19	118	515	1,780	-	2,530	704	1,780	270	85	57	10
30	19	118	481	1,780	-	2,790	664	1,500	258	74	54	13
31	19	-	447	1,730	-	2,790	-	1,410	-	73	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	732	39	18	23.6	1,450
November	4,304	281	18	143	8,540
December	8,588	824	110	277	17,030
Calendar year 1938	644,663	15,900	18	1,766	1,279,000
January	80,813	5,540	371	2,607	160,300
February	121,820	9,380	1,690	4,361	241,600
March	118,880	9,680	2,380	3,835	236,800
April	42,924	2,900	664	1,431	85,140
May	21,795	1,780	281	703	43,230
June	24,231	1,780	258	808	48,060
July	4,366	236	73	141	8,660
August	1,658	107	34	53.5	3,290
September	645.0	39	7.5	21.6	1,280
Water year 1938-39	430,756	9,680	7.5	1,180	854,400

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. Zero of gage is 8.3 feet above mean sea level (general adjustment of 1929), determined by Corps of Engineers, U. S. Army.

Drainage area.- 7,908 square miles.

Records available.- July 1904 to December 1906, October 1923 to September 1939.

Average discharge.- 16 years (1923-39), 5,970 second-feet.

Extremes.- Maximum discharge observed during year, 21,400 second-feet Mar. 6, 7 (gage height, 16.08 feet); minimum observed, 159 second-feet Sept. 27, 28.
1904-06, 1923-39: Maximum discharge observed, 83,800 second-feet June 1, 1929 (gage height, 22.20 feet); minimum observed, about 148 second-feet Sept. 10, 1925.
Highest stage known, 26.2 feet in 1884 (discharge 175,000 second-feet, from rating curve extended logarithmically above 72,000 second-feet), from records of Gulf, Colorado & Santa Fe Railway Co.

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

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)

-0.6	159	2.0	660	12.0	7,400
-.4	180	3.0	956	13.0	9,560
0	232	4.0	1,290	14.0	12,200
.5	320	6.0	2,080	15.0	15,700
1.0	420	8.0	3,050	16.0	20,800
1.5	534	10.0	4,500	18.0	36,000

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	320	248	582	2,020	7,400	18,600	8,000	2,200	4,100	860	464	320
2	320	232	558	1,860	7,040	17,600	6,620	2,200	4,020	830	464	300
3	340	232	558	1,710	7,040	18,600	8,840	2,160	3,860	800	442	282
4	300	320	582	1,680	7,400	19,700	8,200	2,020	3,860	772	400	264
5	282	420	608	1,940	9,320	20,800	7,600	1,860	3,940	744	380	264
6	264	924	716	2,930	11,900	21,400	7,220	1,710	4,180	688	380	248
7	284	1,160	744	3,940	13,800	21,400	6,680	1,600	4,800	660	380	232
8	264	1,060	772	4,180	14,900	20,800	6,180	1,500	5,160	608	400	232
9	248	956	772	3,630	15,700	20,200	5,700	1,430	5,160	582	420	218
10	248	1,120	956	2,810	16,200	18,600	5,280	1,360	4,700	558	400	218
11	232	1,120	1,020	2,550	16,200	17,100	4,700	1,290	3,860	558	380	205
12	232	1,120	956	3,560	15,700	15,300	4,180	1,220	3,050	534	360	205
13	232	1,260	892	6,020	14,900	13,400	3,700	1,150	2,550	558	340	205
14	232	1,360	830	9,320	14,100	11,900	3,350	1,150	2,300	582	320	218
15	232	988	830	12,200	13,100	10,600	3,110	1,190	2,160	558	300	205
16	232	1,290	860	13,800	11,900	9,320	2,870	1,260	2,110	534	300	205
17	232	1,190	892	15,300	10,900	8,520	2,700	1,320	2,020	486	300	205
18	232	1,090	892	16,200	10,100	8,000	2,700	1,460	1,980	464	282	205
19	248	988	830	16,200	9,820	7,400	2,670	1,640	1,780	486	282	192
20	232	892	830	15,700	10,100	7,040	3,230	1,780	1,640	486	282	180
21	232	892	800	15,700	11,100	6,680	3,350	1,940	1,460	464	282	180
22	232	830	772	14,900	12,500	6,340	3,350	2,160	1,320	464	282	180
23	232	772	744	14,500	13,800	5,860	3,230	2,400	1,260	442	282	169
24	248	744	800	13,400	14,500	5,420	3,170	2,460	1,190	442	282	169
25	248	688	1,020	12,500	15,700	5,040	2,990	2,550	1,090	442	282	169
26	248	680	1,540	11,400	16,600	6,020	2,810	2,750	1,020	442	282	169
27	248	660	2,110	10,600	17,600	5,880	2,700	3,050	956	420	300	159
28	264	634	2,800	9,820	16,200	6,500	2,560	3,360	924	400	300	189
29	264	608	2,930	9,080	-	7,040	2,400	3,560	892	420	300	180
30	264	582	2,700	8,200	-	7,220	2,250	3,780	892	442	300	180
31	248	-	2,300	7,600	-	7,400	-	4,020	-	464	320	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,914	340	232	255	15,700
November	25,020	1,360	232	834	49,630
December	33,996	2,930	558	1,097	67,430
Calendar year 1938	1,860,536	39,200	232	5,097	3,690,000
January	286,250	16,200	1,680	8,556	526,100
February	356,520	17,600	7,040	12,700	705,200
March	373,760	21,400	5,040	12,060	741,300
April	134,530	8,840	2,250	4,484	266,800
May	63,510	4,020	1,150	2,049	126,000
June	78,234	5,160	892	2,608	155,200
July	17,190	860	400	555	34,100
August	10,488	464	282	338	20,800
September	6,327	320	159	211	12,550
Water year 1938-39	1,371,739	21,400	159	3,758	2,721,000

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 (revised) upstream from Texas & New Orleans Railroad bridge, and 8 miles north of Lufkin, Angelina County. Station is 1,400 feet downstream from site of station that was discontinued Sept. 30, 1934, and at same datum. Zero of gage is 164.72 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,575 square miles.

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

Average discharge.- 11 years (1923-34), 1,230 second-feet.

Extremes.- Maximum discharge during period, 48 second-feet Aug. 22 (gage height, 2.22 feet); minimum, 2.8 second-feet Sept. 28.

1923-34, 1939: Maximum discharge, 38,200 second-feet Feb. 24, 1932 (gage height, 17.9 feet, present site and datum, adjusted from observed peak at former site); minimum, that of Sept. 28, 1939.

Maximum stage known, about 26.5 feet in May 1884, according to information furnished by old-timers.

Remarks.- Records good. Discharge for July 28 computed on basis of partial gage-height record. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	40	14
2										-	31	13
3										-	28	12
4										-	30	12
5										-	38	11
6										-	42	11
7										-	40	11
8										-	37	11
9										-	29	10
10										-	26	9.4
11										-	24	8.3
12										-	22	7.6
13										-	21	7.0
14										-	20	6.6
15										-	21	6.0
16										-	21	5.4
17										-	26	6.0
18										-	25	5.0
19										-	29	6.0
20										-	21	6.6
21										-	23	5.2
22										-	44	4.4
23										-	43	3.9
24										-	29	3.6
25										-	19	3.4
26										-	16	3.2
27										-	14	3.1
28										26	14	2.9
29										24	14	3.4
30										24	14	3.8
31										38	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June					
July					
August	816	44	14	26.3	1,620
September	218.6	14	2.9	7.09	422
Water year	-	-	-	-	-

Angelina River at Horger, Tex.

Location.- Chain gage, lat. 31°00' (revised), 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. Zero of gage is 68.4 feet above mean sea level (general adjustment of 1929), determined by Corps of Engineers, U. S. Army.

Drainage area.- 3,435 square miles.

Records available.- March 1928 to September 1939.

Average discharge.- 11 years, 2,707 second-feet.

Extremes.- Maximum discharge during year, 11,700 second-feet Feb. 27 (gage height, 22.30 feet, from graph based on gage readings); minimum discharge observed, 39 second-feet Sept. 17.

1928-39: Maximum discharge, 48,800 second-feet Feb. 24, 1932 (gage height, 36.35 feet, from graph based on gage readings); minimum discharge observed, 13 second-feet Sept. 22, 1937.

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

Remarks.- Records fair except those below 400 second-feet, which are poor. Gage read once daily Oct. 1 to Jan. 10, twice daily thereafter. Discharge for July 5 interpolated. Possibly backwater at times from Neches River. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	87	232	180	3,180	11,100	3,610	1,020	1,820	274	89	78
2	96	62	201	180	3,230	10,500	3,390	865	1,920	240	95	78
3	92	92	201	519	6,850	9,750	3,180	795	2,020	240	101	72
4	92	173	194	1,220	8,190	8,860	2,960	700	2,530	220	101	67
5	92	201	194	1,730	8,660	8,000	2,530	642	3,390	205	200	63
6	87	194	194	1,820	8,190	7,420	2,370	586	3,340	190	144	59
7	82	224	270	1,300	8,000	6,860	2,220	530	2,580	180	120	56
8	78	290	380	940	7,610	6,480	2,070	502	1,820	170	95	54
9	76	380	380	642	7,300	6,070	1,920	476	1,300	152	95	51
10	73	455	355	730	6,800	5,710	1,660	450	1,100	114	89	56
11	78	485	355	1,300	6,480	5,410	1,490	450	940	161	83	55
12	78	595	330	4,840	5,950	4,990	1,350	502	865	161	89	50
13	78	675	310	7,490	5,470	4,640	1,220	586	795	135	83	48
14	76	715	310	8,390	4,990	4,290	1,140	586	760	144	78	50
15	82	635	290	8,130	4,810	4,000	1,060	586	730	135	83	44
16	82	485	290	7,240	4,640	3,780	1,020	558	700	144	73	44
17	82	405	250	6,660	4,700	3,560	1,260	586	642	152	72	42
18	82	330	250	6,710	5,650	3,180	1,630	670	558	144	73	42
19	82	290	241	6,490	6,990	2,910	1,730	670	502	135	83	43
20	82	270	224	5,950	8,390	2,530	1,730	1,440	450	144	78	46
21	87	270	216	5,590	9,220	2,070	1,630	1,540	424	128	78	48
22	92	290	208	5,110	8,860	1,730	1,440	1,350	398	128	78	46
23	98	310	312	4,640	8,000	1,540	1,260	1,490	372	120	78	42
24	103	310	805	4,640	7,110	1,440	1,100	1,760	334	120	89	42
25	103	355	1,180	4,470	6,860	1,440	1,020	1,920	334	114	89	45
26	108	355	1,580	3,950	9,300	2,320	940	2,170	298	114	101	46
27	108	355	1,530	3,610	11,400	3,340	900	2,220	310	101	107	50
28	103	355	1,260	3,280	11,600	3,500	900	2,220	230	101	114	49
29	103	310	805	3,280	-	3,390	980	2,370	322	114	107	47
30	98	270	595	3,340	-	4,810	1,100	2,120	250	107	95	53
31	92	-	228	3,340	-	5,110	-	1,920	-	101	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,774	108	73	89.5	5,500
November	10,243	715	82	341	20,320
December	14,190	1,580	194	458	28,150
Calendar year 1938	910,279	24,100	73	2,494	1,806,000
January	117,941	8,390	180	3,805	233,900
February	198,630	11,600	3,180	7,094	394,000
March	150,730	11,100	1,440	4,862	299,000
April	50,830	3,610	900	1,694	100,800
May	34,300	2,370	450	1,106	68,030
June	32,034	3,390	230	1,068	63,540
July	4,688	274	101	151	9,300
August	2,943	200	72	94.9	5,840
September	1,566	78	42	52.2	3,110
Water year 1938-39	620,869	11,600	42	1,701	1,231,000

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. Station is at same site and datum as station that was discontinued Aug. 29, 1925. Zero of gage is 169.9 feet above mean sea level (general adjustment of 1929).
Drainage area.- 502 square miles.
Records available.- January 1924 to August 1925, July to September 1939.
Extremes.- Maximum discharge during period, 40 second-feet Aug. 1 (gage height, 3.61 feet); minimum, 10 second-feet Sept. 15.

1924-25, 1939: Maximum discharge observed, 8,260 second-feet June 3, 1924 (gage height, 18.88 feet), from rating curve extended above 5,000 second-feet; 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. Discharge for July 31 computed on basis of partial gage-height record. No diversion above station.

Discharge, in second-feet, 1939

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	38	16	11	21	11	21	28	14
2	30	16	12	18	11	22	32	12
3	26	15	13	17	11	23	30	12
4	25	14	14	17	11	24	34	12
5	25	13	15	16	10	25	30	12
6	23	13	16	16	11	26	26	11
7	22	12	17	14	13	27	27	11
8	22	12	18	14	15	28	26	11
9	21	12	19	16	14	29	23	11
10	22	11	20	23	15	30	20	15
						31	18	-

	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
August.....	720	38	14	23.2	1,430
September.....	377	16	10	12.6	748

Arenoso Creek near San Augustine, Tex.

Location.- Staff gage, lat. 31°36', long. 94°17', half a mile downstream from Nacogdoches & Southeastern Railroad bridge, 4½ miles upstream from mouth and 11 miles northwest of San Augustine, San Augustine County.

Drainage area.- 76 square miles.

Records available.- May 1938 to September 1939.

Extremes.- Maximum discharge observed during period May to September 1938, 161 second-feet June 29 (gage height, 3.90 feet); minimum observed, 10 second-feet Sept. 28-30. Maximum discharge observed during water year 1938-39, 834 second-feet Feb. 2 (gage height, 9.94 feet); minimum observed, 3.3 second-feet Sept. 14, 15.

Remarks.- Records fair except those for periods of missing gage heights and those above 700 second-feet, which are poor. Gage read twice daily. No large diversion above station.

Discharge, in second-feet, 1938-39

1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	23	30	24	17
2								-	25	29	21	17
3								-	23	28	20	15
4								-	22	28	20	†14
5								-	†22	27	38	12
6								-	23	32	26	12
7								-	24	30	†24	12
8								-	30	41	21	*12
9								-	87	32	19	*12
10								-	86	40	21	*12
11								-	46	61	38	*13
12								-	†40	44	20	29
13								-	34	30	17	44
14								-	32	28	18	38
15								-	29	27	20	†30
16								-	27	27	20	21
17								-	32	26	18	†19
18								-	113	26	16	†18
19								-	103	26	16	16
20								-	50	26	14	15
21								-	44	28	†14	14
22								-	31	29	14	13
23								-	28	54	14	12
24								-	28	36	14	†12
25								-	27	28	14	†12
26								-	28	36	13	12
27								31	31	26	13	11
28								29	77	36	†13	11
29								28	129	30	13	10
30								27	49	38	13	10
31								26	-	†31	13	-

*Gage height missing; discharge computed on basis of weather records.
†Interpolated.

Discharge, in second-feet, of Arenoso Creek near San Augustine, Tex., 1938-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	†10	10	18	*29	501	109	†61	32	26	†12	6.3	*5.5
2	†10	11	28	34	820	97	†61	32	31	†12	6.3	*5.3
3	10	20	*87	112	629	91	61	31	65	12	6.7	*5.2
4	11	98	*55	147	267	†87	66	30	†54	11	7.6	*5.0
5	11	} *260	24	85	*166	†83	109	28	44	10	†7.3	*4.9
6	11		22	64	373	79	90	*25	38	9.4	†7.0	*4.8
7	10	143	21	†68	182	67	61	*34	34	9.4	6.7	*4.6
8	†10	131	†20	†72	147	64	†59	103	32	†9.6	6.3	*4.5
9	†10	88	19	76	140	64	†58	90	28	†9.8	8.4	*4.4
10	10	31	19	133	140	61	56	53	24	10	8.2	*4.2
11	10	*19	†19	105	†118	†61	51	31	†22	12	6.7	*4.1
12	9.4	19	19	409	†95	†61	46	25	21	13	†6.6	*3.9
13	9.0	†19	19	600	73	61	44	†23	20	12	†6.6	3.8
14	8.7	19	19	*265	67	61	41	†22	19	12	6.5	3.3
15	8.4	17	19	*113	115	61	*41	20	19	†12	6.1	3.3
16	†8.4	17	†19	79	121	58	*75	21	19	†11	5.8	†4.3
17	8.4	17	†18	79	*128	58	183	71	20	11	5.6	†5.3
18	14	17	†18	97	*454	†57	128	123	26	9.7	6.7	6.3
19	17	†17	18	91	*465	†55	94	64	20	8.7	†12	6.9
20	17	†16	20	†85	*511	54	67	†52	19	8.0	†17	7.4
21	16	16	46	79	375	54	61	†41	19	7.6	22	7.8
22	†15	16	94	†79	190	51	†53	29	19	†7.6	15	7.2
23	†13	17	118	79	118	48	†44	26	19	†7.6	10	†6.3
24	12	†17	} *187	103	130	51	36	25	†17	7.6	7.8	†5.4
25	11	18		97	*353	} *166	38	28	†16	7.2	6.9	4.4
26	11	17	82	91	*336		36	29	14	7.2	†6.7	3.9
27	10	†17	73	91	184		34	†29	14	6.9	†6.5	6.1
28	10	17	49	†85	149	85	32	†30	13	6.7	6.3	7.8
29	†10	18	34	†81	-	97	†32	30	12	5.5	6.1	9.7
30	†10	19	31	76	-	73	†32	28	12	†6.9	5.9	*9.7
31	10	-	*30	80	-	61	-	27	-	6.3	5.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
May 27-31, 1938	141	-	-	-	280
June	1,343	129	22	44.8	2,660
July	1,020	61	26	32.9	2,020
August	579	38	13	18.7	1,150
September	497	44	10	16.6	986
The period	-	-	-	-	7,100
October 1938	341.3	17	8.4	11.0	677
November	1,401	-	10	46.7	2,780
December	1,432	-	18	46.2	2,840
Calendar year	-	-	-	-	-
January 1939	3,685	600	29	119	7,310
February	7,347	820	67	262	14,570
March	2,407	-	48	77.6	4,770
April	1,850	183	32	61.7	3,670
May	1,232	123	20	39.7	2,440
June	736	65	12	24.5	1,460
July	290.7	13	5.5	9.38	577
August	247.2	22	5.6	7.97	490
September	165.3	9.7	3.3	6.51	328
Water year 1938-39	21,134.5	820	3.3	57.9	41,910

*Gage height missing; discharge computed on basis of weather records.
†Interpolated.

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. Station is 1.2 miles upstream from site of station that was discontinued Nov. 30, 1929, and at a different datum. Zero of gage is 25.1 feet above mean sea level (general adjustment of 1929).

Drainage area.- 837 square miles.

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

Extremes.- Maximum discharge during period, 633 second-feet May 20 (gage height, 6.44 feet); minimum, 32 second-feet Sept. 28.

1924-27, 1939: Maximum gage height, about 20 feet, present site and datum, June 2, 1924 (probably affected by backwater from Neches River), determined on basis of observed peak at site 1.2 miles downstream, former datum (discharge not determined); minimum discharge, that of Sept. 28, 1939.

Maximum stage known, about 34 feet, present site and datum, in August 1915. Flood of May 27, 1929, reached a stage of about 32 feet, present site and datum. These two stages, which were probably affected by backwater from Neches River, were determined on basis of information furnished by Gulf, Colorado & Santa Fe Railway engineers at site 1.2 miles downstream.

Remarks.- Records good. Discharge for Apr. 30 based on partial gage-height record. No diversion above station.

Discharge, in second-feet, 1939

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	250	161	70	64	82	16	-	117	109	134	83	40
2	-	212	201	68	73	88	17	-	124	105	107	96	38
3	-	186	181	65	61	57	18	-	265	103	91	83	38
4	-	171	228	63	81	56	19	-	536	98	86	90	39
5	-	156	350	62	88	51	20	-	615	94	79	106	37
6	-	162	446	65	108	48	21	-	462	90	72	124	36
7	-	147	446	66	127	45	22	-	306	89	68	109	36
8	-	142	385	61	130	44	23	-	222	90	64	93	35
9	-	138	319	57	113	44	24	-	176	93	62	91	35
10	-	138	239	55	96	41	26	-	152	96	62	116	35
11	-	138	191	60	84	41	26	-	134	90	61	125	35
12	-	138	161	64	76	39	27	-	129	88	62	108	33
13	-	134	142	73	70	39	28	-	129	81	60	86	38
14	-	124	128	121	66	41	29	-	134	76	58	84	44
15	-	120	118	147	74	42	30	306	129	74	58	80	41
							31	-	120	-	61	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
May.....	6,096	615	117	197	12,090	August....	2,882	138	64	93.0	5,720
June....	5,069	446	74	169	10,050	September.	1,268	62	33	42.3	2,520
July....	2,281	147	65	73.6	4,520	The period	-	-	-	-	34,900

West Fork of Trinity River at Fort Worth, Tex.

Location.- Water-stage recorder upstream from spillway of Fort Worth Power & Light Co.'s 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. Zero of gage is 519.2 feet above mean sea level (Texas Reclamation Department bench mark based on U.S. Coast & Geodetic Survey datum).

Drainage area.- 2,431 square miles.

Records available.- October 1920 to September 1939.

Average discharge.- 19 years, 380 second-feet.

Extremes.- Maximum discharge during year, 3,750 second-feet May 16 (gage height, 5.20 feet, from graph based on gage readings); no flow during periods in July, August, and September.

1920-39: 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 and those for periods of missing gage heights, Feb. 28 to Mar. 9, Apr. 14 to May 29 (computed from graph drawn on basis of once-daily gage readings furnished by U. S. Weather Bureau, and records for Clear Fork of Trinity River at Fort Worth) and those below 25 second-feet, which are fair. Discharge for days of incomplete gage-height record, Nov. 3, Feb. 27, Mar. 10, Apr. 13, May 30 computed on basis of partial record. Considerable diversion above station for municipal supply. Flow partly regulated by Bridgeport, Eagle Mountain, and Lake Worth Reservoirs (combined capacity, 527,000 acre-feet).

Rating table, water-year 1938-39 (gage height, in feet, and discharge, in second-feet)

0.8	0	1.2	37.0	2.5	691
.9	.1	1.4	92.0	3.0	1,060
.95	1.1	1.6	168	4.0	2,160
1.0	4.8	2.0	364		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	450	0.7	8.0	4.8	14	23	31	18	9.2	40	34	195
2	482	.7	5.8	4.8	18	18	22	18	14	25	2.9	72
3	462	3	12	93	18	20	15	18	8.0	4.8	1.5	27
4	494	4	9.2	418	16	25	14	18	8.0	3.8	.9	9.2
5	299	5.1	10	469	15	5.8	14	18	71	2.9	.7	2.1
6	117	5.4	8.0	494	15	4.8	44	18	144	1.5	.7	.7
7	58	23	6.9	586	15	4.8	22	23	16	1.5	.5	.5
8	25	6.9	4.8	684	14	4.8	12	33	5.8	1.1	1.0	.1
9	14	2.9	5.8	866	15	14	9.2	22	4.8	.9	4.8	.1
10	8.0	2.1	5.8	770	16	8.0	6.9	15	3.8	.7	1.5	.1
11	11	2.1	5.8	778	15	6.9	4.8	12	2.1	2.4	.9	0
12	142	2.1	5.8	741	14	12	4.8	4.8	2.1	2.9	.9	0
13	320	1.5	5.8	425	14	6.9	4.8	4.8	1.5	1.5	.7	0
14	413	1.1	6.9	198	32	6.9	18	4.8	1.5	1.1	11	0
15	508	1.1	6.9	152	46	4.8	18	6.9	1.5	.9	6.9	0
16	434	2.1	6.9	51	23	4.8	1,610	1,170	2.1	.7	1.5	0
17	185	2.1	6.9	83	29	4.8	1,450	1,380	2.1	.5	1.5	0
18	72	108	6.9	37	31	4.8	233	722	30	.1	2.1	0
19	39	154	6.9	23	74	50	89	394	511	.1	.9	0
20	25	278	4.8	20	61	268	48	202	289	.1	.7	0
21	10	364	2.1	18	31	407	20	92	425	0	.5	0
22	4.8	469	4.8	16	26	444	18	113	331	0	.3	0
23	6.9	438	12	37	22	444	18	37	164	0	.1	0
24	12	299	5.8	29	22	475	18	35	72	0	.1	0
25	5.8	85	8.0	22	31	364	18	37	33	0	.1	0
26	6.9	58	12	22	25	220	18	33	15	0	0	0
27	2.9	33	4.8	20	23	107	18	23	9.2	1.1	0	0
28	1.1	20	3.8	20	16	169	18	31	16	.9	0	0
29	.9	15	3.8	37	-	181	18	18	9.2	.9	0	0
30	.9	12	4.8	48	-	120	18	8.0	5.8	2.1	0	0
31	.7	-	5.8	20	-	44	-	3.8	-	258	64	0

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,630.9	508	0.7	149	9,190
November	2,397.5	469	.7	79.9	4,760
December	207.6	12	2.1	6.70	412
Calendar year 1938	155,420.4	6,950	.1	426	308,300
January	7,186.6	866	4.8	232	14,250
February	692	74	14	24.7	1,370
March	3,473.1	475	4.8	112	6,890
April	3,852.5	1,610	4.8	128	7,640
May	4,533.1	1,380	3.8	146	8,990
June	2,207.7	511	1.5	73.6	4,380
July	355.5	258	0	11.5	705
August	152.7	64	0	4.93	303
September	306.8	195	0	10.2	609
Water year 1938-39	29,996.0	1,610	0	82.2	59,500

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. Zero of gage is 412.98 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,886 square miles.

Records available.- March 1925 to September 1939.

Average discharge.- 14 years, 449 second-feet.

Extremes.- Maximum discharge during year, 2,820 second-feet May 17 (gage height, 13.60 feet, from floodmarks); minimum, 10 second-feet Aug. 30, Sept. 13, 27.
1925-39: Maximum discharge observed, 15,400 second-feet Jan. 23, 1932 (gage height, 25.96 feet, former site); minimum observed, 3.2 second-feet June 6, 1925.
Maximum stage known, about 29 feet in April 1922.

Remarks.- Records good except those for period of missing gage heights, May 9-30, which were computed on basis of floodmarks, weather records, and records for Trinity River at Dallas and West Fork at Fort Worth and are poor. Discharge for May 8, June 6 computed on basis of partial gage-height record; that for May 31 to June 5 computed from graph drawn on basis of gage readings. Many small diversions above station; largest diversion is for municipal supply of Fort Worth. Regulation same as that for West Fork of Trinity River at Fort Worth.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	330	16	40	26	50	77	94	26	31	30	488	13
2	404	14	38	26	40	52	67	22	26	62	124	165
3	425	16	35	23	37	41	56	22	27	90	41	110
4	436	19	30	34	46	39	47	24	29	39	28	59
5	436	31	32	404	39	41	110	22	33	26	22	34
6	270	27	30	480	38	38	78	20	105	18	18	23
7	134	26	30	502	34	30	74	20	196	16	18	18
8	70	44	31	604	35	29	75	22	67	16	16	16
9	48	40	30	772	38	30	54	}	40	16	15	15
10	39	30	27	795	37	30	42	}	30	16	39	14
11	30	25	26	745	38	31	34	} 20	25	14	26	14
12	26	22	28	795	37	30	33	}	22	14	18	12
13	92	20	23	697	34	28	31	}	18	20	16	10
14	280	20	22	414	68	28	31	}	18	22	16	13
15	372	18	26	207	166	30	32	}	19	19	14	13
16	447	18	27	146	83	26	67	}	18	18	16	14
17	362	19	26	85	56	25	1,670	}	18	16	28	16
18	190	19	26	63	66	24	1,200	} 1,090	23	14	20	16
19	93	35	27	78	205	24	311	}	799	12	18	14
20	57	161	26	46	414	26	133	}	1,020	14	18	12
21	48	250	25	40	129	244	79	}	330	14	18	14
22	40	362	27	36	66	404	70	}	394	14	18	14
23	30	425	28	38	50	436	54	}	306	14	16	13
24	24	425	35	69	48	458	44	}	169	15	16	12
25	20	302	46	62	111	480	38	}	99	14	16	14
26	27	148	34	53	124	384	36	} 50	60	11	14	12
27	25	86	51	44	55	240	38	}	41	12	14	10
28	21	78	40	42	48	220	37	}	35	13	15	11
29	22	49	28	40	-	339	32	}	42	14	12	12
30	20	40	27	38	-	522	28	}	48	14	10	12
31	19	-	27	58	-	207	-	33	-	22	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,837	447	19	156	9,590
November	2,815	425	14	93.8	5,580
December	948	51	22	30.6	1,880
Calendar year 1938	204,396	10,900	14	560	405,400
January	7,462	795	23	241	14,800
February	2,192	414	34	78.3	4,350
March	4,613	522	24	149	9,150
April	4,695	1,670	28	156	9,310
May	6,301	-	-	203	12,500
June	4,088	1,020	18	136	8,110
July	653	90	11	21.1	1,300
August	1,160	488	10	37.4	2,300
September	725	165	10	24.2	1,440
Water year 1938-39	40,489	-	10	111	80,310

Trinity River at Dallas, Tex.

Location.- Water-stage recorder, lat. 32°47', long. 96°48', at Commerce Street viaduct in Dallas, Dallas County, and 5¼ miles downstream from confluence of West and Elm Forks. Zero of gage is 368.14 feet above mean sea level (general adjustment of 1929).

Drainage area.- 6,001 square miles.

Records available.- July 1903 to July 1930 and October 1932 to September 1939 (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.

Average discharge.- 36 years (1903-39), 1,375 second-feet.

Extremes.- Maximum discharge during year, 10,800 second-feet Apr. 19 (gage height, 29.75 feet); minimum discharge observed, 13 second-feet Nov. 2.
1903-39: Maximum discharge, 184,000 second-feet May 26, 1908 (gage height, 52.6 feet), from rating curve extended logarithmically above 76,000 second-feet; minimum discharge observed during periods 1903-06, 1920-39, 6.8 second-feet Sept. 11, 1924.

Remarks.- Records good. Discharge for Nov. 1-18 computed from graph drawn on basis of one or more daily gage readings by construction engineer. Discharge for periods of backwater that occurs at times of falling stages after floods of more than about 10,000 second-feet computed from backwater curve based on discharge measurements. Only known diversions are for municipal supply. Flow partly regulated by storage in Bridgeport, Eagle Mountain, Lake Worth, Mountain Creek, and Lake Dallas Reservoirs (combined capacity, 777,000 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939[e]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	298	73	59	50	85	122	350	113	74	137	466	92
2	390	18	60	48	74	118	200	106	76	201	266	166
3	438	30	56	47	68	86	137	100	82	478	158	192
4	442	46	52	43	71	82	116	100	92	412	147	144
5	446	53	48	212	73	74	730	98	108	176	180	118
6	446	76	48	434	72	72	618	92	224	147	132	105
7	230	61	49	438	71	65	783	100	727	119	129	95
8	130	56	52	576	71	58	436	113	285	111	126	92
9	85	67	44	750	77	59	248	106	144	111	127	89
10	72	60	46	910	76	59	203	113	95	113	126	89
11	60	55	47	850	74	58	126	102	95	114	129	100
12	55	53	49	850	74	54	95	97	100	113	124	92
13	70	47	50	790	73	52	89	82	105	114	127	84
14	215	38	50	550	114	49	82	84	98	121	122	85
15	323	38	52	285	174	44	78	85	97	119	122	88
16	422	30	53	192	140	40	714	108	98	118	122	92
17	410	31	54	145	119	50	6,430	1,300	94	118	135	102
18	217	28	54	97	114	64	9,770	3,880	103	110	137	98
19	135	*35	48	114	222	66	†8,010	1,620	891	103	130	94
20	98	114	44	85	437	61	†1,800	810	3,200	103	140	91
21	82	198	44	66	222	120	530	358	655	103	142	82
22	78	262	49	65	135	295	350	215	502	100	140	81
23	74	358	55	88	102	364	281	156	454	111	134	79
24	67	370	53	89	92	370	212	119	285	114	137	79
25	60	338	67	105	148	490	162	105	210	108	130	79
26	64	162	72	85	172	1,680	149	85	170	108	122	78
27	55	103	66	76	200	2,180	142	85	140	110	119	73
28	38	89	68	71	164	863	137	105	144	114	122	67
29	60	71	53	68	-	730	130	170	158	121	113	68
30	102	61	50	66	-	810	121	110	153	130	97	71
31	*119	-	50	76	-	582	-	77	-	130	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,781	446	38	186	11,470
November	3,029	370	18	101	6,010
December	1,642	72	44	53.0	3,260
Calendar year 1938	771,487	60,900	18	2,114	1,530,000
January	8,320	910	43	268	16,500
February	3,514	437	68	126	6,970
March	9,807	2,180	40	316	19,460
April	33,229	9,770	78	1,108	65,910
May	11,294	3,880	77	364	22,400
June	9,659	3,200	74	322	19,160
July	4,387	478	100	142	8,700
August	4,492	466	92	145	8,910
September	2,865	192	67	95.5	5,680
Water year 1938-39	96,019	9,770	18	269	194,400

*Discharge computed on basis of partial gage-height record.
†Affected by backwater from return flow below station.

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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. Station is 1.7 miles downstream from site of station discontinued Sept. 30, 1925, and datum is 6.94 feet lower. Zero of gage is 302.6 feet above mean sea level (general adjustment of 1929).

Drainage area.- 8,057 square miles.

Records available.- November 1938 to September 1939. July to September 1924 and October 1924 to September 1925 (gage heights only), at site 1.7 miles upstream; records equivalent.

Extremes.- Maximum discharge during period, 11,500 second-feet Apr. 21 (gage height, 29.57 feet); minimum, 74 second-feet Dec. 21, 22.

1924, 1938-39: Maximum discharge, that of Apr 21, 1939; 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 gage height known, about 42.0 feet, present site and datum, Feb. 21, 1938 (discharge not determined), according to information furnished by Texas & New Orleans Railroad engineers (flood was confined within levee system constructed in 1916).

Remarks.- Records good. Discharge for period of missing gage heights, July 7 to Aug. 1, were computed from graph based on gage readings furnished by Department of Agriculture (silt sampler). Discharge Nov. 22, July 6 based on partial gage-height record. No diversions above station except for municipal supply. Flow partly regulated by reservoirs above Dallas.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	115	86	107	616	1,700	342	465	276	220	101
2		-	104	85	124	425	1,520	312	727	796	464	102
3		-	101	82	120	328	1,420	290	636	972	410	127
4		-	101	83	122	255	1,250	262	342	1,040	227	248
5		-	98	82	106	220	841	248	924	733	179	186
6		-	89	136	108	199	1,720	241	2,210	425	227	149
7		-	85	488	112	178	1,820	227	756	297	172	126
8		-	87	532	108	165	1,800	227	1,280	227	148	119
9		-	87	870	100	154	1,890	312	1,020	186	146	113
10		-	89	666	98	148	3,670	262	972	179	152	109
11		-	86	890	114	145	6,060	241	850	174	144	106
12		-	84	996	106	139	5,160	220	850	166	152	113
13		-	81	930	97	131	3,340	213	600	163	144	122
14		-	81	796	135	124	1,910	199	328	158	139	109
15		-	81	598	1,000	122	827	179	241	166	144	106
16		-	80	380	585	117	940	186	255	154	135	110
17		-	81	269	342	110	2,410	1,690	255	152	134	117
18		-	82	234	448	109	5,460	4,590	192	148	146	124
19		-	82	172	1,010	119	7,130	5,400	600	131	165	132
20		-	79	165	2,640	134	9,120	3,830	3,110	137	150	124
21		-	75	165	1,280	131	11,300	2,110	3,740	127	165	126
22		248	75	134	930	145	10,200	996	2,020	128	178	117
23		350	84	149	598	376	7,980	500	1,580	122	171	109
24		455	101	299	380	470	5,060	342	1,480	123	162	110
25		485	109	206	1,410	575	2,360	255	1,000	136	165	109
26		486	97	186	1,470	963	1,090	192	585	132	152	108
27		305	150	162	972	2,010	598	186	380	128	144	113
28		186	120	140	832	2,680	470	158	297	124	131	107
29		146	106	128	-	2,180	425	347	290	131	130	97
30		137	102	120	-	1,930	395	616	493	144	134	94
31		-	89	109	-	1,830	-	564	-	149	117	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November 22-30	2,797	485	137	311	5,550
December	2,881	150	75	92.9	5,710
Calendar year	-	-	-	-	-
January	10,528	996	82	340	20,880
February	15,454	2,640	97	552	30,650
March	17,229	2,680	109	556	34,170
April	99,866	11,300	395	3,329	198,100
May	26,407	5,400	156	820	50,390
June	28,478	3,740	192	949	56,490
July	8,114	1,040	122	262	16,090
August	5,447	464	117	176	10,800
September	3,633	248	94	121	7,210
The period	-	-	-	-	436,000

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. Zero of gage is 175.03 feet above mean sea level (general adjustment of 1929).

Drainage area.- 12,840 square miles.

Records available.- July 1932 to September 1939. January 1905 to December 1918, and February 1920 to July 1932 at site 1½ miles downstream (January 1905 to September 1923, monthly records only, in Water-Supply Paper 850).

Average discharge.- 27 years, (1905-06, 1907-13, 1915-17, 1921-39), 3,971 second-feet.

Extremes.- Maximum discharge during year, 16,700 second-feet June 27 (gage height, 36.95 feet, from graph based on gage readings); minimum, 84 second-feet Sept. 30.
1905-18, 1920-39: Maximum gage height, about 52.2 feet, present site and datum, June 4, 1908 (discharge not determined); discharge of flood of May 23, 1930, 84,400 second-feet (gage height, 46.8 feet, present site and datum); minimum discharge observed during period 1923-39, 22 second-feet Aug. 18, 1934.

Remarks.- Records good. Discharge for Dec. 16 to Jan. 13, June 16 to July 21 computed from graph drawn on basis of daily gage readings furnished by U. S. Weather Bureau. Discharge for Jan. 14, June 15, July 22, based on partial gage-height record. No diversion above station except for municipal supply. Flow partly regulated by reservoirs above Dallas.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	224	110	308	292	366	10,400	3,360	772	1,160	1,080	186	165
2	186	102	242	272	462	10,200	3,380	662	1,600	1,600	202	153
3	173	115	254	248	552	8,260	3,380	574	1,830	2,090	208	149
4	161	141	218	224	460	4,830	2,770	500	1,630	2,230	208	145
5	182	182	191	191	450	2,120	2,140	422	1,920	2,380	213	138
6	344	191	178	173	510	1,230	1,880	358	2,290	2,420	399	130
7	440	230	169	182	500	956	1,600	330	3,490	2,380	359	130
8	490	311	157	272	500	816	1,470	374	4,880	2,020	254	178
9	490	311	138	390	490	750	2,310	430	5,320	1,200	208	186
10	500	248	130	728	450	662	2,660	712	5,080	673	230	165
11	406	254	124	1,080	406	618	2,550	1,090	3,870	422	208	145
12	285	292	130	1,740	366	552	3,030	658	2,200	350	182	134
13	208	248	149	2,660	330	500	4,530	407	1,380	398	173	127
14	157	208	149	3,500	311	470	5,500	337	1,100	541	173	124
15	134	196	157	3,420	318	440	5,300	324	980	398	169	124
16	138	162	149	2,530	304	398	3,900	311	838	318	169	120
17	138	169	149	1,900	409	337	2,330	842	440	266	169	120
18	134	157	149	1,460	1,450	304	1,530	1,810	292	242	169	127
19	263	149	149	1,130	2,810	304	2,910	4,780	298	202	165	124
20	440	141	149	838	4,470	272	5,150	8,000	599	218	161	124
21	520	138	142	662	6,550	266	6,610	9,550	2,820	218	165	120
22	430	134	149	520	8,500	260	7,370	9,900	7,400	208	165	120
23	318	127	153	406	8,940	260	7,720	9,220	10,800	202	173	124
24	242	124	173	390	7,530	298	8,020	7,010	13,100	191	186	127
25	191	124	213	425	5,740	424	8,320	4,130	15,000	182	182	127
26	165	230	292	695	5,310	772	8,620	1,930	16,200	173	186	124
27	153	391	324	844	7,260	1,010	8,290	989	16,000	173	186	120
28	149	490	324	932	9,470	1,790	5,320	706	11,500	169	182	110
29	141	510	324	785	-	2,500	2,080	917	5,010	173	182	96
30	138	434	318	580	-	3,510	1,020	1,580	1,350	196	178	86
31	124	-	324	440	-	3,670	-	1,060	-	198	173	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,054	520	124	260	15,970
November	6,639	510	102	221	13,170
December	6,182	324	124	199	12,260
Calendar year 1938	2,579,795	61,700	102	7,068	5,117,000
January	29,907	3,500	173	965	59,320
February	75,214	9,470	304	2,686	149,200
March	59,179	10,400	260	1,909	117,400
April	125,070	8,620	1,080	4,169	248,100
May	70,685	9,900	311	2,280	140,200
June	140,367	16,200	292	4,679	278,400
July	23,509	2,420	169	758	46,630
August	6,165	399	161	199	12,220
September	3,962	186	86	132	7,860
Water year 1938-39	554,931	16,200	86	1,520	1,101,000

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. Zero of gage is 117.6 feet above mean sea level (general adjustment of 1929).

Drainage area.- 14,390 square miles.

Records available.- April to September 1939.

Extremes.- Maximum discharge during period, 14,600 second-feet June 29 (gage height, 24.13 feet, from graph based on gage readings); minimum discharge observed, 120 second-feet Sept. 7.

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. Discharge for Apr. 1 computed on basis of records for nearby stations. Gage read twice daily, oftener during high stages. Flow partly regulated by reservoirs above Dallas.

Rating table, Apr. 1 to Sept. 30, 1939 (gage height, in feet, and discharge, in second-feet)

1.7	136	4.0	745	14.0	6,230
2.0	171	5.0	1,160	16.0	8,930
2.5	266	6.0	1,610	22.0	12,500
3.0	396	8.0	2,660	24.0	14,500
3.5	553	10.0	3,760		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-			4,050	1,940	1,810	5,000	212	194
2				-			3,930	1,200	1,340	2,010	212	185
3				-			3,580	945	1,710	1,560	212	184
4				-			3,760	825	2,220	2,010	212	171
5				-			3,450	705	4,600	1,910	212	171
6				-			2,880	625	5,520	2,280	212	171
7				-			2,550	553	3,760	2,550	212	147
8				-			2,280	518	3,990	2,550	370	147
9				-			1,910	486	4,830	2,380	344	159
10				-			2,330	518	5,380	1,e10	266	171
11				-			2,990	553	5,260	1,160	242	212
12				-			2,990	945	4,470	745	254	185
13				-			3,160	1,020	3,160	553	242	185
14				-			4,170	705	2,010	454	221	165
15				-			5,260	518	1,480	518	202	159
16				-			5,640	454	1,260	553	202	165
17				-			5,260	3,250	1,070	454	212	159
18				-			4,110	7,140	1,200	344	202	153
19				-			2,660	5,710	665	318	202	153
20				-			2,600	4,950	553	266	417	159
21				-			4,470	7,010	553	254	328	153
22				-			6,160	8,720	1,450	266	221	147
23				-			7,010	9,420	5,120	266	171	147
24				-			7,460	9,420	7,810	266	185	159
25				*832			7,810	8,370	9,710	242	212	159
26				-			8,090	6,000	11,400	221	221	159
27				-			8,370	3,340	13,000	202	221	159
28				-			8,370	1,760	14,200	185	221	147
29				-			7,640	1,120	14,400	202	212	142
30				-			3,940	1,070	10,900	202	212	142
31				-			-	1,860	-	212	202	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	139,100	8,370	1,910	4,637	275,900
May	91,650	9,420	454	2,956	181,800
June	144,821	14,400	553	4,827	287,200
July	31,885	5,000	185	1,028	63,240
August	7,266	417	171	234	14,410
September	4,909	212	142	164	9,740
The period	-	-	-	-	832,300

*Discharge measurement.

Trinity River at Riverside, Tex.

Location.- Chain gage, lat. 30°52', long. 95°24', on bridge of International-Great Northern Railroad at Riverside, Walker County, and 1 mile downstream from Harmon Creek. Zero of gage is 89.86 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 15,510 square miles.

Records available.- January 1903 to December 1906, October 1923 to September 1939.

Average discharge.- 19 years (1903-06, 1923-39), 6,289 second-feet.

Extremes.- Maximum discharge during year, 24,600 second-feet Feb. 26 (gage height, 24.20 feet, from graph based on gage readings); minimum discharge observed, 140 second-feet Oct. 21, Sept. 26.

1903-06, 1923-39: Maximum discharge observed, 76,100 second-feet June 1, 1929 (gage height, 46.10 feet); minimum observed, 70 second-feet Aug. 20-26, Sept. 8-13, 1925, Sept. 29 to Oct. 4, 1931.

Maximum discharge known, 86,600 second-feet June 11, 1908 (gage height, 49.7 feet, present datum), from rating curve extended above 78,000 second-feet.

Remarks.- Daily records fair, monthly records good. Discharge computed from graph drawn on basis of daily gage readings furnished by U. S. Weather Bureau. No diversions except for municipal supply. Flow partly regulated by reservoirs above Dallas.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	295	162	560	620	1,060	12,200	4,640	3,780	1,900	10,100	235	210
2	325	155	660	580	1,480	11,000	4,800	1,970	2,250	4,590	250	200
3	325	155	660	580	2,640	11,000	4,640	1,300	3,280	2,180	265	190
4	280	170	660	580	2,640	11,000	4,460	1,060	2,640	1,900	265	190
5	210	180	580	660	2,800	9,980	4,380	950	6,240	2,180	265	180
6	180	751	500	580	4,550	7,460	3,870	800	13,400	2,110	250	180
7	170	4,280	448	560	5,910	4,640	3,440	700	12,800	2,480	280	190
8	170	1,310	448	500	3,960	2,800	3,120	660	10,600	2,800	265	180
9	170	750	412	540	4,720	1,900	2,720	660	7,550	2,800	310	170
10	210	540	395	650	2,880	1,480	2,320	580	6,440	2,560	465	155
11	465	850	325	2,720	2,040	1,550	2,960	580	6,170	1,830	398	170
12	482	900	310	8,930	1,120	1,480	3,530	580	5,820	1,240	325	210
13	500	482	280	10,600	660	1,360	3,530	750	4,720	850	310	210
14	465	430	280	7,930	620	1,300	3,960	850	3,200	620	265	200
15	378	412	280	7,930	950	1,180	5,140	750	2,110	540	265	180
16	266	430	250	8,330	900	1,060	6,530	580	1,550	540	250	170
17	210	412	222	7,460	1,520	1,000	7,550	660	1,300	590	250	162
18	190	378	222	6,620	3,620	950	6,000	2,400	1,120	540	360	170
19	170	378	235	5,060	5,910	900	4,640	8,330	1,480	448	295	162
20	156	325	265	3,700	8,130	850	3,040	6,710	1,900	378	378	155
21	140	295	280	2,480	8,130	850	3,530	8,030	900	325	500	155
22	148	280	295	1,970	8,030	800	5,820	9,880	900	280	660	155
23	310	250	412	1,550	8,130	800	8,230	10,300	2,380	280	500	155
24	448	250	750	1,420	8,830	750	9,140	10,300	6,350	295	412	165
25	465	222	465	1,240	13,200	750	9,460	9,980	9,140	280	250	155
26	430	210	750	1,120	23,700	800	8,530	8,430	10,900	280	235	148
27	295	200	950	950	19,400	1,530	8,830	5,910	12,300	280	265	155
28	250	210	750	1,000	16,000	4,720	8,930	3,280	13,600	250	265	155
29	210	235	750	1,550	-	3,870	8,330	1,760	14,600	235	235	155
30	190	430	750	1,550	-	3,360	6,800	1,300	14,500	235	235	155
31	170	-	660	1,420	-	3,870	-	1,620	-	235	210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,671	500	140	280	17,200
November	16,012	4,280	155	554	31,760
December	14,824	950	222	478	29,400
Calendar year 1938	3,060,686	44,700	140	8,385	6,070,000
January	91,600	10,600	500	2,955	181,700
February	163,530	23,700	620	5,840	324,400
March	107,190	12,200	750	3,458	212,600
April	162,870	9,460	2,320	5,429	323,000
May	105,340	10,300	580	3,398	208,900
June	182,040	14,800	900	6,068	361,100
July	44,241	10,100	235	1,427	87,750
August	9,710	660	210	313	19,260
September	5,177	210	148	173	10,270
Water year 1938-39	911,205	23,700	140	2,495	1,807,000

Trinity River at Romayor, Tex.

Location.- Chain gage, lat. 30°27', long. 94°51', on Gulf, Colorado & Santa Fe Railway bridge, 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. Zero of gage (base of rail) is 89.62 feet above mean sea level (general adjustment of 1929).

Drainage area.- 17,190 square miles.

Records available.- May 1924 to September 1939.

Average discharge.- 15 years, 6,638 second-feet.

Extremes.- Maximum discharge during year, 31,200 second-feet Feb. 27 (gage height, -27.6 feet, from graph based on gage readings); minimum discharge observed, 230 second-feet Sept. 26, 28, 30.

1924-39: 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.- Daily records poor, monthly records good. Discharge for periods of doubtful gage heights, Apr. 19-30, June 24 to July 1, July 6-12, computed on basis of records for stations near Midway and at Riverside. No diversion of consequence except for municipal supply. Regulation same as that for Trinity River at Dallas. Gage read twice daily.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	424	400	960	2,030	21,300	3,470	7,470	1,490	15,200	353	353
2	400	400	376	870	1,910	15,700	4,030	5,230	1,340	10,900	353	330
3	376	400	424	790	3,660	12,200	4,480	3,150	1,340	7,060	353	330
4	496	448	655	824	6,270	11,200	4,570	2,090	2,700	5,520	353	330
5	520	520	720	1,930	4,660	10,900	4,210	1,610	3,710	2,030	353	310
6	520	520	685	1,440	4,120	10,200	4,210	1,340	5,060		376	310
7	472	545	685	1,050	5,430	8,570	4,030	1,190	11,900		400	290
8	448	2,610	685	960	8,020	6,050	3,550	1,100	12,600		353	290
9	400	3,140	655	790	7,580	4,080	3,150	1,050	10,800		353	270
10	400	2,030	626	790	6,400	2,930	3,000	960	8,350	2,400	353	270
11	400	1,290	598	3,050	5,400	2,390	2,650	915	6,500		353	270
12	424	1,050	593	10,700	2,800	2,090	2,390	870	5,800		376	270
13	520	915	545	19,600	2,030	1,850	2,790	830	5,500	1,610	424	270
14	571	830	496	17,400	1,610	1,730	3,150	830	4,930	1,190	400	270
15	571	720	472	12,200	1,490	1,610	3,310	1,050	4,030	870	353	270
16	571	655	448	10,800	1,730	1,440	3,950	1,240	3,310	755	353	270
17	545	598	448	10,700	1,670	1,340	5,110	1,100	2,270	685	376	290
18	520	545	448	10,600	1,670	1,290	6,000	1,140	1,670	598	400	290
19	496	545	448	9,120	3,760	1,190		3,940	1,490	571	400	270
20	472	545	448	6,700	9,810	1,140		8,020	1,440	571	400	270
21	424	520	448	4,930	11,400	1,100		7,360	2,030	520	400	270
22	400	496	448	3,550	9,720	1,000		6,810	2,030	496	400	270
23	376	472	448	2,720	8,790	960		8,350	1,390	472	424	250
24	353	472	646	2,450	8,020	915	7,100	9,360		424	571	250
25	353	448	870	2,650	10,400	915		9,360		400	571	240
26	472	448	1,240	2,270	24,400	1,190		9,240	9,500	376	448	230
27	571	448	1,490	1,850	30,400	1,290		8,460		376	353	240
28	545	448	1,670	1,550	26,400	2,810		6,700		353	353	230
29	520	424	1,440	1,440	-	5,420		4,570		376	353	240
30	496	400	1,140	1,670	-	4,570		3,000		376	353	230
31	448	-	960	2,270	-	3,550	-	2,030	-	353	353	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14,480	571	353	467	28,720
November	23,306	3,140	400	777	46,230
December	21,660	1,670	376	699	42,960
Calendar year 1938	3,214,951	41,300	353	8,808	6,376,000
January	148,624	19,600	790	4,794	294,800
February	211,580	30,400	1,490	7,556	419,700
March	142,920	21,300	915	4,610	283,500
April	153,250	-	2,390	5,108	304,000
May	120,365	9,360	830	3,883	238,700
June	168,180	-	-	5,606	333,600
July	66,882	15,200	353	2,157	132,700
August	12,014	571	353	388	23,830
September	8,273	353	230	276	16,410
Water year 1938-39	1,091,534	30,400	230	2,991	2,165,000

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. Zero of gage is 2.22 feet below mean sea level (general adjustment of 1929).

Drainage area.- 17,500 square miles.

Records available.- October to September 1939 (gage heights and discharge measurements only).

Extremes.- Maximum gage height during year, 24.90 feet Mar. 1, from graph based on gage readings; minimum gage height observed, 2.90 feet Nov. 28 (affected by tide).
Maximum stage since 1903, 28.6 feet May 8-11, 1922, from data furnished by U. S. Weather Bureau.

Remarks.- Discharge not computed because of tides affecting stage-discharge relation. Gage-height record furnished by U. S. Weather Bureau. Gage read once daily.

Discharge measurements, in second-feet, 1939

Jan. 24	4,590	July 3	12,400
Mar. 4	19,100	Aug. 8	367
6	14,700		

Gage height, in feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	3.8	3.4	5.0	7.2	24.85	9.95	14.6	6.95	18.2	3.2	3.5
2	3.4	4.1	3.6	4.9	7.5	24.65	9.55	13.65	6.5	18.5	3.2	3.4
3	3.2	4.8	3.9	4.7	7.95	23.55	9.8	11.5	6.95	17.1	3.1	3.7
4	3.6	4.5	4.0	5.0	10.5	21.9	10.0	9.1	8.15	13.8	3.3	3.4
5	3.7	4.3	4.0	4.8	12.8	20.5	10.3	7.25	9.05	10.3	3.2	3.2
6	4.0	5.0	4.1	5.6	11.8	19.35	10.0	6.4	10.2	7.75	3.2	3.4
7	3.8	4.8	4.3	6.0	11.35	18.15	9.7	5.8	12.75	7.0	3.5	3.4
8	3.6	3.8	4.1	4.5	12.75	16.45	9.2	5.7	17.2	6.8	3.7	3.2
9	3.7	5.2	4.0	5.0	14.75	14.1	8.8	5.4	17.9	6.9	3.4	3.2
10	3.6	8.6	3.9	5.15	14.45	11.7	8.2	5.0	16.9	7.0	3.1	3.0
11	4.2	7.3	4.0	7.45	13.1	9.9	7.8	4.8	14.8	7.7	3.2	3.2
12	4.5	6.1	3.9	13.3	11.15	8.85	7.3	4.8	13.1	8.3	3.2	3.1
13	4.8	5.2	3.8	20.3	9.25	7.9	6.0	4.5	12.4	9.5	3.1	3.3
14	4.8	4.9	3.3	22.6	7.85	7.5	8.2	4.2	11.7	8.3	3.3	3.3
15	4.7	4.5	3.2	22.1	7.0	7.0	8.8	4.0	10.95	6.8	3.5	3.1
16	4.6	4.6	3.6	20.5	6.5	6.6	9.8	4.3	9.8	5.5	3.4	3.2
17	4.7	4.5	3.8	19.4	6.7	6.2	10.9	4.8	8.3	5.2	3.2	3.0
18	5.0	4.6	3.3	18.7	8.0	6.1	11.8	5.0	7.3	4.8	3.3	3.0
19	4.6	3.9	3.2	18.0	8.6	5.9	12.0	5.4	6.8	4.5	3.4	3.2
20	4.0	3.6	3.6	16.7	10.4	5.8	11.0	8.8	6.3	4.3	3.4	3.1
21	3.5	4.0	3.5	14.6	16.4	5.5	9.8	13.65	6.0	4.1	3.3	3.0
22	4.0	4.0	3.7	12.4	17.85	5.4	8.3	13.4	6.2	4.0	3.5	3.0
23	3.6	3.6	4.0	10.75	16.9	5.2	8.25	13.25	7.0	3.9	3.2	3.4
24	3.4	3.2	3.7	9.6	16.05	5.0	9.7	14.5	5.7	3.6	3.3	3.2
25	3.4	3.2	3.9	8.85	15.5	5.0	11.3	15.3	5.05	3.5	3.3	3.3
26	3.8	3.3	5.6	8.8	19.35	6.0	12.75	15.55	8.2	3.2	3.2	3.5
27	3.8	3.0	6.2	8.0	23.65	6.9	13.5	15.45	12.4	3.2	3.4	3.2
28	3.9	2.9	6.0	7.4	24.6	7.2	13.95	14.75	14.7	3.2	3.3	3.0
29	4.0	3.0	6.7	7.0	-	10.0	14.35	13.1	16.2	3.5	3.2	4.2
30	3.9	3.3	6.2	6.6	-	12.3	14.6	11.0	17.4	3.3	3.2	4.0
31	3.9	-	5.5	6.4	-	11.3	-	8.6	-	3.3	3.2	-

Big Sandy Creek near Bridgeport, Tex.

Location.- Water-stage recorder, lat. 33°13', long. 97°41', at bridge on State Highway 24, about 1.9 miles upstream from Turkey Creek, about 4.4 miles upstream from confluence with West Fork of Trinity River, and 5 miles east of Bridgeport, Wise County. Zero of gage is 727.44 feet above mean sea level (general adjustment of 1929).

Drainage area.- 276 square miles.

Records available.- October 1936 to September 1939.

Extremes.- Maximum discharge during year, 608 second-feet Jan. 9 (gage height, 8.16 feet); no flow at times.

1936-39: Maximum discharge, 7,000 second-feet Mar. 28, 1938 (gage height, 10.70 feet), from rating curve extended logarithmically above 1,000 second-feet; no flow at times.

Maximum stage known in recent years, about 12.0 feet in September 1932, according to information furnished by local residents.

Remarks.- Records poor. No diversion above station.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)

3.9	0	5.2	12.2	6.6	80
4.0	.1	5.4	17.0	6.8	106
4.2	.5	5.6	23.0	7.0	140
4.4	1.3	5.8	30.0	7.2	185
4.6	2.9	6.0	37.9	7.4	245
4.8	5.6	6.2	47	7.6	320
5.0	8.7	6.4	61	7.9	447

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0		0	0	0	0	0.1	0	0
2				0		0	0	0	0	35	0	0
3				0		0	0	0	0	.1	0	0
4				0		0	0	0	0	0	0	0
5				0		0	2.6	0	4.5	0	0	0
6				0		0	12	0	.2	0	0	0
7				0		0	.2	0	0	0	0	0
8				66		0	0	.1	0	0	2.7	0
9				447		0	0	0	0	0	4.4	0
10				256		0	0	0	0	0	0	0
11				16		0	0	0	0	0	0	0
12				4.3		0	0	0	0	0	0	0
13				.7		0	0	0	0	0	0	0
14				.3		0	0	0	0	0	0	0
15				.2		0	0	0	0	0	0	0
16				.1		0	162	0	0	0	0	0
17				0		0	239	1.1	0	0	0	0
18				0		0	21	342	0	0	0	0
19				0		0	3.9	99	0	0	0	.2
20				0		0	1.0	8.3	0	0	0	0
21				0		0	.4	1.1	0	0	0	0
22				0		0	.1	.2	0	0	0	0
23				0		0	0	0	22	0	9.3	0
24				0		0	0	0	61	0	0	0
25				0		95	0	0	17	0	0	0
26				0		290	0	0	.4	0	0	0
27				0		44	0	0	0	0	13	0
28				0		6.4	0	0	0	0	111	0
29				0		1.5	0	0	0	0	3.0	0
30				0		.6	0	0	0	0	0	0
31				0		.2	-	0	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	15,220.7	3,580	0	41.7	30,180
January	790.6	447	0	25.5	1,570
February	0	0	0	0	0
March	437.7	290	0	14.1	868
April	442.2	239	0	14.7	877
May	451.8	342	0	14.6	896
June	105.1	61	0	3.50	208
July	35.2	35	0	1.14	70
August	143.4	111	0	4.63	284
September	.2	.2	0	.01	.4
Water year 1938-39	2,406.2	447	0	6.59	4,770

Peak discharge.- Jan. 9 (11:00 p.m.) 608 sec.-ft.; Apr. 17 (1 a.m.) 392 sec.-ft.; May 18 (7:00 p.m.) 425 sec.-ft.

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 Texas & Pacific Railway bridge at Fort Worth, Tarrant County, and 3 miles upstream from West Fork of Trinity River. Prior to Dec. 8, 1938, water-stage recorder 88 feet upstream, same datum. Zero of gage is 532.91 feet above mean sea level (general adjustment of 1929).

Drainage area.- 522 square miles.

Records available.- March 1924 to September 1939.

Average discharge.- 15 years, 76.1 second-feet.

Extremes.- Maximum discharge during year not determined; no flow at times.
1924-39: 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 for period of missing gage heights, Apr. 11-23 (computed on basis of records for West Fork of Trinity River at Fort Worth and weather records), and those below 25 second-feet (stage-discharge relation affected by accumulation of drift on dam) all of which are poor. Discharge for Apr. 10, 24 based on partial gage-height record. Texas & Pacific Railway Co. diverts small amount of water from pool in which gage is located.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0	2.1	2.1	4.4	1.6	11	1.4	17	
2			0	0	2.1	1.6	1.6	1.6	6.3	3.5	*1.6	
3			0	0	1.6	2.1	1.2	1.6	3.5	.4	*1.2	
4			0	0	3.5	1.6	1.2	1.6	2.7	0	*.8	
5			0	0	3.5	2.1	1.2	1.6	73	0	*.5	
6			0	0	3.5	1.2	9.7	.5	76	0	*.3	
7			0	0	3.5	1.2	2.7	.8	8.5	0	*.3	
8			0	0	1.6	1.6	1.6	1.6	4.4	0	*.3	
9			0	2.7	1.6	1.6	2.1	1.2	3.5	0	*.2	
10			0	26	1.6	1.2	1.6	.5	.6	0	*.1	
11			0	16	1.2	1.2		.5	.1	0	*.1	
12			0	5.5	1.2	.6		.1	0	0	*0	
13			0	1.6	1.6	.8	7.0	0	0	0	0	
14			0	1.6	12	.6		.1	0	0	.5	
15			0	1.2	14	.5		.1	0	0	.5	
16			0	.8	2.1	.5		1,210	0	0	.5	
17			0	1.2	2.1	.5		737	0	0	.5	
18			0	1.2	2.7	.5	500	350	1.9	0	.5	
19			0	1.6	32	.5		140	444	0	0	
20			0	1.2	19	.8		45	67	.9	.2	
21			0	.8	3.5	.8		25	12	0	.2	
22			0	1.2	2.1	1.2	7.0	16	7.4	0	.1	
23			.3	2.7	2.1	.6		12	5.3	0	0	
24			0	.8	1.6	1.6	5.3	8.5	1.2	0	0	
25			0	1.2	6.3	3.5	5.3	3.5	.6	0	.2	
26			0	3.5	2.7	2.1	6.5	7.4	0	0	0	
27			0	2.1	2.1	6.3	6.3	12	0	0	0	
28			0	1.6	2.1	34	2.1	3.5	0	0	0	
29			0	2.1	-	27	1.6	4.4	0	0	0	
30			.1	2.1	-	45	1.6	3.5	0	0	0	
31			0	2.1	-	7.4	-	2.7	-	264	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	.4	.5	0	.01	.8
Calendar year 1938	61,205.8	6,650	0	168	121,400
January	79.6	25	0	2.57	158
February	135.0	32	1.2	4.82	268
March	151.9	45	.5	4.90	301
April	2,614.0	-	-	87.1	5,180
May	2,653.5	1,210	0	85.6	5,260
June	729.4	444	0	24.3	1,450
July	270.2	264	0	8.72	536
August	24.6	17	0	.79	49
September	0	0	0	0	0
Water year 1938-39	6,658.6	-	0	18.2	13,200

Peak discharge.- May 16 (9 a.m.) 3,450 second-feet; May 17 (10:30 a.m.) 2,430 sec.-ft.; June 19 (6:30 a.m.) 1,510 sec.-ft.

*Stage-discharge relation affected by accumulation of drift on dam; discharge adjusted on basis of flow of West Fork of Trinity River at Fort Worth.

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 Muddy Creek. Zero of gage is 404.3 feet above mean sea level (general adjustment of 1929).

Drainage area.- 831 square miles.

Records available.- November 1923 to September 1939.

Average discharge.- 16 years, 404 second-feet.

Extremes.- Maximum discharge observed during year, 26,000 second-feet Apr. 17 (gage height, 18.45 feet); no flow at times.
1923-39: 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 fair. Gage read twice daily. No diversion above station.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)

0.3	0	1.2	10.0	11.0	990
.5	.2	1.5	18.8	12.0	1,430
.6	.4	2.0	38.0	13.0	2,440
.7	1.0	3.0	89.3	14.0	4,550
.8	2.0	4.0	150	15.0	7,900
.9	3.4	6.0	287	16.0	12,200
1.0	5.2	10.0	760	17.0	17,600

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	55	558	84	26	3.9	0	
2					0	29	128	78	43	9.4	0	
3					0	23	78	72	223	15	0	
4					0	18	57	67	159	143	0	
5					0	11	135	62	170	56	0	
6					0	5.8	7,650	57	732	20	0	
7					0	3.9	11,200	50	1,220	7.2	0	
8					0	2.6	4,250	43	1,370	3.1	0	
9					0	2.3	1,280	52	1,260	1.3	0	
10					0	1.8	221	43	149	.5	0	
11					0	1.3	146	67	84	.3	0	
12					0	1.0	106	50	55	.2	0	
13					0	.9	89	38	40	.7	0	
14					0	.8	78	30	109	.2	0	
15					1.6	.4	67	28	84	.1	0	
16					.2	.3	317	26	48	0	0	
17					.1	.3	11,200	76	29	0	0	
18					.1	.3	16,300	182	20	0	0	
19					83	.2	5,750	124	316	0	0	
20					176	.2	1,650	78	881	0	0	
21					202	.2	330	72	985	0	0	
22					108	.2	227	78	243	0	0	
23					29	.2	152	43	65	0	0	
24					11	.2	163	26	36	0	0	
25					192	32	150	17	24	0	0	
26					158	399	137	12	36	0	12	
27					196	822	124	81	23	0	3.8	
28					134	930	112	534	12	0	.8	
29					-	1,050	106	224	6.6	0	.2	
30					-	1,320	95	72	4.8	0	.1	
31					-	1,320	-	38	-	-	-	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	273,396.4	45,700	0	749	542,300
January	0	0	0	0	0
February	1,290.4	202	0	46.1	2,560
March	6,031.9	1,320	.2	195	11,960
April	62,886	16,300	57	2,096	124,700
May	2,504	534	12	80.8	4,970
June	8,453.4	1,370	4.8	282	16,770
July	260.9	143	0	8.42	517
August	16.9	12	0	.55	34
September	0	0	0	0	0
Water year 1938-39	81,443.5	16,300	0	223	161,500

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. Zero of gage is 294.26 feet above mean sea level (general adjustment of 1929).

Drainage area.- 958 square miles.

Records available.- March to September 1939.

Extremes.- Maximum discharge during period, 14,400 second-feet June 20 (gage height, 23.26 feet); no flow Sept. 11-30.
Maximum stage known, about 27½ feet December 1913, according to information furnished by local residents.

Remarks.- Records fair except those for periods of missing gage heights, Apr. 7, 17-19, 22-29, Aug. 11 to Sept. 30 (computed on basis of discharge measurements, known range in stage, weather records, and records for Richland Creek near Richland) and those below 3 second-feet, all of which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	66	33	164	419	1.1	0.1
2						-	47	31	365	409	.6	.1
3						-	33	29	865	644	.6	.1
4						-	27	69	682	140	.6	.1
5						-	24	59	1,040	62	6.2	.1
6						-	*60	34	2,130	42	20	.1
7						-	309	27	2,240	34	5.2	.1
8						-	*212	28	1,260	29	2.4	.1
9						-	89	23	261	30	2.2	.1
10						-	61	24	110	24	*.8	.1
11						-	47	27	78	18	.8	0
12						-	40	29	e57	14	.7	0
13						-	35	22	*42	13	.7	0
14						-	32	18	*36	12	.7	0
15						-	30	15	32	13	.6	0
16						-	*103	17	28	12	.6	0
17						*29		101	24	9.6	.6	0
18						26	411	1,240	21	7.2	.5	0
19						25		1,400	1,850	5.0	.5	0
20						27	*159	1,170	11,000	3.4	.5	0
21						24	*114	309	9,480	2.5	.4	0
22						23	89	100	7,140	1.9	.4	0
23						23	73	66	2,320	1.2	.4	0
24						23	62	46	328	.8	.3	0
25						25	53	35	176	.5	.3	0
26						28	48	29	138	.5	.3	0
27						68	44	43	114	.5	.2	0
28						43	42	60	94	2.5	.2	0
29						60	38	186	80	5.0	.2	0
30						71	*37	106	213	4.1	.1	0
31						65	-	116	-	1.7	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 17-31	560	71	23	37.3	1,110
April	3,207	-	24	107	6,360
May	5,492	1,400	15	177	10,890
June	42,368	11,000	21	1,412	84,040
July	1,961.5	644	.5	63.3	3,890
August	48.8	20	.1	1.57	97
September	1.0	.1	0	.03	2.0
The period	-	-	-	-	160,400

Peak discharge.- May 19 (4 a.m.) 1,450 sec.-ft.; June 7 (5 a.m.) 3,670 sec.-ft.; June 20 (3 p.m.) 14,400 sec.-ft.
*Discharge based on partial gage-height record.

Richland Creek near Richland, Tex.

Location.- Water-stage recorder, lat. 31°57', long. 96°25', at bridge on U. S. Highway 75, 750 feet downstream from Texas & New Orleans Railroad bridge, 1 mile north of Richland, Navarro County, and 3½ miles downstream from Pinoak Creek. Zero of gage is 299.0 feet above mean sea level (general adjustment of 1929). Station is 750 feet downstream from site of station discontinued Feb. 11, 1925, same datum.

Drainage area.- 760 square miles.

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

Extremes.- Maximum discharge during period, 33,500 second-feet June 20 (gage height, 22.54 feet); no flow Aug. 2 to Sept. 30.
Maximum stage known, 25.5 feet, December 1913, according to information furnished by engineers of Texas & New Orleans Railroad.

Remarks.- Records good. Discharge for period of missing gage heights, May 10-12, computed from graph drawn on basis of known range of stage and weather records. Discharge for periods of incomplete gage-height record, Mar. 17, May 9, 13, June 9-12, computed on basis of partial record. No large diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	17	10	219	587	0.2	
2						-	15	7.9	56	110	0	
3						-	15	7.0	24	196	0	
4						-	13	7.0	22	50	0	
5						-	12	7.0	373	26	0	
6						-	10	7.0	906	18	0	
7						-	115	7.0	733	14	0	
8						-	34	529	98	12	0	
9						-	17	469	48	9.4	0	
10						-	13	31	31	8.2	0	
11						-	12	13	23	7.0	0	
12						-	11	7.4	20	6.0	0	
13						-	9.7	5.8	17	5.5	0	
14						-	8.9	4.3	14	4.8	0	
15						-	8.2	3.4	13	5.3	0	
16						-	17	4.4	11	8.9	0	
17						19	459	631	8.4	6.5	0	
18						17	331	1,780	6.7	5.3	0	
19						16	45	804	1,770	3.6	0	
20						17	32	231	21,700	2.2	0	
21						17	31	944	15,200	1.4	0	
22						16	28	126	6,020	1.0	0	
23						16	25	36	1,240	.7	0	
24						18	22	23	157	.4	0	
25						200	20	17	95	.4	0	
26						762	19	14	71	.6	0	
27						310	19	15	60	.4	0	
28						56	36	17	51	.4	0	
29						28	18	13	43	.5	0	
30						21	12	77	451	.3	0	
31						19	-	209	-	.2	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 17-31	1,532	762	16	102	3,040
April	1,424.8	459	8.2	47.5	2,830
May	6,057.2	1,780	3.4	195	12,010
June	49,481.1	21,700	6.7	1,649	98,140
July	1,092.0	587	.2	35.2	2,170
August	.2	.2	0	.01	.4
September	0	0	0	0	0
Water year	-	-	-	-	118,200

Peak discharge.- May 18 (12:05 p.m.) 2,020 sec.-ft.; June 20 (3:30 p.m.) 33,500 sec.-ft.; June 30 (11:30 p.m.) 1,150 sec.-ft.

West Fork of San Jacinto River near Conroe, Tex.

(Formerly published as 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 International-Great Northern Railroad bridge, 3⅛ miles downstream from Lake Creek, and 4¼ miles south of Conroe, Montgomery County. Zero of gage is 100.3 feet above mean sea level (general adjustment of 1929). Station is 285 feet upstream and at different datum from station (inverted staff) that was discontinued Sept. 30, 1927.

Drainage area.- 832 square miles.

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

Extremes.- Maximum discharge during period, 277 second-feet July 13 (gage height, 3.46 feet); minimum, 12 second-feet Sept. 27-30.

1924-27, 1939: Maximum discharge not determined; maximum gage height observed, 24.2 feet, present site and datum, Apr. 22, 1926; minimum discharge observed, 11 second-feet Aug. 17, 19, 21, 22, 1925.

Maximum stage known, 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. Flood of May 22, 1922, reached same stage as flood of Apr. 22, 1926.

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

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	54	18
2										-	46	16
3										-	43	16
4										-	34	15
5										-	27	14
6										-	23	14
7										-	22	13
8										-	22	13
9										-	22	14
10										-	20	19
11										-	19	23
12										-	18	23
13										232	17	19
14										268	18	16
15										187	16	16
16										111	17	15
17										82	54	14
18										64	71	14
19										49	31	15
20										40	26	16
21										33	21	16
22										29	18	15
23										26	16	14
24										22	16	13
25										21	15	13
26										20	16	13
27										19	21	12
28										18	30	12
29										18	24	12
30										21	22	12
31										46	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June					
July 13-31	1,306	268	18	68.7	2,590
August	816	71	15	26.4	1,620
September	455	23	12	15.2	902
The period	-	-	-	-	5,110

West Fork of San Jacinto River near Humble, Tex.

Location.- Water-stage recorder, lat. 30°01'35", long. 95°15'30", at bridge on State Highway 35, 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. Zero of gage is 30.53 feet above mean sea level (general adjustment of 1929). Prior to Mar. 6, 1939, chain gage at same site and datum.

Drainage area.- 1,811 square miles.

Records available.- October 1928 to September 1939.

Average discharge.- 10 years (1929-39), 878 second-feet.

Extremes.- Maximum discharge observed during year, 9,780 second-feet Mar. 1 (gage height, 11.4 feet); minimum, 16 second-feet July 9.
1928-39: Maximum discharge, 111,000 second-feet May 31, 1929 (gage height, 33.0 feet, on present gage), by slope-area method; minimum discharge, 14 second-feet Sept. 8-10, 1931.

Remarks.- Records fair except those for periods of missing gage heights, May 21 to June 3, July 12-16, which were computed on basis of known range in stage, weather records, and records for San Jacinto River near Huffman and are poor. Discharge for May 17-20, June 4-13, July 11, 17-27 computed from graph based on available gage heights and once-daily readings furnished by Department of Agriculture (silt sampler). No diversion above station. Gage read twice daily Oct. 1 to Mar. 5.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	34	34	345	452	9,340	224	68		40	96	51
2	39	36	27	254	355	4,510	194	64	1,680	34	102	46
3	34	46	50	216	828	2,080	172	64		32	99	42
4	30	60	44	221	1,530	1,050	162	64	1,440	29	88	42
5	36	108	37	647	1,340	760	151	64	1,300	26	75	37
6	33	105	48	404	895	660	154	61	1,220	25	70	37
7	36	75	57	258	795	582	148	59	1,580	22	61	36
8	32	68	48	194	647	506	144	61	1,830	20	55	34
9	36	61	68	183	614	440	141	59	2,080	18	55	36
10	32	60	77	179	1,140	399	148	57	1,680	22	55	37
11	36	103	68	3,170	1,140	372	188	55	760	50	53	44
12	32	183	59	3,510	872	350	137	53	330		51	59
13	33	131	64	5,990	345	320	121	53	237		51	53
14	36	91	55	4,460	250	300	114	53	212		44	50
15	32	77	50	4,750	205	272	108	53	172	1,010	46	44
16	34	70	46	5,050	183	241	105	55	134		46	40
17	37	55	53	4,180	154	224	105	64	114	388	51	42
18	29	46	50	2,630	108	209	102	99	99	282	57	40
19	33	53	46	1,730	389	201	102	176	85	201	96	50
20	33	50	50	1,400	1,010	186	96	388	80	162	73	53
21	33	46	53	1,260	1,680	172	94		80	137	88	40
22	33	51	57	985	1,830	165	91		162	131	66	39
23	34	48	53	595	1,830	158	88		325	128	64	37
24	30	42	77	536	1,440	151	85		350	111	51	36
25	34	51	180	654	1,380	168	82		291	96	46	34
26	33	46	396	518	5,420	590	80	99	201	82	44	34
27	36	39	706	422	6,150	640	77		141	59	46	36
28	32	30	673	350	7,540	940	70		94	59	48	34
29	33	26	673	340	-	608	70		61	57	55	34
30	34	32	628	482	-	366	70		48	59	70	32
31	33	-	524	582	-	277	-		-	88	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,047	39	29	33.8	2,080
November	1,933	183	26	64.4	3,830
December	5,051	706	27	163	10,020
Calendar year 1938	208,551	9,340	26	571	413,600
January	48,495	5,990	179	1,564	96,190
February	40,222	7,540	108	1,436	79,780
March	27,237	9,340	151	879	54,020
April	3,593	224	70	120	7,130
May	2,759	-	-	89.0	5,470
June	20,146	-	48	672	39,960
July	7,408	-	18	239	14,690
August	1,961	102	44	63.3	3,890
September	1,229	59	32	41.0	2,440
Water year 1938-39	161,081	9,340	18	441	319,500

East Fork of San Jacinto River near Cleveland, Tex.

Location.- Water-stage recorder, lat. 30°20', long. 95°07', at State Highway 105, 83 feet downstream from Gulf, Colorado & Santa Fe Railway bridge, 1½ miles west of Cleveland, Liberty County, and 4 miles downstream from Nebbletts Creek. Zero of gage is 113.1 feet above mean sea level.

Drainage area.- 330 square miles.

Records available.- April to September 1939.

Extremes.- Maximum discharge during period, 140 second-feet Apr. 29 (gage height, 1.94 feet); minimum, 7.2 second-feet Sept. 6.
Maximum stage known, 19.9 feet May 5, 1935, according to information furnished by local resident.

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

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	49	20	17	14	9.9
2							-	40	30	18	16	9.9
3							-	33	54	28	15	9.5
4							-	30	66	33	16	9.5
5							-	27	111	22	14	9.2
6							-	25	133	20	14	8.5
7							-	25	106	17	22	8.8
8							-	26	83	14	18	8.8
9							-	25	88	14	15	8.8
10							-	24	56	13	13	9.2
11							-	16	44	18	13	9.5
12							-	20	35	29	12	9.9
13							-	20	28	50	12	10
14							-	20	22	42	13	9.2
15							-	19	25	27	13	8.8
16							-	20	22	24	17	8.2
17							-	36	21	24	20	8.2
18							-	83	20	22	30	8.8
19							-	31	20	19	18	9.2
20							-	83	21	17	19	9.5
21							-	70	26	16	14	16
22							-	50	28	15	14	16
23							-	40	86	14	14	12
24							-	31	66	14	13	9.2
25							-	29	40	14	13	8.8
26							-	32	29	14	12	8.8
27							25	25	24	14	12	8.8
28							25	21	21	13	12	8.5
29							84	23	19	13	12	8.8
30							84	22	18	13	12	11
31							-	20	-	14	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	1,063	83	16	34.3	2,110
June	1,364	133	18	45.5	2,710
July	622	50	13	20.1	1,230
August	463	30	11	14.9	918
September	291.3	16	8.2	9.71	578
The period	-	-	-	-	7,550

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 Texas & New Orleans Railroad bridge, and 3¼ miles upstream from Whiteoak Bayou. Zero of gage is 4.08 feet below mean sea level (general adjustment of 1929).

Drainage area.- 326 square miles.

Records available.- May 1936 to September 1939.

Extremes.- Maximum discharge during year, 2,530 second-feet July 15 (gage height, 21.10 feet); minimum not determined.

1936-39: 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, figure of discharge 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; figure of discharge furnished by W. E. White, assistant engineer, city of Houston.

Remarks.- Records good except those below 60 second-feet, which are poor. Discharge for periods of missing gage heights (low-water periods), Oct. 1-6, Oct. 23 to Nov. 2, Nov. 14-22, 25, Nov. 28 to Dec. 1, Dec. 5, Mar. 19-21, 25-28, Apr. 23-26, May 24, 27, June 23-29, July 2-8, Aug. 7, 9, 10, 13, 25, Aug. 31 to Sept. 4, computed from graph drawn on basis of weather records, engineer's notes, and weekly readings furnished by city of Houston. No diversion above station.

Rating tables, water year 1938-39 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Mar. 3 to May 28)

Oct. 1, 1938 to June 2, 1939

7.8	1.3	12.5	22.0	17.0	1,140
8.0	2.2	13.0	29.0	20.0	2,130
8.5	4.4	13.1	34.0	22.0	2,860
9.0	6.6	13.2	53.0		
12.0	19.6	14.0	280		

June 3 to Sept. 30, 1939

8.0	9.5	11.0	20.5
9.0	14.5	12.0	23.8
10.0	17.5		

Note.- Same as preceding table above 13.0 feet.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	3.1	2.6	22	114	77	3.8	5.2	15	*10	13	12
2	4.9	3.1	*2.7	18	116	44	3.7	4.6	72	9.5	14	12
3	4.4	*5.3	4.9	15	61	31	3.3	4.2	465	9.5	14	12
4	4.0	12	*2.9	14	322	26	3.0	4.1	964	9.5	*12	13
5	4.4	10	2.4	11	311	22	3.8	3.7	1,230	9.5	*12	*13
6	5.1	11	*2.6	8.6	168	19	9.5	3.3	964	9.5	*10	11
7	*6.0	20	*2.9	5.6	103	16	8.4	2.9	593	9.5	10	11
8	7.0	21	2.7	5.7	86	14	7.3	3.0	251	9.5	*11	14
9	7.9	21	2.6	9.0	58	11	6.0	4.4	94	*11	10	22
10	8.1	19	2.7	9.9	49	9.2	4.9	5.3	49	15	10	22
11	8.6	15	2.6	370	33	6.4	4.4	5.0	33	96	*11	22
12	8.8	11	2.7	923	30	4.1	4.6	5.0	28	1,840	*10	19
13	9.2	*7.0	3.0	1,260	24	*2.7	4.4	5.5	26	2,200	10	16
14	9.9	3.8	2.8	1,510	22	2.8	6.2	5.2	23	2,020	10	13
15	10	2.3	2.8	1,480	20	*2.3	5.2	4.8	21	2,450	11	14
16	11	1.8	2.8	1,140	17	2.3	4.5	5.0	19	2,240	11	14
17	14	1.8	2.8	821	38	2.3	4.1	5.1	17	1,580	11	14
18	11	1.9	2.8	479	24	*2.3	3.3	8.8	15	964	*10	16
19	17	2.0	2.8	217	22	2.0	3.4	15	13	493	*10	17
20	16	2.1	3.0	117	21	1.8	3.1	9.9	12	160	*10	18
21	11	2.2	2.8	75	17	1.8	2.6	4.6	11	61	*10	18
22	*6.2	2.2	3.1	46	18	*1.8	2.2	*1.8	*11	37	*10	19
23	4.4	*2.6	7.3	69	17	*1.9	2.2	*1.8	10	29	11	20
24	4.0	*2.9	15	91	15	*2.2	2.1	1.3	10	27	*10	20
25	3.9	2.4	33	97	165	2.0	1.9	*1.8	10	25	10	20
26	3.9	2.7	80	77	140	2.0	1.8	*1.6	10	23	*10	18
27	3.8	2.6	72	49	260	2.0	*3.4	1.4	9.5	21	10	16
28	3.6	2.6	97	39	137	2.0	6.0	*1.8	9.5	19	10	14
29	3.5	2.5	75	40	-	2.6	6.0	*8.2	9.5	18	10	12
30	3.4	2.4	37	75	-	2.5	5.5	24	*10	15	11	14
31	3.3	-	26	140	-	3.4	-	19	-	14	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	223.8	17	3.3	7.22	444
November	199.3	21	1.8	6.64	395
December	505.2	97	2.4	16.3	1,000
Calendar year 1938	80,722.3	8,170	-	221	160,100
January	9,233.8	1,510	5.6	298	18,310
February	2,408	322	15	86.0	4,780
March	322.4	77	1.8	10.4	639
April	130.6	9.5	1.8	4.35	259
May	177.3	24	1.3	5.72	352
June	5,004.5	1,230	9.5	167	9,930
July	14,434.5	2,450	9.5	466	28,630
August	333	14	10	10.7	660
September	476	22	11	15.9	944
Water year 1938-39	33,448.4	2,450	1.3	91.6	66,340

*Discharge based on partial gage-height record.

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. Zero of gage is 4.08 feet below mean sea level (general adjustment of 1929).

Drainage area.- 87.0 square miles.

Records available.- May 1936 to September 1939.

Extremes.- Maximum discharge during year, 1,980 second-feet July 13 (gage height, 33.40 feet); minimum, 0.3 second-foot July 8, 9.

1936-39: Maximum discharge, 3,570 second-feet May 7, 1938 (gage height, 37.98 feet); minimum, that of July 8, 9, 1939.

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

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

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	0.8	0.8	1.4	14	34	1.4	*1.0	13	0.5	1.4	0.5
2	.8	1.2	.8	1.2	12	21	1.4	*.9	63	.6	1.4	.4
3	.8	3.9	1.2	1.1	10	14	1.3	†.9	204	.6	1.2	.4
4	.9	3.8	.8	2.3	14	9.8	1.4	.8	138	.5	1.0	.4
5	.9	2.3	.7	1.3	22	8.4	2.2	.9	49	.5	1.0	.4
6	.9	1.5	.6	.9	15	13	2.7	.8	36	.5	.9	.7
7	.9	4.7	.7	.9	11	7.7	1.3	.9	19	.4	.9	.6
8	.9	2.8	.7	.9	12	6.0	1.2	1.3	10	.3	1.1	91
9	.9	2.7	.8	1.0	9.4	4.7	1.8	2.0	6.3	.7	.8	219
10	.9	3.0	.7	8.4	8.1	3.9	1.5	.8	3.9	1.8	1.0	50
11	1.1	1.6	.6	503	6.9	3.4	1.3	.7	2.3	25	1.2	33
12	.9	1.0	.6	628	5.8	3.0	1.3	.7	19	1,090	1.1	15
13	.9	.9	.5	483	5.2	2.8	1.3	.8	1.3	1,730	.9	22
14	.9	.8	.6	336	4.3	2.7	1.6	1.0	1.0	880	.6	6.0
15	1.0	1.0	.5	132	3.4	2.3	1.4	.7	.8	382	.6	2.8
16	.9	.9	.5	71	3.0	2.2	1.5	.9	.7	115	.6	1.9
17	1.6	.8	.4	44	20	2.0	1.3	.8	.9	56	.6	12
18	1.3	.8	.4	36	11	2.3	1.4	5.2	.7	32	.9	17
19	2.4	.8	.4	31	12	2.2	1.2	4.5	.7	20	.8	1.6
20	1.4	.6	.5	22	16	2.2	1.1	2.7	.7	13	.6	.9
21	.9	.6	.6	16	12	2.0	1.1	3.8	.9	8.8	.7	.8
22	.7	.6	.6	12	9.1	2.2	1.0	1.8	.7	5.5	.8	.8
23	.7	.7	4.6	22	5.8	2.2	.9	1.4	.7	3.8	.6	1.1
24	.7	.7	3.9	52	3.9	2.3	.9	.9	.6	2.4	.5	.9
25	.7	.6	16	26	108	2.3	1.1	.9	.6	1.8	.6	.7
26	.7	.5	48	15	414	2.0	1.2	1.1	.5	1.4	.7	.5
27	.7	.5	32	9.8	202	2.0	1.0	.8	.5	1.4	.7	.5
28	.8	.5	14	6.9	65	1.9	1.2	.6	.7	1.1	.7	.4
29	.7	.6	5.8	15	-	1.9	†1.4	5.4	.5	.9	.7	.6
30	.7	.7	3.0	23	-	1.6	*1.2	2.8	.4	1.0	.6	4.7
31	.7	-	1.9	26	-	1.4	-	1.2	-	.9	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	29.2	2.4	0.7	0.94	58
November	41.9	4.7	.5	1.40	83
December	143.4	48	.4	4.63	284
Calendar year 1938	20,389.6	3,100	.4	55.9	40,450
January	2,529.1	628	.9	81.6	5,020
February	1,034.9	414	3.0	37.0	2,050
March	169.4	34	1.4	5.46	336
April	40.6	2.7	.9	1.35	81
May	49.0	5.4	.6	1.58	97
June	559.3	204	.4	18.6	1,110
July	4,378.4	1,730	.3	141	8,680
August	25.7	1.4	.5	.83	51
September	486.6	219	.4	16.2	965
Water year 1938-39	9,487.5	1,730	.3	26.0	18,820

Peak discharge.- Jan. 11 (7 p.m.) 677 sec.-ft.; Feb. 26 (11:30 a.m.) 466 sec.-ft.; July 13 (2 a.m.) 1,980 sec.-ft.

*Interpolated.

†Computed on basis of partial gage-height record.

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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 Gulley and about 15 miles upstream from Buffalo Bayou. Zero of gage is 3.90 feet below mean sea level (general adjustment of 1929).

Drainage area.- 98.2 square miles.

Records available.- May 1936 to September 1939.

Extremes.- Maximum discharge during year, 6,800 second-feet July 12 (gage height, 48.02 feet); minimum, 0.2 second-foot several days in October.
1936-39: Maximum discharge, that of July 12, 1939; 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; figure of discharge furnished by W. E. White, assistant engineer, city of Houston).

Remarks.- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.3	0.9	2.4	11	7.0	1.9	1.2	7.2	38	1.7	0.8
2	.2	.3	1.0	1.8	19	5.4	2.0	1.1	325	11	2.4	.7
3	.2	1.7	1.1	2.1	24	5.0	1.8	1.0	224	2.3	1.8	1.0
4	.2	2.2	.6	2.1	22	5.0	1.8	.9	52	1.2	1.4	.9
5	.2	1.3	.3	1.4	11	4.5	2.3	1.2	26	.8	2.2	.9
6	.2	.6	.7	1.2	10	3.8	2.9	1.2	53	.8	1.8	1.1
7	.2	3.7	1.8	1.2	7.2	3.3	1.6	1.1	29	.7	1.2	1.2
8	.3	.9	.9	1.2	6.0	3.3	1.5	1.4	9.5	.7	1.3	3.0
9	.3	.7	1.0	1.3	4.8	3.2	1.6	1.2	3.8	.9	1.2	3.1
10	.2	.3	.8	1.2	6.0	3.2	1.3	1.2	2.3	2.1	1.4	1.2
11	.2	.6	.8	141	4.3	3.1	1.2	1.2	1.8	99	1.3	1.2
12	.2	.3	.8	678	3.4	2.6	1.2	1.1	1.6	4,880	1.3	1.2
13	.3	.3	.7	552	3.1	2.4	1.4	1.1	1.2	4,400	.9	1.0
14	.2	.3	.9	156	3.1	2.4	1.8	.8	1.2	1,650	1.0	.9
15	.3	.3	.9	86	2.8	2.4	1.7	1.0	1.3	508	1.2	.8
16	.4	.3	.9	60	2.5	2.0	1.2	1.5	1.2	153	1.0	.5
17	3.5	.3	1.0	35	14	2.0	1.2	1.4	1.2	69	1.1	.8
18	.9	.3	.9	22	7.0	2.4	1.0	93	1.2	36	1.0	.9
19	6.1	.4	.9	14	6.2	2.3	1.0	115	1.3	17	1.3	2.8
20	.9	.3	1.0	8.8	4.5	2.3	1.0	26	1.3	7.2	1.0	2.2
21	.3	.4	1.0	6.4	3.4	2.2	1.0	7.0	1.1	4.1	.9	.8
22	.3	.5	1.0	4.8	2.7	2.2	1.0	2.6	1.2	3.2	.9	.7
23	.2	.6	6.2	11	2.4	2.1	1.0	1.6	1.0	2.5	.9	.6
24	.2	.8	3.5	76	2.5	2.2	1.0	1.2	1.1	2.3	1.3	.6
25	.2	.5	17	42	60	2.6	1.1	2.9	1.1	1.5	1.2	.6
26	.3	.4	114	20	37	2.4	1.1	4.6	1.6	1.4	1.0	.6
27	.3	.4	49	11	18	2.1	1.2	3.3	1.4	1.5	1.0	.7
28	.3	.4	15	9.1	9.1	2.1	1.1	1.8	1.3	1.7	1.1	.6
29	.3	.4	7.4	22	-	2.0	1.0	14	1.1	1.5	1.2	.6
30	.3	.6	4.7	41	-	2.0	1.0	60	1.3	1.6	1.0	1.6
31	.2	-	3.1	20	-	2.0	-	37	-	1.6	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	18.1	6.1	0.2	0.58	36
November	20.4	3.7	.3	.68	40
December	239.8	114	.3	7.74	476
Calendar year 1938	22,182.4	3,160	.2	60.8	43,990
January	2,032.0	678	1.2	65.5	4,030
February	307.0	60	2.4	11.0	609
March	91.5	7.0	2.0	2.95	181
April	41.9	2.9	1.0	1.40	83
May	389.6	115	.8	12.6	773
June	757.3	325	1.0	25.2	1,500
July	11,900.6	4,880	.7	384	23,600
August	38.9	2.4	.9	1.25	77
September	33.6	3.1	.5	1.12	67
Water year 1938-39	15,870.7	4,880	.2	43.5	31,470

Peak discharge.- Jan. 12 (8:30 p.m.) 914 sec.-ft.; June 2 (6:30 p.m.) 498 sec.-ft.; July 24 (4:30 p.m.) 6,800 sec.-ft.

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. Zero of gage is 1,258.7 feet above mean sea level (Texas State Highway bench mark). Prior to Jan. 30, 1939, wire-weight gage at same site and datum.

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

Records available.- November 1923 to September 1939.

Average discharge.- 15 years (1924-39), 475 second-feet.

Extremes.- Maximum discharge during year, 30,500 second-feet June 20 (gage height, 8.00 feet); no flow at times.
1923-39: 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 fair. Discharge for periods of missing gage heights, Jan. 31 to Feb. 5, Feb. 7-27, Apr. 8, May 22, June 2, 26, 27, Aug. 11-14, computed from graph drawn on basis of twice-daily readings of wire-weight gage. Discharge for June 3, 25, 28, Aug. 8, 15 computed on basis of partial gage-height record. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0		0	9.1	0.5	0	0	672	740	0	6.0
2		0		0	6.8	.4	0	0	391	506	0	2.8
3		14		0	6.2	.4	0	0	253	340	0	.5
4		46		0	4.8	.3	0	0	128	185	0	0
5		38		0	4.2	.1	0	0	158	124	0	0
6		66		0	3.4	.1	0	44	154	140	0	0
7		85		0	3.0	.1	0	31	79	64	64	0
8		38		58	2.7	.1	3.6	112	44	35	1,540	0
9		35		197	2.5	.5	1.7	66	29	22	4,600	0
10		8.9		2,170	2.1	.6	0	42	18	15	1,360	0
11		64		1,720	1.9	.1	0	26	12	12	634	0
12		35		800	1.8	.1	0	16	8.5	9.1	514	0
13		13		540	1.4	0	2.8	11	6.2	7.3	347	0
14		.8		292	.8	0	2.5	17	2.4	5.6	260	0
15		0		104	.8	0	1.7	192	0	3.8	222	0
16		0		76	.7	0	.7	3,810	0	1.9	1,150	0
17		0		108	.5	0	0	3,780	0	0	1,010	0
18		0		112	.6	0	0	3,220	0	0	800	.2
19		0		62	.7	0	0	2,110	1.4	0	720	0
20		0		33	.6	0	0	1,280	13,000	0	540	0
21		0		26	.4	0	0	760	14,200	0	333	0
22		0		19	.2	0	0	234	2,800	0	276	0
23		0		39	.2	0	0	33	2,670	0	340	0
24		0		30	.3	37	0	60	2,050	0	79	0
25		0		24	.3	790	0	66	1,070	0	42	0
26		0		19	.5	22	0	47	548	0	42	0
27		0		12	.8	7.0	0	310	838	0	32	0
28		0		10	.5	2.9	0	855	831	0	20	0
29		0		11	-	1.5	0	977	1,040	0	20	0
30		0		12	-	.6	0	1,710	1,190	0	14	0
31		-		10	-	.2	-	1,270	-	0	9.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	443.7	85	0	14.8	880
December	0	0	0	0	0
Calendar year 1938	147,808.4	16,800	0	405	293,200
January	6,484	2,170	0	209	12,860
February	57.8	9.1	.2	2.06	115
March	864.5	790	0	27.9	1,710
April	13.0	3.6	0	.43	26
May	21,079	3,810	0	680	41,810
June	42,193.5	14,200	0	1,406	83,690
July	2,210.7	740	0	71.3	4,380
August	14,968.7	4,600	0	483	29,690
September	9.5	6.0	0	.32	19
Water year 1938-39	88,324.4	14,200	0	242	175,200

Peak discharge.- May 16 (12 m.) 10,000 sec.ft.; June 20 (5 p.m.) 30,500 sec.-ft.; June 21 (3 a.m.) 27,900 sec.-ft.

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. Zero of gage is 1,003.0 feet above mean sea level (general adjustment of 1929). Prior to Feb. 24, 1939, wire-weight gage at same site and datum.

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

Records available.- September 1938 to September 1939.

Extremes.- Maximum discharge during period of record, 30,000 second-feet June 21 (gage height, 12.75 feet); 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.- Monthly records good; daily records fair. Discharge for periods of faulty or missing gage heights, Apr. 11 to May 20, May 23, 24, May 30 to June 5, June 19-21, 27, June 29 to July 6, July 8-30, Aug. 2-14, computed from graph drawn on basis of twice-daily readings of wire-weight gage. Discharge for May 25, 28, 29, June 22, 26, 28, July 7, Aug. 15, 16, 23, 24, computed on basis of partial gage-height record. No large diversion above station.

Discharge, in second-feet, Sept. 13-30, 1938

Sept. 13	51	Sept. 18	8.5	Sept. 23	2.9	Sept. 28	0.8
14	29	19	8.0	24	2.2	29	.8
15	19	20	6.3	25	1.8	30	.8
16	13	21	4.9	26	1.4		
17	10	22	3.5	27	1.1		

Note.- Mean discharge, Sept. 13-30, 9.17 second-feet (run-off, 327 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0	0.9	0.4	33	2.8	106	5.2	3,680	1,500	11	26
2	.7	0	.6	.4	27	2.2	71	4.2	1,970	1,560	8.5	13
3	.8	0	.4	.4	22	1.9	57	58	1,050	1,110	46	8.0
4	.8	0	.4	.4	18	1.6	49	89	613	662	205	4.2
5	.8	0	.4	.4	17	1.2	42	109	396	515	23	2.9
6	.8	0	.4	.4	13	.9	28	49	327	408	46	1.7
7	.8	0	.5	2.9	8.5	.8	30	36	316	349	219	1.0
8	.9	0	.4	577	7.5	.7	36	78	285	280	38	.6
9	.7	64	.4	3,840	7.0	.7	33	201	228	232	837	.4
10	.8	55	.3	1,820	6.6	.8	26	63	158	154	2,770	.4
11	.8	42	.3	2,210	6.0	.6	18	16	126	130	1,280	.2
12	.8	57	.3	2,170	5.6	.5	14	8.5	106	95	714	.2
13	.8	34	.3	1,330	3.5	.5	13	11	74	71	578	.1
14	.7	19	.3	842	3.2	.4	11	14	59	53	450	.1
15	.7	14	.2	641	3.0	.2	10	209	44	30	105	.1
16	.6	12	.2	501	2.3	.2	460	9,530	33	18	843	.1
17	.5	10	.2	372	2.2	.2	777	15,900	26	9.5	758	.1
18	.4	8.5	.2	*344	2.4	.2	277	17,000	30	6.6	1,310	.1
19	.3	8.5	.3	*310	2.4	.2	71	11,100	2,960	6.0	797	.1
20	.3	7.5	.4	*280	1.8	.2	30	8,750	8,980	4.6	690	.2
21	.2	6.3	.4	*250	1.7	.2	15	6,200	23,900	12	738	.1
22	.2	4.2	.4	*224	1.7	.1	10	2,740	16,400	3.0	613	.1
23	.2	2.9	.4	*198	1.7	.1	7.0	1,070	12,000	1.8	2,660	0
24	.1	2.9	.4	*174	1.6	.2	5.2	676	12,400	1.8	1,500	0
25	.1	3.0	.4	*154	1.6	3.9	4.2	487	7,750	1.1	614	0
26	.1	1.8	.4	*130	1.6	454	3.4	676	2,080	.8	237	0
27	.1	1.6	.5	*109	1.7	224	321	564	1,560	.5	166	0
28	.1	1.5	.5	*89	2.9	123	80	3,320	1,750	.4	86	0
29	0	1.3	.5	*71	-	65	16	5,930	941	.4	47	0
30	0	1.0	.4	*57	-	47	8.0	3,020	1,030	.8	63	0
31	0	-	.4	*45	-	113	-	3,350	-	8.0	42	0

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14.9	0.9	0	0.48	30
November	358	64	0	11.9	710
December	12.1	.9	.2	.39	24
Calendar year 1938	-	-	-	-	-
January	16,743.3	3,840	.4	540	33,210
February	206.5	33	1.6	7.38	410
March	1,047.3	454	.1	33.8	2,080
April	2,628.8	777	3.4	87.6	5,210
May	91,263.9	17,000	4.2	2,944	181,000
June	101,272	23,900	26	3,376	200,900
July	7,224.3	1,560	.4	233	14,330
August	18,494.5	2,770	8.5	597	36,680
September	59.7	26	0	1.99	118
Water year 1938-39	239,325.3	23,900	0	656	474,700

Peak discharge.- May 18 (3:30 p.m.) 17,800 sec.-ft.; June 21 (5:30 p.m.) 30,000 sec.-ft.; June 22 (11 p.m.) 17,400 sec.-ft.

*Gage heights missing; discharge computed on basis of known range of stage and weather records.

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 6.5 miles north of Palo Pinto, Palo Pinto County. Zero of gage is 831.23 feet above mean sea level (general adjustment 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 1939. January 1924 to November 1933, at site near Mineral Wells; records equivalent.

Extremes.- Maximum discharge during year, 34,300 second-feet June 22 (gage height, 10.70 feet); no flow at times.

1933-39: 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 date of Corps of Engineers, U. S. Army, and was several feet higher than peak stage of 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 faulty operation of intakes, May 23-26, 28, June 5-7, June 26 to July 1, July 3-8, which were computed from graph drawn on basis of available gage heights, known range of stage, engineer's observations, and weather records at Mineral Wells and are fair. No large diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0	6.2	2.0	107	12	101	111	3,700	1,300	3.4	98
2	.5	0	5.8	2.0	88	13	70	68	3,750	2,580	2.4	80
3	.3	0	5.4	2.2	82	10	70	52	2,580	1,950	2.6	78
4	0	0	4.2	2.4	75	9.1	104	36	1,900	1,370	4.6	62
5	0	0	3.8	2.0	70	8.4	78	25	1,290	987	4.6	46
6	0	0	3.4	2.2	62	7.0	60	20	798	667	42	34
7	0	0	3.0	2.0	58	7.0	50	23	495	456	220	23
8	0	0	2.6	15	52	9.1	42	86	356	374	250	15
9	0	0	2.4	609	46	9.1	32	78	293	344	315	10
10	0	0	2.2	3,770	42	8.4	23	95	260	271	266	6.6
11	0	0	1.6	2,000	37	5.8	20	149	225	245	2,420	4.2
12	0	0	1.0	1,290	34	3.8	16	176	171	210	2,110	2.4
13	0	0	.9	2,200	31	3.4	15	101	137	181	1,220	1.2
14	0	0	.9	1,410	26	2.6	17	68	107	162	738	.5
15	0	0	.7	933	25	1.6	17	57	80	137	590	.1
16	0	0	.6	618	25	1.8	72	1,300	58	111	549	0
17	0	0	.5	482	25	1.6	332	13,300	44	88	762	0
18	0	0	.3	405	25	1.2	286	15,400	92	65	829	0
19	0	0	.2	362	28	1.0	580	13,800	839	50	748	0
20	0	0	.2	315	25	.9	368	10,100	2,600	40	1,290	0
21	0	0	.1	287	24	.7	230	7,710	15,300	34	805	0
22	0	0	.2	260	22	.6	145	5,270	29,100	28	790	0
23	0	2.8	.8	245	22	.4	91	3,060	18,500	21	842	0
24	0	5.4	1.0	210	20	.4	65	1,660	12,200	17	921	0
25	0	6.2	1.4	186	18	3.0	46	940	13,600	13	2,120	0
26	0	7.0	2.6	157	16	2.6	34	562	6,660	10	1,320	0
27	0	8.4	2.2	145	17	2.2	25	362	2,490	7.0	754	0
28	0	8.4	2.2	137	12	2.4	20	418	1,750	5.8	368	0
29	0	7.0	1.8	133	-	183	13	2,380	1,450	6.6	250	0
30	0	6.6	1.8	125	-	220	86	6,100	1,700	6.2	191	0
31	0	-	2.0	125	-	153	-	3,370	-	4.6	133	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1.6	0.8	0	.05	3.2
November	51.8	8.4	0	1.73	103
December	62.0	6.2	.1	2.00	123
Calendar year 1938	440,063.3	27,300	0	1,206	872,800
January	16,433.8	3,770	2.0	530	32,600
February	1,114	107	12	39.8	2,210
March	685.1	220	.4	22.1	1,360
April	3,108	580	13	104	6,160
May	86,867	15,400	20	2,802	172,300
June	122,625	29,100	44	4,084	243,000
July	11,741.2	2,580	4.6	379	23,290
August	20,860.6	2,420	2.4	673	41,380
September	461.0	98	0	15.4	914
Water year 1938-39	263,911.1	29,100	0	723	523,400

Peak discharge.- May 17 (8 p.m.) 20,500 sec.-ft.; May 19 (6 a.m.) 16,900 sec.-ft.; June 22 (9 a.m.) 34,300 sec.-ft.

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. Zero of gage is 566.66 feet above mean sea level (general adjustment 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 1939.

Average discharge.- 16 years, 1,597 second-feet.

Extremes.- Maximum discharge during year, 22,600 second-feet June 23 (gage height, 9.85 feet); minimum, 1.0 second-foot Sept. 30.
1923-39: 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 30.0 feet May 8 or 9, 1922, according to information furnished by local residents.

Remarks.- Records good except those for period of missing gage heights, June 29 to July 12, which were computed from graph drawn on basis of once-daily gage readings by U. S. Weather Bureau and are poor. Discharge for June 28 and July 13 based on partial gage-height record. No large diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	6.0	12	36	181	72	85	85	4,920	2,0e0	39	476
2	23	6.0	18	36	181	6e	62	72	3,410	2,020	42	356
3	23	14	21	33	181	65	47	62	3,000	2,000	36	272
4	21	26	1e	36	181	58	42	52	3,800	2,290	36	211
5	18	26	1s	31	150	55	62	44	3,000	2,460	26	165
6	16	2e	18	28	141	50	118	39	2,260	2,380	16	126
7	16	31	18	23	131	47	111	42	1,800	1,860	23	107
8	14	33	21	92	122	44	92	88	1,380	1,280	47	88
9	14	36	18	65	111	42	75	88	970	761	92	78
10	12	36	16	218	103	42	72	68	719	620	92	72
11	12	31	16	886	99	39	78	52	553	510	78	62
12	12	26	16	1,810	96	33	75	42	427	451	150	52
13	23	23	16	2,210	88	28	62	36	372	435	229	44
14	31	21	16	1,600	233	26	52	36	333	379	754	36
15	21	18	16	1,420	187	26	47	31	288	325	1,880	31
16	14	18	16	1,760	107	23	78	2,160	242	272	1,380	28
17	12	18	18	1,320	159	23	889	8,500	199	229	958	28
18	12	18	18	995	131	23	1,110	14,400	217	193	730	21
19	10	16	18	840	199	21	620	13,600	464	165	600	21
20	8.0	16	21	679	181	21	562	11,000	2,710	146	493	21
21	8.0	16	21	582	131	21	403	6,500	4,030	126	709	14
22	8.0	14	21	501	111	21	333	7,460	7,650	111	629	12
23	12	12	33	484	96	21	484	5,840	20,400	96	795	10
24	10	12	39	435	88	21	435	4,760	13,300	88	1,100	8.0
25	10	12	44	427	88	28	310	3,620	9,540	72	1,070	6.0
26	8.0	12	52	411	85	33	242	2,380	10,100	62	784	5.0
27	10	12	47	387	96	44	170	1,620	7,980	52	709	4.0
28	10	12	44	302	75	55	136	1,140	5,000	44	1,470	3.0
29	8.0	12	42	250	-	81	111	840	2,900	50	1,580	2.0
30	8.0	12	39	229	-	118	92	679	2,240	85	1,190	1.0
31	8.0	-	39	205	-	126	-	733	-	55	806	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	435.0	31	8.0	14.0	863
November	573.0	36	6.0	19.1	1,140
December	770	52	12	24.8	1,530
Calendar year 1938	619,282	40,400	6.0	1,697	1,228,000
January	18,331	2,210	23	591	36,360
February	3,732	233	75	133	7,400
March	1,375	126	21	44.4	2,730
April	7,055	1,110	42	235	13,990
May	88,069	14,400	31	2,841	174,700
June	114,204	20,400	199	3,807	226,500
July	21,697	2,460	44	700	43,040
August	18,543	1,880	16	598	36,780
September	2,360.0	476	1.0	78.7	4,680
Water year 1938-39	277,144.0	20,400	1.0	759	549,700

Peak discharge.- May 17 (5:30 p.m.) 15,000 sec.-ft.; May 18 (5:30 p.m.) 19,000 sec.-ft.; June 1 (8-11 a.m.) 5,600 sec.-ft.; June 23 (10 a.m.) 22,600 sec.-ft.; June 26 (4 p.m.) 11,200 sec.-ft.

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. Zero of gage is 432.06 feet above mean sea level (general adjustment of 1929; Brazos River Conservation and Reclamation District bench mark). Prior to Nov. 29, 1938, chain gage at same site, but zero of gage was at mean sea level (by levels of Corps of Engineers, U. S. Army).

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

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge observed during year, about 39,800 second-feet June 19 (gage height, 19.16 feet), by slope-area method; minimum discharge observed, 8.8 second-feet Sept. 30.

Maximum stage known, about 46 feet May 9, 1922, according to information furnished by local residents. Flood of Sept. 27, 1936, reached a stage of about 26 feet (discharge not determined); flood of Dec. 2, 1913, reached about the same stage. All stages based on data of Corps of Engineers, U. S. Army.

Remarks.- Records good except those above 19,000 second-feet, which are poor. Discharge for Nov. 27, 28 interpolated. Gage-height record for Oct. 1 to Nov. 28 furnished by Corps of Engineers, U. S. Army. Gage read twice daily, oftener during high water. No large diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	16	33	51	257	143	179	129	2,090	2,010	74	950
2	37	16	35	51	222	126	159	114	4,600	2,320	76	581
3	37	21	35	51	204	119	129	105	3,140	2,110	68	403
4	37	26	34	50	213	112	112	100	3,400	2,010	65	307
5	32	26	33	48	213	112	100	96	4,030	2,110	65	248
6	26	37	33	48	209	107	96	91	2,900	2,320	91	196
7	26	37	33	47	182	98	159	89	2,210	1,810	68	162
8	26	37	35	50	165	94	153	85	1,810	1,510	61	137
9	26	37	33	186	159	91	129	91	1,410	1,220	60	116
10	26	32	34	786	143	89	116	83	1,080	905	53	100
11	26	37	33	318	137	89	105	96	816	733	72	96
12	16	44	35	965	122	81	87	87	655	617	89	91
13	16	51	35	2,320	126	74	94	83	514	529	91	79
14	21	44	33	2,010	126	70	100	76	417	457	116	70
15	32	37	33	1,610	417	63	105	70	368	403	300	61
16	26	37	34	1,510	457	66	243	412	318	356	1,730	54
17	26	37	35	1,810	272	66	243	11,800	272	302	1,410	50
18	32	32	35	1,410	277	65	820	16,600	243	267	1,080	47
19	37	26	35	1,130	543	65	1,310	17,800	16,400	234	860	43
20	26	26	35	950	905	63	816	15,600	2,900	204	773	37
21	26	26	35	773	374	65	693	9,650	4,800	179	773	34
22	26	26	37	693	267	65	493	6,960	3,380	159	733	30
23	21	26	48	655	186	63	403	6,530	20,500	140	860	28
24	16	26	51	581	203	65	356	5,010	18,600	124	995	28
25	16	26	58	521	1,120	79	529	3,700	12,500	109	1,310	25
26	16	26	65	478	204	76	417	2,780	11,400	98	1,310	22
27	16	28	60	464	186	72	296	2,110	10,000	91	1,080	19
28	16	31	61	457	156	89	230	1,610	5,750	83	905	16
29	16	34	63	379	-	124	190	1,220	3,700	78	1,330	11
30	16	35	58	318	-	143	156	950	2,660	74	1,610	9.6
31	16	-	51	267	-	209	-	773	-	72	1,220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	776	44	16	25.0	1,540
November	940	51	16	31.3	1,860
December	1,268	65	33	40.9	2,520
Calendar year	-	-	-	-	-
January	20,987	2,320	47	677	41,630
February	8,045	1,120	122	287	15,960
March	2,843	209	63	91.7	5,640
April	9,018	1,310	87	301	17,890
May	106,900	17,800	70	3,448	212,000
June	142,863	20,500	243	4,762	283,400
July	23,634	2,320	72	762	46,880
August	19,328	1,730	63	623	38,340
September	4,050.6	950	9.6	135	8,030
Water year 1938-39	340,652.6	20,500	9.6	933	675,700

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, and 2½ miles downstream from Bosque River. Zero of gage is 357.10 feet above mean sea level (general adjustment 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 1939 (January 1912 to September 1914, monthly records only, in Water Supply 850.

Average discharge.- 41 years, 2,626 second-feet.

Extremes.- Maximum discharge during year, 43,500 second-feet June 20 (gage height, 24.10 feet); minimum, 22 second-feet Sept. 30.

1898-1939: Maximum discharge, 246,000 second-feet Sept. 27, 1936 (gage height, 40.90 feet) when levee on left bank was overtopped and broken by flood; minimum discharge for periods of daily records, 1898-1911, 1914-1939, 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 except those for periods of missing gage heights, Mar. 13, 15-21, 24 (computed on basis of known range in stage and weather records), and those for period of faulty record, July 22 to Aug. 15, (computed on basis of records for Brazos River near Whitney and Marlin), which are poor. Results of 11 discharge measurements furnished by U. S. Soil Conservation Service. Many small diversions above station do not appreciably affect flow except during low water. Flow partly regulated by Lake Waco, on Bosque River near Waco (capacity, 39,000 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	56	68	113	338	410	284	284	1,490	2,720	90	1,090
2	97	58	70	106	312	342	280	261	2,980	2,330	87	861
3	91	61	72	108	288	308	280	224	3,850	3,410	84	580
4	69	63	68	113	265	*1,400	292	210	3,020	2,330	87	426
5	87	61	66	106	261	288	261	201	8,020	2,280	89	334
6	81	70	66	99	272	257	253	194	7,650	2,220	83	272
7	79	77	68	102	246	228	250	341	3,890	2,330	81	238
8	77	75	66	125	235	214	228	2,100	2,220	1,860	77	201
9	77	85	66	158	228	210	250	365	1,810	1,520	72	172
10	75	81	66	1,640	214	986	232	250	1,480	1,240	69	155
11	72	79	68	1,170	191	214	224	178	1,190	998	69	138
12	70	79	64	2,470	181	*185	292	169	926	826	76	120
13	68	81	61	1,230	169	163	276	185	763	694	83	113
14	66	79	64	2,550	166	*191	269	169	652	622	92	106
15	66	81	63	2,160	160	158	269	169	564	569	150	97
16	70	79	64	1,810	240	158	397	1,400	498	508	†260	91
17	81	73	64	1,660	2,110	158	1,680	17,100	437	437	†1,300	79
18	73	68	66	1,860	724	158	664	24,200	395	380	†1,340	72
19	73	64	66	1,520	1,330	158	610	18,600	*19,900	329	†1,080	61
20	68	64	68	1,220	1,560	158	1,260	17,300	23,200	296	†918	58
21	63	63	68	1,010	942	158	910	*11,200	8,110	*253	†826	56
22	63	59	77	875	481	*166	749	9,700	5,140	230	†812	48
23	64	61	99	826	308	*175	564	7,850	12,600	200	†833	44
24	59	59	113	791	473	160	486	6,270	18,400	175	†861	43
25	59	61	120	676	4,950	*1,700	448	5,030	12,800	155	*958	39
26	59	61	128	610	4,660	589	933	4,500	9,720	140	1,170	36
27	59	61	120	564	888	296	542	2,960	11,000	120	1,260	35
28	59	63	118	547	530	269	437	2,220	7,400	102	1,030	34
29	58	63	120	547	-	265	360	1,860	5,030	100	861	29
30	59	66	115	470	-	253	304	1,380	3,620	96	1,120	28
31	56	-	113	400	-	253	-	1,170	-	93	1,430	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,222	104	56	71.7	4,410
November	2,049	85	56	68.3	4,060
December	2,516	128	61	81.1	4,990
Calendar year 1938	1,225,376	75,300	56	3,357	2,431,000
January	27,636	2,550	99	891	54,820
February	22,722	4,950	160	812	45,070
March	10,628	1,700	158	343	21,080
April	14,284	1,680	224	476	28,330
May	138,040	24,200	169	4,453	273,800
June	178,755	23,200	395	5,958	354,600
July	29,563	3,410	93	954	58,640
August	17,348	1,430	69	560	34,410
September	5,656	1,090	28	189	11,220
Water year 1938-39	451,418	24,200	28	1,237	895,400

Peak discharge.- May 17 (1 p.m.) 25,800 sec.-ft.; May 18 (2 a.m.) 35,400 sec.-ft.; May 20 (7 a.m.) 20,100 sec.-ft.; June 5 (9 p.m.) 19,200 sec.-ft.; June 20 (1 a.m.) 43,500 sec.-ft.

*Discharge computed on basis of partial gage height record and weather records.

†Discharge computed from graph based on once-daily gage readings furnished by U. S. Weather Bureau.

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. Zero of gage is 312.15 feet above mean sea level (general adjustment of 1929). Prior to Dec. 8, 1938, chain gage at same site, but zero of gage was at mean sea level (by levels of Corps of Engineers, U. S. Army).

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

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during year, 49,400 second-feet May 20 (gage height, 20.6 feet, from graph based on gage readings), from rating curve extended above 25,000 second-feet; 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 (discharge not determined).

Remarks.- Monthly records fair; daily records poor. Discharge for periods of missing or doubtful gage heights, Oct. 6-9, 14, 15, Oct. 20 to Nov. 4, Nov. 6-8, Nov. 18 to Dec. 8, Jan. 17-22, Feb. 9-14, Mar. 3-10, Mar. 29 to Apr. 15, Aug. 31 to Sept. 24, computed on basis of records for Brazos River at Waco and near Bryan. Gage-height record for Oct. 1 to Dec. 7 furnished by Corps of Engineers, U. S. Army. Gage read twice daily, oftener during high water. Several small diversions above gage do not appreciably affect flow during low water. Flow partly regulated by Lake Waco, on Bosque River near Waco and about 50 miles above station (capacity, 39,000 acre-feet at spillway crest).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	122	77	92	105	375	4,230	285	249	1,500	2,900	164	1,250
2	122	78	92	105	333	395	275	280	1,440	2,170	150	1,000
3	112	80	92	105	314	350	270	280	4,160	2,590	164	e30
4	101	80	90	107	280	330	260	249	4,480	2,320	154	670
5	101	81	87	105	280	1,200	270	221	6,420	2,030	164	560
6	97	82	84	107	264	500	265	216	13,500	2,030	235	450
7	94	84	80	107	264	350	280	221	6,170	2,030	210	380
8	90	87	78	107	264	315	270	1,600	3,410	2,030	205	330
9	87	91	77	112	254	300	265	1,440	2,600	1,630	170	280
10	85	91	77	124	240	590	256	780	2,310	1,370	154	220
11	81	101	77	910	225	1,360	250	297	1,630	1,120	140	190
12	81	122	75	2,030	210	280	248	216	1,300	870	120	160
13	81	175	73	2,310	195	221	270	199	962	735	194	145
14	81	164	73	2,600	180	221	295	208	780	510	186	130
15	81	133	67	2,750	162	235	325	199	765	480	178	115
16	91	122	65	2,900	197	210	352	157	580	424	175	110
17	85	101	75	2,600	1,520	213	892	15,900	450	398	363	100
18	81	90	79	2,100	3,240	180	1,440	41,500	398	375	1,440	93
19	81	88	71	1,750	3,410	180	568	22,800	8,820	333	2,520	86
20	78	86	67	1,560	3,070	160	905	25,500	39,300	314	1,630	80
21	75	86	71	1,260	2,600	170	1,500	18,000	20,900	280	1,370	77
22	74	85	89	1,050	1,410	152	962	11,200	7,480	280	1,010	75
23	73	84	127	870	825	142	780	9,160	8,790	249	1,630	72
24	73	83	127	735	233	186	618	7,200	19,400	235	1,440	69
25	73	82	127	735	235	172	545	5,940	15,500	221	1,120	67
26	72	82	120	618	878	2,610	847	5,460	12,300	216	962	55
27	72	82	110	580	4,700	1,340	1,070	5,460	10,300	210	1,060	61
28	73	84	105	510	7,480	333	580	3,790	8,600	180	1,500	57
29	73	88	105	480	-	315	450	3,410	5,700	167	1,300	59
30	75	92	105	450	-	295	314	1,890	4,170	162	870	61
31	76	-	110	398	-	280	-	1,370	-	157	1,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,641	122	72	85.2	5,240
November	2,861	175	77	95.4	5,670
December	2,767	127	65	89.3	5,490
Calendar year	-	-	-	-	-
January	30,280	2,900	105	977	60,060
February	33,638	7,480	162	1,201	66,720
March	17,815	4,230	142	575	35,340
April	15,947	1,500	248	532	31,630
May	185,392	41,500	157	5,980	367,700
June	214,005	39,300	398	7,134	424,500
July	29,016	2,900	157	936	57,550
August	22,378	2,520	120	722	44,390
September	7,832	1,250	55	261	15,530
Water year 1938-39	564,572	41,500	55	1,547	1,120,000

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. Zero of gage is 192.3 feet above mean sea level (general adjustment 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 1939. February 1918 to September 1925, at site near College Station, 7½ miles downstream; records equivalent.

Average discharge.- 20 years (1918-25, 1926-39), 5,724 second-feet (revised).

Extremes.- Maximum discharge during year, 54,200 second-feet May 19 (gage height, 26.25 feet); minimum, 145 second-feet Sept. 29.
1925-39: 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 54.0 feet, present datum, in December 1913.

Remarks.- Records fair except those for periods of missing gage heights, Oct. 1-23, Jan. 3-27, June 25, 26, and July 2-11, which were computed from graph based on fragmentary gage-height record, known range in stage, and gage-height record at Valley Junction (furnished by U. S. Weather Bureau) and are poor. Many small diversions above gage; not materially affected except during low water.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	570	342	328	415	876	3,100	1,200	1,500	3,100	9,660	425	1,240
2	560	332	342	405	834	2,350	1,040	1,120	2,710	7,750	350	1,600
3	554	346	360	405	768	1,800	904	904	2,840	6,050	324	1,650
4	548	370	337	405	710	1,500	820	781	4,230	4,730	319	1,420
5	510	346	332	405	677	1,320	794	710	5,980	3,710	319	1,120
6	499	380	328	405	710	1,900	746	644	12,500	3,030	310	855
7	499	619	328	405	632	1,420	742	619	14,600	2,770	311	710
8	499	510	328	410	595	1,080	716	601	9,280	2,770	848	613
9	499	405	324	670	595	960	690	595	5,140	2,650	651	538
10	499	405	342	583	583	897	664	2,030	3,710	2,350	510	494
11	499	395	337	543	554	855	625	2,040	2,840	2,020	516	477
12	494	370	324	1,630	543	994	601	1,550	2,290	1,850	619	435
13	488	355	319	3,290	526	1,200	607	1,160	1,850	1,650	554	410
14	455	350	324	3,570	516	834	577	800	1,550	1,460	472	365
15	445	350	324	3,850	488	729	601	651	1,320	1,280	390	342
16	435	365	324	5,050	472	684	664	959	1,160	1,120	365	314
17	390	365	324	4,730	595	658	670	2,680	1,000	1,000	337	292
18	395	346	324	3,950	589	644	742	36,800	869	925	350	283
19	445	332	324	3,360	1,600	607	1,950	49,200	953	820	562	270
20	420	332	328	3,290	1,240	589	2,410	38,300	14,400	774	1,550	247
21	390	332	324	2,900	1,960	571	1,600	33,100	31,000	684	1,500	234
22	360	324	324	1,480	2,710	560	1,650	22,200	13,600	644	1,650	220
23	350	310	346	1,600	2,120	548	1,650	16,000	7,350	589	1,280	208
24	350	301	360	1,550	1,700	548	1,370	12,800	11,100	543	1,080	200
25	350	306	410	1,420	2,510	607	1,280	9,550	16,300	499	1,160	192
26	350	306	450	1,280	4,420	1,590	1,160	7,950	16,000	472	1,200	188
27	346	306	440	1,120	7,660	2,540	1,040	6,880	13,000	440	1,160	176
28	346	314	430	1,040	4,300	2,440	1,120	4,890	12,200	415	1,240	170
29	346	314	425	1,000	-	1,600	1,240	4,130	12,200	385	1,460	170
30	346	319	435	939	-	1,750	1,550	4,660	11,500	385	1,500	265
31	346	-	425	897	-	1,420	-	3,900	-	466	1,370	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	13,583	570	346	438	26,940
November	10,747	619	301	358	21,320
December	10,970	450	319	354	21,760
Calendar year 1938	2,651,902	93,300	301	7,265	5,260,000
January	52,897	5,050	405	1,706	104,900
February	41,483	7,660	472	1,482	82,280
March	38,295	3,100	548	1,235	75,960
April	31,425	2,410	577	1,048	62,330
May	269,704	49,200	595	8,700	535,000
June	236,572	31,000	869	7,886	469,200
July	63,891	9,660	385	2,061	126,700
August	25,182	1,650	310	812	49,950
September	15,698	1,650	170	523	31,140
Water year 1938-39	810,447	49,200	170	2,220	1,607,000

Brazos River near Hempstead, Tex.

Location.- Chain gage, lat. 30°07'05", long. 96°11'30", on Texas & New Orleans Railroad bridge, 4,500 feet downstream from bridge on U. S. Highway 290, 6.5 miles northwest of Hempstead, Waller County, and 7 miles upstream from Caney Creek. Zero of gage is 112.10 feet above mean sea level (general adjustment of 1929). Prior to Dec. 14 chain gage at same site, but zero of gage was at mean sea level (by levels of Corps of Engineers, U. S. Army).

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

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during year, 58,000 second-feet May 19 (gage height, 32.43 feet, from floodmark); minimum observed, 310 second-feet Sept. 30.
Maximum stage known, 61.1 feet Dec. 9, 1913, according to information furnished by Texas & New Orleans Railroad engineers.

Remarks.- Records fair. Discharge for days of missing gage heights, Dec. 10-14, interpolated, that for days of apparently erroneous gage heights, June 7, 8, computed on basis of records for stations near San Felipe and at Richmond. Gage-height record for Oct. 1 to Dec. 9 furnished by Corps of Engineers, U. S. Army. Many small diversions above gage; flow not materially affected except during low water.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	620	440	410	580	1,260	10,000	1,880	1,140	6,400	9,620	665	1,200
2	620	440	410	580	1,200	7,660	1,810	1,320	5,180	8,080	620	1,090
3	620	410	410	580	1,200	6,540	1,740	1,260	4,400	6,260	620	1,040
4	580	440	410	580	1,260	5,660	1,460	990	4,070	5,060	580	1,200
5	580	470	440	540	1,200	4,620	1,200	755	4,620	4,510	540	1,320
6	580	470	410	540	1,320	3,520	1,090	710	6,960	4,620	540	1,200
7	540	440	410	505	2,680	2,940	940	580	12,000	3,960	540	940
8	540	470	440	505	3,520	2,850	890	580	16,000	3,420	540	800
9	540	580	410	505	3,420	2,280	665	540	10,600	3,220	755	710
10	540	620	410	620	3,030	1,880	665	505	7,240	3,030	845	665
11	540	580	420	1,560	2,800	1,600	755	684	5,180	2,760	800	580
12	540	620	420	3,180	1,960	1,390	710	1,460	4,180	2,680	710	540
13	505	620	430	6,140	1,460	1,140	710	1,460	3,630	2,440	665	505
14	505	540	430	6,400	1,040	1,260	665	1,200	3,220	2,120	710	470
15	407	505	440	6,140	940	1,320	665	890	2,940	1,810	665	470
16	470	505	410	5,900	845	1,045	620	665	2,680	1,600	620	440
17	470	505	440	6,140	755	940	665	620	2,440	1,390	540	440
18	470	505	410	6,260	1,440	845	665	4,900	2,120	1,260	540	440
19	470	470	440	5,780	2,760	845	665	44,900	1,810	1,140	470	440
20	505	440	440	5,060	4,180	800	800	50,500	1,740	1,090	440	410
21	470	440	440	4,730	4,400	755	1,810	45,100	18,500	1,040	1,040	380
22	470	410	440	4,070	3,850	710	1,960	36,500	25,600	940	1,090	354
23	470	410	505	3,740	4,290	710	1,600	24,500	13,100	890	1,200	354
24	440	380	580	3,120	4,070	665	1,600	18,800	8,920	845	1,260	354
25	440	410	580	2,600	5,420	755	1,530	14,500	12,000	800	1,090	354
26	440	380	665	2,120	10,000	1,390	1,320	11,300	16,000	800	1,040	354
27	440	354	800	1,810	10,200	1,320	1,200	9,760	12,900	755	1,040	332
28	410	354	710	1,670	12,100	1,810	1,040	8,500	11,800	710	990	332
29	440	410	620	1,600	-	2,440	940	7,520	12,600	665	1,040	332
30	470	380	620	1,530	-	2,120	1,040	6,960	10,800	620	1,140	310
31	440	-	580	1,390	-	1,740	-	6,540	-	580	1,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15,635	620	410	504	31,010
November	13,998	620	354	467	27,760
December	14,980	800	410	483	29,710
Calendar year 1938	-	-	-	-	-
January	86,475	6,400	505	2,790	171,500
February	92,400	12,100	755	3,300	183,300
March	73,545	10,000	665	2,372	145,900
April	33,300	1,960	620	1,110	66,050
May	305,639	50,500	505	9,859	606,200
June	249,630	25,600	1,740	8,321	495,100
July	78,715	9,620	580	2,539	156,100
August	24,535	1,260	440	791	48,660
September	18,356	1,320	310	612	36,410
Water year 1938-39	1,007,208	50,500	310	2,759	1,998,000

Brazos River near San Felipe, Tex.

Location.- Chain gage, lat. 29°46'20", long. 96°02'10", on Missouri-Kansas-Texas Railroad bridge, 1.3 miles downstream from Irons Creek and 5.0 miles southeast of San Felipe post office, Austin County. Zero of gage is 79.32 feet above mean sea level (general adjustment of 1929).

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

Records available.- December 1938 to September 1939.

Extremes.- Maximum discharge during period, 59,600 second-feet May 20 (gage height, 23.90 feet, from floodmark); minimum discharge observed, 452 second-feet Sept. 26-30.
Maximum stage known, 49.0 feet Dec. 13, 14, 1913, according to information furnished by local resident.

Remarks.- Monthly records good; daily records fair. Discharge for period of doubtful gage heights, June 23-27, computed on basis of records for stations near Hempstead and at Richmond. Gage read twice daily, oftener during high water. Many small diversions above station; flow not materially affected except during low water.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	640	1,510	10,100	1,710	1,320	6,900	10,100	670	1,320
2			-	640	1,510	7,760	3,070	1,320	6,700	9,420	670	1,410
3			-	640	1,410	6,500	1,810	1,410	5,600	7,100	670	1,230
4			-	640	1,410	5,780	1,810	1,410	6,500	5,600	735	1,320
5			-	640	1,410	5,420	1,510	1,320	4,700	4,880	670	1,410
6			-	640	1,410	4,220	1,410	805	5,100	4,220	670	1,510
7			-	640	1,510	3,620	1,100	945	9,460	4,380	670	1,230
8			-	552	1,850	3,200	1,020	875	15,300	3,770	610	1,140
9			-	580	3,340	3,070	1,060	840	12,400	3,480	580	980
10			-	640	3,340	2,700	1,230	805	8,280	3,200	770	945
11			-	770	2,940	2,460	945	805	3,920	3,070	805	980
12			-	1,660	2,700	1,810	910	770	4,540	3,070	735	840
13			-	3,660	2,230	1,710	875	840	3,770	3,200	670	700
14			-	5,780	1,610	1,610	875	1,610	3,480	3,070	670	670
15			-	5,780	1,410	1,610	875	1,410	3,200	2,580	700	670
16			-	5,600	1,140	1,710	910	1,230	3,070	2,010	700	640
17			500	5,420	1,060	1,410	910	980	2,580	1,810	670	640
18			500	6,140	1,230	1,320	840	1,100	2,460	1,610	640	552
19			500	5,780	2,010	1,320	805	22,000	2,010	1,410	640	552
20			500	5,060	3,200	1,140	805	54,200	1,910	1,320	552	552
21			500	4,700	3,920	1,020	875	49,700	5,800	1,230	552	525
22			500	4,220	4,070	1,020	1,810	41,500	25,100	1,230	552	500
23			525	3,920	3,620	945	2,010	29,200	18,900	1,100	925	500
24			525	3,480	3,920	910	1,910	21,100	13,800	1,020	1,610	475
25			580	3,070	4,050	945	1,710	17,700	10,600	910	1,710	475
26			770	2,580	10,500	1,020	1,510	16,800	15,900	910	1,410	452
27			840	2,010	11,400	1,510	1,320	11,900	18,000	875	1,320	452
28			805	2,010	10,600	1,610	1,320	9,420	13,000	735	1,230	452
29			735	2,010	-	1,910	1,230	8,700	12,700	640	1,230	452
30			700	1,910	-	2,460	1,230	7,980	11,600	700	1,230	452
31			670	1,610	-	2,460	-	7,100	-	700	1,230	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December 17-31	9,150	840	500	610	18,150
Calendar year	-	-	-	-	-
January	83,422	6,140	552	2,691	165,500
February	90,310	11,400	1,060	3,225	179,100
March	84,280	10,100	910	2,719	167,200
April	39,405	3,070	805	1,314	78,160
May	317,095	54,200	770	10,230	628,900
June	257,280	25,100	1,910	8,576	510,300
July	89,350	10,100	640	2,882	177,200
August	26,496	1,710	552	855	52,550
September	24,026	1,510	452	801	47,650
The period	-	-	-	-	2,025,000

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). Zero of gage is 40.8 feet above mean sea level (general adjustment 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 and June 1931 to September 1939. October 1922 to September 1931, at site at Rosenberg, 7.6 miles upstream; records equivalent except for diversion by Richmond Irrigation Co.'s canal.

Average discharge.- 19 years (1903-5, 1922-39), 7,357 second-feet.

Extremes.- Maximum discharge during year, 41,900 second-feet May 21 (gage height, 20.52 feet); minimum, 366 second-feet Aug. 22.

1903-6; 1931-39: Maximum discharge, 90,900 second-feet May 27, 1935 (gage height, 36.12 feet); minimum, 33 second-feet Aug. 23, 24, 1934.

Flood of June 6, 1929, reached a stage of 40.6 feet, present datum, from floodmarks (discharge, 120,000 second-feet). Flood of December 1913 reached stage of 45.4 feet, present datum, from floodmarks (discharge not determined).

Remarks.- Records good. Discharge for period of faulty operation of intake, June 19-21, computed from graph based on daily readings furnished by U. S. Weather Bureau. Discharge for June 22 based on partial gage-height record. 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 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	992	625	582	800	1,680	9,680	2,150	1,050	6,300	9,900	630	992
2	965	615	591	750	1,640	8,400	1,920	1,050	7,600	8,600	582	1,050
3	938	645	591	750	1,560	6,840	1,920	1,110	5,780	7,400	568	1,050
4	910	675	596	750	1,450	5,940	1,880	1,200	4,660	5,940	550	992
5	882	645	591	750	1,410	5,460	1,760	1,240	4,380	4,820	546	938
6	855	630	582	725	1,410	4,820	1,600	1,110	4,240	4,100	537	992
7	855	645	586	725	1,410	4,100	1,340	1,020	5,620	3,960	510	1,080
8	855	640	591	700	1,520	3,460	1,200	882	11,500	3,820	470	1,050
9	828	630	586	700	2,560	3,120	1,110	800	12,800	3,340	438	965
10	800	625	582	700	3,120	3,010	1,020	775	9,680	3,010	429	855
11	800	650	586	1,010	3,120	2,510	1,020	750	7,020	3,160	483	800
12	800	725	582	1,970	2,800	2,200	882	725	5,300	8,590	655	775
13	775	725	582	2,420	2,510	2,020	800	695	4,380	7,400	680	725
14	775	725	582	4,370	2,060	1,800	775	1,080	3,700	4,980	586	655
15	750	750	582	5,620	1,720	1,380	775	1,480	3,230	3,580	510	725
16	750	725	582	5,620	1,450	1,380	750	1,380	2,900	2,800	506	725
17	750	690	582	5,300	1,300	1,410	725	1,170	2,700	2,330	524	690
18	800	670	582	5,460	1,200	1,300	700	1,020	2,510	1,920	483	665
19	800	655	578	5,620	1,270	1,170	700	5,430	2,240	1,520	438	645
20	750	640	578	5,300	1,740	1,110	695	34,900	1,970	1,300	402	635
21	725	630	573	4,820	2,970	1,080	685	41,600	1,760	1,170	384	542
22	725	620	582	4,240	3,700	1,050	700	38,600	13,800	1,080	375	532
23	750	610	591	4,100	3,700	1,020	1,240	31,700	20,600	992	398	532
24	725	605	620	3,700	3,460	992	1,560	23,500	12,400	938	573	564
25	700	600	700	3,230	3,700	965	1,480	18,600	8,400	855	938	550
26	680	591	855	2,800	5,240	965	1,480	15,300	12,800	828	1,170	537
27	680	586	882	2,510	9,680	1,110	1,450	12,100	15,300	775	1,050	524
28	665	582	965	2,200	8,800	1,380	1,300	9,900	12,300	725	938	514
29	660	578	965	2,020	-	1,520	1,200	8,600	11,000	680	910	501
30	645	578	910	1,880	-	1,680	1,110	7,800	11,400	640	910	528
31	640	-	828	1,760	-	2,150	-	7,020	-	605	992	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	24,225	992	640	781	48,050
November	19,310	750	578	644	38,300
December	20,165	965	573	650	40,000
Calendar year 1938	3,302,900	68,100	573	9,049	6,552,000
January	83,300	5,620	700	2,687	165,200
February	78,180	9,680	1,200	2,792	155,100
March	85,022	9,680	965	2,743	168,600
April	35,927	2,150	695	1,198	71,260
May	273,587	41,600	695	8,825	542,700
June	228,270	20,600	1,760	7,609	452,800
July	101,758	9,900	605	3,283	201,800
August	19,165	1,170	375	618	38,010
September	22,328	1,080	501	744	44,290
Water year 1938-39	991,237	41,600	375	2,716	1,966,000

Brazos River at East Columbia, Tex.

Location.- Wire-weight gage, lat. 29°09', long. 95°37', on bridge on State Highway 35 at East Columbia, Brazoria County, 1 mile downstream from Yarners Creek. Zero of gage is 2.95 feet below mean sea level (general adjustment of 1929). Prior to Dec. 19, 1938, chain gage at same site, but zero of gage was at mean sea level (by levels of Corps of Engineers, U. S. Army).

Drainage area.- 44,540 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- October 1938 to September 1939 (gage heights only).

Extremes.- Maximum gage height during year, 22.7 feet May 22, from floodmark; minimum gage height observed, 1.54 feet Aug. 22 (affected by tide).
Maximum stage known, 35.3 feet Dec. 21 or 22, 1913. Flood of 1899 reached stage of 35.0 feet. Both stages based on information furnished by local resident.

Remarks.- Discharge not computed. Gage height record for Oct. 1 to Dec. 18 furnished by Corps of Engineers, U. S. Army. Gage read twice daily, oftener during high water. Considerable water diverted above station for irrigation and municipal supply.

Gage height, in feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.33	4.25	3.51	3.33	4.43	8.80	4.12	3.80	7.31	10.16	3.84	3.64
2	3.43	4.59	4.16	3.58	4.59	9.04	3.62	3.71	7.41	9.24	3.52	2.92
3	3.38	5.34	3.76	3.90	3.24	8.16	4.34	3.86	7.93	8.48	3.36	3.52
4	3.83	4.34	3.85	3.80	3.80	7.30	4.14	4.30	7.07	7.31	3.18	3.43
5	4.33	4.64	3.50	2.98	4.06	6.62	5.30	3.80	6.72	6.13	2.74	3.76
6	4.48	5.04	3.95	3.40	4.18	5.92	3.60	4.29	9.15	5.12	3.73	2.92
7	4.13	3.59	3.70	3.52	3.48	5.68	3.16	4.42	9.19	4.50	3.68	3.59
8	4.48	3.69	3.85	3.70	3.84	5.41	3.38	3.64	9.48	4.23	3.78	3.88
9	4.77	4.59	3.45	3.88	4.32	4.70	3.61	3.44	12.10	4.74	2.52	3.33
10	5.42	4.28	3.65	2.98	3.90	4.42	2.86	3.23	12.00	4.75	2.76	3.70
11	5.22	3.98	3.70	3.03	3.95	4.50	2.92	3.35	9.96	4.81	3.42	3.70
12	5.27	3.93	3.19	2.62	4.38	3.48	3.52	3.40	8.14	10.49	3.02	4.04
13	5.07	3.28	3.04	3.85	4.70	3.41	3.48	3.42	6.42	14.38	3.80	3.84
14	5.27	3.33	2.94	4.14	4.22	4.42	4.44	2.83	5.63	12.50	3.96	3.96
15	4.42	3.28	3.69	5.38	3.37	3.86	4.12	3.17	4.98	10.31	3.46	3.92
16	4.27	3.93	4.04	6.22	4.14	3.54	4.06	3.85	5.32	8.85	3.70	4.34
17	5.51	4.48	3.73	6.50	4.42	4.09	3.78	3.95	5.61	7.50	3.06	4.24
18	5.26	3.27	3.73	5.92	3.95	4.78	3.03	4.28	5.48	6.74	2.52	3.98
19	4.36	2.67	3.60	6.16	3.98	4.60	3.42	3.52	5.34	5.88	3.20	3.96
20	3.66	3.27	3.58	6.29	3.72	3.86	4.05	10.70	4.86	4.88	3.16	3.70
21	4.31	4.47	3.75	6.04	2.32	4.02	3.38	21.80	4.16	4.06	3.12	3.70
22	4.36	4.17	3.82	5.67	3.94	3.56	3.27	22.40	4.28	3.48	2.33	3.89
23	3.96	3.52	3.58	5.68	4.75	3.43	3.28	21.00	14.34	3.44	2.46	3.84
24	4.11	2.02	3.15	5.06	5.42	3.76	4.14	18.20	13.04	3.24	2.99	3.83
25	3.95	3.57	3.95	4.68	5.02	3.66	3.16	15.30	9.50	3.39	2.98	3.90
26	4.05	3.56	3.92	4.42	4.74	3.92	3.62	13.75	8.52	3.51	3.03	4.38
27	4.00	3.21	2.74	4.31	7.12	3.26	3.54	11.90	11.96	3.30	3.60	4.26
28	2.95	3.11	3.40	4.92	8.50	3.32	3.26	10.30	11.80	3.39	3.88	4.44
29	3.75	3.16	3.42	4.12	-	3.14	3.46	9.10	10.78	3.49	3.70	4.48
30	3.55	3.46	3.06	2.82	-	3.32	3.56	8.55	10.25	3.96	3.71	4.42
31	3.25	-	3.40	3.78	-	3.68	-	7.95	-	3.50	3.68	-

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 1939.

Average discharge.- 15 years, 180 second-feet.

Extremes.- Maximum discharge during year, 7,600 second-feet June 22 (gage height, 15.05 feet); minimum, 1.7 second-feet Sept. 29, 30.

1924-39: Maximum discharge observed, 47,000 second-feet Sept. 8, 1932 (gage height, 27.05 feet, at former site), 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 good except those for period of missing gage heights, Dec. 23 to Feb. 24, which were computed on basis of known range in stage, weather records, and information furnished by local residents and are poor. Discharge for Nov. 7, 8 interpolated; that for Nov. 9, Feb. 25 based on partial gage-height record and discharge measurements. Small diversions above station for municipal supply and for use in mining.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	10	10	8.8	11	6.2	11	4.8	84	97	21	5.2
2	12	11	10	8.8	11	6.9	10	4.8	45	69	21	4.5
3	11	36	10	8.8	11	6.9	10	36	156	264	20	4.1
4	11	187	10	8.8	10	6.2	9.4	129	112	148	20	4.5
5	11	74	10	8.8	10	6.2	9.4	170	56	63	139	4.5
6	11	45	10	8.8	10	6.2	8.8	46	32	50	260	4.5
7	11	34	10	8.8	10	6.2	8.2	23	26	39	282	4.1
8	11	23	9.4	112	10	6.2	7.5	20	22	32	92	3.7
9	11	13	9.4	95	10	6.2	7.5	11	20	31	150	3.3
10	14	13	9.4	28	9.4	6.9	6.9	7.5	17	28	139	3.3
11	16	12	9.4	22	9.4	5.6	6.9	5.6	16	27	224	3.3
12	26	12	9.4	36	9.4	5.6	6.9	48	15	26	48	3.3
13	19	11	9.4	20	9.4	5.6	7.5	50	14	26	26	3.3
14	14	11	9.4	17	9.4	5.6	7.5	8.8	13	25	18	2.9
15	12	11	9.4	17	9.4	5.2	6.2	18	11	23	29	2.9
16	12	10	9.4	17	8.8	5.2	6.2	1,060	11	22	28	3.3
17	11	10	8.8	16	8.8	5.2	5.6	3,580	10	21	48	3.3
18	11	9.4	8.8	16	8.8	5.2	5.6	3,960	10	20	50	2.9
19	11	9.4	8.8	16	8.8	5.6	5.2	3,390	72	19	27	4.1
20	11	10	8.8	16	8.8	5.6	5.2	1,110	801	18	16	2.6
21	11	11	8.8	15	8.8	5.6	4.8	117	3,610	20	12	2.6
22	11	11	8.8	15	8.2	6.2	4.8	158	6,190	16	11	2.2
23	10	11	8.8	14	8.2	6.2	4.5	135	1,680	16	29	2.2
24	10	11	8.8	14	8.2	21	4.5	40	248	15	6.9	2.2
25	10	11	8.8	13	8.2	29	4.1	29	189	14	5.2	2.2
26	10	11	8.8	13	8.2	143	4.1	28	105	12	5.2	1.8
27	11	11	8.8	12	6.9	330	4.5	263	82	11	7.5	1.8
28	11	11	8.8	12	6.2	33	4.5	925	179	10	7.5	1.8
29	10	11	8.8	11	-	19	4.5	691	112	11	6.2	1.7
30	10	11	8.8	11	-	15	4.1	586	268	13	6.2	1.7
31	10	-	8.8	11	-	12	-	799	-	21	5.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	372	26	10	12.0	738
November	661.8	187	9.4	22.1	1,310
December	286.6	10	8.8	9.25	568
Calendar year 1938	92,633.0	10,600	4.5	254	183,700
January	630.6	112	8.8	20.3	1,250
February	256.3	11	6.2	9.15	508
March	738.5	330	5.2	23.8	1,460
April	195.9	11	4.1	6.53	389
May	17,453.5	3,960	4.8	563	34,620
June	14,206	6,190	10	474	28,180
July	1,207	264	10	38.9	2,390
August	1,760.3	282	5.2	56.8	3,490
September	93.8	5.2	1.7	3.13	186
Water year 1938-39	37,862.3	6,190	1.7	104	75,090

Peak discharge.- May 17 (9:30 a. m.) 4,520 sec.-ft.; May 18 (5:30 p. m.) 5,000 sec.-ft.; June 22 (5 a. m.) 7,600 sec.-ft.

Clear Fork of Brazos River at Fort Griffin, Tex.

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

Drainage area.- 3,974 square miles.

Records available.- December 1923 to September 1939.

Average discharge.- 15 years (1924-39), 296 second-feet.

Extremes.- Maximum discharge during year, 9,260 second-feet June 23 (gage height, 22.14 feet); no flow May 11, Sept. 12-30.

1923-39: 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 missing gage heights, June 6-9, which were computed on basis of available gage heights, known range in stage, and weather records, and are fair. Small diversions above station for municipal supply and irrigation materially affect low flow.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	2.9	2.9	0.3	6.7	2.2	29	0.3	997	139	58	3.6
2	2.2	2.6	2.6	.3	5.9	2.1	22	.2	517	284	16	2.2
3	2.2	8.5	2.2	.3	5.9	1.9	19	.2	200	128	6.3	1.6
4	2.2	15	1.9	.3	6.7	1.9	38	.2	138	100	3.4	1.1
5	2.2	26	1.9	.2	6.3	1.7	38	.2	107	192	2.4	.7
6	2.4	79	1.7	.2	5.2	5.9	33	.1	136	132	1.6	.3
7	2.2	116	1.6	.2	4.2	5.9	27	.2	85	84	1.0	.2
8	2.1	66	1.4	400	3.9	4.9	21	.3	60	71	112	.1
9	1.9	43	1.4	111	3.6	4.2	14	.2	42	70	222	.1
10	2.4	38	1.4	61	3.4	3.4	9.5	.1	32	65	114	.1
11	2.9	32	1.1	58	3.4	2.9	7.1	0	24	40	102	.1
12	3.6	25	1.0	65	3.4	2.2	5.5	12	19	23	128	0
13	2.9	19	.9	75	3.6	2.1	4.5	11	18	15	176	0
14	2.2	34	.9	84	3.6	1.9	4.5	9.5	15	10	90	0
15	1.9	39	.8	71	3.4	1.4	5.2	12	12	7.1	62	0
16	1.7	35	.7	60	3.4	1.1	4.9	2,920	8.5	4.9	168	0
17	1.6	28	.6	39	3.1	1.0	3.6	6,780	6.3	3.9	66	0
18	1.6	22	.6	27	3.4	.9	3.1	8,180	5.5	5.2	114	0
19	1.3	21	.5	20	3.4	.8	2.4	5,700	5.9	6.3	67	0
20	1.1	18	.5	15	3.1	.7	2.2	3,970	2,150	6.3	50	0
21	4.9	12	.5	15	2.4	.7	5.9	1,460	6,900	5.5	28	0
22	6.7	9.5	.4	13	2.2	.7	5.2	387	6,880	4.9	20	0
23	5.2	8.0	.3	12	2.4	1.0	3.6	159	9,080	4.9	9.0	0
24	4.5	6.7	.3	12	2.6	2.2	2.9	156	3,900	4.9	32	0
25	4.2	5.5	.3	10	3.1	2.9	2.2	138	805	4.9	24	0
26	3.9	4.9	.4	8.5	3.1	2.9	1.7	86	283	18	13	0
27	3.6	4.2	.4	7.5	2.9	2.6	1.4	1,700	208	34	28	0
28	3.4	3.6	.3	7.5	2.2	27	.8	791	134	32	43	0
29	3.4	3.1	.3	9.5	-	174	.5	1,600	182	22	22	0
30	3.4	2.9	.3	8.0	-	77	.3	1,070	215	30	9.5	0
31	3.1	-	.3	7.1	-	46	-	612	-	60	5.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	89.3	6.7	1.1	2.88	177
November	730.4	116	2.6	24.3	1,450
December	30.4	2.9	.3	.98	60
Calendar year 1938	146,927.3	13,600	.3	403	291,400
January	1,197.9	400	.2	38.6	2,380
February	106.5	6.7	2.2	3.80	211
March	386.1	174	.7	12.5	766
April	318.0	38	.3	10.6	631
May	35,755.5	8,180	0	1,153	70,920
June	33,165.2	9,080	5.5	1,106	65,780
July	1,607.8	284	3.9	51.9	3,190
August	1,794.1	222	1.0	57.9	3,560
September	10.1	3.6	0	.34	20
Water year 1938-39	75,191.3	9,080	0	206	149,100

Clear Fork of Brazos River near Crystal Falls, Tex.

Location.- Water-stage recorder upstream from spillway of concrete dam, lat. 32°54', long. 98°50', at Texas Co.'s pumping plant, 2½ miles downstream from Hubbard Creek and 3¾ miles northeast of Crystal Falls, Stephens County. Zero of gage is 1,055.25 feet above mean sea level (general adjustment of 1929).
Drainage area.- 5,658 square miles.
Records available.- July 1928 to September 1939.
Average discharge.- 11 years, 482 second-feet.
Extremes.- Maximum discharge during year, 11,000 second-feet May 17 (gage height, 17.27 feet); no flow at times.
1928-39: Maximum discharge, 22,700 second-feet Sept. 8, 1932 (gage height, 28.10 feet); 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 were affected by occasional accumulation of drift on control and are fair. A large part of ordinary flow diverted above station for municipal supply and for use in mining. Low-water flow partly regulated by dams above station.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 16 to Apr. 14, June 4-17, Aug. 25 to Sept. 7)

2.22	0	2.5	46.0	5.0	1,590	14.0	8,460
2.25	1.5	2.6	74.0	6.0	2,400	18.0	11,600
2.30	5.5	3.0	230	8.0	4,040		
2.35	12.5	3.5	482	10.0	5,580		
2.40	22.0	4.0	810	12.0	7,010		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	3.9	0	5.5	0.5	57	1.5	1,510	309	24	8.3
2		0	3.1	0	8.3	1.0	39	77	1,080	313	39	5.5
3		0	2.3	0	5.5	1.0	29	109	630	257	44	4.7
4		0	1.5	0	3.9	1.0	20	157	226	148	16	2.3
5		0	1.5	0	3.1	.5	16	74	128	113	9.7	1.5
6		3.1	1.0	0	2.3	0	34	46	132	175	8.3	.5
7		41	.5	0	2.3	0	39	29	121	136	8.3	.5
8		109	0	628	2.3	0	34	270	71	92	8.3	0
9		66	0	2,150	1.5	0	29	102	57	74	18	0
10		44	0	318	.5	.5	24	32	34	71	188	0
11		32	0	176	.5	1.0	16	14	27	66	102	0
12		29	0	222	.5	1.5	9.7	6.9	22	52	74	0
13		24	0	148	.5	2.3	6.9	3.9	18	39	109	0
14		16	0	98	.5	1.5	4.7	191	14	24	156	0
15		12	0	109	.5	1.0	3.9	74	9.7	18	125	0
16		29	0	88	.5	.5	176	2,470	6.9	18	121	0
17		34	0	68	.5	0	63e	9,230	4.7	18	322	0
18		29	0	46	.5	0	106	8,540	38	18	74	0
19		22	0	32	.5	0	34	7,360	3,950	18	95	0
20		16	0	22	.5	0	20	5,670	8,340	18	152	0
21		14	0	14	.5	0	11	3,310	4,120	18	172	0
22		12	0	9.7	.5	0	5.5	1,030	5,930	18	265	0
23		9.7	0	9.7	.5	0	4.7	340	7,570	18	1,130	0
24		6.9	0	8.3	.5	0	3.9	176	7,860	18	424	0
25		5.5	0	6.9	.5	0	3.1	298	3,660	18	98	0
26		3.9	0	6.9	.5	0	140	244	585	18	60	0
27		3.9	0	5.5	.5	0	237	750	337	18	44	0
28		3.1	0	4.7	.5	.5	14	4,170	611	18	20	0
29		3.1	0	4.7	-	8.3	4.7	3,990	172	18	20	0
30		3.1	0	3.9	-	115	2.3	1,540	396	18	36	0
31		-	0	4.7	-	92	-	1,730	-	18	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	571.3	109	0	19.0	1,130
December	13.8	3.9	0	.45	27
Calendar year 1938	208,721.1	10,500	0	572	413,900
January	4,184	2,150	0	135	8,300
February	44.2	8.3	.5	1.58	88
March	228.1	115	0	7.36	452
April	1,762.4	638	2.3	58.7	3,500
May	52,035.3	9,230	1.5	1,679	103,200
June	47,860.3	8,340	4.7	1,595	94,930
July	2,175	313	18	70.2	4,310
August	3,980.6	1,130	8.3	128	7,900
September	23.3	8.3	0	.78	46
Water year 1938-39	112,878.3	9,230	0	309	223,900

Peak discharge.- May 17 (3 p.m.) 11,000 sec.-ft.; May 29 (2 a.m.) 6,520 sec.-ft.

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Aquilla Creek near Aquilla, Tex.

Location.- Water-stage recorder, lat. 31°51', long. 97°12', at Abbott-Aquilla county-road bridge, three-quarters of a mile upstream from Palls Branch and 1 mile (revised) southeast of Aquilla, Hill County. Station is at same site and datum as station that was discontinued Aug. 31, 1925.

Drainage area.- 309 square miles.

Records available.- December 1924 to August 1925, December 1938 to September 1939.

Extremes.- Maximum discharge during period, December 1938 to September 1939, 9,860 second-feet June 19 (gage height, 28.16 feet), from rating curve extended above 6,500 second-feet; no flow Aug. 29 to Sept. 30.

1924-25, 1938-39: Maximum discharge, that of June 19, 1939; 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 (discharge not determined); peak discharge of this flood as determined about 9 miles below station, 84,500 second-feet, by slope-area method (drainage area, 372 square miles).

Remarks.- Records good except those for periods of faulty operation of intake, Mar. 18-24, Mar. 30 to Apr. 4, Apr. 8-10, June 13-17, July 9-13, which were computed on basis of known range in stage and weather records and are fair. Discharge for June 5 partly affected by backwater. No large diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	1.5	2.3	44	6.2	2.6	39	14	0.2	
2			-	1.5	2.3	36	6.0	2.6	303	13	.2	
3			-	1.5	2.3	33	5.5	2.5	26	12	.2	
4			-	1.6	2.3	32	5.3	2.4	236	9.7	.2	
5			-	1.6	2.2	30	*23	2.4	988	7.8	.2	
6			-	1.6	2.3	21	31	2.4	1,380	6.0	.2	
7			-	1.6	2.4	17	*10	2.8	98	4.9	.1	
8			-	4.4	2.4	15	6.2	4.7	40	4.2	.1	
9			-	18	2.4	15	5.5	3.2	27	3.8	.2	
10			-	4.9	2.6	15	5.1	2.3	20	3.7	.2	
11			-	19	2.5	14	*4.5	1.6	14	3.5	.1	
12			-	66	2.3	13	4.0	1.2	12	3.3	.1	
13			-	15	2.2	11	3.7	1.2	11	3.0	.1	
14			-	5.1	2.2	10	3.5	1.1	10	*2.9	.1	
15			*1.0	18	2.5	10	3.7	1.1	9.4	2.9	.1	
16			.9	4.5	3.0	9.4	899	204	8.9	2.6	.1	
17			1.0	2.8	2.9	8.9	260	2,180	8.4	2.4	.1	
18			1.1	2.3	56	7.8	36	1,720	*11	2.0	.1	
19			1.1	2.2	545	7.3	18	651	4,950	1.7	.1	
20			1.2	1.9	225	6.6	13	1,110	5,360	1.4	.1	
21			1.4	1.8	28	5.8	9.4	103	250	1.2	.1	
22			2.0	1.6	13	5.1	6.8	37	80	1.1	.1	
23			3.8	6.4	8.9	4.5	6.0	25	59	.9	.1	
24			5.3	9.1	7.6	4.2	5.5	18	47	.7	.1	
25			3.5	4.5	3,170	*12	4.7	12	38	.6	.1	
26			3.5	3.0	560	22	19	8.9	31	.4	.1	
27			4.7	2.8	91	18	13	7.6	26	.4	.1	
28			2.2	2.6	62	14	5.8	6.6	23	.4	.1	
29			1.7	2.6	-	11	3.7	12	19	.4	0	
30			1.5	2.6	-	9.1	2.9	6.4	16	.3	0	
31			1.5	2.5	-	7.3	-	23	-	.3	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December 15-31	37.4	5.3	0.9	2.20	74
Calendar year	-	-	-	-	-
January	214.5	66	1.5	6.92	425
February	4,807.6	3,170	2.2	172	9,540
March	469.0	44	4.2	15.1	930
April	1,426	899	2.9	47.5	2,830
May	6,158.6	2,180	1.1	199	12,220
June	14,142.7	5,360	8.4	471	28,050
July	111.5	14	.3	3.60	221
August	3.6	.2	0	.12	7.1
September	0	0	0	0	0
The period	-	-	-	-	54,300

Peak discharge.- Feb. 25 (12:30 p.m.) 5,560 sec.-ft.; May 17 (10 p.m.) 3,320 sec.-ft.; June 19 (3:30 p.m.) 9,860 sec.-ft.

*Discharge computed on basis of partial gage-height record.

North Bosque River near Clifton, Tex.

Location.- Staff gage upstream from spillway of masonry dam, lat. 31°48', long. 97°35', a quarter of a mile upstream from Gulf, Colorado & Santa Fe Railway bridge and 1.4 miles northwest of Clifton, Bosque County. Zero of gage is 622.7 feet above mean sea level (general adjustment of 1929).

Drainage area.- 974 square miles.

Records available.- November 1923 to September 1939.

Average discharge.- 16 years, 185 second-feet.

Extremes.- Maximum discharge observed during year, 26,300 second-feet June 19 (gage height, 15.46 feet); minimum observed, 0.2 second-foot Sept. 7-17, 24-30.
1923-39: Maximum discharge, 38,500 second-feet Jan. 23, 1938 (gage height, 21.82 feet, from floodmarks); 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 below 20 second-feet (affected by occasional accumulation of drift on control and those above 10,000 second-feet, which are fair, and those for periods of missing gage heights, Apr. 10-15, Apr. 23 to May 4 (computed on basis of approximate range of stage and weather records), which are poor. Gage read twice daily, oftener during floods. Railway company pumps about 100,000 gallons a day from pool formed by control dam a third of a mile below station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9.4	9.4	14	20	39	41	14	12	12	14	0.4
2	11	9.4	9.4	14	20	31	29	14	11	267	5.7	.4
3	11	9.4	9.4	14	20	27	23	14	9.4	90	5.7	.4
4	11	9.4	9.4	14	18	25	20	15	9.4	37	4.2	.4
5	11	9.4	9.4	14	17	23	20	31	13	18	4.2	.4
6	9.4	9.4	9.4	14	15	21	33	23	14	11	3.7	.3
7	9.4	9.4	9.4	14	15	18	18	17	31	8.5	3.1	.2
8	9.4	9.4	11	18	17	18	14	14	18	5.7	25	.2
9	9.4	9.4	9.4	874	18	17	11	13	14	5.7	14	.2
10	9.4	9.4	9.4	176	17	15	6.6	12	11	5.7	9.4	.2
11	8.5	9.4	9.4	123	14	14	6.6	11	7.6	4.2	5.7	.2
12	8.5	9.4	9.4	377	13	14	6.6	8.5	7.6	4.2	4.8	.2
13	8.5	9.4	9.4	328	12	13	6.6	9.4	7.6	4.2	4.2	.2
14	8.5	9.4	9.4	129	250	13	6.6	9.4	6.6	3.7	3.7	.2
15	8.5	9.4	9.4	84	288	13	6.6	8.5	5.7	3.1	3.7	.2
16	8.5	9.4	9.4	61	84	12	136	1,800	5.7	3.1	3.7	.2
17	8.5	9.4	9.4	53	84	12	81	4,560	5.7	2.0	3.7	.2
18	8.5	9.4	9.4	41	81	12	66	1,720	5.7	2.0	3.1	.6
19	8.5	9.4	9.4	35	323	12	56	219	7,330	1.7	3.1	.4
20	8.5	9.4	9.4	31	310	12	46	1,070	2,550	1.7	2.6	.3
21	8.5	9.4	9.4	25	93	12	41	296	680	1.7	1.7	.3
22	8.5	9.4	17	23	69	12	35	123	237	1.7	1.2	.3
23	8.5	9.4	17	23	43	12	17	64	81	1.7	1.0	.3
24	8.5	9.4	17	23	116	12	17	48	51	1.5	.8	.2
25	8.5	8.5	17	23	1,340	31	17	33	31	1.5	.5	.2
26	8.5	8.5	17	23	75	31	17	27	23	1.4	.5	.2
27	8.5	7.6	15	23	59	20	17	23	17	1.4	.5	.2
28	8.5	8.5	14	23	48	20	17	17	15	34	.5	.2
29	8.5	9.4	14	23	-	46	17	14	20	61	.5	.2
30	9.4	9.4	14	21	-	46	17	13	12	41	.5	.2
31	9.4	-	14	21	-	41	-	12	-	27	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	282.3	11	8.5	9.11	560
November	277.5	9.4	7.6	9.25	550
December	355.0	17	9.4	11.5	704
Calendar year 1938	134,031.8	23,000	7.6	367	265,800
January	2,679	874	14	86.4	5,310
February	3,479	1,340	12	124	6,900
March	644	46	12	20.8	1,280
April	845.6	136	6.6	28.2	1,680
May	10,259.8	4,560	8.5	331	20,340
June	11,242.0	7,330	5.7	375	22,300
July	664.4	267	1.4	21.4	1,320
August	136.4	25	.4	4.37	269
September	8.1	.6	.2	.27	16
Water year 1938-39	30,865.1	7,330	.2	84.6	61,230

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 (revised) upstream from bridge on U. S. Highway 81 and 2 miles east of Belton, Bell County. Zero of gage is 476.9 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,547 square miles.

Records available.- October 1923 to September 1939.

Average discharge.- 16 years, 579 second-feet.

Extremes.- Maximum discharge during year, 10,200 second-feet May 17 (gage height, 9.05 feet); minimum, 6.0 second-feet Sept. 30.

1923-39: Maximum discharge, 51,100 second-feet Sept. 28, 1936 (gage height, 20.0 feet), by slope-area method; no flow at times.

Two highest stages known, 21.0 feet sometime in September 1921 and about 25 feet sometime in December 1913, according to information furnished by local residents.

Remarks.- Records good except those below 200 second-feet, which are affected by occasional accumulation of drift on artificial control and are fair. Several small pumping plants divert water above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	50	53	92	110	313	177	124	339	778	50	76
2	80	50	56	88	105	260	166	115	538	580	50	56
3	80	53	56	88	101	227	172	120	463	640	41	44
4	76	53	56	86	105	213	207	138	422	343	41	32
5	72	50	60	84	105	207	183	124	471	275	630	26
6	72	56	56	80	110	194	154	110	845	275	220	26
7	72	53	56	76	120	183	143	105	726	234	101	26
8	72	50	60	84	120	172	129	731	343	213	398	22
9	72	50	60	105	124	166	134	925	220	154	359	20
10	68	50	60	249	115	166	124	624	177	134	240	18
11	68	56	60	166	110	160	115	207	154	124	143	16
12	64	56	60	481	105	149	105	172	134	115	84	16
13	64	53	60	913	101	143	101	538	124	110	64	14
14	64	53	60	597	101	138	101	1,340	115	105	53	12
15	56	56	60	597	101	134	101	305	105	96	56	12
16	56	56	60	665	96	134	338	2,710	92	88	166	11
17	53	60	60	471	105	129	488	7,660	84	84	134	11
18	56	53	60	328	124	120	488	5,010	76	80	96	11
19	56	50	60	240	236	120	343	4,640	110	76	64	11
20	56	50	60	189	406	120	264	4,220	213	68	56	11
21	53	53	64	166	305	115	234	3,640	275	64	213	11
22	56	53	64	154	234	115	282	2,370	254	60	194	11
23	56	56	68	143	213	110	267	1,360	139	56	189	11
24	56	56	72	134	207	110	207	1,140	844	56	88	11
25	56	53	72	129	351	129	160	1,040	2,300	50	92	11
26	56	53	84	129	736	275	166	726	2,940	50	92	9.5
27	60	53	88	124	648	406	278	488	3,400	47	149	7.0
28	53	53	84	120	390	200	247	375	3,880	47	177	8.0
29	53	53	84	115	-	412	160	290	2,100	44	110	8.0
30	53	53	80	110	-	227	138	267	1,080	44	88	7.0
31	50	-	84	110	-	183	-	351	-	41	105	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,939	80	50	62.5	3,850
November	1,594	60	60	53.1	3,160
December	2,017	88	53	65.1	4,000
Calendar year 1938	457,775	14,500	50	1,254	908,000
January	7,115	913	76	230	14,110
February	5,684	736	96	203	11,270
March	5,730	412	110	185	11,370
April	6,162	488	101	205	12,220
May	41,965	7,660	105	1,354	83,240
June	22,962	3,680	76	765	45,540
July	5,131	778	41	166	10,180
August	4,543	630	41	147	9,010
September	565.5	76	7.0	18.8	1,120
Water year 1938-39	105,407.5	7,660	7.0	289	209,100

Peak discharge.- May 14 (12:10 a.m.) 4,220 sec.-ft.; May 16 (7 p.m.) 7,230 sec.-ft.; May 17 (11:30 a.m.) 10,200 sec.-ft.

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. Zero of gage is 281.9 feet above mean sea level (general adjustment of 1929).

Drainage area.- 7,034 square miles.

Records available.- November 1916 to September 1939.

Average discharge.- 22 years (1917-39), 1,821 second-feet.

Extremes.- Maximum discharge during year, 12,400 second-feet May 19 (gage height, 30.65 feet); minimum, 33 second-feet Sept. 30.
1916-39: 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.
Flood of 1852 reached a stage of about 52.4 feet, according to information furnished by State Highway Department.

Remarks.- Records good except those for period of missing gage heights, Sept. 12-28, which were computed on basis of known range in stage and weather records and are fair. Discharge for Sept. 11, 29 computed on basis of one discharge measurement and partial gage-height record. Many small diversions for irrigation and municipal supply affect flow during extremely low stages. Slight regulation caused by pumping above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	246	165	163	203	267	878	536	494	612	1,460	80	161
2	241	163	167	198	264	660	422	348	593	954	79	156
3	238	165	172	201	261	555	359	285	536	783	84	139
4	232	174	172	203	249	498	328	249	612	954	93	109
5	227	179	174	201	249	471	314	230	593	660	128	91
6	221	181	174	203	252	449	331	238	2,210	441	718	80
7	221	179	174	201	246	426	301	224	5,060	370	555	70
8	216	211	176	214	252	403	279	206	1,710	334	341	64
9	214	203	176	214	255	388	255	241	830	298	276	59
10	211	176	174	230	258	384	246	650	517	267	492	57
11	208	174	172	397	258	377	246	859	388	238	403	55
12	206	172	174	688	252	373	238	556	321	219	286	54
13	206	174	174	651	246	366	224	321	273	206	211	53
14	203	174	174	1,410	244	355	216	258	244	193	165	52
15	203	167	174	1,490	241	348	211	971	221	184	151	51
16	201	167	170	1,030	241	341	221	745	203	176	121	49
17	201	167	172	897	246	334	267	2,360	191	163	119	48
18	198	172	170	783	246	334	908	9,180	174	154	179	47
19	198	165	170	612	264	338	1,110	11,800	165	146	211	46
20	201	161	170	517	304	341	764	8,840	172	135	237	45
21	196	161	170	441	449	348	536	5,300	317	125	316	44
22	188	159	172	388	574	352	430	4,210	992	119	150	43
23	181	159	181	355	555	755	377	3,390	631	111	206	42
24	179	152	188	338	468	359	403	1,940	452	102	249	41
25	179	152	208	324	460	513	377	1,330	348	97	282	39
26	172	156	214	314	517	392	324	1,180	1,490	94	208	38
27	174	154	211	304	821	399	282	935	2,550	90	176	37
28	174	156	230	301	1,110	536	501	688	3,060	83	161	36
29	174	159	227	295	-	555	897	574	3,460	83	216	35
30	172	161	219	279	-	574	764	487	3,160	88	249	34
31	170	-	208	270	-	707	-	445	-	83	201	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,251	246	170	202	12,400
November	5,058	211	152	169	10,030
December	5,670	230	163	183	11,250
Calendar year 1938	1,062,412	40,200	152	2,911	2,107,000
January	14,122	1,490	198	456	28,010
February	10,049	1,110	241	359	19,930
March	13,699	878	334	442	27,170
April	12,667	1,110	211	422	25,120
May	59,533	11,800	206	1,920	118,100
June	32,075	5,060	165	1,069	63,620
July	9,400	1,460	83	303	18,640
August	7,285	715	79	235	14,450
September	1,875	161	34	62.5	3,720
Water year 1938-39	177,684	11,800	34	487	352,400

Peak discharge.- May 19 (3:30 p.m.) 12,400 sec.-ft.; June 7 (6 a.m.) 6,160 sec.-ft.

Lampasas River at Youngsport, Tex.

Location.- Water-stage recorder, lat. 30°57', long. 97°43', 300 feet upstream from county highway bridge and half a mile southeast of Youngsport, Bell County.

Drainage area.- 1,242 square miles.

Records available.- February 1924 to September 1939.

Average discharge.- 15 years, 265 second-feet.

Extremes.- Maximum discharge during year not determined; minimum, 3.4 second-feet Sept. 30.

1924-39: 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, Aug. 9 to Sept. 8, 1934.

Flood of Dec. 2, 1913, reached a stage of 33.6 feet and that of September 1873 reached a stage of about 44.2 feet, present datum, according to information furnished by local residents.

Remarks.- Records good except those for periods of missing gage heights, June 2 to July 9, which were computed on basis of records for Leon River near Belton, San Gabriel River at Georgetown, engineer's notes, and weather records and are poor. Discharge for June 1 and July 10 based on partial gage-height record and discharge measurements. One small diversion above station for municipal supply.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	35	37	32	45	112	76	79	57		7.7	11
2	54	35	40	30	42	97	69	66			13	10
3	54	35	37	32	42	90	63	63			12	8.4
4	51	37	37	35	40	86	60	66			9.7	7.7
5	51	37	37	32	40	86	57	57		270	48	7.2
6	51	40	37	30	48	83	51	54			127	6.6
7	51	40	35	30	48	72	54	51			45	6.1
8	51	40	35	37	45	72	48	48			26	5.6
9	51	37	35	413	42	69	48	76			19	5.0
10	51	35	32	248	40	69	45	45		12	15	5.0
11	48	37	35	138	40	69	45	45		12	13	5.0
12	48	35	32	630	40	66	45	40		13	13	5.6
13	48	35	32	488	37	63	42	40		13	13	6.1
14	48	35	32	223	40	60	42	42		14	11	7.2
15	45	35	32	142	40	60	45	72		14	10	7.2
16	45	40	32	108	40	54	677	326	100	13	10	7.2
17	45	37	32	86	48	54	648	1,350		12	86	7.2
18	45	37	32	76	45	54	204	795		10	45	6.1
19	45	35	30	66	83	54	123	264		9.7	26	5.5
20	42	32	32	60	223	54	79	155		9.7	19	6.1
21	42	32	32	57	104	54	66	104		9.7	39	5.0
22	40	35	35	54	86	54	57	76		9.0	97	5.0
23	40	35	37	54	69	54	51	63		8.4	42	4.6
24	42	35	37	54	63	54	45	54		8.4	25	4.2
25	42	32	42	54	107	60	42	45		7.7	19	3.8
26	42	35	45	54	487	79	51	42		7.7	17	3.8
27	42	35	42	54	199	97	650	45		7.2	21	4.2
28	40	35	42	51	138	79	410	40		7.2	19	4.2
29	37	37	40	48	-	167	163	37		7.2	15	3.8
30	37	37	37	45	-	155	104	70		9.0	14	3.8
31	35	-	35	45	-	94	-	76	-	11	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,420	57	35	45.8	2,820
November	1,077	40	32	35.9	2,140
December	1,107	45	30	35.7	2,200
Calendar year 1938	251,750	18,400	30	690	499,500
January	3,503	630	30	113	6,950
February	2,321	487	37	82.9	4,600
March	2,371	167	54	76.5	4,700
April	4,060	650	42	135	8,050
May	4,395	1,350	37	142	8,720
June	2,937	-	-	98.6	5,870
July	2,654.9	-	7.2	85.6	5,270
August	889.4	127	7.7	28.7	1,760
September	178.0	11	3.8	5.93	353
Water year 1938-39	26,933.3	-	3.8	73.8	53,430

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, 1¼ miles downstream from confluence of North and South Forks, and 1⅝ miles northeast of Georgetown, Williamson County. Zero of gage is 643.34 feet above mean sea level (general adjustment of 1929).

Drainage area.- 415 square miles.

Records available.- July 1934 to September 1939. February 1924 to August 1925 at site 1 mile upstream; records equivalent except those for extremely low flow.

Extremes.- Maximum discharge during year, 903 second-feet June 6 (gage height, 3.97 feet); minimum, 0.3 second-foot June 9-12 (affected by regulation).
1924-25, 1934-39: Maximum discharge, 32,400 second-feet Sept. 16, 1936 (gage height, 17.70 feet); minimum, that of June 9-12, 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 below 40 second-feet (affected by occasional accumulation of drift on control), which are fair, and those for periods of missing gage heights, Apr. 30 to May 17 (computed on basis of known change in stage, records for Lampasas River at Youngsport, and weather records), which are poor. Discharge for Apr. 29 and May 18 based on partial gage-height record. Several small diversions have some effect on low flow which is also regulated at times by gates in recreation dam 3,000 feet upstream.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)

0.50	0.3	0.65	3.3	0.90	14.0	1.4	50	2.0	111	3.0	292
.55	.8	.70	5.1	1.0	20	1.6	68	2.5	172	3.2	380
.60	1.6	.80	9.0	1.2	34	1.8	89	2.8	222		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	9.5	12	12	12	16	14	15	12	7.0	3.3	3.7
2	12	24	12	12	12	15	12	15	7.0	6.3	3.3	3.3
3	12	12	12	12	12	14	12	14	.7	4.4	3.3	3.3
4	12	11	13	13	12	14	11	13	1.6	3.7	3.0	3.3
5	12	10	12	12	12	14	10	12	161	3.0	4.4	3.3
6	12	10	12	12	12	12	10	12	304	3.0	4.4	3.3
7	12	10	12	12	11	12	10	12	46	3.0	3.7	3.3
8	11	10	12	15	10	13	9.0	12	21	3.0	3.0	3.3
9	11	10	11	25	11	13	6.3	12	11	3.3	3.0	3.7
10	11	10	10	35	11	13	1.0	12	4.4	3.0	3.0	4.0
11	11	10	12	29	10	12	1.0	12	.3	4.0	3.0	4.0
12	11	10	10	42	10	12	3.0	12	.3	5.5	3.0	4.4
13	10	10	10	35	10	12	6.3	12	1.0	5.9	3.7	4.0
14	10	10	10	34	10	12	7.4	12	2.4	5.5	4.0	3.3
15	10	11	10	26	10	12	7.4	12	2.4	4.7	3.3	3.3
16	10	12	10	19	10	12	13	65	2.4	4.4	3.3	3.3
17	10	11	10	17	12	11	13	15	2.7	4.0	3.7	3.3
18	9.5	11	10	15	12	11	10	11	3.0	3.7	4.0	3.3
19	9.5	11	11	14	14	11	13	10	5.1	3.3	4.0	3.7
20	9.5	12	11	14	15	10	12	8.6	10	3.0	4.0	3.3
21	9.5	12	11	13	27	10	9.5	2.4	6.7	3.0	4.0	3.3
22	9.5	12	12	12	19	10	8.6	.7	4.7	2.7	4.0	3.3
23	9.5	12	13	14	16	10	8.2	.6	4.0	2.7	4.4	3.3
24	9.5	12	12	14	16	10	7.4	.6	3.3	3.0	4.0	3.3
25	9.5	12	14	13	23	12	7.0	2.1	3.0	3.0	4.0	3.3
26	9.5	12	18	12	21	14	7.0	3.3	3.0	2.7	4.0	3.0
27	9.5	12	15	12	16	12	41	3.3	2.4	2.7	4.4	3.0
28	9.5	12	13	12	15	14	56	3.3	2.4	2.7	4.4	3.0
29	9.5	12	12	12	-	87	26	3.7	3.0	3.3	4.4	3.0
30	9.5	12	12	12	-	19	18	20	5.1	3.7	4.0	3.0
31	9.5	-	12	12	-	15	-	23	-	3.7	3.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	322.0	12	9.5	10.4	639
November	344.5	24	9.5	11.5	683
December	366	18	10	11.8	726
Calendar year 1938	72,552.5	10,500	9.5	199	143,900
January	543	42	12	17.5	1,080
February	381	27	10	13.6	756
March	464	87	10	15.0	920
April	370.1	56	1.0	12.3	734
May	361.6	65	.6	11.7	717
June	635.9	304	.3	21.2	1,260
July	116.9	7.0	2.7	3.77	232
August	115.7	4.4	3.0	3.73	229
September	101.9	4.4	3.0	3.40	202
Water year 1938-39	4,122.6	304	.3	11.3	8,180

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 bridge of Gulf, Colorado & Santa Fe Railway bridge, and 2 miles south of Somerville, Burleson County, and 5 miles upstream from Davidson Creek. Zero of gage is 199.29 feet above mean sea level (general adjustment of 1929).

Drainage area.- 990 square miles.

Records available.- May 1924 to September 1939.

Average discharge.- 15 years, 307 second-feet.

Extremes.- Maximum discharge during year, 1,330 second-feet Feb. 27 (gage height, 6.70 feet); no flow at times.
1924-39: Maximum discharge observed, 33,600 second-feet May 30, 1929 (gage height, 16.7 feet, present datum), from rating curve extended above 16,700 second-feet on basis of velocity-area studies; no flow at times.
Maximum stage known, 18.6 feet, present datum Dec. 5, 1913, according to information furnished by local residents.

Remarks.- Records good. No diversion above station.

Rating table, water year 1938-39 (gage height, in feet, and discharge in second-feet)
(Shifting-control method used Nov. 14 to Jan. 3)

1.0	0	2.0	4.9	4.5	130	5.6	470
1.2	.2	2.5	15.6	4.8	172	6.0	770
1.4	.8	3.0	32.6	5.0	213	6.5	1,170
1.6	1.4	3.5	55.0	5.2	270	7.0	1,570
1.8	2.6	4.0	86.0	5.4	350		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0	0.2	4.1	204	1.8	0	34	0.5	0	0.7
2		0	0	.1	3.7	112	1.7	0	16	.3	0	.4
3		.2	0	.1	3.4	64	1.8	0	7.5	.2	0	.2
4		1.6	0	0	2.9	44	1.8	0	15	.1	0	.1
5		1.0	0	0	2.5	34	1.6	0	10	.1	.1	.1
6		.7	0	0	327	25	1.5	0	20	0	122	0
7		1.4	0	0	1,040	20	1.3	0	34	0	48	0
8		5.9	0	.1	537	19	1.2	0	27	0	6.0	0
9		82	0	90	97	18	1.2	0	29	0	1.8	0
10		35	0	136	34	16	1.1	0	11	0	1.0	0
11		12	0	124	18	14	1.0	0	3.9	0	.7	0
12		6.2	0	372	10	11	.9	0	1.8	0	.4	0
13		8.2	0	540	7.1	8.6	.8	0	1.3	0	.2	0
14		5.6	0	479	5.6	7.3	.7	0	1.0	0	.1	0
15		3.6	0	230	4.6	6.4	.7	0	.7	0	.1	0
16		2.5	0	172	3.7	5.6	.8	.1	.6	0	.1	0
17		1.7	0	193	189	4.8	1.0	2.8	.4	0	0	0
18		1.1	0	222	722	4.2	.9	209	.3	0	0	0
19		.9	0	114	408	3.9	.7	434	9.1	0	0	0
20		.6	0	48	202	3.5	.5	596	532	0	0	0
21		.5	0	27	96	3.1	.3	618	225	0	25	0
22		.3	0	19	36	2.8	.2	786	50	0	125	0
23		.2	0	16	19	2.5	.2	954	28	0	25	0
24		.1	0	16	14	2.4	.1	954	10	0	3.5	0
25		0	.4	12	383	2.5	.1	470	4.2	0	1.3	0
26		0	7.1	8.9	1,130	2.9	.1	132	2.2	0	.9	0
27		0	1.6	6.9	1,250	3.2	.1	48	1.5	0	.6	0
28		0	1.0	6.1	626	3.0	.1	28	1.2	0	17	0
29		0	.9	6.2	-	2.3	0	19	.9	0	12	0
30		0	.6	5.4	-	2.2	0	12	.7	0	2.9	0
31		-	.4	4.5	-	1.9	-	23	-	0	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	171.5	82	0	5.72	340
December	12.0	7.1	0	.39	24
Calendar year 1938	117,390.0	13,000	0	322	232,800
January	2,848.5	540	0	91.9	5,650
February	7,175.6	1,250	2.5	256	14,230
March	654.1	204	1.9	21.1	1,300
April	24.2	1.8	0	.81	48
May	5,285.9	954	0	171	10,480
June	1,076.3	532	.3	35.9	2,130
July	1.2	.5	0	.04	2.4
August	395.9	126	0	12.8	785
September	1.5	.7	0	.05	3.0
Water year 1938-39	17,646.7	1,250	0	48.3	34,990

Navasota River near Easterly, Tex.

Location.- Water-stage recorder, lat. 31°10'10", long. 96°17'55" (revised), at bridge on U. S. Highway 79, 1 mile (revised) upstream from Missouri Pacific Railroad bridge and 6 miles northeast of Easterly, Robertson County. Zero of gage is 276.42 feet above mean sea level (general adjustment of 1929).

Drainage area.- 949 square miles.

Records available.- March 1924 to September 1939.

Average discharge.- 15 years, 395 second-feet.

Extremes.- Maximum discharge during year, 1,620 second-feet May 20 (gage height, 12.42 feet); minimum, 0.2 second-foot several days in August and September.
1924-39: Maximum discharge, about 48,500 second-feet Sept. 5, 1932 (gage height, 21.9 feet, from floodmarks), from rating curve extended as a straight line above 13,500 second-feet; no flow at times.
Maximum stage known, about 24.0 feet in 1900, according to information furnished by local residents (discharge, 63,400 second-feet, from rating curve extended as a straight line above 13,500 second-feet).

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	1.2	2.4	10	11	564	73	17	149	19	0.4	0.2
2	.8	1.2	3.0	8.0	14	451	54	11	78	19	.3	.2
3	.8	2.2	3.0	6.4	17	155	42	8.2	126	13	.3	.2
4	.7	2.9	3.0	6.0	15	92	36	6.7	57	9.3	.3	.3
5	.7	2.7	2.8	5.2	14	66	31	6.0	126	7.4	.3	31
6	.7	4.8	2.9	4.4	15	50	48	5.2	433	7.6	.2	40
7	.8	22	2.9	4.3	16	41	85	5.0	845	6.7	.3	41
8	.9	13	2.8	4.9	20	36	42	6.0	1,000	5.2	.3	41
9	.9	10	2.6	26	17	33	27	6.2	875	4.3	.3	42
10	1.0	5.8	2.5	39	14	31	22	5.4	281	3.6	.3	43
11	1.0	4.0	2.4	78	11	26	20	133	94	3.3	.2	44
12	1.0	3.2	2.3	289	10	22	16	253	53	3.0	.2	44
13	.9	2.6	2.3	326	9.3	19	14	113	38	2.9	.2	44
14	.9	3.3	2.3	525	9.5	18	12	58	28	2.5	.2	45
15	.9	5.4	2.3	656	9.5	17	11	41	22	2.2	.2	44
16	.9	5.0	2.3	333	9.3	16	16	32	17	1.9	.2	43
17	.9	4.6	2.4	141	15	17	22	103	12	1.7	.2	41
18	.9	3.8	2.4	72	20	14	26	662	8.7	1.4	.2	26
19	1.0	3.2	2.4	45	33	12	17	1,410	8.0	1.3	.3	12
20	1.0	3.0	2.5	32	88	10	14	1,020	9.1	1.1	.8	5.8
21	1.0	2.8	2.6	25	259	9.8	18	1,500	7.6	1.0	.5	2.9
22	1.2	2.6	2.8	21	398	9.8	37	1,410	165	.9	.4	2.1
23	1.2	2.4	5.8	19	181	10	27	1,130	471	.7	.5	1.6
24	1.1	2.2	6.2	18	74	9.5	21	938	716	.7	.5	1.1
25	1.1	2.2	6.9	20	63	41	17	681	879	.6	.4	1.0
26	1.1	2.2	9.1	17	82	520	14	142	213	.6	.3	.9
27	1.1	2.1	7.9	14	157	334	12	67	48	.5	.3	.7
28	1.1	2.1	17	13	443	110	10	44	33	.5	.2	.6
29	1.1	2.1	14	13	-	56	8.7	33	27	.5	.2	.6
30	1.1	2.2	10	12	-	124	17	63	22	.4	.2	.9
31	1.1	-	10	12	-	99	-	372	-	.4	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	29.6	1.2	0.7	0.95	59
November	126.8	22	1.2	4.23	252
December	143.8	17	2.3	4.64	285
Calendar year 1938	100,349.7	12,200	.7	275	199,000
January	2,795.2	656	4.3	90.2	5,540
February	2,024.6	443	9.3	72.3	4,020
March	3,013.1	564	9.5	97.2	5,980
April	809.7	85	8.7	27.0	1,610
May	10,881.7	1,620	5.0	351	21,580
June	6,841.4	1,000	7.6	228	13,570
July	123.2	19	.4	3.97	244
August	9.4	.8	.2	.30	19
September	600.1	44	.2	20.0	1,190
Water year 1938-39	27,398.6	1,620	.2	75.1	54,350

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 1939.

Extremes.- Maximum daily discharge during year, 339 second-feet May 21; no flow at times. 1931-39: Maximum daily discharge, that of May 21, 1939; no flow several months each year.

Remarks.- Records fair. Discharge for period of local rain effect, July 11, 12, computed on basis of pump records. Station is 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. Figures of discharge represent water actually pumped from Brazos River into canal.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	208	221	241	195	221
2							0	202	161	234	195	221
3							0	208	262	228	195	221
4							0	208	234	221	195	221
5							0	208	138	214	177	221
6							33	208	57	214	195	221
7							95	208	70	202	202	221
8							97	186	234	214	202	214
9							97	202	255	214	195	214
10							82	208	241	208	166	208
11							118	208	221	208	167	208
12							234	208	221	98	208	157
13							248	208	214	0	208	202
14							241	214	208	0	208	102
15							241	214	208	0	202	0
16							228	214	208	0	202	0
17							234	208	202	0	208	0
18							228	195	202	27	195	0
19							226	241	202	195	195	0
20							228	325	195	202	195	0
21							228	339	195	202	195	0
22							228	118	248	202	188	0
23							241	49	262	202	195	0
24							241	262	241	195	208	0
25							234	262	228	195	162	0
26							234	262	241	195	90	0
27							228	255	248	195	221	0
28							228	248	241	195	228	0
29							221	241	241	195	228	0
30							214	234	248	196	228	0
31							-	228	-	195	228	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	25,395	259	0	69.6	50,380
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	4,929	248	0	164	9,780
May	6,779	339	49	219	13,450
June	6,347	262	57	212	12,590
July	5,086	241	0	164	10,090
August	6,096	228	90	197	12,090
September	2,852	221	0	95.1	5,660
Water year 1938-39	32,089	339	0	87.9	63,660

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, about 1½ miles downstream from point of diversion, and 1½ miles west of Richmond, Fort Bend County.

Records available.- October 1931 to September 1939.

Extremes.- Maximum daily discharge during year, 210 second-feet Aug. 24; no flow at times. 1931-39: Maximum daily discharge, 234 second-feet June 5, 6, 1938; no flow at times.

Remarks.- Records good. Discharge for period of local rain effect, July 11, 12, computed on basis of pump records. Diversions from canal below station. Flow controlled by pumping plant. Canal diverts water from right bank of Brazos River 6 miles above Richmond for irrigation south of Richmond.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	52	104	102	98	0
2							0	52	60	106	98	6.6
3							0	53	60	105	98	94
4							0	53	70	105	98	98
5							0	53	71	102	94	94
6							0	43	0	98	98	94
7							0	52	0	98	98	94
8							0	48	0	102	102	94
9							0	70	0	91	102	98
10							0	94	0	98	102	31
11							0	105	0	98	102	0
12							53	102	98	58	102	0
13							112	102	108	0	102	0
14							99	105	108	0	102	0
15							52	105	108	0	98	0
16							55	108	108	0	102	0
17							55	102	108	0	105	0
18							54	84	105	89	105	0
19							80	0	105	98	105	0
20							108	0	105	98	102	7.6
21							112	0	112	98	102	84
22							112	0	112	98	102	86
23							112	0	119	102	116	29
24							78	96	116	102	210	0
25							52	113	116	102	110	0
26							55	90	116	102	102	0
27							53	70	102	102	98	0
28							52	77	105	102	98	0
29							53	108	112	98	94	0
30							51	116	116	98	68	0
31							-	103	-	98	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	14,123.7	234	0	38.7	28,010
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	1,398	112	0	46.6	2,770
May	2,156	116	0	69.5	4,280
June	2,444	119	0	81.5	4,850
July	2,552	108	0	82.3	5,060
August	3,113	210	0	100	6,170
September	912.2	98	0	30.4	1,810
Water year 1938-39	12,575.2	210	0	34.5	24,940

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. Zero of gage is 1,593.7 feet above mean sea level (general adjustment of 1929).

Drainage area.- 16,840 square miles, of which about 11,500 square miles is probably noncontributing.

Records available.- June 1907 to September 1939. (June 1907 to November 1915, monthly records only, in Water-Supply Paper 850).

Average discharge.- 32 years, 429 second-feet.

Extremes.- Maximum discharge during year, 29,200 second-feet June 23 (gage height, 21.30 feet); maximum gage height, 21.40 feet June 19 (affected by backwater from Elm Creek); minimum, 1.7 second-feet Mar. 16.

1907-39: 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, present site and datum, from floodmarks was reached Aug. 6, 1906 (affected by backwater from Elm Creek).

Remarks.- Records good except those for period following acts of vandalism, Nov. 5-13 (computed on basis of known range of stage and weather records), those for periods of uncertain or missing gage heights, May 6, 7, 19, June 25 to July 1 (computed from graph drawn on basis of observer's readings, engineer's notes, and weather records), and those affected by backwater, all of which are fair. Some small diversions above station for irrigation affect low flow.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	6.6	6.1	6.1	20	10	51	13	449	1,030	102	26
2	3.0	6.1	6.1	6.6	20	6.1	41	352	452	*583	73	23
3	3.0	15	6.1	7.2	19	6.1	32	373	455	613	43	20
4	3.0	*9.3	6.1	6.6	18	5.0	26	1,100	246	736	†5,770	19
5	3.0	10	5.5	5.0	18	4.2	23	*2,540	337	550	†3,630	18
6	2.7	11	6.1	5.5	17	4.6	20	1,040	193	318	425	16
7	2.7	12	6.1	5.5	16	4.6	16	416	126	243	404	15
8	2.7	12	6.1	10	15	4.2	14	*243	91	212	2,380	13
9	2.7	13	5.5	10	14	4.2	13	182	70	182	3,840	12
10	3.0	14	5.5	2,730	12	4.2	13	126	54	193	445	12
11	159	15	4.6	1,610	12	3.8	9.3	88	43	260	462	12
12	64	15	4.2	886	12	4.2	7.7	65	34	189	613	11
13	39	16	3.8	489	11	3.4	7.7	2,470	28	153	583	10
14	97	*17	3.4	397	11	2.7	7.2	517	23	186	388	10
16	62	15	3.4	256	11	2.5	6.1	266	18	157	243	10
16	41	14	3.8	186	11	2.0	6.6	568	14	120	193	10
17	30	13	4.2	150	9.3	2.0	7.2	†4,450	12	94	157	10
18	23	10	4.6	113	9.3	2.5	4.6	3,310	10	79	116	10
19	18	9.3	5.0	91	9.3	2.5	4.6	964	†10,300	70	103	10
20	16	8.5	5.5	76	8.5	2.0	6.1	*495	†3,250	67	121	10
21	14	7.7	5.5	62	7.7	2.7	5.0	285	13,700	59	201	8.5
22	14	7.2	12	54	7.7	2.7	5.0	490	19,500	54	73	7.7
23	14	6.6	11	48	7.7	7.2	4.6	318	16,500	46	189	7.2
24	13	6.6	11	46	7.2	12	4.6	189	*2,360	43	73	6.6
25	12	6.1	9.9	38	7.2	2,420	3.4	105	1,050	36	48	6.6
26	9.3	5.0	9.2	36	12	1,830	574	1,180	650	30	41	6.6
27	9.3	5.0	8.5	32	12	506	817	676	438	30	38	6.6
28	8.5	5.0	7.8	28	11	244	142	2,420	1,070	30	36	6.6
29	7.7	5.0	*7.2	28	-	137	30	2,160	9,100	28	32	6.1
30	7.7	5.5	7.7	26	-	91	16	2,160	2,570	26	32	5.5
31	7.2	-	7.2	23	-	70	-	845	-	28	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	694.9	159	2.7	22.4	1,380
November	301.5	17	5.0	10.0	598
December	198.7	12	3.4	6.41	394
Calendar year 1938	137,544.1	16,900	2.7	377	272,800
January	7,466.5	2,730	5.0	241	14,810
February	345.9	20	7.2	12.4	686
March	5,403.4	2,420	2.0	174	10,720
April	1,917.7	817	3.4	63.9	3,800
May	30,396	4,450	13	981	60,290
June	83,143	19,500	10	2,771	164,900
July	6,445	1,030	26	208	12,780
August	20,882	5,770	28	674	41,420
September	345.0	26	5.5	11.5	684
Water year 1938-39	157,539.6	19,500	2.0	432	312,500

Peak discharge.- Mar. 25 (5:30 p.m.) 7,620 sec.-ft.; May 13 (12:30 p.m.) 5,360 sec.-ft.; May 17 (10 p.m.) 8,300 sec.-ft.; May 28 (9 p.m.) 5,880 sec.-ft.; June 23 (4 a.m.) 29,200 sec.-ft.; Aug. 9 (4 a.m.) 10,100 sec.-ft.

*Discharge computed on basis of partial gage-height record.

†Affected by backwater from Elm Creek.

Colorado River at Winchell, Tex.

(Formerly published as Colorado River near Milburn, Tex.)

Location.- Wire-weight gage, 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. Zero of gage is 1,264.86 feet above mean sea level (general adjustment of 1929).

Drainage area.- 24,580 square miles, of which about 11,800 square miles is probably noncontributing.

Records available.- January to September 1939. November 1923 to September 1934, at site near Milburn, 4.2 miles downstream.

Average discharge.- 10 years (1924-34), 830 second-feet.

Extremes.- Maximum discharge observed during period, 24,300 second-feet June 24 (gage height, 28.68 feet); minimum observed, 10 second-feet Sept. 30.

1923-1934, 1939: Maximum gage height, 51.8, present site and datum, Oct. 14, 15, 1930, from floodmark (discharge not determined); 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, according to information furnished by Gulf, Colorado & Santa Fe Railway engineers at railway bridge 1,000 feet above present gage.

Remarks.- Records good. Gage read twice daily, oftener during periods of rapidly changing stage. Many diversions above station for irrigation and municipal supply. Flow partly regulated by reservoirs on Concho River.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	101	58	192	314	1,370	2,690	43	47
2				-	101	49	164	314	867	1,380	47	40
3				-	103	54	126	428	574	702	71	35
4				-	103	56	110	538	466	524	73	26
5				-	97	57	97	2,650	406	567	12,200	28
6				-	82	200	82	4,120	314	567	4,480	44
7				-	91	292	69	3,040	394	418	914	24
8				-	100	280	65	992	267	314	1,100	23
9				-	97	216	61	597	188	259	1,210	24
10				-	106	150	54	483	143	224	2,760	23
11				-	289	104	49	336	104	186	1,060	22
12				-	280	74	52	249	82	155	648	19
13				1,340	237	71	55	1,290	46	235	457	19
14				804	152	58	54	2,410	58	216	648	19
15				567	108	52	49	1,160	48	182	538	19
16				470	84	51	538	2,690	42	170	538	17
17				418	74	47	404	6,500	39	157	451	16
18				394	68	47	126	8,480	32	140	314	14
19				298	65	46	65	4,510	83	108	243	14
20				224	62	46	44	1,780	17,100	91	201	14
21				201	58	45	40	930	5,860	90	447	12
22				197	56	44	38	630	12,800	82	384	13
23				184	49	43	38	510	18,000	83	554	14
24				174	56	43	36	582	18,600	72	230	15
25				158	56	47	36	836	2,100	68	176	14
26				147	55	1,490	36	567	955	59	186	14
27				126	57	2,460	1,900	1,920	567	57	176	13
28				115	51	897	980	1,810	444	55	214	13
29				103	-	496	1,280	3,350	809	54	90	13
30				101	- -	418	350	3,030	6,750	51	75	12
31				101	-	251	-	2,090	-	47	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January 13-31	6,122	1,340	101	322	12,140
February	2,838	289	49	101	5,630
March	8,242	2,460	43	266	16,350
April	7,190	1,900	36	240	14,260
May	59,136	8,480	249	1,908	117,300
June	89,508	18,600	32	2,984	177,500
July	10,003	2,690	47	323	19,840
August	30,592	12,200	43	987	60,680
September	620	47	12	20.7	1,230
The period	-	-	-	-	424,900

Colorado River near San Saba, Tex.

Location.- Water-stage recorder, lat. 31°12'45", long. 98°34'00", at Red Bluff crossing 5.7 miles downstream from San Saba River and 9.2 miles east of San Saba, San Saba County. Zero of gage is 1,096.22 feet above mean sea level (general adjustment of 1929).

Drainage area.- 30,600 square miles, of which about 11,800 square miles is probably noncontributing.

Records available.- August 1930 to September 1939. October 1915 to October 1922, at site near Chadwick, 1.6 miles upstream. October 1923 to December 1934, at site near Tow, 44 miles downstream.

Average discharge.- 14 years (1916-19, 1920-22, 1930-39), 2,032 second-feet.

Extremes.- Maximum discharge during year, 20,400 second-feet June 25 (gage height, 16.13 feet); minimum, 90 second-feet Sept. 30.
1915-22, 1930-39: Maximum discharge, 224,000 second-feet July 23, 1938 (gage height, 62.24 feet, from floodmarks); minimum discharge observed, 1.5 second-feet Aug. 22, 23, 1918.

Remarks.- Records good. Many diversions above station for irrigation and municipal supply. Flow partly regulated by reservoirs on Pecan Bayou and Concho River.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	385	292	283	328	355	283	465	908	6,330	8,180	181	346
2	375	283	283	324	355	278	390	470	3,100	4,710	208	241
3	370	288	278	324	355	278	337	691	2,060	2,200	204	204
4	360	306	274	370	337	278	301	982	1,640	1,450	341	187
5	360	306	274	465	337	270	274	832	1,280	1,150	874	166
6	355	292	270	455	328	265	253	1,180	1,180	1,060	8,370	172
7	350	283	270	410	328	274	241	5,270	910	1,090	9,330	365
8	337	306	265	447	324	296	233	3,240	910	970	1,580	365
9	337	450	270	902	324	420	229	1,540	838	820	1,450	360
10	332	360	265	2,600	314	430	225	1,000	712	712	2,660	355
11	328	324	270	2,440	306	385	218	718	632	654	5,120	350
12	319	328	270	6,460	306	337	214	532	576	626	1,680	346
13	319	328	270	7,370	380	306	214	1,390	549	610	1,060	346
14	319	319	265	2,480	460	283	214	3,140	522	610	1,000	350
15	324	319	270	1,560	430	261	214	2,190	500	659	1,150	346
16	324	365	270	1,210	375	249	274	2,560	485	648	1,180	337
17	435	430	274	1,150	342	241	280	6,300	470	754	1,150	337
18	465	375	270	970	332	229	703	11,000	460	670	850	337
19	415	342	274	838	328	229	495	14,100	988	632	694	332
20	380	310	274	700	314	225	360	10,700	1,020	571	516	328
21	350	301	278	588	306	225	301	4,810	12,900	532	554	319
22	337	283	278	510	296	229	261	2,520	17,700	415	582	314
23	324	278	310	475	296	229	237	1,710	17,000	292	1,030	310
24	314	270	365	440	292	229	229	1,300	17,900	257	1,090	314
25	306	270	494	420	296	241	222	1,150	19,800	241	838	314
26	301	270	490	395	301	241	225	1,160	8,340	225	632	310
27	296	270	435	385	301	245	296	1,420	2,170	211	571	222
28	296	274	410	385	292	2,280	1,110	2,230	1,510	200	588	136
29	296	274	385	375	-	1,360	1,740	4,020	1,180	197	598	108
30	288	274	355	370	-	860	1,240	4,580	1,410	187	527	93
31	292	-	332	360	-	610	-	7,180	-	187	475	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	10,589	465	288	342	21,000
November	9,370	450	270	312	18,590
December	9,571	494	265	309	18,980
Calendar year 1938	1,393,318	191,000	178	3,817	2,764,000
January	36,506	7,370	324	1,178	72,410
February	9,310	460	292	332	18,470
March	12,556	2,280	225	405	24,900
April	11,995	1,740	214	400	23,790
May	100,723	14,100	470	3,249	199,800
June	125,072	19,800	460	4,169	248,100
July	31,720	8,180	187	1,023	62,920
August	47,083	9,330	181	1,519	93,390
September	8,610	365	93	287	17,080
Water year 1938-39	413,105	19,800	93	1,132	819,400

Colorado River at Austin, Tex.

Location.- Water-stage recorder, lat. 30°14'40", long. 97°41'20", at Montopolis Bridge on U. S. Highway 290, at southeast edge of Austin, Travis County, 3.8 miles downstream from Waller Creek, and 5 miles downstream from Barton Creek. Prior to June 20, 1939, wire-weight gage at same site and datum. Prior to Feb. 16, 1939, water-stage recorder at Congress Avenue viaduct, 4 miles upstream. Zero of former gage was 421.86 feet above mean sea level (general adjustment of 1929). Zero of gage is 407.3 feet above mean sea level (general adjustment of 1929).

Drainage area.- 38,160 square miles (present site), of which about 11,800 square miles is probably noncontributing.

Records available.- February 1898 to September 1939.

Average discharge.- 41 years, 2,743 second-feet.

Extremes.- Maximum discharge during year, 20,400 second-feet July 15 (gage height, 10.54 feet); minimum, 415 second-feet Nov. 17.

1898-1939: 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. Second highest discharge, 276,000 second-feet July 25, 1938 (gage height, 40.2 feet, present site and datum, from graph based on engineer's readings of auxiliary wire-weight gage).

Maximum stage known, 47.0 feet, present site and datum, July 7, 1869 (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. Discharge for period of missing gage heights, Dec. 24 to Jan. 3 computed from graph drawn on basis of once-daily gage readings furnished by U. S. Weather Bureau, fragmentary gage-height record, and engineer's readings. During period Feb. 16 to June 19, wire-weight gage read twice-daily, oftener during floods. About 36,000 acres irrigated above station. Low-water flow affected by diversions through pumping plant of the city of Austin. Flow partly regulated by storage in Buchanan Reservoir (capacity, 1,000,000 acre-feet) and several smaller reservoirs on Pecan Bayou and Concho River.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	459	464	522	535	528	810	1,020	1,500	3,300	3,530	1,760	904
2	459	483	567	631	603	840	980	1,320	3,800	3,370	1,640	940
3	464	552	620	594	612	1,040	980	1,210	3,800	3,290	1,660	892
4	464	535	612	506	703	806	940	1,190	3,600	3,210	1,660	916
5	459	516	586	462	830	668	990	1,200	4,060	4,190	1,610	1,000
6	448	544	528	637	805	634	960	1,290	5,390	5,090	1,320	820
7	448	522	464	642	664	610	900	1,220	4,220	5,090	1,340	809
8	454	502	524	638	620	596	1,230	1,160	3,700	5,090	1,530	892
9	470	490	516	708	1,460	942	870	940	3,200	4,990	1,490	809
10	470	528	502	919	2,070	1,660	800	840	2,800	4,990	1,230	976
11	470	522	483	1,660	2,280	1,630	785	820	2,800	4,890	1,100	1,050
12	470	552	516	1,420	1,420	1,220	767	800	2,600	4,490	1,560	1,000
13	509	620	502	1,120	772	738	860	1,080	2,600	2,970	1,780	988
14	544	612	470	1,630	586	602	830	1,130	2,600	2,080	1,780	952
15	739	552	613	2,410	500	558	870	1,890	2,510	15,000	1,490	1,040
16	898	483	686	1,790	2,370	501	1,080	1,690	2,340	12,300	1,130	964
17	780	432	708	1,380	3,300	529	1,320	1,460	2,080	5,260	1,240	916
18	631	490	675	1,120	2,950	515	1,470	1,730	1,460	3,090	1,260	904
19	594	490	625	1,030	1,440	460	1,680	2,020	837	2,220	1,220	940
20	594	502	535	956	920	441	1,390	2,700	809	1,720	798	904
21	535	509	483	805	1,120	428	1,420	2,600	1,010	1,380	1,170	1,060
22	502	516	553	719	1,130	474	1,320	2,700	1,960	1,220	928	1,230
23	535	476	578	603	840	829	1,290	2,800	2,660	1,050	680	928
24	502	522	594	742	737	950	1,230	2,800	2,810	844	743	928
25	459	509	692	586	737	990	1,200	3,000	4,890	690	e56	1,020
26	470	509	896	603	860	1,000	1,130	2,900	5,900	820	892	904
27	516	490	603	612	830	990	1,400	2,600	6,120	1,050	1,140	721
28	522	496	e31	560	850	970	1,150	1,760	6,340	732	1,180	964
29	509	509	586	569	-	980	1,360	1,590	6,120	754	1,170	868
30	490	516	483	558	-	980	1,740	1,420	4,790	1,170	e56	e92
31	465	-	502	620	-	1,070	-	2,170	-	1,380	787	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	16,347	898	448	527	32,420
November	15,443	620	432	515	30,630
December	17,855	896	464	576	35,410
Calendar year 1938	1,751,466	254,000	432	4,799	3,474,000
January	28,015	2,410	462	904	55,570
February	32,537	3,300	500	1,162	64,540
March	25,360	1,630	428	818	50,300
April	34,162	1,880	767	1,139	67,760
May	53,530	3,000	800	1,727	106,200
June	101,106	6,340	809	3,370	200,500
July	105,950	13,000	690	3,418	210,100
August	39,020	1,780	680	1,259	77,400
September	28,131	1,230	721	938	55,800
Water year 1938-39	497,456	13,000	428	1,363	986,600

Peak discharge.- July 15 (6 p.m.) 20,400 sec.-ft.

Evaporation at Austin, Tex.

Location.- Standard class-A Weather Bureau station, lat. 30°16', long. 97°44', on grounds of State Capitol, at Austin, Travis County. Evaporation pan is 544 feet above mean sea level.

Records available.- April 1916 to June 1930 (at Hill ranch, 5 miles southeast of present site) and June 1930 to September 1939 (discontinued) in reports of Geological Survey. June 1930 to September 1939 in report of U. S. Weather Bureau entitled "Climatological data."

Equipment.- One standard class-A Weather Bureau 4-foot circular land pan, with auxiliary equipment consisting of hook gage, rain gage, anemometer, and maximum and minimum thermometers.

Remarks.- Records fair. Observations made daily at 8:00 a.m. Monthly computations made by U. S. Weather Bureau.

Evaporation at Austin, Tex., 1938-39

Month	Temperature (° F.)			Mean relative humidity (percent)	Average wind velocity (miles per hour)	Rainfall (inches)	Evaporation (inches)
	Mean maximum	Mean minimum	Mean				
October	87.8[b]	55.6[b]	71.7[b]	62	0.7	0.14	5.386
November	69.3	43.3	56.3	62	1.5	.61	3.656
December	64.8	39.8	52.3	70	1.4	1.91	3.050
Calendar year 1938	80.9	56.8	68.9	70	1.4	-	-
January	63.5	39.6	51.6	72	1.5	2.38	2.552
February	63.4	34.9	49.2	68	1.7	1.60	3.067
March	75.6	48.5	62.0	62	1.6	1.01	5.202
April	82.8	53.7	68.2	57	1.8	1.93	7.150
May	90.3	65.0	77.6	66	1.3	2.76	7.889
June	94.3	71.3	82.8	68	1.7	.89	8.390
July	96.3	72.4	84.4	64	1.6	2.92	9.920
August	96.2	71.1	83.6	72	.9	3.00	8.348
September	94.6	67.8	81.2	66	1.0	1.77	7.637
Water year 1938-39	81.6	55.2	68.4	66	1.4	20.92	72.247

Note.- Figures of relative humidity were furnished by U. S. Weather Bureau, whose station is 2,300 feet away, 44 feet above ground, and 31 feet above evaporation pan. Superior letters following figures indicate number of days of missing record: a, 1 day; b, 2 days; etc.

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. Zero of gage is 270.14 feet above mean sea level (general adjustment of 1929).

Drainage area.- 39,650 square miles, of which about 11,800 square miles is probably noncontributing.

Records available.- July 1930 to September 1939.

Extremes.- Maximum discharge during year, 17,200 second-feet July 16 (gage height, 10.84 feet); minimum, 530 second-feet Jan. 7.

1930-39: 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 furnished by local residents.

Remarks.- Records good. Discharge for period of incomplete gage-height record, May 16-18, computed from graph based on partial gage-height record, approximate range in stage, weather records, and records for station at La Grange. Many diversions above station for irrigation and municipal supply. Regulation same as that for station at Austin.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	700	692	594	580	734	1,170	1,220	1,720	1,980	4,740	1,370	958
2	675	675	600	645	726	1,170	1,240	1,820	2,850	3,600	1,520	913
3	660	684	615	675	645	1,120	1,210	1,670	3,440	3,440	1,770	976
4	645	734	615	660	652	1,170	1,170	1,520	3,600	3,280	1,620	976
5	645	752	615	660	675	1,280	1,150	1,470	3,520	3,200	1,670	940
6	645	787	615	622	734	1,050	1,140	1,470	3,520	3,760	1,770	1,020
7	638	1,020	615	542	700	940	1,160	1,470	4,640	4,600	1,520	1,010
8	622	1,100	608	608	675	931	1,090	1,520	4,160	4,800	1,270	886
9	622	832	580	684	630	877	2,040	1,470	3,600	4,800	1,520	913
10	622	726	594	692	615	841	1,300	1,320	3,280	4,800	1,570	922
11	630	684	630	760	1,280	1,260	1,070	1,220	2,920	4,640	1,420	949
12	638	700	622	1,010	1,820	1,670	1,010	1,150	2,850	4,800	1,210	1,080
13	652	718	580	1,520	1,820	1,670	958	1,160	2,640	4,640	1,320	1,070
14	645	726	608	1,320	1,420	1,320	976	1,180	2,710	3,410	1,620	1,050
15	675	841	615	1,250	1,090	1,050	1,060	1,370	2,640	2,460	1,870	994
16	726	841	568	1,980	931	886	1,040	1,620	2,640	12,000	1,720	1,030
17	940	743	587	2,040	1,150	823	1,140	2,100	2,580	10,600	1,420	1,040
18	1,150	684	608	1,620	2,600	787	1,370	1,820	2,460	5,350	1,310	985
19	1,060	574	594	1,310	2,850	778	1,520	1,720	2,290	3,800	1,370	940
20	913	608	587	1,140	2,160	760	1,770	1,980	1,880	2,780	1,420	967
21	841	622	594	1,080	1,520	726	1,820	2,460	1,320	2,220	1,320	940
22	859	645	587	1,020	1,170	692	1,570	2,580	1,100	1,920	1,110	886
23	814	652	587	931	1,370	668	1,570	2,640	1,470	1,570	1,140	1,170
24	726	652	622	868	1,310	692	1,520	2,710	2,280	1,370	1,050	1,080
25	743	615	718	769	1,200	994	1,470	2,780	2,640	1,150	977	958
26	734	660	709	823	1,190	1,100	1,470	2,850	3,890	1,030	922	976
27	692	652	718	769	1,200	1,150	2,760	2,920	4,980	922	1,000	994
28	675	638	700	814	1,190	1,170	3,630	2,780	5,340	1,070	1,050	895
29	718	615	632	823	-	1,300	1,770	2,340	5,520	1,060	1,230	913
30	734	594	638	778	-	1,300	1,470	2,040	5,520	931	1,250	1,070
31	726	-	574	769	-	1,190	-	1,920	-	1,120	1,130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	22,765	1,150	622	734	45,150
November	21,466	1,100	574	716	42,580
December	19,189	718	568	619	38,060
Calendar year 1938	1,879,254	199,000	568	5,149	3,727,000
January	29,762	2,040	542	960	59,030
February	34,057	2,850	615	1,216	67,550
March	32,535	1,670	668	1,050	64,530
April	43,684	3,630	958	1,456	86,650
May	58,790	2,920	1,150	1,896	116,600
June	94,260	5,520	1,100	3,142	187,000
July	110,063	12,000	922	3,550	218,300
August	42,359	1,870	877	1,366	84,020
September	29,501	1,170	886	983	58,510
Water year 1938-39	538,431	12,000	542	1,475	1,068,000

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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 and 1.7 miles upstream from Cedar Creek. Zero of gage is 211.23 feet above mean sea level (general adjustment of 1929).

Drainage area.- 40,200 square miles, of which about 11,800 square miles is probably non-contributing.

Records available.- July and August 1938 (flood, discharge measurements only), November 1938 to September 1939.

Extremes.- Maximum discharge observed during period, 15,900 second-feet July 17 (gage height, 10.27 feet); minimum observed, 650 second-feet Dec. 14, Jan. 8.
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 floodmark (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, oftener during periods of rapidly changing stage. Many diversions above station for irrigation and municipal supply. Regulation same as that for station at Austin.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	705	675	735	1,080	1,140	1,480	2,040	5,470	1,200	1,030
2		-	735	675	705	1,030	1,140	1,660	2,460	4,220	1,360	932
3		-	705	675	705	1,030	1,200	1,660	2,760	3,500	1,660	885
4		-	705	735	705	1,030	1,140	1,480	3,200	3,350	1,760	932
5		-	705	705	735	932	1,080	1,300	3,350	3,200	1,660	885
6		-	705	675	1,080	885	1,030	1,250	3,050	3,200	1,780	845
7		-	705	675	885	885	980	1,250	3,740	4,130	1,780	932
8		-	705	650	770	845	1,030	1,300	4,380	4,790	1,660	845
9		-	705	770	705	885	1,300	1,300	3,650	4,790	1,660	845
10		932	675	735	675	805	1,990	1,200	3,200	4,790	1,660	885
11		885	705	770	675	805	1,250	1,080	2,900	4,790	1,480	845
12		845	705	885	1,310	1,310	980	1,080	2,760	4,960	1,420	932
13		845	705	1,300	1,780	1,660	932	980	2,610	5,130	1,420	932
14		845	650	1,540	1,660	1,540	885	932	2,460	4,380	1,480	932
15		885	675	1,360	1,200	1,200	932	980	2,460	3,050	1,660	980
16		980	675	1,540	980	932	1,030	1,200	2,460	5,250	1,910	932
17		932	675	2,180	885	885	980	1,430	2,320	13,700	1,660	980
18		845	675	1,910	1,600	770	1,080	1,910	2,180	7,280	1,360	885
19		770	675	1,540	2,760	770	1,300	1,660	2,040	4,710	1,300	932
20		735	675	1,250	2,760	770	1,480	1,540	1,660	3,350	1,450	885
21		770	675	1,140	1,910	735	1,780	1,780	1,300	2,460	2,410	932
22		735	675	1,080	1,280	705	1,660	2,180	1,080	2,040	1,200	932
23		735	675	980	1,140	705	1,480	2,460	932	1,660	1,140	1,080
24		770	675	885	1,480	705	1,480	2,460	1,390	1,420	1,080	1,200
25		735	735	845	1,910	705	1,420	2,460	2,320	1,300	980	1,140
26		705	770	770	1,720	932	1,360	2,460	2,610	1,140	885	1,080
27		735	735	805	1,200	1,030	1,420	2,610	4,360	1,030	1,080	932
28		705	735	770	1,140	1,080	3,540	2,610	5,300	980	1,030	886
29		705	735	805	-	1,140	2,450	2,460	5,470	1,140	1,030	932
30		705	735	770	-	1,250	1,660	1,910	5,640	980	1,200	1,030
31		-	705	770	-	1,200	-	1,910	-	932	1,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November 10-30	16,799	980	705	800	33,320
December	21,715	770	650	700	43,070
Calendar year	-	-	-	-	-
January	30,865	2,180	650	996	61,220
February	35,090	2,760	675	1,253	69,600
March	30,236	1,660	705	975	59,970
April	41,129	3,540	885	1,371	81,580
May	51,972	2,610	932	1,677	103,100
June	86,082	4,380	932	2,869	170,700
July	113,122	13,700	932	3,649	224,400
August	44,575	2,410	885	1,438	88,410
September	28,394	1,200	845	946	56,320
The period	-	-	-	-	991,700

Colorado River at Columbus, Tex.

Location.- Wire-weight gage, lat. 29°42'20", long. 96°32'05", on bridge on U. S. Highway 90 on eastern edge of Columbus, Colorado County, 340 feet downstream from Texas & New Orleans Railroad bridge and 2.6 miles downstream from Cummins Creek. Zero of gage is 155.57 feet above mean sea level (preliminary figure). Station is 250 feet upstream from station that was discontinued Nov. 23, 1930, and datum is 3.0 feet higher.

Drainage area.- 40,840 square miles, of which about 11,800 square miles is probably non-contributing.

Average discharge.- 21 years (1904-11, 1916-30), 3,195 second-feet.

Records available.- January 1903 to December 1911, May 1916 to November 1930, May to September 1939. September 1930 to June 1939 at site near Eagle Lake, 23 miles (revised) downstream, records equivalent.

Extremes.- Maximum discharge during period, 15,000 second-feet July 17 (gage height, 11.9 feet, from floodmark); minimum discharge observed, 880 second-feet Aug. 27, Sept. 4, 10.

1903-11, 1916-30, 1939: Maximum discharge, 110,000 second-feet June 1, 1929 (gage height, 35.00 feet, present datum); minimum discharge observed, about 80 second-feet (revised) 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, observed 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, revised, downstream); July 29, 1938, observed stage 38.4 feet, present datum, furnished by U. S. Weather Bureau (discharge, about 175,000 second-feet, computed on basis of records for station near Eagle Lake).

Remarks.- Records good. Gage-height record collected in cooperation with U. S. Weather Bureau. Gage read once daily. Diversions above station for irrigation and municipal supply. Regulation same as that for station at Austin.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	1,900	6,280	1,120	1,200
2								-	1,710	5,500	1,280	1,050
3								-	2,140	4,170	1,530	912
4								-	3,160	3,710	1,660	880
5								-	3,490	3,490	1,760	912
6								-	3,490	3,490	1,710	945
7								-	3,490	3,490	1,800	945
8								-	4,410	4,050	1,760	945
9								-	4,290	5,200	1,490	912
10								-	3,600	5,200	1,320	880
11								-	3,380	5,070	1,580	945
12								-	3,050	6,120	1,580	945
13								-	2,840	6,620	1,320	945
14								-	2,740	5,360	1,240	1,020
15								-	2,740	4,290	1,450	1,020
16								-	2,640	3,160	1,760	1,050
17								1,360	2,640	11,400	1,800	1,020
18								2,980	2,640	9,960	1,660	1,020
19								2,340	2,540	5,820	1,360	1,020
20								1,900	2,640	4,170	1,280	1,020
21								1,850	3,050	3,160	1,450	980
22								2,190	1,900	2,540	2,140	945
23								2,640	1,400	2,090	1,240	945
24								2,540	1,320	1,800	1,120	980
25								2,540	1,800	1,580	1,050	1,200
26								2,540	2,640	1,450	980	1,050
27								2,540	3,120	1,280	880	945
28								2,540	5,360	1,160	1,020	1,020
29								2,540	5,800	1,120	1,080	980
30								2,440	5,960	1,200	1,020	945
31								2,040	-	1,160	1,160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 17-31	34,980	2,980	1,360	2,332	69,380
June	91,880	5,960	1,320	3,063	182,200
July	125,090	11,400	1,120	4,035	248,100
August	43,600	2,140	880	1,406	86,480
September	29,576	1,200	880	986	58,660
The period	-	-	-	-	644,800

Colorado River near Eagle Lake, Tex.

Location.- Water-stage recorder, lat. 29°35', long. 96°25', at Lakeside Irrigation Co.'s pumping plant, 1.2 miles downstream from bridge of Texas & New Orleans Railroad (formerly San Antonio & Aransas Pass Railway) and 5 miles southwest of Eagle Lake, Colorado County. Zero of gage is 139.56 feet above mean sea level (general adjustment of 1929).

Drainage area.- 40,940 square miles, of which about 11,800 square miles is probably noncontributing.

Records available.- September 1930 to June 1939 (discontinued). January 1903 to December 1911 and May 1916 to November 1930 at site at Columbus, 23 miles (revised) upstream.

Extremes.- Maximum discharge during period, 5,010 second-feet Feb. 26 (gage height, 5.93 feet); minimum, 682 second-feet Nov. 24.

1930-39: Maximum discharge, 177,000 second-feet June 19, 1935 (gage height, 29.45 feet); minimum not determined.

Maximum stage known, about 32.0 feet, present site and datum, sometime in December 1913.

Remarks.- Records good. Discharge for period of incomplete gage-height record, Nov. 2-5, computed on basis of partial gage height record, known range in stage, and weather records. Figures of daily discharge include flow of Lakeside Irrigation Co.'s canal. Many diversions above station for irrigation and municipal supply. Regulation same as that for station at Austin. Lakeside Irrigation Co. furnished records of pumpage diverted through canal.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,030	880	775	826	940	1,230	1,190	1,790	1,940			
2	971	870	784	784	920	1,120	1,160	1,500	1,570			
3	940	860	758	784	870	1,080	1,160	1,620	1,760			
4	930	971	750	818	852	1,110	1,200	1,700	2,580			
5	910	890	732	826	843	1,060	1,200	1,560	2,960			
6	890	843	741	818	930	1,020	1,080	1,530	3,180			
7	880	809	741	818	1,720	1,070	1,060	1,430	3,100			
8	880	940	741	826	1,540	982	1,070	1,310	3,400			
9	870	1,100	741	818	1,090	950	1,110	1,520	4,080			
10	860	1,070	766	826	920	940	1,120	1,440	3,480			
11	843	920	750	920	843	940	1,620	1,410	3,180			
12	843	834	724	1,220	800	834	1,360	1,320	2,860			
13	834	800	732	2,300	1,000	960	1,070	1,220	-			
14	834	766	732	1,460	1,630	1,350	1,020	1,180	-			
15	843	775	724	1,550	1,640	1,380	1,000	1,180	-			
16	834	818	732	1,410	1,370	1,180	982	1,130	-			
17	950	890	750	1,340	1,170	982	971	1,250	-			
18	1,450	843	732	1,950	2,610	880	960	2,120	-			
19	1,430	800	724	1,950	1,880	834	1,030	2,580	-			
20	1,520	758	750	1,640	2,510	800	1,200	1,680	-			
21	1,240	724	741	1,450	2,510	784	1,240	1,620	-			
22	1,080	690	741	1,250	1,950	775	1,440	1,750	-			
23	971	690	775	1,200	1,420	766	1,590	2,080	-			
24	960	682	1,150	1,110	1,230	758	1,430	2,300	-			
25	950	698	920	1,060	1,560	784	1,530	2,300	-			
26	910	698	2,300	993	4,160	2,020	1,410	2,360	-			
27	900	707	1,610	930	2,390	1,100	1,310	2,430	-			
28	900	707	1,020	971	1,430	1,100	1,400	2,430	-			
29	880	750	900	960	-	1,070	2,730	2,560	-			
30	860	766	860	950	-	1,070	2,730	2,350	-			
31	870	-	852	960	-	1,150	-	2,050	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	30,063	1,520	834	970	59,630
November	24,549	1,100	682	818	48,690
December	26,748	2,300	724	863	53,050
Calendar year 1938	1,997,807	161,000	682	5,473	3,963,000
January	35,718	2,300	784	1,152	70,860
February	42,728	4,160	800	1,526	84,750
March	32,079	2,020	758	1,035	63,630
April	39,373	2,730	960	1,312	78,100
May	54,900	2,580	1,130	1,771	108,900
June 1-12	34,090	4,080	1,570	2,841	67,620
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	635,200

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. Zero of gage is 65.42 feet above mean sea level (general adjustment of 1929). Station is 800 feet downstream and at different datum from station that was discontinued Sept. 30, 1925.

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 1939.

Extremes.- Maximum discharge observed during year, 12,600 second-feet July 18 (gage height, 11.48 feet); minimum observed, 420 second-feet Aug. 2.

1919-25, 1938-39: Maximum gage height, about 35.6 feet, present datum, May 6, 1922 (discharge not determined); 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 approximately same stage.

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, supersedes figure published as miscellaneous measurement in Water-Supply Paper 858, on p. 344).

Remarks.- Records fair. Gage-height record collected in cooperation with U. S. Weather Bureau Dec. 15 to Sept. 30; gage read twice daily. Records prior to Dec. 15, furnished by U. S. Weather Bureau; gage read once daily. Diversions above station for irrigation and municipal supply. Regulation same as that for station at Austin, Tex.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,220	895	930	1,140	1,220	2,180	1,300	3,080	1,820	4,650	590	730
2	1,220	860	930	1,070	1,300	1,820	1,070	1,910	1,560	4,890	442	790
3	1,070	895	895	1,000	1,220	1,730	1,380	1,560	1,470	4,430	565	860
4	1,070	1,000	895	1,000	1,140	1,640	1,220	1,560	1,820	3,450	895	730
5	1,000	1,000	860	1,000	1,070	1,560	1,220	1,560	2,820	2,950	1,140	700
6	1,000	930	860	1,000	1,070	1,470	1,140	1,300	3,770	2,650	1,560	730
7	930	930	860	1,000	1,140	1,470	1,140	1,070	3,550	2,360	1,380	790
8	930	930	860	1,000	1,470	1,550	1,070	930	3,450	2,180	1,380	790
9	930	1,070	860	1,000	1,910	1,380	1,070	1,000	3,770	2,180	1,470	790
10	930	1,000	895	1,000	1,380	1,300	1,070	1,070	4,210	3,550	1,070	825
11	930	1,070	860	1,220	1,220	1,220	1,140	930	3,770	3,770	895	860
12	930	1,140	860	1,910	1,070	1,220	1,560	860	3,350	5,250	1,000	895
13	930	1,070	860	2,420	1,000	1,070	1,470	760	2,850	7,230	1,070	1,000
14	895	1,000	860	3,050	1,220	1,140	1,220	670	2,550	6,330	1,000	1,000
15	895	930	860	2,180	2,000	1,730	1,140	615	2,180	5,130	760	930
16	895	930	860	2,180	2,000	1,820	1,140	590	1,820	4,100	825	1,000
17	1,070	930	860	2,000	1,910	1,560	1,070	700	1,730	3,150	1,140	1,070
18	1,910	1,000	895	2,000	2,550	1,300	930	1,050	1,820	10,400	1,380	1,140
19	1,910	1,000	895	2,450	3,250	1,140	860	2,090	1,820	8,350	1,470	1,070
20	1,560	1,000	895	2,550	2,860	1,000	825	2,650	1,730	5,670	1,000	1,070
21	1,560	1,000	930	2,180	2,810	930	1,000	2,000	1,730	4,320	860	1,070
22	1,470	860	930	1,910	3,150	930	1,140	1,730	1,910	3,300	860	1,070
23	1,300	825	930	1,730	2,550	895	1,380	2,000	1,070	2,270	1,380	930
24	1,300	790	1,000	1,640	2,000	895	1,640	2,180	790	1,820	1,070	895
25	1,220	825	1,640	1,560	1,730	860	1,470	2,270	700	1,380	730	930
26	1,070	825	1,730	1,380	2,780	825	1,300	2,270	642	1,140	670	1,070
27	1,000	825	2,450	1,300	4,440	2,250	1,070	2,270	1,300	1,000	642	1,140
28	1,000	860	2,180	1,300	2,950	1,560	1,380	2,270	2,000	895	760	1,000
29	1,000	895	1,470	1,300	-	1,470	1,560	2,270	3,540	700	790	1,000
30	930	-	1,140	1,300	-	1,300	3,080	2,180	4,320	590	700	1,000
31	930	-	1,140	1,220	-	1,300	-	2,090	-	565	670	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	35,005	1,910	895	1,129	69,430
November	28,110	1,140	790	937	55,760
December	33,090	2,450	860	1,067	65,630
Calendar year	-	-	-	-	-
January	48,990	3,080	1,000	1,580	97,170
February	54,410	4,440	1,000	1,943	107,900
March	42,525	2,250	825	1,372	84,360
April	38,055	3,080	825	1,268	75,480
May	49,485	3,080	590	1,596	98,150
June	69,862	4,320	642	2,329	138,600
July	110,650	10,400	565	3,569	219,500
August	30,164	1,560	442	973	59,830
September	27,875	1,140	700	929	55,290
Water year 1938-39	568,221	10,400	442	1,557	1,127,000

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, 1¼ miles upstream from Colorado River. Zero of gage is 1,617.72 feet above mean sea level (general adjustment of 1929).

Drainage area.- 458 square miles.

Records available.- April 1932 to September 1939.

Extremes.- Maximum discharge during year, 15,600 second-feet June 19 (gage height, 8.60 feet); no flow at times.
1932-39: 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.- Daily records poor; monthly records good. Discharge for period recorder was functioning improperly, Apr. 27 to May 8, computed from graph drawn on basis of indicated range of stage, weather records, and information furnished by local resident. Stage-discharge relation affected below 100 second-feet by wind action and occasional accumulation of drift on dam. Low-water flow affected by diversions through Ballinger city pumping plant.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0		0	90	206	0	
2						0		0	21	4.5	0	
3						0		0	21	1.5	0	
4						0		1.0	7.0	.6	5,270	
5						0		0	4.5	.2	632	
6						0		0	1.5	0	33	
7						0		0	.8	0	39	
8						0		0	.1	0	11	
9						0		0	0	0	268	
10						0		0	0	0	52	
11						0		0	0	0	21	
12						0		111	0	0	4.5	
13						0		865	0	0	1.5	
14						0		89	0	0	1.5	
15						0		27	0	0	7.0	
16						0		1,320	0	0	11	
17						0		5,050	0	0	7.0	
18						0		561	0	0	1.5	
19						0		53	11,300	0	1.0	
20						0		21	3,440	0	.2	
21						0		11	635	0	0	
22						0		2.5	45	0	0	
23						0		1.5	82	0	0	
24						0		.4	39	0	0	
25						225		0	4.5	0	0	
26						64		0	1.0	0	0	
27						1.6		326	.4	0	0	
28						0		1,190	.2	0	0	
29						0		274	0	0	0	
30						0		293	7.1	0	0	
31						0		950	-	0	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	10,256.9	1,510	0	28.1	20,350
January	0	0	0	0	0
February	0	0	0	0	0
March	290.6	225	0	9.37	576
April	0	0	0	0	0
May	11,146.4	5,050	0	360	22,110
June	15,699.9	11,300	0	523	31,140
July	212.8	206	0	6.86	422
August	6,361.2	5,270	0	205	12,620
September	0	0	0	0	0
Water year 1938-39	33,710.9	11,300	0	92.4	66,870

Peak discharge - May 17 (2 p.m.) 8,840 sec.-ft.; June 19 (2 p.m.) 15,600 sec.-ft.; Aug. 4 (7 p.m.) 12,500 sec.-ft.

South Concho River at Christoval, Tex.

Location.- Water-stage recorder, lat. 31°13', long. 100°30', at Panhandle & Santa Fe Railway bridge at Christoval, Tom Green County. Zero of gage is 2,010.22 feet above mean sea level (general adjustment of 1929).

Drainage area.- 434 square miles.

Records available.- February 1930 to September 1939.

Extremes.- Maximum discharge during year, 178 second-feet July 13 (gage height, 2.00 feet); minimum, 7.4 second-feet Sept. 25-30.

1930-39: 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 one slope-area measurement; 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 that reached by flood of July 23, 1938, at point 0.5 mile downstream from station, according to information furnished by local residents.

Remarks.- Records good except those for period of missing gage heights, Jan. 15 to Feb. 13, which were computed on basis of recorded range of stage and weather records and are fair. Low flow materially affected by diversions to irrigation canal 600 feet upstream. See miscellaneous discharge measurements of this canal at end of this report.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	21	23	27	30	32	26	22	20	16	16	12
2	35	21	22	26	30	32	26	22	20	15	16	12
3	35	23	22	26	30	29	26	22	20	15	15	12
4	35	22	22	26	30	25	25	28	19	15	17	12
5	34	21	22	25	30	25	26	21	20	16	16	12
6	34	21	22	25	31	25	26	20	19	15	16	12
7	34	21	21	26	31	25	26	20	19	16	16	12
8	34	21	21	27	31	25	26	20	20	16	16	12
9	33	22	20	27	31	25	26	20	19	17	16	13
10	33	22	20	26	31	24	27	20	19	17	16	14
11	30	22	20	29	32	24	27	20	19	17	15	13
12	24	22	24	28	32	24	27	20	19	18	14	12
13	23	22	25	27	32	24	27	21	18	42	13	12
14	27	22	25	*26	*32	24	27	21	16	68	18	12
15	31	22	25	26	32	24	27	21	14	21	18	12
16	31	22	25	26	32	25	27	21	14	16	13	11
17	31	22	26	27	32	25	26	21	13	17	14	11
18	31	22	26	27	32	25	26	21	13	18	14	12
19	28	22	26	27	32	25	26	21	14	13	14	11
20	24	22	27	27	32	25	25	21	14	13	14	11
21	24	22	27	27	32	25	25	21	13	13	14	10
22	24	22	27	28	31	26	25	21	16	13	14	9.6
23	24	22	28	28	31	26	24	20	39	13	14	9.6
24	28	22	27	28	31	26	23	25	15	14	14	8.8
25	29	22	28	28	32	26	23	21	18	16	14	8.1
26	28	22	27	28	32	26	24	21	16	14	13	7.4
27	28	22	26	29	32	26	24	21	14	15	13	7.4
28	28	22	27	29	32	26	23	21	15	15	13	7.4
29	29	22	27	29	-	27	23	21	16	16	13	7.4
30	28	22	27	29	-	26	23	24	16	16	12	e.1
31	25	-	27	29	-	26	-	21	-	16	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	917	35	23	29.6	1,820
November	655	23	21	21.8	1,300
December	762	28	20	24.6	1,510
Calendar year 1938	53,879.4	29,500	6.6	148	106,900
January	843	29	25	27.2	1,670
February	878	32	30	31.4	1,740
March	798	32	24	25.7	1,580
April	762	27	23	25.4	1,510
May	660	28	20	21.3	1,310
June	527	39	13	17.6	1,050
July	561	68	13	18.1	1,110
August	455	18	12	14.7	902
September	323.8	14	7.4	10.8	642
Water year 1938-39	8,141.8	68	7.4	22.3	16,140

*Partly estimated.

South Concho River at San Angelo, Tex.

Location.- Water-stage recorder upstream from 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. Zero of gage is 1,802.94 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,687 square miles, of which about 152 square miles is probably noncontributing.

Records available.- October 1931 to September 1939.

Extremes.- Maximum discharge during year, 21,300 second-feet May 4 (gage height, 7.80 feet); no flow June 15-20.

1931-39: Maximum discharge, 111,000 second-feet Sept. 17, 1936 (gage height, 23.4 feet, of which about 2.4 feet was caused by backwater from North Concho River), by slope-area method; 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. Diversions above station for irrigation, municipal supply, and power. Flow partly regulated by reservoirs upstream (combined capacity, about 11,000 acre-feet), the largest of which is Lake Nasworthy (capacity, 10,500 acre-feet), 6.5 miles upstream.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3	15	30	39	26	26	26	26	12	6.0	18	9.2
2	11	14	28	18	24	262	24	26	12	14	17	9.2
3	7.0	20	28	17	24	265	30	28	8.0	11	17	12
4	5.0	15	28	17	26	253	28	4,070	11	8.0	35	8.0
5	5.0	15	30	15	30	141	30	1,390	12	8.5	32	8.0
6	6.0	15	30	17	48	12	24	508	8.0	5.2	83	9.2
7	6.0	15	28	20	265	11	26	41	4.1	3.8	1,240	7.0
8	6.0	17	28	26	253	9.2	22	11	4.1	1.2	256	7.0
9	9.2	24	32	24	241	11	20	9.2	1.9	18	288	11
10	27	241	30	24	29	14	17	7.0	1.2	6.2	254	18
11	241	180	28	32	15	12	17	2.7	1.2	.5	37	15
12	211	20	28	256	17	9.2	18	4.1	3.3	.2	26	14
13	15	15	30	276	18	12	20	15	1.8	33	28	11
14	4.1	17	30	265	20	11	17	30	.6	28	26	8.0
15	3.3	18	30	150	20	9.2	15	276	.1	30	26	6.0
16	5.0	18	28	20	20	12	24	288	0	37	26	6.0
17	4.1	22	28	14	24	12	18	288	0	37	26	11
18	3.3	17	128	15	30	12	17	276	0	32	20	8.0
19	4.1	18	201	15	28	18	15	253	0	35	17	8.0
20	3.3	18	28	15	22	17	12	241	0	32	17	6.8
21	8.0	18	28	17	24	20	12	193	.3	28	15	7.0
22	11	17	32	15	24	24	14	14	.4	28	14	6.0
23	8.0	18	32	20	26	22	15	8.0	2.4	30	37	8.0
24	9.2	20	32	18	26	24	15	9.2	18	26	11	11
25	8.0	24	40	20	26	24	12	12	24	26	9.2	9.2
26	9.2	24	35	20	30	24	18	12	28	24	9.2	8.0
27	11	26	32	24	42	28	239	9.2	20	24	14	9.2
28	12	26	39	24	29	26	258	11	150	18	11	15
29	12	28	265	24	-	30	164	14	178	20	9.2	11
30	15	28	265	26	-	30	222	15	14	24	8.0	9.2
31	14	-	253	26	-	26	-	15	-	22	8.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	703.1	241	3.3	22.7	1,390
November	963	241	14	32.1	1,910
December	1,904	265	28	61.4	3,780
Calendar year 1938	85,183.1	32,100	0	233	169,000
January	1,509	276	14	48.7	2,990
February	1,407	265	15	50.2	2,790
March	1,406.6	265	9.2	45.4	2,790
April	1,389	258	12	46.3	2,760
May	8,102.4	4,070	2.7	261	16,070
June	516.4	178	0	17.2	1,020
July	616.6	37	.2	19.9	1,220
August	2,634.6	1,240	8.0	85.0	5,230
September	286.0	18	6.0	9.53	567
Water year 1938-39	21,437.7	4,070	0	58.7	42,520

Peak discharge.- May 4 (3 p.m.) 21,300 sec.-ft.; Aug. 7 (2 a.m.) 8,740 sec.-ft.

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 1¾ miles southeast of San Angelo, Tom Green County. Zero of gage is 1,776.8 feet above mean sea level (general adjustment of 1929).

Drainage area.- 4,492 square miles, of which about 275 square miles is probably noncontributing.

Records available.- September 1915 to September 1939.

Average discharge.- 24 years, 200 second-feet.

Extremes.- Maximum discharge during year, 19,100 second-feet May 4 (gage height, 18.94 feet); minimum, 1.5 second-feet June 18.

1915-39: 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. Discharge for days of missing gage heights, Oct. 1, Apr. 1, 2, interpolated; that for days of incomplete gage-height record, Oct. 2, Apr. 3, computed on basis of partial record. 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 Nasworthy Lake (capacity, 10,500 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	17	30	166	37	30	23	30	10	9.2	20	13
2	18	17	30	28	37	239	21	73	9.8	14	19	12
3	16	24	30	27	37	251	20	78	9.2	11	19	13
4	14	18	29	28	39	246	24	4,060	9.2	8.2	287	12
5	15	18	30	25	40	151	30	1,510	12	8.7	49	10
6	16	19	30	28	45	23	27	669	8.7	6.1	47	11
7	16	18	30	28	280	20	26	71	5.7	5.3	1,350	11
8	17	19	30	40	265	20	25	30	6.1	3.3	431	10
9	19	22	31	36	253	20	25	23	4.1	15	546	12
10	22	237	32	36	37	22	22	20	3.7	8.7	296	16
11	236	179	30	50	25	23	21	14	2.5	3.3	48	15
12	218	23	31	247	27	17	20	13	5.3	2.3	35	14
13	25	19	31	270	27	21	22	23	2.5	40	33	14
14	8.2	20	33	260	28	20	22	37	2.4	28	31	12
15	7.6	20	33	168	28	17	20	290	2.0	30	28	10
16	8.7	20	33	30	29	20	28	300	2.0	37	26	9.2
17	9.8	21	33	25	28	20	24	295	1.9	36	25	13
18	7.6	21	117	26	30	19	22	27	1.8	34	23	12
19	8.2	22	216	25	34	23	20	275	1.9	33	23	11
20	7.6	24	36	27	29	23	20	242	2.5	31	23	9.2
21	10	23	32	29	29	25	19	191	2.1	29	22	8.7
22	14	21	35	27	30	24	19	21	2.1	28	23	9.2
23	13	23	37	30	32	24	21	12	4.1	29	37	9.2
24	13	24	36	29	31	24	21	12	16	26	17	11
25	12	26	47	30	30	28	19	13	20	24	16	11
26	13	25	43	30	35	24	25	13	31	23	14	9.8
27	14	28	40	33	45	23	217	10	20	23	16	10
28	14	28	44	34	33	23	266	10	130	20	14	16
29	16	28	269	36	-	23	157	11	179	22	12	12
30	17	28	265	36	-	24	226	14	18	25	11	11
31	17	-	260	37	-	25	-	14	-	23	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	858.7	236	7.6	27.7	1,700
November	1,032	237	17	34.4	2,050
December	2,003	269	29	64.6	3,970
Calendar year 1938	108,160.9	31,300	5.3	296	214,500
January	1,921	270	25	62.0	3,810
February	1,620	280	25	57.9	3,210
March	1,492	251	17	48.1	2,960
April	1,452	266	19	48.4	2,880
May	8,647	4,060	10	279	17,150
June	525.6	179	1.8	17.5	1,040
July	636.1	40	2.3	20.5	1,260
August	3,552	1,350	11	115	7,050
September	347.3	16	8.7	11.6	689
Water year 1938-39	24,086.7	4,060	1.8	66.0	47,770

Peak discharge.- May 4 (3:30 p.m.) 19,100 sec.-ft.; Aug. 4 (4 p.m.) 882 sec.-ft.; Aug. 7 (2:30 a.m.) 8,360 sec.-ft.

Concho River near Paint Rock, Tex.

Location.- Wire-weight gage upstream from spillway of masonry dam, lat. 31°31', long. 99° 55', on bridge on U. S. Highway 83, a quarter of a mile north of Paint Rock, Concho County. Zero of gage is 1,574.43 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,538 square miles, of which about 275 square miles is probably noncontributing.

Records available.- September 1915 to September 1939.

Average discharge.- 24 years, 266 second-feet.

Extremes.- Maximum discharge observed during year, 12,800 second-feet May 5 (gage height, 18.98 feet); minimum observed, 0.3 second-foot June 18-28.
1915-39: 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 for periods of rapidly changing stage, which are fair. Gage read once daily except during floods, when it is usually read twice daily. Many diversions above station for irrigation and municipal supply. Low-water flow materially affected by diversions and storage above station.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 22 to Apr. 27)

Oct. 1 to June 17						June 18 to Sept. 30			
10.1	1	11.5	89	13.0	775	11.7	0	13.0	395
10.2	3	11.8	118	14.0	1,950	12.0	5	13.4	670
10.3	7	12.0	145	15.0	3,450	12.1	13	13.6	1,060
10.6	22	12.2	200	16.0	5,330	12.2	27	14.2	1,620
11.0	48	12.5	345			12.4	88	14.6	2,280
						12.6	175		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	32	47	265	44	43	26	240	20	105	21	11
2	27	33	48	224	44	47	27	155	20	39	19	9.4
3	27	45	49	94	44	148	27	82	18	21	19	8.5
4	27	41	49	59	44	265	27	648	18	13	1,490	7.8
5	27	36	46	42	45	265	28	4,450	16	9.4	698	6.4
6	27	37	47	37	47	203	29	2,520	14	7.8	167	5.7
7	26	36	47	41	44	100	31	410	12	7.1	1,660	5.7
8	26	33	47	44	175	48	33	142	10	5.7	719	4.8
9	27	34	47	47	265	35	32	85	11	4.8	728	4.2
10	29	35	47	51	265	32	30	55	9.0	3.8	401	4.0
11	106	145	47	63	131	29	29	42	7.5	3.0	236	4.2
12	220	210	47	71	69	26	27	42	5.8	2.5	144	6.4
13	240	98	47	184	44	26	27	55	5.4	2.8	66	11
14	140	59	47	290	38	26	26	38	4.6	2.5	46	13
15	67	44	48	265	36	23	26	33	3.0	3.2	44	12
16	47	41	48	234	38	22	32	192	1.8	24	44	11
17	30	38	50	94	38	23	31	290	1.2	32	46	10
18	26	37	52	53	38	22	29	290	*.3	37	34	8.5
19	26	35	66	42	38	23	28	290	*.3	34	29	7.8
20	26	36	254	40	38	28	27	265	*.3	34	52	8.5
21	26	38	131	39	38	44	24	265	*.3	29	296	7.8
22	26	38	56	39	38	33	22	219	*.3	27	96	7.1
23	26	40	49	47	38	32	21	96	*.3	27	46	7.8
24	27	40	49	40	38	32	20	53	*.3	27	27	7.1
25	29	39	51	38	38	44	20	37	*.3	26	26	6.4
26	31	39	63	38	38	38	22	29	*.3	24	24	5.7
27	29	40	63	38	38	32	24	23	*.3	20	20	5.7
28	29	41	56	39	38	30	108	22	*.3	13	14	7.8
29	29	44	53	40	-	29	145	21	9.0	21	13	9.4
30	30	47	176	41	-	27	165	20	256	88	13	7.1
31	30	-	265	44	-	26	-	20	-	37	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,510	240	26	48.7	3,000
November	1,511	210	32	50.4	3,000
December	2,189	265	46	70.6	4,340
Calendar year 1938	156,055.5	42,600	7.5	428	309,600
January	2,683	290	37	86.5	5,320
February	1,829	265	36	65.3	3,630
March	1,801	265	22	58.1	3,570
April	1,143	165	20	38.1	2,270
May	11,129	4,450	20	359	22,070
June	445.6	256	.3	14.9	884
July	730.6	105	2.5	23.6	1,450
August	7,251	1,660	13	234	14,380
September	231.8	13	4.0	7.73	460
Water year 1938-39	32,454.0	4,450	.3	88.9	64,370

*Leakage through control.

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. Zero of gage is 1,919.5 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,280 square miles, of which about 152 square miles is probably noncontributing.

Records available.- February 1930 to September 1939.

Extremes.- Maximum discharge during year, 3,280 second-feet May 5 (gage height, 10.85 feet); no flow at times.

1930-39: Maximum discharge, about 35,000 second-feet Sept. 26, 1936 (gage height, 24.2 feet), computed on basis of record of flow over Naswood Dam, 12 miles downstream, corrected for inflow and storage; no flow at times.

Maximum stage known, about 27.2 feet sometime in April 1922, according to information furnished by State Highway Department.

Remarks.- Records good. Small diversions for irrigation above station affect low flow.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 10-18)

1.9	0	2.8	19	4.0	265
2.0	.9	3.0	31	4.5	480
2.2	3.2	3.2	52	5.0	685
2.4	6.3	3.4	89	6.0	1,050
2.6	11.2	3.6	141		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	1.1	0	0	0	
2							0	.3	0	0	0	
3							0	0	0	0	0	
4							0	985	0	0	43	
5							0	1,020	0	0	1.3	
6							0	99	0	0	2.0	
7							0	40	0	0	446	
8							0	23	0	0	225	
9							0	13	0	0	112	
10							0	9.0	0	0	50	
11							0	6.0	0	0	20	
12							0	4.8	0	0	8.7	
13							0	84	0	0	4.6	
14							0	333	0	442	2.4	
15							0	54	0	233	1.1	
16							0	27	0	43	.3	
17							0	16	0	16	0	
18							0	10	0	6.4	0	
19							0	6.7	0	2.9	0	
20							0	2.6	0	1.4	0	
21							0	1.1	0	.4	0	
22							0	1.5	0	0	0	
23							0	.3	221	0	0	
24							0	0	42	0	0	
25							0	0	8.2	0	0	
26							0	0	2.1	0	0	
27							466	0	0	0	0	
28							24	0	0	0	0	
29							6.3	0	0	0	0	
30							.9	0	0	0	0	
31							-	0	-	0	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	6,787.0	4,720	0	18.6	13,460
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	497.2	466	0	16.6	986
May	2,737.4	1,020	0	88.3	5,430
June	273.3	221	0	9.11	542
July	745.1	442	0	24.0	1,480
August	916.4	446	0	29.6	1,820
September	0	0	0	0	0
Water year 1938-39	5,169.4	1,020	0	14.2	10,260

Peak discharge.- Apr. 27 (1 a.m.) 3,040 sec.-ft.; May 4 (1 p.m.) 1,720 sec.-ft.; May 5 (1:30 a.m.) 3,280 sec.-ft.; July 14 (8 p.m.) 1,600 sec.-ft.

Spring Creek near Tankersly, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°21'30", long. 100°32'05", 2¾ miles upstream from Middle Concho River and 6½ miles east of Tankersly, Tom Green County. Zero of gage is 1,874.6 feet above mean sea level (general adjustment of 1929).

Drainage area.- 734 square miles.

Records available.- February 1930 to September 1939.

Extremes.- Maximum discharge during year, 11,000 second-feet May 4 (gage height, 14.58 feet); no flow July 6, 7.
1930-39: Maximum discharge, 23,900 second-feet Sept. 17, 1936 (gage height, 20.3 feet); no flow at times.

Remarks.- Records good except those below 10 second-feet, which are fair. Several small diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	2.7	4.8	18	26	8.3	3.8	2.3	11	1.9	1.5	1.0
2	2.3	3.4	5.1	18	27	6.2	3.7	246	8.3	1.9	1.4	.9
3	2.3	4.9	4.6	18	27	7.6	3.1	44	6.7	1.6	1.4	.8
4	2.6	11	5.0	18	26	7.8	2.6	2,190	6.0	1.3	1.5	.8
5	3.7	8.6	11	16	27	9.3	2.5	248	4.6	1.2	2.1	.7
6	3.1	7.8	12	16	27	10	2.3	83	3.5	.5	478	.7
7	2.6	7.8	12	20	26	7.8	2.7	54	3.0	.3	236	.6
8	2.2	7.3	8.6	23	26	5.8	2.3	46	2.2	.8	23	.6
9	2.1	7.6	8.6	26	30	5.6	2.1	35	1.6	.8	13	.5
10	2.0	7.8	9.0	23	24	7.1	2.1	24	1.4	.9	7.8	.5
11	2.0	8.3	9.0	28	20	8.6	2.1	20	1.5	.8	5.8	.5
12	1.9	9.6	10	35	20	8.0	2.6	18	1.7	1.2	4.8	.4
13	1.9	11	10	30	16	7.1	2.7	343	1.2	308	4.6	.4
14	1.9	11	9.3	27	16	5.3	2.7	144	1.1	94	5.3	.4
15	2.0	12	10	26	14	4.0	2.3	51	1.0	22	4.8	.4
16	2.1	12	11	25	12	3.5	2.1	84	.9	16	4.1	.4
17	1.6	11	10	25	11	3.5	1.5	674	.8	9.3	4.0	.4
18	1.5	7.1	10	24	13	2.8	1.5	76	.7	7.3	3.5	.4
19	1.5	5.6	11	23	15	2.5	1.4	39	.7	5.5	3.1	.3
20	1.6	5.8	10	23	14	3.3	1.2	27	.8	4.3	2.8	.3
21	1.9	5.6	8.3	23	12	4.1	1.3	23	.7	4.0	2.6	.3
22	2.0	6.7	8.3	23	10	4.1	1.4	21	1.1	3.7	2.2	.2
23	3.2	7.3	10	21	10	4.0	1.3	14	283	3.0	2.0	.3
24	8.2	7.8	13	17	9.0	3.7	1.3	9.6	36	2.5	2.0	.3
25	10	9.6	16	24	9.6	3.3	1.4	7.8	13	2.2	1.6	.3
26	7.6	9.0	20	25	9.6	3.1	229	5.3	6.4	2.2	1.5	.3
27	5.4	9.0	16	25	13	4.3	213	4.6	3.4	2.2	1.4	.6
28	6.4	8.0	15	26	20	4.4	16	3.7	2.5	2.2	1.3	.5
29	4.3	6.7	15	28	-	3.4	5.0	3.4	1.9	2.2	1.2	.3
30	3.5	5.6	17	24	-	4.1	2.8	6.5	1.9	2.2	1.0	.2
31	3.0	-	18	24	-	4.3	-	12	-	1.6	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	99.0	10	1.5	3.19	196
November	237.6	12	2.7	7.92	471
December	337.6	20	4.6	10.9	670
Calendar year 1938	15,998.8	2,610	.6	43.8	31,720
January	722	35	16	23.3	1,430
February	510.2	30	9.0	18.2	1,010
March	166.9	10	2.5	5.38	331
April	519.7	229	1.2	17.3	1,030
May	4,559.2	2,190	2.3	147	9,040
June	408.6	283	.7	13.6	810
July	507.6	308	.3	16.4	1,010
August	826.2	478	.9	26.7	1,640
September	14.3	1.0	.2	.48	28
Water year 1938-39	8,908.9	2,190	.2	24.4	17,670

Peak discharge.- Apr. 26 (10:30 p.m.) 3,660 sec.-ft.; May 4 (11:45 a.m.) 11,000 sec.-ft.; May 16 (11:55 p.m.) 3,390 sec.-ft.

North Concho River near Carlsbad, Tex.

Location.- Water-stage recorder upstream from spillway of State Sanatorium Dam, lat. 31° 36', long. 100°40', 2 miles upstream from Carlsbad, Tom Green County. Zero of gage is 2,000.8 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,529 square miles, of which about 123 square miles is probably noncontributing.

Records available.- March 1924 to September 1939..

Average discharge.- 15 years, 62.8 second-feet.

Extremes.- Maximum discharge during year, 1,660 second-feet Aug. 8 (gage height, 7.30 feet, from floodmark); no flow Sept. 26-30.
1924-39: Maximum discharge, 94,600 second-feet Sept. 26, 1936 (gage height, 16.0 feet, from highest floodmarks ever known), by slope-area method; no flow at times.

Remarks.- Records fair except those for period of missing gage heights, Aug. 4-14 (computed from graph drawn on basis of floodmark, weather records, and records for South Concho River at San Angelo and Concho River near San Angelo), which are poor. 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 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	6.0	5.6	7.0	6.4	5.6	6.9	6.2	1.2	0.5	0.1	0.1
2	1.0	5.4	5.6	7.0	6.4	6.2	6.9	145	1.3	.5	.1	.1
3	.9	6.0	5.6	7.0	6.4	5.6	6.9	28	1.1	.4	.1	.1
4	.9	5.4	5.6	6.4	6.4	6.2	6.9	93	.9	.3	}	.1
5	.9	5.4	5.6	6.4	6.4	6.2	6.2	118	.6	.2	.8	.1
6	1.0	4.9	5.6	5.8	6.3	5.6	6.2	31	.4	.1	}	.1
7	1.0	4.9	5.6	6.4	6.3	5.6	6.2	18	.3	.1	}	.1
8	1.1	4.9	5.6	7.7	6.3	5.0	6.9	14	.3	.1	}	.1
9	1.1	5.4	5.6	8.5	5.7	5.6	6.9	10	.3	.1	} 143	.1
10	11	5.4	5.6	7.7	5.7	5.6	6.2	9.1	.3	.1	}	.1
11	5.8	5.4	5.6	8.4	6.2	5.6	6.2	7.0	.3	.1	}	.1
12	4.2	6.0	5.6	9.2	6.2	5.6	6.2	6.0	.3	.1	} 7.4	.1
13	3.7	6.6	5.6	8.4	6.2	5.0	6.2	5.1	.3	.1	}	.1
14	3.7	7.3	5.6	7.6	6.2	5.0	6.2	49	.3	.1		.1
15	2.8	7.3	5.6	6.8	6.2	5.6	6.9	34	.3	.1	*3.4	.1
16	2.9	7.4	5.7	6.8	6.2	5.6	6.2	22	.3	.1	3.4	.1
17	3.3	5.6	5.7	6.8	6.2	5.6	6.2	16	†.2	.1	*1.8	.1
18	3.8	4.5	5.7	6.8	5.6	6.2	6.2	13	†.2	.1	‡1.1	.1
19	3.8	5.0	5.7	6.7	6.2	6.9	6.9	11	†.2	.1	‡.8	.1
20	3.8	5.5	5.7	6.7	5.6	6.9	6.2	9.4	.2	.1	*1.0	.1
21	4.3	5.5	5.7	6.7	5.6	6.9	6.2	6.9	.4	.1	.9	.1
22	4.8	5.5	5.7	6.7	5.6	6.2	6.2	6.2	5.0	.1	.6	.1
23	4.8	5.6	6.3	6.6	5.6	6.2	6.9	5.0	17	.1	.3	.1
24	4.8	5.0	6.9	6.6	5.6	6.2	6.9	4.6	4.4	.1	.3	.1
25	4.8	5.6	7.6	6.6	5.6	6.9	6.9	4.0	1.7	.1	.2	.1
26	4.8	5.5	6.9	6.6	6.2	6.9	6.9	4.0	.9	.1	.2	0
27	4.8	5.5	6.3	6.5	5.6	7.7	6.9	3.5	.6	.1	.1	0
28	5.3	5.5	6.9	7.2	5.6	7.7	6.2	1.4	.6	.1	.1	0
29	5.3	5.5	6.9	7.2	-	7.7	6.2	1.0	.6	.1	.1	0
30	5.3	5.6	6.3	6.5	-	7.7	6.2	.9	.7	.1	.1	0
31	5.9	-	6.9	6.5	-	6.9	-	1.1	-	.1	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	112.7	11	.9	3.64	224
November	168.7	7.4	4.5	5.62	335
December	184.9	7.6	5.6	5.96	367
Calendar year 1938	14,208.0	5,270	.9	38.9	28,180
January	217.8	9.2	5.8	7.03	432
February	168.5	6.4	5.6	6.02	334
March	192.2	7.7	5.0	6.20	381
April	195.1	6.9	6.2	6.50	387
May	683.3	145	.9	22.0	1,360
June	41.2	17	.2	1.37	82
July	4.5	.6	.1	.15	8.9
August	476.5	-	.1	15.4	945
September	2.5	.1	0	.08	5.0
Water year 1938-39	2,447.9	-	0	6.71	4,860

Peak discharge.- May 2 (2 a.m.) 664 sec.-ft.; May 4 (9 a.m.) 245 sec.-ft.; May 6 (12:30 a.m.) 265 sec.-ft.; Aug. 8 (about 2 p.m.) 1,660 sec.-ft. (from floodmark).
*Computed on basis of partial gage-height record.
†Computed on basis of recorded range of stage and weather records.
‡Computed from graph drawn on basis of once-daily gage readings.

Pecan Bayou at Brownwood, Tex.

Location.- Water-stage recorder upstream from spillway of city dam, lat. 31°44'10", long. 98°58'30", at Fort Worth & Rio Grande Railway bridge, 1 mile north of Brownwood, Brown County, 6 miles downstream from Salt Creek, and 10 miles downstream from Brownwood Reservoir. Zero of gage is 1,318.58 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,614 square miles.

Records available.- May 1917 to June 1918, October 1923 to September 1939.

Average discharge.- 14 years (1924-28, 1929-39), 215 second-feet.

Extremes.- Maximum discharge during year, 9,700 second-feet June 20 (gage height, 10.20 feet); no flow several days in October and November.
1917-18, 1923-39: 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.
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 storage in reservoir, data furnished by engineers of Brown County Water Improvement District No. 1).

Remarks.- Records good except those for period of faulty recorder operation, Sept. 27-30, (computed on basis of fragmentary gage-height record and weather records), and those below 10 second-feet, which are poor. Stage-discharge relation affected by occasional accumulation of drift on dam at times of low flow. Flow regulated by storage in Brownwood Reservoir (capacity, 140,000 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	0.2	3.7	2.8	2.8	0.6	2.8	4.7	656	343	0.9	4.7
2	3.7	.4	2.8	2.8	2.8	.6	3.7	4.7	688	350	1.3	1.9
3	1.3	1.9	2.8	2.8	1.9	.9	3.7	8.9	674	317	2.8	.9
4	.6	.6	2.8	1.3	1.9	.9	2.8	7.4	503	317	6.0	86
5	.6	.4	1.9	1.9	1.9	.9	3.7	4.7	403	317	3.7	305
6	.9	116	3.7	1.9	1.9	.6	2.8	3.7	343	317	1.3	305
7	.6	192	2.8	2.8	1.9	.6	1.9	3.7	337	311	.9	292
8	.6	4.7	2.8	4.7	1.9	.6	4.7	3.7	337	317	.6	273
9	.6	1.9	1.9	3.7	1.9	.9	7.4	3.7	337	317	.9	256
10	.4	1.9	2.8	2.8	1.3	.9	7.4	3.7	337	317	.4	249
11	.4	2.8	2.8	12	1.9	.9	6.0	3.7	337	317	.2	256
12	.4	1.9	1.9	8.9	1.9	.9	7.4	4.7	337	317	.4	256
13	.2	1.9	1.9	3.7	1.9	.9	7.4	12	337	317	99	256
14	.1	1.3	1.9	3.7	1.9	.6	8.9	6.0	337	317	305	249
15	.1	1.3	2.8	3.7	1.3	.6	8.9	3.7	337	317	298	243
16	.2	1.9	2.8	2.8	1.9	.9	82	795	330	317	239	231
17	.1	2.8	2.8	2.8	1.9	1.3	12	1,790	330	317	45	225
18	.1	1.9	2.8	3.7	1.9	1.9	6.0	4,680	330	317	4.7	237
19	.2	1.3	2.8	3.7	1.3	1.3	6.0	2,720	1,710	311	1.9	237
20	.2	1.9	3.7	3.7	1.3	1.9	6.0	1,690	7,710	231	2.8	237
21	.1	1.9	2.8	4.7	.9	2.8	6.0	1,080	7,450	16	1.9	231
22	.4	1.9	3.7	4.7	.9	2.8	6.0	710	3,560	8.9	95	225
23	.6	1.9	7.4	4.7	.9	2.8	6.0	488	2,160	7.4	337	213
24	.4	2.8	3.7	3.7	1.3	2.8	6.0	337	1,390	6.0	311	213
25	.4	2.8	4.7	3.7	1.3	4.7	6.0	446	921	3.7	298	174
26	.4	2.8	4.7	3.7	.9	3.7	48	564	647	1.9	273	14
27	.4	3.7	1.9	2.8	.4	2.8	14	445	481	.9	305	3.7
28	.4	2.8	1.9	1.9	.6	8.9	7.4	850	396	.6	267	3.7
29	0	3.7	1.9	1.9	-	3.7	6.0	962	330	2.8	255	3.7
30	0	3.7	1.9	1.9	-	3.7	6.0	854	317	1.3	197	3.7
31	.1	-	1.9	2.8	-	2.8	-	708	-	1.3	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	16.4	3.7	0	0.60	31
November	367.0	192	.2	12.2	728
December	90.7	7.4	1.9	2.93	180
Calendar year 1938	36,929.1	4,410	0	101	73,260
January	112.7	12	1.3	3.64	224
February	44.6	2.8	.4	1.59	88
March	60.2	8.9	.6	1.94	119
April	302.9	82	1.9	10.1	601
May	19,198.0	4,680	3.7	619	38,080
June	34,352	7,710	317	1,145	68,140
July	6,351.8	350	.6	205	12,600
August	3,377.7	337	.2	109	6,700
September	5,280.3	305	.9	176	10,470
Water year 1938-39	69,553.3	7,710	0	191	138,000

Peak discharge.- May 16 (10 p.m.) 3,620 sec.-ft.; May 18 (7 a.m.) 5,570 sec.-ft.; June 20 (7 p.m.) 9,700 sec.-ft.

San Saba River at San Saba, Tex.

Location.- Water-stage recorder, lat. 31°12'10", long. 98°42'15", at bridge on the San Saba-Chadwick Mill highway, three-quarters of a mile northeast of San Saba, San Saba County, and 15 miles upstream from mouth. Zero of gage is 1,153.3 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,046 square miles.

Records available.- August 1930 to September 1939. December 1904 to December 1906 and September 1915 to August 1930 at site 4½ miles upstream; records equivalent.

Average discharge.- 24 years (1915-39), 294 second-feet.

Extremes.- Maximum discharge during year, 2,190 second-feet Jan. 12 (gage height, 13.4 feet, from floodmark); minimum, 51 second-feet Sept. 10.
1904-6, 1915-39: 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 for periods of missing gage heights, Oct. 1-13, Jan. 1-13, May 7-14, which were computed on basis of observer's readings, known range of stage, floodmarks, and records for San Saba River at Menard, Colorado River near San Saba, and weather records and are poor. Discharge for Oct. 14, Jan. 14, May 6, 15 based on partial gage-height record. Diversions above station for irrigation and municipal supply affect low-water flow.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 14 to Apr. 26)

3.5	47	4.0	87	5.5	280	8.0	745
3.6	54	4.5	133	6.0	365	9.0	960
3.8	70	5.0	197	7.0	545	10.0	1,210

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	293	173	194	229	182	165	147	161	914	67	98	64
2	288	171	193	212	186	164	144	134	288	77	110	64
3	283	164	191	197	186	162	137	811	202	85	92	60
4	278	206	186	183	180	153	129	518	160	83	91	57
5	273	187	183	183	178	150	125	288	143	69	998	54
6	268	182	180	183	176	155	123	209	136	64	694	53
7	262	184	175	183	175	158	119	216	133	66	212	53
8	257	179	179	183	171	158	119	216	131	69	231	52
9	252	208	178	930	173	160	119	216	126	68	175	52
10	247	198	178	930	167	161	120	216	117	66	120	51
11	242	198	191	930	161	160	121	216	108	63	96	52
12	236	203	190	930	157	151	121	216	102	64	85	52
13	231	200	187	930	161	145	121	216	99	71	81	53
14	227	198	186	611	164	137	121	216	90	76	90	55
15	224	202	187	428	162	133	122	245	81	89	85	56
16	220	204	189	340	161	127	122	219	76	166	80	58
17	217	200	189	288	160	124	123	429	72	246	92	59
18	210	191	187	254	167	122	170	909	73	160	94	59
19	202	179	179	234	176	122	180	431	78	123	100	59
20	187	173	183	217	175	121	162	234	82	106	100	59
21	179	170	186	208	167	124	145	173	76	97	114	59
22	178	165	186	202	164	126	133	143	71	90	95	57
23	180	169	219	198	164	126	129	125	68	85	90	56
24	180	169	310	196	164	126	125	113	65	82	98	57
25	180	170	342	191	169	127	123	108	64	80	79	58
26	180	178	263	187	176	138	124	108	64	76	73	58
27	179	180	272	187	190	144	162	125	64	75	72	58
28	176	184	238	189	167	150	405	371	66	74	71	58
29	173	182	236	189	-	160	331	243	64	70	68	58
30	173	184	212	184	-	158	214	157	64	71	66	58
31	176	-	203	183	-	150	-	894	-	72	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,849	293	173	221	13,580
November	5,571	208	165	186	11,050
December	6,372	342	175	206	12,640
Calendar year 1938	481,321	117,000	49	1,319	954,700
January	10,689	-	183	345	21,200
February	4,779	190	157	171	9,480
March	4,457	165	121	144	8,840
April	4,536	405	119	151	9,000
May	8,876	909	108	286	17,610
June	3,876	914	64	129	7,690
July	2,750	246	63	88.7	5,450
August	4,614	998	64	149	9,150
September	1,699	64	51	56.6	3,370
Water year 1938-39	65,066	-	51	178	129,100

Peak discharge.- Jan. 12 (about 9 a.m.) 2,190 sec.-ft.; May 31 (9 p.m.) 2,160 sec.-ft.; Aug. 5 (8:50 p.m.) 1,680 sec.-ft.

Noyes canal at Menard, Tex.

Location.- Staff gage, lat. 30°55', long. 99°48', 1,000 feet upstream from highway bridge in Menard, Menard County, and 4 miles downstream from head gates.

Records available.- March 1924 to September 1939.

Average discharge.- 14 years (1924-37, 1938-39), 15.1 second-feet.

Extremes.- Maximum discharge observed during year, 45 second-feet May 1 (gage height, 2.02 feet); no flow Oct. 1-15, Apr. 19-23, May 6-11.
1924-39: Maximum discharge not determined; no flow at times.

Remarks.- Records good. 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 193e to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	21	25	32	24	29	15	36	28	24	17	22
2	0	21	25	32	28	29	15	32	28	22	15	22
3	0	20	27	32	2e	25	17	25	29	21	15	22
4	0	21	27	32	28	31	16	24	28	21	12	22
5	0	18	27	31	29	28	15	13	28	21	22	22
6	0	18	27	31	29	25	16	.3	28	21	24	22
7	0	18	27	32	29	27	17	0	2S	21	25	25
8	0	17	27	31	29	25	18	0	28	21	25	22
9	0	20	27	29	28	25	17	0	28	21	28	22
10	0	18	27	31	2S	25	16	0	28	21	28	22
11	0	17	27	32	2S	25	17	18	20	20	25	22
12	0	1e	27	2S	28	21	19	33	27	20	25	24
13	0	21	28	28	28	24	20	33	24	21	25	24
14	0	20	27	25	28	24	20	33	24	29	25	25
15	16	20	27	22	28	22	21	33	25	25	25	27
16	16	26	27	22	28	22	21	32	25	25	27	27
17	15	29	28	20	29	22	4.6	33	25	25	27	25
18	18	27	27	21	31	22	.6	32	25	22	27	25
19	18	28	28	21	28	21	0	31	25	18	25	25
20	17	27	28	21	28	21	0	31	25	15	25	25
21	20	27	28	21	28	21	0	31	25	12	25	25
22	18	27	28	20	28	21	0	32	24	2.1	25	21
23	21	27	29	18	28	20	11	31	24	7.4	25	16
24	21	27	31	18	28	20	24	29	24	17	25	16
25	20	27	33	18	28	25	24	29	24	17	24	20
26	20	27	32	18	28	21	25	29	21	15	22	20
27	21	27	32	15	25	18	27	27	21	17	24	20
28	20	27	32	18	24	17	25	28	24	17	24	20
29	20	27	32	24	-	17	25	28	24	22	24	20
30	21	25	32	24	-	16	25	2S	24	21	22	18
31	21	-	32	24	-	15	-	28	-	20	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	323	21	0	10.4	641
November	693	29	17	23.1	1,370
December	881	33	25	28.4	1,750
Calendar year	-	-	-	-	-
January	771	32	15	24.9	1,530
February	781	31	24	27.9	1,550
March	704	31	15	22.7	1,400
April	471.2	27	0	15.7	935
May	759.3	36	0	24.5	1,510
June	761	29	20	25.4	1,510
July	601.5	29	2.1	19.4	1,190
August	729	28	12	23.5	1,450
September	668	27	16	22.3	1,320
Water year 1938-39	8,143.0	36	0	22.3	16,160

North Llano River near Junction, Tex.

Location.- Staff gage, lat. 30°30', long. 99°47', about 1,000 feet upstream from remains of old Wilson Dam, 3 miles northwest of Junction, Kimble County, and 4 miles upstream from confluence with South Llano River. Zero of gage is 1,699.9 feet above mean sea level (general adjustment of 1929).

Drainage area.- 914 square miles.

Records available.- September 1915 to September 1939.

Average discharge.- 24 years, 83.0 second-feet.

Extremes.- Maximum discharge observed during year, 33,000 second-feet July 13 (gage height, 15.40 feet); minimum observed, 4.4 second-feet July 8, 11, 12.
1915-39: Maximum discharge, 94,800 second-feet Sept. 16, 1936 (gage height, 29.2 feet, present site, based on gage-height relationship curve), from rating curve extended above 70,000 second-feet on basis of two measurements by slope-area method; no flow at times.

Remarks.- Records good except those above 1,500 second-feet, which are poor. Discharge for days of missing gage heights, Dec. 19, 20, Feb. 13, Apr. 1, interpolated. Gage read once daily, oftener during periods of high water. Diversions for irrigation materially reduce low-water flow.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	34	26	32	46	26	22	17	9.0	5.2	66	21
2	42	34	26	32	46	26	21	16	9.9	5.2	49	20
3	41	32	27	32	44	26	23	16	9.4	5.0	41	19
4	41	34	25	32	42	26	23	19	9.4	5.0	35	19
5	40	30	24	30	41	26	23	22	9.9	4.7	82	17
6	38	29	24	30	41	26	22	19	10	5.0	259	17
7	36	29	25	29	40	26	22	19	9.9	4.7	148	16
8	35	27	27	32	40	26	22	17	9.4	4.4	89	15
9	35	26	28	34	40	26	21	17	9.4	4.7	1,020	14
10	35	26	29	36	38	26	21	15	9.4	4.7	160	14
11	41	29	29	71	38	25	21	15	9.9	4.4	109	15
12	46	29	29	84	36	25	21	14	9.4	4.4	71	15
13	41	30	29	69	36	24	21	15	9.0	11,100	62	15
14	38	30	29	66	35	24	21	17	8.6	2,920	58	16
15	36	29	28	62	35	24	21	25	8.3	267	57	17
16	36	28	28	62	34	24	20	22	7.6	154	53	17
17	36	27	28	62	34	24	20	18	6.9	116	49	16
18	35	27	28	60	32	23	20	17	6.9	92	57	16
19	35	28	28	60	32	23	20	15	6.6	80	48	15
20	35	27	27	60	30	23	19	15	6.9	69	46	15
21	35	26	27	60	29	22	19	15	6.2	60	40	14
22	35	26	27	60	29	22	18	14	5.8	53	35	15
23	35	25	27	57	28	22	17	14	5.5	49	32	14
24	35	24	27	55	28	22	16	14	5.2	46	29	14
25	35	24	34	55	27	22	16	13	5.2	41	28	13
26	35	22	40	53	27	22	17	12	5.0	40	26	13
27	35	24	36	51	27	22	25	11	4.7	35	24	12
28	35	24	35	49	27	22	24	10	4.7	30	24	12
29	35	25	34	49	-	22	19	10	5.0	28	23	12
30	35	25	34	48	-	22	18	9.9	5.0	98	22	11
31	35	-	32	48	-	22	-	9.4	-	75	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,149	46	35	37.1	2,280
November	830	34	22	27.7	1,650
December	897	40	24	28.9	1,780
Calendar year 1938	107,400.9	31,000	2.7	294	213,100
January	1,560	84	29	50.3	3,090
February	982	46	27	35.1	1,950
March	741	26	22	23.9	1,470
April	613	25	16	20.4	1,220
May	486.3	25	9.4	15.7	965
June	228.1	10	4.7	7.60	452
July	15,410.4	11,100	4.4	497	30,570
August	3,663	1,820	21	118	7,270
September	459	21	11	15.3	910
Water year 1938-39	27,018.8	11,100	4.4	74.0	53,610

29398 O—41——8

Llano River near Junction, Tex.

Location.- Water-stage recorder, lat. 30°30', long. 99°44', 250 feet (revised) north of old Kerrville-Junction road, 3 miles downstream from confluence of North Llano and South Llano Rivers, and 3½ miles east of Junction, Kimble County. Zero of gage is 1,630.32 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,762 square miles.

Records available.- September 1915 to September 1939.

Average discharge.- 24 years, 244 second-feet.

Extremes.- Maximum discharge during year, 74,400 second-feet July 13 (gage height, 21.85 feet), from rating curve extended above 35,000 second-feet on basis of four measurements by slope-area method; minimum, 51 second-feet July 10, 11.
1915-39: Maximum discharge, 319,000 second-feet June 14, 1935 (gage height, 43.3 feet, from floodmarks), by slope-area method; minimum, 13 second-feet Aug. 23-28, 1918 (gage height, 1.32 feet).

Remarks.- Records good except those above 1,500 second-feet, which are poor. About 2,500 acres above station and 1,300 acres below have been declared irrigated. Diversions slightly reduce low-water flow. Some regulation by water-power plant on South Llano River.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	98	102	102	105	92	73	203	92	84	134	94
2	119	98	102	98	105	92	73	81	81	88	122	90
3	119	105	98	98	105	92	73	76	78	68	114	87
4	119	102	98	98	105	92	73	76	76	64	111	87
5	119	102	98	98	105	90	73	87	76	62	130	85
6	116	102	95	95	102	87	70	67	78	57	160	85
7	112	102	95	95	102	87	70	81	76	55	295	85
8	108	102	95	98	102	90	70	76	73	55	215	82
9	112	102	95	105	102	90	70	70	73	55	1,430	82
10	292	102	95	105	102	90	70	68	66	53	620	82
11	270	102	95	124	102	90	68	66	66	53	324	97
12	116	102	95	193	102	87	68	66	64	60	231	90
13	112	102	98	174	98	81	68	81	64	24,400	200	90
14	108	102	98	154	98	81	68	70	62	6,360	170	87
15	105	102	98	137	98	81	68	73	62	985	161	87
16	105	102	98	130	98	81	66	73	60	538	152	85
17	102	102	98	126	98	81	66	73	60	402	148	85
18	102	98	98	122	95	81	66	73	60	326	148	85
19	102	95	98	119	98	81	64	76	81	286	134	82
20	96	95	98	119	102	81	62	73	66	248	321	82
21	96	95	98	119	98	78	62	70	60	226	156	80
22	98	95	98	119	98	78	62	66	57	200	125	80
23	98	95	105	116	98	78	62	64	57	185	116	80
24	98	95	105	116	98	78	60	62	55	166	114	82
25	98	102	108	112	98	78	60	62	55	152	111	82
26	102	102	116	112	98	87	60	62	60	148	108	82
27	102	102	108	112	98	84	68	62	73	138	106	85
28	102	102	105	112	95	78	70	62	68	130	104	82
29	102	102	105	112	-	78	66	60	67	125	104	82
30	102	102	105	108	-	78	64	73	108	152	100	80
31	102	-	102	108	-	78	-	108	-	170	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,657	292	98	118	7,250
November	3,009	105	95	100	5,970
December	3,102	116	95	100	6,150
Calendar year 1938	181,715	46,800	64	498	360,500
January	3,636	193	95	117	7,210
February	2,805	105	95	100	5,560
March	2,600	92	78	83.9	5,160
April	2,013	73	60	67.1	3,990
May	2,380	203	60	76.8	4,720
June	2,078	108	55	69.3	4,120
July	36,111	24,400	53	1,165	71,630
August	6,585	1,430	97	212	13,060
September	2,544	97	60	84.8	5,050
Water year 1938-39	70,520	24,400	53	193	139,900

Peak discharge.- Oct. 10 (9:30 p.m.) 2,820 sec.-ft.; July 13 (6 p.m.) 74,400 sec.-ft.; Aug. 9 (8 a.m.) 4,450 sec.-ft.

Llano River near Castell, Tex.

Location.- Staff gage, lat. 30°43', long. 98°53', 4 miles upstream from Hickory Creek and 4.5 miles east of Castell, Llano County. Zero of gage is 1,121.8 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,514 square miles.

Records available.- November 1923 to September 1939 (discontinued).

Average discharge.- 15 years (1924-39), 426 second-feet.

Extremes.- Maximum discharge during year, 73,800 second-feet July 14 (gage height, 16.5 feet, from floodmarks), from rating curve extended above 34,000 second-feet on basis of one measurement by slope-area method; minimum discharge observed, 32 second-feet July 10.

1923-39: Maximum discharge, 388,000 second-feet, June 14, 1935 (gage height, 37.0 feet, from floodmarks), by slope-area method; minimum, 6.4 second-feet Aug. 26, 1934 (gage height, 0.05 foot).

Remarks.- Records good except those above 500 second-feet, which are poor. Discharge interpolated Nov. 21-25. Small diversions above station slightly reduce low-water flow. Gage read twice daily, oftener during periods of high water.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126	110	128	132	139	124	114	93	133	214	250	100
2	124	110	128	132	133	121	110	90	130	185	196	96
3	123	130	121	132	135	121	108	469	135	105	165	90
4	123	135	114	132	132	121	105	238	119	81	156	88
5	119	121	119	121	130	117	105	141	116	75	762	84
6	123	117	117	117	132	114	99	119	102	60	282	81
7	119	112	117	121	128	110	102	112	90	48	196	77
8	119	108	114	146	128	110	105	108	86	42	185	76
9	117	107	117	146	126	112	105	102	81	38	867	75
10	114	114	114	142	121	112	104	93	77	34	1,200	80
11	588	114	114	144	119	110	100	86	74	36	828	83
12	696	117	114	930	115	105	102	80	67	42	460	94
13	273	119	114	658	117	100	100	104	63	126	321	91
14	175	121	114	346	114	100	102	196	61	24,300	262	94
15	146	117	114	262	114	96	105	216	60	3,170	216	94
16	133	123	114	227	110	97	156	146	52	1,340	196	94
17	128	124	117	196	117	97	135	130	51	900	185	100
18	124	117	117	175	123	97	108	110	48	680	175	105
19	123	112	115	165	132	97	104	96	260	485	165	104
20	117	110	121	165	124	100	100	87	590	400	156	91
21	110	112	121	156	123	104	94	83	265	334	156	86
22	114	114	121	156	121	100	91	79	165	297	211	83
23	112	116	128	156	117	100	87	74	97	262	273	80
24	114	118	141	146	115	102	86	66	72	227	238	83
25	110	120	141	146	137	107	86	62	59	206	206	80
26	112	121	165	146	165	284	99	60	55	196	144	79
27	117	121	156	146	144	201	316	242	132	175	141	77
28	117	123	156	146	126	139	175	285	108	165	123	80
29	114	128	146	146	-	130	132	165	66	156	115	76
30	114	128	144	146	-	121	105	84	61	146	108	72
31	112	-	135	141	-	115	-	94	-	385	105	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,958	698	110	160	9,830
November	3,539	135	107	118	7,020
December	3,897	165	114	126	7,730
Calendar year 1938	251,822	63,100	60	690	499,500
January	6,220	930	117	201	12,340
February	3,559	185	110	127	7,060
March	3,664	284	96	118	7,270
April	3,444	316	66	115	6,830
May	4,130	489	60	133	8,190
June	3,494	590	48	116	6,930
July	34,912	24,300	34	1,126	69,250
August	9,043	1,200	105	292	17,940
September	2,593	105	72	86.4	5,140
Water year 1938-39	83,453	24,300	34	229	165,500

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. Prior to Sept. 14, wire-weight gage at same site and datum. Zero of gage is 1,096.6 feet above mean sea level (unadjusted).

Drainage area.- 947 square miles.

Records available.- May to September 1939.

Extremes.- Maximum discharge during period, 4,820 second-feet July 13 (gage height, 6.70 feet, from graph based on gage readings); minimum, 1.3 second-feet Sept. 30.
Maximum stage known, about 33 feet in July 1869, according to information furnished by local residents.

Remarks.- Records good. Discharge for day of missing gage height, Aug. 5, computed from graph drawn on basis of known range in stage and weather records, that for day of incomplete gage-height record, Sept. 14, computed on basis of partial gage-height record, one gage reading, and engineer's notes. Wire-weight gage read twice daily, oftener during high-water periods. No diversion for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	232	7.2	56	4.2
2								-	52	5.2	18	3.6
3								-	23	3.2	10	3.2
4								10	250	4.6	9.3	2.8
5								12	142	4.0	25	2.4
6								12	48	3.6	25	2.0
7								12	25	2.8	10	2.0
8								9.9	16	2.0	8.4	1.6
9								10	12	1.4	7.5	1.6
10								9.9	9.0	1.4	6.0	1.8
11								9.3	8.1	1.8	8.4	2.4
12								9.0	7.0	161	15	2.7
13								150	6.5	1,780	10	3.0
14								32	5.5	528	9.3	5.2
15								14	5.2	102	7.8	4.6
16								15	4.8	43	7.8	4.0
17								178	5.0	25	132	3.8
18								203	4.2	16	136	5.8
19								26	4.2	12	72	5.2
20								14	54	9.9	24	4.4
21								10	14	8.7	14	3.2
22								9.3	9.0	7.6	28	2.8
23								8.1	8.7	6.5	16	2.7
24								7.5	6.5	6.0	9.6	2.4
25								7.0	5.0	5.5	7.2	2.1
26								6.2	4.6	5.0	5.8	2.0
27								5.8	4.0	4.6	6.0	1.6
28								5.5	3.4	4.2	6.0	1.5
29								5.5	2.8	4.2	5.0	1.5
30								63	2.7	3.8	4.8	1.4
31								317	-	61	4.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 4-31	1,171.0	317	5.5	41.8	2,320
June	974.2	250	2.7	32.6	1,930
July	2,831.9	1,780	1.4	91.4	5,620
August	704.5	136	4.6	22.7	1,400
September	87.5	5.8	1.4	2.92	174
The period	-	-	-	-	11,440

Pedernales River near Spicewood, Tex.

Location.- Staff gage, lat. 30°25'15", long. 98°04'50", in Travis County, 5.4 miles upstream from mouth and 8 miles southeast of Spicewood, Burnet County. Zero of gage is 624.88 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,294 square miles.

Records available.- November 1923 to July 1939 (discontinued).

Average discharge.- 14 years (1924-38), 237 second-feet.

Extremes.- Maximum discharge during period, 2,390 second-feet July 14 (gage height, 5.72 feet, from graph based on gage readings); minimum discharge observed, 0.2 second-foot July 11.

1923-39: Maximum discharge, 155,000 second-feet May 28, 1929 (gage height, 40.4 feet, from floodmarks), by slope-area method; no flow at times.

A flood in 1869 reached about same stage as that of May 28, 1929, according to information furnished by local residents.

Remarks.- Records good. Gage read twice daily, oftener during periods of high water. No diversion for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	11	21	27	37	66	23	34	372	7.9		
2	11	11	22	26	35	52	23	30	280	11		
3	10	12	22	25	35	46	22	26	205	5.8		
4	11	15	22	25	34	42	22	19	94	2.8		
5	11	12	22	25	34	41	20	17	420	2.0		
6	10	12	22	24	32	39	18	16	248	1.4		
7	10	20	21	25	31	39	18	16	157	1.0		
8	10	20	21	51	30	37	16	14	72	.7		
9	10	18	20	108	29	37	15	12	52	.4		
10	10	18	19	89	29	35	15	12	41	.4		
11	10	19	19	91	27	34	13	11	34	.2		
12	12	22	19	110	27	32	13	12	27	2.0		
13	24	23	19	236	25	30	15	359	22	111		
14	19	23	21	362	25	29	15	335	19	1,350		
15	15	22	20	187	23	28	15	112	16	351		
16	13	22	19	106	24	28	42	76	16	157		
17	11	21	19	89	26	26	278	66	19	76		
18	9.3	21	19	72	35	26	132	68	19	51		
19	9.3	21	19	59	38	26	78	218	16	38		
20	8.6	21	19	54	36	24	49	97	12	29		
21	9.3	21	19	51	36	24	36	56	10	23		
22	9.3	21	21	48	34	22	29	37	8.6	19		
23	9.3	20	21	48	34	22	25	27	8.6	16		
24	10	19	20	48	32	22	23	20	7.2	12		
25	9.3	19	21	46	56	24	23	18	18	11		
26	9.3	18	21	46	110	24	22	16	29	7.9		
27	9.3	18	21	45	104	24	41	12	21	5.1		
28	9.3	18	27	45	89	24	51	10	16	-		
29	10	18	29	44	-	24	39	8.6	12	-		
30	11	20	27	44	-	24	37	7.2	10	-		
31	11	-	27	41	-	24	-	272	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	342.3	24	8.6	11.0	679
November	556	23	11	18.5	1,100
December	659	29	19	21.3	1,310
Calendar year 1938	89,094.3	8,010	8.6	244	176,700
January	2,299	362	24	74.2	4,560
February	1,107	110	23	39.5	2,200
March	975	66	22	31.5	1,930
April	1,168	278	13	38.9	2,320
May	2,033.8	359	7.2	65.6	4,030
June	2,281.4	420	7.2	76.0	4,530
July 1-27	2,292.6	1,350	.2	84.9	4,550
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	27,210

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. Zero of gage is 13.88 feet above mean sea level (general adjustment of 1929). Prior to June 6, 1939, chain gage at same site and datum.

Drainage area.- 887 square miles.

Records available.- August 1938 to September 1939.

Extremes.- Maximum discharge observed during psriod, August to September 1938, 400 second-feet Sept. 13 (gage height, 5.00 feet); minimum observed, 14 second-feet several days in September.

Maximum discharge observsd during water year 1938-39, 13,600 second-fest July 13 (gage height, 23.90 feet); minimum observed, 5.2 second-feet July 10.

Maximum stage known, 33.8 feet May 25, 1936, according to information furnished by local resident.

Remarks.- Records good after June 5, 1939; others poor. Discharge for July 14, 15, days of backwater effect resulting from falling stages aftsr floods of more than about 10,000 second-feet, computed from backwater curve based on discharge measurements. Gage-height record for Aug. 13, 1938, to June 5, 1939 and results of three discharge measurements furnished by Corps of Engineers, U. S. Army. Gage read twice daily and oftener during high water. No large diversion above station.

Discharge, in second-feet, 1938-39

1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1											-	21
2											-	21
3											-	21
4											-	21
5											-	18
6											-	14
7											-	18
8											-	21
9											-	14
10											-	14
11											-	22
12											-	46
13											29	220
14											29	85
15											28	68
16											28	34
17											28	38
18											28	26
19											27	22
20											27	14
21											26	18
22											26	14
23											25	14
24											25	14
25											53	14
26											28	14
27											24	14
28											16	14
29											31	14
30											21	14
31											21	-

Discharge, in second-feet, of Lavaca River near Edna, Tex. 1938-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	12	32	38	36	51	32	28	332	13	47	18
2	14	12	32	38	36	43	32	20	193	11	50	16
3	14	18	32	30	32	43	32	20	109	11	68	16
4	14	18	32	30	28	43	28	20	402	15	78	14
5	14	18	32	30	28	43	24	20	365	11	52	14
6	14	42	32	30	28	39	24	20	2,030	8.4	51	14
7	14	42	32	30	28	35	24	20	2,030	7.4	44	13
8	14	30	32	30	133	35	24	20	560	6.2	37	13
9	14	26	32	30	71	35	24	20	534	6.2	36	19
10	14	46	32	30	49	35	24	463	217	6.2	32	37
11	13	37	31	29	36	34	24	226	127	65	30	400
12	13	33	31	98	36	34	24	65	83	3,340	28	218
13	13	25	31	88	36	34	24	43	64	10,800	28	109
14	13	25	31	72	36	34	32	35	53	10,200	26	93
15	13	25	31	50	36	34	24	31	44	2,540	24	68
16	13	25	31	41	36	34	24	27	40	385	23	40
17	16	25	31	37	36	30	24	27	36	243	23	46
18	20	25	31	37	44	26	24	535	32	165	21	47
19	19	25	31	37	57	26	24	1,930	31	127	21	58
20	19	25	31	37	78	26	24	382	31	109	20	36
21	19	24	30	32	51	25	23	127	47	98	21	27
22	19	24	30	28	43	25	23	69	31	88	18	51
23	19	24	30	28	35	25	23	60	26	78	17	32
24	16	24	30	28	35	25	23	51	24	68	18	25
25	13	24	64	28	43	29	23	56	23	63	16	21
26	13	24	121	28	56	33	23	47	21	59	16	18
27	13	24	133	28	83	33	31	43	18	55	16	17
28	13	24	121	28	78	115	112	34	16	52	16	17
29	13	32	68	32	-	103	44	34	14	47	16	16
30	13	32	46	36	-	37	36	34	13	47	16	18
31	13	-	46	36	-	33	-	68	-	44	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
August 13-31, 1938	520	53	16	27.4	1,030
September	902	220	14	30.1	1,790
Water year	-	-	-	-	-
October 1938	456	20	13	14.7	904
November	790	46	12	26.3	1,570
December	1,349	133	30	43.5	2,680
Calendar year	-	-	-	-	-
January 1939	1,174	98	28	37.9	2,330
February	1,324	133	28	47.3	2,630
March	1,197	115	25	38.6	2,370
April	877	112	23	29.2	1,740
May	4,575	1,930	20	148	9,070
June	7,546	2,030	13	252	14,970
July	28,768.4	10,800	6.2	928	57,060
August	933	78	16	30.1	1,850
September	1,531	400	13	51.0	3,040
Water year 1938-39	50,520.4	10,800	6.2	138	100,200

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 2¼ miles southwest of Ganado, Jackson County. Zero of gage is 13.62 feet above mean sea level (general adjustment of 1929). Prior to June 6, 1939, chain gage at same site and datum.

Drainage area.- 1,116 square miles.

Records available.- May to September 1939.

Extremes.- Maximum discharge observed during period 9,440 second-feet July 13 (gage height, 27.21 feet); minimum observed, 7.8 second-feet July 8.
Maximum stage known, 39.8 feet May 27, 1936, according to information furnished by Texas & New Orleans Railroad engineers.

Remarks.- Records good except those prior to June 6, which are poor. Discharge for July 14-16, period of backwater effect resulting from falling stages after floods of more than about 10,000 second-feet, computed from backwater curve based on discharge measurements. Gage-height record for May 7 to June 5, 1939, and results of five discharge measurements furnished by Corps of Engineers, U. S. Army. Gage read twice daily, oftener during high stages. No large diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	331	12	28	30
2								-	236	13	85	26
3								-	91	10	126	28
4								-	112	13	144	28
5								-	164	13	96	26
6								-	3,270	12	83	20
7								19	3,750	9.9	68	16
8								21	1,900	8.2	54	21
9								30	637	8.8	34	25
10								21	210	8.8	32	36
11								17	104	117	30	64
12								30	61	5,060	36	87
13								32	51	9,200	64	75
14								25	37	7,260	45	48
15								19	36	2,220	31	37
16								19	30	590	28	35
17								37	30	246	28	22
18								87	24	99	28	22
19								1,050	19	79	27	28
20								690	17	54	24	48
21								244	15	45	24	15
22								112	14	37	20	40
23								42	9.9	34	25	42
24								32	12	26	29	22
25								35	12	21	29	18
26								45	26	22	45	16
27								30	19	21	51	19
28								37	13	15	40	18
29								79	14	23	34	26
30								40	13	26	30	37
31								54	-	27	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 7-31	2,847	1,050	17	114	5,650
June	11,257.9	3,750	9.9	375	22,330
July	25,332.7	9,200	e.2	817	50,250
August	1,457	144	20	47.0	2,890
September	975	e7	15	32.5	1,930
The period	-	-	-	-	83,050

Guadalupe River at Comfort, Tex.

Location.- Wire-weight gage, lat. 29°58', long. 98°54', on bridge on U. S. Highway 87, a quarter of a mile downstream from Cypress Creek and half a mile east of Comfort, Kendall County. Zero of gage is 1,372.0 feet above mean sea level (general adjustment of 1929). Station is 4 miles downstream from former station known as Guadalupe River near Comfort, Tex., which was discontinued Sept. 30, 1932.

Drainage area.- 986 square miles.

Records available.- May to September 1939. December 1917 to August 1924, at site near Comfort, 5 miles upstream. August 1924 to September 1932, at site near Comfort, 4 miles upstream. Records equivalent during flood run-off originating above upper site and during extremely low flow, at which times Cypress Creek contributes no appreciable flow.

Extremes.- Maximum discharge during period, 3,820 second-feet July 13 (gage height, 12.40 feet, from graph based on gage readings); minimum discharge observed, 2.8 second-feet June 21, July 8.

1917-32, 1939: 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 discharge observed at former site, 0.4 second-foot Aug. 2, 1918.

Flood of July 16, 1900, reached about the same stage as that of July 1, 1932.

Remarks.- Records good. Gage read twice daily. Several small diversions for irrigation above station. Slight regulation during low-water periods caused by operation of power plants upstream.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									36	19	46	34
2									32	17	45	32
3									32	13	42	29
4									43	9.6	41	30
5									41	5.6	42	29
6									25	4.0	51	28
7									16	4.0	51	24
8									20	3.2	51	20
9									24	3.6	90	21
10									20	4.8	112	32
11									19	4.0	76	37
12									19	28	59	37
13									18	1,800	53	42
14									18	1,210	45	42
15									17	327	36	42
16									13	170	35	41
17									11	119	35	38
18									10	100	35	36
19									8.4	83	35	35
20									4.4	71	41	34
21									5.2	65	96	33
22									9.6	56	48	31
23									13	52	48	26
24									13	44	48	25
25									11	40	46	24
26									9.6	36	44	24
27									8.4	36	34	23
28									7.2	41	37	22
29									7.2	33	36	21
30									13	40	35	19
31								76	-	41	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	-	-	-	-	-
June	524	43	4.4	17.5	1,040
July	4,479.8	1,800	3.2	145	8,890
August	1,528	112	34	49.3	3,030
September	911	42	19	30.4	1,810
The period	-	-	-	-	14,770

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. Zero of gage is 948.13 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,432 square miles.

Records available.- June 1922 to September 1939.

Average discharge.- 17 years, 271 second-feet.

Extremes.- Maximum discharge during year, 3,870 second-feet July 14 (gage height, 8.27 feet); minimum, about 2.2 second-feet July 11.

1922-39: Maximum discharge, 121,000 second-feet July 3, 1932 (gage height, 42.10 feet), from rating curve extended as a straight line above 70,000 second-feet; minimum, that of July 11, 1939.

Maximum stage known, between 45 and 50 feet in 1900, according to information furnished by local residents.

Remarks.- Records good except those less than 15 second-feet, which are poor. Small diversions above station for irrigation. Slight regulation during low water caused by operation of power plants upstream.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	52	52	58	93	75	65	52	29	5.4	31	27
2	47	50	54	62	86	73	62	52	32	5.4	42	24
3	47	56	56	67	78	71	58	65	49	3.8	35	24
4	45	56	54	65	73	71	56	63	45	5.4	40	22
5	49	54	54	65	73	71	60	52	63	9.4	37	20
6	45	63	50	63	75	69	60	54	62	9.4	35	19
7	42	62	50	65	73	69	54	56	54	9.4	35	18
8	44	60	52	78	71	69	52	56	38	7.0	47	17
9	44	62	52	98	73	69	50	54	34	3.8	348	19
10	52	58	52	148	73	69	54	49	24	3.0	69	19
11	52	56	54	148	71	69	52	47	22	2.8	75	19
12	50	56	52	133	69	67	54	42	21	16	89	18
13	52	60	50	130	67	65	54	40	21	106	69	25
14	50	58	50	140	69	63	52	755	16	2,070	65	29
15	49	58	50	161	65	63	54	138	16	888	52	29
16	47	56	50	158	65	60	65	84	12	341	44	29
17	47	58	52	143	69	58	95	69	12	212	32	31
18	47	58	52	126	67	60	89	67	13	156	31	32
19	47	50	52	107	67	60	69	62	13	126	31	29
20	45	52	54	98	71	60	65	54	13	102	34	31
21	45	50	56	91	80	62	62	42	11	89	35	28
22	45	49	58	91	84	62	54	40	9.4	75	44	25
23	47	52	58	91	75	58	49	37	8.6	69	69	25
24	45	50	56	91	73	60	47	34	7.0	63	45	25
25	44	50	65	91	75	73	44	32	5.4	56	38	24
26	45	52	73	91	80	73	44	29	3.8	52	37	21
27	49	50	69	91	80	73	122	29	6.2	45	40	20
28	50	47	69	91	80	84	200	28	8.6	42	42	20
29	50	49	69	91	-	78	86	25	7.8	38	32	21
30	50	52	63	93	-	73	60	40	8.6	38	29	20
31	52	-	60	98	-	67	-	56	-	34	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,470	52	42	47.4	2,920
November	1,636	63	47	54.5	3,240
December	1,738	73	50	56.1	3,450
Calendar year 1938	70,985	3,240	38	194	140,800
January	3,123	161	58	101	6,190
February	2,075	93	65	74.1	4,120
March	2,094	84	58	67.5	4,150
April	1,988	200	44	66.3	3,940
May	2,303	755	25	74.3	4,570
June	665.4	63	3.8	22.2	1,320
July	4,682.8	2,070	2.8	151	9,290
August	1,680	348	28	54.2	3,330
September	710	32	17	23.7	1,410
Water year 1938-39	24,165.2	2,070	2.8	66.2	47,930

Peak discharge.- May 14 (3 a.m.) 1,640 sec.-ft.; July 14 (3 p. m.) 3,870 sec.-ft.; Aug. 9 (5:30 a.m.) 1,220 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. Zero of gage is 586.6 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,666 square miles.

Records available.- December 1927 to September 1939. March 1898 to December 1899 and January 1915 to December 1927, at site 1 mile below Comal River.

Average discharge.- 11 years (1928-39), 394 second-feet.

Extremes.- Maximum discharge during year, 3,070 second-feet July 15 (gage height, 4.43 feet); minimum, 9.6 second-feet July 9-11 (gage height, 0.86 foot).
1927-39: Maximum discharge, 101,000 second-feet June 15, 1935 (gage height, 32.95 feet); minimum, that of July 9-11, 1939.
Maximum stage known, about 38 feet sometime in 1869 and in December 1913, according to information furnished by local residents.

Remarks.- Records good. Small diversions above station for irrigation. Slight regulation during low water caused by operation of small power plants upstream.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	66	82	101	101	91	78	90	35	12	62	39
2	71	68	86	96	100	90	74	74	53	12	56	34
3	71	69	88	94	98	88	71	66	52	12	47	32
4	71	71	88	95	94	90	70	63	44	11	44	29
5	71	70	87	92	92	86	66	65	56	11	51	28
6	70	76	86	92	92	82	62	76	62	11	46	28
7	68	75	87	91	91	82	63	64	59	11	50	26
8	71	74	86	98	92	83	64	62	68	11	46	24
9	68	75	83	126	92	82	64	65	60	10	44	24
10	70	74	86	160	90	82	62	63	53	9.6	229	23
11	72	77	86	176	88	82	60	60	45	10	123	26
12	72	77	87	220	86	81	60	54	40	21	75	28
13	76	75	86	190	86	78	60	54	36	53	76	29
14	74	75	87	176	86	77	62	96	32	64	81	30
15	71	77	86	179	86	77	64	480	27	1,930	70	28
16	71	77	85	179	82	75	65	188	26	660	65	24
17	69	76	87	160	87	74	65	112	24	350	60	23
18	69	76	87	143	90	74	65	134	24	233	82	32
19	70	75	88	126	91	72	91	120	22	183	62	32
20	68	75	90	117	86	72	82	77	27	138	48	32
21	66	74	91	112	80	71	70	70	32	115	40	34
22	65	75	92	107	83	71	66	63	26	100	46	33
23	64	74	96	108	92	70	63	57	21	88	42	32
24	64	72	98	107	98	70	60	51	20	77	41	30
25	62	75	106	102	98	78	56	47	17	68	60	29
26	62	75	117	101	96	82	53	50	17	66	56	28
27	63	76	114	102	92	83	179	44	15	63	51	27
28	63	80	106	104	94	80	124	42	15	58	48	26
29	64	82	104	101	-	80	221	38	13	52	45	24
30	65	81	106	100	-	86	130	39	12	50	44	23
31	66	-	102	98	-	83	-	39	-	58	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,119	76	62	68.4	4,200
November	2,242	82	66	74.7	4,450
December	2,858	117	82	92.2	5,670
Calendar year 1938	117,175	3,820	62	321	232,400
January	3,853	220	91	124	7,640
February	2,543	101	80	90.8	5,040
March	2,472	91	70	79.7	4,900
April	2,370	221	53	79.0	4,700
May	2,603	480	38	84.0	5,160
June	1,033	68	12	34.4	2,050
July	4,547.6	1,930	9.6	147	9,020
August	1,932	229	40	62.3	3,830
September	857	39	23	28.6	1,700
Water year 1938-39	29,429.6	1,930	9.6	80.6	58,360

Guadalupe River at Victoria, Tex.

Location.- Water-stage recorder, lat. 28°47', long. 97°01', at bridge on U. S. Highway 96 at Victoria, Victoria County, 1,300 feet upstream from Texas & New Orleans (Galveston, Harrisburg & San Antonio) Railroad bridge and 10 miles upstream from Coleto Creek. Zero of gage is 29.23 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,676 square miles.

Records available.- November 1934 to September 1939.

Extremes.- Maximum discharge during year, 4,940 second-feet June 6 (gage height, 14.52 feet); minimum, 277 second-feet Sept. 5 (regulated); minimum daily discharge, 308 second-feet Sept. 5.

1934-39: Maximum discharge, 179,000 second-feet July 3, 1936 (gage height, 31.22 feet); minimum, that of Sept. 5, 1939.

Remarks.- Records good. Many small diversions above station; flow not materially affected. Low-water flow partly regulated by diurnal operation of power plants upstream.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	623	569	610	695	680	710	582	1,300	610	428	402	428
2	582	610	623	695	755	636	582	920	667	415	390	465
3	610	569	680	650	725	636	582	755	1,140	465	366	415
4	596	636	695	680	650	610	610	725	770	402	440	390
5	582	650	650	680	610	636	596	650	808	342	415	308
6	695	582	610	636	695	556	582	725	3,120	402	465	415
7	650	636	695	636	680	650	569	569	2,230	415	465	415
8	596	636	710	695	680	596	515	636	1,110	415	402	366
9	596	853	636	725	725	695	556	710	1,070	415	428	366
10	582	890	636	665	710	665	452	569	680	378	515	502
11	596	695	610	740	665	636	556	1,210	623	465	465	428
12	569	665	650	755	636	623	582	938	556	1,090	378	623
13	636	610	610	725	569	610	582	610	623	1,480	390	556
14	596	636	650	695	636	569	515	582	528	2,690	440	402
15	610	695	650	755	665	610	569	502	569	2,590	502	390
16	582	650	596	755	680	623	490	542	*490	1,480	428	452
17	610	710	636	830	569	582	556	596	502	920	440	390
18	596	636	650	800	623	528	556	755	*490	1,170	415	390
19	623	582	610	800	710	582	528	944	490	1,230	402	415
20	752	650	610	650	569	582	569	830	*502	960	428	465
21	542	569	665	770	610	596	569	710	*452	695	452	428
22	542	596	680	725	650	610	502	650	*452	610	428	428
23	582	650	755	740	725	596	542	596	428	596	378	378
24	582	740	596	710	582	556	515	569	452	556	415	415
25	596	582	680	710	596	569	596	623	478	490	440	366
26	542	556	740	680	740	623	569	556	390	542	390	378
27	623	556	800	680	569	636	623	665	390	556	378	402
28	569	623	800	725	610	596	770	542	402	440	440	402
29	610	582	770	665	-	623	800	981	378	478	390	390
30	610	623	800	665	-	623	1,300	665	452	378	313	366
31	623	-	636	755	-	596	-	569	-	440	390	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	18,703	752	542	603	37,100
November	19,237	890	556	641	38,160
December	20,739	800	596	669	41,140
Calendar year 1938	658,459	24,400	542	1,804	1,306,000
January	22,087	830	636	712	43,810
February	18,314	755	569	654	36,330
March	18,959	710	528	612	37,600
April	17,915	1,300	452	597	35,530
May	22,194	1,300	502	716	44,020
June	21,852	3,120	378	728	43,340
July	23,933	2,690	342	772	47,470
August	12,990	515	313	419	25,770
September	12,534	623	308	418	24,860
Water year 1938-39	229,457	3,120	308	629	455,100

Peak discharge.- May 11 (4 p.m.) 1,420 sec.-ft.; June 6 (7 a.m.) 4,940 sec.-ft.; July 15 (1 a.m.) 2,940 sec.-ft.

*Based on partial gage-height record.

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 at New Braunfels, Comal County, and 1.1 miles upstream from mouth. Zero of gage is 582.80 feet above mean sea level (general adjustment of 1929).

Records available.- December 1927 to September 1939.

Extremes.- Maximum discharge during year, 428 second-feet July 15 (gage height, 3.28 feet); minimum discharge, 187 second-feet July 11 (caused by regulation); minimum daily discharge, 245 second-feet July 17, 20.

1927-39: 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, caused by regulation); minimum daily discharge, that of July 17, 20, 1939.

Maximum stage known, 35.4 feet December 1913, from floodmarks, (probably some backwater from Guadalupe River).

Remarks.- Records good. Discharge for Aug. 19, 20 interpolated; and that for day of fragmentary gage height record, Aug. 21, computed on basis of partial record. Flow partly regulated by steam power plant half a mile above station. Entire flow of river except during periods of local rain, comes from Comal Springs, about a mile upstream.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	346	338	338	319	327	324	315	312	300	281	269	304
2	346	338	338	315	334	331	315	319	304	277	289	312
3	338	342	338	315	327	323	319	312	304	277	285	312
4	342	334	338	315	327	319	319	304	308	277	281	312
5	342	342	331	312	327	319	319	304	312	277	265	312
6	342	342	331	312	327	319	312	304	315	274	281	308
7	342	338	338	327	331	323	319	304	315	274	281	308
8	338	342	338	331	331	327	315	304	319	270	285	312
9	342	342	342	323	331	323	319	312	315	270	265	304
10	346	338	338	323	331	319	315	308	308	270	281	304
11	346	342	338	323	331	323	319	308	308	270	285	312
12	346	342	338	323	331	323	319	308	312	270	285	308
13	342	342	338	323	334	327	319	308	312	256	285	312
14	346	342	338	319	334	327	323	308	315	256	285	312
15	338	342	338	319	331	323	319	304	312	308	281	312
16	342	346	334	319	334	323	315	304	312	252	281	308
17	338	342	334	319	319	323	315	304	312	245	293	312
18	327	342	331	319	323	319	315	304	312	252	285	304
19	327	338	327	323	323	327	312	304	312	248	288	315
20	327	338	327	323	327	319	312	300	312	245	290	308
21	334	338	323	331	323	323	312	300	304	248	293	308
22	334	331	323	334	323	319	308	300	296	256	293	308
23	342	331	323	338	327	319	312	300	300	262	293	308
24	346	331	319	338	327	312	312	300	300	266	293	308
25	342	334	327	331	327	315	315	300	289	277	293	304
26	338	334	323	329	331	312	319	300	285	281	289	304
27	338	334	319	323	331	315	319	300	289	277	289	300
28	342	334	319	327	331	315	315	300	281	285	300	304
29	338	336	323	327	-	312	308	300	289	285	308	304
30	334	338	323	331	-	319	312	300	289	285	304	296
31	338	-	327	327	-	312	-	300	-	285	304	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	10,529	346	327	340	20,880
November	10,155	346	331	338	20,140
December	10,262	342	319	331	20,350
Calendar year 1938	128,767	1,550	311	353	255,400
January	10,038	338	312	324	19,910
February	9,200	334	319	329	18,250
March	9,934	331	312	320	19,700
April	9,467	323	308	316	18,780
May	9,435	319	300	304	18,710
June	9,141	319	281	305	18,130
July	8,356	308	245	270	16,570
August	8,959	308	281	289	17,770
September	9,235	315	296	308	18,320
Water year 1938-39	114,711	346	245	314	227,500

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. Zero of gage is 322.0 feet above mean sea level (general adjustment of 1929).

Drainage area.- 833 square miles.

Records available.- April to September 1939.

Extremes.- Maximum discharge during period, 2,140 second-feet July 12 (gage height, 14.31 feet); minimum, 11 second-feet June 7 (regulated); minimum daily discharge, 73 second-feet Sept. 11.

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 missing gage heights, July 14-16, July 21 to Aug. 28 (computed on basis of known range in stage, weather records, and records for Plum Creek near Luling and San Marcos River at Ottine), and those for periods of rapidly changing stage, all of which are poor. Flow regulated by operation of power plant 800 feet above station. Discharge is mostly from large springs near San Marcos. No large diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	179	174	143	111	94
2							-	156	132	106	111	90
3							-	138	126	118	110	89
4							-	122	140	106	109	98
5							-	142	119	110	109	90
6							-	125	122	108	108	97
7							-	126	110	95	108	97
8							-	392	138	108	107	96
9							-	351	123	101	106	98
10							-	153	128	119	106	89
11							-	132	114	75	105	73
12							-	131	123	807	105	105
13							-	133	120	577	104	90
14							-	131	104	}	104	82
15							-	132	116	255	103	86
16							-	135	108	}	102	94
17							-	121	110	*117	102	105
18							*116	122	106	116	101	97
19							116	153	117	114	101	101
20							109	125	121	e118	100	107
21							110	157	120	117	100	107
22							116	139	117	117	99	104
23							120	135	115	116	98	105
24							130	115	116	116	98	101
25							117	107	115	115	97	107
26							121	497	118	115	97	107
27							598	168	118	114	96	102
28							823	121	112	113	96	105
29							306	122	119	113	95	106
30							206	155	109	112	90	106
31							-	337	-	112	89	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 18-30	2,988	823	109	230	5,930
May	5,252	497	107	169	10,420
June	3,610	174	104	120	7,160
July	4,973	807	75	160	9,860
August	3,167	111	89	102	6,280
September	2,932	107	73	97.7	5,820
The period	-	-	-	-	45,470

Peak discharge.- Apr. 28 (6 a.m.) 1,360 sec.-ft.; May 8 (10:30 p.m.) 1,840 sec.-ft.; July 12 (6:30 p.m.) 2,140 sec.-ft.

*Based on partial gage-height record.

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. Zero of gage is 285.2 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,249 square miles.

Records available.- June 1915 to September 1939.

Average discharge.- 24 years, 439 second-feet.

Extremes.- Maximum discharge during year, 2,350 second-feet July 13 (gage height, 13.87 feet); minimum not determined.

1915-39: 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 measurement of 125,000 second-feet; no flow July 29, 1923, Mar. 31, 1925, June 24, 1926 (caused by regulation); minimum daily discharge, 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 fair except those for periods of missing gage heights, July 18 to Sept. 30 (computed on basis of records for San Marcos River at Luling and Plum Creek near Luling and weather records), which are poor. Low-water flow regulated by operation of several small power plants above station. Most of ordinary flow comes from large springs near San Marcos.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	137	149	141	149	168	119	200	328	151		
2	160	135	153	144	148	165	126	174	174	117		
3	158	174	149	145	154	159	113	136	162	117		
4	159	174	149	158	148	158	144	137	143	109		
5	158	148	145	154	128	174	97	121	143	114		
6	158	153	150	145	168	165	103	133	138	117		
7	162	306	142	144	165	164	105	117	137	126		*51
8	100	200	147	153	164	174	117	165	135	118		
9	158	155	143	162	154	181	115	980	154	107		
10	154	153	142	153	147	167	117	174	129	103		
11	158	142	142	162	130	158	121	128	123	108		
12	154	149	142	181	148	158	114	123	126	502		
13	156	143	155	181	148	158	100	118	124	1,430		
14	150	167	138	174	142	154	122	121	121	434		
15	150	160	148	174	154	162	124	181	133	235		
16	156	149	139	163	144	151	128	126	119	168		
17	137	156	141	160	150	145	124	112	117	143		
18	147	153	145	156	165	143	117	139	115			
19	147	144	142	158	156	131	116	139	124			
20	155	143	144	151	164	153	121	168	127	*135		
21	145	130	144	150	154	137	119	158	145			
22	139	138	143	154	145	129	121	135	131			
23	147	144	144	158	149	135	124	136	128			
24	147	133	158	156	159	128	120	111	115	120		
25	139	144	160	153	174	133	123	110	112			
26	146	144	188	148	174	127	120	459	120			
27	139	148	162	139	174	128	556	401	124			
28	149	147	153	153	174	112	901	149	116			
29	151	142	153	158	-	157	428	126	112			
30	145	163	155	150	-	144	256	151	117			
31	139	-	153	148	-	113	-	524	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,621	162	100	149	9,170
November	4,674	306	130	156	9,270
December	4,618	188	138	149	9,160
Calendar year 1938	203,605	12,600	100	558	403,800
January	4,826	181	139	156	9,570
February	4,329	174	128	155	8,590
March	4,631	181	112	149	9,190
April	5,211	901	97	174	10,340
May	6,202	980	110	200	12,300
June	4,092	328	112	136	8,120
July	5,879	1,430	-	190	11,660
August	3,410	-	-	110	6,760
September	3,000	-	-	100	5,950
Water year 1938-39	55,493	1,430	-	152	110,100

*Discharge measurement.

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. Zero of gage is 802.2 feet above mean sea level (general adjustment of 1929).

Drainage area.- 378 square miles.

Records available.- August 1924 to September 1926, June 1928 to September 1939.

Average discharge.- 13 years, 101 second-feet.

Extremes.- Maximum discharge during year not determined; minimum, 5.2 second-feet July 4, 5 (gage height, 0.22 foot).
1924-26, 1928-39: Maximum discharge, 113,000 second-feet, May 28, 1929 (gage height, 31.10 feet, from floodmarks), by slope-area method; minimum, 3.5 second-feet Sept. 24-27, 1934 (gage height, 0.20 foot).

Remarks.- Records good except those for periods of missing gage heights, Nov. 8 to Dec. 6, Apr. 24-27, July 12-21, which were computed on basis of known range of stage (except for July 12-21), weather records, and information furnished by local residents and are poor. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	18	12	20	17	18	28	22	12	6.4	9.2	10
2	22	18	14	18	20	18	28	18	14	6.4	10	10
3	22	20	20	16	22	16	25	16	16	5.8	10	9.2
4	22	20	20	17	22	14	23	12	18	5.2	9.2	9.2
5	20	20	18	22	20	12	23	12	17	5.2	9.2	9.2
6	20	18	17	20	18	14	22	10	17	5.8	8.1	9.2
7	20	*18	*17	17	18	16	23	9.2	18	5.8	8.1	9.2
8	20	17	17	17	17	16	22	10	18	5.8	8.1	9.2
9	18	17	18	35	16	12	22	10	16	5.8	33	9.2
10	18	17	17	22	20	12	20	8.1	14	5.8	16	11
11	20	17	18	41	22	11	18	7.0	12	e.1	11	12
12	20	17	20	48	22	11	17	7.0	11		10	12
13	20	17	20	39	22	12	17	7.0	11		9.2	12
14	20	17	22	35	18	12	16	8.1	11		8.1	11
15	20	16	23	33	22	14	14	8.1	10		8.1	10
16	20	16	25	33	22	16	16	7.0	8.1		8.1	10
17	18	16	25	30	23	16	16	6.4	9.2	80	8.1	9.2
18	18	16	26	30	23	16	14	81	9.2		11	9.2
19	18	16	25	28	18	17	14	44	9.2		10	8.1
20	18	14	22	26	18	17	14	20	14		8.1	9.2
21	18	14	26	23	18	18	14	14	14		18	7.0
22	18	14	25	22	20	20	16	11	9.2	*11	14	6.4
23	22	14	23	23	20	22	14	11	7.0	11	11	6.4
24	22	12	23	20	20	22	14	11	7.0	10	11	6.4
25	22	12	28	20	22	23	14	11	7.0	10	12	7.0
26	22	12	33	20	22	23	14	11	7.0	9.2	11	6.4
27	20	12	26	20	18	25	545	10	6.4	8.1	14	7.0
28	20	12	25	22	18	25	*84	9.2	6.4	8.1	14	7.0
29	20	12	22	20	-	26	39	9.2	6.4	8.1	12	7.0
30	18	12	20	20	-	26	25	10	6.4	8.1	11	6.4
31	18	-	20	18	-	28	-	12	-	8.1	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	616	22	18	19.9	1,220
November	471	20	12	15.7	934
December	667	33	12	21.5	1,320
Calendar year 1938	57,824	4,640	12	158	114,700
January	775	48	16	25.0	1,540
February	558	23	16	19.9	1,110
March	548	28	11	17.7	1,090
April	1,171	545	14	39.0	2,320
May	442.3	81	6.4	14.3	877
June	341.5	18	6.4	11.4	677
July	957.8	-	5.2	30.9	1,900
August	351.6	33	8.1	11.3	697
September	265.1	12	6.4	8.84	526
Water year 1938-39	7,164.3	-	5.2	19.6	14,210

*Discharge computed on basis of partial gage-height record.

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 bridge of Texas & New Orleans (Galveston, Harrisburg & San Antonio) Railroad and 3 miles northeast of Luling, Caldwell County. Zero of gage is 326.6 feet above mean sea level (general adjustment of 1929).

Drainage area.- 356 square miles.

Records available.- March 1930 to September 1939.

Extremes.- Maximum discharge during year, 707 second-feet July 12 (gage height, 7.63 feet); minimum, 1.4 second-feet Sept. 7, 28, 29.

1930-39: 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, 0.8 second-foot July 19, 1934.

Flood of December 1913 reached a stage of about 25.7 feet, present site and datum according to information furnished by local residents.

Remarks.- Records good except those for periods of missing gage heights, Oct. 22 to Nov. 12, May 27-30, June 1-7, which were computed on basis of available gage heights, recorder chart for similar periods, weather records and records for San Marcos River at Ottine and are poor. No diversion above station. Slight regulation during low-water from oil-field operations.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8		5.3	6.3	7.4	7.4	4.4	5.5	33	9.7	2.3	2.3
2	2.9		6.3	6.3	6.8	7.1	4.2	4.4	6.8	3.1	2.3	2.1
3	2.6		5.5	6.6	7.4	7.4	3.8	3.1	6.0	2.6	2.4	1.8
4	2.6		5.8	6.6	7.4	7.7	3.4	2.4	6.0	2.1	2.4	2.4
5	2.6		5.1	5.3	6.6	8.2	3.4	2.6	5.8	1.8	2.4	2.1
6	2.8	6.0	5.1	5.8	9.3	8.2	2.6	2.8	5.8	1.7	2.8	1.7
7	2.9		5.5	6.3	13	7.7	2.3	3.1	5.5	2.4	2.8	1.5
8	3.1		6.0	8.6	6.8	9.3	2.6	22	15	2.1	2.6	1.8
9	3.1		5.8	9.3	5.8	8.9	2.8	52	10	1.7	2.6	2.1
10	3.1		5.8	8.6	5.8	8.9	3.2	7.1	4.7	1.7	2.3	3.2
11	3.2		5.5	7.9	5.5	8.6	4.2	2.9	4.0	2.1	2.1	4.2
12	3.2		6.0	9.7	5.5	8.2	2.9	2.8	3.8	234	2.6	12
13	3.2	4.7	6.3	9.7	5.8	7.4	2.6	2.4	3.4	244	2.4	11
14	3.8	4.9	5.8	9.7	5.8	7.4	3.8	36	3.1	24	2.6	3.4
15	3.4	5.1	5.8	7.9	6.0	6.8	3.8	20	2.9	7.1	2.6	2.3
16	3.1	5.8	6.3	5.3	6.3	6.8	3.6	6.3	3.1	4.4	2.6	3.1
17	3.4	7.1	6.0	6.6	6.6	6.8	3.4	4.0	3.1	3.2	2.3	2.4
18	4.4	5.8	6.0	6.6	7.7	7.1	3.2	6.5	3.2	2.9	2.3	2.3
19	4.2	5.3	6.3	7.1	7.9	7.4	3.2	85	3.6	2.8	2.6	2.6
20	3.6	4.4	6.3	6.0	6.8	7.1	3.2	10	13	3.1	2.8	2.1
21	3.4	5.3	6.3	5.1	6.6	7.4	4.0	4.4	18	2.8	5.8	2.1
22		4.9	6.6	6.6	6.3	7.4	3.4	2.9	6.6	2.3	3.4	2.0
23		4.7	7.1	7.9	6.0	7.4	3.8	2.4	4.0	2.4	2.9	2.0
24		4.0	8.6	7.7	6.3	7.1	4.4	1.8	2.9	2.4	2.9	1.6
25		4.0	8.2	6.8	7.7	7.4	4.9	1.6	2.8	2.1	2.9	2.0
26	3.0	4.4	10	6.8	8.6	8.2	4.0	211	2.8	2.0	3.1	2.1
27		4.7	11	6.6	10	7.4	234	117	2.3	2.1	11	1.8
28		5.1	8.6	7.4	7.9	6.8	64	5.8	2.6	2.0	7.0	1.5
29		5.3	8.9	7.7	-	40	13	10	2.4	2.3	3.8	1.5
30		5.3	7.1	7.1	-	10	7.7	37	2.6	2.4	2.8	2.3
31		-	6.8	7.1	-	5.5	-	209	-	2.4	2.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	97.4	-	-	3.14	193
November	162.8	-	-	5.43	323
December	205.7	11	5.1	6.64	408
Calendar year 1938	39,116.4	6,200	-	107	77,590
January	223.0	9.7	5.1	7.19	442
February	199.6	13	5.5	7.13	396
March	269.0	40	5.5	8.68	534
April	409.8	234	2.3	13.7	813
May	883.8	211	1.6	28.5	1,750
June	188.8	33	2.3	6.29	374
July	581.7	244	1.7	18.8	1,150
August	97.7	11	2.1	3.15	194
September	85.3	12	1.5	2.84	169
Water year 1938-39	3,404.6	244	1.5	9.33	6,750

Peak discharge.- Apr. 27 (2 p.m.) 473 sec.-ft.; May 26 (10 p.m.) 500 sec.-ft.; July 12 (11 p.m.) 707 sec.-ft.

[illegible]

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. Zero of gage is 285.5 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,067 square miles.

Records available.- April 1925 to September 1939.

Average discharge.- 14 years, 290 second-feet.

Extremes.- Maximum discharge during year, 1,280 second-feet July 14 (gage height, 3.04 feet); minimum, 65 second-feet July 29.

1925-39: 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 missing gage heights, Nov. 6-10, which were computed from graph based on recorded range of stage and weather records and are fair. Discharge for Nov. 5, 11, Aug. 2, 21, Sept. 19 computed on basis of partial gage-height record. Flow partly regulated by storage in Medina Reservoir (capacity, 254,000 acre-feet). Medina canal diverts above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	109	153	161	173	189	131	95	405	78	75	85
2	109	116	134	157	169	181	127	92	379	75	151	85
3	109	127	138	165	165	173	127	92	161	78	280	85
4	109	123	138	161	165	173	120	92	261	78	78	85
5	113	116	138	161	161	177	116	89	194	78	78	82
6	113	120	127	157	165	173	113	92	134	78	402	82
7	116	120	134	161	233	181	113	95	141	75	311	85
8	120	161	134	157	290	173	165	95	120	75	181	85
9	109	138	138	157	185	173	261	95	106	75	123	82
10	113	131	141	355	169	169	145	89	113	72	109	89
11	145	127	145	428	165	161	134	92	109	75	106	95
12	120	127	141	224	157	165	131	69	106	113	95	99
13	123	123	153	300	157	161	120	89	92	120	131	102
14	123	127	153	242	165	165	113	92	92	687	125	113
15	120	141	153	194	161	157	109	89	92	790	95	113
16	116	149	149	177	157	149	106	95	85	254	95	116
17	113	145	153	181	157	153	109	92	82	153	92	113
18	120	138	149	169	157	145	127	95	85	116	99	113
19	120	141	149	165	198	149	123	92	82	106	99	138
20	106	141	161	161	224	141	106	89	78	99	95	157
21	106	134	161	157	165	153	99	89	75	92	205	149
22	113	141	157	157	165	145	95	85	82	85	287	141
23	109	141	157	157	173	131	99	75	78	85	183	131
24	106	131	169	173	173	127	95	75	78	82	106	120
25	113	131	194	173	177	127	95	78	82	78	98	113
26	116	131	206	169	165	127	95	82	82	78	92	109
27	113	134	392	169	185	149	95	127	85	78	92	102
28	116	247	285	173	185	138	95	95	78	75	92	99
29	116	361	189	173	-	134	113	85	82	69	85	95
30	113	270	169	173	-	134	99	75	82	72	85	92
31	109	-	161	177	-	131	-	400	-	92	85	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,560	145	106	115	7,060
November	4,441	361	109	148	8,810
December	5,121	392	127	165	10,160
Calendar year 1938	104,919	4,020	106	287	208,100
January	5,884	428	157	190	11,670
February	4,931	290	157	178	9,880
March	4,804	189	127	155	9,530
April	3,576	261	95	119	7,090
May	3,168	400	75	102	6,280
June	3,724	408	75	124	7,390
July	4,161	790	69	134	8,250
August	4,227	402	75	136	8,380
September	3,155	157	82	105	6,260
Water year 1938-39	50,800	790	69	139	100,800

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 Manahuilla Creek. Station is 0.9 mile downstream from and at same datum as station that was discontinued Mar. 31, 1929. Zero of gage is 90.6 feet above mean sea level.

Drainage area.- 3,914 square miles.

Records available.- June 1924 to March 1929, February to September 1939.

Extremes.- Maximum discharge during period, 1,900 second-feet July 12 (gage height, 11.22 feet, from floodmark); minimum not determined.

1924-29, 1939: Maximum discharge, 13,100 second-feet Jan. 11, 1929 (gage height, about 30.5 feet, present site and datum, from floodmarks at former site); minimum discharge observed, 44 second-feet during several periods in 1927.

Maximum stage known, about 45.6 feet, present site and datum, in October 1913, from floodmark at former site (information furnished by local residents).

Remarks.- Records good except those for periods of missing gage heights, Feb. 18 to Mar. 16, May 26 to June 9, July 10-13, Aug. 1 to Sept. 5, Sept. 21-30, which were computed on basis of discharge measurements, known range in stage, floodmarks, weather records, and records for Cibolo Creek and San Antonio River near Falls City and are poor. Discharge for days of fragmentary gage-height record, Feb. 5, 17, Mar. 17, May 21, 25, July 9, 14, Sept. 6 computed on basis of partial gage height record. Low flow partly regulated by Medina Reservoir (capacity, 254,000 acre-feet). Water is 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 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	186	155	132		104		
2					-	186	153	125		104		
3					-	187	153	120		105		95
4					-	187	150	120		107		
5					195	187	150	114	252	105		
6					200	187	139	118		103		90
7					195	186	133	114		101		86
8					196	186	135	151		97		85
9					219	186	133	274		95		87
10					308	184	168	210	195			100
11					238	184	254	120	160	853		105
12					198	184	192	108	155			188
13					189	182	155	108	151			297
14					187	182	157	108	146	322		150
15					186	180	150	108	141	184		132
16					189	180	142	107	133	716		139
17					189	175	141	105	133	519		135
18					209	171	137	105	132	260		135
19					243	177	137	150	126	189		114
20					254	175	144	367	123	157		111
21					227	173	150	135	121	144		
22					200	168	137	114	120	139		
23					187	171	130	108	116	128		
24					186	169	128	107	114	123		
25					195	155	126	104	113	118		116
26					187	153	126		111	114		
27					184	153	121		108	111		
28					184	151	126		105	110		
29					-	164	125	143	104	108		
30					-	164	121		104	107		
31					-	159	-		-	107		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February 5-28	4,945	308	184	206	9,810
March	5,432	187	151	175	10,770
April	4,368	254	121	146	8,660
May	4,290	367	-	138	8,510
June	4,979	-	104	166	9,880
July	7,989	-	-	258	15,850
August	5,735	-	-	185	11,380
September	3,589	297	85	120	7,120
The period	-	-	-	-	81,980

Cibolo Creek near Falls City, Tex.

Location.- Water-stage recorder, lat. 29°01', long. 97°56', 200 feet downstream from Cestohowa Bridge, 6 miles upstream from mouth, and 6 miles northeast of Falls City, Karnes County.

Drainage area.- 831 square miles.

Records available.- November 1930 to September 1939.

Extremes.- Maximum discharge during year, 764 second-feet Aug. 6 (gage height, 5.82 feet); minimum, 7.0 second-feet July 28-30.
1930-39: Maximum discharge, 28,600 second-feet June 14, 1935 (gage height, 33.0 feet, from floodmarks), from rating curve extended above 16,000 second-feet; minimum, 6.8 second-feet, Oct. 31, Nov. 1, 1931, May 24, 1933.

Remarks.- Records good except those for periods of missing gage heights, Oct. 22 to Nov. 9, May 19 to June 11, which were computed on basis of known range in stage, weather records, and records for San Antonio River near Falls City and are poor. Discharge for days of incomplete gage-height record, Oct. 21, Nov. 10, May 18, June 12, computed on basis of partial gage height record. No large diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	17	19	20	19	19	18	14		8.6	55	8.9
2	14	17	19	20	19	19	18	14		8.9	26	8.9
3	14	16	20	20	19	19	17	12		7.9	55	8.9
4	14	16	20	20	19	19	17	11		7.6	47	8.6
5	14	16	19	20	19	19	16	11		7.6	24	8.6
6	14	15	18	20	20	18	15	12	27	7.9	284	8.6
7	14	33	19	20	21	18	15	13		7.9	90	8.6
8	14	41	19	21	20	19	15	13		7.9	39	8.2
9	14	29	19	21	21	20	16	12		7.6	23	8.2
10	14	22	18	20	20	20	16	12		7.6	17	9.2
11	14	20	19	20	19	20	15	11		7.9	13	17
12	14	19	19	21	19	19	15	11	11	54	12	12
13	14	19	19	21	19	19	15	12	11	18	13	11
14	14	19	19	21	19	18	16	12	10	12	14	9.8
15	14	19	19	21	19	17	17	12	9.8	12	11	9.5
16	14	19	19	20	18	17	16	13	9.8	10	9.8	9.2
17	14	19	20	20	20	17	15	12	9.2	9.5	9.5	8.9
18	14	18	21	20	20	17	14	14	9.2	9.2	9.2	8.9
19	14	18	23	20	20	18	14		9.2	9.2	9.2	17
20	14	18	24	20	20	17	14		8.9	8.9	8.9	19
21	32	17	25	19	18	17	13		9.5	8.6	17	9.2
22	19	17	25	19	17	17	13		9.5	7.9	33	8.9
23	17	17	25	20	18	17	13		9.8	7.6	44	8.6
24	17	17	27	20	18	17	12	14	9.2	7.6	22	8.2
25	17	17	46	20	20	17	13		9.2	7.6	14	8.2
26	17	17	36	19	20	18	13		9.2	7.6	12	8.2
27	17	17	25	19	20	20	13		8.9	7.6	10	8.2
28	17	17	23	20	19	19	13		8.6	7.3	9.8	8.6
29	17	18	22	20	-	19	13		8.6	7.0	9.8	8.2
30	17	19	21	20	-	18	12	180	7.9	7.3	9.2	11
31	17	-	20	19	-	18	-		-	203	9.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	484	32	14	15.6	960
November	583	41	15	19.4	1,160
December	687	46	18	22.2	1,360
Calendar year 1938	46,496	5,710	14	127	92,230
January	621	21	19	20.0	1,230
February	540	21	17	19.3	1,070
March	566	20	17	18.3	1,120
April	442	18	12	14.7	877
May	735	-	-	23.7	1,460
June	475.5	-	7.9	15.8	943
July	509.3	203	7.0	16.4	1,010
August	959.6	284	8.9	31.0	1,900
September	296.3	19	8.2	9.88	588
Water year 1938-39	6,898.7	284	7.0	18.9	13,680

Peak discharge.- July 12 (5 a. m.) 564 sec.-ft.; July 31 (5 a. m.) 630 sec.-ft.; Aug. 6 (4:45 a.m.) 764 sec.-ft.

Nueces River at Laguna, Tex.

Location.- Water-stage recorder, lat. 29°25'45", long. 99°59'50" (revised), half a mile downstream from Sycamore Creek and 1 mile northeast of Laguna, Uvalde County. Zero of gage is 1,119.72 feet above mean sea level (general adjustment of 1929).

Drainage area.- 764 square miles.

Records available.- October 1923 to September 1939.

Average discharge.- 16 years, 168 second-feet.

Extremes.- Maximum discharge during year, 222,000 second-feet July 13 (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, 20 second-feet July 6-11.

1923-39: Maximum discharge, that of July 13, 1939; minimum, 7.8 second-feet Nov. 3-15, 18, 1934.

Flood of Sept. 21, 1923 reached a stage of 26.5 feet (discharge, 226,000 second-feet, based on rating curve mentioned above). Flood of June 1913 reached a stage of approximately 29 feet, according to information furnished by local residents.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	45	41	45	58	47	45	38	32	22	129	119
2	51	45	43	45	58	47	45	38	32	22	122	116
3	49	47	43	45	56	47	45	38	32	22	129	110
4	49	45	43	47	56	47	45	38	32	22	116	99
5	49	43	43	49	56	47	45	38	30	22	110	91
6	49	43	43	47	53	47	43	38	30	20	133	88
7	47	41	43	47	51	49	45	38	30	20	129	84
8	47	41	43	49	51	49	43	38	30	20	127	84
9	45	41	43	49	51	49	43	36	28	20	334	81
10	45	41	43	49	49	49	43	36	28	20	237	78
11	45	41	43	56	49	49	43	36	27	20	306	76
12	47	41	41	62	51	49	43	36	27	22	255	81
13	47	41	41	58	51	49	43	36	27	41,300	213	78
14	47	41	41	58	51	49	41	36	27	4,910	181	76
15	45	41	41	58	51	49	41	36	25	1,500	157	74
16	45	41	41	58	51	49	43	36	25	679	141	74
17	45	41	41	60	51	49	40	36	25	452	149	71
18	45	41	41	60	51	49	40	36	24	351	137	71
19	47	41	41	58	51	49	40	34	24	280	116	76
20	47	41	41	58	49	49	40	32	24	249	116	69
21	47	41	41	56	47	49	40	32	24	224	110	67
22	47	41	43	56	47	49	40	30	24	207	105	64
23	47	41	45	56	47	47	40	30	24	197	94	62
24	47	41	45	53	47	47	40	30	24	186	88	60
25	47	41	47	53	47	47	40	32	24	176	86	60
26	47	41	45	56	47	47	40	32	24	161	81	58
27	47	41	45	58	49	47	40	32	22	149	86	58
28	47	43	45	56	47	47	40	30	22	141	84	64
29	47	41	45	58	-	47	40	34	22	129	102	51
30	47	41	45	56	-	47	40	32	22	133	122	47
31	47	-	45	56	-	47	-	32	-	145	119	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,459	51	45	47.1	2,890
November	1,254	47	41	41.8	2,490
December	1,331	47	41	42.9	2,640
Calendar year 1938	36,536	1,050	41	100	72,460
January	1,672	62	45	53.9	3,320
February	1,423	58	47	50.8	2,820
March	1,489	49	47	48.0	2,950
April	1,256	45	40	41.9	2,490
May	1,076	38	30	34.7	2,130
June	791	32	22	26.4	1,570
July	51,821	41,300	20	1,672	102,800
August	4,414	334	81	142	8,760
September	2,287	119	47	76.2	4,540
Water year 1938-39	70,273	41,300	20	193	139,400

Nueces River near Uvalde, Tex.

Location.- Staff gage, lat. 29°11', long. 99°54', at Tom Nunn crossing, 4½ miles downstream from Texas & New Orleans (Southern Pacific) Railroad bridge and 7 miles southwest of Uvalde, Uvalde County.

Drainage area.- 1,930 square miles.

Records available.- October 1927 to April 1939 (discontinued).

Extremes.- Maximum discharge observed during period, 20 second-feet Oct. 1 (gage height, 0.81 foot); minimum observed, 8.8 second-feet Mar. 1-10, Apr. 28-30.
1927-39: Maximum discharge, 616,000 second-feet June 14, 1935 (gage height, 36.9 feet, from floodmarks), by slope-area method; minimum not determined but probably 0.2 second-foot Feb. 12-22, 1929.

Remarks.- Records good. Gage read daily, oftener during periods of high water. No diversion. Part of flow of Nueces River and its tributaries enters Balcones fault near Uvalde. At low stages most of headwater flow enters this fault.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	16	13	12	10	8.8	9.6					
2	19	16	13	12	10	8.8	9.6					
3	19	16	13	12	10	8.8	9.6					
4	19	16	13	12	11	8.8	9.6					
5	19	16	13	12	10	8.8	9.6					
6	19	16	13	12	10	8.8	9.6					
7	19	16	13	12	10	8.8	9.6					
8	19	16	13	11	10	8.8	9.6					
9	19	16	13	11	10	8.8	9.6					
10	19	16	12	11	10	8.8	9.6					
11	19	16	12	11	10	9.6	9.6					
12	19	16	12	11	10	9.6	9.6					
13	19	15	12	11	10	9.6	9.6					
14	19	15	12	11	10	9.6	9.6					
15	19	15	12	11	10	9.6	9.6					
16	18	15	12	11	9.6	9.6	9.6					
17	16	15	12	11	9.6	9.6	9.6					
18	16	15	12	11	9.6	9.6	9.6					
19	16	15	12	11	9.6	9.6	9.6					
20	16	15	12	11	9.6	9.6	9.6					
21	16	15	12	11	9.6	9.6	9.6					
22	16	14	12	11	9.6	9.6	9.6					
23	16	14	12	11	9.6	9.6	9.6					
24	16	14	12	11	9.6	9.6	9.6					
25	16	14	12	11	9.6	11	9.6					
26	16	14	12	11	9.6	10	9.6					
27	16	14	12	11	9.6	9.6	9.6					
28	16	14	12	10	9.6	9.6	8.8					
29	16	14	12	10	9.6	9.6	8.8					
30	16	14	12	10	-	9.6	8.8					
31	16	-	12	10	-	9.6	-					

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	544	20	16	17.5	1,080
November	453	16	14	15.1	899
December	381	13	12	12.3	756
Calendar year 1938	21,154	4,670	12	58.0	41,980
January	344	12	10	11.1	682
February	275.8	11	9.6	9.85	547
March	291.4	11	8.8	9.40	578
April	285.6	9.6	8.8	9.52	566
May	-	-	-	-	-
June	-	-	-	-	-
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	5,110

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 above International-Great Northern Railroad bridge. Zero of gage is 368.08 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,260 square miles.

Records available.- October 1923 to September 1939. July 1915 to June 1918, at site 4 miles upstream.

Average discharge.- 16 years, 349 second-feet.

Extremes.- Maximum discharge observed during year, 9,240 second-feet May 16 (gage height, 16.80 feet); no flow at times.
1923-39: Maximum discharge, 82,600 second-feet June 18, 1935 (gage height, 32.4, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records fair except those below 25 second-feet, which are poor. Daily gage readings furnished by U. S. Weather Bureau. Part of flow of Nueces River and its tributaries enters the Balcones fault, which crosses basin just north of Uvalde. At low stages most of headwater flow enters this fault. Low-water flow partly regulated by small reservoirs above station; most of it is diverted by pumping above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0.8	0.1	0.6		0	132	0	16	1.3
2			0	.8	.1	.6		0	103	0	12	.6
3			0	.8	.1	.6		0	151	0	8.6	.6
4			0	.8	.1	.6		0	390	0	8.6	.2
5			0	.8	.1	.4		0	630	0	8.6	.2
6			0	.8	.1	.4		0	1,290	0	3.6	0
7			0	.8	.1	.4		2,450	1,380	0	37	0
8			0	.8	.1	.9		6,040	779	0	359	0
9			0	.8	.4	.9		2,850	296	0	660	.6
10			0	.8	.4	.6		1,480	165	0	840	15
11			0	.2	.1	.6		608	108	0	540	4.0
12			0	.2	.1	.6		210	82	0	314	.9
13			0	.2	.1	.6		200	64	44	314	1.8
14			0	.2	.1	.2		2,810	40	29	260	.9
15			0	.2	.1	0		2,870	28	296	210	.9
16			0	.2	.1	0		8,520	14	540	138	.9
17			0	.2	.1	0		6,360	10	1,230	92	.4
18			0	.2	.1	0		4,920	4.9	3,320	73	.4
19			0	.2	.6	0		4,620	4.9	4,620	55	.4
20			0	.2	.6	0		3,660	1.8	2,220	40	.4
21			0	.2	.6	0		1,660	.9	1,450	33	.4
22			0	.2	.6	0		502	.9	402	47	.4
23			0	.2	.6	0		165	.4	132	36	.4
24			0	.6	.6	0		126	.4	126	98	.4
25			63	.6	.6	4.0		132	.4	103	64	.4
26			8.9	.6	.6	6.0		188	0	82	47	.4
27			2.8	.6	.6	1.4		343	0	60	30	.4
28			1.7	.6	.6	.2		2,920	0	40	20	.4
29			1.6	.6	-	0		1,870	0	30	16	.4
30			.8	.6	-	0		804	0	25	5.8	.4
31			.8	.6	-	0		210	-	16	5.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	79.6	63	0	2.57	158
Calendar year 1938	78,612.1	9,420	0	215	155,900
January	15.4	.8	.2	.50	31
February	8.4	.6	.1	.30	17
March	19.6	6.0	0	.63	39
April	0	0	0	0	0
May	56,418	8,520	0	1,820	111,900
June	5,676.6	1,380	0	189	11,260
July	14,765	4,620	0	476	29,290
August	4,392	840	3.6	142	8,710
September	33.5	15	0	1.12	66
Water year 1938-39	81,408.1	8,520	0	223	161,500

Nueces River near Three Rivers, Tex.

Location.- Water-stage recorder, lat. 28°26'10", long. 98°11'10", 100 feet downstream from Antonio, Uvalde & Gulf (Missouri Pacific) Railroad bridge, half a mile downstream Frio River, and 2 miles southeast of town of Three Rivers, Live Oak County. Zero of gage is 101.16 feet above mean sea level (general adjustment of 1929).

Drainage area.- 15,600 square miles.

Records available.- July 1915 to September 1939.

Average discharge.- 22 years (1915-18, 1920-39), 762 second-feet.

Extremes.- Maximum discharge during year, 6,420 second-feet Sept. 13 (gage height, 24.60 feet); no flow April 30 to May 12.
1915-39: Maximum discharge observed, about 85,000 second-feet Sept. 18, 1919 (gage height, 46.0 feet); no flow at times.

Remarks.- Records good. Discharge for May 23, 24, Sept. 9-11, 18, 19 based on partial gage-height record. About 10,000 acres above station irrigated. Part of flow of Nueces River and its tributaries enters the Balcones fault, which crosses basin just north of Uvalde in an east-west course. At low stages most of headwater flow enters this fault.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	12	5.8	108	25	21	9.4	0	3,090	2.2	216	37
2	.6	6.6	6.4	65	27	22	9.8	0	2,580	1.8	169	30
3	.6	4.6	8.0	48	26	24	12	0	2,130	1.5	367	20
4	.6	3.4	9.1	42	24	25	22	0	3,010	1.4	362	14
5	.5	2.2	8.4	35	23	27	16	0	2,820	1.3	110	10
6	.5	1.6	8.0	30	25	26	11	0	2,760	1.1	403	7.0
7	.5	98	8.0	28	25	25	7.7	0	2,630	1.0	648	5.2
8	.5	1,070	7.7	26	24	25	6.4	0	2,270	1.0	200	4.3
9	.5	319	8.0	25	25	26	5.8	0	1,780	.9	163	3.4
10	.6	77	9.1	25	22	25	5.6	0	1,630	.8	110	2.7
11	.5	45	9.8	68	20	24	5.6	0	1,570	.8	70	108
12	.5	29	9.8	274	20	22	4.8	146	1,370	1,720	352	4,220
13	.5	18	9.8	74	19	20	4.6	543	1,260	1,920	562	6,260
14	.5	12	9.8	46	19	19	4.6	798	592	1,700	1,040	4,650
15	.5	9.4	9.4	37	18	18	4.8	1,130	195	369	1,060	1,270
16	.5	7.0	9.4	31	20	18	4.5	2,500	112	95	715	391
17	.4	5.8	9.4	29	33	17	3.6	4,000	73	327	467	1,070
18	.4	4.8	9.4	27	59	17	2.6	3,770	54	978	391	562
19	.4	3.6	9.1	25	41	16	1.9	3,250	42	2,760	306	233
20	.3	3.0	8.8	25	31	16	1.4	3,600	43	4,210	193	250
21	.3	2.9	8.0	24	25	16	1.2	4,030	42	2,630	537	268
22	.3	2.6	8.4	24	22	16	.9	4,340	33	925	296	108
23	.4	2.2	9.1	24	24	16	.6	5,080	22	815	144	58
24	.4	1.9	8.8	24	24	16	.6	5,080	13	868	169	41
25	.4	2.2	273	22	26	16	.5	4,560	9.1	980	216	30
26	.4	2.4	1,610	23	24	16	.3	4,450	6.4	1,150	159	20
27	.4	2.4	1,560	24	23	12	.3	3,870	5.0	1,320	179	14
28	.4	2.2	701	27	22	12	.2	3,320	4.1	1,430	189	14
29	11	2.7	344	27	-	10	.2	2,660	3.2	515	96	12
30	41	5.0	344	26	-	9.4	0	1,290	2.6	404	64	50
31	24	-	195	24	-	9.1	-	863	-	488	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	89.2	41	0.3	2.88	177
November	1,758.5	1,070	1.6	58.6	3,490
December	5,234.5	1,610	5.8	169	10,380
Calendar year 1938	202,842.3	8,650	.2	556	402,300
January	1,336	274	22	43.1	2,650
February	716	59	18	25.6	1,420
March	581.5	27	9.1	18.8	1,150
April	148.9	22	0	4.96	295
May	59,280	5,080	0	1,912	117,600
June	30,151.4	3,090	2.6	1,005	59,800
July	25,517.8	4,210	.8	823	50,610
August	10,000	1,060	47	323	19,830
September	19,762.6	6,260	2.7	659	39,200
Water year 1938-39	154,576.4	6,260	0	423	306,600

Nueces River near Mathis, Tex.

Location.- Water-stage recorder, lat. 97°52', long. 28°02', at bridge on U. S. Highway 96, 200 feet downstream from Texas & New Orleans Railroad bridge, 0.8 mile downstream from Lake Corpus Christi Dam, and 4 miles southwest of Mathis, San Patricio County. Zero of gage is 27.50 feet above mean sea level.
Drainage area.- 16,660 square miles.
Records available.- August to September 1939.
Extremes.- Maximum discharge during period, 5,120 second-feet Sept. 15 (gage height, 19.53 feet); minimum, 24 second-feet Aug. 5 (caused by regulation); minimum daily, 36 second-feet Sept. 9, 10.
Maximum stage known, 36.0 feet, June 18, 1935, from floodmark at railroad bridge, 200 feet upstream (discharge, about 44,000 second-feet, computed flow over Lake Corpus Christi Dam).
Remarks.- Records fair. Discharge Aug. 5 computed on basis of partial gage-height record. Flow regulated by Lake Corpus Christi Dam (capacity at spillway crest, 64,000 acre-feet). Part of flow of Nueces River and its tributaries enters the Balcones fault, which crosses basin just north of Uvalde in an east-west course. At low stages most of headwater flow enters this fault. About 10,000 acres above station irrigated.

Discharge, in second-feet, Aug. 5 to Sept. 30, 1939

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	139	11	128	37	21	244	280
2	-	138	12	127	88	22	186	214
3	-	138	13	127	1,600	23	352	50
4	-	136	14	123	4,590	24	898	47
5	68	112	15	266	5,120	25	659	46
6	133	41	16	1,130	4,190	26	299	46
7	130	38	17	1,470	2,430	27	489	45
8	129	37	18	1,470	1,740	28	489	43
9	127	36	19	1,110	1,160	29	478	43
10	128	36	20	446	558	30	313	43
						31	140	-

Note.- Mean discharge Aug. 5-31, 429 second-feet (run-off, 22,970 acre-feet); Sept. 1-30, 773 second-feet (run-off, 46,000 acre-feet).

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. Zero of gage is 1.12 feet above mean sea level (general adjustment of 1929).
Drainage area.- 16,920 square miles.
Records available.- August 1915 to September 1939 (1918-39, gage heights only).
Extremes.- Maximum gage height observed during year, 7.96 feet May 28; minimum observed, 2.78 feet Mar. 16.
1915-39: Maximum gage height observed, 12.40 feet June 19, 27, 1935; no flow Aug. 23-29, 1918 (only period of no flow on record).
Remarks.- Discharge not computed. Gage-height record furnished by city of Corpus Christi. Gage read twice daily.

Gage height, in feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.38	3.86	3.43	4.70	3.28	3.38	3.68	3.26	6.38	3.78	5.46	3.80
2	3.48	3.63	3.38	4.70	3.26	3.48	3.70	3.08	6.00	3.76	5.08	3.80
3	3.48	3.36	3.43	4.26	3.26	3.48	3.56	3.00	6.50	3.73	4.70	3.63
4	3.48	3.33	3.43	3.60	3.23	3.48	3.36	2.90	6.86	3.76	4.20	3.86
5	3.43	3.38	3.43	3.70	3.28	3.58	3.33	2.93	6.83	3.53	3.80	3.89
6	3.88	3.40	3.43	3.50	3.28	3.48	3.36	3.13	6.88	3.56	3.60	3.81
7	3.86	3.63	3.43	3.50	3.23	3.33	3.38	3.23	6.88	3.46	3.83	3.46
8	3.86	3.63	3.38	3.43	3.20	3.26	3.48	3.58	7.08	3.46	3.80	3.36
9	3.80	3.48	3.28	3.43	3.23	3.18	3.48	3.83	6.96	3.50	3.83	3.39
10	3.90	3.43	3.23	3.33	3.23	3.20	3.43	3.80	6.58	3.43	3.80	3.57
11	3.83	3.58	3.43	3.38	3.20	3.23	3.36	3.70	5.98	3.46	3.60	3.69
12	3.56	3.78	3.43	3.38	3.23	3.23	3.20	3.38	5.60	3.63	3.83	3.71
13	3.48	3.86	3.38	3.33	3.16	3.16	3.13	3.33	5.43	3.53	3.83	3.73
14	3.38	3.80	3.38	3.33	3.03	2.93	4.66	3.43	5.30	3.48	3.76	5.87
15	3.38	3.83	3.23	3.33	3.03	2.78	5.38	3.43	5.08	4.13	3.80	6.86
16	3.38	3.83	3.18	3.33	3.08	2.73	5.43	3.40	4.78	4.86	4.18	7.39
17	3.38	3.83	3.13	3.33	3.23	3.58	5.06	3.40	4.53	4.88	5.33	7.61
18	3.38	3.86	3.08	3.28	3.28	3.88	4.26	4.46	4.70	4.88	5.58	6.55
19	3.33	3.83	2.98	3.28	3.30	3.66	4.06	4.58	4.48	4.88	5.58	6.14
20	3.28	3.83	3.18	3.28	3.26	3.58	3.86	5.28	4.96	5.08	4.90	5.35
21	3.28	3.83	3.33	3.28	3.28	3.53	3.50	6.18	5.03	5.58	4.46	4.45
22	3.28	3.80	3.60	3.28	3.43	3.53	3.36	6.66	4.16	5.76	4.03	4.23
23	3.28	3.80	3.68	3.33	3.58	3.50	3.33	6.96	4.03	5.83	3.78	4.15
24	3.30	3.58	3.73	3.33	3.60	3.58	3.23	7.28	3.96	5.40	4.36	3.75
25	3.28	3.48	3.88	3.30	3.68	3.58	3.18	7.58	3.83	4.78	4.93	3.66
26	3.23	3.43	5.10	3.28	3.73	3.58	3.13	7.81	3.80	4.68	4.53	3.69
27	3.20	3.43	4.30	3.33	3.58	3.63	3.16	7.94	3.78	4.66	4.23	3.60
28	3.23	3.38	4.03	3.30	3.43	3.68	3.23	7.96	3.78	4.63	4.46	3.56
29	3.96	3.40	5.18	3.28	-	3.68	3.26	7.88	3.78	4.80	4.48	3.58
30	3.93	3.40	5.23	3.28	-	3.88	3.30	7.66	3.78	5.20	4.46	3.69
31	3.98	-	4.80	3.28	-	3.63	-	7.10	-	5.20	4.13	-

Nueces River seepage investigation

A series of discharge measurements was made during the period June 14-30, 1939, on the Nueces River and tributaries, Tex., between the gaging station at Laguna and a point 3.8 miles southeast of Cinonia, to determine the seepage gains or losses. The river distance was 61.4 miles. The investigation was made during a period of constant stage of the river, and the determinations of gain or loss represent normal conditions. All flowing tributaries were measured.

Discharge measurements of Nueces River and tributaries, Tex., between gaging station at Laguna and a point near Cinonia, June 14-30, 1939, to determine seepage gains or losses

Date	Stream or Diversion	Location	Distance below initial point (miles)	Discharge, in second-feet			
				Main stream	Tributary	Gain or loss in section	Total gain or loss
June 14	Nueces River	1,200 feet above gaging station, 1 mile northeast of Laguna.	-0.2	26.6	-	-	-
14	....do.....	1,200 feet below gaging station, 1 mile northeast of Laguna.	+.2	25.7	-	-0.9	-
15	....do.....	Nineteenmile crossing on U. S. Highway 83-B.	1.8	21.6	-	-4.1	-5.0
15	....do.....	1.8 miles below Nineteenmile crossing on U. S. Highway 83-B.	3.6	17.8	-	-3.8	-8.8
15	....do.....	5.4 miles above mouth of West Nueces River.	6.6	5.6	-	-12.2	-21.0
16	....do.....	4.4 miles above mouth of West Nueces River.	7.6	10.1	-	+4.5	-16.5
16	....do.....	3.8 miles above mouth of West Nueces River.	8.2	0	-	-10.1	-26.6
16	....do.....	Just below mouth of West Nueces River.	12.0	0	-	0	-26.6
16	....do.....	Texas & New Orleans Railroad bridge.	16.9	0	-	0	-26.6
17	....do.....	Bridge on U. S. Highway 90....	19.6	0	-	0	-26.6
17	....do.....	1 mile below bridge on U. S. Highway 90.	20.6	0	-	0	-26.6
17	....do.....	Former gaging station at Tom Nunn crossing, near Uvalde.	21.6	8.9	-	+8.9	-17.7
17	....do.....	1 mile below former gaging station near Uvalde.	22.6	10.0	-	+1.1	-16.6
19	Unnamed spring.	2 miles above gaging station on river below Uvalde, 30 feet above point of next following river measurement.	24.6	-	*0.3	-	-
19	Nueces River	2 miles above gaging station below Uvalde.	24.6	7.3	-	-3.0	-19.6
19	Unnamed springs.	On left bank, 100 ft. below point of next preceding river measurement.	24.6	-	*.2	-	-
19	Nueces River	At gaging station below Uvalde, 4.0 miles above bridge on U. S. Highway 83.	26.6	†11.3	-	+4.3	-15.3
22	....do.....	1 mile below gaging station below Uvalde.	27.6	10.2	-	-1.6	-16.9
20	....do.....	Bridge on U. S. Highway 83....	30.6	5.5	-	-4.7	-21.6
20	....do.....	1 mile below old Uvalde-La Pryor road crossing.	35.7	5.3		-.2	-21.8
21	....do.....	Gas well, 5 miles northeast of La Pryor.	38.0	1.1	-	-4.2	-26.0
21	....do.....	Bridge on Batesville-La Pryor road.	43.2	0	-	-1.1	-27.1
30	....do.....	3.3 miles below bridge on Batesville-La Pryor road.	46.5	7.0	-	+7.0	-20.1
29	....do.....	3.6 miles above Mitt-Smith crossing, 5.8 miles northeast of Cinonia.	50.0	4.8	-	-2.2	-22.3
29	....do.....	Mitt-Smith crossing, 3.5 miles northeast of Cinonia.	53.6	4.8	-	0	-22.3
29	....do.....	3.3 miles below Mitt-Smith crossing, 1.8 miles southeast of Cinonia.	56.9	4.7	-	-.1	-22.4
30	....do.....	Thoreen-Walker ranch, 3.8 miles southeast of Cinonia.	61.4	3.4	-	-1.3	-23.7

*Estimated.
†A second discharge measurement on June 20 gave 12.0 sec.-ft.

Frio River near Derby, Tex.

Location.- Water-stage recorder and concrete control, lat. 28°44'10", long. 99°08'45" (revised), at International-Great Northern Railroad bridge, 900 feet downstream from Leona River and 2.4 miles south of Derby, Frio County. Zero of gage is 449.3 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,493 square miles.

Records available.- August 1915 to September 1939.

Average discharge.- 24 years, 179 second-feet.

Extremes.- Maximum discharge during year, 13,700 second-feet July 15 (gage height, 11.53 feet); no flow May 31 to June 3, June 18 to July 13.
1915-39: Maximum discharge, 230,000 second-feet July 4, 1932 (gage height, 29.45 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good except those below 10 second-feet, which are poor. Discharge for period of missing gage heights, Oct. 11 to Nov. 4, computed on basis of recorded range in stage, weather records and records for station at Calliham. Several diversions for irrigation above station. Some flow from Frio River and its tributaries enters Balcones fault, which crosses Nueces River Basin just north of Uvalde in an east-west course. At low stages all headwater flow except that of a few tributaries enters this fault.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	4.3	11	13	17	19	11	1.8	0	0	.7	8.2
2	3.2	4.1	11	13	16	19	11	2.2	0	0	.4	8.2
3	3.7	3.9	11	14	16	19	11	3.2	.2	0	.5	6.8
4	3.7	3.7	11	13	16	19	11	3.2	81	0	.8	6.1
5	3.7	*3.7	11	13	16	17	11	3.7	52	0	1.8	6.1
6	3.2	4.9	9.8	13	17	17	11	76	33	0	.5	5.5
7	3.7	3.7	11	13	16	17	9.8	170	14	0	16	5.5
8	3.2	*3.7	9.8	14	17	18	9.0	93	6.1	0	370	5.5
9	4.3	*5.5	11	14	16	17	8.2	20	4.3	0	118	5.5
10	6.1	6.1	9.0	15	16	15	8.2	11	3.2	0	745	6.1
11	9.0	6.8	9.0	15	14	15	8.2	7.5	3.2	0	378	6.8
12	8.3	7.5	9.0	15	13	15	9.0	5.5	2.7	0	244	5.5
13	7.7	8.2	11	14	13	14	9.8	7.5	2.2	298	92	6.1
14	7.0	8.2	11	17	13	14	8.2	41	2.2	3,590	33	8.2
15	6.4	8.2	11	14	11	14	6.8	175	1.8	10,000	17	7.5
16	5.7	8.2	11	14	12	12	3.7	60	.5	2,330	12	4.9
17	5.1	7.5	11	13	12	11	4.9	24	.3	541	9.0	6.1
18	4.4	6.8	11	13	12	11	7.5	12	.2	171	9.0	6.1
19	3.8	6.8	11	13	13	11	7.5	7.5	0	75	100	5.5
20	3.1	6.8	11	14	14	11	6.8	6.1	0	38	111	6.1
21	2.5	8.2	11	15	13	12	6.8	5.5	0	21	129	6.8
22	1.8	8.2	12	15	13	9.8	6.1	4.9	0	13	63	6.1
23	6.1	9.0	12	16	14	12	5.5	3.7	0	9.0	48	5.5
24	5.9	9.0	12	17	14	11	4.9	2.2	0	6.8	21	5.5
25	5.7	9.8	15	17	16	13	4.9	2.7	0	5.5	11	5.5
26	5.5	9.8	15	16	18	11	4.3	2.2	0	3.2	9.0	4.9
27	5.3	11	14	17	19	17	3.2	2.2	0	2.2	8.2	3.7
28	5.1	11	14	17	19	40	2.2	1.0	0	2.2	8.2	5.5
29	4.9	11	14	17	-	22	1.8	.4	0	2.7	9.0	6.1
30	4.7	11	13	16	-	13	1.8	.2	0	1.8	8.2	5.8
31	4.5	-	12	17	-	12	-	0	-	1.8	7.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	152.8	9.0	1.8	4.93	303
November	216.6	11	3.7	7.22	430
December	355.6	15	9.0	11.5	705
Calendar year 1938	10,507.1	-	1.8	28.8	20,840
January	457	17	13	14.7	906
February	416	19	11	14.9	825
March	477.8	40	9.8	15.4	948
April	215.1	11	1.8	7.17	427
May	755.2	175	0	24.4	1,500
June	206.9	81	0	6.90	410
July	17,112.2	10,000	0	552	33,940
August	2,580.8	745	.4	83.3	5,120
September	181.4	8.2	3.7	6.05	360
Water year 1938-39	23,127.4	10,000	0	63.4	45,870

Peak discharge.- July 15 (9 a.m.) 13,700 sec.-ft.; Aug. 10 (8 p.m.) 1,080 sec.-ft.
*Based on partial gage-height record.

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 downstream from San Miguel Creek. Zero 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 1939.

Extremes.- Maximum discharge during year, 5,000 second-feet July 19 (gage height, 18.38 feet); no flow May 1-11.
1924-26, 1932-39: 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 except those above 300 second-feet, which are fair. Several diversions for irrigation above station. Part of flow of Frio River and its tributaries enters the Balcones fault, which crosses basin just north of Uvalde in an east-west course. At low stages all the headwater flow except that of a few tributaries enters this fault.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.3	3.4	23	17	14	7.1	0	*212	4.5	73	*12
2	.2	.3	4.5	19	17	15	12	0	*101	4.3	27	*7.5
3	.1	.6	5.5	17	16	15	20	0	*582	4.0	102	6.5
4	.1	.7	5.5	16	14	16	15	0	*379	3.8	30	5.5
5	.1	.4	5.2	14	16	17	12	0	*523	3.6	19	4.5
6	.2	1.6	5.2	12	17	17	8.7	0	384	3.4	423	4.0
7	.3	42	5.2	11	16	16	7.1	0	626	3.1	240	3.6
8	.3	87	5.0	12	15	16	6.5	0	*404	2.9	76	3.8
9	.4	17	6.5	12	13	15	6.5	0	*152	2.4	75	3.6
10	.4	8.7	6.5	12	12	14	6.2	0	*69	2.1	42	5.5
11	.4	5.5	6.5	244	12	12	5.8	61	*48	1.9	132	530
12	.4	3.6	6.5	74	12	11	5.2	74	*43	*292	176	4,280
13	.3	2.9	6.2	37	12	11	4.8	38	*29	*645	386	2,070
14	.3	1.9	5.0	24	12	11	5.2	23	*17	*280	532	484
15	.3	1.6	5.5	20	13	11	4.8	247	*12	*105	314	84
16	.3	1.4	5.5	17	13	10	3.8	1,530	*7.5	*73	153	98
17	.3	1.3	4.5	17	16	9.2	3.1	1,570	6.0	*481	79	92
18	.3	1.2	3.8	17	16	9.2	2.4	506	6.8	*1,350	52	59
19	.3	.8	3.6	15	15	9.7	1.9	167	6.0	4,040	30	38
20	.3	.7	3.0	15	12	10	1.7	81	6.5	3,680	22	26
21	.3	.7	3.8	15	12	9.7	1.0	44	6.5	1,190	21	25
22	.3	.6	3.4	15	14	9.7	.9	28	6.5	176	32	23
23	.4	.3	3.4	15	15	9.7	.7	15	6.5	88	43	17
24	.4	.7	7.4	13	15	9.7	.4	13	6.5	57	58	12
25	.3	1.8	162	12	13	9.2	.3	17	6.2	34	69	6.3
26	.3	2.1	1,050	12	12	8.7	.1	11	5.8	25	71	6.0
27	.3	2.4	699	15	12	7.8	.1	5.8	5.8	19	68	5.5
28	.2	2.4	203	15	12	6.8	.1	86	5.5	15	49	4.8
29	.1	2.7	62	14	-	6.8	.1	89	5.2	11	31	4.0
30	.1	2.7	46	15	-	5.8	.1	42	4.6	316	21	8.6
31	.1	-	31	15	-	6.8	-	145	-	94	*12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8.4	0.4	0.1	0.27	17
November	195.9	87	.3	6.53	389
December	2,376	1,050	3.4	76.6	4,710
Calendar year 1938	50,611.7	8,260	0	139	100,400
January	764	244	11	25.3	1,560
February	391	17	12	14.0	776
March	349.8	17	5.8	11.3	694
April	143.6	20	.1	4.79	285
May	4,792.8	1,570	0	155	9,510
June	3,674.7	626	4.8	122	7,290
July	13,007.0	4,040	1.9	420	25,800
August	3,458	532	12	112	6,860
September	7,932.5	4,280	3.6	264	15,730
Water year 1938-39	37,113.7	4,280	0	102	73,620

Peak discharge.- May 16 (12 m.) 2,070 sec.-ft.; July 19 (9 p.m.) 5,000 sec.-ft.; Sept. 12 (8:15 a.m.) 4,650 sec.-ft.
*Discharge computed on basis of partial gage-height record.

Leona River seepage investigation

A series of discharge measurements was made on June 8 and 10 on the Leona River and tributaries, Tex., between Kincaid Dam, about 10 miles below Uvalde, and Rogers ranch, 36.3 miles below Uvalde. Another series was made during the period July 5-7 between a point 1.7 miles southeast of Uvalde and a point 23 miles downstream, near Batesville, to determine the seepage gains or losses. The investigations were made during periods of constant stage of the river, though a short flood, reaching a 4-foot stage, occurred about June 3. All flowing tributaries were measured.

Discharge measurements of Leona River and tributaries, Tex., between Kincaid Dam and Rogers ranch, June 8 and 10, 1939, to determine seepage gains or losses

Date	Stream or Diversion	Location	Distance below initial point (miles)	Discharge, in second-feet				
				Main stream	Tributary	Diversion	Gain or loss in section	Total gain or loss
June 10	Kincaid canal (T. P. Lee ranch).	200 feet below head.....	0	-	-	3.8	-	-
10	Leona River.	½ mile below Kincaid Dam.....	.5	12.7	-	-	-	-
10	....do.....	1 mile below Kincaid Dam.....	1.0	19.5	-	-	+6.8	+6.8
10	....do.....	100 yards below Hackberry crossing.	8.9	14.7	-	-	-4.8	+2.0
8	Batesville canal.	700 feet below head, at Batesville.	12.0	-	-	5.2	-	-
8	Leona River.	400 feet below Batesville Dam...	12.0	9.5	-	-	0	+2.0
8	Batesville drain ditch.	250 feet above entrance to Leona River.	13.7	-	*4.3	-	-	-
8	Leona River.	250 feet below return flow of Batesville drain ditch, 1.7 miles below Batesville Dam.	13.7	11.8	-	-	-2.0	0
8	....do.....	3 miles below Batesville Dam....	15.2	11.4	-	-	-.4	-.4
8	....do.....	Ottenhouse ranch.....	18.3	9.7	-	-	-1.7	-2.1
8	....do.....	Rogers ranch.....	26.5	8.0	-	-	-1.7	-3.8

*Represents waste water returned to Leona River from Batesville canal.

Discharge measurements of Leona River and tributaries, Tex., between Uvalde and a point near Batesville, July 5-7, 1939, to determine seepage gains or losses

July	Stream or Diversion	Location	Distance below initial point (miles)	Discharge, in second-feet				
				Main stream	Tributary	Diversion	Gain or loss in section	Total gain or loss
5	Leona River.	Highway bridge 1.7 miles southeast of Uvalde.	0	7.1		-	-	-
7	J. W. Van Ham's pump.	300 yards above mouth of Cooks Slough.	1.5	-		*.4	-	-
6	Leona River.	White's crossing or gaging station, near Uvalde.	4.8	13.6		-	+6.9	+6.9
5	Kincaid canal (T. P. Lee ranch).	300 feet below head gates.....	8.1	-		7.9	-	-
5	Leona River.	300 feet below Kincaid Dam.....	8.1	5.9		-	+.2	+7.1
6	....do.....	T. P. Lee lodge, 1 mile below Kincaid Dam.	9.1	11.8		-	+5.9	+13.0
6	Pump at T. P. Lee ranch.	Just above north line of old Jackson property, 2 miles below Kincaid Dam.	10.1	-		†1.6	-	-
6	Leona River.	Smith crossing, 5 miles below Kincaid Dam.	13.0	‡9.6		-	-.6	+12.4
6	....do.....	Hackberry crossing.....	17.0	**6.5		-	-3.1	+9.3
6	Batesville canal.	About 0.5 mile below head.....	20.1	-		††3.1	-	-
6	Leona River.	100 feet below Batesville Dam‡‡.	20.1	.9		-	-2.5	+6.8
6	....do.....	About 1 mile below Batesville Dam.	21.0	***.3		-	-.6	+6.2
6	....do.....	About 2 miles below Batesville Dam.	22.0	***.1		-	-.2	+6.0
6	....do.....	About 3 miles below Batesville Dam.	23.0	0		-	-.1	+5.9

*Computed on basis of pump capacity (200 gal. per min., according to owner). Pump operated intermittently during investigation. It is not known if pumping affects flow enough to warrant inclusion of this figure, but it is here considered as reducing the flow below point of diversion.
†Pump operates daily from 7 a.m. to 6 p.m. except for an hour at noon.
‡Probably slightly affected by operation of pump at T. P. Lee ranch.
**Probably not affected by operation of pump at T. P. Lee ranch.
††Measurement made at 3:30 p.m. Measurement made at 6 p.m. about a mile below head gates and a block east of old courthouse gave a discharge of 2.5 sec.-ft.
‡‡Dam is 1.2 miles above highway bridge at Batesville (measured from Works Progress Administration map showing irrigation system of Zavalla County Water Control & Improvement District No. 3).
***Estimated.

Atascosa River at Whitsett, Tex.

Location.- Water-stage recorder and wooden control, lat. 28°39', long. 98°18', 0.9 mile west of Whitsett, Live Oak County, and 4 miles downstream from La Parita Creek.

Drainage area.- 1,171 square miles.

Records available.- September 1924 to May 1926, May 1932 to September 1939.

Extremes.- Maximum discharge during year, 2,280 second-feet June 1 (gage height, 17.08 feet); no flow at times.
1924-26, 1932-39: 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 except those for period of missing gage heights, June 1-9, Aug. 12-29, which were computed on basis of recorded range in stage, weather records, and records for Nueces River near Three Rivers and Frio River at Calliham and are poor. Discharge for days of incomplete gage-height record, June 10, Aug. 11, computed on basis of partial record and one discharge measurement. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.4	3.8	8.6	8.6	9.0	4.3	0.5		0	25	0
2	.2	.5	3.8	8.2	8.6	8.6	3.8	.5		0	27	0
3	.1	.6	3.8	8.2	8.2	8.2	3.8	.4		0	274	0
4	.1	.7	3.6	8.2	8.2	9.4	3.2	.4		0	170	0
5	.1	.6	4.0	7.4	8.2	9.4	2.9	.7	344	0	56	0
6	.1	4.9	3.8	7.0	8.6	8.6	2.5	.8		0	394	0
7	.1	26	3.8	7.0	8.2	7.4	2.1	.9		0	230	0
8	.1	119	3.8	7.8	8.6	9.0	2.0	.9		0	44	0
9	.1	35	3.6	8.6	8.2	8.6	2.0	1.0		0	21	0
10	.2	11	3.8	9.0	8.2	9.4	1.8	.8	14	0	12	2.6
11	.2	7.0	3.8	77	7.4	9.8	2.0	.6	7.0	0	7.8	144
12	.3	4.9	3.8	38	7.0	9.4	2.1	.4	4.6	1,300		821
13	.3	4.0	3.6	21	6.7	8.6	2.1	.6	3.0	1,180		769
14	.3	3.4	3.8	15	7.0	8.2	2.1	1.0	2.1	992		60
15	.6	3.2	4.0	12	7.0	7.4	2.1	.7	1.8	101		31
16	.4	3.0	4.0	10	6.7	7.0	1.9	.9	1.3	33		73
17	.3	2.9	4.3	9.8	22	6.7	1.7	1.6	.9	16		474
18	.3	3.0	4.6	9.0	30	6.4	1.2	1.9	.8	8.2		144
19	.3	2.3	4.0	9.0	16	6.4	1.0	1.2	.6	5.8		39
20	.3	2.1	4.3	8.6	13	6.1	.9	1.0	.5	4.6		164
21	.3	2.0	4.3	8.6	11	6.7	.6	1.1	.5	3.6	6.8	95
22	.3	2.3	4.9	8.6	9.4	7.0	.3	1.1	.3	2.7		29
23	.4	2.5	4.9	9.0	8.6	6.7	.1	.6	.4	1.9		13
24	.3	2.5	5.5	9.0	9.4	7.0	0	.2	.4	1.3		6.1
25	.3	2.3	155	8.6	9.8	6.7	0	369	.3	.9		3.6
26	.5	2.3	389	8.6	9.4	6.4	0	101	.2	.6		2.5
27	.5	2.5	184	9.8	9.8	5.5	0	40	.2	.3		1.9
28	.5	2.9	38	10	9.4	5.2	.3	11	0	.2		1.4
29	.4	3.0	16	11	-	4.9	.4	3.4	0	0		1.2
30	.5	3.4	12	9.8	-	4.9	.5	28	0	391	0	18
31	.5	-	9.8	9.0	-	4.6	-	365	-	45	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9.1	0.6	0.1	0.29	18
November	260.2	119	.4	8.67	516
December	901.4	389	3.6	29.1	1,790
Calendar year 1938	19,063.1	3,660	0	52.2	37,820
January	391.4	77	7.0	12.6	776
February	283.2	30	6.7	10.1	562
March	229.2	9.8	4.6	7.39	455
April	47.7	4.3	0	1.59	95
May	937.2	369	.2	30.2	1,860
June	3,134.9	-	0	104	6,220
July	4,088.1	1,300	0	132	8,110
August	1,383.2	394	0	44.6	2,740
September	2,893.3	821	0	96.4	5,740
Water year 1938-39	14,558.9	-	0	39.9	28,880

Peak discharge.- May 25 (7 p.m.) 1,910 sec.-ft.; June 1 (about 8 a.m.) 2,280 sec.-ft.; July 12 (5 a.m.) 2,080 sec.-ft.

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 (revised) southwest of Creede.

Drainage area.- 163 square miles.

Records available.- June 1909 to September 1913 and October 1933 to September 1939 in reports of Geological Survey. June 1909 to September 1939 in reports of State engineer.

Average discharge.- 26 years (1910-23, 1926-39), 229 second-feet.

Extremes.- Maximum discharge during year, 1,180 second-feet May 30 (gage height, 3.55 feet); minimum daily discharge, 7.2 second-feet Oct. 11.
1909-39: Maximum discharge, about 7,500 second-feet June 28, 1927 (gage height, 7.03 feet); minimum daily discharge, 0.6 second-foot at times when reservoir was about empty and gates were closed.

Remarks.- Records excellent for May 1 to July 31 and good for remainder of year. Discharge for period of ice effect or missing gage heights, Nov. 3 to Apr. 16, computed on basis of reservoir gate openings. Flow regulated by Rio Grande Reservoir, just upstream from station (capacity, 45,800 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	14	15	16	17	18	19	385	1,100	567	109	57
2	107	14	15	16	17	18	19	430	1,050	594	103	52
3	106	14	15	16	17	18	19	450	1,010	600	95	45
4	118	14	15	16	17	18	19	488	1,080	634	89	42
5	125	14	15	16	17	18	19	548	1,130	641	90	50
6	155	14	15	16	17	18	19	676	1,100	628	104	123
7	215	14	15	16	17	18	19	718	1,080	621	135	111
8	52	14	15	16	17	18	19	607	1,040	587	98	167
9	7.8	14	15	16	17	18	19	554	978	548	85	135
10	7.8	14	15	16	17	18	19	607	918	542	80	120
11	7.2	14	15	16	17	18	19	776	918	542	78	177
12	7.5	14	15	16	17	18	19	845	927	516	71	177
13	7.5	14	15	16	17	18	19	725	927	516	66	185
14	7.5	14	15	16	17	18	19	587	1,040	516	65	160
15	7.8	14	15	16	17	18	19	548	1,030	548	62	142
16	8.7	14	15	16	17	18	19	522	952	529	60	123
17	9.0	14	15	16	17	18	19	600	918	554	54	118
18	9.0	14	15	16	17	18	42	648	860	587	54	109
19	9.8	14	15	16	17	18	150	725	776	600	51	104
20	9.4	14	15	16	17	18	185	885	704	607	48	106
21	10	14	15	16	17	18	232	978	621	567	51	98
22	10	14	15	16	17	18	167	1,020	567	385	54	96
23	11	14	15	16	17	18	229	1,040	574	101	49	92
24	11	14	15	16	17	18	332	978	574	89	61	87
25	12	14	15	16	17	18	381	821	607	89	70	86
26	13	14	15	16	17	18	393	761	628	92	65	92
27	13	14	15	16	17	18	393	798	587	138	60	107
28	13	14	15	16	17	18	393	893	548	140	74	90
29	13	14	15	16	-	18	336	1,010	529	162	83	85
30	13	14	15	16	-	18	360	1,120	548	135	76	79
31	14	-	15	16	-	18	-	1,100	-	122	63	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,217.0	215	7.2	39.3	2,410
November	420	14	14	14.0	833
December	465	15	15	15.0	922
Calendar year 1938	88,256.3	2,640	.6	242	175,100
January	496	16	16	16.0	984
February	476	17	17	17.0	944
March	558	18	18	18.0	1,110
April	3,916	393	19	131	7,770
May	22,843	1,120	385	737	45,310
June	25,321	1,130	529	844	50,220
July	13,497	641	89	435	26,770
August	2,303	135	48	74.3	4,570
September	3,215	185	42	107	6,380
Water year 1938-39	74,727	1,130	7.2	205	148,200

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 1939 in reports of Geological Survey. April 1907 to September 1939 in reports of State engineer.

Average discharge.- 32 years, 641 second-feet.

Extremes.- Maximum discharge during year, 2,440 second-feet June 5 (gage height, 3.20 feet); minimum daily discharge recorded, 114 second-feet Mar. 11, but may have been less during period of ice effect.
1907-39: Maximum discharge, about 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, Dec. 25 to Mar. 9, which were computed on basis of three discharge measurements and weather records and are fair. Several diversions above station for irrigation. Flow regulated by three reservoirs (total capacity, 117,600 acre-feet).

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 9 to Dec. 24, July 20 to Sept. 30)

0.5	118	0.9	244	1.2	398	1.7	746	2.5	1,500
.7	172	1.0	288	1.4	526	2.0	996	3.1	2,280

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	309	270	189			120	236	1,120	2,110	1,050	386	248
2	304	270	189			120	257	1,080	1,990	1,060	369	236
3	340	244	175			120	275	1,020	1,970	1,040	335	217
4	340	248	179			120	270	1,130	2,170	1,040	293	199
5	369	266	175			120	244	1,420	2,220	1,030	288	189
6	500	221	169	120		120	253	1,520	2,040	978	324	236
7	738	155	182			120	214	1,580	1,870	961	423	352
8	818	210	179			125	229	1,560	1,870	987	346	369
9	486	279	172		115	125	262	1,520	1,840	1,020	309	435
10	417	248	179			126	236	1,630	1,770	1,010	279	369
11	386	253	166			114	199	1,580	1,730	1,020	266	441
12	352	217	169			134	221	1,800	1,680	1,060	236	493
13	352	166	155			131	233	1,720	1,670	1,130	225	568
14	363	206	134			131	244	1,460	1,730	1,160	217	603
15	404	210	155			139	217	1,360	1,800	1,120	210	582
16	526	225	166			150	196	1,350	1,630	1,040	210	500
17	582	229	158			158	166	1,300	1,540	996	206	448
18	526	179	144			164	182	1,430	1,470	978	203	417
19	486	225	169			186	304	1,690	1,340	943	210	392
20	454	210	158			229	493	2,000	1,260	908	210	381
21	429	199	152	115	118	304	582	2,100	1,220	859	214	357
22	404	186	136			346	678	2,250	1,150	786	229	335
23	381	147	144			352	526	2,170	1,150	423	217	319
24	357	152	121			386	746	1,970	1,150	319	221	298
25	330	203	125			375	810	1,700	1,130	304	233	284
26	319	186	140			314	851	1,500	1,090	275	233	288
27	309	199	135		120	266	859	1,580	1,050	314	217	335
28	298	186	135			221	1,010	1,670	1,030	381	253	309
29	279	175	134		-	199	1,070	1,860	1,010	473	298	284
30	275	206	135		-	192	892	2,040	1,030	417	293	275
31	270	-	140		-	206	-	2,100	-	404	266	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	12,703	818	270	410	25,200
November	6,370	279	147	212	12,630
December	4,859	189	121	157	9,640
Calendar year 1938	257,428	4,840	56	705	510,600
January	3,615	-	-	117	7,170
February	3,265	-	-	117	6,480
March	5,913	386	114	191	11,730
April	12,955	1,070	166	432	25,700
May	50,210	2,250	1,020	1,620	99,590
June	46,710	2,220	1,010	1,557	92,650
July	25,486	1,160	275	822	50,550
August	8,219	423	203	265	16,300
September	10,759	603	189	359	21,340
Water year 1938-39	191,064	2,250	-	523	379,000

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. Zero of gage is 7,982.21 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,320 square miles.

Records available.- July 1889 to November 1906 (at site 4 miles downstream), April 1908 to September 1913, and October 1933 to September 1939 in reports of Geological Survey. July 1889 to December 1906 and April 1908 to September 1939 in reports of State engineer. May to September 1907 (at site 4 miles downstream), unpublished in files of office of State Engineer.

Average discharge.- 50 years, 965 second-feet.

Extremes.- Maximum discharge during year, 3,550 second-feet May 22 (gage height, 3.56 feet); minimum daily discharge, 185 second-feet Dec. 24.
1889-1939: Maximum discharge, about 18,000 second-feet Oct. 5, 1911 (gage height, 6.80 feet), from rating curve extended above 6,000 second-feet; minimum daily discharge, 90 second-feet Dec. 3, 1934.

Remarks.- Records excellent except those for periods of ice effect, Nov. 25 to Dec. 5, Dec. 24 to Mar. 31, which were computed on basis of three discharge measurements and weather records and 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 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	478	510	260	220	220	265	638	1,990	2,960	1,210	471	287
2	471	516	240	230	250	250	660	2,090	2,870	1,200	453	274
3	490	471	240	250	280	260	696	1,970	2,770	1,160	440	261
4	510	471	220	220	270	275	726	1,940	3,020	1,150	378	240
5	510	510	260	210	260	250	624	2,310	3,230	1,170	352	232
6	590	465	296	240	260	240	653	2,720	2,980	1,080	362	253
7	928	327	300	230	260	250	563	2,410	2,610	1,020	459	367
8	1,210	352	313	230	250	260	583	2,630	2,530	1,030	447	406
9	946	497	296	230	250	270	689	2,500	2,460	1,060	362	510
10	742	478	309	210	240	270	646	2,790	2,380	1,000	332	459
11	689	453	318	220	260	260	543	2,740	2,310	1,020	313	478
12	646	411	300	215	260	275	556	2,910	2,260	1,020	296	576
13	624	352	287	220	255	300	604	2,720	2,170	1,070	274	597
14	646	352	244	230	254	340	674	2,340	2,170	1,110	270	689
15	674	389	240	240	265	360	583	2,190	2,280	1,110	257	726
16	846	406	287	250	260	380	516	2,160	2,040	1,070	244	631
17	993	411	300	260	240	420	453	1,950	1,910	1,010	240	556
18	891	352	257	240	250	460	453	2,140	1,800	984	232	510
19	829	378	240	240	260	500	516	2,530	1,660	955	218	459
20	772	383	313	230	250	550	734	3,000	1,510	928	211	428
21	734	378	274	250	245	620	918	3,140	1,470	872	218	417
22	704	357	244	270	240	661	1,160	3,270	1,350	821	229	389
23	674	287	225	260	250	880	1,070	3,210	1,340	667	232	372
24	624	229	185	260	255	800	1,120	3,170	1,370	428	222	357
25	610	230	195	250	265	730	1,190	2,700	1,310	357	229	342
26	583	230	230	253	275	720	1,250	2,360	1,270	337	261	337
27	570	240	220	260	265	720	1,280	2,410	1,210	342	265	367
28	549	240	220	270	250	680	1,510	2,480	1,190	406	278	389
29	523	240	230	265	-	600	1,920	2,620	1,150	510	342	342
30	523	240	230	250	-	550	1,560	2,850	1,160	536	352	337
31	510	-	250	240	-	680	-	2,940	-	523	318	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	21,089	1,210	471	680	41,830
November	11,155	516	229	372	22,130
December	8,023	318	185	259	15,910
Calendar year 1938	418,290	6,130	-	1,146	829,600
January	7,443	270	210	240	14,760
February	7,139	280	240	255	14,160
March	14,076	880	240	454	27,920
April	25,088	1,920	453	836	49,760
May	79,080	3,270	1,940	2,551	156,900
June	60,740	3,230	1,150	2,025	120,500
July	27,156	1,210	337	876	53,860
August	9,557	471	211	308	18,960
September	12,588	726	232	420	24,970
Water year 1938-39	263,134	3,270	185	776	561,700

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Rio Grande near Monte Vista, Colo.

Location.- Water-stage recorder, lat. 37°37', long. 106°09', at west line of sec. 19 (revised), T. 39 N., R. 8 E., 2 miles north of Monte Vista. Zero of gage is 7,654.54 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,740 square miles.

Records available.- October 1933 to September 1939 in reports of Geological Survey. May 1926 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,330 second-feet May 20 (gage height, 3.00 feet); minimum daily discharge, 15 second-feet Sept. 25-27.
1926-39: Maximum discharge, about 18,500 second-feet June 30, 1927 (gage height, 7.85 feet); minimum daily discharge, 4 second-feet Apr. 18, 1926.

Remarks.- Records excellent except those for period of missing gage heights, Oct. 3-5 (computed on basis of records for station near Del Norte), and those for periods of ice effect, Nov. 25 to Dec. 7, Dec. 18 to Mar. 20 (computed on basis of three discharge measurements and weather records), 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.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.4	13	1.1	130	2.0	500
.5	21	1.2	156	2.4	772
.6	32	1.3	188	2.7	1,030
.7	47	1.6	300		
.9	84	1.8	392		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	188	235	270				373	296	855	106	93	80
2	182	270	285				413	313	814	86	86	69
3	175	270	270	225		210	423	235	749	78	93	71
4	175	262	270				434	292	864	61	99	69
5	206	277	250				335	537	958	61	97	69
6	266	326	290				289	640	805	71	108	74
7	483	344	330				235	525	687	71	116	82
8	976	309	349	230		210	188	674	741	97	120	80
9	967	368	349				220	543	694	143	102	88
10	680	512	331				258	626	640	143	95	84
11	600	483	331				199	556	667	97	95	73
12	531	450	322				166	626	687	88	84	78
13	466	397	309			220	162	741	613	93	73	63
14	472	373	258				151	772	620	102	71	84
15	489	423	235				133	855	680	111	78	97
16	613	444	335				108	814	633	125	76	78
17	847	450	335				58	702	525	113	84	28
18	797	402	335	220		520	41	702	426	97	82	23
19	687	392	270				47	789	344	82	78	40
20	633	434	260				36	889	251	91	80	44
21	581	418	300			958	78	838	195	99	86	63
22	550	382	270			958	199	914	151	99	82	52
23	512	344	250			855	232	985	106	99	73	31
24	472	292	230			764	182	830	116	65	69	21
25	428	263	225			756	266	889	86	51	71	15
26	382	260	225			680	296	814	97	69	69	15
27	335	260	225			640	281	780	95	93	69	15
28	300	270	225	215		512	296	814	97	113	73	19
29	251	270	225			418	500	855	95	125	82	26
30	213	270	226			358	318	847	93	116	84	24
31	220	-	225			358	-	838	-	102	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14,677	976	175	473	29,110
November	10,450	512	235	348	20,730
December	8,610	349	225	278	17,080
Calendar year 1938	185,771	3,930	10	509	368,500
January	6,865	-	-	221	13,620
February	5,880	-	-	210	11,660
March	13,057	958	-	421	25,900
April	6,917	500	36	231	13,720
May	21,531	985	235	695	42,710
June	14,386	958	86	480	28,530
July	2,949	143	51	95.1	5,850
August	2,656	120	69	85.7	5,270
September	1,655	97	15	55.2	3,280
Water year 1938-39	109,633	985	15	300	217,500

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. Zero of gage is 7,533.66 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,840 square miles.

Records available.- May 1912 to September 1913 and October 1933 to September 1939 in reports of Geological Survey. May 1912 to September 1939 in reports of State engineer.

Average discharge.- 27 years, 336 second-feet.

Extremes.- Maximum discharge during year, 932 second-feet Mar. 24 (gage height, 3.92 feet); minimum daily discharge, 13 second-feet Sept. 27, 28.
1912-39: Maximum discharge, about 14,000 second-feet July 1, 1927 (gage height, 8.37 feet); minimum daily, 2 second-feet Oct. 24-29, 1933.

Remarks.- Records fair. Discharge for periods of ice effect, Nov. 13, Nov. 24 to Dec. 8, Dec. 16 to Mar. 15, computed on basis of four discharge measurements and weather records. 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 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	177	470				395	55	61	45	24	24
2	31	175	490				413	50	62	46	25	23
3	30	191	500	230		230	466	46	62	47	25	23
4	32	213	420				481	44	56	47	26	20
5	39	221	440				494	46	98	47	26	19
6	38	242	450				392	57	99	46	26	19
7	35	264	450				342	84	54	46	29	18
8	93	276	450	240	215	240	280	57	48	45	32	19
9	575	318	446				242	67	54	45	34	20
10	640	477	433				260	55	60	47	32	20
11	494	534	436				280	55	50	52	29	22
12	460	511	427				198	50	49	48	30	22
13	414	470	405	235		340	166	52	58	44	29	21
14	357	424	348				137	56	49	41	32	21
15	351	460	433				112	50	45	44	40	23
16	375	528	430			642	99	53	44	43	34	25
17	500	514	420	215		635	89	44	43	42	33	20
18	666	514	400			569	78	42	43	40	32	18
19	668	490	350			505	68	40	42	41	32	16
20	604	524	340	210		642	66	49	39	40	32	16
21	556	545	330			692	65	57	37	40	32	16
22	524	514	300		220	812	63	60	36	40	32	16
23	494	460	270	210		896	61	85	36	39	30	16
24	456	390	250			896	62	58	40	37	29	15
25	414	362	230			848	57	56	42	31	27	15
26	375	390	230			824	55	74	41	21	27	15
27	305	440	230			760	52	72	39	20	28	13
28	269	470	230			699	47	79	40	21	28	13
29	235	450	230	215		562	48	95	41	22	27	15
30	196	460	230		-	468	60	102	40	24	26	19
31	189	-	232		-	398	-	73	-	22	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	10,468	666	30	338	20,760
November	12,904	545	175	400	23,810
December	11,300	500	230	365	22,410
Calendar year 1938	125,329	2,350	20	343	248,600
January	6,935	-	-	224	13,760
February	6,085	-	-	217	12,070
March	14,898	896	-	481	29,550
April	5,628	494	47	188	11,160
May	1,863	102	40	60.1	3,700
June	1,508	99	36	50.3	2,990
July	1,213	52	20	39.1	2,410
August	914	40	24	29.5	1,810
September	561	25	13	18.7	1,110
Water year 1938-39	73,377	896	13	201	145,500

Peak discharge.- Oct. 9 (8 p.m.) 736 sec.-ft.

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 1939.

Extremes.- Maximum discharge during year, 1,210 second-feet Mar. 25 (gage height, 4.66 feet); minimum daily discharge, 2.0 second-feet July 22, 24, Aug. 25.
1936-39: Maximum discharge, 2,580 second-feet June 16, 1938 (gage height, 7.02 feet, from recorded range in stage); minimum daily discharge, that of July 22, 24, Aug. 25, 1939.

Remarks.- Records good except those for period of ice effect, Jan. 16 to Mar. 20 (computed on basis of two discharge measurements and weather records), and those below 10 second-feet, which are fair. Storage and several diversions for irrigation above station. During irrigation season low-water flow is water returned from irrigated lands.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	131	330	524	358	260	260	745	261	88	12	5.2	2.7
2	127	321	553	358	255	260	731	279	86	10	4.4	2.7
3	124	321	624	358	255	265	749	261	89	9.0	4.4	2.7
4	120	342	542	368	260	270	791	225	86	8.6	3.8	16
5	113	358	605	364	255	270	818	210	93	7.6	3.8	47
6	115	371	612	380	250	260	795	206	68	6.9	4.4	38
7	129	419	593	368	255	265	722	232	56	7.2	6.2	40
8	211	438	597	348	260	265	637	271	66	6.9	5.5	35
9	506	452	608	339	265	270	580	220	40	5.8	5.2	32
10	816	499	605	377	260	275	557	208	40	5.2	5.2	30
11	792	578	620	390	255	280	564	180	36	4.4	4.8	32
12	684	612	628	384	255	280	527	184	31	4.1	4.4	34
13	640	620	586	333	255	300	452	165	31	4.1	4.8	76
14	567	553	455	276	260	340	427	167	30	3.8	4.4	43
15	535	616	384	294	265	390	427	196	29	4.1	4.4	42
16	528	601	403	290	260	430	424	186	35	3.8	4.4	43
17	556	620	475	280	255	490	395	174	31	3.4	4.1	45
18	668	616	528	280	260	580	374	165	28	2.7	3.8	38
19	772	620	438	276	255	720	305	144	32	2.7	4.8	34
20	736	608	432	270	255	850	268	112	31	2.7	5.2	30
21	708	628	469	270	255	960	248	112	34	2.4	5.8	27
22	676	664	496	270	250	1,060	210	120	28	2.0	4.4	26
23	652	640	422	270	255	1,120	215	116	27	2.4	3.0	26
24	624	416	358	270	260	1,170	255	116	27	2.0	2.7	28
25	593	371	336	270	255	1,180	279	112	24	3.0	2.0	27
26	560	409	333	270	260	1,160	253	132	20	3.8	2.4	28
27	528	469	352	270	265	1,140	248	116	18	4.4	2.4	28
28	462	538	355	270	266	1,090	235	109	17	2.4	2.7	25
29	422	513	364	270	-	1,020	203	107	14	2.7	2.7	25
30	380	517	368	270	-	910	210	96	12	3.8	2.4	32
31	342	-	371	270	-	804	-	96	-	5.2	2.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14,817	816	113	478	29,390
November	15,060	664	321	502	29,870
December	15,036	628	333	485	29,820
Calendar year 1938	169,217	2,450	39	464	335,600
January	9,661	390	270	312	19,160
February	7,216	266	250	258	14,310
March	18,934	1,180	260	611	37,560
April	13,644	818	203	455	27,060
May	5,278	279	96	170	10,470
June	1,247	93	12	41.6	2,470
July	149.1	12	2.0	4.81	296
August	126.1	6.2	2.0	4.07	250
September	935.1	76	2.7	31.2	1,850
Water year 1938-39	102,103.3	1,180	2.0	280	202,500

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. Zero of gage is 7,426.79 feet above mean sea level (general adjustment 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 1939 in reports of Geological Survey. June 1899 to September 1939 in reports of State engineer.

Average discharge.- 40 years, 759 second-feet.

Extremes.- Maximum discharge during year, 1,640 second-feet Mar. 24 (gage height, 3.02 feet); minimum daily discharge, 8.0 second-feet July 24, 27.
1899-1939: Maximum daily discharge, 13,100 second-feet (estimated) June 8, 1905; minimum daily discharge, 6 second-feet July 19, 20, 22, Aug. 3, 4, 1934.

Remarks.- Records good except those for period of ice effect, Nov. 24 to Mar. 19, which were computed on basis of four discharge measurements and weather records and are fair. Many diversions above station for irrigation. Flow regulated by many reservoirs on headwaters.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	181	427	590	420	340	350	892	1,100	223	27	17	16
2	186	421	600	420	350	350	884	1,250	177	26	18	16
3	172	408	690	430	360	350	946	1,270	172	21	16	15
4	172	414	600	430	350	350	1,040	1,120	168	20	19	13
5	168	440	660	430	350	350	1,150	1,130	172	18	21	21
6	159	389	665	440	340	350	1,070	1,070	223	17	18	46
7	186	488	650	450	340	350	1,020	1,180	209	16	28	39
8	261	537	645	440	340	350	892	1,060	164	15	28	42
9	364	682	660	420	340	350	788	964	127	15	27	41
10	730	722	650	410	340	360	780	919	88	13	21	41
11	901	730	670	450	335	370	831	910	76	13	18	41
12	814	730	675	460	335	380	780	892	63	12	16	42
13	746	730	660	460	335	400	698	788	54	10	16	54
14	706	650	520	410	335	450	674	674	46	10	14	79
15	650	619	450	360	335	520	722	706	41	12	14	63
16	635	635	470	370	330	550	714	682	41	14	13	56
17	674	674	540	370	330	613	650	627	42	11	13	56
18	746	674	600	360	330	730	596	537	41	10	13	56
19	857	666	500	350	330	860	522	460	38	10	13	51
20	875	650	500	334	330	1,040	447	434	44	9.0	13	44
21	814	642	550	340	330	1,240	440	522	46	8.5	24	41
22	780	706	570	340	330	1,300	454	551	46	8.5	16	38
23	746	690	490	340	330	1,490	573	515	42	9.5	16	39
24	722	475	430	340	330	1,560	772	474	42	8.0	15	38
25	690	430	400	340	330	1,590	698	414	41	8.5	15	39
26	658	465	400	340	335	1,480	627	395	36	8.5	15	42
27	627	530	410	340	340	1,460	635	382	33	8.0	17	44
28	566	600	410	340	340	1,400	722	324	34	12	18	51
29	508	575	420	340	-	1,270	814	292	30	13	18	39
30	481	575	420	340	-	1,130	982	252	28	13	17	38
31	440	-	420	340	-	982	-	237	-	14	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17,215	901	159	555	34,150
November	17,374	730	389	579	34,460
December	16,915	690	400	546	33,550
Calendar year 1938	287,795	3,830	51	788	570,900
January	11,954	460	334	386	23,710
February	9,440	360	330	337	18,720
March	24,325	1,590	350	785	48,250
April	22,813	1,150	440	760	45,250
May	22,131	1,270	237	714	43,900
June	2,587	223	28	86.2	5,130
July	410.5	27	8.0	13.2	814
August	543	28	13	17.5	1,080
September	1,241	79	13	41.4	2,460
Water year 1938-39	146,948.5	1,590	8.0	403	291,500

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 about 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 1939 in reports of Geological Survey. July 1925 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 3,660 second-feet Aug. 27 (gage height, 6.48 feet); minimum daily discharge, 188 second-feet July 25, 26.
1930-39: Maximum discharge, 6,950 second-feet May 25, 1932 (gage height, 8.56 feet, former site and datum); minimum daily discharge, 140 second-feet (estimated) Aug. 21, 1931.

Remarks.- Records good except those for periods of missing gage heights, Nov. 7-28, Feb. 4-7, which were computed on basis of weather records and records for station at Embudo and are fair. Many diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	389	656	704	553	511	568	1,390	1,520	584	256	210	210
2	383	624	729	553	518	539	1,330	1,670	553	251	206	210
3	383	624	774	560	464	553	1,350	1,860	504	246	215	206
4	383	624	712	584	510	553	1,620	1,850	490	238	220	202
5	377	616	774	539	510	546	1,860	1,690	490	238	220	197
6	371	640	774	553	520	532	1,890	1,690	477	228	220	197
7	395	590	774	568	540	553	1,690	1,680	497	224	224	197
8	525	480	792	576	525	576	1,570	1,760	504	224	224	215
9	525	640	792	568	532	592	1,390	1,590	464	220	224	275
10	546	750	783	568	532	584	1,280	1,460	425	220	220	275
11	940	780	801	560	532	592	1,270	1,430	383	215	224	246
12	1,120	850	801	539	525	592	1,270	1,460	360	210	220	238
13	1,020	830	774	546	525	656	1,210	1,430	345	206	215	238
14	950	810	738	539	546	756	1,130	1,360	326	210	220	242
15	900	840	656	532	560	810	1,130	1,230	310	215	215	265
16	850	820	616	518	553	840	1,160	1,240	285	228	210	305
17	810	850	648	532	553	860	1,110	1,220	275	224	210	285
18	840	880	688	504	560	1,010	1,010	1,130	270	224	215	270
19	920	820	688	518	546	1,140	920	1,020	270	206	215	256
20	1,060	830	704	525	539	1,410	850	940	265	202	206	256
21	1,050	880	664	546	532	1,670	765	920	270	192	285	251
22	990	860	664	553	568	1,890	810	990	270	197	275	246
23	960	780	600	546	576	1,910	890	1,010	270	202	228	238
24	940	690	584	546	568	2,130	1,010	980	280	202	228	233
25	900	630	568	511	560	2,270	1,230	920	270	188	270	233
26	870	590	539	518	560	2,200	1,140	860	265	188	260	233
27	850	550	511	518	560	2,090	1,060	792	260	192	537	238
28	820	560	518	539	560	2,050	1,050	756	260	202	242	233
29	792	624	546	525	-	1,910	1,150	688	256	210	215	246
30	704	696	539	518	-	1,760	1,290	640	256	210	238	233
31	688	-	553	546	-	1,540	-	600	-	220	210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	23,251	1,120	371	750	46,120
November	21,414	880	480	714	42,470
December	21,008	801	511	678	41,670
Calendar year 1938	415,647	4,650	270	1,139	824,400
January	16,801	584	504	542	33,320
February	15,085	576	464	539	29,920
March	35,682	2,270	532	1,151	70,770
April	36,825	1,890	765	1,228	73,040
May	38,386	1,860	600	1,238	76,140
June	10,737	584	256	358	21,300
July	6,688	256	188	216	13,270
August	7,321	537	206	236	14,520
September	7,169	305	197	239	14,220
Water year 1938-39	240,367	2,270	188	659	476,800

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 depot at Embudo and about 2½ miles downstream from Embudo Creek.

Drainage area.- 10,400 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.

Records available.- January 1889 to December 1903, September 1912 to September 1916, and October 1930 to September 1939 in reports of Geological Survey. January 1889 to December 1903 and September 1912 to December 1931 in reports of State engineer.

Average discharge.- 39 years (1889-93, 1894-1903, 1912-16, 1917-39) 1,069 second-feet.

Extremes.- 1914-15: Maximum discharge during year, 7,330 second-feet May 18 (gage height, 8.65 feet); minimum daily discharge, 378 second-feet Aug. 28.
1915-16: Maximum discharge during year, 9,590 second-feet May 13 (gage height, 9.92 feet); minimum daily discharge, 370 second-feet Dec. 29.
1938-39: Maximum discharge during year, 2,410 second-feet April 5 (gage height, 5.12 feet); minimum daily discharge, 190 second-feet July 26, 27.
1915-16, 1930-39: Maximum discharge 9,590 second-feet May 13, 1916 (gage height, 9.92 feet); minimum daily discharge, 174 second-feet Aug. 21, 1931.

Remarks.- Records good except those for periods of missing gage heights, Nov. 14-19, 1915, July 8-15, 24-28, 1916 (computed on basis of weather records and records for stations near Lobatos, Colo. and at Otowi Bridge, near San Ildefonso), and May 22 to June 13, 1939 (computed on basis of weather records and records for stations below Taos Junction Bridge and at Otowi Bridge) and those for period of ice effect, Feb. 3-5, 1939 (computed on basis of records just specified), all of which are poor. Many diversions for irrigation above station.

Revisions.- The figures of discharge for the water years 1914-15 and 1915-16 as here given are revisions of and supersede those published in Water-Supply Papers 408 and 438.

Discharge, in second-feet, 1914-16, 1938-39

1914-15

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,210	896	685	470	462	605	822	3,750	3,620	2,190	2,300	446
2	1,180	902	660	478	462	625	804	3,620	4,010	1,940	1,990	430
3	1,180	883	630	482	470	625	822	3,230	4,720	1,760	1,660	406
4	1,410	846	625	478	462	610	852	2,750	5,440	1,620	1,410	423
5	1,250	816	605	486	446	591	902	2,410	5,440	1,450	1,180	470
6	1,710	804	591	470	438	578	968	2,190	4,850	1,370	1,000	450
7	2,240	799	546	466	450	610	1,100	1,990	4,290	1,250	870	426
8	2,040	772	514	458	462	605	1,160	1,840	3,880	1,140	816	416
9	1,800	750	564	458	478	615	1,070	1,710	3,620	1,040	822	416
10	1,620	711	494	470	478	620	1,140	1,620	3,620	935	695	442
11	1,530	695	470	454	502	630	1,180	1,710	3,750	858	665	454
12	1,450	690	450	454	502	655	1,290	2,090	4,150	782	645	450
13	1,290	685	426	470	494	655	1,370	2,870	4,710	738	615	434
14	1,210	695	458	462	490	660	1,410	4,010	5,140	706	578	442
15	1,100	711	438	462	494	665	1,530	5,140	4,850	665	542	458
16	1,000	711	423	470	510	675	1,760	6,360	4,150	605	537	482
17	948	716	478	458	537	680	2,040	6,680	3,620	586	510	519
18	870	728	506	420	560	690	2,040	7,160	3,490	542	478	542
19	834	685	502	462	564	728	2,090	7,330	3,750	519	454	560
20	706	650	510	478	568	716	1,990	6,360	4,290	494	438	568
21	675	640	478	474	578	675	2,140	5,140	4,710	510	442	568
22	760	640	482	478	591	650	2,360	4,150	4,850	474	438	537
23	690	635	490	450	564	685	2,360	3,490	4,710	519	406	524
24	650	640	502	442	568	716	2,360	3,230	4,430	502	438	494
25	655	635	498	450	600	744	2,300	3,230	4,290	568	430	466
26	760	635	482	462	600	794	2,190	3,490	3,880	546	409	466
27	834	650	490	450	605	816	2,300	3,880	3,490	600	384	438
28	909	660	498	454	605	822	2,630	3,750	3,110	630	376	412
29	896	680	502	466	-	858	3,050	3,490	2,750	2,300	610	409
30	902	665	482	478	-	828	3,490	3,300	2,520	3,300	502	690
31	892	-	470	470	-	834	-	3,360	-	2,750	454	-

Discharge, in second-feet, of Rio Grande at Embudo, N. Mex., 1914-16, 1938-39--Continued

1915-16

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	685	498	412	474	490	750	1,290	4,010	2,810	1,370	738	828
2	625	498	546	462	532	706	1,290	4,010	2,810	1,290	890	755
3	620	486	560	450	532	660	1,290	3,360	2,750	1,210	1,040	744
4	615	502	537	462	519	695	1,370	2,930	2,690	1,140	1,710	750
5	600	494	586	470	510	716	1,290	2,750	2,750	1,100	2,360	738
6	586	482	620	474	506	690	1,210	2,990	2,870	1,070	2,520	728
7	555	478	591	470	519	690	1,180	3,880	3,110	1,000	2,410	716
8	524	458	615	462	550	722	1,140	4,990	2,930	850	2,410	670
9	486	426	600	478	586	744	1,040	6,360	2,750	700	2,520	650
10	474	423	586	490	578	766	1,040	7,840	2,690	500	2,690	650
11	450	438	582	502	586	804	1,070	8,690	2,990	450	2,460	650
12	423	423	542	490	630	852	1,070	9,230	3,490	850	2,360	645
13	409	426	514	466	650	928	1,070	9,410	3,880	950	2,190	711
14	395	430	498	446	620	1,040	1,100	8,690	4,010	1,100	1,940	852
15	412	430	532	474	630	1,070	1,140	8,010	3,880	1,100	1,800	890
16	416	420	524	490	685	1,100	1,250	7,000	3,750	1,250	1,940	890
17	430	410	462	490	680	1,180	1,330	5,590	3,630	1,330	2,090	858
18	438	400	423	506	690	1,210	1,530	4,570	3,620	1,580	2,090	799
19	438	430	446	788	700	1,250	1,580	4,430	3,620	1,410	2,040	744
20	450	486	446	610	716	1,330	1,490	4,150	3,750	1,370	1,990	716
21	462	537	434	546	722	1,410	1,530	3,880	3,620	1,180	1,840	680
22	458	615	438	510	744	1,580	1,530	3,750	3,620	1,070	1,620	660
23	442	680	458	498	750	1,660	1,530	3,170	3,420	968	1,530	640
24	442	744	478	519	782	1,800	1,660	2,990	3,050	850	1,490	625
25	420	766	462	519	772	1,760	1,990	3,050	2,750	809	1,290	600
26	426	660	446	519	799	1,530	2,360	3,050	2,410	800	1,180	573
27	450	578	466	510	788	1,370	2,690	3,110	2,090	1,200	1,100	542
28	466	528	438	519	782	1,290	2,990	3,110	1,840	800	1,000	528
29	470	466	370	542	755	1,290	3,300	2,870	1,660	680	954	510
30	478	423	474	524	-	1,3.0	3,750	2,810	1,450	716	909	502
31	482	-	482	478	-	1,290	-	2,810	-	766	909	-

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	440	738	708	550	525	580	1,370	1,800	680	258	210	228
2	427	696	750	555	525	540	1,370	1,990	650	255	257	225
3	423	696	762	565	470	565	1,410	2,140	600	243	246	222
4	427	690	732	565	520	565	1,660	2,190	560	237	240	219
5	427	690	774	540	520	550	2,090	2,040	550	234	237	213
6	423	726	774	560	530	540	2,040	2,040	540	228	237	213
7	466	668	786	560	545	545	1,840	1,990	560	222	255	210
8	674	525	780	575	525	575	1,710	2,090	560	219	249	216
9	696	696	780	570	535	596	1,530	1,890	520	219	243	252
10	657	816	780	560	510	646	1,490	1,800	480	216	234	341
11	902	840	810	555	515	618	1,450	1,760	450	210	237	279
12	1,180	909	816	520	520	635	1,410	1,800	410	210	237	264
13	1,100	890	792	535	535	702	1,410	1,800	390	210	234	261
14	1,000	858	726	535	535	816	1,370	1,710	355	213	231	267
15	987	890	684	515	530	840	1,370	1,580	334	225	225	310
16	928	870	640	515	540	858	1,370	1,530	310	234	222	407
17	909	890	630	530	525	896	1,290	1,530	288	231	219	375
18	922	922	674	515	525	987	1,180	1,450	279	228	216	352
19	994	858	696	510	535	1,100	1,100	1,330	285	234	219	334
20	1,100	858	720	515	535	1,370	1,070	1,180	279	213	243	324
21	1,140	909	679	545	530	1,580	1,040	1,100	273	207	279	313
22	1,070	890	674	555	530	1,800	1,100	1,180	273	207	341	299
23	1,070	810	602	555	540	1,800	1,210	1,200	279	204	243	288
24	1,040	726	575	545	550	2,040	1,330	1,180	285	204	243	276
25	1,000	652	550	515	560	2,140	1,530	1,130	282	192	267	273
26	968	596	535	520	555	2,090	1,490	1,040	276	190	338	279
27	928	560	500	520	560	2,040	1,410	960	276	190	360	285
28	896	570	510	560	555	1,990	1,370	900	273	195	463	282
29	858	640	535	550	-	1,840	1,490	840	267	207	252	292
30	804	720	535	535	-	1,710	1,580	780	264	207	255	273
31	774	-	545	565	-	1,530	-	720	-	213	237	-

Discharge, in second-feet, of Rio Grande at Embudo, N. Mex., 1914-16, 1938-39—Continued

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1914	35,199	2,240	650	1,135	69,820
November	21,645	902	635	721	42,930
December	15,949	685	423	514	31,630
Calendar year	-	-	-	-	-
January 1915	14,380	486	420	464	28,520
February	14,540	605	438	519	28,840
March	21,260	858	578	686	42,170
April	51,540	3,490	804	1,718	102,200
May	115,330	7,330	1,620	3,720	228,800
June	124,130	5,440	2,520	4,138	246,200
July	33,889	3,300	474	1,093	67,220
August	23,096	2,300	376	745	45,810
September	14,238	690	406	475	28,240
Water year 1914-15	485,196	7,330	378	1,329	962,400
October 1915	15,027	685	395	485	29,810
November	15,035	766	400	501	29,820
December	15,568	620	370	502	30,880
Calendar year	458,033	7,330	370	1,255	908,500
January 1916	15,638	788	446	504	31,020
February	18,803	799	490	648	37,300
March	34,213	1,800	660	1,104	67,860
April	48,100	3,750	1,040	1,603	95,400
May	147,490	9,410	2,750	4,758	292,500
June	90,690	4,010	1,450	3,023	179,900
July	31,450	1,580	450	1,015	62,380
August	54,010	2,690	738	1,742	107,100
September	20,844	890	502	695	41,340
Water year 1915-16	506,868	9,410	370	1,385	1,005,000
October 1938	25,630	1,180	423	827	50,840
November	22,799	922	525	760	45,220
December	21,054	816	500	679	41,760
Calendar year 1938	431,609	5,140	276	1,182	856,100
January 1939	16,810	575	510	542	33,340
February	14,880	560	470	531	29,510
March	35,084	2,140	540	1,132	69,590
April	43,080	2,090	1,040	1,436	85,450
May	46,670	2,190	720	1,505	92,570
June	11,828	680	264	394	23,460
July	6,755	258	190	218	13,400
August	7,969	463	210	257	15,810
September	8,372	407	210	279	16,610
Water year 1938-39	260,931	2,190	190	715	517,600

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 R. R. bridge in San Ildefonso Pueblo grant, 2 miles southwest of San Ildefonso, Santa Fe County, and 3 miles downstream from Pojoaque Creek. Zero of gage is 5,488.48 feet above mean sea level.

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 1939 in reports of Geological Survey. February 1895 to December 1905 and June 1909 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 5,770 second-feet Apr. 5 (gage height, 9.25 feet); minimum daily, 280 second-feet Aug. 10.

1930-39: Maximum discharge, 21,900 second-feet Aug. 20, 1935 (gage height, 12.01 feet), from rating curve extended logarithmically above 7,500 second-feet; minimum daily, 128 second-feet June 21, 1934.

Remarks.- Records good except those for days of missing, incomplete, or uncertain gage heights, which are poor. Many diversions for irrigation above station. Flow partly regulated by operation of El Vado reservoir on upper Rio Chama which stores water for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*710	855	867	638	743	778	3,040	2,670	946	1,280	545	590
2	*680	834	898	644	708	729	3,200	2,820	898	1,350	470	572
3	662	855	914	715	656	736	3,280	3,040	820	1,320	495	584
4	687	848	930	708	*700	757	3,600	2,960	970	1,510	445	572
5	701	841	906	*660	*720	736	4,860	2,820	1,030	1,460	*320	535
6	687	883	938	*700	750	687	4,390	2,740	994	1,210	*440	525
7	863	869	922	750	736	1,260	3,940	2,670	914	946	401	515
8	2,200	743	914	785	715	1,290	3,690	2,670	986	922	*350	520
9	*1,390	848	914	778	687	1,350	3,120	2,400	1,030	970	*300	596
10	*1,100	938	914	757	*660	1,410	2,960	2,260	1,110	938	*280	694
11	1,190	994	946	764	*660	1,320	2,740	2,200	1,160	914	255	632
12	1,520	1,050	938	722	*680	1,340	2,200	2,140	1,140	1,410	*520	560
13	1,520	1,060	946	736	*700	1,460	2,140	2,140	1,130	1,410	1,110	530
14	1,420	1,020	914	736	*690	1,720	2,140	2,140	1,080	1,510	1,190	596
15	1,380	1,060	848	722	680	2,010	2,070	2,010	978	1,260	1,110	715
16	1,300	1,040	771	715	701	1,950	2,070	2,010	1,110	986	1,100	785
17	1,200	1,020	778	736	662	2,330	1,890	1,950	1,180	687	1,080	778
18	1,190	1,030	792	708	667	2,460	1,720	1,780	1,390	*480	1,070	578
19	1,220	1,010	820	668	694	2,530	1,670	1,610	1,460	*1,000	1,050	490
20	1,330	962	883	674	715	2,670	1,610	1,560	1,510	1,110	1,070	475
21	1,380	1,010	848	701	680	2,960	1,610	1,610	1,560	1,120	1,450	450
22	1,330	1,030	848	722	660	3,280	1,720	1,560	1,560	1,360	1,270	420
23	1,280	978	806	701	708	3,360	1,890	1,510	1,610	1,510	1,020	376
24	1,270	*860	736	701	736	3,780	1,890	1,460	1,660	1,410	778	365
25	1,240	*870	680	694	743	3,860	2,010	1,410	1,660	1,380	813	353
26	1,190	*780	694	680	736	3,940	2,140	1,360	1,510	1,530	954	365
27	1,150	*740	656	708	715	4,030	2,070	1,140	1,250	1,230	778	*390
28	*1,110	*750	656	722	715	3,860	2,070	1,180	1,250	740	1,100	*390
29	*1,050	799	680	764	-	3,690	2,140	1,130	1,260	596	792	388
30	*970	914	694	736	-	3,440	2,460	1,070	1,260	590	656	485
31	*900	-	694	771	-	3,280	-	978	-	505	620	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	35,820	2,200	662	1,155	71,050
November	27,491	1,060	740	916	54,530
December	25,754	946	656	831	51,080
Calendar year 1938	670,395	7,520	492	1,837	1,330,000
January	22,216	785	638	717	44,060
February	19,657	750	656	702	38,990
March	69,003	4,030	687	2,226	136,900
April	76,330	4,860	1,610	2,544	151,400
May	60,998	3,040	978	1,968	121,000
June	36,416	1,660	820	1,214	72,230
July	34,644	1,530	480	1,118	68,720
August	23,862	1,450	280	770	47,330
September	15,826	785	353	528	31,390
Water year 1938-39	448,017	4,860	280	1,227	888,700

*Gage height missing, incomplete, or uncertain; discharge computed on basis of available gage heights, weather records, and records for station at Embudo.

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 1939 in reports of Geological Survey. January 1925 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 6,080 second-feet Apr. 5 (gage height, 6.43 feet); minimum daily, 138 second-feet Aug. 11.
1930-39: Maximum discharge, 20,500 second-feet Aug. 20, 1935 (gage height, 8.97 feet) from rating curve extended logarithmically above 7,500 second-feet; minimum daily, 1 second-foot Aug. 10-12, 1934.

Remarks.- Records poor. Many diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	484	868	886	*650	*740	738	2,790	2,490	802	1,190	495	422
2	578	834	770	*650	*720	722	2,880	2,600	722	1,290	484	462
3	495	834	834	*690	*680	722	2,960	2,850	706	1,150	506	578
4	484	850	886	*680	*620	706	3,230	2,820	850	1,360	395	539
5	484	834	834	*650	*680	738	4,790	2,650	868	1,310	315	451
6	539	868	868	*680	*710	690	4,500	2,600	850	1,050	606	395
7	690	868	850	*730	*730	1,250	4,190	2,540	738	754	377	386
8	2,580	706	834	*770	*730	1,380	3,730	2,440	770	738	268	422
9	1,510	722	834	*770	*720	1,310	3,230	2,250	868	850	210	539
10	1,130	886	886	*750	*670	1,400	2,820	2,120	976	722	190	676
11	1,090	1,030	976	*750	*650	1,340	2,760	2,020	1,150	620	138	606
12	1,510	994	922	*710	*660	1,360	2,200	2,020	1,090	1,150	173	506
13	1,480	1,050	922	690	*680	1,480	2,100	2,050	1,070	1,290	1,030	422
14	1,420	994	976	676	*690	1,830	2,120	†2,000	1,050	1,290	1,230	620
15	1,440	904	834	662	*710	2,050	2,100	†1,900	868	1,250	1,090	818
16	1,360	922	834	690	*690	2,050	2,100	1,850	904	922	1,110	802
17	1,150	940	*820	690	*700	2,200	1,850	1,800	1,160	528	1,050	786
18	1,090	958	*780	634	*690	2,410	1,660	1,710	1,360	343	1,030	620
19	1,050	976	*800	606	*710	2,520	1,510	1,710	1,310	532	1,090	484
20	1,130	1,030	*800	620	*710	2,710	1,440	1,590	1,420	1,010	1,150	451
21	1,190	994	*860	676	*710	2,880	1,440	1,620	1,510	1,070	1,250	315
22	1,250	976	*850	738	706	3,480	1,590	1,440	1,530	1,400	1,050	287
23	1,150	994	*790	802	706	3,700	1,760	1,420	1,510	1,620	886	359
24	1,090	886	*720	770	754	3,570	1,760	1,360	1,680	1,400	620	359
25	1,070	834	*680	786	738	3,760	1,800	1,290	1,660	1,360	550	308
26	1,070	850	*670	722	722	4,020	2,050	1,360	1,510	1,780	802	308
27	1,050	850	*650	738	722	3,830	2,000	1,070	1,150	1,290	786	350
28	1,010	850	*650	754	706	3,700	1,950	1,150	1,090	564	917	329
29	958	850	*670	770	-	3,420	2,050	1,150	1,110	690	754	377
30	940	850	*660	*750	-	3,170	2,250	1,070	1,110	634	550	451
31	886	-	*670	*760	-	2,880	-	868	-	386	506	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	33,358	2,580	484	1,076	66,160
November	27,002	1,050	706	900	53,560
December	25,016	976	650	807	49,620
Calendar year 1938	620,020	7,130	404	1,699	1,230,000
January	22,014	802	606	710	43,660
February	19,654	754	620	702	38,980
March	68,016	4,020	690	2,194	134,900
April	73,610	4,790	1,440	2,454	146,000
May	57,808	2,850	868	1,865	114,700
June	33,392	1,680	706	1,113	66,230
July	31,543	1,780	343	1,018	62,560
August	21,608	1,250	138	697	42,860
September	14,388	818	287	480	28,540
Water year 1938-39	427,409	4,790	138	1,171	847,800

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights, one discharge measurement, weather records, and records for stations at Otowi Bridge and San Felipe.
†Gage height missing; 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', in San Felipe grant, at steel highway bridge, 2,000 feet downstream from Tonque Arroyo, half a mile upstream from San Felipe Pueblo, Sandoval County, and about 12 miles northeast of Bernalillo. Zero of gage is 5,110.38 feet above mean sea level (general adjustment 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 1939 in reports of Geological Survey. March 1925 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 6,650 second-feet July 27; maximum gage height, 5.89 feet Apr. 5; minimum daily discharge, 255 second-feet Aug. 12.
1930-39: Maximum discharge, 42,100 second-feet Aug. 21, 1935, from rating curve extended logarithmically above 15,000 second-feet; maximum gage height, 11.13 feet June 26, 1937; minimum daily discharge, 34 second-feet July 7, 1934.

Remarks.- Records fair. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*550	908	864	*640	790	693	2,980	2,610	810	1,170	486	542
2	*500	908	853	*640	693	780	2,930	2,760	780	1,200	502	526
3	*500	897	864	*660	*620	770	2,950	2,820	*750	1,160	502	666
4	*500	897	875	*650	*680	810	3,210	2,880	*840	1,350	449	606
5	*550	897	875	*630	*710	780	4,620	2,780	864	1,280	352	442
6	*550	897	886	693	730	684	4,620	2,570	919	1,040	352	428
7	*700	919	886	720	711	996	4,300	2,550	820	820	388	428
8	3,500	919	875	810	720	1,250	3,850	2,410	875	760	330	442
9	2,400	908	897	800	702	1,330	3,330	2,300	952	864	300	518
10	1,320	897	919	750	648	1,440	2,950	2,150	985	780	270	666
11	1,110	941	853	760	598	1,370	2,980	2,030	1,120	720	265	684
12	1,360	974	886	780	614	1,350	2,530	1,960	1,050	1,060	255	648
13	1,550	1,010	952	711	675	1,400	2,260	2,060	1,080	1,240	846	574
14	1,500	941	930	702	711	1,690	2,260	2,050	1,100	1,430	1,040	961
15	1,390	952	842	657	711	2,080	2,260	1,960	996	1,360	1,030	1,680
16	1,350	996	820	622	730	2,220	2,220	1,880	1,020	1,050	1,040	930
17	1,210	985	800	675	711	2,390	2,060	1,890	1,160	684	1,010	1,030
18	1,170	952	730	675	711	2,570	1,740	1,790	1,360	e500	930	770
19	1,140	1,010	760	622	720	2,650	1,540	1,610	1,320	*570	930	582
20	1,220	985	853	675	720	2,800	1,460	1,550	1,370	1,110	1,030	542
21	1,360	985	820	711	720	2,980	1,460	1,490	1,540	1,120	1,400	407
22	1,400	1,060	*820	780	693	3,460	1,610	1,460	1,550	1,360	1,190	346
23	1,370	1,030	*780	790	684	3,460	1,820	1,440	1,560	1,630	985	370
24	1,240	963	*720	780	720	3,580	1,910	1,460	1,660	1,490	693	421
25	1,200	908	*680	750	780	4,000	1,840	1,400	1,760	1,480	675	310
26	1,150	897	*680	693	750	4,140	2,120	1,400	1,600	2,190	820	315
27	1,100	886	*650	702	711	3,850	1,940	1,140	1,290	2,760	760	352
28	1,050	875	*650	711	675	4,000	1,940	1,080	1,220	1,180	823	370
29	1,040	875	*660	780	-	3,850	2,030	1,220	1,260	1,060	711	518
30	1,040	853	675	800	-	3,580	2,300	1,080	1,220	912	622	442
31	952	-	*670	800	-	3,210	-	875	-	510	590	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	36,972	3,500	500	1,193	73,330
November	28,125	1,060	853	938	55,790
December	25,025	952	650	807	49,640
Calendar year 1938	634,032	7,300	440	1,737	1,258,000
January	22,169	810	622	715	43,970
February	19,638	790	598	701	38,950
March	70,163	4,140	684	2,263	139,200
April	76,020	4,620	1,460	2,534	150,800
May	58,655	2,880	875	1,892	116,300
June	34,831	1,760	750	1,161	69,090
July	35,840	2,760	500	1,156	71,090
August	21,576	1,400	255	696	42,800
September	17,516	1,680	310	584	34,740
Water year 1938-39	446,530	4,620	255	1,223	885,700

*Gage-height record incomplete or uncertain because of silt in well; discharge computed on basis of available gage heights, weather records, and records for stations at Otowi bridge and Cochiti.

Rio Grande near Bernardo, N. Mex.

Location.- Water-stage recorder, lat. 34°25', long. 106°48', in W½NW¼ sec. 12, T. 2 N., R. 1 E., at bridge on U. S. Highway 60, 2¼ miles east of Bernardo and 3½ miles upstream from Rio Puerco. Zero of gage is 4,723.95 feet above mean sea level (general adjustment of 1929).

Drainage area.- 19,230 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- June 1936 to January 1939 (discontinued).

Extremes.- Maximum discharge during period, 4,200 second-feet Oct. 9 (gage height, 3.84 feet); minimum daily discharge, 240 second-feet Oct. 1.
1936-39: Maximum discharge not determined, occurred in May 1937 following breaks in levee upstream from station; maximum daily discharge, 12,500 second-feet (estimated) May 19, 1937; maximum gage height, 5.41 feet May 15, 1937; minimum daily discharge, 36 second-feet July 26, 1936.

Remarks.- Records fair. Discharge for period of missing or incomplete gage-height record, Nov. 24-27, computed on basis of records for stations at Otowi Bridge, Cochiti, San Felipe, San Acacia, and San Marcial. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	240	732	583	660								
2	251	696	672	768								
3	383	744	780	780								
4	512	672	836	-								
5	368	638	935	-								
6	305	672	995	-								
7	375	808	1,060	-								
8	692	906	1,140	-								
9	3,350	605	1,120	-								
10	2,320	531	1,020	-								
11	1,300	502	892	-								
12	935	638	965	-								
13	995	744	1,060	-								
14	1,710	980	1,040	-								
15	1,710	864	1,090	-								
16	1,690	660	1,040	-								
17	1,560	768	1,070	-								
18	892	1,140	1,020	-								
19	878	995	1,040	-								
20	850	744	1,040	-								
21	878	708	1,140	-								
22	1,020	672	1,140	-								
23	1,020	616	1,020	-								
24	1,090	920	864	-								
25	732	1,030	780	-								
26	850	930	684	-								
27	794	825	627	-								
28	744	756	638	-								
29	836	616	684	-								
30	1,070	540	684	-								
31	1,300	-	540	-								

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	31,650	3,350	240	1,021	62,780
November	22,652	1,140	502	755	44,930
December	28,199	1,140	540	910	55,930
Calendar year 1938	587,255	7,660	163	1,609	1,165,000
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	-	-	-	-	-
June	-	-	-	-	-
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	165,600

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., 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. Zero of gage is 4,662.56 feet above mean sea level (general adjustment of 1929).

Drainage area.- 26,770 square miles, revised (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- April 1936 to September 1939 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, 12,700 second-feet Aug. 4 (gage height, right bank, 5.76 feet, left bank, 5.55 feet); minimum daily discharge, 1 second-foot June 23. 1936-39: Maximum discharge, 27,400 second-feet Aug. 5, 1936 (gage height, 8.35 feet), from rating curve extended logarithmically above 18,000 second-feet; minimum daily discharge, that of June 23, 1939.

Remarks.- Records fair except those for periods of incomplete or uncertain gage-height records which are poor. Socorro main canal north diverts 0.2 mile above gage.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	218	350	538	759	352	717	3,360	2,270	232	24	605	*18
2	190	760	806	344	380	820	3,040	1,500	190	18	560	12
3	236	682	786	905	356	904	2,880	2,000	92	79	396	30
4	364	656	875	1,000	613	836	2,800	1,360	206	251	2,920	11
5	338	669	913	812	360	706	4,230	2,000	62	685	*2,320	7
6	274	721	926	812	312	905	5,360	1,880	68	588	*910	4
7	364	695	1,120	851	788	820	5,870	1,910	38	257	540	6
8	607	820	1,160	922	789	758	4,600	2,170	28	195	420	7
9	4,050	865	1,090	1,030	948	796	4,110	1,520	24	206	296	*20
10	2,260	538	1,020	1,200	975	1,230	3,230	1,230	20	78	224	*10
11	865	398	975	1,090	802	1,380	2,490	990	16	66	75	*200
12	880	561	1,010	963	703	1,370	2,490	922	15	52	48	*490
13	978	961	928	954	755	1,360	2,060	1,040	13	70	34	*150
14	1,460	978	1,060	858	742	1,370	1,830	1,690	15	105	42	435
15	1,530	1,060	1,220	700	748	1,580	1,740	2,200	12	83	36	3,260
16	1,270	630	1,070	798	738	1,840	1,840	1,370	10	154	45	1,940
17	1,080	475	978	860	708	1,960	1,690	1,010	5	626	22	1,010
18	910	805	1,030	746	685	1,810	1,290	1,080	3	568	15	956
19	880	850	944	736	828	1,930	1,150	1,030	4	248	20	590
20	1,010	708	995	858	798	2,760	871	730	8	96	27	561
21	895	708	1,080	852	825	2,670	727	592	9	32	36	322
22	927	790	1,160	1,030	775	2,780	744	685	8	50	940	180
23	1,190	734	1,120	930	836	3,200	880	566	1	100	134	138
24	1,420	1,050	1,030	1,060	676	3,540	1,760	242	42	28	*160	146
25	1,010	1,120	944	937	715	3,070	1,260	224	14	52	62	92
26	775	1,050	850	836	700	3,840	872	170	89	212	36	143
27	850	721	850	966	752	3,920	826	218	456	305	329	275
28	790	734	1,060	904	770	4,540	935	260	392	2,090	185	212
29	485	505	850	818	-	4,230	925	305	*220	1,640	230	92
30	656	550	607	944	-	3,510	1,760	320	*240	3,240	*140	60
31	1,180	-	721	962	-	3,440	-	373	-	1,960	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	29,942	4,050	190	966	59,390
November	22,674	1,120	398	756	44,970
December	29,718	1,220	538	959	58,940
Calendar year 1938	588,940	7,440	30	1,614	1,168,000
January	27,937	1,200	700	901	55,410
February	22,129	975	676	790	43,890
March	64,692	4,540	706	2,087	128,300
April	67,670	5,870	727	2,256	134,200
May	34,357	2,270	170	1,108	68,150
June	2,582	456	1	86.1	5,120
July	14,158	3,240	18	457	28,080
August	12,914	2,920	15	417	26,610
September	11,377	3,260	4	379	22,570
Water year 1938-39	340,150	5,870	1	932	674,600

*Gage-height record missing or incomplete; discharge computed on basis of partial record.

Rio Grande at San Marcial, N. Mex.

Location.- Water-stage recorder, lat. 33°41', long. 106°58', at Atchison, Topeka & Santa Fe Railway bridge in Pedro Armendaris grant 34, 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 1939 in reports of Geological Survey. January 1895 to December 1931 in reports of State engineer. Records prior to January 1922 at site 0.3 mile upstream; those for January 1922 to February 1932 at site at highway bridge half a mile northeast of San Marcial and 1.8 miles upstream from present site.

Average discharge.- 43 years (1896-1939), 1,536 second-feet.

Extremes.- Maximum discharge during year, 4,850 second-feet Apr. 8 (gage height, 4.67 feet); minimum daily discharge, 0.8 second-foot June 29.
1895-1939: Maximum discharge about 50,000 second-feet Oct. 11, 1904; no flow at times.

Remarks.- Records good. Discharge estimated Apr. 28, Sept. 16, 22-25. Diversions for irrigation above station. Records furnished by International Boundary Commission, U. S. Section.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	246	1,030	607	737	822	723	3,530	1,280	385	3.9	1,520	148
2	217	842	597	770	794	772	3,110	1,990	279	11	693	96
3	183	652	593	812	740	754	2,990	1,450	197	10	1,210	59
4	170	663	707	811	864	724	2,970	1,860	139	15	1,070	29
5	188	623	857	780	1,000	715	2,990	1,840	123	17	2,060	29
6	250	622	913	757	879	700	3,930	1,790	151	157	2,180	29
7	220	604	917	806	769	642	4,380	1,780	90	313	863	26
8	210	666	897	981	728	679	4,690	1,660	65	192	555	23
9	276	738	1,050	1,090	825	650	4,240	1,780	49	106	415	17
10	2,590	870	1,020	1,050	759	534	3,990	1,380	39	68	406	16
11	2,240	486	981	1,140	780	841	3,300	1,130	38	40	229	79
12	1,260	531	985	1,060	964	1,320	2,480	921	36	32	145	112
13	980	460	944	864	866	1,350	2,300	806	29	23	90	255
14	825	639	935	833	727	1,380	1,860	924	26	21	67	348
15	1,350	722	1,050	808	652	1,230	1,790	1,180	19	18	50	455
16	1,230	1,020	1,060	727	688	1,390	1,710	1,710	17	19	42	2,220
17	1,430	790	1,100	699	647	1,620	1,740	1,290	13	19	42	1,590
18	1,120	562	1,010	769	769	1,770	1,730	988	12	80	28	643
19	927	704	970	756	737	1,640	1,260	837	8.3	345	22	664
20	699	998	1,080	760	756	1,930	1,060	674	5.6	167	16	475
21	826	715	975	763	666	2,600	841	551	2.8	103	13	386
22	880	592	999	721	658	2,920	689	466	3.9	46	12	246
23	967	688	1,030	794	668	2,700	615	563	3.4	23	234	184
24	1,010	469	1,010	877	731	3,200	670	545	4.0	20	287	144
25	1,090	811	977	886	665	3,620	1,410	277	4.0	19	106	133
26	980	1,110	915	922	637	3,600	1,090	243	2.5	19	86	119
27	817	1,140	857	833	615	3,840	838	225	2.1	19	88	128
28	847	665	759	732	664	3,960	863	230	1.3	30	160	165
29	824	679	732	743	-	4,360	1,150	286	.8	869	226	131
30	740	679	741	706	-	4,090	1,170	236	1.3	1,610	219	103
31	715	-	722	761	-	3,710	-	350	-	2,200	174	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	26,307	2,590	170	849	52,180
November	21,970	1,140	460	732	43,580
December	27,990	1,100	593	903	55,520
Calendar year 1938	531,569	6,790	53	1,456	1,054,000
January	25,758	1,140	699	831	51,090
February	21,070	1,000	615	752	41,790
March	59,964	4,360	534	1,934	118,900
April	65,386	4,690	615	2,180	129,700
May	31,242	1,990	225	1,008	61,970
June	1,747.0	385	.8	58.2	3,470
July	6,614.9	2,200	3.9	213	13,120
August	13,308	2,180	12	429	26,400
September	9,052	2,220	16	302	17,950
Water year 1938-39	310,408.9	4,690	.8	850	615,700

Rio Grande below Elephant Butte Dam, N. Mex.

Location.- Water-stage recorder, lat. 33°09', long. 107°11', in NE¼ sec. 25, T. 13 S., R. 4 W., (surveys by Bureau of Reclamation), 1,900 feet downstream from Elephant Butte Dam in Pedro Armendaris grant. Prior to Jan. 17, 1939, water-stage recorder at site 500 feet upstream, at different datum. Gage datum lowered 1.30 feet Mar. 29, 1939. Zero of gage is 4,240.98 feet above mean sea level.

Records available.- October 1916 to September 1939.

Average discharge.- 23 years, 1,169 second-feet.

Extremes.- Maximum daily discharge during year, 2,960 second-feet Nov. 29, 30; maximum mean daily gage height, 10.34 feet Sept. 29; minimum daily discharge, 11 second-feet Oct. 12, Nov. 12, 13.
1916-39: Maximum daily discharge, 3,200 second-feet July 29 to Aug. 3, 1917; no flow at times.

Remarks.- Records good. Discharge for Jan. 27-31 estimated. Considerable diversion upstream for irrigation. Flow regulated by storage in Elephant Butte Reservoir (capacity when constructed, 2,638,000 acre-feet). Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,220	12	2,950	14	16	18	1,140	2,390	514	2,030	2,260	2,190
2	1,110	12	2,950	13	16	18	2,110	2,390	1,090	2,000	1,860	2,190
3	838	12	2,950	14	16	18	2,110	2,240	1,570	2,000	648	2,190
4	598	12	2,950	14	16	18	2,010	1,840	1,570	1,990	2,260	2,190
5	355	12	2,950	14	17	17	2,040	1,810	1,570	1,990	2,260	2,190
6	351	16	2,950	14	18	17	2,040	1,810	1,730	1,990	2,260	2,190
7	133	13	2,950	304	18	17	2,190	1,810	1,980	1,980	291	2,190
8	37	12	2,940	1,670	18	17	2,420	1,810	1,980	2,080	2,050	2,190
9	12	13	2,940	2,490	18	17	2,420	1,810	2,000	2,210	2,260	2,180
10	13	12	2,940	2,890	18	17	1,660	1,810	2,050	2,210	2,250	2,180
11	12	12	2,930	2,900	18	17	1,770	1,810	2,050	2,200	2,250	2,180
12	11	11	1,950	2,880	18	17	2,420	1,810	2,050	2,200	2,250	2,170
13	12	11	15	2,880	18	17	2,420	1,310	2,040	2,190	2,250	2,170
14	541	12	17	2,880	18	17	2,420	1,620	2,070	2,250	2,240	2,170
15	2,010	12	16	1,000	18	17	2,420	1,620	2,190	2,300	2,240	2,170
16	2,020	827	14	12	18	17	2,420	1,220	2,250	2,290	2,240	2,160
17	2,020	12	14	16	18	17	2,420	921	2,260	2,290	2,230	2,160
18	2,020	892	14	16	18	17	2,420	1,630	2,250	2,290	2,230	2,160
19	1,810	2,560	15	16	18	17	2,420	1,630	2,250	2,290	2,230	2,160
20	1,020	686	15	16	18	17	2,420	1,630	2,240	2,280	2,220	2,160
21	795	12	15	16	18	17	2,420	1,630	2,220	2,290	2,220	2,160
22	12	12	16	15	18	17	2,420	1,550	2,210	2,290	2,220	2,160
23	12	679	17	15	18	17	2,410	1,160	2,210	2,290	2,220	2,150
24	13	1,920	17	15	18	17	2,410	908	2,170	2,290	2,220	2,150
25	12	13	16	16	18	17	2,410	1,440	2,100	2,290	2,220	2,150
26	13	718	16	16	18	17	1,760	1,430	2,080	2,290	2,220	2,140
27	12	2,580	17	16	18	17	2,030	1,240	2,070	2,290	2,210	2,140
28	12	2,810	18	16	18	18	2,390	391	2,070	2,280	2,210	1,640
29	12	2,960	18	17	-	18	2,010	391	2,070	2,290	2,210	2,420
30	12	2,960	17	17	-	18	2,390	391	2,070	1,920	2,200	2,410
31	12	-	15	17	-	247	-	391	-	1,670	2,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17,060	2,020	11	550	33,840
November	19,825	2,960	11	661	39,320
December	34,652	2,950	14	1,118	68,730
Calendar year 1938	443,983.3	2,960	8.4	1,216	880,500
January	20,229	2,900	12	653	40,120
February	495	18	16	17.7	982
March	764	247	17	24.6	1,520
April	66,340	2,420	1,140	2,211	131,600
May	45,843	2,390	391	1,479	90,930
June	58,974	2,260	514	1,966	117,000
July	67,250	2,300	1,670	2,169	133,400
August	65,129	2,260	291	2,101	129,200
September	65,060	2,420	1,640	2,169	129,000
Water year 1938-39	461,681	2,960	11	1,265	915,600

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., Bureau of Reclamation surveys, 600 feet upstream from Bojorquez Bridge, 4,200 feet downstream from Caballo Dam, 1 1/4 miles downstream from Apache Canyon, 1 1/3 miles upstream from Percha Diversion Dam, 3 miles northeast of Arrey, and 5 miles south of Caballo. Prior to Oct. 7, 1938, water-stage recorder at site 50 feet upstream, datum 2 feet higher; Oct. 7-13, 1938, at site 50 feet upstream, datum 1 foot higher; Oct. 13 to Nov. 9, 1938, at site 50 feet upstream, present datum. Zero of gage is 4,145.9 feet above mean sea level.

Records available.- January 1938 to September 1939.

Extremes.- Maximum daily discharge for period ending Sept. 30, 1938, 2,430 second-feet Aug. 5-7; minimum daily, 47 second-feet Jan. 21, 22.
Maximum daily discharge for year ending Sept. 30, 1939, 2,490 second-feet Aug. 30; minimum daily, 1.4 second-feet Dec. 29-31.

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 when constructed, 2,638,000 acre-feet). Records furnished by Bureau of Reclamation.

Discharge, in second-feet, 1938-39

1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				54	48	591	1,780	1,880	2,250	646	1,980	1,480
2				54	48	681	1,860	1,910	2,290	929	2,050	672
3				54	48	726	1,820	1,930	2,260	1,360	2,130	904
4				54	48	775	1,810	1,800	2,260	1,670	2,420	872
5				54	48	988	1,580	1,670	2,260	1,660	2,430	804
6				53	48	998	1,830	1,700	2,220	1,740	2,430	719
7				53	48	931	1,990	1,720	2,200	1,790	2,430	490
8				52	379	907	1,950	1,660	2,260	2,000	2,420	279
9				52	458	796	1,940	1,660	2,220	2,130	2,280	474
10				52	353	799	1,980	1,620	2,200	2,000	2,190	507
11				51	325	804	2,080	1,650	2,220	2,280	2,240	499
12				51	505	1,020	2,080	1,660	2,200	2,050	2,340	492
13				50	701	1,080	1,830	1,740	2,200	2,200	2,240	504
14				50	751	1,060	1,760	1,990	2,100	2,210	2,140	518
15				50	766	970	1,650	1,890	2,120	1,940	2,050	483
16				49	781	1,110	2,040	1,870	2,120	2,060	2,100	450
17				49	885	1,090	2,120	1,890	2,050	2,150	2,100	437
18				48	756	1,100	1,980	1,970	2,080	2,140	2,100	490
19				48	504	1,240	1,890	1,920	2,080	2,060	2,060	617
20				48	416	1,470	1,880	1,870	2,060	1,860	1,970	666
21				47	360	1,290	1,820	1,870	2,120	1,680	1,950	759
22				47	356	1,360	2,010	1,880	2,300	1,530	1,960	856
23				48	356	1,550	2,020	1,890	2,150	1,480	1,950	852
24				48	310	1,660	2,000	1,860	1,960	1,530	1,940	950
25				48	180	1,680	2,010	1,610	2,180	1,660	1,960	1,020
26				48	500	1,750	2,090	1,880	2,160	1,730	2,080	1,020
27				48	619	1,710	2,270	2,000	1,820	1,730	2,020	993
28				48	595	1,750	2,210	1,970	1,200	1,740	2,080	1,030
29				48	-	1,790	2,050	1,990	764	1,690	2,100	1,100
30				48	-	1,800	1,850	2,030	510	1,830	2,050	1,140
31				48	-	1,740	-	2,070	-	1,850	1,990	-

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Discharge, in second-feet, of Rio Grande below Caballo Dam, N. Mex., 1938-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,160	74	36	1.8	4	755	2,100	1,470	1,740	1,950	1,650	2,450
2	1,160	75	32	1.9	4	750	2,010	1,460	1,820	1,920	1,740	2,160
3	1,130	73	31	2.1	3	848	1,990	1,510	1,950	1,790	1,830	2,190
4	1,020	73	33	2.3	3	1,030	1,930	1,510	1,960	2,040	1,770	2,110
5	735	75	35	2.5	3	994	1,920	1,470	1,930	1,970	1,770	2,010
6	406	72	38	2.6	704	966	1,850	1,650	1,900	1,930	1,800	1,940
7	138	71	36	2.7	1,050	997	1,820	1,710	1,860	1,920	1,620	1,860
8	73	72	34	3.0	974	894	1,940	1,690	1,830	2,110	1,530	1,840
9	205	71	35	3.0	715	862	1,980	1,640	1,900	2,240	1,690	1,790
10	125	71	37	3.0	524	779	1,940	1,640	2,010	2,180	1,790	1,750
11	97	73	37	2.5	519	926	1,850	1,630	2,070	2,110	1,800	1,740
12	92	71	37	2.9	730	1,010	1,780	1,670	2,070	2,190	1,950	1,730
13	98	550	213	2.7	876	1,010	1,790	1,670	2,060	2,280	1,980	1,580
14	111	788	816	2.2	816	1,040	1,780	1,710	2,120	2,300	1,950	1,140
15	294	845	979	2.5	822	1,160	1,760	1,700	2,220	2,240	1,760	668
16	852	806	984	3.5	785	1,250	1,740	1,700	2,180	2,240	1,770	434
17	984	812	790	3.6	443	1,460	1,830	1,650	2,250	2,240	1,750	406
18	970	484	355	4.2	201	1,630	1,820	1,610	2,250	2,240	1,800	454
19	980	180	115	4.1	156	1,560	1,760	1,580	2,250	2,100	2,030	542
20	978	74	5.6	4.6	80	1,500	1,730	1,690	2,230	2,090	2,030	835
21	794	80	4.1	4.6	3	1,530	1,640	1,760	2,180	2,200	1,970	760
22	106	76	3.1	4.4	3	1,540	1,610	1,760	2,160	2,200	1,990	749
23	80	73	1.6	4.3	3	1,390	1,710	1,800	2,070	2,220	2,030	965
24	70	73	1.6	3.9	3	1,330	1,680	1,930	2,050	2,200	2,030	941
26	65	76	2.0	3.8	3	1,440	1,630	1,930	2,040	2,150	2,000	892
26	71	76	2.0	3.7	3	1,490	1,610	1,930	2,040	2,040	2,080	861
27	77	78	2.0	4.1	2	1,450	1,610	1,910	2,010	1,970	2,160	951
28	74	73	2.0	4.5	668	1,450	1,520	1,980	1,990	1,970	2,160	987
29	75	49	1.4	3.9	-	1,760	1,480	1,950	1,950	1,940	2,280	987
30	71	46	1.4	3.9	-	1,750	1,480	1,840	1,950	1,880	2,490	987
31	71	-	1.4	4.2	-	1,790	-	1,780	-	1,730	2,340	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
January 1938	1,552	54	47	50.1	3,080
February	11,192	885	48	400	22,200
March	37,216	1,800	591	1,201	73,820
April	58,280	2,270	1,580	1,943	115,600
May	57,050	2,070	1,610	1,840	113,200
June	60,814	2,300	510	2,027	120,600
July	55,165	2,280	646	1,780	109,400
August	66,120	2,430	1,940	2,133	131,100
September	22,077	1,480	279	736	43,790
The period	-	-	-	-	732,800
October 1938	13,162	1,160	65	425	26,110
November	6,110	845	46	204	12,120
December	4,701.2	984	1.4	152	9,320
Calendar year 1938	393,439.2	2,430	1.4	1,078	780,300
January 1939	103.0	4.6	1.8	3.32	204
February	10,100	1,050	2	361	20,030
March	38,341	1,790	750	1,237	76,050
April	53,290	2,100	1,480	1,776	105,700
May	52,930	1,980	1,460	1,707	105,000
June	61,040	2,250	1,740	2,035	121,100
July	64,580	2,300	1,730	2,083	128,100
August	59,540	2,490	1,530	1,921	118,100
September	38,709	2,450	406	1,290	76,780
Water year 1938-39	402,606.2	2,490	1.4	1,103	798,600

Reservoirs in Rio Grande Basin, Colo.

Rio Grande Reservoir.- Staff gage, lat. 37°43', long. 107°16', at dam on Rio Grande in sec. 14, T. 40 N., R. 4 W., 21 miles southwest of Creede.
Gage heights reported weekly. Dam was completed by San Luis Valley Irrigation District in 1911. Total usable capacity of reservoir, 51,113 acre-feet at gage height 90 feet (spillway crest) above gate sill. Water is used for irrigation of lands east and north of Del Norte.

Santa Maria Reservoir.- Staff gage, lat. 37°48', long. 107°06', at dam on tributary to Clear Creek in sec. 16, T. 41 N., R. 2 W., 10 miles southwest of Creede.
Gage heights reported weekly. Dam was constructed by Rio Grande Reservoir and Ditch Co. in 1911. Total usable capacity of reservoir, 45,070 acre-feet at gage height 95.0 feet (spillway crest) above gate sill. Water is diverted to this reservoir from Clear Creek below gaging station and returned to Clear Creek above mouth, entering Rio Grande between Thirtymile Bridge and Wason. Water is used for irrigation of lands north and east of Del Norte.

Continental Reservoir.- Staff gage, lat. 37°53', long. 107°11', at dam on Clear Creek in sec. 22, T. 42 N., R. 3 W., 14 miles northwest of Creede.
Gage heights reported weekly. Dam was constructed by Del Norte Irrigation Dietrict in 1927. Total usable capacity of reservoir, 26,716 acre-feet at gage height 80.00 feet (spillway crest) above gate sill. Water is used for irrigation of lands north and east of Del Norte.

Terrace Reservoir.- Staff gage, lat. 37°21', long. 106°16', at dam on Alamosa Creek, in sec. 23, T. 36 N., R. 6 E., 17 miles southwest of Monte Vista.
Gage heights reported weekly. Dam was constructed by Terrace Irrigation District in 1914. Total usable capacity of reservoir, 17,700 acre-feet at gage height 151.00 feet (spillway crest) above gate sill. Water is used for irrigation of land south of Monte Vista.

Sanchez Reservoir.- Staff gage, lat. 37°07', long. 105°25', at dam on Ventero Creek, in sec. 25, T. 2 N., R. 72 W. (Beaubien Grant Survey), 7 miles south of San Luis.
Gage heights reported weekly. Dam was constructed by Costilla Estates Development Co. in 1908. Total usable capacity of reservoir, 103,114 acre-feet at gage height 96.0 feet (spillway crest) above gate sill. Water is used for irrigation of lands south and west of San Luis. Water is diverted to this reservoir from Culebra Creek and tributaries and returned to that creek above gaging station at San Luis.

Gage height, and contents, water year October 1938 to September 1939

Date	Rio Grande Reservoir			Santa Maria Reservoir			Continental Reservoir		
	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	51.67	16,523	-	24.45	8,632	-	34.50	3,682	-
Oct. 31	-	*26,674	+10,151	-	*10,948	+2,316	34.50	3,682	0
Nov. 30	-	*30,744	+4,070	-	*11,491	+543	-	†4,500	+818
Dec. 31	72.20	33,249	+2,505	31.20	11,390	-101	-	*5,170	+670
Calendar year 1938	-	-	+31,381	-	-	+7,339	-	-	+4,496
Jan. 31	-	*34,573	+1,324	-	*11,875	+485	-	†5,731	+561
Feb. 28	-	*35,420	+847	-	*12,305	+430	-	†5,997	+266
Mar. 31	76.20	37,029	+1,609	-	*13,082	+777	-	*6,022	+25
Apr. 30	75.90	36,740	-289	-	*14,531	+1,449	43.10	6,379	+357
May 31	73.40	34,369	-2,371	45.70	17,657	+3,326	38.75	4,896	-1,483
June 30	53.05	17,579	-16,790	32.45	11,918	-5,939	31.95	3,071	-1,825
July 31	e.00	284	-17,295	6.40	2,048	-9,870	24.95	1,767	-1,304
Aug. 31	8.00	284	0	3.80	1,198	-850	21.35	1,228	-539
Sept. 30	8.00	284	0	0	0	-1,198	20.05	1,053	-175
Water year 1938-39	-	-	-16,239	-	-	+8,632	-	-	-2,629

Date	Terrace Reservoir			Sanchez Reservoir					
	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	100.8	3,122	-	80.10	16,836	-			
Oct. 31	112.5	4,715	+1,593	80.60	17,312	+476			
Nov. 30	116.4	5,299	+584	-	18,066	+754			
Dec. 31	116.4	5,299	0	81.40	18,087	+21			
Calendar year 1938	-	-	+5,222	-	-	+17,372			
Jan. 31	118.3	5,604	+305	-	*17,968	-119			
Feb. 28	120.5	5,948	+344	-	*17,627	-341			
Mar. 31	-	*6,838	+890	-	*19,695	+2,068			
Apr. 30	-	*7,526	+688	-	*23,155	+3,460			
May 31	126.1	6,906	-620	-	*25,701	+2,546			
June 30	115.8	5,209	-1,697	-	*16,748	-8,953			
July 31	99.5	2,980	-2,229	67.10	7,523	-9,225			
Aug. 31	73.5	973	-2,007	-	*3,762	-3,761			
Sept. 30	50.0	232	-741	-	*4,898	+1,136			
Water year 1938-39	-	-	-2,890	-	-	-11,938			

*Computed from gage height interpolated between weekly readings.
†Computed from estimated gage height.

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 1939 in reports of Geological Survey. May 1929 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 234 second-feet May 6, 7 (gage height, 2.80 feet); minimum daily discharge, 3.6 second-feet Nov. 17.
1929-39: 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 missing gage heights, Oct. 16-24, Oct. 26 to Nov. 4, July 2-8, and period of ice effect, Nov. 19 to Apr. 17, (computed on basis of gate openings for reservoir), and those for July 15 to Sept. 30, all of which are fair. Flow regulated by Continental Reservoir (capacity, 26,700 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	45					20	173	169	41	25	32
2	16	45					20	166	169	41	25	30
3	17	45					20	131	168	41	23	27
4	16	45					20	106	165	40	23	17
5	17	45					20	166	145	40	25	11
6	16	44					20	228	124	40	27	13
7	17	44					20	226	112	40	24	13
8	20	24					20	191	110	40	25	15
9	22	6.4					20	175	108	40	26	19
10	22	5.4					20	171	108	41	25	18
11	24	5.9					20	172	108	44	18	18
12	25	7.4					20	171	89	46	13	19
13	27	7.4					20	164	72	46	15	19
14	32	6.9					20	158	72	46	17	18
15	36	6.9					20	139	72	44	17	13
16	40	4.0					20	126	66	45	20	13
17	44	3.6					20	126	54	43	21	12
18	44	5.0					20	135	54	31	26	12
19	44	5					36	149	46	30	27	12
20	44	5					56	173	40	33	26	13
21	44	5					76	189	39	31	25	12
22	44	5					100	188	39	35	26	12
23	44	5					106	187	38	37	27	11
24	44	5					126	147	38	35	27	10
25	44	5					93	102	38	34	18	9.3
26	44	5					80	78	38	27	14	11
27	44	5					108	68	36	28	16	15
28	44	5					170	113	36	31	18	14
29	44	5					192	143	35	24	19	15
30	44	5					175	159	40	21	21	17
31	44	-					-	169	-	24	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,023	44	16	33.0	2,030
November	455.9	45	3.6	15.2	904
December	260	-	-	8.39	516
Calendar year 1938	13,949.2	211	3.6	38.2	27,670
January	620	-	-	20	1,230
February	560	-	-	20	1,110
March	620	-	-	20	1,230
April	1,678	192	20	55.9	3,330
May	4,789	228	68	154	9,500
June	2,428	169	35	80.9	4,820
July	1,139	46	21	36.7	2,260
August	688	29	13	22.2	1,360
September	470.3	32	9.3	15.7	933
Water year 1938-39	14,731.2	228	3.6	40.4	29,220

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., 1¼ miles upstream from mouth and 1½ miles southwest of village of South Fork. Zero of gage is 8,221.79 feet above mean sea level (general adjustment of 1929).

Drainage area.- 216 square miles.

Records available.- August 1910 to September 1913 and May 1936 to September 1939 in reports of Geological Survey. August 1910 to September 1922 and May 1936 to September 1939 in reports of State engineer.

Average discharge.- 15 years (1910-22, 1936-39), 250 second-feet.

Extremes.- Maximum discharge during year, 972 second-feet June 4 (gage height, 3.97 feet); minimum daily discharge recorded, 40 second-feet Aug. 18, but may have been less during period of ice effect.
1910-22, 1936-39: Maximum discharge, 5,000 second-feet (estimated) Oct. 5, 1911; minimum daily discharge, 20 second-feet Jan. 1, 2, 8, 17, 23-25, 1915; Dec. 20, 1937.

Remarks.- Records good except those for periods of missing gage heights, Oct. 1-24, Nov. 4-18 (computed on basis of two discharge measurements and records for Rio Grande at Wason and near Del Norte), and those for period of ice effect, Nov. 24 to Dec. 10, Dec. 14 to Mar. 24 (computed on basis of four discharge measurements and weather records), which are fair. A few small diversions for irrigation and several small reservoirs above station.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 21 to Sept. 16)

0.9	28	1.3	57	1.8	124	2.6	328	3.4	657
1.0	34	1.4	67	2.0	162	2.8	399	3.6	761
1.1	41	1.5	79	2.2	208	3.0	477	3.8	872
1.2	48	1.6	92	2.4	264	3.2	563		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	95	62	-	-		171	453	682	128	72	45
2	95	91	64	-	-		196	490	672	116	71	44
3	100	79	62	-	-	42	219	465	677	104	71	42
4	105	80	60	-	-		208	437	778	96	59	42
5	105	80	56	-	-		189	477	766	92	54	43
6	140	75	70	-	-		196	554	657	86	63	56
7	170	60	90	-	-		173	506	581	82	80	71
8	220	80	90	-	-	42	196	519	537	77	64	74
9	200	100	90	-	-		227	581	511	77	52	82
10	180	100	90	-	-		201	652	494	71	52	71
11	170	95	88	-	-		175	693	481	67	49	98
12	150	90	86	-	-		182	662	449	64	47	89
13	130	80	82	-	-		203	581	426	60	45	94
14	135	75	65	-	*42	50	213	528	403	61	45	110
15	140	85	75	-	-		180	498	367	65	42	142
16	150	95	75	-	-		158	494	321	75	42	106
17	170	95	75	-	-		144	445	292	68	42	95
18	165	85	75	-	-		140	519	258	65	40	86
19	155	94	75	-	-	80	156	662	232	62	41	78
20	150	92	75	-	-		173	729	213	61	41	73
21	145	87	65	-	-	110	219	719	196	58	44	68
22	140	83	55	-	-	157	264	740	184	58	44	65
23	135	80	50	-	-	175	286	724	184	56	42	62
24	128	70	50	-	-	200	267	693	174	52	42	59
25	121	62	48	-	-	194	238	682	156	50	42	56
26	114	62	47	*48	-	189	232	662	146	54	44	61
27	110	62	47	-	-	164	244	677	138	66	55	66
28	107	62	47	-	-	133	289	662	137	77	57	58
29	101	62	47	-	-	122	356	657	131	83	67	55
30	101	62	47	-	-	119	395	682	129	87	52	53
31	95	-	47	-	-	131	-	662	-	98	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,222	220	95	136	8,370
November	2,418	100	60	80.6	4,800
December	2,055	90	47	66.3	4,080
Calendar year 1938	100,315	1,720	-	275	200,000
January	1,488	-	-	48	2,950
February	1,176	-	-	42	2,330
March	2,764	200	-	89.2	5,480
April	6,490	395	140	216	12,870
May	18,505	740	437	597	36,700
June	11,373	778	129	379	22,560
July	2,316	128	50	74.7	4,590
August	1,609	80	40	51.9	3,190
September	2,144	142	42	71.5	4,250
Water year 1938-39	56,560	778	-	155	112,200

*Discharge measurement.

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 1939 in reports of Geological Survey. May 1919 to September 1924 and May 1936 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 115 second-feet May 10 (gage height, 1.60 feet); minimum daily discharge recorded, 4.4 second-feet Aug. 18; but may have been less during period of no record).
1919-24, 1936-39: Maximum daily discharge, 2,400 second-feet June 3, 1922; minimum not determined.

Remarks.- Records excellent. None for Nov. 11 to Mar. 29. One small diversion above station.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 21 to Aug. 18)

0.1	2.2	0.6	22
.2	5.0	.8	36
.3	8.4	1.0	52
.4	12.2	1.4	93
.5	17		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	13				-	20	70	58	20	10	5.7
2	12	11				-	23	73	58	17	9.9	6.0
3	12	11				-	26	71	59	15	8.8	5.0
4	11	16				-	23	66	63	14	7.7	4.7
5	11	13				-	21	71	60	13	7.4	4.7
6	13	12				-	20	80	54	13	8.8	6.0
7	26	26				-	18	71	51	12	12	6.0
8	28	8.4				-	22	69	50	12	9.9	6.7
9	20	11				-	28	78	47	10	8.1	7.7
10	17	10				-	23	86	46	8.4	7.4	8.1
11	17	-				-	20	86	46	8.4	6.7	11
12	16	-				-	22	79	43	7.4	6.0	8.8
13	17	-				-	29	70	40	7.0	6.0	8.1
14	18	-				-	31	65	38	6.7	6.4	9.5
15	21	-				-	27	67	33	8.1	5.3	12
16	28	-				-	20	65	33	10	5.0	9.9
17	22	-				-	18	59	28	11	4.7	8.8
18	16	-				-	18	68	26	9.5	4.4	9.2
19	15	-				-	20	83	25	8.1	4.7	7.7
20	15	-				-	26	84	26	6.7	5.0	7.0
21	14	-				-	36	82	23	6.0	6.7	7.0
22	14	-				-	45	83	22	6.4	6.7	6.4
23	14	-				-	47	79	23	6.0	5.3	6.4
24	14	-				-	35	71	21	5.3	5.7	6.0
25	13	-				-	35	64	19	5.0	5.7	6.0
26	12	-				-	39	60	18	7.7	6.0	7.0
27	13	-				-	39	60	18	11	7.7	7.7
28	13	-				-	50	60	19	12	8.4	6.0
29	12	-				-	63	60	18	12	8.1	5.7
30	13	-				11	65	58	20	11	6.7	5.3
31	12	-				14	-	55	-	16	6.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	490	28	11	15.8	972
November 1-10	131.4	26	8.4	13.1	261
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	909	65	18	30.3	1,800
May	2,193	86	55	70.7	4,350
June	1,085	63	18	36.2	2,150
July	315.7	20	5.0	10.2	626
August	217.2	12	4.4	7.01	431
September	216.1	12	4.7	7.20	429
Water year	-	-	-	-	-

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., 1⅛ miles downstream from East Fork and 6 miles south of Del Norte.

Drainage area.- 13.1 square miles.

Records available.- April 1936 to September 1939.

Extremes.- Maximum discharge during year, 30 second-feet May 10 (gage height, 0.73 foot); minimum daily discharge recorded, 1.0 second-foot July 24, 25, Aug. 4, 11, 12, 17, 19, Sept. 3-8, but may have been less during period of no record.
1936-39: Maximum discharge, 364 second-feet July 27, 1936 (gage height, 1.47 feet), by slope-area method; minimum daily discharge recorded, 0.4 second-foot Oct. 30, 31, 1937.

Remarks.- Records fair. None for Nov. 3 to Apr. 18. One small diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	1.2					-	11	11	3.8	1.5	1.5
2	2.6	1.0					-	13	11	2.8	1.7	1.2
3	2.6	-					-	11	11	2.6	1.5	1.0
4	2.3	-					-	12	12	2.3	1.0	1.0
5	2.1	-					-	13	12	2.3	1.7	1.0
6	2.1	-					-	14	11	2.3	1.5	1.0
7	3.8	-					-	13	9.2	2.3	1.7	1.0
8	3.8	-					-	13	7.9	2.3	1.2	1.0
9	2.3	-					-	14	7.2	2.1	1.2	1.5
10	2.1	-					-	17	7.9	2.1	1.2	1.5
11	2.3	-					-	17	7.9	2.1	1.0	1.9
12	2.8	-					-	13	7.2	1.7	1.0	1.5
13	2.8	-					-	13	7.9	1.7	1.2	1.5
14	2.8	-					-	13	6.8	1.7	1.2	1.5
15	2.8	-					-	12	6.4	1.9	1.2	1.5
16	3.0	-					-	11	6.4	2.3	1.2	1.5
17	3.0	-					-	9.9	5.5	2.1	1.0	1.2
18	2.8	-					-	12	5.1	1.7	1.2	1.2
19	2.6	-					3.0	17	4.7	1.5	1.0	1.2
20	2.3	-					3.4	15	4.7	1.5	1.2	1.2
21	2.8	-					4.3	14	5.1	1.2	1.5	1.2
22	2.8	-					4.7	13	5.5	1.5	1.2	1.5
23	2.6	-					5.1	12	5.5	1.2	1.2	1.5
24	2.6	-					4.7	11	4.7	1.0	1.2	1.5
25	2.6	-					4.3	9.9	4.3	1.0	1.2	1.2
26	2.6	-					3.8	7.9	3.8	1.2	1.2	1.7
27	2.8	-					3.8	8.6	3.8	1.7	1.5	1.5
28	2.6	-					5.9	9.2	3.4	2.1	1.9	1.5
29	2.1	-					7.2	9.2	3.8	2.1	1.2	1.2
30	1.7	-					7.9	9.9	3.8	1.9	1.5	1.2
31	1.5	-					-	9.9	-	2.1	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	80.2	3.8	1.5	2.59	159
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 19-30	58.1	7.9	3.0	4.84	115
May	378.5	17	7.9	12.2	751
June	206.5	12	3.4	6.88	410
July	60.1	3.8	1.0	1.94	119
August	40.5	1.9	1.0	1.31	80
September	39.9	1.9	1.0	1.33	79
Water year	-	-	-	-	-

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 1939 in reports of Geological Survey. April 1919 to September 1924 and May 1935 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 54 second-feet May 9 (gage height, 1.37 feet); minimum daily discharge recorded, 3.1 second-feet Sept. 4, but may have been less during period of no record.
1935-39: Maximum discharge, 156 second-feet Aug. 11, 1935 (gage height, 2.65 feet); minimum not determined.

Remarks.- Records good except those for period of missing gage heights, Oct. 25-31, May 19-25, Aug. 14-20, which were estimated and are fair. No records for Nov. 1 to Mar. 29. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.9					-	15	36	22	9.6	4.2	4.0
2	5.9					-	17	38	22	8.3	6.0	3.8
3	6.7					-	20	36	20	7.3	5.7	3.4
4	6.4					-	17	38	22	7.0	4.0	3.1
5	5.9					-	17	37	22	6.5	4.2	3.4
6	5.9					-	16	40	20	6.2	6.2	4.0
7	14					-	15	37	19	6.0	7.6	3.6
8	16					-	20	37	18	6.0	5.7	3.8
9	11					-	22	40	17	6.0	4.4	4.7
10	10					-	16	42	16	5.4	4.4	5.2
11	11					-	16	39	16	5.4	4.7	5.7
12	11					-	17	35	15	5.2	4.4	5.2
13	12					-	20	33	14	5.2	4.2	4.4
14	12					-	18	32	13	5.4	4.2	4.2
15	13					-	15	31	12	6.5	4.4	4.7
16	13					-	14	29	12	8.0	4.0	4.7
17	12					-	12	26	12	6.7	4.4	4.4
18	11					-	12	27	11	5.4	4.0	4.4
19	11					-	13	31	10	4.9	4.0	4.2
20	9.8					-	15	38	9.9	4.7	4.5	4.2
21	9.4					-	18	38	9.2	5.2	5.4	4.0
22	9.4					-	24	36	8.3	5.7	4.7	4.2
23	8.8					-	26	29	8.9	4.4	4.0	4.4
24	7.9					-	24	25	8.6	4.0	4.2	4.2
25	7.5					-	22	22	7.6	3.6	4.0	4.2
26	7.5					-	24	22	7.3	3.6	4.0	5.2
27	7.5					-	24	22	7.6	4.2	4.7	5.4
28	7.0					-	28	20	7.3	6.0	5.7	4.7
29	7.0					-	34	22	8.0	5.4	4.4	4.4
30	6.5					9.2	34	20	10	4.9	4.2	4.2
31	6.5					11	-	20	-	5.7	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	288.5	16	5.9	9.31	572
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	587	34	12	19.6	1,160
May	978	42	20	31.5	1,940
June	405.7	22	7.3	13.5	806
July	178.4	9.6	3.6	5.76	354
August	144.7	7.6	4.0	4.67	287
September	130.0	5.7	3.1	4.33	258
Water year	-	-	-	-	-

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 1939 in reports of Geological Survey. June 1923 to September 1926 and May 1936 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 90 second-feet May 14 (gage height, 2.80 feet); minimum daily discharge recorded, 2.6 second-feet Sept. 5, but may have been less during period of no record.
1923-26, 1936-39: Maximum discharge, 306 second-feet July 30, 1936 (gage height, 2.83 feet), by slope-area method; minimum daily discharge recorded, 2.1 second-feet Aug. 4, 6, 1938.

Remarks.- Records good. None for Nov. 1 to Mar. 29. No diversion above station.

Rating tables, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-6)

Oct. 1-31		Mar. 30 to Sept. 30			
1.9	5.4	1.8	1.3	2.3	24
2.0	9.0	1.9	2.9	2.4	33
2.1	15	2.0	5.7	2.5	45
2.2	23	2.1	10.3	2.7	73
2.3	32	2.2	16.4		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6					-	12	49	48	12	6.6	3.7
2	7.6					-	15	40	43	10	6.2	3.7
3	8.3					-	18	39	44	9.4	6.2	2.7
4	9.0					-	18	31	61	9.8	5.4	2.7
5	8.6					-	17	33	53	9.8	5.1	2.6
6	13					-	15	40	54	8.9	5.7	2.9
7	30					-	14	39	45	8.0	6.6	2.7
8	23					-	16	41	41	8.5	5.7	3.5
9	17					-	19	45	31	8.0	4.0	4.9
10	16					-	15	56	24	8.9	4.0	4.0
11	15					-	14	73	22	7.1	3.7	4.9
12	15					-	18	64	20	8.0	4.0	4.6
13	17					-	20	64	19	6.6	4.0	4.6
14	17					-	20	67	16	6.6	3.7	4.3
15	18					-	17	72	15	7.1	3.7	4.6
16	21					-	16	64	14	6.6	3.7	4.0
17	21					-	16	64	14	6.2	3.5	3.7
18	21					-	23	64	13	6.2	3.2	3.5
19	21					-	20	67	13	6.2	3.2	3.7
20	20					-	24	70	12	5.1	3.5	3.7
21	18					-	30	66	12	4.6	3.7	3.5
22	18					-	37	66	12	4.6	4.0	3.2
23	17					-	40	67	13	4.0	2.7	2.9
24	17					-	37	64	15	3.7	2.9	2.9
25	17					-	35	60	15	4.3	3.7	2.9
26	17					-	35	50	14	4.6	6.2	3.5
27	16					-	39	46	13	4.9	4.3	3.5
28	16					-	45	45	13	9.8	4.0	3.2
29	13					-	38	45	12	9.4	3.7	3.2
30	13					6.6	50	45	12	15	4.0	3.2
31	11					6.6	-	54	-	8.9	3.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	499.1	30	7.6	16.1	990
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	733	50	12	24.4	1,450
May	1,689	73	31	54.5	3,350
June	733	61	12	24.4	1,450
July	232.8	15	3.7	7.51	462
August	134.6	6.6	2.7	4.34	267
September	107.0	4.9	2.6	3.57	212
Water year	-	-	-	-	-

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 1939 in reports of Geological Survey. August 1910 to September 1912 and June 1914 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 267 second-feet Apr. 4 (gage height, 1.55 feet); minimum daily discharge recorded, 29 second-feet Sept. 29, but may have been less during period of no record.
1910-12, 1914-39: Maximum discharge, about 746 second-feet June 15, 1921 (gage height, 3.45 feet, former datum); minimum daily discharge, 14 second-feet Oct. 1, 2, 1933.

Remarks.- Records good except those for period of missing gage heights, Sept. 5-12, which were estimated and are fair. No records for Nov. 14 to Mar. 28. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	55				-	92	215	190	65	55	40
2	46	59				-	153	234	167	60	49	40
3	51	54				-	180	234	145	59	50	36
4	51	51				-	213	221	148	53	46	34
5	49	63				-	157	221	160	50	42	32
6	53	45				-	155	232	150	47	45	32
7	116	35				-	98	215	134	44	62	30
8	145	50				-	83	202	129	41	54	30
9	96	68				-	116	202	132	40	44	30
10	71	59				-	132	218	125	40	40	34
11	66	56				-	83	221	125	39	38	36
12	59	49				-	85	221	125	38	37	38
13	59	38				-	113	205	116	36	38	38
14	60	-				-	136	195	111	36	39	36
15	65	-				-	102	190	102	38	38	39
16	69	-				-	79	200	100	40	38	39
17	69	-				-	59	190	90	39	38	38
18	60	-				-	60	182	94	38	35	39
19	59	-				-	65	190	90	36	34	36
20	56	-				-	76	200	85	35	36	35
21	56	-				-	102	205	81	34	39	34
22	56	-				-	143	208	76	34	39	34
23	54	-				-	174	202	79	34	38	32
24	51	-				-	134	187	87	31	37	32
25	53	-				-	113	174	76	31	39	32
26	53	-				-	127	170	71	34	44	31
27	54	-				-	143	157	68	37	45	31
28	54	-				-	172	160	68	49	49	30
29	54	-				77	213	165	63	59	51	29
30	56	-				62	213	162	66	62	47	31
31	56	-				66	-	170	-	62	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,943	145	46	62.7	3,850
November 1-13	682	68	35	52.5	1,350
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,771	213	59	126	7,480
May	6,148	234	157	198	12,190
June	3,253	190	63	108	6,450
July	1,341	65	31	43.3	2,660
August	1,329	62	34	42.9	2,640
September	1,028	40	29	34.3	2,040
Water year	-	-	-	-	-

Peak discharge.- Oct. 8 (4 p.m.) 155 sec.-ft.

Closed basin in San Luis Valley, Colo.

North Crestone Creek near Crestone, Colo.

Location.- Water-stage recorder, lat. 38°01', long. 105°41', in sec. 5, T. 43 N., R. 12 E., 1¾ 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 1939.

Extremes.- Maximum discharge during year, 78 second-feet May 19 (gage height, 1.60 feet); minimum daily discharge, 2.1 second-feet Aug. 19, 24.
1936-39: Maximum discharge, 735 second-feet Aug. 6, 1936 (gage height, 4.33 feet), by slope-area method; minimum daily discharge, that of Aug. 19, 24, 1939.

Remarks.- Records good. None for Nov. 7 to Mar. 31. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	11					5.8	42	45	14	7.2	3.4
2	10	11					6.0	45	42	14	7.7	3.0
3	10	11					6.8	39	48	14	7.2	2.5
4	9.8	10					7.7	35	55	14	6.4	2.3
5	9.5	9.2					7.9	38	55	14	6.0	2.5
6	9.2	9.2					8.8	36	43	13	5.8	3.2
7	11	-					7.4	29	36	13	5.8	3.2
8	15	-					7.0	32	34	13	5.2	4.2
9	14	-					7.9	41	36	13	4.6	4.2
10	14	-					7.2	46	34	12	4.2	4.2
11	14	-					6.6	40	34	12	3.6	4.0
12	14	-					6.6	34	33	11	3.2	3.8
13	15	-					7.7	35	34	10	3.2	4.2
14	17	-					8.5	35	34	9.2	3.2	12
15	21	-					7.9	36	32	8.8	2.8	20
16	31	-					6.8	36	29	8.5	2.6	16
17	34	-					6.2	35	27	7.9	2.3	14
18	29	-					6.0	47	25	7.4	2.3	13
19	26	-					6.2	56	21	7.2	2.1	12
20	22	-					7.4	55	18	6.8	2.5	11
21	20	-					12	54	16	6.8	3.4	10
22	17	-					16	52	16	6.8	3.4	9.2
23	16	-					18	47	18	6.2	2.6	8.5
24	15	-					13	29	18	5.6	2.1	7.9
25	14	-					12	32	17	5.6	2.3	7.9
26	14	-					12	26	16	5.8	3.6	8.3
27	14	-					17	26	15	7.0	4.2	7.4
28	13	-					36	28	14	7.0	4.0	7.2
29	13	-					45	39	14	7.4	4.6	7.2
30	12	-					42	45	15	9.8	4.0	7.0
31	12	-					-	43	-	7.9	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	496.5	34	9.2	16.0	985
November 1-6	61.4	11	9.2	10.2	122
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	365.4	45	5.8	12.2	725
May	1,213	56	26	39.1	2,410
June	874	55	14	29.1	1,730
July	298.7	14	5.6	9.64	592
August	125.5	7.7	2.1	4.05	249
September	223.3	20	2.3	7.44	443
Water year	-	-	-	-	-

Peak discharge.- Sept. 14 (4 p.m.) 63 sec.-ft.

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 1939 in reports of Geological Survey. April 1919 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 102 second-feet Apr. 3 (gage height, 1.17 feet); minimum daily discharge recorded, 1.5 second-feet Aug. 19, 20.
1919-39: Maximum daily discharge, 500 second-feet Apr. 14, 1924; minimum daily, 1 second-foot July 8-10, 13-22, Aug. 1-8, 1934; Sept. 21-24, 1935.

Remarks.- Records good except those for period of missing gage heights, Oct. 12-31, which were computed on basis of one discharge measurement and weather records and are fair. No records for Nov. 1 to Mar. 29. Diversions above station for irrigation.

Rating tables, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 19 to Sept. 30)

Oct. 1-31		Mar. 30 to Sept. 30			
0.3	6.8	0.1	1.3	0.6	18
.4	11	.2	2.9	.7	28
.5	18	.3	5.1	.8	41
.6	27	.4	8.0	.9	56
.7	38	.5	11.8	1.0	72

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.9					-	32	59	28	8.0	5.1	6.3
2	8.9					-	50	64	24	7.4	4.7	5.7
3	9.7					-	56	64	20	6.8	5.1	4.2
4	9.3					-	66	62	20	6.6	4.4	3.6
5	10					-	46	59	20	6.6	4.0	3.1
6	10					-	42	62	19	5.7	4.4	3.3
7	27					-	28	56	18	5.1	7.4	3.8
8	38					-	28	52	17	5.1	5.1	4.0
9	28					-	52	52	17	4.7	4.0	4.2
10	19					-	47	52	16	3.8	3.1	4.4
11	18					-	34	52	16	3.3	2.6	4.2
12	18					-	34	52	16	2.9	2.4	4.7
13	19					-	47	48	15	2.7	2.1	4.4
14	19					-	50	48	14	2.6	2.1	4.2
15	20					-	31	47	13	2.9	1.9	4.2
16	21					-	25	47	13	3.1	1.8	5.4
17	22					-	25	44	12	3.1	1.6	4.4
18	22					-	32	41	12	3.1	1.6	3.8
19	21					-	28	41	12	2.9	1.5	3.1
20	21					-	36	38	12	2.7	1.5	3.1
21	20					-	53	36	11	2.6	2.7	3.1
22	20					-	59	34	11	2.7	2.9	3.1
23	18					-	61	32	10	2.7	2.4	3.1
24	19					-	44	31	11	2.3	2.9	3.1
25	20					-	42	31	9.1	1.9	3.8	3.1
26	20					-	47	31	8.4	1.9	5.7	3.1
27	19					-	46	28	8.4	3.8	4.9	3.3
28	19					-	50	26	9.5	4.2	6.3	3.6
29	18					*15	61	25	8.4	4.9	8.4	3.8
30	13					17	54	24	8.4	5.4	11	3.8
31	11					18	-	24	-	5.4	8.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	566.8	38	8.9	18.3	1,120
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,306	66	25	43.5	2,590
May	1,362	64	24	43.9	2,700
June	429.2	28	8.4	14.3	851
July	126.9	8.0	1.9	4.09	252
August	125.4	11	1.5	4.05	249
September	117.2	6.3	3.1	3.91	232
Water year	-	-	-	-	-

*Discharge measurement.

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 1939 in reports of Geological Survey. April 1919 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 113 second-feet Apr. 28 (gage height, 1.43 feet), from rating curve extended above 25 second-feet; minimum daily discharge recorded, 3.3 second-feet July 24, Sept. 3, but may have been less during period of no record.

1919-39: Maximum daily discharge, 395 second-feet July 14, 1938 (gage height, 2.07 feet), from rating curve extended above 100 second-feet; minimum daily discharge recorded, 1.5 second-feet Nov. 29, 30, 1936.

Remarks.- Records good except those for periods of missing gage heights, Oct. 5-11, Aug. 20, (computed on basis of records for Carnero Creek near La Garita) and those for Oct. 12-31 (computed on basis of one discharge measurement and weather records), which are fair. No records for Nov. 1 to Mar. 28. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.3					-	13	43	29	8.7	5.7	4.5
2	7.3					-	18	47	23	8.0	5.1	3.8
3	7.7					-	18	49	21	7.6	4.8	3.3
4	7.3					-	20	42	20	7.2	4.0	4.0
5	8.2					-	11	38	20	6.9	4.2	4.2
6	8.2					-	14	44	19	6.3	5.1	4.8
7	22					-	9.1	36	17	5.7	7.2	5.1
8	32					-	12	36	16	6.3	5.1	5.1
9	23					-	20	37	16	6.3	4.2	5.4
10	16					-	14	42	16	5.7	4.5	5.4
11	15					-	10	46	16	5.1	4.2	5.7
12	16					-	12	46	16	5.1	3.8	5.4
13	16					-	16	39	16	4.5	5.1	5.1
14	16					-	16	33	16	4.5	5.1	5.7
15	16					-	11	34	16	5.1	5.4	5.4
16	17					-	8.0	33	17	5.1	4.8	5.1
17	18					-	6.0	31	16	4.5	5.1	5.1
18	18					-	6.3	28	15	4.0	4.5	4.8
19	17					-	9.1	32	14	4.2	4.2	4.5
20	17					-	12	32	14	3.8	5.5	4.2
21	16					-	17	31	14	3.8	6.9	4.0
22	16					-	23	30	12	4.2	4.8	4.5
23	15					-	38	28	12	3.8	4.0	4.2
24	16					-	25	24	12	3.3	6.0	4.5
25	16					-	21	24	11	3.5	5.1	4.5
26	16					-	22	25	10	3.8	5.7	4.5
27	16					-	25	23	9.5	4.5	6.0	4.5
28	16					-	36	24	9.5	5.1	10	4.8
29	15					7.6	54	24	9.5	5.4	7.2	5.4
30	11					6.6	47	24	9.1	6.6	6.3	4.5
31	9.0					8.3	-	25	-	7.2	5.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	467.0	32	7.3	15.1	926
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	563.5	54	6.0	18.8	1,120
May	1,050	49	23	33.9	2,080
June	461.6	29	9.1	15.4	916
July	165.8	8.7	3.3	5.35	329
August	165.0	10	3.8	5.32	327
September	142.0	5.7	3.3	4.73	282
Water year	-	-	-	-	-

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 1939 in reports of Geological Survey. April 1914 to October 1919, October 1923 to September 1927, and October 1934 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 698 second-feet May 19 (gage height, 3.04 feet); minimum daily discharge recorded, 20 second-feet Sept. 4, but may have been less during period of ice effect.
1911-12, 1914-19, 1923-27, 1934-39: Maximum discharge, 4,250 second-feet Oct. 5, 1911 (gage height, 11.0 feet, former datum, from floodmark), from rating curve extended above 1,000 second-feet; minimum not determined.

Remarks.- Records excellent. None for Nov. 8 to Mar. 23. No regulation or diversion.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-3, Sept. 8-30)

0.9	14	1.4	57	2.2	262
1.0	19	1.6	89	2.4	345
1.1	26	1.8	132	2.6	440
1.2	34	2.0	189	2.8	550

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	41				-	50	336	363	77	54	24
2	39	40				-	68	372	368	70	49	24
3	39	38				-	75	350	390	69	45	22
4	35	40				-	79	341	461	68	39	20
5	37	43				-	68	368	430	64	38	21
6	40	37				-	70	420	341	62	45	25
7	68	28				-	60	354	290	54	53	25
8	86	-				-	74	363	262	53	42	32
9	68	-				-	97	430	262	53	35	45
10	62	-				-	95	493	302	49	32	50
11	58	-				-	75	516	298	48	30	74
12	54	-				-	75	435	278	44	29	66
13	60	-				-	95	368	262	41	27	62
14	69	-				-	107	358	254	40	27	89
15	86	-				-	86	354	203	40	25	120
16	132	-				-	72	336	180	44	25	87
17	107	-				-	64	266	162	41	24	74
18	82	-				-	63	332	140	38	24	63
19	74	-				-	75	493	120	35	24	54
20	64	-				-	95	516	114	32	25	49
21	62	-				-	130	493	105	31	29	43
22	62	-				-	165	504	105	31	27	41
23	57	-				-	174	472	118	30	25	39
24	53	-				64	143	400	116	28	24	35
25	52	-				49	135	324	105	28	25	35
26	49	-				50	137	286	103	30	29	41
27	48	-				48	148	332	99	38	28	48
28	47	-				36	192	341	89	49	35	39
29	43	-				35	270	341	84	58	34	37
30	45	-				32	290	341	82	64	29	33
31	42	-				37	-	315	-	80	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,860	132	35	60.0	3,690
November 1-7	267	43	28	38.1	530
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 24-31	351	64	32	43.9	696
April	3,327	290	50	111	6,600
May	11,950	516	266	385	23,700
June	6,486	461	82	216	12,860
July	1,489	80	28	48.0	2,950
August	1,004	54	24	32.4	1,990
September	1,417	120	20	47.2	2,810
Water year	-	-	-	-	-

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 1939 in reports of Geological Survey. April 1909 to November 1912, April to October 1915, February 1917 to October 1920, and April 1922 to September 1939 in reports of State engineer.

Average discharge.- 21 years (1909-10, 1915-18, 1922-39), 123 second-feet.

Extremes.- Maximum discharge during year, 570 second-feet May 11 (gage height, 3.65 feet); minimum daily discharge, 10 second-feet Nov. 25 to Mar. 24.
1909-12, 1915, 1917-20, 1922-39: Maximum daily discharge, 1,450 second-feet June 16-18, 1917; minimum daily, 3 second-feet Dec. 18, 1937 to Mar. 14, 1938.

Remarks.- Records good. Discharge for Nov. 25 to Mar. 23 computed on basis of records for gate openings at reservoir. No diversion above station. Flow regulated by Terrace Reservoir (capacity, 17,700 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	54	10	10	10	10	41	284	320	110	83	63
2	43	61	10	10	10	10	41	316	320	110	68	63
3	40	61	10	10	10	10	41	351	320	110	58	61
4	32	61	10	10	10	10	41	344	320	112	63	55
5	33	61	10	10	10	10	41	344	380	112	64	52
6	34	61	10	10	10	10	41	369	403	110	63	44
7	37	58	10	10	10	10	41	399	362	110	64	30
8	35	35	10	10	10	10	41	399	313	102	69	24
9	35	21	10	10	10	10	54	395	300	98	71	31
10	35	14	10	10	10	10	68	442	300	98	71	39
11	37	14	10	10	10	10	68	527	300	96	64	43
12	37	14	10	10	10	10	96	570	300	94	60	60
13	37	14	10	10	10	10	128	560	300	94	60	74
14	37	15	10	10	10	10	126	430	296	90	54	72
15	39	21	10	10	10	10	119	365	284	90	54	106
16	39	29	10	10	10	10	112	347	258	79	54	140
17	40	29	10	10	10	10	114	320	222	78	55	137
18	40	28	10	10	10	10	117	320	207	78	60	137
19	40	28	10	10	10	10	112	320	191	76	61	98
20	40	19	10	10	10	10	112	406	180	74	61	72
21	40	13	10	10	10	10	112	472	159	74	61	69
22	41	13	10	10	10	10	114	472	152	64	61	34
23	41	13	10	10	10	10	140	467	135	57	60	40
24	41	12	10	10	10	10	154	463	126	55	61	52
25	41	10	10	10	10	11	154	369	124	54	64	50
26	41	10	10	10	10	12	154	320	119	54	66	49
27	41	10	10	10	10	10	154	320	119	54	63	50
28	41	10	10	10	10	24	154	320	117	55	64	52
29	41	10	10	10	-	40	199	320	117	55	64	52
30	43	10	10	10	-	40	255	320	119	61	64	50
31	43	-	10	10	-	41	-	320	-	78	63	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,207	43	32	38.9	2,390
November	809	61	10	27.0	1,600
December	310	10	10	10.0	615
Calendar year 1938	50,768	989	3	139	100,700
January	310	10	10	10.0	615
February	280	10	10	100	555
March	418	41	10	13.5	829
April	3,144	255	41	105	6,240
May	11,971	570	284	386	23,740
June	7,163	403	117	239	14,210
July	2,582	112	54	83.3	5,120
August	1,948	83	54	62.8	3,860
September	1,899	140	24	63.3	3,770
Water year 1938-39	32,041	570	10	87.8	63,540

La Jara Creek at Gallegos ranch, near Capulin, Colo.

Location.- Water-stage recorder, lat. 37°09', long. 106°13' (revised), in sec. 34 (revised), T. 34 N., R. 7 E., 2 miles upstream from former station (published as La Jara Creek near Capulin, Colo.), 2½ miles upstream from Canyon del Rancho, 11 miles (revised) southwest of Capulin, and 11½ miles downstream from La Jara Reservoir.

Drainage area.- 79 square miles (revised).

Records available.- May 1936 to September 1939.

Extremes.- Maximum discharge during year, 133 second-feet Apr. 8 (gage height, 3.04 feet); minimum daily discharge recorded, 6.6 second-feet Sept. 22, but may have been less during period of no record.
1936-39: 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 missing gage heights, Apr. 4-7, which were computed on basis of records for Alamosa Creek above Terrace Reservoir and are fair. No records for Nov. 4 to Mar. 24. Small diversions above station for irrigation. Flow regulated by La Jara Reservoir (capacity, 14,040 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.9	10				-	48	53	14	35	9.5	8.8
2	9.2	10				-	65	60	13	33	10	8.2
3	9.8	10				-	70	45	13	33	10	7.6
4	9.5	-				-	72	44	13	32	9.2	7.6
5	9.8	-				-	60	40	12	32	8.5	7.6
6	9.8	-				-	60	38	12	33	9.5	8.2
7	13	-				-	50	32	12	33	12	7.9
8	26	-				-	53	30	12	34	10	7.9
9	16	-				-	78	28	12	33	14	7.6
10	13	-				-	55	29	11	33	16	8.5
11	11	-				-	34	26	11	44	16	7.9
12	11	-				-	38	25	10	44	16	7.6
13	11	-				-	52	24	10	45	17	7.6
14	11	-				-	66	23	10	51	17	7.9
15	11	-				-	33	23	9.8	52	19	8.5
16	11	-				-	26	22	9.8	39	19	8.2
17	11	-				-	21	22	9.8	16	18	8.2
18	11	-				-	24	19	9.5	33	18	7.6
19	11	-				-	32	17	9.8	32	17	6.9
20	11	-				-	38	16	10	32	16	6.9
21	11	-				-	51	15	20	32	10	6.9
22	11	-				-	55	14	27	34	9.5	6.6
23	11	-				-	62	14	34	35	8.5	6.9
24	11	-				-	47	14	35	31	8.5	6.9
25	11	-				39	43	14	35	30	8.2	6.9
26	10	-				54	46	14	35	32	8.2	7.6
27	10	-				51	43	14	35	32	8.2	7.9
28	10	-				30	48	14	35	29	8.5	7.6
29	10	-				23	57	14	35	30	8.2	7.6
30	10	-				22	55	14	35	14	7.9	7.6
31	10	-				24	-	14	-	10	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	350.0	26	8.9	11.3	694
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 25-31	243	54	22	34.7	482
April	1,482	78	21	49.4	2,940
May	771	60	14	24.9	1,530
June	549.7	35	9.5	18.3	1,090
July	1,028	52	10	33.2	2,040
August	375.9	19	7.9	12.1	746
September	229.7	8.8	6.6	7.66	456
Water year	-	-	-	-	-

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 1939 in reports of Geological Survey. April 1923 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 90 second-feet July 30 (gage height, 1.38 feet); minimum daily discharge recorded, 6.1 second-feet Sept. 5, but may have been less during period of no record.
1923-39: Maximum discharge, 318 second-feet May 23, 1926 (gage height, 2.54 feet); minimum not determined.

Remarks.- Records good. None for Nov. 3 to Mar. 30. No diversion or regulation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	13					13	63	72	30	18	9.6
2	14	14					15	67	72	27	18	8.9
3	14	-					17	70	74	27	17	8.2
4	14	-					18	72	74	27	15	7.5
5	15	-					18	67	77	25	15	6.1
6	14	-					18	70	77	25	15	6.8
7	16	-					20	70	77	24	17	7.5
8	22	-					17	67	74	24	16	9.6
9	18	-					19	70	70	24	14	9.6
10	17	-					20	74	67	21	14	9.6
11	16	-					25	74	70	20	14	9.6
12	16	-					19	77	65	19	13	8.9
13	16	-					21	74	65	18	14	10
14	16	-					26	72	63	18	13	13
15	16	-					25	72	59	19	12	17
16	16	-					22	70	57	18	12	22
17	16	-					24	70	53	16	12	16
18	15	-					21	67	51	18	11	15
19	15	-					20	72	49	17	11	14
20	15	-					24	74	46	17	12	13
21	14	-					28	77	42	17	13	13
22	14	-					38	77	40	16	11	13
23	15	-					44	77	40	16	10	13
24	14	-					44	77	36	16	10	12
25	14	-					42	77	35	16	11	13
26	15	-					42	77	35	16	13	13
27	14	-					46	74	35	18	14	12
28	13	-					49	70	34	19	13	11
29	13	-					55	67	34	17	11	11
30	13	-					59	70	34	26	10	11
31	13	-				11	-	70	-	31	9.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	467	22	13	15.1	926
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	849	59	13	28.3	1,690
May	2,225	77	63	71.8	4,410
June	1,677	77	34	55.9	3,330
July	642	31	16	20.7	1,270
August	408.6	18	9.6	13.2	810
September	343.9	22	6.1	11.5	682
Water year	-	-	-	-	-

Peak discharge.- July 30 (7 p.m.) 90 sec.-ft.

Trinchera Creek above Mountain Home Reservoir, near Fort Garland, Colo.

Location.- Water-stage recorder upstream from rating flume, lat. 37°24', long. 105°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. Prior to Mar. 28,1939, water-stage recorder 200 feet downstream at different datum.

Drainage area.- 61 square miles.

Records available.- October 1933 to September 1939 in reports of Geological Survey. May 1923 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 190 second-feet July 30 (gage height, 1.58 feet), by slope-area method; minimum daily discharge recorded, 5.6 second-feet Sept. 7, but may have been less during period of no record.
1923-39: Maximum discharge, 385 second-feet May 24, 1926 (gage height, 1.84 feet, former datum); minimum not determined.

Remarks.- Records good. None for Nov. 4 to Mar. 28. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	10				-	14	59	41	12	26	7.9
2	10	10				-	15	63	40	13	17	7.9
3	10	10				-	17	64	40	12	16	7.4
4	10	-				-	20	70	46	12	15	6.9
5	10	-				-	17	68	45	13	13	6.4
6	10	-				-	17	65	46	14	9.9	6.4
7	12	-				-	17	65	44	14	10	5.6
8	17	-				-	17	64	41	15	9.9	7.4
9	14	-				-	19	52	42	15	8.4	6.9
10	13	-				-	20	50	40	14	8.4	8.4
11	12	-				-	18	48	39	13	8.9	8.4
12	12	-				-	20	55	37	9.9	8.4	8.4
13	12	-				-	20	50	37	8.9	8.4	8.9
14	11	-				-	23	48	33	8.9	9.4	14
15	11	-				-	24	46	30	10	8.9	14
16	11	-				-	23	42	28	9.9	8.9	20
17	11	-				-	20	41	24	8.9	8.9	14
18	10	-				-	17	41	22	8.4	8.9	11
19	10	-				-	19	44	20	8.9	8.9	11
20	10	-				-	20	51	17	9.4	8.4	10
21	10	-				-	23	55	16	9.4	9.4	10
22	10	-				-	30	56	15	8.9	7.9	10
23	9.6	-				-	37	55	16	9.9	7.9	9.4
24	9.6	-				-	38	50	17	8.9	7.4	9.4
25	12	-				-	35	53	16	8.9	7.9	9.4
26	12	-				-	35	54	15	8.9	9.4	9.4
27	11	-				-	38	47	14	9.4	8.9	8.9
28	10	-				-	44	42	13	11	9.4	9.4
29	10	-				14	50	38	14	11	9.4	8.4
30	10	-				14	53	37	13	23	8.4	7.4
31	10	-				13	-	38	-	29	7.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	341.2	17	9.6	11.0	677
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	760	53	14	25.3	1,510
May	1,611	70	37	52.0	3,200
June	861	46	13	28.7	1,710
July	368.5	29	8.4	11.9	731
August	315.5	26	7.4	10.2	626
September	282.6	20	5.6	9.42	561
Water year	-	-	-	-	-

Peak discharge.- July 30 (8:30 p. m.) 190 sec.-ft.

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 1939 in reports of Geological Survey. October 1929 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 178 second-feet Apr. 5 (gage height, 2.95 feet); minimum daily discharge, 0.3 second-foot Sept. 7.
1929-39: Maximum discharge, 584 second-feet Apr. 18, 1937 (gage height, 5.20 feet); minimum daily discharge, 0.1 second-foot Nov. 3, 1937, to Feb. 28, 1938.

Remarks.- Records fair. None for Nov. 3 to Mar. 16. Several diversions above station for irrigation. Flow regulated by Smith Reservoir (capacity, 5,335 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.6				-	78	128	18	2.2	3.2	0.4
2	.6	.6				-	80	120	18	2.0	2.6	.6
3	.5	-				-	88	119	18	2.2	2.4	.6
4	.5	-				-	103	117	18	2.5	2.5	.6
5	.7	-				-	117	109	18	2.5	2.8	.6
6	.6	-				-	123	100	16	2.4	2.8	.5
7	.8	-				-	103	96	14	2.0	2.4	.3
8	1.1	-				-	104	92	17	6.0	1.9	.6
9	.9	-				-	100	77	5.1	7.6	3.6	.9
10	.7	-				-	108	68	2.6	7.0	3.4	.9
11	.8	-				-	109	63	2.6	6.8	3.2	.6
12	.9	-				-	107	73	2.6	6.8	3.8	.8
13	.9	-				-	106	63	2.6	8.3	3.2	1.0
14	.9	-				-	116	55	6.0	14	2.6	.5
15	.9	-				-	130	48	6.0	15	2.2	.9
16	.9	-				-	129	36	6.0	14	2.6	1.0
17	.9	-				40	115	27	6.2	12	1.4	.9
18	.9	-				49	110	19	6.4	12	.9	.8
19	.9	-				57	101	13	6.4	11	.8	.8
20	.9	-				69	97	11	6.2	11	.8	.6
21	.9	-				80	88	11	6.2	5.8	.6	.6
22	.9	-				84	91	8.3	6.2	3.6	.9	.8
23	.9	-				98	104	4.1	6.6	3.4	.4	.8
24	.9	-				112	120	1.9	6.8	4.3	.4	.8
25	.9	-				119	119	1.3	6.6	4.5	.6	.8
26	.9	-				112	116	1.2	6.4	4.3	.9	.8
27	.9	-				110	115	1.1	6.4	3.4	.9	.8
28	.5	-				107	112	.9	3.8	3.4	.8	.6
29	.6	-				99	114	.9	2.5	3.9	.5	.8
30	.6	-				92	124	4.9	1.6	3.6	.4	.9
31	.6	-				82	-	18	-	3.4	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	24.5	1.1	0.5	0.79	49
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 17-31	1,310	119	40	87.3	2,600
April	3,227	130	78	108	6,400
May	1,487.6	128	.9	48.0	2,950
June	248.8	18	1.6	8.29	493
July	190.9	15	2.0	6.16	379
August	55.9	3.8	.4	1.80	111
September	21.6	1.0	.3	.72	43
Water year	-	-	-	-	-

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., 1¼ 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 1939 in reports of Geological Survey. March to October 1916 and May 1923 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 185 second-feet May 3 (gage height, 3.04 feet); no flow Sept. 1-8.
1916, 1923-39: Maximum discharge, 1,520 second-feet Aug. 31, 1936 (gage height, 6.10 feet), by slope-area method; no flow at times in the years 1934-36, 1939.

Remarks.- Records good except those for periods of missing gage heights, Oct. 1-4, Apr. 26-28, which were computed on basis of records for Trinchera Creek above Turner ranch and are fair. No records for Nov. 3 to Mar. 28. A few diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	8.4				-	56	172	52	11	9.8	0
2	4.0	9.1				-	78	168	48	11	10	0
3	4.2	-				-	89	174	44	9.8	8.1	0
4	4.4	-				-	107	167	41	9.5	8.1	0
5	4.8	-				-	85	160	41	8.8	7.2	0
6	5.0	-				-	82	153	37	7.8	6.6	0
7	7.4	-				-	80	136	37	6.9	7.2	0
8	20	-				-	73	123	35	6.9	15	0
9	24	-				-	82	114	34	8.8	10	.6
10	16	-				-	90	107	30	8.1	6.6	1.1
11	14	-				-	77	104	29	6.6	4.9	1.5
12	12	-				-	82	130	27	5.4	3.9	1.1
13	11	-				-	84	127	26	4.2	3.6	2.5
14	10	-				-	98	109	24	3.4	3.6	6.3
15	9.8	-				-	105	100	23	3.9	2.9	5.2
16	8.8	-				-	89	95	20	4.4	2.7	8.4
17	8.0	-				-	76	91	19	3.9	2.4	7.5
18	7.4	-				-	74	89	18	2.9	2.0	5.4
19	7.0	-				-	72	82	13	2.9	1.5	4.4
20	7.4	-				-	77	77	18	2.5	1.3	3.9
21	7.4	-				-	88	73	17	2.0	2.7	3.2
22	8.0	-				-	111	70	16	1.5	3.2	2.7
23	7.7	-				-	125	66	16	.9	1.8	2.5
24	8.4	-				-	121	63	18	.7	1.5	2.4
25	9.1	-				-	119	65	14	.4	1.3	2.5
26	9.1	-				-	120	82	12	.8	1.5	2.5
27	8.0	-				-	120	82	12	2.9	2.7	3.2
28	8.4	-				-	140	66	12	4.2	2.4	2.7
29	8.4	-				49	158	60	12	5.4	2.2	2.7
30	8.8	-				42	166	55	13	6.0	1.5	2.9
31	8.8	-				43	-	53	-	16	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	281.3	24	4.0	9.07	558
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,924	166	56	97.5	5,800
May	3,213	174	53	104	6,370
June	758	52	12	25.3	1,500
July	169.5	16	.4	5.47	336
August	139.0	15	.8	4.48	276
September	75.2	8.4	0	2.51	149
Water year	-	-	-	-	-

Ute Creek near Fort Garland, Colo.

Location.- Water-stage recorder upstream from rating flume, lat. 37°26', long. 105°25', in sec. 10, T. 30 S., R. 72 W., 2½ miles north of Fort Garland.

Drainage area.- 32 square miles.

Records available.- October 1933 to September 1939 in reports of Geological Survey. March to October 1916 and May 1923 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 94 second-feet May 3 (gage height, 1.64 feet); minimum daily discharge recorded, 3.4 second-feet July 25, but may have been less during period of no record.
1916, 1923-39: Maximum discharge, 353 second-feet Aug. 5, 1936 (gage height, 3.05 feet); minimum daily discharge, 1.6 second-feet July 6, 1936.

Remarks.- Records good. None for Nov. 4 to Mar. 29. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	11				-	31	85	48	13	16	6.1
2	12	11				-	36	87	48	12	18	7.0
3	11	9.8				-	41	85	46	11	20	6.1
4	15	-				-	43	81	51	9.9	26	4.5
5	15	-				-	40	71	55	9.2	26	4.2
6	14	-				-	42	70	47	8.3	26	4.0
7	20	-				-	37	61	40	7.0	19	3.7
8	25	-				-	39	60	38	6.6	29	7.9
9	23	-				-	44	62	36	12	22	7.0
10	21	-				-	45	68	36	8.8	18	13
11	19	-				-	41	67	35	6.6	15	15
12	18	-				-	42	73	32	5.7	12	15
13	18	-				-	46	63	29	5.2	12	13
14	18	-				-	52	58	29	6.1	11	14
15	18	-				-	53	56	25	6.6	7.9	30
16	19	-				-	48	55	22	7.4	7.4	27
17	21	-				-	42	49	20	6.1	5.2	23
18	19	-				-	38	54	18	5.2	4.2	20
19	18	-				-	40	61	18	5.2	3.7	17
20	16	-				-	43	62	15	4.2	4.0	15
21	16	-				-	49	62	14	4.0	4.8	14
22	15	-				-	61	60	13	4.8	4.2	13
23	15	-				-	66	57	13	5.2	4.0	11
24	13	-				-	65	53	15	4.0	3.7	11
25	14	-				-	63	51	14	3.4	4.0	9.9
26	13	-				-	62	47	12	3.7	11	9.9
27	13	-				-	62	42	12	9.9	11	9.2
28	13	-				-	64	42	13	9.2	13	7.0
29	12	-				-	76	46	12	17	8.8	6.1
30	12	-				26	81	45	13	21	7.0	6.1
31	11	-				27	-	46	-	23	7.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	500	25	11	16.1	992
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,492	81	31	49.7	2,960
May	1,879	87	42	60.6	3,730
June	818	55	12	27.3	1,620
July	261.3	23	3.4	8.43	518
August	381.3	29	3.7	12.3	756
September	349.7	30	3.7	11.7	694
Water year	-	-	-	-	-

Conejos River at Platoro, Colo.

Location.- Water-stage recorder, lat. 37°21'00", long. 106°31'00", in sec. 22, T. 36 N., R. 4 E. (revised), half a mile east of Platoro and 6 miles downstream from Adams Fork.

Drainage area.- 44.4 square miles.

Records available.- April 1937 to September 1939.

Extremes.- Maximum discharge during year, 855 second-feet May 19 (gage height, 2.65 feet), from rating curve extended above 700 second-feet; minimum daily discharge recorded, 7 second-feet Nov. 24, but may have been less during period of no record.
1937-39: Maximum discharge, 1,230 second-feet May 28, 1938 (gage height, 3.17 feet), from rating curve extended above 700 second-feet; minimum daily discharge recorded, 6.6 second-feet Dec. 13, 1937, but may have been less during periods of no record.

Remarks.- Records good except those for periods of missing gage heights, Oct. 13-18, June 19 (computed on basis of records for Alamosa Creek above Terrace Reservoir), and those for periods of ice effect, Nov. 13-30, Apr. 1-11 (computed on basis of one discharge measurement and weather records), which are fair. No record for Dec. 1 to Mar. 31. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	27					50	336	438	67	32	15
2	24	16					56	363	463	60	27	14
3	24	25					70	319	509	58	24	11
4	25	37					68	363	573	56	21	10
5	25	25					66	429	524	56	22	11
6	32	28					62	400	377	51	31	19
7	62	40					60	328	314	44	31	22
8	71	36					64	363	328	42	23	51
9	56	25					71	429	319	44	17	67
10	54	16					70	478	332	39	16	53
11	53	17					68	478	314	35	14	148
12	49	8.0					71	395	297	34	11	115
13	54	8					80	350	293	24	11	123
14	62	15					76	372	260	24	10	186
15	70	19					71	350	228	25	9.0	206
16	105	20					71	289	192	25	9.0	140
17	88	17					73	256	166	22	9.5	112
18	70	14					65	386	146	20	10	90
19	67	15					69	509	110	18	9.0	80
20	67	15					80	524	94	18	8.0	67
21	65	16					120	524	94	16	11	58
22	56	13					154	519	102	17	13	51
23	53	10					157	488	107	17	9.5	45
24	49	7					151	414	102	16	9.0	39
25	45	8					134	328	90	14	16	40
26	42	8					146	281	82	14	15	53
27	39	8					189	359	78	20	20	65
28	36	8					236	400	76	30	31	49
29	31	8					302	414	78	40	26	49
30	31	8					319	380	73	58	18	42
31	30	-					-	395	-	51	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,560	105	24	50.3	3,090
November	518.0	40	7	17.3	1,030
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,249	319	50	108	6,440
May	12,224	524	256	394	24,250
June	7,159	573	73	239	14,200
July	1,055	67	14	34.0	2,090
August	530.0	32	8.0	17.1	1,050
September	2,031	206	10	67.7	4,030
Water year	-	-	-	-	-

Peak discharge.- Sept. 14 (5 p.m.) 368 sec.-ft.

Conejos River near Mogote, Colo.

Location.- Water-stage recorder, lat. 37°03', long. 106°11', in SE¼ sec. 34, T. 33 N., R. 7 E., three-quarters of a mile downstream from Fox Creek and 5½ miles west of Mogote.

Drainage area.- 282 square miles.

Records available.- September 1899 to March 1900, April 1903 to September 1913, and October 1933 to September 1939 in reports of Geological Survey. September 1899 to March 1900 and April 1903 to September 1939 in reports of State engineer.

Average discharge.- 37 years (1902-39), 379 second-feet.

Extremes.- Maximum discharge during year, 1,680 second-feet May 20 (gage height, 3.74 feet); minimum daily discharge, 35 second-feet Dec. 14.
1899-1900, 1903-39: Maximum discharge, 6,000 second-feet (estimated) Oct. 5, 1911; minimum not determined.

Remarks.- Records good except those for periods of missing gage heights, Oct. 13-21, Mar. 27 to Apr. 13 (computed on basis of range in stage from recorder chart and records for nearby stations), and those for periods of ice effect, Nov. 25, Dec. 19-21, Dec. 24 to Mar. 21 (computed on basis of five discharge measurements, weather records, and records for nearby stations), which are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	94	65	58	52	54	180	790	1,060	209	133	54
2	88	106	57	60	56	52	220	885	1,060	194	127	51
3	88	88	45	62	58	54	250	809	1,060	180	99	48
4	86	94	59	62	58	54	285	885	1,180	170	88	44
5	94	113	52	55	58	54	230	896	1,250	160	73	43
6	101	90	48	57	58	54	230	1,340	1,030	150	86	51
7	150	74	54	60	58	54	190	1,110	754	136	107	57
8	300	76	55	60	60	56	210	1,120	745	127	130	56
9	240	110	47	60	58	56	270	1,230	709	127	88	88
10	216	94	63	55	58	56	270	1,380	692	114	73	138
11	202	86	56	50	54	58	230	1,450	700	104	68	173
12	180	70	56	48	50	58	240	1,350	676	95	62	232
13	160	57	47	45	52	60	300	1,100	644	86	61	198
14	175	73	35	45	50	64	346	1,160	612	83	65	232
15	190	70	63	47	48	68	292	1,120	548	86	56	383
16	230	84	76	50	50	72	232	1,070	470	97	53	316
17	250	80	59	50	50	76	198	885	416	86	53	253
18	240	70	42	50	50	84	190	990	383	73	56	224
19	220	74	50	50	52	99	224	1,320	326	69	53	190
20	190	68	55	50	50	150	279	1,450	302	66	51	173
21	185	73	55	52	48	180	372	1,380	274	62	62	147
22	176	68	55	54	46	220	458	1,340	279	62	64	133
23	163	56	46	50	48	253	498	1,320	284	63	60	121
24	150	43	50	48	52	270	410	1,180	284	63	53	109
25	138	55	55	46	54	213	367	1,010	270	58	49	102
26	132	56	55	48	54	224	416	800	257	57	54	107
27	126	63	55	50	52	225	452	847	240	78	61	147
28	118	56	55	52	52	190	564	980	240	90	69	136
29	113	56	56	48	-	165	700	1,000	224	119	78	121
30	113	66	58	48	-	150	745	1,030	220	132	69	114
31	106	-	58	50	-	150	-	916	-	213	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,012	300	86	162	9,940
November	2,263	113	43	75.4	4,490
December	1,682	76	35	54.3	3,340
Calendar year 1938	161,812	2,940	-	443	320,900
January	1,620	62	45	52.3	3,210
February	1,486	60	46	53.1	2,950
March	3,573	270	52	115	7,090
April	9,848	745	180	328	19,530
May	34,143	1,450	790	1,101	67,720
June	17,189	1,250	220	573	34,090
July	3,409	213	57	110	6,760
August	2,262	133	49	73.0	4,490
September	4,241	383	43	141	8,410
Water year 1938-39	86,728	1,450	35	238	172,000

Conejos River near La Sauses, Colo.

Location.- Two water-stage recorders, 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.- 887 square miles.

Records available.- October 1933 to September 1939 in reports of Geological Survey. March 1921 to September 1939 in reports of State engineer.

Average discharge.- 18 years, 251 second-feet.

Extremes.- Maximum discharge during year, 1,120 second-feet May 2; minimum daily discharge, 0.6 second-foot June 28 to July 12.
1921-39: Maximum daily discharge, 3,650 second-feet May 24, 1932; no flow July 21 to Sept. 8, 1934.

Remarks.- Records good except those for periods of ice effect, missing gage heights, and those below 10 second-feet, all of which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	63	62	68	95	84	223	872	66	†0.6	1.5	1.0
2	25	68	64	68	102	84	251	958	65	†.6	1.7	1.0
3	24	70	67	67	98	84	302	936	60	†.6	4.3	1.2
4	27	66	67	72	*98	*84	363	837	54	†.6	4.5	1.3
5	26	66	68	73	*93	*84	390	795	100	†.6	4.1	1.5
6	26	66	71	70	*95	*84	296	839	135	†.6	3.8	1.7
7	29	61	70	69	*95	*84	289	844	96	†.6	4.3	1.9
8	54	60	71	72	*95	*84	227	707	55	†.6	4.3	2.1
9	112	66	74	76	*97	84	209	674	39	†.6	3.7	2.1
10	106	76	74	75	96	90	261	680	29	†.6	3.5	1.5
11	102	78	75	75	81	95	261	687	22	†.6	3.4	1.7
12	100	74	80	78	*78	105	211	643	15	†.6	2.8	1.7
13	95	70	78	78	*78	119	207	540	5.0	†.9	1.5	2.8
14	94	66	75	80	*76	155	252	494	†2.7	†.9	.9	4.3
15	94	66	70	*80	*76	169	271	514	†1.7	†.9	1.1	4.8
16	101	71	69	*80	73	172	234	484	†1.2	†.9	1.3	6.9
17	128	70	81	*78	75	177	182	429	†1.2	†.9	1.1	7.8
18	138	69	80	*78	73	186	163	340	†1.2	†.9	.9	7.6
19	115	69	78	78	73	217	127	308	†1.2	†.9	1.3	8.4
20	103	70	87	78	73	277	125	355	†2.2	†.9	1.1	7.2
21	99	74	87	73	77	338	138	415	†3.8	†.9	1.4	5.9
22	99	73	83	78	78	364	215	406	†3.8	†.9	1.3	6.9
23	96	70	82	75	78	412	345	355	†1.4	†.9	1.1	7.9
24	93	*70	82	76	75	466	424	295	†1.0	†.9	1.2	8.0
25	88	68	77	77	75	417	322	252	†1.0	†.9	1.0	9.3
26	78	61	73	82	75	378	300	230	†1.0	†.9	1.0	11
27	77	60	73	83	77	391	365	194	†1.0	2.1	1.2	11
28	76	56	71	*81	85	355	449	156	†.6	3.1	1.0	10
29	72	57	66	*79	-	292	566	128	†.6	2.9	1.0	9.9
30	68	56	66	*79	-	254	733	108	†.6	2.1	1.0	9.4
31	65	-	66	75	-	226	-	88	-	1.7	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,438	138	24	78.6	4,840
November	2,010	78	56	67.0	3,990
December	2,287	87	62	73.8	4,540
Calendar year 1938	115,192.8	2,560	.2	316	228,500
January	2,351	8.3	67	75.8	4,660
February	2,340	102	73	83.6	4,640
March	6,411	466	84	207	12,720
April	8,691	733	125	290	17,240
May	15,563	958	88	502	30,870
June	767.2	135	.6	25.6	1,520
July	31.7	3.1	.6	1.02	63
August	63.3	4.5	.9	2.04	126
September	157.8	11	1.0	5.26	313
Water year 1938-39	43,111.0	958	.6	118	85,520

*Stage-discharge relation affected by ice or gage heights missing; discharge computed on basis of weather records.
†Gage heights missing; discharge computed on basis of one discharge measurement, observer's notes, and record for secondary channel.

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 1939 in reports of Geological Survey. January to October 1915, May 1919 to October 1920, and October 1924 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 324 second-feet Apr. 30 (gage height, 2.48 feet); no flow June 23, July 8-29, Aug. 14-21, 24-31.
1915, 1919-20, 1924-39: 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. None for Nov. 4 to Mar. 23. A few small diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	3.8				-	77	238	10	0.4	1.7	0.9
2	2.3	4.4				-	105	215	9.7	.4	.8	1.2
3	3.2	4.4				-	117	181	8.6	.2	.4	.6
4	2.9	-				-	132	176	9.2	.2	.1	.3
5	3.5	-				-	83	150	9.2	.1	.2	.2
6	3.8	-				-	89	148	8.6	.1	.2	.1
7	3.5	-				-	50	122	6.3	.1	.2	1.1
8	40	-				-	50	107	5.1	0	.4	1.6
9	18	-				-	91	96	3.4	0	.2	.8
10	9.0	-				-	91	91	2.2	0	.1	1.6
11	5.4	-				-	56	80	1.9	0	.1	8.0
12	4.4	-				-	64	81	1.1	0	.1	3.4
13	3.2	-				-	104	69	.6	0	.1	1.6
14	3.2	-				-	104	58	.5	0	0	.9
15	3.2	-				-	78	51	.4	0	0	.8
16	3.2	-				-	56	47	.3	0	0	1.9
17	3.5	-				-	51	39	.2	0	0	2.6
18	3.2	-				-	52	36	.1	0	0	3.0
19	2.3	-				-	81	33	.1	0	0	1.6
20	2.6	-				-	111	30	.1	0	0	1.2
21	2.9	-				-	157	27	.1	0	0	.5
22	3.5	-				-	210	24	.1	0	.1	.2
23	4.1	-				-	212	22	0	0	.1	.1
24	4.1	-				273	152	19	.1	0	0	.3
25	3.8	-				195	145	18	.1	0	0	3.4
26	3.8	-				162	188	16	.1	0	0	1.7
27	3.8	-				134	208	16	.2	0	0	1.4
28	3.8	-				85	212	16	.3	0	0	1.9
29	3.8	-				50	220	14	.3	0	0	1.9
30	3.8	-				43	226	12	.4	.2	0	1.2
31	4.1	-				45	-	12	-	1.6	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	164.2	40	2.3	5.30	326
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 24-31	967	273	43	121	1,920
April	3,574	228	50	119	7,090
May	2,246	238	12	72.5	4,460
June	79.3	10	0	2.64	157
July	3.3	1.6	0	.11	6.5
August	4.8	1.7	0	.15	9.5
September	45.9	8.0	.1	1.53	91
Water year	-	-	-	-	-

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 1939 in reports of Geological Survey. April 1923 to September 1939 in reports of State engineer.

Average discharge.- 16 years, 101 second-feet.

Extremes.- Maximum discharge during year, 1,040 second-feet May 1 (gage height, 4.90 feet); no flow July 13, 14, July 17 to Sept. 30.
1923-39: Maximum discharge, 1,890 second-feet May 5, 1924; no flow for periods in nearly every year.

Remarks.- Records good except those for period of missing gage heights, Dec. 3, 4 (estimated), and those for period of ice effect, Dec. 24 to Mar. 23 (computed on basis of four discharge measurements and weather records), which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	5.0	2.6				96	822	102	0.5		
2	2.1	5.0	2.6				120	822	110	.3		
3	3.1	7.2	3.0	3.5			150	684	105	.3		
4	4.0	7.5	3.0				202	664	100	.3		
5	4.2	7.5	3.2				184	576	112	.3		
6	4.0	7.2	3.2			2	186	611	112	.3		
7	5.5	5.8	3.2				149	516	85	.2		
8	15	5.2	3.4		e1.0		125	471	59	.2		
9	22	6.0	3.7				136	448	46	.2		
10	13	6.8	4.8				166	430	27	.2		
11	10	5.5	4.8	3.0			154	401	18	.1		
12	9.2	5.0	5.2				134	381	17	.1		
13	9.5	4.9	4.7				156	336	18	0		
14	9.5	4.0	3.7			20	190	343	18	0		
15	9.5	4.2	3.4				178	345	16	.1		
16	9.5	4.4	3.7			40	147	331	11	.1		
17	9.5	4.7	4.0			60	120	295	8.5	0		
18	10	4.8	4.2			80	112	251	7.2	0		
19	8.2	4.0	3.7			140	120	223	6.5	0		
20	7.0	4.0	3.9			150	152	223	5.5	0		
21	6.5	4.2	3.9	2.5		160	216	227	4.5	0		
22	8.2	4.0	3.7			210	336	218	3.7	0		
23	6.8	3.9	4.0			270	456	194	2.9	0		
24	5.5	3.1	4.0			243	362	170	2.6	0		
25	4.8	2.8	4.0			202	280	160	2.1	0		
26	4.5	2.8	3.8			180	307	152	1.8	0		
27	4.7	2.6	3.8			198	387	138	1.7	0		
28	4.8	2.5	3.7			150	500	115	1.7	0		
29	5.8	2.6	3.7	2.0		118	636	107	1.4	0		
30	5.0	2.6	3.5			100	688	104	1.1	0		
31	5.0	-	3.5			91	-	94	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	228.2	22	1.8	7.36	453
November	139.0	7.5	2.5	4.63	276
December	115.6	5.2	2.6	3.73	229
Calendar year 1938	48,083.5	1,450	0	132	95,380
January	84.5	-	-	2.73	168
February	42	-	-	1.50	83
March	2,512	270	-	81.0	4,980
April	7,145	688	96	238	14,170
May	10,852	822	94	350	21,520
June	1,007.2	112	1.1	33.6	2,000
July	3.2	.5	0	.10	6.3
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1938-39	22,128.7	822	0	60.6	43,890

*Field estimate.

Los Pinos River near Ortiz, Colo.

Location.- Water-stage recorder, lat. 36°58', long. 106°03', in New Mexico, in N½ sec. 34, T. 32 N., R. 8 E., 1 mile south of Colorado-New Mexico State line, 2 miles southwest of Ortiz, and 2½ miles upstream from mouth.

Drainage area.- 167 square miles.

Records available.- October 1933 to September 1939 in reports of Geological Survey. January 1914 to November 1920 and October 1924 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,360 second-feet Apr. 30 (gage height, 4.05 feet); minimum daily discharge recorded, 9.6 second-feet Sept. 4, 5, but may have been less during period of no record.

1914-20, 1924-39: Maximum discharge, 2,770 second-feet May 9, 1937 (gage height, 5.30 feet), from rating curve extended above 1,400 second-feet; minimum daily discharge, 5 second-feet Aug. 11, Sept. 19, 1934.

Remarks.- Records good. None for Nov. 3 to Mar. 24. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	23				-	105	981	260	40	26	14
2	22	24				-	142	905	244	38	21	13
3	22	-				-	187	851	234	32	19	11
4	23	-				-	216	816	253	30	19	9.6
5	23	-				-	171	778	253	27	18	9.6
6	24	-				-	173	789	228	25	17	12
7	27	-				-	132	667	196	22	20	13
8	80	-				-	145	667	182	21	28	13
9	58	-				-	207	672	166	22	21	11
10	44	-				-	210	688	155	20	18	30
11	44	-				-	163	657	147	18	16	22
12	40	-				-	173	599	142	16	16	21
13	43	-				-	231	558	134	16	15	21
14	41	-				-	266	536	124	16	17	24
15	40	-				-	210	477	112	18	16	38
16	62	-				-	171	452	100	19	13	32
17	53	-				-	155	393	90	19	13	25
18	37	-				-	160	436	83	16	13	24
19	34	-				-	213	465	75	16	15	20
20	31	-				-	293	440	71	16	15	17
21	31	-				-	440	397	64	15	19	16
22	30	-				-	554	385	58	14	19	15
23	28	-				-	590	370	53	16	16	14
24	26	-				-	432	338	52	15	16	13
25	25	-				122	420	297	46	14	14	13
26	24	-				153	541	253	45	13	16	13
27	24	-				150	657	253	43	16	17	17
28	24	-				110	816	253	43	21	21	18
29	24	-				92	869	253	43	25	20	16
30	23	-				81	924	256	43	24	16	16
31	23	-				86	-	244	-	38	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,053	80	22	34.0	2,090
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 25-31	793	153	81	113	1,570
April	9,986	924	105	332	19,770
May	16,126	981	244	520	31,990
June	3,739	260	43	125	7,420
July	658	40	13	21.2	1,310
August	544	28	13	17.5	1,080
September	531.2	38	9.6	17.7	1,050
Water year	-	-	-	-	-

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 1939 in reports of Geological Survey. May 1909 to December 1910 and April 1927 to September 1939 in reports of State engineer. 1911-19 (unpublished) in files of office of State engineer.

Average discharge.- 22 years (1909-19, 1927-39), 65.5 second-feet.

Extremes.- Maximum discharge during year, 296 second-feet July 13 (gage height, 3.18 feet); minimum daily discharge, 18 second-feet Oct. 23, Apr. 9, 23.
1909-19, 1927-39: Maximum daily discharge, 470 second-feet June 26, 1915; minimum daily discharge, 5 second-feet Sept. 14-16, 1934.

Remarks.- Records excellent except those for period of ice effect, Feb. 1-26, which were computed on basis of weather records and are fair. Diversions above station for irrigation. Flow regulated by Sanchez Reservoir (capacity, 103,100 acre-feet).

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 6 to Aug. 21)

0.5	17	1.0	48	2.5	198
.6	22	1.6	100	3.2	294
.8	34	2.0	140		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	29	27	26	27	29	29	30	216	162	91	58
2	32	31	27	26	25	27	31	34	230	130	122	56
3	29	32	27	25	30	28	29	31	220	91	149	38
4	26	33	27	25	30	27	29	28	200	20	181	50
5	27	32	27	26	28	27	28	30	224	91	166	49
6	30	24	27	26	26	27	26	29	229	179	144	42
7	35	33	27	26	26	28	26	20	245	214	127	44
8	33	33	27	26	26	29	26	33	251	206	94	58
9	22	33	27	24	26	29	18	53	238	188	93	56
10	30	33	27	25	25	30	26	52	218	222	107	43
11	35	33	27	24	25	32	24	74	170	250	104	38
12	37	32	27	24	24	35	25	86	219	280	92	32
13	36	32	26	24	27	40	24	66	226	292	66	34
14	36	32	26	24	26	43	28	49	238	280	69	33
15	33	32	26	24	26	39	30	42	257	241	90	38
16	19	32	26	27	27	38	20	74	272	135	95	35
17	30	32	26	30	26	37	23	86	247	136	86	34
18	30	31	26	30	26	34	22	96	215	150	77	32
19	30	31	26	29	26	33	23	109	247	151	70	24
20	30	32	26	30	27	33	23	106	223	166	58	27
21	30	32	26	30	26	41	23	101	240	175	58	23
22	30	31	26	30	27	38	24	148	211	182	68	24
23	18	29	25	31	26	47	18	187	209	153	67	29
24	24	29	24	30	27	39	26	203	190	155	53	24
25	33	29	24	29	27	34	29	231	166	188	58	22
26	33	29	26	29	26	20	29	209	200	196	46	33
27	32	29	27	29	27	35	26	203	216	193	23	31
28	30	27	27	30	28	31	25	190	205	176	40	24
29	30	26	26	29	-	32	30	204	200	78	50	23
30	30	26	26	30	-	36	31	204	180	65	50	23
31	29	-	27	28	-	30	-	202	-	76	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	933	37	18	30.1	1,850
November	919	33	24	30.6	1,820
December	816	27	24	26.3	1,620
Calendar year 1938	25,197	291	12	69.0	49,980
January	847	31	24	27.3	1,680
February	743	30	24	26.5	1,470
March	1,028	47	20	33.2	2,040
April	771	31	18	25.7	1,530
May	3,210	231	20	104	6,370
June	6,602	272	166	220	13,090
July	5,221	292	20	158	10,360
August	2,653	181	23	85.6	5,260
September	1,077	58	22	35.9	2,140
Water year 1938-39	24,820	292	18	68.0	49,230

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 1939.

Extremes.- Maximum discharge during period, 512 second-feet July 15 (gage height, 3.29 feet), from rating curve extended above 250 second-feet; minimum daily discharge, 26 second-feet July 4.

Remarks.- Records excellent above 100 second-feet and good below. None for Nov. 24 to Apr. 10. Diversions above station for irrigation.

Discharge, in second-feet, 1938-39

Day	1938						1939					
	Aug.	Sept.	Oct.	Nov.			Apr.	May	June	July	Aug.	Sept.
1	-	74	48	41			-	53	234	167	89	68
2	-	78	48	44			-	55	251	136	124	67
3	-	57	45	46			-	53	242	100	157	48
4	-	57	39	46			-	49	219	26	194	61
5	-	50	41	48			-	50	245	78	170	60
6	-	50	45	46			-	49	245	194	154	54
7	-	50	54	46			-	41	263	242	133	57
8	-	51	75	46			-	50	266	240	100	71
9	-	50	40	49			-	70	254	208	96	68
10	-	46	45	49			-	61	231	242	113	57
11	-	51	50	50			39	82	170	272	113	53
12	-	51	51	46			32	98	231	296	96	49
13	91	42	51	44			32	80	234	308	74	49
14	83	41	51	41			33	65	248	305	76	46
15	76	41	50	42			39	57	272	290	92	61
16	82	45	34	44			30	80	290	145	102	55
17	100	44	41	45			33	91	263	133	92	45
18	94	33	44	42			36	104	234	140	80	42
19	85	42	44	44			36	120	266	142	76	36
20	92	44	41	45			37	120	240	164	65	37
21	92	41	40	46			38	115	257	186	65	37
22	94	39	40	45			39	160	231	191	76	36
23	109	46	41	44			37	205	231	160	76	40
24	102	45	40	-			44	225	205	160	65	37
25	92	46	48	-			44	263	167	199	71	31
26	92	46	45	-			48	242	219	211	60	45
27	94	53	46	-			44	234	226	219	37	42
28	72	50	44	-			42	219	211	194	50	36
29	57	49	42	-			46	245	211	80	58	36
30	49	46	44	-			51	222	186	67	58	36
31	64	-	42	-			-	216	-	72	67	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
August 13-31, 1938	1,620	109	49	85.3	3,210
September	1,458	78	33	48.6	2,890
October	1,410	76	34	45.5	2,800
November 1-23	1,039	50	41	45.2	2,060
The period	-	-	-	-	10,960
April 11-30, 1939	780	51	30	39.0	1,550
May	3,774	263	41	122	7,490
June	7,041	290	167	235	13,970
July	5,567	308	26	180	11,040
August	2,879	194	37	92.9	5,710
September	1,460	71	31	48.7	2,900
The period	-	-	-	-	42,660

Peak discharge.- 1939: June 17 (5 p.m.) 377 sec.-ft.; July 15 (7 p.m.) 512 sec-ft.

Costilla Creek above reservoir, near Costilla, N. Mex.

Location.- Water-stage recorder and timber control, lat. 36°54'25", long. 105°15'00", in Sangre de Cristo grant, 2¾ miles by road upstream from Costilla Dam and 17 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1939 (except winters).

Extremes.- Maximum discharge during period ending Sept. 30, 1937, 67 second-feet May 2 (gage height, 1.44 feet) from rating curve extended above 17 second-feet; minimum daily discharge, 2.7 second-feet Sept. 14-16, 19, 20, 25, 27, 28.

Maximum discharge during year ending Sept. 30, 1939, 55 second-feet May 2 (gage height, 1.44 feet); minimum daily discharge recorded, 2.2 second-feet July 24.

1937-39: Maximum discharge, 175 second-feet May 15, 1938 (gage height, 1.90 feet), from rating curve extended above 80 second-feet; minimum daily discharge recorded, that of July 24, 1939.

Remarks.- Records poor. No diversions above station.

Revisions.- Revised figures of discharge for period ending Sept. 30, 1937, superseding those published in Water-Supply Paper 828, are given herein.

Discharge, in second-feet, 1936-37, 1938-39

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								*24	24	21	*4.0	3.7
2								*23	30	19	*3.5	3.2
3								*23	46	17	4.2	4.7
4								*24	40	16	*6.3	5.2
5								*25	33	14	6.3	4.7
6								*26	28	12	5.8	4.2
7								26	26	14	*10	4.2
8		†13						26	24	16	*6	4.2
9								27	22	14	*5	3.7
10								28	20	14	*4.5	3.7
11								27	20	14	*4.0	3.7
12								31	21	13	3.7	3.2
13								33	20	11	4.2	3.2
14								37	20	10	4.2	2.7
16								45	19	9.2	*4.2	2.7
16								42	19	8.6	4.2	2.7
17								40	19	7.8	4.7	3.2
18								41	19	6.8	3.7	3.2
19								41	18	6.3	4.2	2.7
20								34	16	8.5	3.7	2.7
21								31	18	9.2	4.2	3.2
22								28	19	7.3	*3.8	3.2
23								30	18	6.2	*3.6	3.2
24								31	17	*7.0	*3.4	3.2
25								30	20	7.8	*3.6	2.7
26								28	21	*6.5	3.7	3.2
27								27	23	*5.0	*4.0	2.7
28								26	19	11	4.7	2.7
29								26	16	6.8	3.2	3.2
30							26	31	28	*5.0	3.7	6.3
31							-	26	-	*4.5	4.2	-

*Gage height missing or doubtful; discharge computed on basis of records for Casias Creek near Costilla and Latir Creek near Cerro.
†Discharge measurement.

Discharge, in second-feet, of Costilla Creek above reservoir, near Costilla, N. Mex., 1936-37, 1938-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	3.2						-	17	5.3	3.8	3.2
2	4.3							28	16	5.0	5.9	*2.8
3	3.8							26	15	5.0	5.0	*3.0
4	3.6							29	15	*5.0	4.3	*3.0
5	3.4							27	16	*4.3	4.3	*3.0
6	3.0							24	16	*4.0	5.0	*2.6
7	7.2							22	15	*3.8	9.4	*2.6
8	18							22	14	*3.6	8.6	2.6
9	9.4							22	12	*3.4	5.6	8.6
10	6.2							23	11	*3.4	5.6	7.6
11	5.3							*24	10	*3.2	4.6	5.6
12	4.6							*28	9.4	*3.0	4.0	3.8
13	4.3							*27	8.6	2.6	4.3	3.4
14	4.3							*27	8.1	3.4	4.0	4.0
15	4.3							*28	7.2	4.6	3.8	5.9
16	4.0							*23	6.9	5.3	3.8	8.6
17	3.8							21	*6.5	3.0	3.8	5.3
18	3.2							21	*6.0	3.0	3.6	5.0
19	3.4							22	*5.8	3.0	2.6	4.3
20	2.8							22	*5.6	3.6	3.6	3.6
21	3.0							22	*5.6	3.0	4.6	3.8
22	3.0							19	*5.5	2.8	3.6	3.8
23	3.2							19	*5.9	2.6	*3.4	3.6
24	2.8							18	*5.4	2.2	3.2	3.8
25	3.0							22	*5.9	2.4	*3.9	3.4
26	3.0							27	*5.6	3.2	4.6	4.0
27	3.2							22	*5.9	3.8	4.0	6.9
28	3.2							19	5.6	5.0	4.0	4.3
29	3.2							17	5.9	5.9	*3.8	4.6
30	3.4							17	5.6	5.9	3.6	5.3
31	3.0							16	-	5.0	3.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
May 1937	937	45	23	30.2	1,860
June	683	46	16	22.8	1,350
July	327.4	21	4.5	10.6	649
August	138.5	10	3.2	4.47	275
September	105.1	6.3	2.7	3.50	208
The period	-	-	-	-	4,340
October 1938	136.5	18	2.8	4.40	271
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
May 2-31, 1939	684	29	16	22.8	1,360
June	278.0	17	5.4	9.27	551
July	119.3	5.9	2.2	3.86	237
August	137.5	9.4	2.6	4.44	273
September	132.0	8.6	2.6	4.40	262
The period	-	-	-	-	-

*Gage height missing or doubtful; discharge computed on basis of recorder, and records for Latir Creek near Cerro and Oasias Creek near Costilla.

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 reservoir at Costilla Dam and 18 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1939 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 208 second-feet at times in period June 25-29 (gage height, 2.11 feet); minimum daily discharge recorded, 1.0 second-foot May 3.
1937-39: Maximum discharge recorded, 225 second-feet July 23, 1937 (gage height, 2.24 feet); minimum daily discharge recorded, 0.6 second-foot Oct. 9-13, 1937.

Remarks.- Records good. None for Nov. 2 to May 2. No diversion above station. Flow controlled by Costilla Dam, which forms reservoir with a capacity of 20,750 acre-feet.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	1.9						-	52	17	51	49
2	26							-	42	63	75	17
3	26							1.0	39	75	82	40
4	26							1.3	58	69	59	61
5	26							1.3	71	112	16	38
6	22							1.3	76	111	49	18
7	13							1.3	77	76	53	54
8	4.7							8.3	78	17	16	51
9	1.6							28	53	61	16	12
10	1.6							56	17	109	23	12
11	1.6							68	45	111	26	40
12	1.6							67	95	116	18	38
13	1.6							67	100	115	37	12
14	1.6							67	100	76	64	21
15	1.9							67	99	16	86	16
16	1.9							44	65	58	92	8.0
17	1.9							45	17	108	95	8.0
18	1.9							45	56	109	59	15
19	1.9							26	104	119	16	15
20	1.9							2.4	111	115	54	12
21	1.9							27	113	79	95	14
22	1.9							53	115	17	97	14
23	1.9							58	71	60	99	12
24	1.9							63	17	112	100	12
25	1.9							36	76	115	64	12
26	1.9							.8	124	110	17	19
27	1.9							.8	126	113	52	12
28	1.9							20	127	77	77	13
29	1.9							42	120	16	70	11
30	1.9							46	72	16	70	e.4
31	1.9							50	-	25	71	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	211.6	26	1.6	6.83	420
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 3-31	993.5	68	.8	34.3	1,970
June	2,316	127	17	77.2	4,590
July	2,393	119	16	77.2	4,750
August	1,799	100	16	58.0	3,570
September	664.4	61	8.0	22.1	1,320
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 1939 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 319 second-feet Sept. 7 (gage height, 2.83 feet), from rating curve extended above 200 second-feet; minimum recorded, 13 second-feet Feb. 7 (result of discharge measurement).

1936-39: Maximum discharge recorded, 892 second-feet Apr. 13, 1937 (gage height, 3.96 feet), from rating curve extended above 200 second-feet; minimum daily discharge recorded, 11 second-feet Oct. 7, 9-11, 1937.

Remarks.- Records fair except those for periods of missing gage heights, Sept. 14-16, 27-30, which were computed on basis of weather records, range of stage, and records for Costilla Creek below reservoir near Costilla and for Latir Creek near Cerro and are poor. No records for Oct. 18 to Mar. 23. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38					-	47	92	99	39	47	79
2	38					-	53	98	93	33	73	32
3	38					-	55	98	72	109	88	29
4	38					-	64	100	76	38	86	68
5	39					-	60	103	102	114	34	67
6	38					-	61	97	104	109	33	28
7	40		*32		*13	-	47	94	101	114	91	47
8	68					-	48	88	50	38	33	109
9	38					-	56	97	98	34	31	40
10	31					-	58	123	53	106	31	43
11	27					-	47	155	47	109	33	32
12	25					-	48	163	96	109	28	84
13	24					-	51	159	108	111	27	31
14	23					-	55	155	105	113	54	35
15	23					-	56	157	107	42	73	45
16	23					-	52	145	109	41	87	50
17	23					-	43	119	46	111	91	32
18	-					-	46	110	40	117	90	29
19	-					-	47	109	103	118	31	38
20	-					-	49	70	118	117	28	29
21	-					-	56	66	131	116	88	26
22	-					-	67	99	132	36	93	31
23	-					-	76	98	134	31	94	24
24	-					74	81	103	47	106	98	23
25	-					61	74	109	38	103	95	23
26	*17					62	73	71	124	114	36	25
27	-					63	77	62	112	123	32	35
28	-					47	79	56	112	129	87	30
29	-					40	88	85	118	47	72	25
30	-					38	90	86	113	39	75	21
31						38	-	89	-	37	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1-17	574	68	23	33.8	1,140
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 24-31	423	74	38	52.9	839
April	1,804	90	43	60.1	3,580
May	3,256	163	66	105	6,460
June	2,788	134	38	92.9	5,530
July	2,603	129	31	84.0	5,160
August	1,937	98	27	62.5	3,840
September	1,210	109	21	40.3	2,400
Water year	-	-	-	-	-

*Discharge measurement.

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Casias Creek near Costilla, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°54'05", long. 105°15'30", in Sangre de Cristo grant, 300 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 1939 (irrigation season only).

Extremes.- Maximum discharge recorded during year, 34 second-feet May 12, 26 (gage height, 0.86 foot); minimum daily discharge recorded, 3.0 second-feet Aug. 14.

1937-39: Maximum discharge recorded, 108 second-feet June 3, 1937, from rating curve extended logarithmically above 40 second-feet; maximum gage height, 1.90 feet June 14, 1938 (backwater from Costilla Dam); minimum daily discharge recorded, that of Aug. 14, 1939.

Remarks.- Records good except those for period of missing gage heights, Sept. 8-13, which were computed on basis of weather records and records for Costilla Creek above reservoir near Costilla and for Latir Creek near Cerro, and are poor. No records for Nov. 2 to May 1. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.3	*6.1						-	23	7.3	4.8	4.8
2	7.7							25	22	7.0	5.1	4.6
3	7.3							23	22	7.0	4.3	4.6
4	7.0							26	22	6.6	4.0	4.8
5	7.0							27	22	6.3	3.7	4.8
6	6.6							25	20	6.3	4.3	4.8
7	11							24	16	5.6	7.0	4.6
8	19							24	14	5.4	5.1	5.0
9	9.5							25	13	5.4	4.3	8.0
10	8.1							26	12	5.6	4.0	7.5
11	7.3							28	12	5.1	3.7	6.0
12	7.0							31	12	5.4	3.5	5.5
13	7.0							30	11	4.6	3.5	5.5
14	7.0							30	11	5.6	3.7	6.3
15	6.6							31	10	6.3	3.7	9.1
16	7.0							30	9.9	7.0	3.5	9.5
17	7.0							27	9.9	5.9	3.5	7.3
18	6.6							24	9.5	5.4	3.5	7.0
19	7.0							26	9.1	5.1	3.0	6.6
20	6.3							28	8.8	5.1	3.5	6.3
21	6.6							30	8.8	4.6	4.3	6.3
22	7.3							30	8.1	4.3	5.4	5.9
23	7.0							30	8.1	4.3	5.4	5.9
24	6.6							30	8.4	4.3	5.4	5.9
25	7.0							31	8.1	4.6	5.4	5.9
26	6.6							31	8.4	4.3	5.6	7.3
27	6.6							26	8.1	4.8	5.9	8.8
28	6.6							25	8.4	6.6	5.9	5.9
29	6.6							24	7.7	5.6	5.9	7.0
30	6.6							24	7.7	5.1	5.6	6.6
31	6.6							23	-	4.8	5.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	233.4	19	6.3	7.53	463
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 2-31	814	31	23	27.1	1,610
June	371.0	23	7.7	12.4	736
July	171.3	7.3	4.3	5.53	340
August	141.6	7.0	3.0	4.57	281
September	187.9	9.5	4.6	6.26	373
Water year	-	-	-	-	-

*Discharge measurement.

Santistevan Creek near Costilla, N. Mex.

Location.- Water-stage recorder and wooden control, 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 1939 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 6.0 second-feet Aug. 7; maximum gage height recorded, 0.97 foot May 26, 27; minimum daily discharge recorded, 0.5 second-foot Oct. 23.

1937-39: Maximum discharge observed, 14 second-feet June 6, 1938 (gage height, 1.20 feet); but may have been greater in May 1937, when intake pipe was obstructed. Minimum daily discharge recorded, that of Oct. 23, 1938.

Remarks.- Records fair except those for period of missing gage heights, June 24-29, which were interpolated and are poor. No records for Nov. 2 to May 1. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	1.0						-	4.8	2.6	1.7	1.1
2	1.1							2.3	4.2	2.4	1.8	1.0
3	1.0							2.6	3.6	2.3	1.8	1.0
4	1.0							2.6	4.2	2.2	1.9	1.0
5	1.0							2.7	4.4	2.0	1.9	1.0
6	1.0							2.7	4.0	1.9	1.9	1.0
7	.9							2.6	4.4	2.0	2.4	1.0
8	1.4							2.7	4.2	2.2	2.0	1.0
9	1.2							3.2	4.4	2.0	1.8	1.4
10	1.0							3.2	4.4	1.9	1.7	1.3
11	1.0							3.4	4.2	1.7	1.6	1.1
12	1.1							3.4	4.2	1.8	1.6	1.0
13	1.1							3.8	4.0	1.8	1.6	1.0
14	1.2							3.8	3.8	1.9	1.4	1.0
15	1.3							3.8	3.4	2.0	1.4	1.3
16	1.4							3.8	3.2	2.0	1.4	1.4
17	1.4							4.0	3.2	1.7	1.6	1.3
18	1.1							3.8	3.0	1.7	1.7	1.1
19	1.1							4.0	2.9	1.6	1.4	1.1
20	1.0							4.0	2.9	1.6	1.4	1.0
21	.9							4.0	2.9	1.7	1.3	1.0
22	.7							4.0	2.9	1.4	1.3	1.0
23	.5							4.0	3.2	1.6	1.2	1.0
24	.7							4.2	3.1	1.3	1.2	1.0
25	.9							4.6	3.1	1.2	1.3	1.0
26	.9							5.0	3.0	1.3	1.2	.9
27	1.0							5.0	2.9	1.7	1.4	1.3
28	.8							4.8	2.8	2.4	1.4	1.1
29	.9							4.8	2.8	1.9	1.2	1.1
30	1.0							4.6	2.7	1.9	1.0	1.0
51	1.1							4.6	-	1.7	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	31.8	1.4	0.5	1.03	63
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 2-31	112.0	5.0	2.3	3.73	222
June	107.0	4.8	2.7	3.57	212
July	57.4	2.6	1.2	1.85	114
August	47.5	2.4	1.0	1.53	94
September	32.5	1.4	.9	1.08	64
Water year	-	-	-	-	-

Latir Creek near Cerro, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°49'45", long. 105°32'45", in SW¼ 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 1939 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 30 second-feet July 31 (gage height, 1.22 feet); minimum daily discharge recorded, 2.4 second-feet Nov. 7.
1937-39: Maximum discharge recorded, 71 second-feet June 13, 1938 (gage height, 1.88 feet) from rating curve extended logarithmically above 34 second-feet; maximum gage height not determined, probably occurred in May or June 1937. Minimum daily discharge recorded, 0.6 second-foot May 9, 1937.

Remarks.- Records good except those for periods of missing or doubtful gage heights, Oct. 16-20, Apr. 14-21, which were computed on basis of weather records and records for Casias Creek near Costilla and Rio Colorado near Questa, and are poor. No records for Nov. 13 to Apr. 4. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	3.4					-	14	21	7.0	5.7	4.1
2	4.3	3.0					-	15	21	6.8	6.4	4.0
3	4.3	3.4					-	14	21	6.6	6.6	3.8
4	4.3	3.6					-	16	22	6.4	5.7	3.8
5	4.3	3.6					5.5	18	22	6.1	5.5	3.8
6	3.8	2.5					5.1	16	21	5.9	7.3	3.8
7	5.6	2.4	*3.0				5.1	15	20	5.9	6.8	3.6
8	6.6	2.8					5.3	15	18	5.9	5.9	3.8
9	5.3	3.8					5.7	17	17	5.5	5.5	5.1
10	4.9	3.3					5.1	18	16	5.3	5.3	5.1
11	4.7	3.1					5.1	19	16	5.1	5.1	4.3
12	4.5	3.1					5.1	20	16	4.9	5.1	4.0
13	4.3	-					5.3	19	15	4.9	4.9	4.1
14	4.3	-					6.0	18	14	5.1	4.5	5.5
15	4.1	-					6.5	18	13	5.9	4.5	9.0
16	4.3	-					6.0	17	12	5.9	4.3	11
17	4.2	-					6.0	16	12	5.3	4.1	7.3
18	4.2	-					8.0	18	11	5.1	4.3	5.9
19	4.1	-					10	20	11	5.1	4.9	5.5
20	4.0	-					12	20	10	5.1	5.6	5.1
21	4.0	-					13	21	9.2	4.9	5.5	4.7
22	4.1	-					13	21	9.0	4.9	4.7	4.5
23	3.6	-					11	21	9.2	5.1	4.5	4.3
24	3.8	-					9.2	20	8.4	4.9	4.1	4.1
25	3.6	-					9.2	18	8.0	5.1	5.3	4.0
26	3.8	-					9.0	20	7.7	6.1	5.1	4.3
27	4.0	-					9.0	18	7.5	6.6	4.9	4.5
28	3.8	-					12	17	7.7	7.8	4.7	3.8
29	3.6	-					12	17	7.5	7.7	4.3	3.4
30	3.6	-					13	18	7.0	6.6	4.3	3.4
31	3.6	-					-	20	-	9.6	4.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	132.2	6.6	3.6	4.26	262
November 1-12	38.0	3.8	2.4	3.17	75
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 5-30	212.2	13	5.1	8.16	421
May	554	21	14	17.9	1,100
June	410.2	22	7.0	13.7	814
July	163.1	9.6	4.9	5.91	363
August	159.6	7.3	4.1	5.15	317
September	143.6	11	3.4	4.79	285
Water year	-	-	-	-	-

*Discharge measurement.

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., 1¾ miles upstream from Cabresto Creek and 2 miles east of Questa. Zero of gage is 7,449.88 feet above mean sea level (raised 1.41 feet Oct. 4, 1938).

Drainage area.- 112 square miles.

Records available.- October 1912 to August 1915 and October 1930 to September 1939 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 200 second-feet May 13 (gage height, 1.46 feet) from rating curve extended logarithmically above 148 second-feet; minimum daily discharge, 12 second-feet Dec. 24.

1930-39: Maximum discharge, 870 second-feet June 14, 1935 (gage height, 3.14 feet, former datum), from rating curve extended logarithmically above 250 second-feet; minimum daily discharge, 6.3 second-feet Nov. 24, 25, 1931.

Remarks.- Records good except those for periods of missing or incomplete gage-height record and those for periods of ice effect, which are fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*40	35	24	25	23	21	54	134	118	45	30	21
2	*40	34	24	25	†18	18	61	148	114	42	30	21
3	*40	33	22	25	†19	20	67	148	118	40	30	20
4	37	32	25	24	†22	21	82	161	122	39	30	20
5	37	34	24	20	†22	16	86	170	122	37	29	20
6	37	30	24	25	†22	16	80	185	122	36	29	20
7	45	18	25	25	24	18	67	180	114	39	29	20
8	67	23	25	25	22	18	67	170	104	36	27	20
9	54	34	24	25	20	19	74	170	97	35	25	23
10	46	35	25	22	16	21	67	175	94	33	25	27
11	45	34	25	22	†17	21	57	180	94	32	25	23
12	45	32	25	16	†18	21	61	185	90	36	25	21
13	43	24	24	†16	†19	24	62	180	87	31	25	22
14	41	30	16	†17	†20	26	67	175	80	31	25	25
15	40	33	23	*20	21	28	69	166	74	33	24	26
16	45	32	25	*23	21	30	69	161	69	37	23	30
17	43	31	25	*21	†20	34	59	152	67	33	23	26
18	41	29	20	*20	†19	39	61	148	61	31	21	26
19	40	29	25	*20	†20	42	62	148	57	31	21	25
20	37	30	25	*23	21	42	67	156	56	33	22	24
21	35	30	25	*25	20	43	80	161	52	31	25	23
22	35	28	23	*25	18	49	97	152	50	30	23	23
23	35	21	13	*25	20	64	108	152	52	30	22	22
24	34	16	12	*23	21	64	111	152	50	29	21	22
25	33	21	18	*20	21	62	104	143	47	28	21	21
26	34	21	16	27	†20	64	104	130	46	29	23	23
27	34	21	19	27	†20	64	108	118	46	30	25	23
28	34	20	25	30	20	54	108	114	47	30	24	22
29	34	20	25	27	-	47	118	114	47	33	24	22
30	33	21	23	25	-	46	125	114	46	34	23	22
31	34	-	24	25	-	46	-	111	-	34	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,238	67	33	39.9	2,460
November	831	35	16	27.7	1,650
December	698	25	12	22.5	1,380
Calendar year 1938	26,758	386	10	73.3	53,060
January	718	30	16	23.2	1,420
February	564	24	16	20.1	1,120
March	1,098	64	16	35.4	2,180
April	2,401	125	54	80.0	4,760
May	4,753	185	111	153	9,430
June	2,345	122	46	78.1	4,650
July	1,048	45	28	33.8	2,080
August	770	30	21	24.8	1,530
September	683	30	20	22.8	1,350
Water year 1938-39	17,145	185	12	47.0	34,010

*Gage-height record missing or fragmentary; discharge computed on basis of weather records and records for Rio Hondo at Arroyo Hondo.

†Stage-discharge relation affected by ice; discharge computed on basis of gage heights, weather records and records for Rio Hondo at Arroyo Hondo.

Rio Hondo near Valdez, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°32'20", long. 105°33'30", in S½ sec. 28, T. 27 N., R. 13 E., 200 feet upstream from old toll gate, 1½ miles east of Valdez, and 9 miles upstream from mouth. Prior to Oct. 27, 1938, recorder at same site but datum 1.92 feet lower.

Records available.- August 1934 to September 1939. October 1930 to September 1934 at site half a mile downstream, below two diversions.

Extremes.- Maximum discharge during year, 108 second-feet May 22 (gage height, 1.48 feet).

1934-39: Maximum daily discharge, 350 second-feet (estimated) May 17, 1937; maximum gage height, 5.59 feet, former datum, Dec. 15, 1936 (ice jam); minimum daily discharge, 3.0 second-feet (estimated) Jan. 21, 1935.

Remarks.- Records fair except those for periods of missing or doubtful gage heights and periods of ice effect, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	24		*14			†35	83	80	32	19	14
2	24	24		*14			†40	89	80	31	20	14
3	24	23				†14	†45	94	78	29	18	13
4	24	23	†17		†13		†55	98	78	28	18	13
5	23	23					63	98	80	27	18	13
6	22	†20					63	101	76	26	18	13
7	28	†18			13		55	96	70	25	18	13
8	38	*20	16			†17	50	91	68	26	17	14
9	33	21	16				51	89	68	24	18	16
10	30	20	16				53	92	68	24	18	15
11	28	20	16				49	98	64	23	18	14
12	28	20	15			†22	47	99	63	23	18	14
13		†19	15				50	98	62	22	17	15
14		20	*13	†14			53	94	59	23	17	16
15		20	14			32	53	92	56	24	17	19
16		19	14			34	51	92	54	21	16	18
17		19	14			30	46	88	51	19	16	16
18		19	14		†13	30	42	88	50	19	16	16
19		18	14			37	43	94	48	20	16	16
20	†26	19	14			50	48	98	46	20	18	14
21		19	14			43	58	101	43	20	18	14
22		19	14			44	66	103	41	20	17	14
23		16	†14			46	74	101	41	20	16	13
24						41	72	99	39	20	16	13
25						37	69	94	37	19	17	13
26		*18		*14		32	68	88	36	20	18	15
27	24		*14	*14		30	68	83	35	20	18	15
28	24			*14		32	68	81	35	22	17	15
29	23			14	-	38	76	80	34	22	16	15
30	23			13	-	†35	80	78	32	20	15	15
31	24	-		†13	-	†35	-	78	-	20	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	809	38	22	26.1	1,600
November	589	24	-	19.6	1,170
December	464	-	-	15.0	920
Calendar year 1938	18,753	316	8	51.4	37,200
January	432	-	-	13.9	857
February	364	-	-	13.0	722
March	869	50	-	28.0	1,720
April	1,691	80	35	56.4	3,350
May	2,858	103	78	92.2	5,670
June	1,672	80	32	55.7	3,320
July	709	32	19	22.9	1,410
August	533	20	14	17.2	1,060
September	435	19	13	14.6	869
Water year 1938-39	11,428	103	-	31.3	22,670

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights, weather records, and records for Rio Hondo at Arroyo Hondo and Rio Lucero near Arroyo Seco.

†Gage heights missing or doubtful; discharge computed on basis of weather records and records for Arroyo Hondo and Rio Lucero near Arroyo Seco.

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. Prior to Aug. 11, 1938, water-stage recorder at site half a mile downstream at independent datum.

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 1939 (all records equivalent) in reports of Geological Survey. April 1910 to December 1928 in reports of State engineer.

Extremes.- Maximum discharge during water year 1937-38, 1,650 second-feet June 29 (gage height, 4.83 feet, former datum), from rating curve extended logarithmically above 170 second-feet; minimum daily discharge, 7.8 second-feet Aug. 22, 23, 26.

Maximum discharge during water year 1938-39, 300 second-feet Aug. 25 (gage height, 2.18 feet), from rating curve extended logarithmically above 73 second-feet; minimum daily discharge, 6.3 second-feet Aug. 10-12.

1932-39: Maximum discharge, 2,510 second-feet Aug. 23, 1935 (gage height, 5.45 feet, former datum), from rating curve extended logarithmically above 170 second-feet; minimum daily discharge, 4.0 second-feet July 13-16, 1934.

Remarks.- Records fair except those for periods of ice effect and missing gage heights, which are poor. Diversions for irrigation above station.

Discharge, in second-feet, 1937-39

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	17	19	18	20	19	21	123	160	110	10	9.8
2	25	16	19	18	20	18	16	102	166	77	10	11
3	23	16	18	18	18	19	15	92	235	60	15	13
4	21	16	18	18	19	20	15	82	232	52	23	18
5	21	15	18	*16	18	18	16	70	306	46	19	14
6	21	16	18	*13	*17	16	16	72	249	38	16	21
7	20	17	18	*13	20	16	15	66	205	29	15	29
8	20	16	18	*13	19	17	13	53	200	25	†14	22
9	20	16	17	*13	18	17	14	47	168	21	†13	20
10	20	15	17	*14	20	15	15	49	152	21	†12	20
11	18	15	17	*16	20	15	15	44	145	18	11	†25
12	20	14	17	*19	21	16	19	52	147	15	9.4	†30
13	21	14	18	21	20	16	20	60	167	14	10	32
14	19	14	18	23	20	15	22	75	119	14	10	31
15	23	15	17	23	18	15	22	117	82	16	11	32
16	28	14	18	23	17	14	20	150	84	18	11	33
17	25	14	18	21	17	15	19	188	84	15	9.8	31
18	23	15	18	20	17	15	25	185	75	14	9.6	29
19	22	15	*17	20	*15	14	41	156	75	11	9.8	27
20	21	15	*15	21	*15	14	51	136	73	10	8.9	26
21	20	16	*13	20	*15	16	61	132	65	11	8.2	26
22	20	16	*14	20	*15	16	72	127	59	12	7.8	25
23	20	15	*15	20	*16	14	89	102	54	12	7.8	25
24	19	15	*17	18	*16	16	100	86	54	12	8.2	28
25	18	15	*17	*14	16	17	101	82	58	14	8.2	31
26	18	15	17	*14	16	20	92	88	63	13	7.8	30
27	18	14	17	*15	19	20	81	96	55	16	8.7	29
28	17	15	16	*17	18	23	73	136	53	12	9.8	30
29	17	15	17	20	-	21	81	266	134	8.8	9.1	27
30	17	16	18	21	-	20	101	211	139	10	8.7	22
31	17	-	18	18	-	19	-	166	-	9.5	8.7	-

Peak discharge.- June 4 (9 a.m.) 435 sec.-ft.; June 29 (4 p.m.) 1,650 sec.-ft.; Aug. 3 (7 p.m.) 440 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights, weather records, and records for station near Valdez, Rio Colorado near Questa, and Rio Lucero near Arroyo Seco.

†Gage heights missing or incomplete; discharge computed on basis of incomplete gage height record, weather records, and records for station near Valdez, Rio Colorado near Questa, and Rio Lucero near Arroyo Seco.

Discharge, in second-feet, of Rio Hondo at Arroyo Hondo, N. Mex., 1937-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	18		20	14	16	24	70	32	8.4	6.9	6.9
2	19	18		20	15	*15	29	74	27	8.2	7.4	6.9
3	19	18		20	*15	16	35	76	26	8.0	7.4	6.5
4	19	17	†22	20	19	17	57	76	26	8.0	6.9	6.7
5	18	17		18	19	14	64	62	25	7.6	6.9	6.5
6	17	17		22	*19	13	66	62	22	7.6	7.2	6.9
7	24	15	25	20	20	17	56	58	25	7.6	6.9	8.0
8	38		26	21	18	18	51	51	19	7.4	6.9	8.4
9	27		25	20	18	18	54	46	18	7.4	6.7	8.7
10	24		25	20	14	18	58	50	16	7.2	6.3	7.8
11	23		24	18	*14	19	54	51	15	6.9	6.3	6.9
12	21		24	14	*15	19	50	52	14	6.7	6.3	6.9
13	21		24	*14	*16	21	48	52	12	6.5	6.5	6.9
14	20		21	*14	*17	23	54	54	11	7.4	6.5	7.4
15	20		21	*16	*17	24	56	50	10	8.4	6.7	9.8
16	20		26	19	18	24	52	52	10	8.0	6.7	8.9
17	22		26	*18	*16	25	45	48	8.4	6.9	6.7	8.2
18	19		24	*17	15	26	36	41	8.2	6.9	6.7	8.0
19	17	†18	24	*17	17	29	33	38	8.4	6.7	6.5	8.0
20	17		24	*18	16	30	34	40	8.2	7.2	7.6	8.0
21	17		24	20	*15	28	41	41	8.7	7.4	9.4	7.6
22	16		22	20	*15	29	52	38	7.8	7.6	7.6	7.4
23	15		16	20	*16	35	62	40	8.0	7.4	7.6	6.9
24	14		15	17	17	43	60	38	7.8	6.9	8.0	7.6
25	14		18	14	16	36	57	40	7.2	6.7	18	7.8
26	13		18	17	15	36	58	34	6.9	6.9	7.6	8.4
27	13		18	17	15	37	62	35	7.4	7.2	7.2	7.8
28	14		19	20	*15	34	60	35	8.0	7.8	6.9	6.9
29	16		20	18	-	31	56	36	7.4	7.6	6.9	6.5
30	17		19	17	-	27	66	32	8.0	7.6	6.7	6.7
31	17	-	19	18	-	23	-	33	-	7.2	6.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1937	641	29	17	20.7	1,270
November	457	17	14	15.2	906
December	532	19	13	17.2	1,060
Calendar year 1937	22,084.4	495	6.9	60.5	43,820
January 1938	558	23	13	18.0	1,110
February	500	21	15	17.9	992
March	526	23	14	17.0	1,040
April	1,261	101	13	42.0	2,500
May	3,411	266	44	110	6,770
June	3,848	306	53	128	7,630
July	754.3	110	8.8	24.3	1,500
August	340.5	23	7.8	11.0	675
September	746.8	33	9.8	24.9	1,480
Water year 1937-38	13,575.6	306	7.8	37.2	26,930
October 1938	591	38	13	19.1	1,170
November	534	-	-	17.8	1,060
December	679	26	15	21.9	1,350
Calendar year 1938	13,749.6	306	7.8	37.7	27,280
January 1939	564	22	14	18.2	1,120
February	456	20	14	16.3	904
March	761	43	13	24.5	1,510
April	1,530	66	24	51.0	3,030
May	1,505	76	32	48.5	2,990
June	418.4	32	6.9	13.9	830
July	229.3	8.4	6.5	7.40	455
August	228.6	18	6.3	7.37	453
September	225.9	9.8	6.5	7.53	448
Water year 1938-39	7,722.2	76	6.3	21.2	15,320

Peak discharge.- Oct. 8 (5 a.m.) 94 sec.-ft.; Apr. 4 (8 p.m.) 98 sec.-ft.; Aug. 25 (2 p.m.) 300 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights, weather records, and records for Rio Hondo near Valdez, Rio Colorado near Questa, and Rio Lucero near Arroyo Seco.

†Gage-height record missing or incomplete; discharge computed on basis of partial record, weather records, and records for Rio Hondo near Valdez, Rio Colorado near Questa, and Rio Lucero near Arroyo Seco.

Rio Pueblo de Taos at Taos, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°25', long. 105°34', in NE¼ 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 1939.

Extremes.- Maximum discharge during year, 77 second-feet May 6 (gage height, 1.53 feet); minimum daily discharge, 0.1 second-foot Aug. 11.
1936-39: Maximum discharge, 230 second-feet May 16, 1937 (gage height, 2.35 feet, former datum); minimum daily discharge, that of Aug. 11, 1939.

Remarks.- Records good except those for periods of ice effect, missing gage heights, or uncertain stage-discharge relation, which are poor. 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 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	4.1	6.1	5.0	4.5	5.3	28	55	4.3	0.3	*0.3	*0.3
2	.7	5.3	5.8	5.6	3.9	4.3	36	58	3.7	.4	.3	*.3
3	.9	5.3	5.8	5.6	†3.9	5.3	43	61	4.5	.4	.2	.3
4	.9	3.8	6.1	5.3	†4.5	5.8	54	62	5.0	.3	.2	*.3
5	.6	1.5	5.8	3.7	5.0	†5.3	62	69	4.5	.4	.2	.3
6	.7	1.4	5.6	5.6	†4.3	†4.5	68	71	3.7	.5	.4	.3
7	.7	‡1.5	5.3	5.6	5.3	†5.0	55	66	2.5	.7	.5	.2
8	1.1	‡7	5.3	5.8	†4.5	5.6	47	61	1.7	.7	.4	.3
9	1.1	‡7	5.3	5.6	†5.0	6.1	48	51	1.3	.5	.4	.4
10	1.2	‡6	5.8	6.1	†3.9	6.7	52	49	1.4	*.4	.2	.5
11	1.0	‡6	5.6	5.3	†3.9	7.2	47	47	1.6	*.4	.1	.4
12	.9	‡5	5.8	2.8	†4.1	7.0	44	48	1.1	.4	.2	.3
13	.9	‡7	5.6	4.8	†4.1	8.6	44	49	.8	.4	.2	.3
14	1.0	‡7	3.9	4.3	4.8	10	47	46	.7	.4	.2	1.1
15	1.3	‡6	4.9	4.1	5.0	12	49	44	.8	.5	.2	1.2
16	1.6	‡6	6.1	5.3	5.0	13	44	37	.4	.5	.2	.6
17	1.8	‡5	6.1	5.6	†4.3	17	39	32	.3	.4	.2	.7
18	3.1	‡7	5.0	4.1	4.5	20	34	26	1.9	.3	.2	.6
19	3.1	‡8	5.8	†4.1	5.0	21	26	22	2.8	.4	.2	.7
20	3.1	‡8	6.1	†4.8	5.0	20	24	21	1.5	.3	.2	.6
21	3.1	7.5	6.4	5.6	†4.3	19	32	20	1.5	.3	.2	.6
22	3.0	7.0	5.8	5.6	†3.9	25	45	17	1.2	.3	.2	.6
23	3.3	3.3	3.1	5.8	†4.3	32	57	16	.6	.2	.2	.5
24	3.5	2.7	3.2	†4.8	†5.3	41	60	15	.6	.2	.2	.4
25	3.3	3.5	4.3	†3.5	5.6	36	55	13	.6	.2	.2	.4
26	3.0	3.5	4.1	†5.0	5.3	36	52	12	.5	.2	.3	.5
27	2.2	4.5	3.9	4.5	4.8	39	51	9.7	.5	.2	.2	.6
28	1.7	4.8	4.5	5.6	5.0	33	49	8.9	.4	.3	.3	.4
29	2.4	4.8	4.5	5.3	-	28	51	7.0	*.4	.3	.3	.4
30	1.8	5.6	4.3	4.1	-	25	52	5.6	*.4	.3	*.4	.4
31	3.3	-	4.5	5.6	-	23	-	5.3	-	.3	*.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	56.9	3.5	0.6	1.84	113
November	155.1	8	1.4	5.17	308
December	160.4	6.4	3.1	5.17	318
Calendar year 1938	6,781.2	124	.3	1.86	13,450
January	154.5	6.1	2.8	4.98	306
February	129.0	5.6	3.9	4.61	256
March	526.7	41	4.3	17.0	1,040
April	1,395	68	24	46.5	2,770
May	1,104.5	71	5.3	35.6	2,190
June	51.2	5.0	.3	1.71	102
July	11.4	.7	.2	.37	23
August	7.9	.5	.1	.25	16
September	14.5	1.2	.2	.48	29
Water year 1938-39	3,767.1	71	.1	10.3	7,470

Peak discharge.- Apr. 4 (8 p.m.) 65 sec.-ft.; Apr. 6 (1 a.m.) 75 sec.-ft.; May 6 (1 a.m.) 77 sec.-ft.

*Stage-discharge relation uncertain; discharge computed on basis of partial gage-height record and study of recorder trace.

†Stage discharge relation affected by ice; discharge computed on basis of gage heights and weather records.

‡Gage heights missing; discharge computed on basis of records for stations on Rio Lucero.

Rio Taos at Los Cordovas, N. Mex.

Location.- Water-stage recorder, lat. 36°23', long. 105°39', in N½ sec. 23, T. 25 N., R. 12 E., in Martínez 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 square miles.

Records available.- April 1910 to August 1915 and October 1930 to September 1939 in reports of Geological Survey. April 1910 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 490 second-feet April 4 (gage height, 3.97 feet); minimum daily discharge, 2.7 second-feet July 13.
1930-39: Maximum discharge, 725 second-feet Sept. 24, 1931 (gage height, 4.65 feet, former datum); minimum daily discharge, 1.4 second-feet Aug. 7, 10, 1934.

Remarks.- Records fair except those for periods of ice effect and periods of missing or doubtful gage heights, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	25		*28	*29	36	86	134	27	5.8	5.2	7.1
2	17	26		29	*25	*33	106	137	19	6.1	4.8	6.8
3	17	27		29	*26	*34	115	150	16	5.2	5.2	6.4
4	18	26	†28	28	†29	36	234	150	17	4.8	4.8	6.0
5	20	25		25	†30	31	250	158	25	4.8	4.8	5.4
6	18	26		28	†31	*29	232	167	29	3.8	4.5	5.0
7	22			28	†35	*35	195	171	26	4.5	5.5	4.8
8	55		29	29	*32	44	169	160	26	3.9	4.8	5.4
9	39		29	30	29	53	158	134	19	3.9	4.8	38
10	32		29	30	*25	49	175	117	17	4.2	5.5	14
11	30		31	29		55	150	113	16	3.6	4.2	12
12	30		31	27		52	130	117	14	2.9	4.5	9.0
13	30		31	*25		57	130	127	12	2.7	4.5	8.5
14	29		28	*26		58	132	132	11	2.9	5.2	10
15	28		28	28	†30	55	148	125	10	5.5	5.8	15
16	27		33	33		59	132	110	8.9	6.4	6.1	17
17	26		33	32		64	109	92	8.0	6.1	6.4	15
18	27		31	29		70	94	79	8.4	5.2	6.4	15
19	28	†25	33	*29		84	78	64	8.4	5.5	6.8	14
20	28		33	*31		84	72	70	9.3	5.8	7.2	14
21	28		34	33	†35	82	83	81	7.6	6.1	18	14
22	26		33	33		89	105	78	6.8	6.4	10	13
23	26		27	33		104	141	72	7.2	7.2	10	12
24	28		26	33	40	130	141	72	7.2	7.2	9.7	12
25	28		28	30	39	133	127	69	6.8	6.4	10	12
26	27		27	32	34	135	115	64	6.1	6.1	10	14
27	26		27	33	32	140	107	54	6.1	6.4	61	15
28	24		28	33	*34	121	110	45	5.8	7.2	13	16
29	24		28	33	-	107	113	41	6.1	6.4	7.4	16
30	22		*26	32	-	91	125	36	5.5	6.1	6.4	16
31	23	-	*27	31	-	82	-	31	-	5.8	6.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	819	55	16	26.4	1,620
November	755	-	-	25.2	1,500
December	906	34	26	29.2	1,800
Calendar year 1938	18,445.5	288	5.6	50.5	36,580
January	929	33	25	30.0	1,840
February	890	40	25	31.8	1,770
March	2,232	140	29	72.0	4,430
April	4,062	250	72	135	8,060
May	3,150	171	31	102	6,250
June	392.2	29	5.5	13.1	778
July	165.9	7.2	2.7	5.35	329
August	268.5	61	4.2	8.66	533
September	368.4	38	4.8	12.3	731
Water year 1938-39	14,938.0	250	2.7	40.9	29,640

Peak discharge.- Apr. 4 (9 p.m.) 490 sec.-ft.; Aug. 27 (7 p.m.) 476 sec.-ft.; Sept. 9 (3 p.m.) 259 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights, weather records, and records for Rio Lucero near Arroyo Seco and Rio Hondo at Arroyo Hondo.

†Gage-height missing or doubtful; discharge computed on basis of weather records and records for Rio Lucero near Arroyo Seco and Rio Hondo at Arroyo Hondo.

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 SE¼ 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 1939.

Extremes.- Maximum discharge during year, 8.9 second-feet Apr. 4 (gage height, 0.90 foot); minimum daily discharge, 0.1 second-foot Aug. 10-16.
1936-39: Maximum discharge, 35 second-feet May 11, 1937 (gage height, 1.46 feet, former datum); minimum daily discharge, that of Aug. 10-16, 1939.

Remarks.- Records good except those for period of missing gage heights, Oct. 8-10, which were computed on basis of records for Rio Pueblo de Taos at Taos and are poor.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.9	1.0	1.2	1.0	0.9	1.3	5.5	0.4	0.3	0.2	0.2
2	.3	.9	1.0	1.2	1.0	.9	1.8	6.2	.4	.3	.2	.2
3	.3	1.0	1.0	1.2	1.0	.9	2.3	6.4	.4	.2	.2	.2
4	.3	.9	1.0	1.2	.9	.9	5.0	6.5	.4	.2	.2	.2
5	.3	.9	1.0	1.1	.9	.9	7.3	6.9	.4	.5	.2	.2
6	.3	.9	1.0	1.2	.9	.9	7.1	7.1	.6	.4	.2	.2
7	.4	.9	1.0	1.1	.9	.9	5.3	6.0	.6	.3	.2	.2
8	.8	.9	1.1	1.2	.9	1.0	4.6	4.0	.6	.3	.2	.2
9	.9	.9	1.1	1.2	.9	1.0	4.6	1.8	.5	.3	.2	.2
10	1.2	.9	1.0	1.0	.9	1.0	4.9	1.0	.4	.3	.1	.2
11	.8	1.0	1.0	1.0	.9	1.0	4.2	1.1	.5	.4	.1	.2
12	.8	1.0	1.0	1.0	.9	1.0	3.6	1.0	.4	.4	.1	.2
13	.8	.9	1.0	1.0	.9	1.0	3.6	1.0	.4	.4	.1	.2
14	1.1	.9	1.0	1.0	.9	1.0	4.0	.9	.6	.5	.1	.2
15	2.1	1.0	1.0	1.0	.9	1.1	4.4	.9	.7	.4	.1	.3
16	2.4	1.0	1.0	1.1	.9	1.7	3.9	.9	.6	.6	.1	.2
17	2.6	1.0	1.0	1.1	.9	2.0	3.3	.7	.4	.4	.2	.2
18	1.7	1.0	1.0	1.1	.9	2.4	2.6	.5	.4	.4	.2	.2
19	1.8	1.0	.9	1.1	.8	2.7	1.9	.5	.3	.4	.2	.2
20	1.7	.9	1.0	1.1	.8	2.6	1.2	.4	.3	.9	.2	.2
21	1.7	1.0	1.0	1.1	.8	2.4	1.5	.8	.3	1.0	.2	.2
22	1.9	1.0	1.0	1.1	.8	2.6	2.4	1.2	.3	.6	.2	.2
23	2.2	.9	1.0	1.1	.8	2.9	4.0	.7	.3	.3	.2	.2
24	2.8	.9	1.0	1.0	.9	2.4	4.3	.5	.3	.3	.2	.2
25	2.4	.9	1.0	1.0	.9	1.9	3.7	.4	.3	.3	.2	.2
26	2.3	.9	1.0	1.0	.9	1.9	3.6	.6	.3	.3	.2	.2
27	1.9	.9	1.1	1.0	.9	2.4	3.6	.8	.3	.3	.2	.2
28	1.2	.9	1.1	1.0	.9	1.8	4.3	.7	.3	.2	.2	.2
29	1.0	.9	1.2	1.0	-	1.4	4.9	.5	.3	.3	.2	.2
30	1.0	.9	1.2	1.0	-	1.3	5.0	.4	.3	.3	.2	.2
31	1.0	-	1.1	1.0	-	1.2	-	.4	-	.2	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	40.3	2.8	0.3	1.30	80
November	28.0	1.0	.9	.93	56
December	31.8	1.2	.9	1.03	63
Calendar year 1938	856.1	19	.2	2.35	1,700
January	33.4	1.2	1.0	1.08	66
February	25.0	1.0	.8	.89	50
March	48.0	2.9	.9	1.55	95
April	114.2	7.3	1.2	3.81	227
May	66.3	7.1	.4	2.14	132
June	12.3	.7	.3	.41	24
July	12.0	1.0	.2	.39	24
August	5.5	.2	.1	.18	11
September	6.1	.3	.2	.20	12
Water year 1938-39	422.9	7.3	.1	1.16	840

Note.- Records represent flow diverted from Rio Pueblo de Taos plus inflow from seepage less flow diverted by small irrigation canals.

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 Antoine 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 1939 in reports of Geological Survey. January 1911 to December 1915 in reports of State engineer.

Extremes.- Maximum discharge during year, 85 second-feet May 11 (gage height, 1.81 feet); minimum daily discharge, 5.4 second-feet Feb. 11.
1933-39: Maximum discharge, 190 second-feet May 17, 1937 (gage height, 2.37 feet); minimum daily discharge not determined.

Remarks.- Records good except those for periods of ice effect, which are fair. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	12	12	7.3	6.1	6.5	20	47	47	17	10	7.7
2	17	11	10	7.7	6.5	*6.5	29	50	48	16	10	7.3
3	17	10	10	7.7	e5.8	6.5	36	52	47	16	9.6	6.9
4	17	11	9.6	7.3	6.5	6.9	41	56	48	15	9.2	6.9
5	16	11	9.2	7.3	6.5	6.9	42	65	50	14	9.6	6.9
6	16	11	8.8	7.3	6.5	e6.5	40	67	48	14	9.6	6.9
7	20	10	8.8	7.3	6.1	6.9	33	63	46	14	9.6	6.9
8	24	14	8.8	7.3	6.1	7.3	30	59	43	14	8.8	7.3
9	21	14	8.8	6.9	6.1	7.3	33	61	41	13	8.4	9.2
10	20	12	8.8	6.9	5.8	7.7	34	66	39	12	8.4	9.2
11	20	12	8.8	6.9	5.4	7.7	30	73	38	12	8.4	8.4
12	19	11	8.4	6.9	*5.8	8.1	27	73	36	11	8.1	8.4
13	19	15	8.4	7.3	*5.8	9.2	29	70	34	11	8.8	9.2
14	19	14	8.1	6.9	5.8	11	31	70	34	12	8.8	9.6
15	18	13	8.1	6.9	5.8	12	32	63	32	12	e.4	11
16	19	11	8.4	6.9	5.8	14	28	60	30	12	e.4	11
17	19	10	8.1	6.9	5.8	18	24	56	29	11	8.1	10
18	18	11	8.1	6.9	5.8	24	21	56	27	11	8.1	10
19	18	13	8.1	6.5	5.8	26	22	63	25	11	7.7	9.6
20	18	12	8.4	6.5	5.8	23	26	66	23	10	8.4	9.2
21	17	10	8.1	6.5	5.8	18	33	67	22	10	8.8	9.2
22	16	10	8.1	6.9	*6.3	18	40	65	21	10	8.4	9.2
23	16	10	7.7	6.9	6.5	26	42	64	20	10	8.4	8.8
24	15	13	7.7	7.3	6.1	34	38	61	19	10	8.4	8.8
25	15	14	7.7	*6.9	6.9	34	36	57	19	9.6	9.6	8.8
26	14	15	7.7	6.5	6.9	34	35	51	19	11	8.8	10
27	14	15	7.7	6.9	6.9	32	36	46	18	10	8.8	9.6
28	14	*14	7.7	6.9	6.5	24	36	45	19	11	8.4	9.2
29	13	*13	7.7	6.5	-	19	40	46	18	11	8.4	9.2
30	13	12	7.3	6.5	-	16	42	45	17	11	8.1	9.2
31	13	-	7.3	5.8	-	16	-	46	-	10	7.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	532	24	13	17.2	1,060
November	364	15	10	12.1	722
December	262.4	12	7.3	8.46	520
Calendar year 1938	10,524.2	154	5.0	28.8	20,880
January	215.2	7.7	5.8	6.94	427
February	171.5	6.9	5.4	6.12	340
March	493.0	34	6.5	15.9	978
April	986	42	20	32.9	1,960
May	1,829	73	45	59.0	3,630
June	957	50	17	31.9	1,900
July	371.6	17	9.6	12.0	737
August	270.2	10	7.7	8.72	536
September	263.6	11	6.9	8.79	523
Water year 1938-39	6,715.5	73	5.4	18.4	13,330

Peak discharge.- May 5 (8 p.m.) 73 sec.-ft.; May 10 (8 p.m.) 76 sec.-ft.; May 11 (7 p.m.) 85 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather records.

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 1939.

Extremes.- Maximum discharge during year, 43 second-feet Mar. 23 (gage height, 1.41 feet); no flow at times.
1934-39: Maximum discharge, about 130 second-feet May 17, 1937 (gage height, 2.05 feet), from rating curve extended above 59 second-feet; no flow at times.

Remarks.- Records fair except those for periods of ice effect, missing gage heights, or uncertain stage-discharge relation, which are poor.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	4.8	*3.9	*2.0	*1.9	10	16	2.6			
2		0	5.1	*4.5	*2.3	*2.0	16	18	4.2			
3		0	6.4	*3.6	*2.1	*2.0	18	18	5.4			
4		0	5.7	*3.6	*2.1	*2.1	22	20	4.5			
5		0	5.7	*3.6	*2.1	*2.0	27	27	†3.5			
6		0	6.0	*3.0	*2.1	*2.0	28	32	†2.5			
7		0	5.7	*3.3	*2.1	*2.1	24	30	†1.5			
8		.1	4.5	*3.6	*2.1	2.2	22	29	.5			
9		.1	4.2	*3.0	*2.2	2.4	24	28	.4			
10		.8	4.5	*3.0	*2.1	2.5	25	25	.3			
11		1.6	3.9	*2.7	*2.0	2.5	19	18	.4			
12		1.1	3.9	*2.4	*2.0	2.9	13	16	.3			
13		5.1	3.9	‡2.5	*2.0	4.8	13	15	.1			
14		4.4	*3.6	‡2.5	*2.0	8.5	18	16	0			
15		.8	*3.6	‡2.5	*2.0	11	17	11	0			
16		.3	*4.2	‡3	*2.0	14	8.1	4.8	0			
17		.1	*3.9	‡3	*2.0	20	5.7	3.3	0			
18		1.4	*2.5	‡2.5	*1.9	25	4.8	7.7	0			
19		7.3	*3.6	‡2.5	*1.8	25	4.8	10	0			
20		6.4	*3.6	‡2.5	*1.9	19	6.4	11	0			
21		7.3	*3.6	‡3.5	*1.8	18	10	10	.1			
22		3.6	*3.6	‡3.5	*1.7	15	14	6.6	.1			
23		*1.5	*1.9	*3.5	*1.8	22	14	6.4	.1			
24		*1.7	*2.2	‡2.5	*1.8	30	14	6.0	†.1			
25		*7.3	*2.7	*2.4	*1.8	32	13	8.9	†.1			
26		6.0	*2.9	‡2.4	*1.9	32	13	8.5	†.1			
27		5.1	*2.3	*2.3	*1.9	29	13	5.7	†.1			
28		4.8	*2.7	*2.4	*2.0	24	13	3.0	†.1			
29		3.9	*2.7	*2.3	-	18	14	2.1	†.1			
30		4.8	*3.0	*2.3	-	11	14	2.2	†0			
31		-	*3.0	*2.1	-	8.1	-	2.3	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	75.5	7.3	0	2.52	150
December	119.9	6.4	1.9	3.87	238
Calendar year 1938	2,269.0	63	0	6.22	4,500
January	90.4	4.5	2.1	2.92	179
February	55.5	2.3	1.7	1.98	110
March	393.0	32	1.9	12.7	780
April	457.8	28	4.8	15.3	908
May	417.7	32	2.1	13.5	828
June	27.1	5.4	0	.90	54
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1938-39	1,636.9	32	0	4.48	3,250

Peak discharge.- Mar. 23 (8 p.m.) 43 sec.-ft.; Mar. 24 (10 p.m.) 38 sec.-ft.; Mar. 25 (8 p.m.) 37 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of five discharge measurements, gage heights, and weather records.

†Stage-discharge relation uncertain; discharge computed on basis of records for Prado ditch, study of gain and loss between stations on Rio Lucero, and weather records.

‡Gage height missing; discharge computed on basis of weather records and records for station near Arroyo Seco.

Tenorio ditch near Arroyo Seco, N. Mex.

Location.- Water-stage recorder and concrete-lined channel, lat. 36°30', long. 105°32', in sec. 10 (projected), T. 26 N., R. 13 E., in Antoine Leroux grant, 400 feet downstream from head gate, 2 miles southeast of Arroyo Seco, 4½ miles north of Taos Pueblo, and 7½ miles northeast of Taos.

Records available.- June 1935 to September 1939.

Extremes.- Maximum daily discharge during year, 13 second-feet May 25; no flow at times. 1935-39: Maximum daily discharge, 15 second-feet June 1-5, 1937; no flow at times.

Remarks.- Records good except those for periods of ice effect, Nov. 6, 7, 13-16 (computed on basis of gage heights and weather records), those for periods of missing gage heights, Nov. 21 to Mar. 22 (computed on basis of seven discharge measurements, weather records, and records for Rio Lucero near Arroyo Seco, and those for May 3, 4 (computed on basis of partial gage-height record), which are poor. No diversion between station and head. Ditch diverts water for irrigation from right bank of Rio Lucero.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.4				0	0.3	3.6	2.9	2.4	1.6	0.8
2	1.3	1.2				0	1.0	1.9	6.2	2.2	1.6	.8
3	1.3	1.2				0	1.6	2.6	4.0	2.2	1.6	.8
4	1.3	1.8				0	2.4	3.0	2.2	1.8	1.5	.8
5	1.3	1.2				0	2.3	5.8	8.1	1.6	1.8	.8
6	1.3	.1				0	1.7	8.7	11	1.6	1.8	1.0
7	1.9	0				0	1.0	5.6	10	1.5	1.7	.8
8	2.2	.2				0	.8	4.5	9.7	1.6	1.4	.7
9	1.9	.1				0	1.0	6.7	7.6	1.4	1.4	1.0
10	1.8	.2				0	1.3	6.9	6.5	1.3	1.4	1.2
11	1.8	.3				0	.8	6.2	5.1	1.3	1.3	.9
12	1.8	.2				0	.7	6.2	3.8	1.3	1.3	.8
13	1.8	.2				.2	.9	6.4	3.1	1.2	1.4	1.0
14	1.7	.2				.2	1.1	6.5	3.7	1.3	1.4	1.2
15	1.7	.4				.2	1.3	8.1	4.2	1.8	1.3	1.6
16	1.9	.3				.3	.8	12	4.3	1.8	1.3	1.7
17	1.9	.2				.4	.6	11	4.2	1.6	1.3	1.5
18	1.9	.2				.5	.3	7.9	3.9	1.6	1.2	1.4
19	1.9	.1				.6	.3	6.9	3.8	1.6	1.1	1.4
20	1.8	.2				.6	.7	9.6	3.5	1.6	1.4	1.3
21	1.8	.2				.6	1.5	9.6	3.3	1.4	1.3	1.4
22	2.0	.1				.6	2.3	9.3	3.0	1.4	1.2	1.3
23	1.9	0				1.2	2.6	9.2	2.8	1.5	1.1	1.4
24	1.8	0				1.8	2.2	11	2.6	1.4	1.0	1.3
25	1.8	0				1.8	2.0	13	2.4	1.6	1.3	1.3
26	1.8	0				1.6	1.9	11	2.3	2.0	1.3	1.8
27	1.6	0				1.4	1.9	9.6	2.6	1.8	1.3	1.8
28	1.4	0				.7	2.0	9.3	2.8	2.0	1.2	1.6
29	1.4	0				.2	2.6	4.8	2.1	2.0	1.0	1.6
30	1.4	0				0	3.7	.3	1.9	2.0	.9	1.7
31	1.4	-				0	-	0	-	1.8	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	52.2	2.2	1.3	1.68	104
November	10.0	1.8	0	.33	20
December	0	0	0	0	0
Calendar year 1938	699.5	13	0	1.92	1,390
January	0	0	0	0	0
February	0	0	0	0	0
March	12.9	1.8	0	.42	26
April	43.6	3.7	.3	1.45	86
May	216.9	13	0	7.00	430
June	133.6	11	1.9	4.45	265
July	51.6	2.4	1.2	1.66	102
August	41.2	1.8	.8	1.33	82
September	36.7	1.8	.7	1.22	73
Water year 1938-39	598.7	13	0	1.64	1,190

Indian ditch at head, near Arroyo Seco, N. Mex.

Location.- Water-stage recorder and concrete-lined channel, lat. 36°30', long. 105°32', in sec. 10, T. 26 N., R. 13 E., 500 feet downstream from head, 2 miles southeast of Arroyo Seco, 4½ miles north of Taos Pueblo, and 7½ miles northeast of Taos.

Records available.- July 1934 to September 1939.

Extremes.- Maximum daily discharge during year, 13 second-feet June 8; no flow at times. 1934-39: Maximum daily discharge, 18 second-feet May 30, 31, 1937; no flow at times.

Remarks.- Records good except those for day of ice effect, Nov. 6, and period of missing gage heights, Nov. 7 to Mar. 31 (computed on basis of six discharge measurements and weather records) and those for periods of faulty intake operation, May 4-16, June 15, 16 (computed on basis of gage heights and records for Rio Lucero near Arroyo Seco), all of which are poor. No diversion between station and head. Ditch diverts water from left bank of Rio Lucero for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	4.6						0	5.3	5.3	3.9	3.0
2	4.4	4.3						0	5.2	5.2	3.9	3.0
3	4.4	4.4						0	5.2	4.9	3.8	3.0
4	4.3	4.7						0	5.4	5.0	3.6	3.0
5	4.2	4.4						0	5.3	5.3	3.8	3.0
6	4.0	4						0	5.2	5.0	3.8	2.9
7	5.4	0						0	10	4.9	3.8	2.8
8	6.4	0						0	13	5.0	3.5	2.6
9	5.3	0						0	11	4.6	3.4	3.1
10	5.0	0						0	9.9	4.2	3.4	3.2
11	5.0	0						4	9.7	4.0	3.3	2.9
12	5.0	0						6	9.5	4.0	3.2	2.8
13	5.0	0						6	9.5	4.3	3.4	3.0
14	5.0	0						6	9.5	4.5	3.4	3.5
15	5.2	0						6	9.0	4.7	3.2	4.0
16	5.6	0						6	8.5	4.5	3.2	4.0
17	5.7	0						5.6	8.0	4.0	3.1	3.6
18	5.6	0						5.7	7.9	4.2	3.0	3.5
19	5.6	0						5.9	7.4	3.9	3.0	3.3
20	5.4	0						6.0	7.0	3.9	3.2	3.1
21	5.4	0						5.9	6.6	3.7	3.3	3.1
22	5.4	0						5.7	6.3	3.7	3.3	3.1
23	5.2	0						5.7	6.2	3.7	3.1	3.1
24	4.9	0						5.6	6.6	3.6	3.0	3.0
25	5.0	0						5.3	7.0	3.8	3.2	3.0
26	4.9	0						5.0	8.2	4.5	3.0	3.5
27	4.7	0						4.7	9.3	4.2	3.2	3.3
28	4.6	0						4.6	6.6	4.7	3.3	3.0
29	4.6	0						5.0	5.7	4.5	3.4	3.0
30	4.6	0						5.4	5.4	4.4	3.2	3.0
31	4.6	-						5.3	-	4.2	3.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	155.0	6.4	4.0	5.00	307
November	26.4	4.7	0	.88	52
December	0	0	0	0	0
Calendar year 1938	1,123.2	13	0	3.08	2,230
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	115.4	6	0	3.72	229
June	229.4	13	5.2	7.65	455
July	136.4	5.3	3.6	4.40	271
August	104.0	3.9	3.0	3.35	206
September	94.4	4.0	2.6	3.15	187
Water year 1938-39	861.0	13	0	2.36	1,710

Seco ditch at head, near Arroyo Seco, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 36°31', long. 105°32', in sec. 10, T. 26 N., R. 13 E., 2 miles southeast of Arroyo Seco, 4½ miles north of Taos Pueblo, and 7½ miles northeast of Taos.

Records available.- July 1934 to September 1939.

Extremes.- Maximum daily discharge during year, 20 second-feet May 20, 21; no flow at times.
1934-39: Maximum daily discharge, 28 second-feet July 3, 1935; no flow at times.

Remarks.- Records good except those for period of ice effect, Nov. 7-12, and those for periods of missing gage heights, Nov. 13 to Dec. 11, Dec. 23 to Mar. 19 (computed on basis of three discharge measurements, three staff gage readings, weather records, and records for stations on Rio Lucero), which are poor. No diversion between station and head. Ditch diverts water for irrigation from right bank of Rio Lucero.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	2.6	3	2.5	2.5	2.5	1.9	0	13	2.6	1.7	0.9
2	2.2	2.5	2	2.5	2.5	2.5	3.2	0	12	2.6	1.6	.9
3	2.2	2.4	2	2.5	2	2.5	3.9	0	13	2.7	1.6	.8
4	2.2	2.6	2	2.5	2.5	2.5	4.8	0	14	2.6	1.5	.8
5	2.2	2.6	2	2.5	2.5	2.5	4.9	0	12	2.3	1.6	.6
6	2.2	2.6	2	2.5	2.5	2.5	4.3	0	11	2.3	1.5	.5
7	2.8	3	2	2.5	2.5	2.5	3.1	0	8.0	2.2	1.5	.8
8	3.5	5	2.5	2.5	2.5	3	2.6	0	6.2	2.5	1.3	1.0
9	3.1	5	3	2.5	2.5	3	3.2	0	6.7	2.4	1.3	1.1
10	3.0	4	3	2.5	2	3	3.4	8.6	6.9	2.2	1.2	1.2
11	3.2	4	3	2.5	2	3	2.8	18	6.7	2.2	1.2	1.1
12	3.3	4	2.9	2.5	2.5	3	2.6	18	6.7	2.0	1.2	1.0
13	3.3	4	2.8	3	2.5	3	2.7	17	7.2	2.0	1.2	1.2
14	3.4	4	2.7	2.5	2.5	3	3.1	16	7.0	2.2	1.2	1.3
15	3.8	4	2.7	2.5	2.5	3	3.1	14	6.5	2.2	1.2	1.5
16	4.3	4	2.7	2.5	2.5	3	2.4	12	6.0	2.2	1.2	1.4
17	4.0	4	2.6	2.5	2.5	3.5	1.9	10	5.3	2.0	1.2	1.4
18	3.9	4	2.6	2.5	2.5	4	1.6	17	4.9	2.1	1.2	1.4
19	3.9	2	2.6	2.5	2.5	4	1.7	18	4.6	2.0	1.2	1.3
20	3.8	1	2.7	2.5	2.5	3.9	2.2	20	4.7	2.0	1.3	1.3
21	3.7	.5	2.7	2.5	2.5	3.4	3.4	20	4.5	1.9	1.4	1.2
22	3.4	2	2.6	2.5	2.5	2.8	4.7	17	4.2	1.7	1.4	1.2
23	3.2	3	2.5	2.5	2.5	4.1	2.1	17	3.8	1.7	1.4	1.2
24	3.2	4	2.5	3	2.5	4.6	0	15	3.4	1.7	1.3	1.2
25	3.1	4	2.5	2.5	3	4.7	0	13	3.0	1.8	1.4	1.2
26	2.8	4	2.5	2.5	3	4.6	0	10	2.5	2.1	1.4	1.4
27	2.8	4	2.5	2.5	3	3.8	0	9.4	2.1	2.0	1.2	1.4
28	2.7	4	2.5	2.5	2.5	2.8	0	9.1	2.8	2.2	1.2	1.2
29	2.6	3	2.5	2.5	-	1.9	0	11	2.8	1.9	1.1	1.2
30	2.6	3	2.5	2.5	-	1.4	0	13	2.8	1.9	1.0	1.2
31	2.7	-	2.5	2	-	1.2	-	13	-	1.8	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	95.3	4.3	2.2	3.07	189
November	98.8	5	.5	3.29	196
December	78.6	3	2	2.54	156
Calendar year 1938	1,781.2	25	0	4.88	3,530
January	78.0	3	2	2.52	155
February	70.0	3	2	2.50	139
March	95.0	4.7	1.2	3.06	188
April	69.6	4.9	0	2.32	138
May	316.1	20	0	10.2	627
June	194.3	14	2.1	6.48	385
July	66.0	2.7	1.7	2.13	131
August	40.7	1.7	1.0	1.31	81
September	34.4	1.5	.8	1.15	68
Water year 1938-39	1,236.8	20	0	3.39	2,450

Juan Manuel ditch at head, near Arroyo Seco, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 36°29', long. 105°34', in sec. 16 (projected), T. 26 N., R. 13 E., in Antoine Leroux grant, 40 feet downstream from head, 2½ miles south of Arroyo Seco, 3 miles north of Taos Pueblo, and 5½ miles north of Taos.

Records available.- June 1935 to September 1939.

Extremes.- Maximum daily discharge during year, 21 second-feet May 5-7; no flow at times.
1935-39: Maximum daily discharge, that of May 5-7, 1939; no flow at times.

Remarks.- Records good except those for periods of ice effect, Nov. 6-10, 13-15, 18-20, and those for period of missing gage heights, Nov. 23 to Mar. 20, which were computed on basis of two discharge measurements, one staff-gage reading, weather records, and records for stations on Rio Lucero and are poor. No diversion between station and head. Ditch diverts water for irrigation from right bank of Rio Lucero.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.5	2			0	1.4	18	6.8			
2	1.4	1.4	1			0	1.9	19	7.9			
3	1.3	1.4	1			0	2.5	20	6.4			
4	1.4	1.4	1			0	3.1	20	6.0			
5	1.3	1.5	1			0	3.1	21	5.2			
6	1.2	2.2	1			0	2.8	21	4.6			
7	1.6	3	1			0	2.0	21	4.0			
8	2.5	5	1			0	1.8	20	1.6			
9	2.0	5	1			0	2.0	20	.1			
10	1.8	4	1			0	2.1	20	1.5			
11	1.8	2.9	1			0	1.8	19	.2			
12	2.0	2.8	1.5			0	1.7	19	.1			
13	1.9	4	1.5			0	1.8	18	.1			
14	1.8	4	1			.5	2.0	18	0			
15	1.9	4	1			.5	4.0	16	0			
16	1.8	4.0	1			1	6.1	14	0			
17	1.9	3.3	1			1	5.6	13	0			
18	2.0	3	1			1.5	5.2	13	0			
19	1.8	1	1			1.5	5.2	14	0			
20	1.7	1	1			1.4	5.8	14	0			
21	1.8	.4	1			1.2	7.5	14	0			
22	1.7	.5	1			1.1	10	14	0			
23	1.7	2	1			1.8	15	14	0			
24	1.7	3	0			2.6	15	12	1.4			
25	1.6	1	0			2.4	14	6.0	5.6			
26	1.5	2	0			2.3	14	5.8	1.3			
27	1.6	4	0			2.2	14	6.7	0			
28	1.6	3	0			1.8	14	6.7	0			
29	1.5	3	0			1.3	16	9.9	0			
30	1.5	2	0			1.2	17	8.6	0			
31	1.5	-	0			1.2	-	6.4	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	52.2	2.5	1.2	1.68	104
November	77.3	5	.4	2.58	153
December	25.0	2	0	.81	50
Calendar year 1938	1,174.0	20	0	3.22	2,330
January	0	0	0	0	0
February	0	0	0	0	0
March	26.5	2.6	0	.85	53
April	198.4	17	1.4	6.61	394
May	462.1	21	5.8	14.9	917
June	52.8	7.9	0	1.76	105
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1938-39	894.3	21	0	2.45	1,780

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Prado ditch near Arroyo Seco, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 36°28', long. 105°34' in sec. 21, T. 26 N., R. 13 E., 250 feet downstream from head, 2 miles northwest of Taos Pueblo, 3½ miles south of Arroyo Seco, and 4 miles northeast of Taos.

Records available.- May 1934 to September 1939.

Extremes.- Maximum daily discharge during year, 15 second-feet May 2-4; no flow at times. 1934-39: Maximum daily discharge, 24 second-feet May 3, 1936; no flow at times.

Remarks.- Records good except those for periods of ice effect, Nov. 7-10, 13-22, and period of missing gage heights, Nov. 23 to Mar. 21, which were computed on basis of five discharge measurements, three staff-gage readings, weather records, and records for stations on Rio Lucero and are poor. No diversion between station and head. Ditch diverts water for irrigation from right bank of Rio Lucero.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	2.3	0.2	0	0.2	0.2	6.1	13	9.7	3.2	1.3	0.6
2	1.9	2.1	.2	.1	.1	.1	6.6	15	8.0	3.0	1.3	.6
3	2.0	2.0	.2	.1	.1	.2	6.9	15	9.6	2.7	1.3	.6
4	2.0	2.2	.2	.1	.1	.2	6.8	15	11	2.6	1.2	.5
5	2.0	2.2	.3	0	.1	.2	2.7	14	8.5	2.5	1.3	.5
6	2.0	2.0	.3	.2	.1	.1	.1	13	7.4	2.4	1.4	.4
7	2,8	1.5	.3	.2	.2	.2	.1	13	5.9	2.2	1.4	.5
8	4.0	1	.3	.2	.2	.2	.1	13	7.2	2.3	1.2	.9
9	3.2	.5	.4	.2	.2	.2	.1	13	7.7	2.2	1.0	1.4
10	3.0	1	.4	.2	.2	.2	0	13	7.1	2.1	1.1	1.6
11	2.9	0	.4	.1	.1	.2	2.2	13	7.8	2.0	1.1	1.3
12	2.8	0	.4	0	.1	.3	5.9	13	8.0	1.8	.9	1.1
13	2.8	.1	.4	0	.2	.5	7.8	12	8.1	1.6	1.0	1.1
14	2.8	.1	.2	0	.2	.7	4.3	12	8.1	2.0	1.0	1.6
15	2.7	0	.2	0	.2	.8	4.1	11	8.3	2.5	.9	2.2
16	29	0	.3	.1	.2	.8	8.5	11	7.0	2.6	.9	2.2
17	2.9	0	.3	.1	.2	1.0	7.6	9.2	6.8	1.8	.8	1.8
18	2.9	.1	.2	0	.2	1.0	7.1	8.3	6.4	1.8	.8	1.6
19	2.8	.2	.2	0	.2	1.0	7.1	9.0	6.0	1.6	.7	1.5
20	2.8	.2	.3	0	.2	1.0	7.7	9.1	5.1	1.5	1.0	1.4
21	2.7	.2	.3	.2	.2	.6	9.0	9.7	5.1	1.3	1.3	1.3
22	2.7	.2	.2	.2	.2	.6	10	11	5.2	1.3	1.1	1.3
23	2.6	0	0	.2	.2	.6	10	11	5.4	1.4	1.1	1.2
24	2.6	0	0	.1	.2	.3	11	9.8	4.1	1.2	1.0	1.2
25	2.5	.1	0	.1	.2	.3	9.9	9.5	0	1.2	1.5	1.3
26	2.4	.1	0	.1	.2	.2	9.9	7.9	2.1	1.7	1.5	1.7
27	2.4	.1	0	.1	.2	1.2	9.9	6.6	1.6	1.5	1.2	1.7
28	2.3	.1	0	.1	.2	2.0	10	7.9	3.1	1.9	1.1	1.4
29	2.3	.1	0	.2	-	1.9	11	7.9	3.4	1.9	.9	1.4
30	2.2	.1	0	.2	-	4.6	12	9.2	3.3	1.8	.7	1.4
31	2.2	-	0	.2	-	5.8	-	11	-	1.6	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	80.0	4.0	1.9	2.58	159
November	18.5	2.3	0	.62	37
December	6.2	.4	0	.20	12
Calendar year 1938	1,644.1	22	0	4.50	3,260
January	3.3	.2	0	.11	6.5
February	4.9	.2	.1	.18	9.7
March	27.2	5.8	.1	.88	54
April	194.5	12	0	6.48	386
May	346.1	15	6.6	11.2	686
June	187.0	11	0	6.23	371
July	61.2	3.2	1.2	1.97	121
August	33.6	1.5	.6	1.08	67
September	37.3	2.2	.4	1.24	74
Water year 1938-39	999.8	15	0	2.74	1,980

Embudo Creek at Dixon, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°12', long. 105°55', in sec. 29, T. 23 N., R. 10 E., 1½ miles northwest of Dixon and 1¼ miles upstream from mouth. Prior to Nov. 30, water-stage recorder and channel control at site a quarter of a mile upstream, datum 6.67 feet above present datum.

Drainage area.- 305 square miles.

Records available.- October 1930 to September 1939 in reports of Geological Survey. October 1923 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,130 second-feet Apr. 4, from rating curve extended logarithmically above 400 second-feet; maximum gage height, 4.70 feet Oct. 8, former site and datum; minimum daily discharge, 5.0 second-feet Dec. 24.
1930-39: Maximum gage height, 6.95 feet July 8, 1936 (discharge not determined); minimum daily discharge, 1 second-foot July 23, 24, 1932.

Remarks.- Records good for Feb. 15 to June 15 and fair for Dec. 1 to Jan. 8 and June 16 to Sept. 30; others poor. Discharge includes flow bypassed around station in mill ditch. Several diversions above station for irrigation; one small diversion below.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	47	26	17	26	27	107	366	142	12	8.1	13
2	32	47	24	19	28	20	146	420	138	12	20	9.3
3	32	47	20	21	*12	22	165	402	118	11	26	6.8
4	32	43	28	21	†15	24	310	375	130	11	16	7.2
5	33	52	25	13	†20	19	364	375	114	11	13	7.1
6	32	53	23	22	†20	17	375	357	98	11	18	7.1
7	96	33	20	21	†25	22	274	393	83	9.2	20	6.8
8	229	42	20	21	†23	24	218	375	73	8.6	14	6.8
9	129	60	21	†25	†20	30	218	295	62	8.6	10	10
10	101	59	21	†20	†20	31	254	295	49	8.6	9.8	24
11	89	52	28	†18	†17	29	212	309	47	8.6	9.5	25
12	81	53	24	†15	†20	28	190	348	40	8.4	9.2	17
13	72	33	22	†15	†22	39	212	348	34	8.1	9.5	17
14	68	46	12	*14	†25	52	248	375	30	8.1	9.5	18
15	66	53	14	12	27	64	267	348	26	9.2	9.2	46
16	64	52	31	18	28	86	230	309	21	13	8.9	86
17	66	51	26	20	26	98	195	230	19	12	8.1	68
18	65	45	12	16	25	95	175	224	17	10	8.1	57
19	64	38	25	16	28	104	175	200	18	8.9	6.6	55
20	60	48	24	21	27	118	206	195	14	8.1	36	55
21	59	46	22	26	21	98	260	212	12	7.8	38	52
22	58	45	20	27	22	101	316	190	12	8.6	15	47
23	53	27	7.1	28	25	110	393	185	13	8.9	8.6	44
24	52	19	5.0	21	28	155	384	195	12	8.1	8.1	34
25	52	29	11	*15	28	150	366	200	12	7.4	29	34
26	52	27	14	*16	24	165	366	185	12	7.8	40	39
27	52	31	14	*17	22	160	366	165	11	8.9	33	46
28	52	32	17	*19	23	142	348	160	11	9.8	28	38
29	49	33	18	*20	-	118	375	160	12	14	19	33
30	48	30	17	*25	-	104	348	155	11	11	23	33
31	47	-	16	*30	-	95	-	146	-	9.5	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,018	229	32	65.1	4,000
November	1,273	60	19	42.4	2,520
December	607.1	31	5.0	19.6	1,200
Calendar year 1938	22,719.1	451	5.0	62.2	45,040
January	611	30	12	19.7	1,210
February	647	28	12	23.1	1,280
March	2,347	165	17	75.7	4,660
April	8,083	393	107	269	16,030
May	8,492	420	146	274	16,840
June	1,391	142	11	46.4	2,760
July	299.2	14	7.4	9.65	593
August	527.2	40	6.1	17.0	1,050
September	942.1	86	6.8	31.4	1,870
Water year 1938-39	27,237.6	420	5.0	74.6	54,010

Peak discharge.- Oct. 8 (10 a.m.) 421 sec.-ft.; Apr. 4 (11 p.m.) 1,130 sec.-ft.; Apr. 5 (4 a.m.) 486 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of weather records and records for Pecos River at Irvins ranch and Nambe Creek near Nambe.

†Gage heights missing or incomplete; discharge computed on basis of available gage heights, weather records and records for Pecos River at Irvins ranch and Nambe Creek near Nambe.

Pueblo Creek near Penasco, N. Mex.

Location.- Water-stage recorder, lat. 36°11', long. 105°40', in SW¼ sec. 28, T. 23 N., R. 12 E., 300 feet downstream from head gate of Picuris ditch, 1½ miles east of Picuris Pueblo, 2 miles northeast of Penasco, and 3½ miles upstream from Rio Santa Barbara.

Records available.- March 1936 to September 1939.

Extremes.- Maximum discharge during year, about 944 second-feet Aug. 27 (gage height, 2.39 feet), from rating curve extended logarithmically above 375 second-feet; minimum daily discharge, 1.0 second-foot July 21.
1936-39: Maximum discharge, that of Aug. 27, 1939; minimum daily discharge, 1.0 second-foot July 27, 28, 1936, July 21, 1939.

Remarks.- Records good except those for periods of ice effect or missing gage heights, Nov. 7-11, 13-21, Nov. 23 to Dec. 10, Dec. 14-19, Dec. 23 to Jan. 7, Jan. 10 to Mar. 9, Mar. 12-18 (computed on basis of 16 discharge measurements, gage heights, weather records and records for Rio Pueblo de Taos and Rio Lucero near Arroyo Seco), those for periods of faulty intake operation, July 10-13, 21, 22, Aug. 18-20, Aug. 27 to Sept. 5 (computed on basis of partial gage-height record, records for Picuris ditch, and weather records), which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	17	18	12	12	11	77	248	86	9.4	6.9	5
2	15	18	17	12	11	10	102	258	81	7.7	5.5	5
3	14	17	16	12	9	11	119	228	77	5.8	6.1	5
4	14	13	15	11	10	12	192	223	77	6.5	5.0	2
5	14	19	15	10	12	11	238	228	70	4.0	4.4	2.4
6	13	16	15	12	12	10	201	238	60	2.7	7.7	3.5
7	16	16	15	13	13	15	156	228	55	1.4	7.7	3.7
8	68	19	15	13	12	12	135	218	50	2.3	7.3	2.9
9	50	24	14	11	11	13	149	209	42	6.5	6.5	10
10	40	23	14	11	11	15	164	218	40	2.3	6.9	24
11	35	22	14	11	10	14	138	223	41	1.5	6.9	12
12	33	18	12	11	11	19	129	228	33	1.5	4.4	8.3
13	30	14	11	11	11	25	156	209	30	1.5	3.8	8.8
14	27	20	10	11	12	30	175	205	30	7.5	4.1	11
15	25	23	11	10	13	30	179	192	25	24	3.8	21
16	24	20	12	12	13	36	160	175	20	24	3.8	30
17	24	19	13	12	12	42	138	153	16	13	4.4	22
18	24	14	12	11	13	50	126	145	15	5.6	1.8	17
19	24	16	14	11	13	60	132	149	16	1.4	1.5	15
20	22	18	15	11	13	60	153	156	13	1.8	2.2	12
21	23	16	14	13	11	54	188	156	11	1.0	7.7	11
22	22	14	13	13	11	52	223	149	11	1.3	6.5	9.8
23	22	15	11	13	11	68	274	139	11	7.7	5.8	9.3
24	21	17	11	12	12	89	258	132	11	3.2	5.0	11
25	20	18	11	10	13	81	238	126	11	1.8	5.2	10
26	20	19	11	11	12	89	238	116	9.0	6.5	4.1	12
27	20	20	11	11	12	94	238	99	7.7	4.4	37	14
28	19	20	11	12	11	77	233	94	8.2	11	10	9.8
29	18	20	11	12	-	64	243	89	9.8	15	5	8.8
30	18	19	11	12	-	57	228	86	9.0	14	4	8.3
31	17	-	11	13	-	57	-	84	-	13	6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	746	68	13	24.1	1,480
November	544	24	13	18.1	1,080
December	404	18	10	13.0	801
Calendar year 1938	11,224.9	205	1.2	30.8	* 22,260
January	360	13	10	11.6	714
February	327	13	9	11.7	649
March	1,268	94	10	40.9	2,520
April	5,380	274	77	179	10,670
May	5,400	258	84	174	10,710
June	975.7	86	7.7	32.5	1,940
July	209.3	24	1.0	6.75	415
August	197.0	37	1.5	6.35	391
September	324.6	30	2	10.8	644
Water year 1938-39	16,135.6	274	1.0	44.2	32,010

Peak discharge.- Apr. 4 (8 p.m.) 406 sec.-ft.; Aug. 27 (5 p.m.) about 944 sec.-ft.

Picuris ditch near Penasco, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 36°11', long. 105°40', in SW¼ sec. 28, T. 23 N., R. 12 E., 500 feet downstream from head gate, 1½ miles east of Picuris Pueblo, and 2 miles northeast of Penasco.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 8.2 second-feet June 21; no flow at times.
1936-39: Maximum daily discharge, 9.1 second-feet July 7, 1937; no flow at times.

Remarks.- Records good except those for Nov. 6-21, which are poor. Discharge for period of missing gage heights, Nov. 6-21, Nov. 23 to Mar. 14, computed on basis of four discharge measurements and weather records. Ditch diverts water for irrigation from right bank of Pueblo Creek. No diversions between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	0.1					0	0.9	0	3.3	6.3	3.6
2	1.1	.1					0	.8	0	3.6	7.3	3.5
3	1.0	.1					0	.6	1.2	5.2	7.5	3.3
4	.9	0					.2	.1	3.2	3.3	6.7	5.0
5	.8	0					.2	0	6.7	3.9	5.7	5.1
6	.6	0					.4	0	7.8	4.2	4.4	3.6
7	.6	0					0	0	7.8	5.0	2.8	3.1
8	.1	0					0	0	7.7	5.6	2.5	4.5
9	0	0					0	0	7.5	3.0	1.9	2.6
10	0	0					0	0	7.4	3.6	2.0	1.2
11	0	0					0	0	3.8	4.8	1.9	3.3
12	0	0					0	0	6.3	4.7	3.7	3.6
13	0	0					0	0	7.0	3.2	4.6	2.6
14	1.1	0					0	0	6.1	3.8	6.3	2.3
15	1.6	0					0	0	6.4	3.6	7.2	1.6
16	1.3	0					0	0	6.7	3.4	6.8	.7
17	.7	0					0	0	7.3	3.3	4.8	.7
18	.5	0					0	0	7.4	3.9	4.9	2.0
19	.4	0					0	0	6.1	6.8	5.6	3.1
20	.4	0					0	0	6.9	6.4	5.6	2.8
21	.2	0					0	0	8.2	5.8	4.8	2.6
22	.2	0					0	0	6.9	5.4	4.3	2.5
23	.1	0					0	0	5.7	3.7	2.5	1.9
24	.1	0					0	0	6.7	4.7	3.2	1.3
25	.1	0					0	0	6.6	2.7	3.9	1.2
26	.1	0					0	0	6.1	.1	3.0	1.1
27	.1	0					0	0	6.3	2.6	3.0	2.3
28	.1	0					0	0	5.9	3.6	2.7	4.1
29	.1	0					0	0	5.2	2.7	4.1	4.0
30	.1	0					.4	0	5.4	3.1	4.8	3.9
31	.1	-					-	0	-	3.0	3.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	13.6	1.6	0	0.44	27
November	.3	.1	0	.01	.6
December	0	0	0	0	0
Calendar year 1938	559.0	8.1	0	1.53	1,110
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	1.2	.4	0	.04	2.4
May	2.4	.9	0	.08	4.8
June	176.3	8.2	0	5.88	350
July	121.9	6.8	.1	3.93	242
August	138.4	7.5	1.9	4.46	275
September	83.1	5.1	.7	2.77	165
Water year 1938-39	537.2	8.2	0	1.47	1,070

Alcalde ditch at Alcalde, N. Mex.

Location.- Water-stage recorder and 4-foot Parshall flume, lat. 36°04', long. 106°04', in SW¼SE¼ sec. 2, T. 21 N., R. 8 E., 1 mile south of Alcalde and about 5 miles downstream from head gate.

Records available.- March 1936 to March 1939 (discontinued).

Extremes.- Maximum daily discharge during period, 14 second-feet Oct. 7; no flow at times.
1936-39: Maximum daily discharge, 25 second-feet May 29, 1938; no flow at times.

Remarks.- Records good except those for periods of ice effect, Nov. 6-10, 12-21, which were computed on basis of gage heights and weather records and are poor. Ditch diverts water from left bank of Rio Grande for irrigation on San Juan grant. Some diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	7.6										
2	9.3	12										
3	8.2	9.1										
4	8.8	3.4										
5	11	7.5										
6	13	2										
7	14	2										
8	.2	3										
9	0	2										
10	0	.7										
11	1.0	3.6										
12	5.0	2.7										
13	4.4	2										
14	3.7	1.4										
15	3.0	.2										
16	.7	.7										
17	3.7	.6										
18	3.7	.5										
19	.5	2.2										
20	2.8	3.9										
21	7.6	2.3										
22	9.4	0										
23	9.8	0										
24	12	0										
25	12	0										
26	7.9	0										
27	7.5	0										
28	10	0										
29	12	0										
30	11	0										
31	7.9	-										

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	206.9	14	0	6.67	410
November	69.4	12	0	2.31	138
December	0	0	0	0	0
Calendar year 1938	2,155.1	25	0	5.90	4,280
January	0	0	0	0	0
February	0	0	0	0	0
March 1-24	0	0	0	0	0
April	-	-	-	-	-
May	-	-	-	-	-
June	-	-	-	-	-
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	548

San Rafael ditch at Alcalde, N. Mex.

Location.- Water-stage recorder and 5-foot Parshall flume, lat. 36°05', long. 106°05', in SE¼SE¼ sec. 34, T. 22 N., R. 8 E., 200 feet south of north boundary of San Juan Pueblo grant, 1 mile west of Alcalde, 1½ miles downstream from head gate, and 2½ miles north of Chamita.

Records available.- February 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 25 second-feet Aug. 7; no flow Oct. 9 to Mar. 24, Mar. 26.
1936-39: Maximum daily discharge, 27 second-feet June 28, 1936; no flow at times.

Remarks.- Records good. Ditch diverts water from right bank of Rio Grande for irrigation on San Juan grant. Some diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1					0	18	20	14	15	18	11
2	4.3					0	20	19	13	17	12	S.6
3	5.8					0	17	21	9.9	8.0	21	11
4	6.1					0	19	20	7.5	7.1	12	11
S	5.6					0	20	20	S.0	10	12	16
6	6.4					0	12	20	6.3	9.S	7.4	15
7	6.7					0	12	20	12	S.4	25	11
8	1.7					0	11	20	19	6.5	23	13
9	0					0	11	18	18	5.0	20	16
10	0					0	10	15	16	2.S	19	16
11	0					0	14	12	19	4.4	14	9.0
12	0					0	19	13	17	4.4	15	18
13	0					0	1S	14	1S	7.4	17	16
14	0					0	1S	17	14	S.3	16	18
15	0					0	1S	14	9.3	2.0	16	9.5
16	0					0	19	19	12	16	11	3.6
17	0					0	19	20	12	21	S.2	5.9
18	0					0	1S	18	14	1S	7.S	6.1
19	0					0	17	14	S.6	17	10	5.7
20	0					0	1S	13	8.1	18	14	5.5
21	0					0	17	15	8.0	16	14	5.4
22	0					0	16	11	11	19	14	4.S
23	0					0	19	9.4	1S	24	11	3.3
24	0					0	16	S.9	20	18	10	6.5
25	0					.6	15	11	1S	15	12	11
26	0					0	17	13	12	14	15	8.3
27	0					2.2	16	13	18	21	12	15
28	0					12	17	11	16	1S	9.1	14
29	0					1S	1S	10	17	21	13	13
30	0					16	20	14	15	22	12	13
31	0					17	-	14	-	21	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	40.7	6.7	0	1.31	81
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	2,055.1	22	0	5.63	4,080
January	0	0	0	0	0
February	0	0	0	0	0
March	65.8	1S	0	2.12	131
April	499	20	10	16.6	990
May	477.3	21	8.9	15.4	947
June	408.7	20	6.3	13.6	S11
July	415.1	24	2.0	13.4	S23
August	432.5	25	7.4	14.0	858
September	320.2	1S	3.3	10.7	635
Water year 1938-39	2,659.3	25	0	7.29	5,280

Acequia Madre at Alcalde, N. Mex.

(Known also as Indian ditch)

Location.- Water-stage recorder and 3-foot Parshall flume, lat. 36°04', long. 106°04', in SE¼SW¼ sec. 2, T. 21 N., R. 8 E., three-quarters of a mile downstream from head and 1 mile south of Alcalde.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 29 second-feet May 3-9; no flow at times.
1936-39: Maximum daily discharge, 31 second-feet May 31, 1938; no flow at times.

Remarks.- Records good for Nov. 25 to June 30; others fair. Several diversions between station and head. Acequia Madre diverts water from left bank of Rio Grande for irrigation, almost entirely on Indian land.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	26				0	0	28	23	17	6.8	12
2	3.1	13				0	0	28	21	17	19	13
3	2.0	6.5				0	0	29	24	11	10	13
4	1.2	6.6				0	0	29	25	14	2.4	12
5	.5	6.5				0	0	29	24	19	9.4	12
6	.4	7.0				0	0	29	21	14	5.1	11
7	2.5	6.5				0	0	29	24	19	1.0	11
8	6.6	4.1				0	0	29	22	19	5.7	7.e
9	.8	6.4				0	8.S	29	17	20	11	10
10	.5	7.5				0	26	28	22	19	10	12
11	.8	7.8				0	26	28	23	18	9.5	11
12	.4	8.8				0	26	28	26	19	10	10
13	.2	8.6				0	26	28	15	18	7.0	10
14	.2	8.1				0	26	27	11	22	5.9	10
15	.2	8.7				0	26	27	15	20	7.8	12
16	.3	8.5				17	26	26	11	16	10	13
17	.3	8.8				14	26	26	9.6	14	17	11
18	2.4	9.0				0	25	26	9.2	13	8.7	11
19	9.0	8.8				4.7	25	25	9.2	13	10	11
20	8.5	9.3				0	24	17	8.4	11	15	12
21	9.9	6.8				0	24	4.7	5.4	12	7.1	11
22	.8	3.0				0	25	7.0	6.2	12	3.5	9.9
23	.8	7.6				0	26	15	12	11	14	9.5
24	.7	2.3				0	27	24	14	13	19	9.2
25	.6	0				0	28	23	13	12	18	9.7
26	.6	0				0	27	22	12	6.9	7.1	9.3
27	.4	0				0	27	19	12	1.2	12	11
28	.4	0				0	27	11	13	5.7	13	9.3
29	.3	0				0	27	10	14	15	11	6.8
30	.2	0				0	28	24	16	21	10	7.2
31	16	-				0	-	24	-	9.3	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	73.2	16	0.2	2.36	145
November	196.2	26	0	6.54	389
December	0	0	0	0	0
Calendar year 1938	3,176.6	31	0	8.70	6,300
January	0	0	0	0	0
February	0	0	0	0	0
March	35.7	17	0	1.15	71
April	556.8	28	0	18.6	1,100
May	728.7	29	4.7	23.5	1,450
June	478.0	26	5.4	15.9	948
July	452.1	22	1.2	14.6	897
August	307.0	19	1.0	9.90	609
September	319.7	13	7.2	10.7	634
Water year 1938-39	3,147.4	29	0	8.62	6,240

Rio Chama at Park View, N. Mex.

Location.- Water-stage recorder, lat. 36°43', long. 106°34', in Tierra Amarilla grant, 75 feet upstream from new mouth of Rio Brazos, 150 feet upstream from bridge on State Highway 51, and half a mile northwest of Park View, Rio Arriba County.

Drainage area.- 405 square miles, including that of Rio Brazos.

Records available.- November 1912 to September 1916 and October 1930 to September 1939 in reports of Geological Survey. November 1912 to September 1916 and August 1924 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 3,050 second-feet Apr. 30 (gage height, 5.40 feet), from rating curve extended logarithmically above 4,000 second-feet; minimum daily discharge, 8 second-feet July 25 and Aug. 24.
1930-39: Maximum discharge, about 8,530 second-feet Apr. 16, 1937 (gage height, 7.15 feet), from rating curve extended logarithmically above 4,000 second-feet; minimum daily discharge, 3 second-feet July 6, 7, 1934.

Remarks.- Records fair except those for period of ice effect, Nov. 24 to Mar. 19, which were computed on basis of three discharge measurements, weather records, and records for Embudo Creek at Dixon and are poor. Discharge includes flow of Rio Brazos. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	58	30	30	50	60	424	2,310	412	39	34	24
2	59	68	25	35	40	50	502	2,080	388	36	24	22
3	61	56	25	40	30	60	600	1,930	376	32	25	18
4	63	61	30	40	35	55	728	1,930	430	28	26	16
5	66	75	30	25	40	45	593	1,860	412	26	22	35
6	59	61	25	45	40	40	752	1,860	364	24	22	81
7	71	43	20	40	50	50	608	1,560	305	20	34	38
8	184	42	20	40	45	60	632	1,590	275	16	32	32
9	155	63	20	50	40	70	760	1,600	250	15	25	45
10	130	61	25	40	40	70	769	1,580	232	14	18	96
11	128	59	30	35	35	70	616	1,590	224	12	17	94
12	113	58	25	35	40	80	624	1,440	196	10	15	90
13	111	42	25	35	45	90	720	1,250	186	9	16	96
14	102	48	15	35	50	110	760	1,180	165	10	15	106
15	97	58	20	30	50	140	704	940	138	12	13	150
16	108	53	40	40	55	200	624	886	113	14	10	113
17	102	52	35	45	50	220	558	760	99	14	9	79
18	83	45	15	35	50	220	558	752	92	12	9	71
19	79	45	35	35	55	240	696	752	85	11	9	62
20	75	52	35	40	50	270	659	744	77	10	9	54
21	75	52	35	50	40	315	1,280	712	71	9	9	48
22	70	50	30	55	45	424	1,600	656	67	9	9	45
23	68	35	10	55	50	530	1,730	632	62	9	9	42
24	64	25	10	40	55	593	1,350	565	57	9	8	39
25	63	30	20	30	55	565	1,350	495	54	8	9	36
26	63	30	20	30	50	516	1,600	448	52	9	12	46
27	63	35	20	35	45	495	1,730	424	52	12	15	113
28	59	35	25	40	50	424	2,000	400	49	18	48	71
29	59	35	30	45	-	424	2,150	406	45	24	35	59
30	59	35	30	50	-	370	2,230	418	42	55	25	49
31	56	-	30	55	-	358	-	412	-	52	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,603	184	56	84.0	5,160
November	1,462	75	25	48.7	2,900
December	785	40	10	25.3	1,560
Calendar year 1938	165,538	5,380	10	462	334,300
January	1,235	55	25	39.8	2,450
February	1,280	55	30	45.7	2,540
March	7,214	593	40	233	14,310
April	30,107	2,230	424	1,004	59,720
May	34,162	2,310	400	1,102	67,760
June	5,370	430	42	179	10,650
July	578	55	8	18.6	1,150
August	587	48	8	18.9	1,160
September	1,870	150	16	62.3	3,710
Water year 1938-39	87,253	2,310	8	239	173,100

Peak discharge.- Apr. 28 (10 p.m.) 2,570 sec.-ft.; Apr. 30 (10 to 11 p.m.) 3,050 sec.-ft.; May 1 (11 p.m.) 2,760 sec.-ft.; May 3 (9 p.m.) 2,400 sec.-ft.; May 5 (10 p.m.) 2,570 sec.-ft.

El Vado Reservoir near Tierra Amarilla, N. Mex.

Location.- Staff gage, lat. 36°36', long. 106°44', in NE¼ sec. 33, T. 28 N., R. 2 E. (unsurveyed), at left end of El Vado Dam, 2 miles downstream from old town of El Vado and 13 miles southwest of Tierra Amarilla. Zero of gage is 9.565 feet above mean sea level.

Records available.- January 1935 to September 1939.

Extremes.- Maximum daily contents during year, 150,500 acre-feet June 6, 7 (gage height, 6,885.6 feet); minimum daily, 17,520 acre-feet Sept. 30 (gage height, 6,800.0).
1935-39: Maximum daily contents, 195,700 acre-feet July 1, 1938 (gage height, 6,901.1 feet); minimum daily, 56 acre-feet Jan. 1, 1935.

Remarks.- Capacity of reservoir is 200,300 acre-feet at gage height 6,902.0 feet, which is top of spillway gate (from revised capacity table). Stored water is used for irrigation in Middle Rio Grande conservancy district. Gage-height record and table of storage capacity furnished by Middle Rio Grande Conservancy District.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Furnished by Middle Rio Grande Conservancy District)

6,740	0	6,790	11,340	6,860	92,380
6,750	75	6,800	17,520	6,880	135,800
6,760	904	6,810	25,520	6,900	193,800
6,770	3,000	6,820	35,120		
6,780	6,510	6,840	59,830		

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60,250	56,060	56,340	58,420	60,970	62,120	45,660	87,110	149,200	106,700	57,300	26,320
2	59,830	56,060	56,340	58,560	61,110	62,850	45,050	92,200	149,700	104,400	57,030	25,430
3	59,540	55,930	56,340	58,560	61,110	63,440	43,970	96,720	150,200	102,400	56,750	25,080
4	59,400	55,790	56,340	58,700	61,250	63,440	43,490	101,000	150,200	99,820	56,610	24,040
5	59,120	55,790	56,340	58,700	61,250	63,140	43,490	104,600	150,200	98,060	56,480	23,190
6	58,840	55,650	56,340	58,840	61,250	62,560	45,260	109,000	150,500	96,720	56,430	22,280
7	58,840	55,650	56,480	58,840	61,400	62,120	42,780	112,400	150,500	95,190	56,200	21,380
8	58,700	55,380	56,480	58,980	61,400	61,690	41,960	115,400	150,200	93,500	56,060	20,670
9	58,420	55,240	56,610	58,980	61,400	60,820	42,430	118,600	149,700	92,010	55,930	19,730
10	58,140	55,110	56,610	59,120	61,540	60,110	43,020	121,800	148,900	90,540	55,790	20,040
11	58,000	55,110	56,610	59,120	61,540	59,400	43,490	124,500	148,100	88,720	55,240	19,890
12	58,000	55,110	56,610	59,400	61,540	58,700	44,930	127,400	146,700	85,870	53,760	19,430
13	57,580	54,970	56,610	59,540	61,540	57,860	45,910	130,300	145,400	83,080	52,160	18,830
14	57,160	54,970	56,610	59,540	61,540	57,300	46,520	132,500	144,300	80,850	60,840	18,240
15	56,750	54,970	56,890	59,540	61,690	56,610	47,020	134,500	142,700	79,160	49,680	18,090
16	56,610	54,970	56,890	59,540	61,690	55,380	48,020	136,300	141,200	78,490	48,520	17,660
17	56,610	55,110	57,160	59,680	61,690	53,760	48,650	137,500	139,100	78,160	46,770	17,950
18	56,750	55,110	57,300	59,680	61,690	51,890	49,550	138,800	137,300	77,160	44,570	18,240
19	56,890	55,240	57,440	59,830	61,830	50,060	50,060	139,600	135,000	75,190	42,780	18,310
20	56,890	55,520	57,440	59,830	61,830	49,030	50,970	140,600	131,800	73,260	40,920	18,380
21	57,030	55,650	57,580	59,970	61,830	48,020	52,690	142,200	129,800	71,040	39,000	18,380
22	57,030	55,650	57,580	60,250	61,830	46,770	55,240	142,700	126,900	68,700	37,140	18,380
23	57,030	55,790	57,720	60,250	61,980	46,640	58,000	143,800	124,100	66,260	34,100	18,380
24	57,030	55,790	57,720	60,400	61,980	46,890	61,110	144,300	121,300	63,730	32,780	18,310
25	56,890	55,930	57,860	60,540	61,980	46,890	63,880	145,100	118,600	60,540	31,500	18,310
26	56,890	55,930	57,860	60,540	61,980	47,760	66,860	145,900	116,500	58,420	30,520	18,240
27	56,750	56,060	58,000	60,680	62,120	49,290	69,790	147,000	114,300	57,860	30,130	18,380
28	56,610	56,200	58,140	60,820	62,120	48,020	73,260	147,300	112,600	57,860	29,270	18,460
29	56,480	56,200	58,140	60,820	-	46,890	77,660	147,500	110,700	57,720	28,900	18,240
30	56,340	56,340	58,280	60,970	-	46,770	82,040	148,100	108,100	57,580	27,680	17,520
31	56,200	-	58,280	60,970	-	46,150	-	148,600	-	57,440	27,220	-

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. Prior to Oct. 1, 1938, water-stage recorder at site 1.0 mile upstream, independent datum.

Records available.- October 1935 to September 1939; October 1913 to November 1916 at site 1.5 miles upstream (records equivalent; 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, 1,450 second-feet June 21-22 (gage height, 3.96 feet); minimum daily discharge, 7.0 second-feet Nov. 15.
1913-16; 1935-38: Maximum discharge, 4,860 second-feet May 10, 1916; minimum daily discharge, 1.6 second-feet Nov. 21 to Dec. 1, 1937, Mar. 4-10, 1938.

Remarks.- Records good. Flow regulated by El Vado Reservoir (capacity 200,342 acre-feet at gage height 6,902 feet, which is top of spillway gate). Discharge for periods of missing or incomplete gage-height record, Jan. 16, 26-29, Sept. 28, computed on basis of partial record and on discharge at upper site. Records at upper site were used July 24 to Aug. 8 and Sept. 17-27 because of loss of records at lower site. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	292	134	12	14	9.8	11	1,270	115	232	1,070	178	420
2	292	134	12	15	9.8	9.8	1,230	118	256	1,070	147	410
3	292	134	12	15	9.8	11	1,230	122	410	1,270	88	410
4	287	134	11	15	11	125	1,230	125	440	1,230	86	410
5	287	134	11	15	11	435	1,230	128	440	974	86	410
6	287	134	11	15	11	516	1,230	128	450	775	84	405
7	287	134	12	15	11	510	1,230	128	510	775	84	405
8	292	134	14	14	11	510	886	131	549	775	84	400
9	287	134	14	14	12	510	662	131	734	775	84	400
10	287	82	14	14	12	510	578	131	761	845	154	395
11	287	66	14	13	12	510	204	131	845	1,270	714	395
12	287	66	14	11	12	510	180	134	866	1,320	990	390
13	287	66	14	11	12	510	180	134	838	1,270	982	385
14	287	47	14	11	13	510	180	224	817	1,010	974	385
15	228	7.0	14	12	13	626	180	328	943	584	966	380
16	196	13	14	12	12	855	176	332	1,030	350	958	380
17	196	15	14	11	12	974	180	323	1,230	326	958	64
18	192	15	14	11	12	966	180	300	1,320	990	950	64
19	180	14	14	11	13	974	180	395	1,360	982	943	66
20	138	14	14	11	12	1,010	148	410	1,400	1,020	936	66
21	138	14	14	9.8	12	1,010	95	430	1,450	1,230	922	67
22	138	14	14	9.8	12	1,020	95	360	1,450	1,190	740	67
23	138	14	14	9.8	12	1,020	98	323	1,400	1,190	632	69
24	138	14	14	9.8	12	1,190	104	321	1,400	1,260	626	69
25	138	13	14	9.2	12	1,270	101	148	1,360	1,260	620	72
26	138	13	14	9.3	11	1,270	104	174	1,070	795	500	74
27	138	12	14	9.4	11	1,270	106	260	1,070	124	435	74
28	138	12	14	9.6	11	1,270	109	228	1,070	131	435	153
29	138	12	14	9.7	-	1,270	109	228	1,070	124	425	440
30	134	12	14	9.8	-	1,270	112	232	1,070	152	425	435
31	134	-	14	9.8	-	1,270	-	232	-	183	420	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,678	292	134	215	13,250
November	1,741.0	134	7.0	58.0	3,450
December	417	14	11	13.5	827
Calendar year 1938	175,059.9	2,200	1.6	480	347,200
January	366.0	15	9.2	11.8	726
February	324.4	13	9.8	11.6	643
March	23,722.8	1,270	9.8	765	47,050
April	13,597	1,270	95	453	26,970
May	6,904	430	115	223	13,690
June	27,841	1,450	232	928	55,220
July	26,320	1,320	124	849	52,200
August	16,626	990	84	536	32,980
September	8,160	440	64	272	16,190
Water year 1938-39	132,697.2	1,450	7.0	364	263,200

Rio Chama near Chamita, N. Mex.

Location.- Water-stage recorder, lat. 36°06', long. 106°08', in S½ sec. 31, T. 22 N., R. 8 E., 80 feet downstream from bridge on Espanola-Ojo Caliente highway, 3¾ miles northwest of Chamita, and 4 miles upstream from mouth.

Records available.- October 1912 to June 1915 and October 1930 to September 1939 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 3,600 second-feet Apr. 5 (gage height, 4.73 feet); minimum daily discharge, 25 second-feet (estimated) Feb. 10.
1930-39: Maximum discharge, 7,700 second-feet May 20, 1932; maximum gage height, 6.74 feet May 16, 1935; no flow at times.

Remarks.- Records fair. Several diversions above station for irrigation. Flow regulated by operation of gates at El Vado Dam.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	252	147	70	52	52	87	1,420	828	173	938	225	356
2	270	160	77	57	*50	95	1,600	828	147	971	190	363
3	240	177	82	52	*40	75	1,680	700	144	1,040	210	363
4	235	160	90	70	*50	75	2,020	660	349	1,150	147	394
5	246	147	61	54	*75	63	2,670	590	356	1,080	84	349
6	240	144	70	61	*75	95	2,160	550	342	861	95	335
7	300	160	57	82	*75	630	1,880	504	363	710	101	335
8	1,700	177	57	63	72	495	1,690	434	459	690	59	328
9	640	156	56	82	*75	459	1,250	386	495	720	40	335
10	402	195	66	63	*25	513	1,190	356	650	700	35	356
11	378	168	70	92	*35	580	938	335	762	850	33	294
12	356	119	63	77	*50	590	550	288	762	1,210	519	307
13	321	95	66	*50	70	660	560	276	773	1,260	894	335
14	300	92	45	*45	75	839	560	264	751	1,320	916	394
15	288	95	35	*35	87	982	550	270	740	982	905	386
16	240	109	48	*55	87	1,030	550	335	806	700	927	386
17	186	87	68	59	70	1,230	434	328	949	378	938	394
18	156	70	66	52	59	1,290	394	328	1,120	294	927	168
19	160	56	52	77	63	1,240	442	300	1,200	905	905	112
20	181	59	68	63	82	1,260	522	342	1,300	894	982	84
21	164	57	52	101	*55	1,240	650	418	1,320	993	1,030	84
22	168	63	56	109	*50	1,260	720	402	1,360	1,210	905	79
23	151	47	61	70	72	1,360	817	328	1,370	1,300	660	77
24	156	32	57	72	90	1,610	580	258	1,340	1,170	590	84
25	144	36	43	68	90	1,620	531	270	1,330	1,190	630	70
26	147	42	33	42	61	1,720	610	210	1,120	1,230	600	84
27	147	37	42	48	42	1,770	630	119	938	795	459	63
28	160	45	59	66	75	1,700	650	186	916	349	477	75
29	177	46	56	84	-	1,570	700	164	927	386	450	54
30	177	52	48	48	-	1,480	817	168	916	300	370	261
31	164	-	52	56	-	1,410	-	147	-	294	370	-

Month	Second-feet-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,846	1,700	144	285	17,550
November	3,032	195	32	101	6,010
December	1,826	90	33	58.9	3,620
Calendar year 1938	224,657	2,740	20	615	445,600
January	2,005	109	35	64.7	3,980
February	1,802	90	25	64.4	3,570
March	29,028	1,770	63	936	57,580
April	29,765	2,670	394	992	59,040
May	11,572	828	119	378	22,950
June	24,178	1,370	144	806	47,960
July	26,870	1,320	294	867	53,300
August	15,673	1,030	33	506	31,090
September	7,305	394	54	244	14,490
Water year 1938-39	161,902	2,670	25	444	321,100

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather records.

Willow Creek near Park View, N. Mex.

Location.- Water-stage recorder, lat. 36°40', long. 106°41', in Tierra Amarilla grant, 500 feet upstream from Willow Creek reservoir site, 0.3 mile downstream from Horse Lake Creek, and 7 miles southwest of Park View, Rio Arriba County.

Records available.- May 1936 to September 1939.

Extremes.- Maximum discharge during year, 1,500 second-feet Mar. 23 (gage height, 5.67 feet); no flow at times.
1936-39: Maximum discharge, 3,100 second-feet Apr. 10, 1937 (gage height, 7.59 feet); no flow at times.

Remarks.- Records good except that for day of ice effect, Nov. 12, and those for days of missing or incomplete gage-height record, Aug. 26 to Sept. 27, which were computed on basis of available gage heights, weather records, and records for El Rito Creek near El Rito, and are poor. Result of discharge measurement used Dec. 9. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.9				-	94	8.1	3.8	0.2	9.0	
2	1.1	2.2				-	97	7.3	4.1	.1	3.2	
3	1.0	2.6				-	106	6.6	3.4	.1	3.8	*1
4	.9	2.6				-	156	6.0	3.2	0	1.4	
5	1.0	2.8				-	99	5.0	1.3	.3	1.4	
6	1.0	2.8				-	85	4.4	1.0	1.4	1.3	
7	1.5	2.2				-	46	3.4	2.1	.7	1.6	
8	50	1.9				-	45	3.0	2.5	.2	1.1	*2
9	32	1.8	†0.2			-	46	2.3	2.8	.2	.6	
10	9.6	1.9				-	43	1.9	2.1	1.0	.5	
11	4.4	2.2				-	27	1.8	1.8	.9	.3	
12	3.3	2.0				-	26	1.6	2.1	.6	.2	*1
13	2.8	-				-	25	1.6	1.2	.2	.1	
14	2.2	-				-	24	1.2	.9	.2	.1	*30
15	2.1	-				-	22	4.1	.2	9.5	.1	*10
16	2.1	-				-	21	4.7	.2	5.4	.1	
17	1.9	-				-	15	5.4	.2	1.6	0	
18	2.2	-				-	15	4.4	.1	1.1	.2	
19	2.1	-				-	12	3.8	1.7	.6	.4	
20	2.1	-				-	12	3.6	1.3	.3	.4	*1
21	1.9	-				-	12	3.2	.9	.2	.5	
22	1.9	-				-	11	3.8	.5	.1	.5	
23	1.8	-				*760	11	3.2	.5	.1	.5	
24	1.8	-				387	12	2.8	.2	0	1.0	
25	1.8	-				291	12	3.4	.1	0	41	*2
26	1.8	-				194	9.8	4.1	0	0	*20	*20
27	1.8	-				164	9.4	3.8	.5	0		10
28	1.8	-				108	8.5	3.8	.6	0		3.0
29	1.8	-				327	8.1	4.1	.5	0	*1	1.3
30	1.8	-				154	8.1	5.4	.2	3.3		.7
31	1.8	-				91	-	5.4	-	9.0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	144.7	50	0.9	4.67	287
November 1-12	26.9	2.8	1.8	2.24	53
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 23-31	2,476	760	91	275	4,910
April	1,115.9	156	8.1	37.2	2,210
May	123.2	8.1	1.2	3.97	244
June	40.0	4.1	0	1.33	79
July	37.3	9.5	0	1.20	74
August	94.3	-	0	3.04	187
September	104.0	-	-	3.47	206
Water year	-	-	-	-	-

*Gage-height record missing or incomplete; discharge computed on basis of available gage heights, weather records, and records for El Rito Creek near El Rito, N. Mex.
†Discharge measurement.

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. Oct. 1, 1937, to Apr. 5, 1938, water-stage recorder at site 190 feet downstream, different datum.

Records available.- May 1931 to September 1939.

Extremes.- Maximum discharge during year ending Sept. 30, 1938, 340 second-feet Apr. 23, 30 (gage height, 3.96 feet); minimum daily discharge, 0.8 second-foot August 23.
Maximum discharge during year ending Sept. 30, 1939, 190 second-feet Apr. 30 (gage height, 3.00 feet); minimum daily discharge, 0.5 second-foot Sept. 4, 5.
1931-39: Maximum discharge and gage height not determined; minimum daily discharge, 0.3 second-foot June 21-23, 1934.

Remarks.- Records good except those below 1 second-foot, which are fair, and those for periods of ice effect and periods of missing or incomplete gage-height record, which are poor. No records for periods for which no discharge is shown. One diversion above station for irrigation.

Discharge, in second-feet, 1937-39

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.6	2.2				*1.3	4.7	184	30	4.5	1.5	1.8
2	5.7	2.2				*1.5	4.7	125	27	4.1	1.5	4.5
3	3.0	2.4				*1.4	4.2	122	25	3.7	1.8	2.3
4	2.4	2.4			†1.9	*1.6	6.2	102	22	3.4	2.5	4.9
5	2.2	2.4				*1.3	12	84	21	3.0	3.0	3.1
6	2.1	2.2		†2.2		*1.0	16	78	18	2.8	1.9	2.2
7	2.1	2.4				*1.0	13	66	19	2.8	1.6	2.3
8	2.0	2.8				1.2	11	62	25	2.7	1.5	2.4
9	2.1	2.1				1.0	14	66	17	2.4	1.4	1.9
10	2.0	2.2				1.0	21	63	14	2.4	1.4	1.8
11	2.1	2.2				1.1	30	70	13	2.3	2.1	3.9
12	2.1	2.0				1.5	44	89	11	2.3	2.0	5.3
13	1.7	1.7				2.4	39	128	18	3.4	1.8	4.3
14	2.0	1.6				2.0	33	180	15	3.3	2.2	2.4
15	2.8	1.3				1.7	24	166	11	3.9	1.8	2.3
16	2.8	1.1				1.6	32	137	9.5	2.7	1.4	2.9
17	2.8	1.1				2.6	49	120	8.6	2.3	1.3	2.7
18	2.6	‡1.0				3.0	65	120	7.5	2.3	1.3	2.2
19	2.6	‡1.0				2.4	122	90	7.0	2.2	1.2	2.1
20	2.6	‡1.0				3.8	162	93	6.5	2.5	1.0	1.8
21	2.6	‡1.1				4.9	205	88	5.8	2.7	.9	1.8
22	2.6	‡1.1				4.0	198	75	5.5	2.1	.9	1.7
23	2.8	‡1.1				2.8	228	64	5.8	2.0	.8	1.8
24	2.6	‡1.2				3.8	228	63	5.1	1.8	1.0	1.8
25	2.4	‡1.2				8.6	235	66	4.3	1.7	1.1	1.7
26	2.1	‡1.3				14	198	63	4.1	1.8	1.3	1.6
27	1.8	1.5				11	130	57	3.9	1.8	1.0	1.5
28	2.0	1.4				8.0	133	54	4.1	1.8	1.2	1.5
29	2.1	*1.4				6.2	166	47	8.3	1.6	1.3	1.4
30	2.1	*1.4				3.6	228	39	6.5	1.5	1.1	1.4
31	2.1	-				6.5	-	34	-	1.8	1.1	-

*Gage-height record missing or incomplete; discharge computed on basis of available gage heights, weather records, and records for Rio Ojo Caliente at La Madera.
†Discharge measurement.
‡Stage-discharge relation affected by ice; discharge computed on basis of gage heights, weather records, and records for Rio Ojo Caliente at La Madera.

Discharge, in second-feet, of El Rito Creek near El Rito, N. Mex., 1937-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	1.2		-		*1.5	30	121	6.5	1.6	1.3	0.8
2	1.4	1.3		-		*1.5	46	102	5.5	1.4	1.3	.7
3	1.5	1.2		-		*1.5	61	93	5.3	1.2	1.8	.6
4	1.8	1.2		-		*1.6	73	94	6.5	1.2	1.9	.5
5	1.7	1.3		-		*1.6	77	85	5.5	1.0	1.4	.5
6	1.7	1.1		-		*1.6	61	75	4.9	.9	1.6	.6
7	3.9	1.1		-		*1.6	46	60	4.7	.8	1.3	.6
8	13		†1.7	-		†1.6	45	57	4.1	.9	1.1	.6
9	6.8			-		*1.6	59	54	3.7	1.0	.9	.6
10	3.5			-		*1.7	51	51	3.5	1.0	.7	1.0
11	2.8			-		*1.7	38	45	2.9	.8	.8	1.0
12	2.3			-		*1.7	47	42	2.9	.7	.7	.8
13	2.1			-		*1.8	53	35	2.8	.7	.6	.8
14	1.8			-		*1.9	51	33	2.7	.9	.9	1.2
15	1.7			-		*2.0	48	27	2.4	.9	.6	1.6
16	1.6			-		*3.5	39	27	2.2	1.2	.6	1.3
17	1.4			-		6.5	35	24	2.1	.8	.7	1.1
18	1.5			-		7.8	37	22	2.3	.7	.7	1.7
19	1.5	‡1.0		-		9.5	48	21	2.4	1.1	.6	1.2
20	1.4			-		10	59	18	2.3	.9	1.1	.9
21	1.4			†1.8		12	78	16	2.2	.8	4.5	.8
22	1.3			-		15	98	13	2.0	.8	1.4	.8
23	1.3			-		30	93	12	1.9	1.3	1.5	.7
24	1.3			-		34	69	11	1.8	1.0	1.0	.6
25	1.2			-		29	77	10	1.6	.8	2.5	.6
26	1.2			-		34	87	9.8	1.5	.9	.9	.8
27	1.2			-		34	77	8.9	1.6	1.3	1.6	1.2
28	1.2			-		24	91	7.8	1.9	1.2	1.9	.9
29	1.1			-		19	104	8.0	1.8	2.4	1.2	.7
30	1.1			-		17	128	7.5	1.4	2.3	.9	.6
31	1.1	-		†1.8		18	-	6.8	-	1.9	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1937	82.5	9.6	1.7	2.66	164
November	50.0	2.8	1.0	1.67	99
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January 1938	-	-	-	-	-
February	-	-	-	-	-
March	108.0	14	1.0	3.48	214
April	2,675.8	235	4.2	89.2	5,310
May	2,779.0	184	34	89.6	5,510
June	378.5	30	3.9	12.6	751
July	79.6	4.5	1.5	2.57	158
August	45.9	3.0	.8	1.48	91
September	73.3	5.3	1.4	2.44	145
Water year	-	-	-	-	-
October 1938	68.1	13	1.1	2.20	135
November	31.4	-	-	1.05	62
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January 1939	-	-	-	-	-
February	-	-	-	-	-
March	328.2	34	1.5	10.6	651
April	1,906.0	128	30	63.5	3,780
May	1,196.8	121	6.8	38.6	2,370
June	92.9	6.5	1.4	3.10	184
July	34.4	2.4	.7	1.11	68
August	38.9	4.5	.6	1.25	77
September	25.8	1.7	.5	.86	51
Water year	-	-	-	-	-

*Gage-height record missing or incomplete; discharge computed on basis of available gage heights, weather records, and records for Rio Ojo Caliente at La Madera.

†Discharge measurement.

‡Stage-discharge relation affected by ice; discharge computed on basis of gage heights, weather records, and records for Rio Ojo Caliente at La Madera.

Rio Ojo Caliente at La Madera, N. Mex.

Location.- Water-stage recorder, lat. 36°20'45", long. 106°02'50", in NE¼ 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 1939.

Extremes.- Maximum discharge during year, 880 second-feet Apr. 5 (gage height, 3.12 feet); minimum daily discharge, 2 second-feet July 25-27.
1932-39: Maximum discharge, 2,570 second-feet Apr. 16, 1937, from rating curve extended logarithmically above 1,100 second-feet; maximum gage height, 7.60 feet (former site and datum) July 15, 1933; minimum daily discharge, 1 second-foot at times.

Remarks.- Records poor. Diversion above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	16	15	*18	19	19	176	520	20	4	4	9
2	8	15	15	*18	†18	†16	268	449	17	4	28	8
3	8	14	12	*18	†15	20	326	356	16	4	8	9
4	7	13	17	*17	20	20	488	362	22	4	6	9
5	10	14	16	*15	20	†17	540	320	22	4	5	9
6	11	16	16	17	†20	†24	368	284	16	4	6	8
7	106	13	14	18	19	21	240	220	12	4	6	9
8	278	13	15	19	19	23	215	195	10	4	5	9
9	102	17	16	19	†19	30	290	190	9	4	5	10
10	*50	19	17	17	†19	30	326	180	7	4	5	12
11	*35	19	19	19	†16	31	210	158	5	4	4	11
12	*30	19	18	*15	†16	31	225	154	6	4	4	10
13	*25	15	17	*15	†16	43	296	132	6	4	4	11
14	*22	15	11	*15	16	59	284	120	6	4	4	12
15	*21	19	11	*18	16	63	230	108	5	5	4	12
16	*20	19	21	*20	15	76	176	104	4	4	4	13
17	*19	19	19	*19	19	116	128	91	4	4	4	13
18	*18	17	12	*19	16	162	132	73	4	4	4	12
19	*18	15	14	*19	17	230	210	70	4	4	4	10
20	*16	16	20	20	16	220	284	63	4	4	25	11
21	*17	16	18	15	†14	154	436	57	4	5	13	11
22	*17	17	15	16	†16	252	514	50	4	46	8	10
23	*17	11	11	17	16	380	494	42	4	4	7	9
24	*16	*11	*11	†12	17	368	332	38	4	3	7	13
25	*16	*15	*15	†11	20	225	350	35	4	2	7	8
26	*16	*14	*17	15	19	284	430	34	4	2	7	10
27	*15	*14	*17	16	19	314	442	40	4	2	7	10
28	*15	*13	*18	18	†18	200	442	30	4	3	8	12
29	15	*12	*18	17	-	140	456	28	5	3	11	13
30	15	*13	*17	18	-	108	561	24	4	4	8	16
31	15	-	*18	20	-	120	-	24	-	4	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	989	278	7	31.9	1,960
November	459	19	11	16.3	910
December	490	21	11	15.8	972
Calendar year 1938	31,266	1,210	3	85.7	62,000
January	530	20	11	17.1	1,050
February	490	20	14	17.5	972
March	3,796	380	16	122	7,530
April	9,869	561	128	329	19,570
May	4,551	520	24	147	9,030
June	240	22	4	8.0	476
July	159	46	2	5.1	315
August	232	28	4	7.5	460
September	319	16	8	10.6	633
Water year 1938-39	22,124	561	2	60.6	43,880

*Gage-height record missing or incomplete; discharge computed on basis of weather records and records for Rio Colorado near Questa and Rio Hondo at Arroyo Hondo.
†Stage-discharge relation affected by ice; discharge computed on basis of weather records and records for Rio Colorado near Questa and Rio Hondo at Arroyo Hondo.

Chamita ditch near Chamita, N. Mex.

Location.- Water-stage recorder, lat. 36°05', long. 106°07', in NW¼ sec. 5, T. 21 N., R. 8 E., 2,000 feet downstream from head gate and 3½ miles northwest of Chamita.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 34 second-feet July 4; no flow at times. 1936-39: Maximum daily discharge, 40 second-feet Aug. 3, 1938; no flow at times.

Remarks.- Records good except those for period of missing gage heights, period of uncertain stage-discharge relation, periods of faulty intake action, and period Dec. 17-21, all of which are poor. Ditch diverts water from left bank of Rio Chama for irrigation. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14		0			0	19	16	19	28	15	18
2	14		0			0	*0	14	18	12	11	17
3	7.9		0			0	17	16	21	30	11	9.6
4			0			0	14	22	.6	34	11	19
5			0			0	9.7	19	25	28	13	17
6	†10		0			0	*0	14	21	25	10	12
7			0			0	*0	0	24	24	15	20
8			0			0	14	1.5	19	27	14	21
9	†0		0			0	0	2.9	19	9.7	22	15
10	†0	‡2	0			0	16	1.1	18	28	25	0
11	0		0			0	12	14	0	27	28	12
12	0		0			0	4.9	26	21	19	26	11
13	0		0			0	0	27	23	29	19	16
14	0		0			0	0	19	18	19	24	16
15	0		0			0	8.5	13	23	15	25	3.4
16	0		0			0	0	22	24	0	19	1.2
17	.7		6.2			0	19	23	25	12	19	0
18	3.0		.7			0	13	23	17	.7	24	14
19	.9		3.3			0	13	25	33	22	22	20
20	.7	0	9.0			0	17	22	33	25	*3.1	22
21	.4	0	4.3			6.9	19	0	28	24	11	16
22	2.2	0	0			16	20	28	23	26	13	†15
23	0	0	0			14	0	27	29	*2.5	10	†15
24		0	0			0	23	27	29	24	15	†0
25		0	0			16	17	22	.8	24	22	
26		0	0			0	19	21	20	15	21	
27	‡2	0	0			19	19	19	22	7.9	12	†18
28		0	0			15	22	0	21	*0	11	
29		0	0			13	15	22	18	*0	0	
30		0	0			13	3.5	22	23	0	12	
31		-	0			14	-	19	-	20	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	109.8	-	0	3.54	218
November	38.0	-	0	1.27	75
December	23.5	9.0	0	.76	47
Calendar year 1938	3,614.2	40	0	9.90	7,170
January	0	0	0	0	0
February	0	0	0	0	0
March	126.9	19	0	4.09	252
April	334.6	23	0	11.2	664
May	527.5	28	0	17.0	1,050
June	615.4	33	0	20.5	1,220
July	557.8	34	0	18.0	1,110
August	501.1	28	0	16.2	994
September	418.2	-	0	13.9	829
Water year 1938-39	3,252.8	34	0	8.91	6,460

*Intake operation faulty; discharge computed on basis of study of recorder trace.
†Gage height missing; discharge computed on basis of record for preceding and following periods.
‡Stage-discharge relation uncertain; discharge computed on basis of one discharge measurement and study of recorder trace.

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Santa Clara ditch near Espanola, N. Mex.

Location.- Water-stage recorder and 4-foot Parshall flume, lat. 35°38', long. 106°05', in NW¼ 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, about 2 miles downstream from head gate, and 2 miles south of Espanola.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 13 second-feet June 17, July 12-14, 23, 24; no flow at times.
1936-39: Maximum daily discharge, 18 second-feet June 26, 1938; no flow at times.

Remarks.- Records excellent except those below 5 second-feet, which are good. Discharge for periods of faulty intake action, Oct. 1-11, Sept. 18, 19, computed on basis of engineers' notes and study of recorder trace. Ditch diverts water from right bank of Rio Grande at Espanola for irrigation on Santa Clara Pueblo grant. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	9.2	9.2	10	3.4	2.0
2							0	9.0	8.5	5.4	2.6	1.9
3							0	4.3	7.5	4.0	3.0	1.8
4							0	6.4	12	11	2.2	1.6
5							0	7.7	12	11	1.7	1.9
6							0	5.9	9.9	8.9	1.7	3.2
7							0	5.7	9.1	6.7	1.9	3.3
8							0	5.7	10	6.9	1.8	4.6
9							0	8.4	10	7.2	1.4	5.6
10							0	9.7	12	6.9	1.2	6.9
11							0	9.6	12	8.2	1.3	5.0
12							0	9.4	12	13	5.2	4.5
13							0	9.6	12	13	11	3.9
14							0	9.7	11	13	11	4.4
15							0	9.2	9.9	11	10	5.4
16							0	8.7	12	7.8	9.9	6.4
17							0	8.6	13	4.0	9.5	4.9
18							0	7.7	11	1.7	9.7	0
19							.4	6.5	5.8	10	7.7	0
20							5.6	5.7	11	9.9	5.7	0
21							5.7	6.5	6.8	10	7.0	0
22							7.0	6.9	7.2	12	5.5	.4
23							6.7	7.0	5.0	13	4.7	.7
24							6.8	6.3	3.5	13	4.1	.8
25							7.2	6.1	4.0	12	4.0	.9
26							7.4	5.5	7.3	12	4.8	.9
27							7.2	4.8	9.1	9.0	3.9	1.6
28							6.6	5.0	10	2.5	4.6	1.5
29							7.5	4.7	11	2.7	3.1	1.5
30							8.7	5.2	10	3.5	2.4	3.3
31							-	8.7		3.4	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	771.4	18	0	2.11	1,530
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	76.8	8.7	0	2.56	152
May	223.4	9.7	4.3	7.21	443
June	283.8	13	3.5	9.46	563
July	262.7	13	1.7	8.47	521
August	148.2	11	1.2	4.78	294
September	78.9	6.9	0	2.63	156
Water year 1938-39	1,073.8	13	0	2.94	2,130

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 (which unite to form Rio Santa Cruz) and a quarter of a mile northwest of Cundiyo.

Records available.- September 1931 to September 1939 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.

Extremes.- Maximum discharge during year, 265 second-feet Aug. 25 (gage height, 2.90 feet); minimum daily discharge, 4.5 second-feet Sept. 7.
1913-39: Maximum discharge, 2,610 second-feet Sept. 24, 1931 (gage height, 8.20 feet, former datum), from rating curve extended above 170 second-feet; minimum daily discharge, 3 second-feet Feb. 3, 1932, Jan. 21, 1935.

Remarks.- Records good except those for periods of ice effect or missing gage heights, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	22	*14	†11	12	*13	48	102	61	17	17	6.1
2	15	21	*13	†12	†11	*12	55	104	60	17	16	5.7
3	15	21	*12	†13	*6	*13	63	108	59	16	16	5.7
4	16	20	*14	†12	*8	*13	87	110	58	15	21	5.4
5	16	21	*13	†9	*10	*12	103	114	55	14	15	5.0
6	16	16	*12	†11	*10	*11	100	115	51	14	19	4.8
7	27	*13	*12	†12	*12	*13	87	114	49	13	19	4.5
8	68	*17	*11	†13	*11	*15	81	110	48	15	16	7.2
9	62	*19	*11	14	*11	*18	82	109	44	19	14	13
10	48	*21	*12	10	*10	*20	85	108	41	15	13	24
11	41	*19	*13	8.9	*9	*19	77	109	40	13	13	12
12	37	*18	*12	*8	*10	*21	72	110	37	11	11	10
13	34	*13	12	*8	*10	*23	72	109	34	11	10	10
14	32	*16	†11	*7	*11	26	77	109	33	16	10	14
15	31	*18	†13	*7	*12	30	73	108	30	19	9.7	34
16	32	*17	14	*9	*13	36	70	99	29	17	10	34
17	30	*16	13	*11	*11	44	65	90	30	13	11	26
18	30	*14	†12	*9	*12	49	62	87	28	10	9.2	21
19	29	*15	†11	*10	*13	54	64	87	28	11	8.9	19
20	29	*16	13	*11	*12	53	68	86	25	12	10	17
21	29	*15	13	*12	*11	47	77	85	24	11	10	15
22	28	*14	12	*12	*11	49	86	85	21	12	10	13
23	27	*11	†10	*11	*12	57	92	83	20	13	9.4	13
24	26	*9	†8	*10	*13	63	92	82	20	11	10	12
25	25	*10	†10	*8	*14	57	92	80	19	12	18	11
26	24	*9	†11	*8	*14	60	89	74	18	17	10	12
27	24	*10	†11	*9	*13	61	86	73	18	25	10	13
28	24	*11	†11	*10	*12	54	90	72	18	34	11	13
29	24	*12	†10	*10	-	46	93	71	18	31	9.4	12
30	23	*14	†10	*10	-	41	97	68	18	22	7.8	11
31	22	-	†10	*14	-	39	-	63	-	19	6.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	920	88	15	29.7	1,820
November	468	22	9	15.6	928
December	364	14	8	11.7	722
Calendar year 1938	8,716.4	90	-	23.9	17,270
January	319.9	14	7	10.3	635
February	314	14	6	11.2	623
March	1,069	63	11	34.5	2,120
April	2,385	103	48	79.5	4,730
May	2,924	115	63	94.3	5,800
June	1,034	61	18	34.5	2,050
July	495	34	10	16.0	982
August	380.9	21	6.5	12.3	756
September	403.4	34	4.5	13.4	800
Water year 1938-39	11,077.2	115	4.5	30.3	21,970

Peak discharge.- Oct. 8 (11 a.m.) 260 sec.-ft.; Aug. 25 (6 p.m.) 265 sec.-ft.
*Gage height missing; discharge computed on basis of weather records, and records for Embudo Creek at Dixon and Nambe Creek near Nambe.
†Stage-discharge relation affected by ice; discharge computed on basis of gage heights, weather records, and records for Embudo Creek at Dixon and Nombe Creek near Nambe.

Santa Clara Creek near Espanola, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°58', long. 106°11', in SW¼SW¼ sec. 11, T. 20 N., R. 7 E., 5⅛ miles upstream from mouth and 5⅛ miles southwest of Espanola.

Records available.- February 1936 to September 1939.

Extremes.- Maximum discharge during year, 139 second-feet Oct. 7 (gage height, 3.27 feet), from rating curve extended above 36 second-feet on basis of slope-area measurement at 345 second-feet; minimum daily discharge, 1.4 second-feet Dec. 25.
1936-39: Maximum discharge, about 345 second-feet July 19, 1938 (gage height, 4.19 feet, from floodmarks), by slope-area method; minimum daily discharge, 0.8 second-foot Jan. 25, 1938.

Remarks.- Records good except those for periods of faulty intake action, periods of ice effect, and periods of missing gage heights, all of which are poor. Small diversion about a quarter of a mile above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	3.6	3.5	3.8	*4.0	4.2	4.9	4.0	3.0	2.6	3.2	3.0
2	3.8	3.8	3.5	3.8	*3.6	*3.8	4.9	4.0	3.0	2.9	3.0	3.0
3	4.0	3.8	3.3	4.0	*3.0	4.3	4.9	4.0	2.9	2.7	2.9	2.7
4	4.2	3.8	3.5	3.6	*2.0	4.0	5.9	4.2	2.9	1.7	2.5	2.6
5	4.2	3.8	3.5	*3.3	†2.0	4.0	6.2	4.0	3.0	2.5	2.5	2.6
6	4.2	4.0	3.5	4.2	†2.5	*3.8	6.2	3.8	3.0	2.5	2.7	2.7
7	11	*2.0	3.3	3.6	†3.0	*4.3	5.5	3.6	3.0	2.3	2.7	2.7
8	15	3.6	3.5	3.8	†3.5	4.2	4.9	3.5	2.9	2.9	2.5	3.0
9	7.1	4.0	3.6	3.6	†3.5	4.2	4.9	3.5	2.9	2.3	2.7	4.0
10	6.2	3.8	3.6	3.8	†4.0	4.2	4.9	2.9	2.7	2.0	3.0	4.2
11	5.7	3.6	3.6	3.8	†3.5	4.2	4.7	2.6	2.6	1.6	3.2	3.5
12	5.1	3.6	3.6	*3.0	†3.5	4.3	4.5	3.3	2.5	1.7	3.6	3.3
13	4.9	2.7	3.6	3.0	†3.5	4.9	4.3	3.2	2.3	2.0	4.0	3.3
14	4.5	3.5	2.7	*3.3	†3.5	5.1	4.3	3.3	2.2	3.3	4.0	4.0
15	4.2	4.0	3.5	*2.7	3.6	5.3	4.5	3.3	2.1	3.6	3.2	4.3
16	4.0	4.0	3.6	*3.6	3.5	5.5	4.5	3.6	2.0	3.8	3.3	4.2
17	4.0	3.8	3.6	4.2	3.5	5.7	4.7	3.5	2.0	3.0	3.2	4.2
18	4.0	3.6	3.5	*4.2	3.6	5.7	4.9	3.5	2.1	2.9	3.0	3.6
19	4.0	3.8	3.8	*3.6	3.6	5.7	4.9	3.3	2.3	3.0	2.9	3.5
20	4.0	4.0	4.0	*4.0	3.5	5.9	4.7	3.2	2.3	2.6	3.0	3.3
21	3.8	4.0	3.8	4.2	*3.3	6.2	4.3	3.2	2.2	2.9	3.2	3.3
22	4.0	3.6	3.3	4.0	*3.6	6.2	4.0	3.0	2.2	2.9	3.0	3.3
23	4.0	2.2	2.5	4.0	*3.6	6.6	4.2	2.5	2.3	3.0	3.2	3.3
24	3.8	‡2.0	‡1.5	3.8	4.0	6.4	4.2	3.0	2.3	2.7	3.0	3.3
25	3.6	‡2.5	‡1.4	*3.6	3.8	5.9	4.2	3.3	2.3	2.7	2.6	3.5
26	3.6	‡2.0	‡1.9	*4.3	3.8	5.9	4.0	3.3	2.5	3.8	2.6	3.5
27	3.8	‡2.1	‡1.8	*4.5	*3.6	5.9	4.0	3.3	2.6	4.0	2.6	3.3
28	3.6	*2.1	*2.5	4.5	*4.0	5.5	4.0	3.5	2.7	4.3	3.2	3.5
29	3.6	*2.2	3.0	4.0	-	5.3	3.8	3.5	3.2	4.9	3.0	3.5
30	3.5	3.0	*3.3	*4.3	-	5.1	4.2	3.0	2.5	3.8	2.7	3.5
31	3.5	-	*3.5	4.2	-	4.9	-	3.3	-	3.6	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	148.5	15	3.5	4.79	295
November	98.5	4.0	2.0	3.28	195
December	99.3	4.0	1.4	3.20	197
Calendar year 1938	1,510.3	15	.8	4.14	3,000
January	118.3	4.5	2.7	3.82	235
February	96.1	4.0	2.0	3.43	191
March	157.2	6.6	3.8	5.07	312
April	140.1	6.2	3.8	4.67	278
May	105.2	4.2	2.5	3.39	209
June	76.5	3.2	2.0	2.55	152
July	90.5	4.9	1.6	2.92	180
August	92.8	4.0	2.5	2.99	184
September	101.7	4.3	2.6	3.39	202
Water year 1938-39	1,324.7	15	1.4	3.63	2,630

Peak discharge.- Oct. 7 (10 p.m.) 139 sec.-ft.; July 26 (10 p.m.) 9.2 sec.-ft.; July 28 (11 p.m.) 12 sec.-ft.

*Stage discharge relation affected by ice; discharge computed on basis of gage heights and weather records.

†Gage height missing; discharge computed on basis of records for Nambe Creek near Nambe.

‡Intake action faulty; discharge computed on basis of study of recorder trace and weather records.

Guachupangue ditch near Espanola, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°58', long. 106°07', in SE¼ sec. 8, T. 20 N., R. 8 E., a quarter of a mile downstream from head, 1½ miles west of Santa Clara Pueblo, and 2½ miles southwest of Espanola.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 3.2 second-feet Aug. 13; no flow at times. 1936-39: Maximum daily discharge, 6.0 second-feet Mar. 14, 1937; no flow at times.

Remarks.- Records fair except that for Mar. 21 (computed on baeis of partial gage-height record) and those for Apr. 21 to July 25, which are poor. Ditch diverts water from left bank of Santa Clara Creek for irrigation of Spanish-American lands near Guachupangue. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0				0	0.3	1.8	0	0	1.7	0
2	.3	0				0	0	.6	0	0	0	1.1
3	.3	0				0	0	0	.6	0	0	1.1
4	0	0				0	0	0	.6	0	0	.9
5	0	.1				0	0	0	.7	0	.5	.4
6	0	0				0	0	2.1	.3	0	.8	0
7	0	0				0	0	2.8	0	0	1.1	0
8	0	0				0	0	2.7	0	1.1	.2	.1
9	0	0				0	.1	.7	0	1.3	0	.7
10	0	0				0	.6	0	.6	.8	0	.9
11	0	0				0	0	0	.8	.2	.2	1.1
12	0	0				0	0	0	.7	0	2.4	.7
13	0	0				0	0	1.2	.2	0	3.2	.2
14	0	0				0	0	1.7	0	0	.6	0
15	0	0				0	.1	1.7	0	1.9	0	0
16	0	0				0	.3	.5	0	2.8	0	.3
17	0	0				0	.2	0	.2	1.8	.1	.6
18	0	0				0	0	0	.4	.5	.2	0
19	0	0				0	0	0	.2	0	1.4	0
20	0	0				0	.2	.8	0	0	1.7	0
21	0	0				.2	.6	1.3	0	0	2.2	.2
22	.1	0				.5	.5	1.3	0	1.2	2.1	.3
23	.4	0				.6	.9	.3	0	1.8	.7	1.1
24	.1	0				0	1.4	0	.2	1.4	0	1.5
25	.1	0				.5	.6	0	.7	.3	0	1.3
26	.1	0				.9	0	0	.7	0	1.5	1.2
27	0	0				1.9	0	1.2	.2	0	1.8	1.3
28	0	0				1.1	0	1.9	0	0	2.0	1.4
29	.3	0				0	1.4	1.9	0	2.5	1.8	1.0
30	.1	0				0	2.1	.4	0	2.5	1.6	.5
31	.1	-				0	-	0	-	2.3	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1.9	0.4	0	0.06	3.8
November	.1	.1	0	0	.2
December	0	0	0	0	0
Calendar year 1938	149.0	2.4	0	.41	296
January	0	0	0	0	0
February	0	0	0	0	0
March	5.7	1.9	0	.18	11
April	9.3	2.1	0	.31	18
May	24.9	2.8	0	.80	49
June	7.3	.8	0	.24	14
July	22.4	2.8	0	.72	44
August	28.8	3.2	0	.93	57
September	17.9	1.5	0	.60	36
Water year 1938-39	118.3	3.2	0	.32	233

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, about 1,000 feet downstream from diversion dam for Nambe canal, 2½ miles southeast of Nambe, and 6½ miles upstream from Rio Tesuque.

Records available.- October 1932 to September 1939.

Extremes.- Maximum discharge during year, about 169 second-feet July 26 (gage height, 4.07 feet); minimum daily discharge, 0.4 second-foot Sept. 6.
1932-39: Maximum discharge, about 878 second-feet Aug. 23, 1935 (gage height, 6.43 feet); no flow for several days in October 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 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	8.6	*6.5	*4.6	*5.4	4.1	11	24	19	1.4	8.9	2.9
2	7.3	8.4	6.3	*4.4	*5.2	*4.2	13	24	18	2.8	12	3.2
3	7.3	8.4	*5.9	*4.4	*4.6	*4.1	14	24	19	.7	13	2.9
4	7.3	8.1	6.5	*4.6	*1.9	3.9	18	25	20	.7	12	1.4
5	6.8	8.4	6.1	*4.6	*1.7	*3.9	20	24	17	1.8	12	.8
6	7.0	7.0	5.9	4.6	*2.3	*4.4	20	24	16	1.8	7.8	.4
7	11	*5.9	*5.4	5.0	*3.7	*4.4	18	23	15	1.3	9.2	1.3
8	19	*8.6	5.0	5.2	*4.2	4.2	15	22	14	3.9	7.0	2.9
9	15	8.9	5.0	5.4	*4.2	4.8	20	23	13	5.2	6.3	6.1
10	13	8.6	5.2	*5.4	*4.6	5.0	20	23	12	2.8	5.7	7.8
11	12	8.1	5.2	*5.2	*3.9	4.6	19	24	13	2.3	4.8	4.6
12	11	7.8	5.0	*5.2	*3.4	4.6	18	23	11	2.5	4.6	4.2
13	11	5.3	4.8	*5.2	*3.6	5.9	18	22	11	2.3	5.7	4.6
14	11	8.1	*4.2	*5.0	*3.6	7.0	17	23	11	4.8	5.2	6.5
15	10	8.1	4.6	*5.9	*3.9	7.8	16	22	11	6.1	6.3	12
16	11	7.0	5.4	*4.4	4.1	8.4	16	21	11	4.1	4.4	11
17	10	7.0	5.2	*4.8	*4.1	9.2	15	21	9.8	2.8	5.4	10
18	11	5.9	4.6	*4.8	*4.1	10	15	23	9.2	2.3	5.0	9.8
19	11	6.3	4.6	*4.6	4.1	11	16	24	8.6	2.8	4.1	9.5
20	10	6.3	5.0	*4.6	*4.1	11	17	25	8.1	2.6	4.2	8.9
21	11	6.3	5.0	4.6	*4.1	12	20	25	5.2	3.4	3.4	8.6
22	10	6.5	4.8	4.4	*4.4	12	22	25	4.8	4.1	3.2	8.6
23	10	*4.6	*3.9	4.8	*4.6	12	23	25	4.8	4.8	3.4	8.1
24	10	*4.1	*4.4	4.6	*4.2	12	22	24	6.5	2.9	2.6	7.6
25	9.8	*4.8	*4.8	5.4	4.2	12	23	22	6.8	2.3	2.8	7.3
26	9.5	*4.1	*4.4	5.2	*4.2	13	22	20	4.1	14	2.2	7.6
27	9.5	*4.8	*5.0	4.8	*4.1	13	21	20	3.1	13	4.5	7.3
28	9.5	*5.0	*4.4	4.8	*4.6	12	21	22	3.2	17	5.0	6.8
29	9.2	*5.2	*4.4	5.0	-	11	23	20	3.6	12	2.1	6.5
30	9.2	*6.5	*4.4	*5.2	-	10	24	19	2.7	11	1.9	6.3
31	8.6	-	*4.4	*4.8	-	10	-	19	-	9.8	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	315.6	19	6.8	10.2	626
November	202.7	8.9	4.1	6.76	402
December	156.3	6.5	3.9	5.04	310
Calendar year 1938	3,139.5	36	1.8	8.60	6,230
January	151.5	5.9	4.4	4.89	300
February	111.1	5.4	1.7	3.97	220
March	251.5	13	3.9	8.11	499
April	560	24	11	18.7	1,110
May	705	25	19	22.7	1,400
June	311.5	20	2.7	10.4	618
July	149.3	17	.7	4.82	296
August	176.9	13	1.9	5.71	351
September	185.5	12	.4	6.18	368
Water year 1938-39	3,276.9	25	.4	8.98	6,500

Peak discharge.- Oct. 8 (4 a.m.) 62 sec.-ft.; July 26 (5 p.m.) 169 sec.-ft.; Sept. 9 (6 p.m.) 107 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather records.

Nambe Creek at Pojoaque Bridge, near Nambe, N. Mex.

Location.- Water-stage recorder, lat. 35°54', long. 106°01', in NW¼ 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 1939.

Extremes.- Maximum discharge during year, about 1,170 second-feet July 28 (gage height, 4.12 feet); no flow at times.
1936-39: Maximum discharge, about 4,700 second-feet July 15, 1938 (gage height, 8.8 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.-Records poor. Many diversions both above and below station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	9.0	13	6.6	*6.6	7.4	8.2	5.9	1.4	0.1	1.4	0.1
2	1.2	11	17	5.9	*5.9	*7.4	11	6.6	1.8	9.0	2.4	.3
3	1.8	11	21	5.9	*7.4	5.9	11	5.9	5.9	.8	2.1	2.4
4	3.6	11	24	5.2	*5.9	4.1	21	3.6	35	.2	1.4	.3
5	1.0	13	19	*5.9	6.6	4.6	21	5.2	5.2	.2	4.7	.1
6	.3	19	17	7.4	*7.4	*7.4	18	6.6	1.8	.2	8.2	.1
7	11	18	15	7.4	8.2	*7.4	27	33	1.0	.2	6.6	.1
8	78	21	15	9.0	5.9	5.2	36	28	2.1	.3	.6	2.3
9	11	12	13	8.2	5.9	6.6	28	14	.7	9.9	.3	9.3
10	13	18	11	8.2	*5.2	9.0	27	4.6	.5	.3	.3	9.9
11	19	19	9.0	9.0	*6.6	7.4	22	4.6	22	0	.4	.5
12	19	24	8.2	*6.6	*5.9	6.6	38	9.9	1.4	.1	.6	0
13	21	18	7.4	*7.4	*9.9	9.9	36	5.9	.1	.1	5.9	0
14	7.4	22	6.6	9.0	9.9	8.2	15	21	.1	0	2.7	1.8
15	7.4	19	6.6	*5.9	*11	7.4	14	9.0	.1	.1	.1	5.2
16	13	17	6.6	8.2	9.9	11	18	8.2	.1	4.1	0	6.6
17	8.2	17	6.6	8.2	9.0	12	14	2.8	.3	.3	.1	7.4
18	14	12	6.6	*7.4	9.9	13	9.0	3.2	12	.1	0	6.6
19	5.9	12	6.6	12	11	18	7.4	3.2	.3	.1	.1	5.9
20	8.2	12	7.4	*12	9.0	13	9.0	3.2	0	.1	4.1	6.6
21	9.9	11	4.6	9.9	*8.2	11	11	3.6	0	.1	.3	2.8
22	9.9	9.0	5.9	9.0	*9.0	11	8.2	.5	0	.1	.1	.8
23	12	4.6	2.4	9.9	*9.9	13	15	.8	0	2.4	6.5	.7
24	13	5.9	2.8	8.2	9.9	18	11	.4	0	.1	1.9	1.2
25	14	9.0	5.2	*8.2	9.0	15	7.4	0	6.6	0	.1	.3
26	12	7.4	6.6	*7.4	*8.2	11	13	0	1.8	6.9	.1	2.7
27	9.9	8.2	5.9	*7.4	*9.0	13	11	.1	.1	.2	1.0	3.6
28	11	9.0	5.9	7.4	9.0	15	7.4	14	.1	74	2.4	1.0
29	9.0	9.0	6.6	6.6	-	13	12	1.0	.1	†54	.2	.6
30	9.9	11	5.9	5.2	-	12	21	.4	.1	†20	.2	.6
31	9.9	-	*7.4	6.6	-	9.0	-	.2	-	†2.4	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	365.9	78	0.3	11.8	726
November	399.1	24	4.6	13.3	792
December	295.8	24	2.4	9.54	587
Calendar year 1938	2,970.6	311	.1	8.14	5,890
January	241.2	12	5.2	7.78	478
February	229.3	11	5.2	8.19	455
March	312.5	18	4.1	10.1	620
April	507.6	38	7.4	16.9	1,010
May	205.4	33	0	6.63	407
June	100.6	35	0	3.35	200
July	186.4	74	0	6.01	370
August	54.9	8.2	0	1.77	109
September	79.8	9.9	0	2.66	158
Water year 1938-39	2,978.5	78	0	8.16	5,910

Peak discharge.- Oct. 8 (5 a.m.) 640 sec.-ft.; July 28 (4 p.m.) 1,170 sec.-ft.; July 29 (1 p.m.) 1,020 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather records.

†Intake action faulty; discharge computed on basis of partially estimated gage-height record.

Nambe canal near Nambe, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°52', long. 105°57', in sec. 24, T. 19 N., R. 9 E., in Nambe Pueblo grant, about 300 feet downstream from head gate, and 2⅛ miles southeast of Nambe.

Records available.- May 1932 to September 1939.

Extremes.- Maximum daily discharge during year, 3.9 second-feet May 13, June 5; no flow at times.
1932-39: Maximum daily discharge, 5.2 second-feet Oct. 26, 1934; no flow at times.

Remarks.- Records good except those for period of missing gage heights, Dec. 23 to Mar. 14, which were computed on basis of two discharge measurements, one staff-gage reading, and weather records, and are poor. Canal diverts water from right bank of Nambe Creek for irrigation on Indian land. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	0.3	0.2	0.1		0	0.4	0.5	2.1	2.6	0.7	0.3
2	.9	.2	.1	.1		0	.9	.7	2.5	.1	0	0
3	.9	.3	.1	.1		0	1.3	.7	2.0	3.2	0	.2
4	.9	.3	.1	.1		0	1.2	.9	1.4	3.1	.5	1.2
5	.9	.3	.1	.1		0	0	2.2	3.9	2.0	.4	1.0
6	.9	.1	.1	.1		0	0	2.5	3.6	1.8	0	1.2
7	.7	.1	.3	.1		0	0	2.3	3.7	2.2	0	1.0
8	.2	.1	.4	.1		0	0	1.7	3.4	.3	.1	.8
9	.2	.1	.4	.1		0	0	2.5	3.0	0	.3	.9
10	.2	.1	.4	.1		0	0	2.9	3.0	1.0	.6	0
11	.2	.2	.3	0		0	0	2.5	.8	1.0	1.0	.1
12	.3	.2	.2	0		0	0	2.8	2.6	.6	1.1	.1
13	.5	.1	.2	0		0	1.2	3.9	1.7	.7	0	0
14	.9	.1	.2	0		0	2.6	3.8	.5	.3	1.0	.4
15	.7	.2	.2	0		0	2.6	2.8	.3	0	0	1.0
16	.6	.4	.2	0		0	2.3	1.9	.3	.3	1.4	.7
17	.4	.3	.2	0		0	2.0	1.6	.3	1.1	.3	.5
18	.4	.2	.2	0		0	.9	1.4	.2	1.5	0	.1
19	.4	.2	.2	0		0	.7	1.9	.6	1.1	.8	.2
20	.3	.1	.2	0		0	.2	1.6	.8	1.5	.2	.3
21	.3	.1	.2	0		0	.5	1.4	2.8	.9	2.1	.3
22	.3	.1	.2	0		0	.5	2.5	2.8	.5	1.6	.2
23	.2	.1	.2	0		0	.5	2.8	2.6	.2	1.6	.2
24	.3	.1	.1	0		.1	1.6	2.8	.9	.8	1.7	.1
25	.4	.1	.1	0		.1	0	2.3	0	1.6	1.0	.1
26	.5	.1	.1	0		.4	.9	2.1	2.4	.8	1.4	.3
27	.5	.1	.1	0		.8	.4	1.4	3.3	0	.5	.4
28	.4	.1	.1	0		.5	1.1	.4	2.9	0	.9	.3
29	.3	.1	.1	0		.3	0	1.9	2.2	0	2.2	.2
30	.3	.1	.1	0		.1	0	1.6	2.4	0	1.9	.2
31	.3	-	.1	0		.1	-	1.7	-	.3	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15.2	0.9	0.2	0.49	30
November	4.9	.4	.1	.16	9.7
December	5.7	.4	.1	.18	11
Calendar year 1938	295.1	4.0	0	.81	.586
January	1.0	.1	0	.03	2.0
February	0	0	0	0	0
March	2.4	.8	0	.08	4.8
April	21.8	2.6	0	.73	43
May	62.0	3.9	.4	2.00	123
June	59.0	3.9	0	1.97	117
July	29.5	3.2	0	.95	59
August	24.3	2.2	0	.78	48
September	12.3	1.2	0	.41	24
Water year 1938-39	238.1	3.9	0	.65	472

Llano Frio ditch near Nambe, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°52', long. 105°57', in SW¼ sec. 14, T. 19 N., R. 9 E., 1,100 feet downstream from head and 1¼ miles southeast of Nambe.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 7.8 second-feet May 21, 22; no flow at times.
1936-39: Maximum daily discharge, 9.4 second-feet (estimated) Apr. 20, 1938; no flow at times.

Remarks.- Records good. Ditch diverts water from right bank of Nambe Creek for irrigation. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	2.8	0	0	0	0.1	2.6	4.6	5.4	0.8	0	0.6
2	2.8	3.3	1.6	1.0	0	.2	3.8	5.2	5.3	0	0	.4
3	2.8	6.2	0	1.1	0	1.4	4.8	5.3	5.4	.4	.4	.1
4	3.0	6.2	0	.9	.1	3.4	5.1	5.6	.9	.8	.3	.2
5	2.6	6.5	0	.9	.1	3.2	3.8	4.9	2.3	.8	.1	0
6	2.7	2.6	0	0	0	0	1.2	5.3	2.3	.9	.3	.3
7	3.6	0	0	0	0	0	0	5.4	2.2	.9	.1	.4
8	.4	0	0	0	0	0	1.2	5.2	2.9	.6	.6	.7
9	0	0	0	0	0	0	3.7	5.4	3.0	0	1.3	1.1
10	0	0	0	0	0	0	2.6	6.6	3.0	2.5	.7	0
11	0	0	0	0	0	0	0	6.9	.6	2.4	.4	0
12	0	0	1.1	0	0	0	0	6.8	2.2	2.0	.6	.4
13	0	1.2	1.4	0	0	0	0	6.4	2.1	2.5	.2	.7
14	0	0	0	0	.5	0	0	6.3	3.2	1.6	1.1	.8
15	0	0	1.3	0	.8	2.1	0	6.0	.6	1.9	1.8	0
16	0	0	1.1	0	0	.8	0	6.1	1.1	0	.8	0
17	0	0	0	0	0	.9	1.2	5.9	1.6	1.4	1.1	0
18	0	0	.2	0	0	.6	3.9	5.7	0	.4	.9	0
19	0	3.4	1.5	0	0	1.2	4.4	6.5	1.6	1.3	.4	2.2
20	0	1.8	.8	0	0	3.4	3.9	7.5	2.1	1.6	0	3.7
21	1.6	0	1.3	.6	.2	3.3	4.4	7.8	1.2	1.7	.5	2.2
22	1.8	0	0	.4	.4	3.5	5.3	7.8	.8	.5	.3	2.2
23	2.4	0	1.0	0	1.3	3.6	4.3	5.6	1.3	0	.3	3.0
24	4.5	0	.8	0	1.0	3.2	4.3	6.5	1.7	0	.3	1.9
25	3.1	0	.9	0	.1	3.8	5.1	6.2	0	.1	.3	2.9
26	2.4	.5	0	0	.9	4.3	3.8	6.5	1.6	1.0	.3	2.1
27	1.7	1.7	0	0	.2	3.6	5.0	6.7	1.3	.1	0	2.2
28	.1	0	0	0	.2	2.6	5.8	7.1	1.6	.4	.9	1.3
29	.8	0	0	0	-	2.7	5.4	5.6	1.9	.2	1.1	.6
30	5.0	0	0	0	-	2.8	4.6	5.4	1.2	0	1.0	1.0
31	4.1	-	0	0	-	2.2	-	5.4	-	0	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	54.5	5.0	0	1.76	108
November	36.2	6.5	0	1.21	72
December	13.0	1.6	0	.42	26
Calendar year 1938	600.5	6.5	0	1.65	1,190
January	4.9	1.1	0	.16	9.7
February	5.8	1.3	0	.21	12
March	52.9	4.3	0	1.71	105
April	90.2	5.8	0	3.01	179
May	188.2	7.8	4.6	6.07	373
June	60.4	5.4	0	2.01	120
July	26.8	25	0	.86	53
August	17.4	1.8	0	.56	35
September	31.0	3.7	0	1.03	61
Water year 1938-39	581.3	7.8	0	1.59	1,150

Llano ditch near Nambe, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°52', long. 105°57', in SW¼ sec. 14, T. 19 N., R. 9 E., a quarter of a mile downstream from head and 1.1 miles southeast of Nambe.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 6.5 second-feet Apr. 4; no flow at times.
1936-39: Maximum daily discharge, that of Apr. 4, 1939; no flow at times.

Remarks.- Records good except those for periods of ice effect or missing gage heights, which are poor. Ditch diverts water from right bank of Nambe Creek for irrigation. No diversion from ditch between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.2	*0.1			†0	2.2	4.9	1.6	0.5	2.4	0.9
2	.9	0	0			†0	1.7	5.4	2.2	0	2.2	.6
3	.7	0	.1			0	3.8	4.1	1.6	.4	1.5	0
4	.2	0	*.2			0	6.5	3.6	1.1	.5	1.5	.7
5	0	0	*.4			0	3.1	3.6	2.6	1.7	2.3	.7
6	0	0	*.4			0	0	1.9	1.9	1.4	.8	.3
7	0	0	*.4			0	0	1.2	2.0	1.2	.5	.4
8	0	0	*.4			0	.3	.3	1.9	1.5	1.3	.9
9	0	.5	*.4			0	1.3	1.5	2.3	0	1.5	1.1
10	0	.8	.4			0	1.1	2.1	2.5	.3	1.2	.5
11	0	.1	.3			0	2.6	2.3	.4	.5	1.1	.1
12	0	0	1.0			0	2.2	2.4	2.4	1.1	‡.9	0
13	0	0	1.3			0	1.7	2.2	3.5	.7		0
14	0	.1	*1.5			0	1.4	2.3	4.0	2.7		.2
15	0	.1	*.9			0	.9	3.0	3.3	2.2		1.0
16	0	.2	.7			0	1.0	4.0	3.3	.1		.6
17	0	0	0			0	3.0	4.7	1.9	1.2		.2
18	0	.4	0			0	2.8	4.7	0	1.7	‡1.0	.4
19	0	.6	0			0	2.1	4.9	2.4	.8		.8
20	0	1.2	0			‡.5	4.7	4.7	2.2	.4		.3
21	.3	.8	0			‡.5	3.0	3.3	1.3	.6		.9
22	1.6	0	0			‡.5	2.3	4.3	1.7	.8		2.1
23	1.6	*.1	†0			.9	.7	5.0	1.8	0		1.8
24	1.2	*.2	†0			0	2.5	5.3	2.2	.9		1.9
25	1.6	*.4	†0			0	2.3	5.0	0	.8	‡.9	1.2
26	1.8	*.3	†.1			0	2.7	4.1	1.1	1.0	.3	1.2
27	2.2	*.2	†.1			0	3.4	2.4	2.0	1.3	.1	1.2
28	1.7	.2	†.1			0	4.2	4.0	1.8	1.2	1.5	1.4
29	1.2	*.1	†0			0	4.0	3.6	1.6	.9	1.1	1.4
30	1.2	*.2	†.1			.3	4.8	3.3	1.1	1.5	.6	.4
31	1.0	-	†0			1.5	-	1.4	-	1.6	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17.3	2.2	0	0.56	34
November	6.7	1.2	0	.22	13
December	8.9	1.5	0	.29	18
Calendar year 1938	392.4	6.0	0	1.08	777
January	0	0	0	†0	0
February	0	0	0	†0	0
March	4.2	1.5	0	.14	8.3
April	72.3	6.5	0	2.41	143
May	105.5	5.4	.3	3.40	209
June	57.7	4.0	0	1.92	114
July	29.5	2.7	0	.95	59
August	34.7	-	-	1.12	69
September	23.2	2.1	0	.77	46
Water year 1938-39	360.0	6.5	0	.99	713

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather records.
†Gage height missing; discharge computed on basis of two discharge measurements and weather records.
‡Gage height missing; discharge computed on basis of recorded range in stage and records for preceding and following periods.

Mocha ditch at Nambe, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°53', long. 105°57', near center of sec. 14, T. 19 N., R. 9 E., 800 feet downstream from head and 1 mile southeast of Nambe.

Records available.- May 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 1.6 second-feet May 11, 12; no flow at times.
1936-39: Maximum daily discharge, 1.8 second-feet July 11, 1936, July 22, 1937; no flow at times.

Remarks.- Records good. Ditch diverts water from right bank of Nambe Creek for irrigation on Indian land. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	0.5	0	0.5	0	0
2							0	.4	0	.4	0	0
3							0	0	0	.6	0	0
4							0	.5	0	.3	0	0
5							0	.7	.4	.6	0	0
6							0	.6	.8	.8	0	0
7							0	0	.2	.6	0	0
8							0	0	0	.2	0	0
9							0	0	.2	0	0	0
10							.2	1.0	.3	.6	0	0
11							.5	1.6	.1	1.0	0	1.0
12							.8	1.6	.2	.5	0	1.4
13							.6	1.2	.3	.9	0	.9
14							1.0	.4	.1	1.1	0	.5
15							.7	.5	0	1.2	0	.2
16							.9	.2	0	.1	0	.2
17							.9	0	0	.2	0	.2
18							.2	0	.3	.3	.3	.1
19							0	.7	1.5	1.0	.4	.3
20							.5	.8	1.1	.8	.6	.4
21							0	.6	.8	1.0	.6	.3
22							0	.3	1.1	.3	.5	.3
23							0	1.1	1.0	0	.4	.4
24							0	1.1	1.1	0	.5	.8
25							0	1.0	.9	0	.4	.6
26							0	.9	1.0	.4	.1	.1
27							0	.7	1.2	.1	.6	.1
28							0	.7	1.0	.1	.6	.1
29							0	.7	1.0	.1	.2	0
30							0	.7	.8	0	.1	0
31							-	0	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	81.1	1.5	0	.22	160
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	6.3	1.0	0	.21	12
May	18.5	1.6	0	.60	37
June	15.4	1.5	0	.51	31
July	13.7	1.2	0	.44	27
August	5.3	.6	0	.17	11
September	7.9	1.4	0	.26	16
Water year 1938-39	67.1	1.6	0	.18	134

Comunidad ditch at Nambe, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°53', long. 105°58', in NW¼ sec. 14, T. 19 N., R. 9 E., 400 feet downstream from head and half a mile south of Nambe.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 5.0 second-feet Apr. 27, May 1; no flow at times.
1936-39: Maximum daily discharge, 5.8 second-feet May 5, 25, 1938; no flow at times.

Remarks.- Records fair except those for periods of ice effect and periods of faulty intake action, which are poor. Ditch diverts water from right bank of Nambe Creek for irrigation. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.0	0.5	*0.3	*0.2	0	0	5.0	2.4	0.5	†2	0.7
2	1.2	.3	.3	*.2	*.1	0	0	4.7	2.5	0	†2	.8
3	1.2	.2	.4	*.5	*0	.1	0	3.0	3.8	.5	†2.9	0
4	.9	.9	.4	*.8	*.1	0	†1	3.5	4.6	.4	2.1	.2
5	.5	2.1	.3	*.6	*.1	0	†1	3.4	3.5	.5	1.9	.4
6	.6	2.1	.3	.9	*.1	0	†1.5	2.7	2.5	.5	0	.3
7	2.4	*.8	.3	.9	*.1	0	†0	.1	2.2	.2	1.4	.2
8	.8	*.3	.3	.9	*.1	0	†0	1.4	1.2	1.6	1.1	.3
9	.4	.1	.3	.9	*.1	0	†0	2.1	2.5	.8	1.6	.5
10	.4	.4	.3	*.8	*.1	0	†0	3.1	1.5	.7	1.2	.8
11	.8	1.4	.3	.8	*.1	0	†1.6	3.4	.1	.3	1.2	.4
12	.9	1.6	.2	.4	*.2	0	1.8	3.2	1.4	.4	.7	.2
13	.7	1.4	.3	*.3	*.2	0	1.2	3.0	1.6	.5	0	.2
14	.9	1.0	*.5	*.2	*.1	.4	2.0	3.2	2.3	1.4	.7	.8
15	1.4	.9	.4	*.1	*.1	1.3	1.7	3.1	3.4	.3	.9	2.5
16	1.4	.8	.6	*.4	.1	1.3	.2	4.0	3.3	.2	.6	1.9
17	1.5	.7	.6	*.1	.1	1.4	1.7	4.3	2.0	.6	.9	.5
18	1.3	.5	.4	*.3	*.1	1.3	2.8	4.7	.1	.3	.6	.4
19	1.1	.3	.4	*.5	*.1	0	3.7	3.9	2.1	.2	.4	1.2
20	1.1	.5	.6	*.3	0	1.3	3.4	3.1	1.9	.2	0	1.2
21	.9	.5	.7	.3	0	1.4	4.0	1.3	1.6	.4	.1	1.1
22	.8	.6	.7	.3	.1	1.2	4.0	2.9	1.2	1.2	.6	.7
23	.7	.3	.4	.3	.3	1.0	1.2	3.5	.9	.4	1.1	1.0
24	1.1	*.3	*.4	.3	.2	.8	2.0	4.1	1.2	1.3	.6	2.0
25	1.1	*.3	*.3	*.3	0	0	2.3	4.2	.1	.4	.7	1.4
26	1.2	*.2	*.3	*.3	0	.3	3.2	2.7	.3	†1	.4	.8
27	1.4	*.1	*.2	*.3	0	.4	5.0	.6	.5	†1	0	.3
28	1.2	*.2	*.3	*.2	0	0	3.7	.6	.7	†1.5	.3	1.3
29	.9	*.2	*.4	.3	-	0	4.3	1.6	.8	†1.5	0	1.1
30	.7	.4	*.5	*.2	-	0	4.7	3.9	1.0	†1.5	.1	.3
31	1.1	-	*.3	*.3	-	0	-	4.9	-	†2	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	31.8	2.4	0.4	1.03	63
November	20.4	2.1	.1	.68	40
December	12.2	.7	.2	.39	24
Calendar year 1938	455.5	5.8	0	1.25	903
January	13.3	.9	.1	.43	28
February	2.7	.3	0	.10	5.4
March	12.2	1.4	0	.39	24
April	58.0	5.0	0	1.93	115
May	95.2	5.0	.1	3.07	189
June	53.2	4.6	.1	1.77	106
July	22.3	1.6	0	.72	44
August	26.2	2.9	0	.85	52
September	23.5	2.5	0	.78	47
Water year 1938-39	371.0	5.0	0	1.02	735

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather record.
†Faulty intake action; discharge computed on basis of study of recorder trace and study of gain and loss between stations on Nambe Creek.

Ortiz ditch at Nambe, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°53', long. 105°58', in SE¼ sec. 10, T. 19 N., R. 9 E., 400 feet downstream from head and half a mile northwest of Nambe.

Records available.- February 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 3.4 second-feet May 12; no flow at times.
1936-39: Maximum daily discharge, 5.0 second-feet June 16, 1937; no flow at times.

Remarks. Records good for Mar. 18 to Aug. 31, others poor. Ditch diverts water from right bank of Nambe Creek for irrigation. Some water is diverted from ditch between station and head for irrigation of about 5 acres of land.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0	*0.2	1.1	0.2	†0	1.4	0.6	1.9	0.6	1.1	0.8
2	.1	.1	*.2	.6	†0	†0	1.8	.6	2.3	.7	.8	.9
3	.2	.2	*.2	.5	†0	†0	1.8	.7	2.4	.5	.4	.9
4	.4	0	*.3	*.1	†.1	†0	1.9	.8	1.1	.5	.3	.9
5	.5	.2	*.2	*.1	†.1	†0	1.5	1.7	1.6	.6	.4	.7
6	.8	.1	*.2	*.1	†.1	†0	1.3	2.6	2.2	.6	.9	1.0
7	.9	0	*.1	.1	†.1	†0	1.4	1.7	2.0	.5	1.2	.9
8	0	0	*.1	*.1	†.1	†0	2.0	2.6	1.9	.8	.6	.9
9	0	0	*.1	*.1	†0	†0	1.e	2.8	1.6	1.1	.5	.5
10	.1	.3	*.1	*.1	†0	†0	1.2	2.4	2.0	.7	.5	.4
11	.1	.8	.1	*.1	†0	0	1.2	2.7	1.4	.7	.4	.6
12	.1	1.3	0	*.1	†0	0	1.7	3.4	1.8	.7	.3	.6
13	.1	1.0	0	*.1	†.1	0	.5	2.5	1.3	.6	.6	.4
14	0	1.8	.1	*0	†.1	.1	.2	2.8	1.2	.8	.7	.5
15	.2	2.2	.2	*.1	†.1	.3	1.1	3.1	1.6	.7	.8	.2
16	.1	2.2	.4	.1	†.1	0	1.0	2.2	1.5	.9	.7	.4
17	.1	2.1	.5	.1	†.1	0	.8	2.0	1.2	.7	.7	.3
18	.2	1.4	0	.1	†.1	.8	.9	2.1	1.9	.6	.7	.2
19	.2	.5	.1	.1	†.1	1.6	1.0	2.6	1.8	.6	.8	.1
20	.2	1.1	.7	.1	†.1	1.3	1.4	2.3	1.6	.8	1.1	.2
21	.1	1.1	.8	0	†.1	1.1	1.7	2.3	1.3	.9	.6	.1
22	.2	1.2	0	0	†.1	1.1	1.3	2.2	1.3	.8	.5	.1
23	.2	*.6	.4	.1	†.1	1.2	1.5	1.8	1.3	1.2	.4	.2
24	.1	*.3	.3	.1	†.1	1.6	1.1	2.6	1.0	1.2	.3	.4
25	0	*.5	0	.1	†.1	1.6	1.6	2.1	.8	.9	.6	.4
26	.1	*.2	.2	.1	†0	1.7	1.3	3.3	.8	.7	.5	.1
27	0	0	.1	.1	†0	1.8	1.2	2.5	.8	1.0	.6	.3
28	0	*.1	.4	*.1	†0	1.8	1.8	.1	.7	.6	.8	.2
29	.1	*.2	.2	*.1	-	1.5	2.3	2.4	.8	.5	.5	.2
30	.3	*.1	*.2	.1	-	1.4	2.0	2.9	.8	.5	.6	.2
31	.2	-	*.4	.2	-	1.3	-	3.0	-	.8	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5.7	0.9	0	0.18	11
November	19.6	2.2	0	.65	39
December	6.8	.8	0	.22	13
Calendar year 1938	234.8	3.0	0	.64	465
January	4.8	1.1	0	.15	9.5
February	2.0	.2	0	.07	4.0
March	20.2	1.8	0	.65	40
April	41.7	2.3	.2	1.39	83
May	67.4	3.4	.1	2.17	134
June	43.9	2.4	.7	1.46	87
July	22.8	1.2	.5	.74	45
August	19.5	1.2	.3	.63	39
September	13.6	1.0	.1	.45	27
Water year 1938-39	268.0	3.4	0	.73	532

*Stage discharge relation affected by ice; discharge computed on basis of gage heights and weather records.
†Gage heights missing; discharge computed on basis of weather records.

Canyon ditch near Nambe, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°54', long. 105°59', in NW¼ sec. 10, T. 19 N., R. 9 E., 600 feet downstream from head and 1½ miles west of Nambe.

Records available.- March 1936 to September 1939.

Extremes.- Maximum discharge during year, 5.5 second-feet Apr. 29, June 1; no flow at times.
1936-39: Maximum daily discharge, that of Apr. 29, June 1, 1939; no flow at times.

Remarks.- Records fair. Ditch diverts water from right bank of Nambe Creek for irrigation. No diversion from ditch between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.3	1.3	0.1	0.3	0.2	1.5	4.3	5.5	0.4	0.9	0.3
2	1.8	1.2	1.1	.3	.1	.1	4.6	4.5	4.2	.1	.9	.2
3	1.5	2.9	1.2	.1	.1	.1	5.0	4.8	2.2	.3	1.7	0
4	.3	2.6	.6	.1	.1	0	4.8	5.1	0	.2	2.6	.3
5	1.5	2.1	1.4	.1	.1	0	2.9	4.6	2.7	.1	1.8	.4
6	3.4	3.2	1.3	.2	.1	0	2.0	4.6	3.7	.1	.2	.4
7	2.0	1.1	1.8	.2	.1	0	1.0	1.8	2.7	.1	1.6	.2
8	.2	.2	2.0	.2	.1	0	.9	3.5	1.4	.2	1.9	0
9	.2	.2	2.3	.3	.1	0	.7	4.9	1.9	.2	1.1	.3
10	.1	.2	2.1	.4	.2	0	.3	4.5	1.3	.5	.8	0
11	.1	1.3	2.2	.1	.1	.2	.2	3.9	.3	.4	.8	.6
12	.1	1.4	1.6	.1	.1	.3	.1	4.5	.1	.4	1.0	.2
13	.1	.7	1.4	.1	.1	.3	.4	5.3	1.3	.3	1.8	1.4
14	.1	1.3	2.0	.1	.1	1.4	1.8	3.1	1.0	.4	0	2.0
15	.1	1.5	1.1	.2	.1	.9	2.1	1.9	1.3	1.0	.4	2.1
16	.1	2.3	.1	.1	.3	.1	1.2	2.6	1.1	.1	.6	1.5
17	.1	2.3	.1	.1	.1	.1	1.1	3.5	1.5	.2	.7	1.4
18	.2	1.6	.1	.1	.1	0	1.1	4.0	.2	.4	.7	2.0
19	.3	1.4	.1	.1	.1	0	1.5	4.1	.4	.3	.4	.7
20	.1	1.8	.1	.1	.1	.1	2.0	3.9	.7	.3	0	1.8
21	.2	2.2	.1	.1	.1	.2	1.2	2.0	.8	.3	.4	3.5
22	.3	3.7	.1	.1	.1	.2	.5	3.2	.6	.6	.2	2.8
23	.4	3.8	.1	.1	.1	.2	.4	2.3	.5	.8	.5	1.9
24	.4	2.1	.1	.1	.2	.1	3.2	4.3	.6	.4	.3	1.3
25	.1	3.4	.1	.1	.4	.1	4.1	4.8	.1	.5	.4	.8
26	.1	1.5	.1	.1	.4	.1	5.2	4.1	.5	.6	.6	2.1
27	.2	.9	.1	.2	.3	.1	4.4	3.8	.3	1.5	0	1.3
28	.3	1.2	.1	.3	.1	.1	5.3	2.9	.3	1.9	.4	1.1
29	.3	2.2	.1	.3	-	.1	5.5	2.0	.4	.3	.3	1.8
30	.8	2.5	.1	.3	-	.1	5.0	3.3	.4	.2	.2	1.6
31	.9	-	.1	.1	-	.1	-	4.9	-	1.1	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17.5	3.4	0.1	0.56	35
November	54.1	3.8	.2	1.80	107
December	25.0	2.3	.1	.81	50
Calendar year 1938	444.4	6.2	0	1.22	883
January	4.9	4	.1	.16	9.7
February	4.2	.4	.1	.15	8.3
March	5.2	1.4	0	.17	10
April	70.0	5.5	.1	2.33	139
May	117.0	5.3	1.8	3.77	232
June	38.0	5.5	0	1.27	75
July	14.2	1.9	.1	.46	28
August	23.4	2.6	0	.75	46
September	34.0	3.5	0	1.13	67
Water year 1938-39	407.6	5.5	0	1.12	807

Acequia Rincon near Nambe, N. Mex.

Location.- Water-stage recorder and 3-foot Parshall flume, lat. 35°53', long. 105°59', in SE¼ sec. 9, T. 19 N., R. 9 E., 400 feet downstream from head and 1¾ miles west of Nambe.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 3.5 second-feet May 27; no flow at times. 1936-39: Maximum daily discharge, 5.1 second-feet Apr. 14, 1936; no flow at times.

Remarks.- Records good except those for periods of ice effect and periods of missing gage heights, which are poor. Acequia diverts water from left bank of Nambe Creek for irrigation. No diversion from acequia between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.5	0			*0	0.9	2.8	1.9	0.2	0.2	0.2
2	.4	.4	0			*0	.7	2.5	2.1	0	.8	.4
3	.8	.4	0			*0	.6	2.3	2.7	.2	1.8	0
4	.8	.7	0			*0	1.2	2.7	.9	.3	1.1	.2
5	.1	.6	0			*0	.6	1.8	2.8	.3	.6	.5
6	.6	1.0	0			*0	.7	2.7	2.8	.2	0	.4
7	.9	†.2	0			*0	0	.7	2.7	.5	1.7	.3
8	.1	†.2	0			*0	.1	2.0	3.0	.2	1.3	.5
9	0	0	0			*0	.3	2.3	2.2	0	.9	.2
10	0	.7	0			*0	.2	1.6	1.7	.8	.7	.3
11	0	1.3	0			0	.2	2.0	0	.2	1.1	.3
12	0	.8	0			0	.4	2.8	.2	.3	.7	.3
13	0	.4	0			0	.3	2.3	1.2	.3	0	.6
14	0	†.8	0			0	.4	.5	1.0	.4	.2	.9
15	.1	.8	0			0	1.8	1.9	.9	.5	.3	1.1
16	0	†.6	0			0	1.2	2.3	1.2	0	1.0	1.6
17	.4	.4	0			0	.2	2.1	1.2	.4	.5	.8
18	.8	.2	0			0	.3	2.6	0	.4	.7	.7
19	1.2	†.4	0			0	.8	2.6	.6	.3	.6	.4
20	.7	.2	0			0	.7	2.1	.7	.2	0	.5
21	.5	†.3	†0			0	2.1	2.3	.9	.2	.5	.7
22	.5	†.3	†.1			0	2.9	2.1	.6	.3	.4	.4
23	.4	.1	†.1			0	1.2	2.3	.7	0	.5	.4
24	.6	†.3	*.1			0	.4	2.7	.6	.2	.4	.4
25	.7	†.3	*.1			0	1.9	3.0	0	.3	.4	.3
26	.6	†.2	*0			1.3	1.7	3.0	.6	.5	.5	1.0
27	.6	†.2	*0			1.9	1.8	3.5	.4	1.4	0	.2
28	.5	†.1	*0			.1	1.3	.6	.2	1.0	.2	1.0
29	.5	0	*0			.1	2.1	2.3	.3	0	.2	1.4
30	.4	0	*0			.3	1.4	1.8	.3	0	.2	1.3
31	.3	-	*0			.4	-	1.3	-	0	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	13.3	1.2	0	0.43	26
November	12.4	1.3	0	.41	25
December	.4	.1	0	.01	.8
Calendar year 1938	282.9	4.8	0	.78	561
January	0	0	0	0	0
February	0	0	0	0	0
March	4.1	1.9	0	.13	8.1
April	28.4	2.9	0	.95	56
May	67.5	3.5	.5	2.18	134
June	34.4	3.0	0	1.15	68
July	9.6	1.4	0	.31	19
August	17.8	1.8	0	.57	35
September	17.3	1.6	0	.58	34
Water year 1938-39	205.2	3.5	0	.56	406

*Gage height missing; discharge computed on basis of two discharge measurements and weather records.

†Stage-discharge relation affected by ice; discharge computed on basis of gage-heights and weather records.

Las Joyas ditch near Nambe, N. Mex.

Location.- Water-stage recorder and 4-foot Parshall flume, lat. 35°53', long. 106°00', in NW¼ sec. 9, T. 19 N., R. 9 E., 1,000 feet downstream from head and 2½ miles west of Nambe.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 7.6 second-feet June 1; no flow at times. 1936-39: Maximum daily discharge, 8.4 second-feet June 4, 1938; no flow at times.

Remarks.- Records fair except those for periods of missing gage heights, Nov. 24 to Dec. 13, Dec. 28 to Mar. 7 (computed on basis of two discharge measurements, weather records, and records for other diversions from Nambe Creek), which are poor. Ditch diverts water from right bank of Nambe Creek for irrigation on Spanish grants. No diversion from ditch between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	2.4	0			0	0	5.8	7.6	0.9	0.6	0.6
2	2.2	1.1	0			0	0	5.0	5.5	.4	1.4	.6
3	1.5	.7	0			0	0	3.2	2.3	.9	2.8	1.1
4	1.9	.7	0			0	0	4.4	1.0	.9	2.6	.7
5	2.8	.8	0			0	0	3.9	3.3	.8	1.5	.3
6	1.1	1.4	0			0	0	4.2	6.6	.6	.6	.2
7	1.6	1.9	0			0	0	6.3	6.2	.7	1.7	.4
8	1.7	.9	0			0	0	5.7	5.4	.8	2.0	1.3
9	.5	.7	0			0	0	4.5	3.4	1.2	2.0	.6
10	0	0	0			0	.6	6.9	2.9	.9	2.1	.1
11	0	0	0			0	1.1	6.1	2.0	.6	1.4	1.0
12	0	0	0			0	.8	6.0	2.6	.6	1.2	2.2
13	0	0	0			0	1.9	5.3	3.6	.7	1.2	1.1
14	0	0	0			0	3.2	4.8	3.5	.9	.9	1.8
15	0	.7	0			0	.5	5.0	2.7	.8	1.3	1.6
16	0	1.4	0			0	1.0	4.8	2.1	1.0	1.2	1.9
17	0	2.5	0			.1	2.0	4.1	1.5	.8	1.9	2.0
18	0	2.6	0			.6	.9	3.0	.8	.7	1.6	1.6
19	0	1.3	0			0	1.0	3.0	1.0	.6	1.4	.8
20	2.3	1.4	0			0	1.5	3.2	1.9	.6	1.4	0
21	3.9	2.4	0			0	3.0	5.6	1.8	.7	1.4	1.6
22	3.4	2.6	0			0	4.3	5.0	1.7	.7	1.1	2.5
23	3.0	2.1	1.1			0	0	3.7	1.2	.6	.9	1.6
24	1.8	1.5	.8			0	2.0	2.0	1.5	.9	.6	.9
25	1.3	1	0			0	4.8	2.4	.8	.7	.7	1.2
26	2.2	1	.1			0	4.9	3.2	1.7	.7	.8	2.7
27	2.9	1	1.0			0	3.6	3.5	1.0	1.7	2.1	2.1
28	2.7	0	.1			0	5.4	5.2	.8	1.7	.8	2.1
29	1.9	0	0			0	2.4	3.7	.8	.1	.6	1.4
30	1.3	0	0			0	2.5	2.9	1.0	0	.7	2.8
31	1.1	-	0			0	-	3.1	-	0	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	44.1	3.9	0	1.42	87
November	32.1	2.6	0	1.07	64
December	3.1	1.1	0	.10	6.1
Calendar year 1938	512.8	8.4	0	1.40	1,020
January	0	0	0	0	0
February	0	0	0	0	0
March	.6	.5	0	.02	1.2
April	47.4	5.4	0	1.58	94
May	135.5	6.9	2.0	4.37	269
June	78.2	7.6	.8	2.61	155
July	23.2	1.7	0	.75	46
August	41.1	2.8	.8	1.33	82
September	38.8	2.8	0	1.29	77
Water year 1938-39	444.1	7.6	0	1.22	881

Trujillo ditch near Nambe, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°53', long. 106°01', in NW¼ sec. 8, T. 19 N., R. 9 E., 600 feet downstream from head and 3½ miles west of Nambe.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 2.2 second-feet June 2; no flow at times. 1936-39: Maximum daily discharge, 2.5 second-feet May 9, 1937; no flow at times.

Remarks.- Records good except those for period of missing gage heights, Apr. 2-10, which were computed on basis of weather records and records for other diversions from Nambe Creek and are poor. Ditch diverts water from right bank of Nambe Creek for irrigation. No diversion from ditch between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9					0	0.5	0.3	2.1	0.6	0	0.3
2	.6					0	.8	.9	2.2	.7	0	.3
3	0					0	.8	1.6	1.1	.8	.4	0
4	0					0	1	1.7	.7	.7	.7	.1
5	.2					0	1	.8	.6	.7	.4	.2
6	.2					0	1	1.3	.9	.6	0	.3
7	.5					0	1	.4	.7	.6	.2	.3
8	.1					0	1	.7	.9	.6	.4	.3
9	0					0	1	1.3	.9	.1	.4	0
10	0					0	1.1	1.3	.5	.5	.3	0
11	0					0	.8	1.1	.2	.6	.3	0
12	0					0	.6	.7	1.0	.6	.4	.1
13	0					0	.5	.7	1.4	.6	.1	.2
14	0					0	.4	.1	.5	.7	.4	.2
15	0					0	.6	1.4	1.0	.6	.5	.3
16	0					0	.7	.1	.8	.6	.4	.5
17	0					0	.6	.6	.7	.5	.4	.6
18	0					0	1.0	1.6	0	.6	.4	.6
19	0					0	1.2	1.2	.4	.6	.4	.4
20	0					0	.7	1.3	.5	.6	.1	.3
21	0					0	.2	2.1	.4	.6	.3	.4
22	0					0	.2	1.6	.4	.6	.4	.2
23	0					0	.3	1.1	.7	.4	.3	.4
24	0					0	.8	1.0	.5	.7	.2	.4
25	0					.2	2.0	.4	0	.6	.3	.2
26	0					.8	1.7	.5	.4	.5	.3	.3
27	0					.9	1.2	1.4	.7	.5	0	.4
28	0					1.1	1.0	.1	.7	.3	.1	.3
29	0					.9	1.8	1.4	.8	0	.2	.1
30	0					.7	1.0	1.7	.8	0	.3	.2
31	0					.5	-	1.3	-	0	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2.5	0.9	0	0.08	5.0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	122.5	1.6	0	.34	243
January	0	0	0	0	0
February	0	0	0	0	0
March	5.1	1.1	0	.16	10
April	26.5	2.0	.8	.88	53
May	31.7	2.1	.1	1.02	63
June	22.5	2.2	0	.75	45
July	16.1	.8	0	.52	32
August	8.9	.7	0	.29	18
September	7.9	.6	0	.26	16
Water year 1938-39	121.2	2.2	0	.33	242

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Barranco Alto ditch near Nambe, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°53', long. 106°01', in NW¼ sec. 8, T. 19 N., R. 9 E., 400 feet downstream from head, a quarter of a mile upstream from highway bridge at Pojoaque, and 3 miles west of Nambe.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 2.4 second-feet (estimated) Apr. 26; no flow at times.
1936-39: Maximum daily discharge, that of Apr. 26, 1939; no flow at times.

Remarks.- Records fair except those for periods of missing or fragmentary gage-height record, which are poor. Ditch diverts water for irrigation from left bank of Nambe Creek 300 feet above station on Nambe Creek at Pojoaque Bridge. No diversion from ditch between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.4				0	0.6		0.8	0.9	0	0.7
2	.7	.3				0	.2		1.1	.4	0	.6
3	.8	.1				0	1.6		.5	.6	0	.6
4	.9	.1				0	1.1		.9	.7	0	.6
5	.6	.1				0	.8	*0.8	.8	.6	0	.7
6	.6	.1				0	.1		.6	.7	0	.7
7	.6	*0				0	0		1.0	.7		.7
8	0	*0				0	0		1.5	.7		.6
9	0	*0				0	0		1.3	.6		.2
10	0	*0				0	.4	†.4	1.2	.7		0
11	0	*0				0	.8	1.1	.6	.7		.2
12	.1	*0				0	.8	.7	1.2	.5		.4
13	.1	*0				0	.8	.6	1.2	.6		.2
14	.1	*0				0	.9	1.3	1.2	.7		.1
15	.1	*0				0	.5	.6	1.1	.6		.3
16	0	*0				0	1.0	.5	1.1	.4		.2
17	0	*0				0	.3	†1.0	1.1	.5	*.6	.2
18	0	*0				0	1.0		.6	.5		.2
19	0	*0				0	1.5		1.1	.5		.2
20	0	*0				0	1.6	*.8	1.1	.5		.1
21	.1	*0				0	1.1		1.1	.5		0
22	.2	*0				0	1.0		1.0	.6		0
23	.1	0				0	0	†1.6	.8	.5		0
24	0	0				0	1.2	1.3	1.0	.6		0
25	.2	0				.5	1.4	.8	.9	.6		.4
26	.2	0				.5	†2.4	1.1	.9	.5		.6
27	.2	0				.1		1.0	.9	.5		0
28	.2	0				0		.1	.9	.4	†.7	0
29	.3	0				0	*1.0	.4	.9	0	.7	0
30	.4	0				0		.3	.9	0	.7	0
31	.3	-				0	-	.5	-	0	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7.6	0.9	0	0.25	15
November	1.1	.4	0	.04	2.2
December	0	0	0	0	0
Calendar year 1938	125.9	1.5	0	.34	248
January	0	0	0	0	0
February	0	0	0	0	0
March	1.1	.5	0	.04	2.2
April	25.1	2.4	0	.84	50
May	24.4	-	-	.79	48
June	29.3	1.5	.5	.98	58
July	16.3	.9	0	.53	32
August	15.4	-	0	.50	31
September	8.5	.7	0	.28	17
Water year 1938-39	128.8	2.4	0	.35	255

*Gage height missing; discharge estimated.
†Gage-height record fragmentary; discharge computed on basis of partly estimated gage height.

Jacona ditch near Nambe, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°54', long. 106°02', in NW¼ sec. 7, T. 19 N., R. 9 E., 600 feet upstream from Rio Tesuque crossing, half a mile downstream from head, and 4 miles west of Nambe.

Records available.- April 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 5.2 second-feet Apr. 4; no flow Apr. 8, 9, Sept. 24.
1936-39: Maximum daily discharge, that of Apr. 4, 1939; no flow at times.

Remarks.- Records poor. Discharge for Jan. 29, 30, Mar. 2-9 interpolated. Ditch diverts water from left bank of Nambe Creek for irrigation. During nonirrigation season entire flow in ditch is probably wasted into Rio Tesuque, which ditch crosses downstream from station. Water from seepage and some from Rio Tesuque enters ditch below station. No diversion from ditch between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	1.2	2.5	0.9	1.2	1.0	2.1	3.0	0.7	0.8	0.7	0.2
2	.9	1.7	2.2	1.0	1.1	1.0	2.0	2.8	.4	1.4	3.0	.2
3	1.8	1.3	2.0	1.3	.8	1.0	3.7	3.4	1.0	1.3	2.7	.3
4	2.0	1.1	2.2	1.4	.9	1.1	5.2	3.0	2.2	.8	2.3	.3
5	1.7	.9	2.0	1.2	1.4	1.1	4.1	3.7	1.2	.9	1.1	.4
6	1.4	2.3	2.0	1.6	1.2	1.1	.2	3.5	1.3	.7	.5	.4
7	1.7	2.1	1.8	1.6	1.0	1.1	.1	2.6	1.4	.9	.5	.5
8	2.0	2.7	1.7	1.7	1.0	1.2	0	2.5	1.9	.9	.4	.5
9	1.1	3.6	1.5	1.6	.8	1.2	0	1.1	.9	1.0	.3	.5
10	1.0	3.4	1.5	1.4	1.0	1.2	.7	2.3	.6	1.0	.4	.5
11	.8	2.1	1.5	1.7	1.1	1.1	1.3	3.6	1.0	1.1	.4	1.1
12	.7	1.2	1.3	1.5	1.2	1.0	3.0	3.3	.9	1.2	.4	1.1
13	.7	1.1	1.3	1.6	1.1	1.1	2.6	3.0	.8	1.4	1.0	.8
14	.7	2.0	1.2	1.6	.9	1.0	3.5	4.6	.7	1.2	1.4	1.6
15	.7	1.8	1.4	1.6	.9	.9	4.3	3.1	.7	1.2	.5	2.0
16	.7	1.4	1.5	1.6	.9	1.2	3.0	2.9	.8	1.9	.3	.8
17	.7	1.5	1.4	1.6	.8	1.3	4.2	2.6	.8	1.2	.3	.2
18	.7	1.6	1.3	1.4	.6	1.3	3.4	2.9	1.5	.5	.3	1.2
19	.6	1.8	1.2	1.5	.6	1.5	2.6	2.9	1.1	.5	.3	1.8
20	.6	1.9	1.2	1.5	.7	1.5	1.3	2.9	.9	.5	.4	1.2
21	.6	2.1	.9	1.6	.7	1.3	3.3	3.8	.9	.5	.3	.7
22	.6	2.2	1.0	1.5	.7	1.2	2.4	2.8	.8	.6	.3	.2
23	.6	1.8	.7	1.5	.7	1.2	2.7	2.3	.9	.7	.3	.1
24	.6	1.5	.6	1.3	.7	1.3	1.5	1.7	.9	.7	.4	0
25	.6	1.9	.9	1.2	.8	1.2	1.0	1.6	1.2	.5	.4	.3
26	.6	2.1	1.1	1.3	.7	1.2	1.2	1.0	1.2	1.0	.3	.8
27	1.3	2.0	.9	1.4	.8	1.3	2.4	1.0	.9	1.0	1.0	1.9
28	3.0	1.9	1.0	1.6	1.0	1.3	2.4	1.0	.9	.8	.7	1.7
29	2.5	1.9	1.0	1.5	-	1.2	2.8	.9	.8	.4	.3	1.5
30	1.0	2.2	.9	1.5	-	1.0	4.3	.9	.7	.4	.2	1.6
31	1.0	-	.8	1.4	-	.9	-	.4	-	.3	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	33.8	3.0	0.6	1.09	67
November	56.3	3.6	.9	1.88	112
December	42.5	2.5	.6	1.37	84
Calendar year 1938	429.5	3.6	0	1.18	852
January	45.1	1.7	.9	1.45	89
February	25.7	1.4	.7	.92	51
March	36.0	1.5	.9	1.16	71
April	72.1	5.2	0	2.40	143
May	77.1	4.6	.4	2.49	153
June	30.0	2.2	.4	1.00	60
July	27.3	1.9	.3	.88	54
August	21.6	3.0	.2	.70	43
September	24.4	2.0	0	.81	48
Water year 1938-39	491.9	5.2	0	1.35	975

Rio Tesuque above diversions, near Santa Fe, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°44', long. 105°54', in SE¼ sec. 32, T. 18 N., R. 10 E., 1 mile upstream from Rito Tesuque and 4 miles northeast of Santa Fe. Prior to July 21, natural control.

Records available.- March 1936 to September 1939 in reports of Geological Survey. May to October 1919, at site 175 feet downstream, in reports of State engineer.

Extremes.- Maximum discharge during year, 51 second-feet Oct. 8 (gage height, 2.25 feet), from rating curve extended logarithmically above 10 second-feet on basis of slope-area measurement at 370 second-feet; minimum daily discharge, 0.5 second-foot Sept. 5, 6.
1936-39: Maximum discharge, 425 second-feet (gage height, 4.2 feet, from flood-marks), from rating curve extended logarithmically above 10 second-feet on basis of slope-area measurement at 370 second-feet; minimum daily discharge, 0.3 second-foot Dec. 5-9, 1938.

Remarks.- Records good for July 21 to Sept. 30 and fair for Oct. 1 to July 20 except those for period of faulty gage heights, Oct. 14 to Nov. 2, and those for period of uncertain stage-discharge relation, July 17-20, which were computed on basis of records of diversions from Rio Tesuque and weather records and are poor. Flow from small tributary spring diverted above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.e	1.5	1.1	1.3	1.0	1.0	4.9	6.9	6.0	1.7	1.0	0.7
2	.8	1.5	1.1	1.3	1.0	1.0	6.9	7.3	5.3	1.7	1.7	.6
3	1.0	1.1	1.1	1.3	1.0	1.0	S.2	6.9	5.3	1.5	1.5	.6
4	1.0	1.7	1.1	1.1	1.0	1.0	10	7.S	5.6	1.5	1.4	.6
5	1.0	2.0	1.1	1.1	1.0	1.0	10	7.8	5.6	1.3	1.3	.5
6	1.1	1.0	1.1	1.1	1.0	1.0	9.1	7.8	5.6	1.1	1.5	.5
7	1.7	1.1	1.1	1.1	1.0	1.0	S.2	8.6	5.6	1.1	1.4	.6
8	16	2.2	1.1	1.3	1.0	1.1	e.2	9.1	5.6	2.0	1.0	.6
9	7.9	2.2	1.0	1.3	1.1	1.5	9.1	9.9	5.3	1.7	.9	1.0
10	2.7	1.7	1.3	1.3	1.0	1.7	8.6	9.9	4.6	1.3	.7	1.1
11	2.4	1.5	1.1	1.3	1.0	1.7	S.6	9.9	4.2	1.1	.6	.8
12	2.2	1.5	1.1	1.3	1.0	2.4	8.2	10	3.9	1.0	.6	.7
13	1.5	.7	1.0	1.3	1.0	4.2	9.1	9.9	3.0	1.0	.8	.8
14	1.5	1.5	1.0	1.3	1.0	3.3	9.1	10	2.2	2.2	1.0	2.1
15	1.5	1.7	1.3	1.3	1.0	5.6	9.1	11	2.7	2.2	.8	3.0
16	1.5	1.5	1.1	1.3	.8	6.4	8.6	10	3.3	1.5	1.1	2.6
17	1.5	1.7	1.3	1.3	.8	6.0	8.2	10	3.9	1.5	1.0	2.3
18	1.5	1.3	1.0	1.3	1.0	6.9	7.3	9.9	3.3	1.0	.9	2.1
19	1.5	1.5	1.1	1.1	.8	7.3	6.9	9.5	3.6	.8	.9	2.0
20	1.5	1.5	1.3	1.1	.8	8.2	7.3	9.5	3.0	.7	.9	1.8
21	1.5	1.3	1.3	1.1	.8	7.8	7.3	9.5	3.0	.7	1.0	1.8
22	1.5	1.5	1.1	1.0	1.0	6.4	7.8	9.5	3.0	.8	.9	1.8
23	1.5	.6	1.0	1.0	1.0	7.8	S.6	8.6	3.3	.9	.8	1.8
24	1.4	.6	1.0	1.0	1.0	6.9	8.2	8.2	3.0	.6	.8	1.8
25	1.4	1.5	1.0	.8	1.0	6.4	7.3	7.3	2.4	.6	1.9	1.9
26	1.4	1.1	1.5	.8	1.0	6.4	6.9	6.9	2.2	.7	1.6	2.3
27	1.4	1.1	1.3	.8	1.0	6.4	6.4	6.9	2.0	.8	1.4	2.2
28	1.4	1.1	1.1	.7	1.1	5.6	6.0	7.3	2.0	1.0	1.3	2.0
29	1.4	1.1	1.1	.7	-	5.3	6.0	7.3	2.2	1.4	.9	2.1
30	1.4	1.3	1.3	.7	-	4.6	6.9	6.4	2.0	1.7	.9	1.9
31	1.4	-	1.1	1.0	-	4.2	-	6.0	-	1.4	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	66.3	16	0.8	2.14	132
November	41.6	2.2	.6	1.39	83
December	35.2	1.5	1.0	1.14	70
Calendar year 1938	742.5	16	.4	2.03	1,470
January	34.4	1.3	.7	1.11	68
February	27.2	1.1	.8	.97	54
March	131.1	8.2	1.0	4.23	260
April	237.0	10	4.9	7.90	470
May	265.6	11	6.0	8.57	527
June	112.7	6.0	2.0	3.76	224
July	38.5	2.2	.6	1.24	76
August	33.3	1.9	.6	1.07	66
September	44.6	3.0	.5	1.49	88
Water year 1938-39	1,067.5	16	.5	2.92	2,120

Peak discharge.- Oct. 8 (8 a.m.) 51 sec.-ft.; Oct. 8 (11 p.m.) 47 sec.-ft.; Apr. 4 (10 p.m.) 16 sec.-ft.

Rio Tesuque at Tesuque, near Santa Fe, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°45', long. 105°56' (revised), in NW¼NW¼ 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 1939. 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, 72 second-feet Sept. 14, from rating curve extended above 11 second-feet on basis of theoretical discharge over control; maximum gage height, 1.23 feet Apr. 4; no flow at times.

Remarks.- Records fair for Oct. 26 to Nov. 25, Apr. 12 to Sept. 30; others poor. Discharge for periods of ice effect or doubtful or missing gage heights, Dec. 28-30, Jan. 28 to Mar. 15, May 20-23, computed on basis of weather records, records for Acequia Medio, which diverts downstream, and study of gain and loss between the two stations on Rio Tesuque. Diversions for irrigation above and below station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0	0.7	0.1	0	0	12	3.2	0.7	0.5	0.2	0.2
2	.3	0	.4	.3	0	0	15	4.4	.8	.5	.2	.2
3	.3	0	.1	.5	0	0	16	3.6	.8	.5	.2	.2
4	.3	0	.8	.1	0	0	17	3.6	.8	.5	.2	.2
5	.3	0	1.5	.2	0	0	16	3.2	.8	.5	.3	.2
6	.3	0	.6	.3	0	0	13	2.8	.7	.5	.3	.2
7	2	0	.4	.1	0	0	13	2.8	.6	.4	.2	.2
8	20	.4	.3	0	0	0	12	2.7	.6	.6	.2	.1
9	10	.8	.1	0	0	.1	12	2.8	.6	.6	.2	.5
10	3	.9	.1	0	0	.2	11	2.8	.7	.5	.2	.9
11	2	1.0	0	0	0	.2	11	2.7	.5	.5	.2	1.2
12	1	.8	0	0	0	.2	11	2.7	.5	.5	.2	1.0
13	.5	.2	0	0	0	.5	9.1	2.7	.6	.5	.2	.5
14	.5	.3	0	0	0	1.0	8.6	2.7	.6	.5	.2	2.8
15	.5	.3	.2	0	0	2.4	7.5	2.7	.6	.5	.2	1.0
16	.3	.2	.2	0	0	1.1	7.0	2.7	.5	.5	.2	.5
17	.3	.1	0	0	0	1.0	6.5	3.2	.5	.5	.2	.4
18	.3	.1	0	0	0	1.1	5.2	3.0	.5	.5	.2	.4
19	.3	.1	0	0	0	1.1	3.6	3.0	.5	.5	.2	.4
20	.3	.1	0	0	0	1.9	3.2	2.5	.5	.5	.2	.4
21	.3	.2	0	0	0	2.2	3.6	2.5	.4	.4	.2	.5
22	.3	.2	0	0	0	1.8	4.0	2.5	.4	.3	.2	.2
23	.3	.2	0	0	0	1.9	3.2	2.0	.5	.3	.2	.1
24	.3	.2	0	0	.1	5.2	3.0	1.5	.5	.3	.2	.1
25	.3	.2	0	0	.2	6.8	3.0	1.8	.5	.2	.2	.1
26	0	.1	0	0	0	8.9	3.0	1.7	.5	.2	.2	.2
27	0	.2	0	0	0	14	2.8	1.6	.5	.2	.2	.5
28	0	.3	.2	0	0	12	2.8	1.5	.5	.2	.2	.5
29	0	.3	.2	0	-	12	2.8	1.4	.5	.3	.2	.6
30	0	.8	0	0	-	14	3.0	1.1	.5	.3	.2	.6
31	0	-	.2	0	-	14	-	1.1	-	.3	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	88
November	8.0	1.0	0	.27	16
December	6.0	1.5	0	.19	12
Calendar year	-	-	-	-	-
January	1.6	.5	0	.05	3.2
February	.3	.2	0	.01	.6
March	103.6	14	0	3.34	205
April	240.9	17	2.8	8.03	478
May	78.5	4.4	1.1	2.53	156
June	17.2	.8	.4	.57	34
July	13.1	.6	.2	.42	25
August	6.4	.3	.2	.21	13
September	15.0	2.8	.1	.50	30
Water year 1938-39	-	-	-	-	1,060

Peak discharge.- Apr. 4 (4 a.m.) 22 sec.-ft.; Apr. 6 (1 a.m.) 24 sec.-ft.; Sept. 14 (6 p.m.) about 72 sec.-ft.

Note.- Records for Oct.1-25 are for site 3,100 feet downstream. Records at two sites not equivalent for this period.

Cajon Grande ditch near Santa Fe, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°44', long. 105°54', in SE¼ sec. 32, T. 18 N., R. 10 E., 450 feet downstream from head and 4 miles northeast of Santa Fe.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 2.3 second-feet Sept. 15; no flow at times. 1936-39: Maximum daily discharge, 3.4 second-feet May 20, 21, 1937; no flow at times.

Remarks.- Records fair except those for periods of ice effect and periods of missing gage heights, which are poor. Ditch diverts water for irrigation from right bank of Rio Tesuque 500 feet below gaging station known as Rio Tesuque above diversions, near Santa Fe. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	1.3	0.4	0.2	*0.4	*0.4	0.6	0.9	0.7	0.6	0.4	0.1
2	.8	1.2	.4	.2	*.4	*.4	.7	1.1	.8	.6	.5	.7
3	.7	1.1	.3	.2	*.4	*.4	.7	1.4	.8	.8	.2	.6
4	.8	1.2	.2	.2	*.4	*.4	.4	1.4	.8	.8	.1	.6
5	.8	1.2	.1	.2	*.4	*.4	.6	1.6	.8	.8	1.1	.6
6	1.0	.6	.3	.2	*.4	*.4	.4	1.5	.8	.7	.9	.6
7	1.4	†.6	.3	.1	*.4	*.4	.3	1.5	.8	.5	.5	.5
8	.6	†.2	.3	.3	*.4	*.4	.2	1.5	.8	.7	.3	.3
9	.4	.3	.3	.4	*.4	*.5	.3	1.5	.8	.6	.3	1.0
10	.1	.2	.3	.4	*.4	*.5	.4	1.6	.8	.4	.2	1.1
11	.2	.2	.4	.4	*.4	*.5	.3	1.5	.7	.3	0	.8
12	.2	.3	.6	.4	*.4	*.5	.2	1.5	.7	.3	.4	.7
13	.2	†.4	.4	.4	*.4	*.6	.2	1.6	.6	.3	.4	.8
14	.2	.7	.5	.4	*.4	*.5	.3	1.7	.5	.4	.7	1.7
15	.6	.7	.5	†.4	*.4	*.4	.2	1.6	.5	1.3	.4	2.3
16	.9	.6	.4	*.4	*.3	.4	.1	1.6	.7	.8	.6	2.1
17	.8	.6	.4	*.4	*.3	.3	.1	1.4	1.0	.5	.6	1.3
18	.9	.5	.5	*.4	*.4	.3	.3	1.4	1.0	.4	.1	.8
19	1.1	.5	.6	*.4	*.3	.7	.9	1.2	.9	.2	.7	.8
20	1.3	.5	.6	*.4	*.3	.7	.9	.9	.9	.1	.6	.7
21	1.2	.5	.6	*.4	*.3	.7	.6	.9	.8	0	.8	.6
22	1.2	.5	.5	*.4	*.4	.7	.8	.8	.8	.8	.9	.7
23	1.2	†.3	†.4	*.4	*.4	.8	.9	.8	.8	.8	.8	.7
24	1.1	†.3	†.4	*.4	*.4	.7	.8	.8	1.0	.4	.8	.6
25	1.1	.4	†.4	*.3	*.4	.7	.8	.8	.8	.3	.7	.7
26	.9	.3	†.2	*.3	*.4	.7	.8	.7	.4	.4	1.0	.8
27	.9	.4	†.2	*.3	*.4	.7	.8	.7	.4	.4	1.4	.7
28	.9	.4	†.2	*.3	*.4	.6	.7	.6	.5	.1	1.3	.6
29	.9	.4	†.1	*.3	-	.6	.8	.5	.6	1.4	1.0	.6
30	1.2	.4	†.2	*.3	-	.5	.9	.4	.6	1.2	.8	.6
31	1.3	-	†.2	*.3	-	.8	-	.3	-	.6	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	25.7	1.4	0.1	0.83	51
November	16.8	1.3	.2	.56	33
December	11.2	.6	.1	.36	22
Calendar year 1938	227.8	1.7	0	.62	451
January	10.1	.4	.1	.33	20
February	10.7	.4	.3	.38	21
March	16.3	.8	.3	.53	32
April	16.0	.9	.1	.53	32
May	35.7	1.7	.3	1.15	71
June	22.1	1.0	.4	.74	44
July	17.3	1.4	0	.56	34
August	19.3	1.4	0	.62	38
September	24.7	2.3	.1	.82	49
Water year 1938-39	225.9	2.3	0	.62	447

*Gage height missing; discharge computed on basis of weather records and records for Rio Tesuque above diversions.
†Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather records.

De La Cruz ditch near Santa Fe, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°44', long. 105°55', in SW¼ sec. 32, T. 18 N., R. 10 E., 250 feet downstream from head and 4 miles northeast of Santa Fe. Prior to July 25, water-stage recorder and 1-foot Parshall flume 100 feet upstream.

Records available.- June 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 1.8 second-feet Apr. 22; no flow at times. 1936-39: Maximum daily discharge, that of Apr. 22, 1939; no flow at times.

Remarks.- Records good except those for Mar. 8-14, which are poor. Recorder operation suspended Dec. 30 to Mar. 15; discharge computed on basis of one discharge measurement, weather records, and records for Rio Tesuque above diversions. Ditch diverts water from left bank of Rio Tesuque for irrigation. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.2				0	0	1.0	0.7	0.3	0	0.3
2	.2	.3				0	0	1.0	.7	0	0	0
3	.2	.1				0	0	.9	.7	0	0	0
4	.2	0				0	0	.9	.7	0	.6	0
5	.2	0				0	.1	.9	.7	0	0	0
6	.1	0				0	.1	1.0	.8	0	0	0
7	.1	0				0	0	1.0	.8	.2	0	0
8	0	0				0	0	1.1	.8	.3	0	.2
9	0	0				0	0	1.2	.8	0	0	0
10	.1	0				0	0	1.7	.5	0	0	0
11	.1	0				0	0	.5	.3	0	.2	0
12	.2	0				0	0	.8	.5	0	0	0
13	.2	0				0	0	.9	.4	0	0	0
14	.1	0				0	.1	.9	.5	.8	0	0
15	.4	0				.1	.7	.8	.7	0	0	0
16	.6	0				.1	1.0	.7	.3	0	0	0
17	.6	0				0	1.0	1.4	.4	0	0	0
18	.6	0				0	.9	1.5	.3	0	.3	0
19	.4	0				0	.7	1.4	.3	0	0	0
20	.1	0				0	1.0	1.1	.3	0	0	0
21	.3	0				0	1.4	1.0	.4	.4	0	0
22	.3	0				0	1.8	.9	.5	0	0	.4
23	.2	0				0	.2	.8	.2	0	0	.7
24	.2	0				0	.3	.8	.2	0	0	.6
25	.2	0				0	.6	.8	.3	0	.4	.1
26	.4	0				0	.9	.8	.2	0	.2	.3
27	.5	0				0	.9	.7	.1	0	0	.4
28	.5	0				0	.8	.6	.1	.5	0	.3
29	.5	0				0	.9	.6	.1	.1	0	.3
30	.2	0				0	1.0	.5	.4	0	0	.3
31	.1	-				0	-	.5	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8.0	0.6	0	0.26	16
November	.6	.3	0	.02	1.2
December	0	0	0	0	0
Calendar year 1938	62.8	1.1	0	.17	124
January	0	0	0	0	0
February	0	0	0	0	0
March	.2	.1	0	.01	.4
April	14.4	1.8	0	.48	29
May	28.7	1.7	.5	.93	57
June	13.7	.8	.1	.46	27
July	2.6	.8	0	.08	5.2
August	1.7	.6	0	.05	3.4
September	3.9	.7	0	.13	7.7
Water year 1938-39	73.8	1.8	0	.20	147

Acequia Madre at head, near Santa Fe, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°44', long. 105°55', in SE¼ sec. 31, T. 18 N., R. 10 E., 350 feet downstream from head and 4 miles northeast of Santa Fe.

Records available.- April 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 4.8 second-feet May 23; no flow at times. 1936-39: Maximum daily discharge, that of May 23, 1939; no flow at times.

Remarks.- Records fair. Acequia diverts water from right bank of Rio Tesuque for irrigation. No diversions between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	2.2	3.4	0.2	0.6	0
2							0	1.7	3.1	.4	1.1	0
3							0	1.5	2.9	.2	1.1	0
4							0	.8	2.9	.2	.3	0
5							0	1.0	2.8	.2	0	0
6							0	1.7	2.7	.1	.3	0
7							0	1.9	2.7	0	.5	0
8							0	2.6	2.6	.2	.4	0
9							0	2.3	2.5	.8	.4	0
10							0	2.2	2.7	.5	.3	0
11							0	3.1	2.7	.4	.1	0
12							0	3.2	2.4	.3	0	0
13							0	3.2	2.0	.2	.1	0
14							0	3.4	1.4	.1	.1	0
15							0	3.5	1.2	.2	.1	.8
16							0	3.8	1.6	.2	.2	.1
17							0	3.3	1.4	.5	.1	0
18							.8	3.2	1.3	.6	0	0
19							1.6	3.4	1.3	.4	0	0
20							.8	4.4	1.2	.4	0	0
21							.7	4.5	.8	.2	0	0
22							1.3	4.6	.6	0	0	0
23							3.0	4.8	.8	.2	0	0
24							3.3	4.6	.5	.3	0	.1
25							3.2	4.3	.3	.3	.3	.6
26							3.1	4.4	.6	.4	.1	.2
27							3.0	4.5	.7	.5	0	0
28							3.0	4.4	.7	.2	0	0
29							3.0	4.3	.5	0	0	0
30							3.3	4.0	.1	.4	0	0
31							-	4.0	-	.7	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	206.0	3.8	0	.56	410
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	30.1	3.3	0	1.00	60
May	100.6	4.8	.8	3.26	200
June	60.4	3.4	.1	1.68	100
July	9.1	.7	0	.29	18
August	6.0	1.1	0	.19	12
September	2.0	.8	0	.07	4.0
Water year 1938-39	198.2	4.8	0	.54	394

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 1939.

Extremes.- Maximum discharge during year, about 79 second-feet Oct. 8 (gage height, 2.36 feet), from rating curve extended above 6 second-feet on basis of slope-area measurement at 186 second-feet; no flow at times.
1936-39: Maximum discharge, about 186 second-feet July 19, 1938 (gage height, 3.2 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records fair except those below 0.1 second-foot, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.2	0.2	0.2	*0.1	0.3	3.8	2.1	0.6	-	-	0.1
2	.1	.2	.2	.2	-	*.4	3.8	2.1	.6	-	.1	.1
3	.1	.2	.2	.2	-	.4	3.6	1.8	.5	-	.1	.1
4	-	.2	.2	.2	.1	.2	4.4	1.8	.5	-	-	-
5	-	.2	.2	*.2	.1	*.4	4.8	1.7	.4	-	.2	-
6	-	.2	.2	.2	.2	*.4	4.8	1.7	.4	-	.2	-
7	.1	.2	.2	.2	.2	.4	4.6	1.7	.4	-	.1	-
8	2.1	.2	.2	.7	.2	.4	4.6	1.4	.3	-	-	-
9	.1	.2	.2	.2	.2	.4	4.4	1.3	.2	-	-	.3
10	-	.2	.2	.2	*.2	.4	4.8	1.3	.2	-	-	.1
11	-	.2	.2	.2	*.2	.6	4.6	1.3	.2	-	-	-
12	.2	.2	.2	*.2	*.1	.6	4.4	1.2	.1	-	-	-
13	.2	.2	.2	*.2	*.1	.6	4.4	1.1	.1	-	.2	-
14	.2	.2	*.2	*.2	.2	.7	4.2	1.1	.1	.4	.2	.6
15	.2	.2	.2	*.2	.2	1.2	4.0	1.2	.1	.1	.1	.7
16	.2	.2	.2	.2	.2	1.8	3.8	1.1	.1	-	-	.8
17	.2	.2	.2	.2	*.2	2.6	3.1	1.1	-	-	-	.6
18	.2	.2	.2	*.2	.1	2.2	2.9	1.0	-	-	-	.6
19	.2	.2	.2	*.2	.1	2.9	2.9	.9	-	-	-	.5
20	.2	.2	.2	*.2	.1	3.2	2.6	.9	-	-	-	.4
21	.2	.2	.2	.2	*.1	3.6	2.6	1.0	-	.2	-	.4
22	.2	.2	.2	.2	*.2	3.6	2.6	.9	-	-	-	.4
23	.2	.2	*.1	.2	*.2	4.4	2.4	.9	-	-	-	.4
24	.2	*.2	*.2	*.1	.2	4.6	2.4	.9	-	-	-	.4
25	.2	.2	*.2	*.2	.2	4.6	2.4	.9	-	-	.1	.4
26	.2	.2	*.2	*.2	*.2	4.8	2.4	.9	-	-	.2	.5
27	.2	.2	*.2	*.2	*.4	4.8	2.2	.8	-	-	.1	.5
28	.2	.2	*-	.2	*.3	4.2	2.0	.9	-	-	.1	.4
29	.2	.2	*.1	.2	-	4.0	2.0	.9	-	-	.1	.5
30	.2	.2	*.1	.2	-	3.8	2.4	.7	-	-	.1	.5
31	.2	-	*.2	*.1	-	3.6	-	.6	-	-	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6.97	2.1	0.05	0.22	14
November	6.0	.2	.2	.20	12
December	5.78	.2	.08	.19	11
Calendar year 1938	69.45	2.1	0	.19	138
January	6.50	.7	.1	.21	13
February	4.76	.4	.08	.17	9.4
March	66.1	4.8	.2	2.13	131
April	103.9	4.8	2.0	3.46	206
May	37.2	2.1	.6	1.20	74
June	5.50	.6	.01	.18	11
July	1.32	.4	.01	.04	2.6
August	3.15	.2	.01	.10	6.2
September	9.79	.8	.05	.33	19
Water year 1938-39	256.97	4.8	.01	.70	509

Peak discharge.- Oct. 8 (8 a.m.) about 79 sec.-ft.; Sept. 9 (5 p.m.) 14 sec.-ft.; Sept. 14 (6 p.m.) 12 sec.-ft.
*Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather records.
Note.- Discharge less than 0.1 sec.-ft. on days for which no figure is given.

Acequia Medio at head, near Santa Fe, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°46', long. 105°56', near east line of sec. 25, T. 18 N., R. 9 E., 350 feet downstream from head and 5 miles north of Santa Fe.

Records available.- March 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 2.7 second-feet May 25; no flow at times. 1936-39: Maximum daily discharge, 4.1 second-feet May 23, 1936; no flow at times.

Remarks.- Records fair except those for missing or doubtful gage heights, which are poor. Acequia diverts water for irrigation from right bank of Rio Tesuque 2,000 feet below station at Tesuque. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	0.3	*0.1	0.4	*0.1	*0.1	0.3	1.5	1.6	1.1	0.9	0.8
2	.4	.4	*.1	.4	*.1	*.1	.1	1.6	1.6	1.0	.9	.7
3	.4	.4	*.1	.4	*.1	*.1	.5	1.5	1.6	1.1	.9	.7
4	.4	.4	*.1	.3	*.1	*.1	.4	1.5	1.6	1.0	1.0	.6
5	.4	.4	*.1	.3	*.1	*.1	.7	1.4	1.8	1.0	1.1	.6
6	.4	.4	*.1	.3	*.1	*.1	.2	1.3	1.7	1.0	.9	.6
7	.4	.4	*.1	.3	*.1	*.1	.1	1.3	1.8	.9	.9	.6
8	.1	.6	*.1	.2	*.1	*.1	.3	1.0	1.8	.5	.9	.6
9	0	0	*.1	.2	*.1	*0	.3	1.2	1.8	.1	.8	.7
10	0	0	*.1	*.2	*.1	*0	.5	1.8	1.7	.8	.8	.4
11	†.1	0	*.1	*.2	*.1	0	.6	2.1	1.5	.9	.8	.6
12	†.4	0	*0	*.2	*.1	0	.8	1.9	1.5	.9	.8	.7
13	†.4	.1	*0	*.2	*.1	0	1.0	1.8	1.5	1.0	.8	.7
14	.4	.4	*0	*.2	*.1	0	1.2	1.8	1.5	1.0	.8	.8
15	.2	.2	0	*.2	*.1	0	1.1	1.5	1.6	1.0	.8	.5
16	.3	0	0	*.2	*.1	0	.9	1.6	1.5	1.0	.8	.2
17	.3	0	0	*.2	*.1	0	.7	1.6	1.4	.9	.8	0
18	.3	.1	0	*.2	*.1	0	.9	1.6	1.4	.9	.8	0
19	.3	.4	.1	*.1	*.1	0	1.0	1.5	1.4	.9	.6	0
20	.3	.4	.1	*.1	*.1	0	.9	1.5	1.3	1.0	.8	.4
21	.4	.2	.1	*.1	*.1	0	1.1	1.4	1.3	1.1	.8	.6
22	.4	.1	.1	*.1	*.1	0	1.1	1.4	1.3	1.0	.8	.6
23	.3	.1	.1	*.1	*.1	.2	1.1	1.8	1.3	1.0	.8	.6
24	.4	0	.1	*.1	*.1	.3	1.2	2.5	1.3	1.0	.8	.6
25	.3	.1	.1	*0	*.1	†.3	1.3	2.7	1.2	1.0	.7	.6
26	.3	.1	.1	*0	*.1	.4	1.2	2.5	1.2	1.0	.7	.9
27	.3	*.1	.1	*0	*.1	.4	1.4	2.4	1.2	1.0	.7	1.1
28	.3	*.1	.3	*0	*.1	.1	1.4	2.3	1.1	1.0	.7	.9
29	.3	*.1	.4	*0	-	.4	1.3	2.1	1.1	1.0	.7	.8
30	.3	*.1	.4	*0	-	.3	1.4	1.9	1.1	1.0	.8	.6
31	.3	-	.3	*.1	-	.4	-	1.7	-	.9	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9.5	0.4	0	0.31	19
November	5.9	.6	0	.20	12
December	3.4	.4	0	.11	6.7
Calendar year 1938	145.2	1.4	0	.40	288
January	5.3	.4	0	.17	11
February	2.8	.1	.1	.10	5.6
March	3.6	.4	0	.12	7.1
April	25.0	1.4	.1	.83	50
May	53.7	2.7	1.0	1.73	107
June	43.7	1.8	1.1	1.46	87
July	29.0	1.1	.1	.94	58
August	25.3	1.1	.7	.82	50
September	17.5	1.1	0	.58	36
Water year 1938-39	224.7	2.7	0	.62	448

*Gage height missing; discharge computed on basis of weather records, records for Rio Tesuque at Tesuque, study of gain and loss between the two stations on Rio Tesuque, and staff-gage reading Jan. 31.

†Gage height doubtful; discharge computed on basis of recorder record and partly estimated gage heights.

Hubbard ditch near Santa Fe, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°46', long. 105°56' in sec. 25, T. 18 N., R. 9 E., a quarter of a mile downstream from head and 5½ miles north of Santa Fe.

Records available.- June 1938 to September 1939.

Extremes.- Maximum daily discharge during year, 1.1 second-feet May 17; no flow at times. 1938-39: Maximum daily discharge, that of May 17, 1939; no flow at times.

Remarks.- Records good except those for period of missing gage heights, Apr. 9, 10 (interpolated), and those for June 22-24, July 15-20 (computed on basis of recorded range in stage), which are poor. Ditch diverts water for irrigation from left bank of Rio Tesuque about three-quarters of a mile below station at Tesuque. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1					0	0.6	1.0	0.6	0.5	0	0.1
2	.1					0	.6	.6	.6	.4	0	.2
3	.1					0	0	.2	.7	.5	.1	.2
4	.2					0	0	0	.7	.4	.4	.2
5	.2					0	0	.4	.7	.6	.4	.3
6	.2					0	0	.6	.6	.6	.4	.3
7	.2					0	0	.6	.8	.5	.4	.3
8	0					0	0	.4	.7	.2	.3	.3
9	0					0	0	.4	.6	0	.3	.3
10	0					0	0	.5	.6	0	.2	0
11	0					0	0	.4	.5	0	.3	.3
12	0					0	.2	.4	.5	.2	.4	.4
13	0					0	.1	.4	.5	.3	.4	.4
14	0					0	.2	.5	.5	.5	.4	.3
15	0					0	0	.7	.5	}	.3	0
16	0					0	0	.7	.4	}	.4	0
17	0					0	0	1.1	.4	.3	.4	0
18	0					0	0	.2	.5	}	.3	0
19	0					0	0	.1	.5	}	.2	0
20	0					0	.1	.2	.5	.3	.2	0
21	0					0	.3	.2	.7	.3	.3	.1
22	0					.2	0	.1	}	.4	.3	.3
23	0					.5	0	.1	.5	.4	.4	.2
24	0					0	.4	.1	}	.3	.4	.3
25	0					0	.6	.4	.4	.3	.4	.3
26	0					0	.4	.5	.5	.2	.4	.3
27	0					0	.5	.6	.5	.2	.4	.3
28	0					0	.6	.6	.5	.4	.3	.3
29	0					0	.5	.7	.5	.2	.3	.3
30	0					0	.8	.5	.5	0	.3	.5
31	0					.3	-	.7	-	0	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1.1	0.2	0	0.04	2.2
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year	-	-	-	-	-
January	0	0	0	0	0
February	0	0	0	0	0
March	1.0	.5	0	.03	2.0
April	5.9	.8	0	.20	12
May	13.9	1.1	0	.45	28
June	16.5	.8	-	.55	33
July	9.2	.6	0	.30	18
August	9.5	.4	0	.31	19
September	6.5	.5	0	.22	13
Water year 1938-39	63.6	1.1	0	.17	127

Mitchell ditch near Santa Fe, N. Mex.

Location.- Water-stage recorder and 1-foot rectangular weir, lat. 35°46', long. 105°56', near N¼ corner sec. 25, T. 18 N., R. 9 E., at pipe-line outlet 5½ miles north of Santa Fe.

Records available.- June 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 0.9 second-foot Apr. 18-20; no flow at times.

1936-39: Maximum daily discharge recorded, 2.1 second-feet June 7, 1937; no flow at times.

Remarks.- Records good except those for period of backwater, Oct. 1 to Nov. 18 (computed on basis of adjustment for submergence), and those for period of missing gage heights Feb. 28 to Mar. 5 (computed on basis of recorded range in stage), which are fair. Discharge computed by formula for rectangular weir. Ditch supplied by underground flow from pipe line laid in bed of Rio Tesuque. Water diverted is used for irrigation. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.2	0.5	0.5	0.4	0.4	0.2	0.3	0.6	0.7	0.6	0.5
2	0	.3	.5	.5	.4	.4	0	.3	.5	.7	.6	.5
3	.2	.4	.5	.5	.4	.4	0	.4	.5	.7	.6	.5
4	.4	.4	.5	.5	.4	.4	0	.4	.6	.7	.6	.5
5	.4	.2	.5	.5	.4	.4	0	.4	.6	.7	.6	.5
6	.4	0	.5	.5	.4	.4	0	.4	.7	.7	.5	.5
7	.2	0	.5	.5	.4	.4	0	.4	.8	.7	.5	.5
8	0	0	.5	.5	.4	.4	0	.5	.8	.7	.5	.5
9	0	0	.5	.5	.4	.4	0	.6	.8	.7	.5	.5
10	0	.1	.5	.5	.4	.4	0	.5	.8	.7	.5	.6
11	0	.5	.5	.5	.4	.4	.4	.5	.8	.7	.5	.6
12	0	.4	.4	.5	.4	.4	.5	.5	.8	.7	.5	.5
13	0	0	.4	.5	.4	.5	.3	.5	.8	.7	.5	.5
14	.4	0	.4	.5	.4	.5	.3	.5	.8	.7	.5	.5
15	.5	.2	.4	.5	.4	.6	.3	.5	.8	.7	.4	.7
16	.5	.5	.5	.5	.4	.6	.3	.5	.8	.6	.4	.7
17	.5	.5	.5	.4	.4	.6	.6	.5	.8	.6	.4	.7
18	.5	.3	.5	.5	.4	.6	.9	.5	.8	.6	.4	.7
19	.5	.3	.5	.5	.4	.2	.9	.5	.7	.6	.4	.7
20	.1	.3	.5	.5	.4	0	.9	.5	.7	.6	.4	.6
21	0	.3	.5	.6	.4	0	.8	.5	.7	.6	.5	.6
22	0	.3	.5	.5	.4	.3	.8	.6	.7	.6	.5	.5
23	.2	.3	.4	.5	.4	.3	.8	.6	.7	.6	.5	.5
24	.3	.3	.4	.5	.4	.4	.4	.5	.7	.5	.5	.5
25	.3	.2	.4	.4	.4	.4	.4	.5	.7	.3	.5	.5
26	.2	0	.4	.4	.4	.4	.4	.5	.7	0	.5	.5
27	0	0	.4	.4	.4	.4	.4	.5	.7	0	.5	.5
28	0	0	.4	.4	.4	.4	.4	.5	.7	.3	.5	.5
29	0	0	.4	.4	-	.4	.3	.5	.7	.6	.5	.5
30	0	.1	.4	.4	-	.4	.3	.5	.7	.6	.5	.5
31	0	-	.5	.4	-	.4	-	.6	-	.6	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5.7	0.5	0	0.18	11
November	6.1	.5	0	.20	12
December	14.3	.5	.4	.46	28
Calendar year	-	-	-	-	-
January	14.7	.5	.4	.47	29
February	11.2	.4	.4	.40	22
March	12.2	.6	0	.39	24
April	10.6	.9	0	.35	21
May	15.0	.6	.3	.48	30
June	21.5	.8	.5	.72	43
July	18.2	.7	0	.59	36
August	15.4	.6	.4	.50	31
September	16.4	.7	.5	.55	33
Water year 1938-39	161.3	.9	0	.44	320

Post ditch near Tesuque Pueblo, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°47', long. 105°57', in SE¼ sec. 14, T. 18 N., R. 9 E., a quarter of a mile downstream from head and 2 miles southeast of Tesuque Pueblo.

Records available.- July 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 1.6 second-feet Apr. 23, Aug. 14, 15; no flow at times.
1936-39: Maximum daily discharge recorded, 1.7 second-feet several days during 1937; no flow at times.

Remarks.- Records good. Ditch diverts water from right bank of Rio Tesuque for irrigation on Tesuque Pueblo land. Several diversions between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0.3	0.5	0.9	1.0	0	1.0
2						0	0	.1	.7	.1	.7	.4
3						0	0	.5	.2	.6	.8	1.2
4						0	0	1.0	.9	.1	.4	1.3
5						0	.1	.9	1.2	0	.7	.9
6						0	.2	.2	.5	.3	1.0	.9
7						0	.1	.9	.1	.1	.8	1.4
8						0	.1	.7	0	0	.7	1.0
9						0	.1	0	.2	0	1.0	1.0
10						0	.9	.7	.1	0	.8	1.0
11						0	.8	.6	0	0	.4	.8
12						0	.8	.1	.1	0	.1	.1
13						0	.7	.9	.2	0	.7	0
14						0	.8	1.0	.3	.1	1.6	0
15						0	.7	.1	.1	.9	1.6	0
16						0	.3	0	1.1	1.2	1.0	0
17						0	.1	1.2	1.2	.1	1.3	0
18						0	.1	1.1	.6	0	1.0	0
19						0	.1	1.4	0	0	1.0	0
20						0	.5	1.3	0	0	.9	0
21						0	1.0	0	0	0	1.0	0
22						0	1.1	.4	.9	.7	1.0	0
23						0	1.6	.9	.8	.2	.9	0
24						0	.5	1.2	1.2	.2	1.1	0
25						0	0	1.3	.6	1.0	.2	0
26						0	0	1.1	0	.2	.8	0
27						0	0	.6	0	.9	.1	0
28						0	0	0	.9	1.0	0	0
29						0	0	0	1.2	.3	.2	0
30						0	0	0	1.1	.1	1.0	0
31						.3	-	.3	-	0	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	68.1	1.6	0	.19	135
January	0	0	0	0	0
February	0	0	0	0	0
March	.3	.3	0	.01	.6
April	10.9	1.6	0	.36	22
May	19.0	1.4	0	.61	38
June	15.1	1.2	0	.50	30
July	9.1	1.2	0	.29	18
August	23.7	1.6	0	.76	47
September	11.0	1.4	0	.37	22
Water year 1938-39	89.1	1.6	0	.24	178

Qwiyo ditch near Tesuque Pueblo, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°47', long. 105°58', in SW¼ sec. 14, T. 18 N., R. 9 E., 400 feet downstream from head and 1½ miles southeast of Tesuque Pueblo.

Records available.- July 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 2.1 second-feet May 13; no flow at times. 1936-39: Maximum daily discharge, that of May 13, 1939; no flow at times.

Remarks.- Records fair except those for periods of faulty intake operation or excessive shifting, Apr. 25 to June 10, June 21 to July 5, Sept. 1-9, 22, which are poor. Ditch diverts water from right bank of Rio Tesuque for irrigation on Tesuque Pueblo land. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	0.4	0.1	0.2	1.0	0.1
2							0	.4	.3	.3	0	.1
3							0	.8	0	.7	.2	.1
4							0	1.0	.1	1.1	1.6	.1
5							0	.8	.2	.6	.3	.8
6							0	1.3	.2	0	.5	.9
7							0	.9	.9	.8	.5	.2
8							0	1.2	.7	1.5	.3	.4
9							0	1.1	.2	1.6	.7	.4
10							0	1.1	1.2	1.8	.3	0
11							0	1.9	.7	1.5	.5	0
12							0	1.9	.5	.7	0	0
13							0	2.1	1.1	.6	.2	0
14							0	1.4	1.4	.8	.8	0
15							0	1.1	.4	.8	1.0	0
16							0	.7	.4	1.0	.3	0
17							0	1.8	.5	.3	.2	0
18							.4	2.0	.7	0	.4	0
19							.2	0	1.5	.3	.2	0
20							0	0	1.5	1.0	.2	0
21							0	1.2	1.4	.3	.2	0
22							0	0	.5	0	.2	.3
23							0	0	.4	0	.3	0
24							.4	0	.4	1.0	.4	0
25							.5	.2	.1	0	.1	0
26							.7	.2	0	0	.1	0
27							1.2	0	0	0	.5	0
28							1.9	0	0	0	1.2	0
29							2.0	.2	0	.5	.9	0
30							1.2	.4	0	1.2	.1	0
31							-	.8	-	1.4	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	67.0	1.9	0	.18	133
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	8.5	2.0	0	.28	17
May	24.9	2.1	0	.80	49
June	15.4	1.5	0	.51	31
July	20.0	1.8	0	.65	40
August	13.3	1.6	0	.43	26
September	3.4	.9	0	.11	6.7
Water year 1938-39	85.5	2.1	0	.23	170

Corral ditch at Tesuque Pueblo, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°48', long. 105°58', in NE¼ sec. 15, T. 18 N., R. 9 E., 1,700 feet downstream from head and half a mile southeast of Tesuque Pueblo.

Records available.- July 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 0.9 second-foot June 9; no flow during most of year.
1936-39: Maximum daily discharge, 1.0 second-foot July 26, 1938; no flow during most of each year.

Remarks.- Records fair except those for period of missing gage heights July 1-6 (computed on basis of records for Post and Qwiyo ditches and Rio Tesuque at Tesuque), which are poor. Ditch diverts water from left bank of Rio Tesuque for irrigation on Tesuque Pueblo lands. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0							0.6	0	0	0.1	
2	0							.5	0	0	0	
3	0							0	0	0	0	
4	0							0	0	0	.1	
5	0							.4	0	.5	.2	
6	0							.3	0	.4	0	
7	.1							0	0	.1	0	
8	.1							.3	.1	0	0	
9	0							.3	.9	0	0	
10	0							.1	0	0	0	
11	0							.1	0	0	0	
12	0							.1	0	0	0	
13	0							0	0	0	0	
14	0							0	0	0	0	
15	0							0	0	0	0	
16	0							0	0	0	0	
17	0							0	0	.7	0	
18	0							0	0	.6	0	
19	0							.5	0	.4	0	
20	0							.2	0	0	0	
21	0							.6	0	.6	0	
22	0							.7	0	.6	0	
23	0							0	0	.4	0	
24	0							0	0	0	0	
25	0							0	.3	.2	0	
26	0							0	.2	.1	0	
27	0							0	0	0	.3	
28	0							0	0	0	0	
29	0							0	0	.2	0	
30	0							0	0	0	0	
31	0							0	-	0	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0.2	0.1	0	0.01	0.4
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	10.5	1.0	0	.03	21.0
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	4.7	.7	0	.15	9.3
June	1.5	.9	0	.06	3.0
July	4.7	.7	0	.15	9.3
August	.7	.3	0	.02	1.4
September	0	0	0	0	0
Water year 1938-39	11.8	.9	0	.03	23.4

Del Barranco ditch near San Ildefonso, N. Mex.

Location.- Water-stage recorder and 1.5-foot Parshall flume, lat. 35°53', long. 106°03', in SW¼ sec. 12, T. 19 N., R. 8 E., 1,800 feet downstream from head and 3⅝ miles east of San Ildefonso.

Records available.- May 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 3.6 second-feet Mar. 18; minimum daily, 0.1 second-foot Aug. 12-18.
1936-39: Maximum daily discharge, that of Mar. 18, 1939; no flow July 9, 10, 1936.

Remarks.- Records good for Oct. 1 to Mar. 15; others poor. Discharge for day of missing gage height, July 6, interpolated. Ditch diverts water from left bank of Rio Pojoaque for irrigation. Records include seepage inflow from drain ditch that enters about 100 feet above station. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	0.4	0.4	0.4	0.4	0.4	1.8	0.6	1.0	0.5	0.4	0.4
2	1.0	.4	.4	.4	.4	.4	2.4	1.1	.8	.7	.4	.4
3	.8	.4	.4	.4	.4	.4	2.8	1.6	.8	.6	.4	.3
4	1.0	.4	.4	.4	.4	.4	1.6	.6	1.6	.5	.4	.3
5	.8	.4	.4	.5	.4	.4	.7	.8	1.0	.5	.4	.3
6	1.0	.4	.4	.5	.4	.4	.7	.8	.6	.4	.2	.3
7	1.2	.4	.4	.5	.4	.4	.7	1.7	.5	.4	.4	.3
8	.7	.4	.4	.5	.4	.4	.7	1.4	1.2	.4	.3	.3
9	.5	.4	.4	.5	.4	.4	.6	1.6	.7	.4	.2	.8
10	.5	.4	.4	.5	.4	.4	.7	1.2	.4	.3	.2	.7
11	.5	.4	.4	.5	.4	.6	1.1	1.4	.3	.3	.2	.5
12	.4	.4	.4	.5	.4	.7	1.2	1.0	.4	.3	.1	.4
13	.5	.4	.3	.4	.4	.7	2.6	1.1	.4	.3	.1	.4
14	.5	.4	.3	.4	.4	.6	2.7	1.2	.4	.3	.1	.6
15	.5	.4	.3	.4	.4	.4	2.9	1.2	.4	.3	.1	1.0
16	.4	.4	.3	.4	.4	1.1	2.1	1.1	.3	.5	.1	1.1
17	.4	.4	.3	.4	.4	3.4	1.7	1.3	.3	.4	.1	1.2
18	.4	.4	.3	.4	.4	3.6	1.5	1.0	1.9	.3	.1	.8
19	.4	.4	.3	.4	.4	3.5	1.5	1.4	1.2	.3	.2	.8
20	.4	.3	.3	.4	.4	2.5	2.4	1.4	.5	.3	.2	1.1
21	.4	.3	.3	.4	.4	2.4	1.9	2.2	.4	.2	.2	1.1
22	.4	.4	.3	.5	.4	2.0	1.9	1.4	.4	.2	.2	.8
23	.4	.4	.3	.5	.4	1.6	1.1	1.2	.4	.2	.4	.6
24	.4	.4	.3	.5	.4	1.8	1.2	1.2	.6	.2	.6	.6
25	.4	.4	.3	.4	.4	1.8	1.7	1.2	.5	.2	.4	.9
26	.4	.4	.3	.4	.4	1.7	1.7	1.0	.5	.2	.4	.7
27	.4	.4	.3	.4	.4	1.1	1.7	1.0	.4	.9	.5	.6
28	.4	.4	.4	.4	.4	1.9	1.8	.6	.5	.6	.5	.6
29	.4	.4	.4	.4	-	2.3	1.1	1.0	.5	.6	.4	.3
30	.4	.4	.4	.4	-	1.9	.8	1.3	.6	.5	.4	.3
31	.4	-	.4	.4	-	1.9	-	1.3	-	.4	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17.3	1.2	0.4	0.56	34
November	11.8	.4	.3	.39	23
December	10.9	.4	.3	.35	22
Calendar year 1938	292.0	3.0	.1	.80	580
January	13.5	.5	.4	.44	27
February	11.2	.4	.4	.40	22
March	41.4	3.6	.4	1.34	82
April	47.3	2.9	.6	1.58	94
May	36.9	2.2	.6	1.19	73
June	19.4	1.9	.3	.65	38
July	12.4	.9	.2	.40	25
August	9.0	.6	.1	.29	18
September	18.4	1.2	.3	.61	36
Water year 1938-39	249.5	3.6	.1	.68	494

De La Otra Banda ditch near San Ildefonso, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°54', long. 106°04', near center of sec. 11, T. 19 N., R. 8 E., 2,000 feet downstream from head and 3 miles east of San Ildefonso.

Records available.- May 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 6.1 second-feet June 4; no flow at times. 1936-39: Maximum daily discharge, 6.5 second-feet May 1, 1938; no flow at times.

Remarks.- Records good. Ditch diverts water from right bank of Rio Pojoaque for irrigation. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.3	0	0		0	2.6	0.6	0.7	0	2.0	0
2	.4	.4	0	0		0	3.2	1.1	.9	1.2	0	0
3	.4	.2	0	0		0	.5	1.0	.9	.4	.1	.1
4	.5	.1	0	0		0	3.2	1.0	6.1	0	.5	.3
5	.6	.3	0	0		0	0	3.2	2.1	0	.1	0
6	0	0	0	0		0	0	2.4	0	0	.3	0
7	0	0	0	0		0	0	1.5	0	0	.6	0
8	.2	0	0	0		0	2.1	1.5	.4	0	0	.5
9	0	0	0	0		0	1.0	1.8	0	1.5	0	1.1
10	0	0	0	0		0	.5	.9	0	.3	0	2.5
11	0	.2	0	0		0	.8	2.2	0	0	0	1.1
12	0	.4	0	0		0	1.6	2.1	0	0	0	0
13	0	.2	0	0		0	2.2	2.3	0	0	.7	0
14	0	.1	0	0		0	1.9	1.6	0	.6	.9	.2
15	0	.2	0	.1		0	1.9	2.3	0	.4	0	1.3
16	0	0	0	0		0	1.9	2.6	.4	1.4	0	1.8
17	0	0	0	0		0	.9	1.3	.2	.5	0	2.3
18	0	0	0	0		0	.8	2.0	3.4	0	0	1.6
19	0	0	0	0		0	1.7	1.2	.7	0	0	1.4
20	0	0	0	0		0	1.4	1.4	0	0	0	1.7
21	0	0	0	0		0	2.0	3.2	0	0	0	.9
22	0	0	.1	0		0	1.7	2.3	0	0	0	.4
23	0	0	0	0		0	.6	.8	0	0	0	.4
24	0	0	0	0		.6	1.7	.8	0	.2	0	.5
25	0	0	0	0		1.6	2.7	0	1.3	0	0	.2
26	.2	0	0	0		1.8	2.1	0	.6	0	0	0
27	.4	0	0	0		2.5	1.5	0	0	1.2	0	0
28	.2	0	0	0		1.9	1.0	.6	0	1.5	0	0
29	.2	0	0	0		2.0	.3	1.1	0	1.5	0	0
30	.4	0	.2	0		2.4	2.1	.4	0	3.7	0	0
31	.3	-	.2	0		1.9	-	0	-	2.4	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4.4	0.6	0	0.14	e.7
November	2.4	.4	0	.08	4.8
December	.5	.2	0	.02	1.0
Calendar year 1938	236.0	6.5	0	.65	470
January	.1	.1	0	0	.2
February	0	0	0	0	0
March	14.7	2.5	0	.47	29
April	43.9	3.2	0	1.46	87
May	43.2	3.2	0	1.39	86
June	17.7	6.1	0	.59	35
July	16.8	3.7	0	.54	33
August	5.2	2.0	0	.17	10
September	18.3	2.5	0	.61	36
Water year 1938-39	167.2	6.1	0	.46	331

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Rancho ditch near San Ildefonso, N. Mex.

Location.- Water-stage recorder, lat. 35°53', long. 106°04', near line between SE¼ sec. 10 and SW¼ sec. 11, T. 19 N., R. 8 E., 350 feet downstream from head and 2½ miles east of San Ildefonso.

Records available.- April 1936 to September 1939.

Extremes.- Maximum daily discharge during period, 2.3 second-feet Sept. 18; no flow at times.
1936-39: Maximum daily discharge, 3.9 second-feet May 29, 1938; no flow at times.

Remarks.- Records poor. Ditch diverts water from left bank of Rio Pojoaque for irrigation. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	-			-	0.7	1.1	0.4	0	*0.3	0.2
2		-	-			-	.9	1.2	.3	.4	*.2	.2
3		†0	-			-	.6	1.3	.4	.2	.9	.2
4		-	-			-	1.0	1.1	.2	0	.3	.2
5		-	-			-	*.1	.8	*.9	0	.3	.2
6		-	-			-	*.2	1.0	*.2	0	.8	.2
7		-	-			-	*.2	1.9	*.2	0	.5	.2
8		-	-			-	*.3	1.9	*.3	.1	.3	.2
9		-	-			-	*.2	2.0	*.2	.1	.3	.4
10		-	-			†0	.6	1.5	*.3	.1	.3	.8
11		-	-			-	.9	1.3	*.4	0	.2	.8
12		-	-			-	1.4	1.1	*.3	0	.2	.2
13		-	-			-	1.4	*1.0	*.3	0	.3	.2
14		-	-			-	*.3	1.7	*.3	.1	.3	.3
15		-	-			-	1.0	*.6	.3	0	.2	.2
16		-	-			-	.3	1.0	.3	.4	.2	.8
17		-	-			-	.2	.9	.3	.2	.2	1.4
18		-	-			-	.2	.7	1.5	0	.2	2.3
19		-	-			-	.3	.6	.5	0	.2	.7
20		-	-			-	1.0	*.6	.1	0	.2	.4
21		-	-			-	1.0	1.2	.1	0	.2	.8
22		†0	-			-	1.1	*.6	.1	0	.1	.2
23		-	-			*0	.5	.4	.1	0	.4	.2
24		-	-			.5	.5	.6	.1	0	.3	.2
25		-	-			.6	.9	.4	.1	0	.2	.1
26		-	-			.7	.8	.4	.1	.1	.2	.2
27		-	-			.6	1.1	.3	.1	.4	.2	.2
28		-	†0			.5	.8	*.2	.1	.6	.2	.4
29		-	-			.4	1.4	*.3	.1	*.1	.2	.3
30		-	-			.3	1.3	.4	0	*0	.2	.3
31		-	-	†0		.4	-	.4	-	*.2	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 25-31	4.0	0.7	0	0.44	7.9
April	21.2	1.4	.1	.71	42
May	28.5	2.0	.2	.92	57
June	8.6	1.5	0	.29	17
July	3.0	.6	0	.10	6.0
August	6.8	.9	.1	.28	17
September	13.0	2.3	.1	.43	26
The period	-	-	-	-	173

*Gage-height record doubtful; discharge computed on basis of partially estimated gage heights.
†Discharge measurement.

De Los Indios ditch near San Ildefonso, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°54', long. 106°05', in NE¼SW¼ sec. 10, T. 19 N., R. 8 E., 1,000 feet downstream from head and 2 miles east of San Ildefonso.

Records available.- May 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 5.8 second-feet June 11; no flow at times.
1936-39: Maximum daily discharge, 5.8 second-feet July 11, 1937, and June 11, 1939; no flow at times.

Remarks.- Records good. Ditch diverts water from left bank of Rio Pojoaque for irrigation. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0				0	0.9	1.3	0	0	0.3	0
2		0				0	1.0	1.3	0	0	0	0
3		0				0	2.6	1.1	.1	0	0	.6
4		0				0	.5	.7	2.5	0	0	.2
5		.5				0	0	.6	1.0	0	0	0
6		.4				0	0	.8	0	0	3.3	0
7		0				0	0	1.6	0	0	1.7	0
8		0				0	1.0	.7	0	0	0	0
9		0				0	2.2	1.4	0	2.4	0	0
10		0				0	1.6	1.1	0	.7	0	0
11		0				0	.4	1.0	5.8	0	0	0
12		0				0	1.9	1.3	1.6	0	0	0
13		0				0	1.0	.3	0	0	.1	0
14		0				0	1.3	1.5	0	0	0	0
15		0				0	.5	.9	0	0	0	0
16		0				0	1.1	.5	0	0	0	0
17		0				0	1.5	.4	0	0	0	0
18		0				.1	1.2	.9	0	0	0	0
19		0				0	1.5	.7	0	0	0	.1
20		0				.3	.4	1.4	0	0	.4	0
21		0				.2	1.2	2.2	0	0	.3	0
22		0				.5	1.4	.5	0	0	0	0
23		0				1.5	2.1	0	0	1.0	.6	0
24		0				2.0	1.0	0	0	.2	.2	0
25		0				1.2	.5	0	1.8	0	.2	0
26		0				2.2	.9	0	1.2	.2	0	0
27		0				3.0	.8	.1	0	.2	0	0
28		0				1.3	.5	4.3	0	0	0	0
29		0				.4	1.2	2.3	0	0	0	0
30		0				1.6	0	0	0	0	0	0
31		0				1.8	-	0	-	.1	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	.9	.5	0	.03	1.8
December	0	0	0	0	0
Calendar year 1938	106.0	3.8	0	.29	210
January	0	0	0	0	0
February	0	0	0	0	0
March	16.1	3.0	0	.52	32
April	30.2	2.6	0	1.01	60
May	28.9	4.3	0	.93	57
June	14.0	5.8	0	.47	28
July	4.8	2.4	0	.15	9.5
August	7.1	3.3	0	.23	14
September	.9	.6	0	.03	1.8
Water year 1938-39	102.9	5.8	0	.28	204

Well ditch at San Ildefonso, N. Mex.

Location.- Water-stage recorder and 1-foot Parshall flume, lat. 35°54', long. 106°06', in NW¼ sec. 9, T. 18 N., R. 8 E., 50 feet downstream from head of open ditch and three-quarters of a mile northeast of San Ildefonso.

Records available.- June 1938 to September 1939.

Extremes.- Maximum daily discharge during year, 2.6 second-feet May 10; no flow at times. 1938-39: Maximum discharge, that of May 10, 1939; no flow at times.

Remarks.- Records good. Ditch supplied by underground flow from pipe line laid in bed of Rio Pojoaque; water is used for irrigation. No diversion between station and head except occasionally to Ortiz ditch, amount of which is included in records for that station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	1.4				0	0	2.2	1.7	1.1	1.1	0.6
2	1.2	1.4				0	0	2.0	1.6	.9	1.0	.7
3	1.2	1.4				0	.2	1.9	1.6	1.1	1.1	.7
4	1.0	1.4				0	.4	1.9	1.4	1.0	1.4	.7
5	1.0	1.4				0	.4	2.1	1.4	1.0	1.3	.7
6	1.0	1.4				0	0	2.2	1.6	.9	1.3	.7
7	1.0	1.4				0	0	2.4	1.5	.8	1.3	.7
8	1.0	1.3				0	0	2.3	1.5	.9	1.3	.7
9	1.2	1.3				0	0	2.1	1.5	.7	1.3	.7
10	1.3	1.3				0	0	2.6	1.5	1.1	1.2	.7
11	1.3	1.3				0	0	2.2	1.5	1.0	1.1	.7
12	1.3	1.2				0	0	2.0	1.6	1.0	1.0	.7
13	1.4	1.1				0	.9	1.9	1.6	1.0	.9	.7
14	1.5	1.1				0	1.5	1.9	1.5	1.0	1.0	.7
15	1.5	1.1				0	1.6	2.2	1.5	.9	1.0	.8
16	1.5	1.2				0	1.6	2.1	1.4	.7	1.0	.8
17	1.5	1.2				0	1.7	2.0	1.3	.9	.9	.9
18	1.5	1.1				0	1.7	1.9	1.0	1.1	.9	.9
19	1.5	1.0				0	1.7	1.8	1.3	1.1	.8	.9
20	1.5	1.0				0	1.8	1.8	1.3	1.1	.6	.9
21	1.5	1.0				.2	1.9	1.8	1.3	1.1	.8	.9
22	1.5	1.1				0	1.9	1.9	1.0	1.0	.7	.8
23	1.4	1.2				0	1.9	1.8	.2	.7	.8	.8
24	1.4	1.1				0	1.9	1.8	1.0	.9	.8	.7
25	1.4	1.1				.1	1.9	1.5	1.0	1.0	.8	.7
26	1.4	1.1				.1	1.8	1.5	1.2	1.0	.7	.7
27	1.4	.5				0	2.2	1.7	1.2	1.0	.7	.7
28	1.4	0				0	2.4	1.7	1.2	1.1	.6	.7
29	1.4	0				0	2.2	1.7	1.2	1.2	.5	.7
30	1.4	0				.7	2.4	1.8	1.1	1.3	.8	.7
31	1.4					.7	-	1.7	-	1.2	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	41.3	1.5	1.0	1.33	82
November	32.1	1.4	0	1.07	64
December	0	0	0	0	0
Calendar year	-	-	-	-	-
January	0	0	0	0	0
February	0	0	0	0	0
March	1.8	.7	0	.06	3.6
April	34.0	2.4	0	1.13	67
May	60.4	2.6	1.5	1.95	120
June	39.7	1.7	.2	1.32	79
July	30.8	1.3	.7	.99	61
August	29.4	1.4	.5	.95	58
September	22.5	.9	.6	.74	44
Water year 1938-39	291.8	2.6	0	.80	579

Ortiz ditch at San Ildefonso, N. Mex.

Location.- Water-stage recorder and 1½-foot Parshall flume, lat. 35°54', long. 106°06', in NW¼ sec. 9, T. 19 N., R. 8 E., 1,000 feet downstream from head and three-quarters of a mile northeast of San Ildefonso.

Records available.- April 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 1.0 second-foot Apr. 25, 30, May 7; no flow at times.
1936-39: Maximum daily discharge, 4.2 second-feet Aug. 4, 1936; no flow at times.

Remarks.- Records good. Ditch diverts water from left bank of Rio Pojoaque for irrigation. Records include water received from Well ditch not included in records for that ditch. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0.1	0.4		0		
2						0	.4	.1		0		
3						0	.4	.5		0		
4						0	.4	.3		0		
5						0	.2	.3		0		
6						0	.4	.4		0		
7						0	.4	1.0		0		
8						0	.4	.9		0		
9						0	.5	.8		0		
10						0	.2	.9		0		
11						0	.3	.2		0		
12						0	.3	.1		0		
13						0	.3	.3		0		
14						0	.2	.7		0		
15						0	.3	.7		0		
16						0	.2	.7		0		
17						0	.2	.4		0		
18						0	.2	.1		0		
19						0	.1	0		0		
20						0	.2	0		0		
21						0	.3	0		0		
22						0	.3	.3		0		
23						0	.4	0		0		
24						0	.6	0		0		
25						0	1.0	0		0		
26						0	.9	0		.1		
27						0	.5	0		.1		
28						0	.5	0		0		
29						.3	.1	.1		0		
30						.5	1.0	0		0		
31						.2	-	0		0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	29.8	1.2	0	.08	60
January	0	0	0	0	0
February	0	0	0	0	0
March	1.0	.5	0	.03	2.0
April	11.3	1.0	.1	.38	22
May	9.2	1.0	0	.30	18
June	0	0	0	0	0
July	.2	.1	0	.01	.4
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1938-39	21.7	1.0	0	.06	42

Sili main canal at head, at Cochiti, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 35°38', long. 106°19', in sec. 16, T. 16 N., R. 6 E., 4,850 feet downstream from heading from Rio Grande at Cochiti Diversion Dam, and 1¼ miles northeast of Cochiti. Prior to Mar. 22 water-stage recorder and channel control at highway bridge, about 1,000 feet downstream.

Records available.- May 1937 to November 1939 (discontinued). Oct. 1936 to May 1937, at site 1.0 mile downstream (published as Sili main canal at Cochiti); records equivalent if flow of Cochiti west side acequia, which diverts from canal between the two sites, is added to earlier records.

Extremes.- Maximum daily discharge recorded during period October 1938 to November 1939, 72 second-feet June 23; no flow at times.
1937-39: Maximum daily discharge, 93 second-feet Aug. 13, 1937; no flow at times.

Remarks.- Records good for Mar. 22 to Nov. 16; others fair. No records for Dec. 15 to Mar. 21. Discharge for period of faulty gage heights, Nov. 26-30; computed on basis of partly estimated gage heights. Discharge for days of incomplete gage-height record, Apr. 27, May 5, 6, computed on basis of estimated gage-height graph. Water-stage recorder graph and results of discharge measurements furnished by Office of Indian Affairs. Canal diverts water from right bank of Rio Grande for irrigation. One small diversion just above station irrigates approximately 10 acres.

Discharge, in second-feet, 1938-39

Day	1938			1939								
	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	50	0	48	-	0	67	57	41	49	57	*16	0
2	*13	0	48	-	*0	64	57	*4.1	30	39	57	0
3	56	0	24	-	0	64	39	58	19	*0	57	0
4	60	0	*0	-	25	61	*5.6	66	34	12	57	0
5	61	0	0	-	37	61	52	67	31	48	58	*0
6	61	*0	0	-	39	43	55	66	*5.9	52	58	0
7	58	32	0	-	45	*17	57	60	30	54	41	0
8	0	55	0	-	36	64	59	46	45	56	*13	0
9	*0	55	0	-	*14	63	60	*12	43	44	51	0
10	0	58	0	-	53	62	46	58	41	*14	51	0
11	0	60	*0	-	52	61	*13	62	40	52	49	0
12	0	45	0	-	50	46	57	67	28	52	50	*0
13	0	*0	0	-	52	0	60	69	*11	50	53	31
14	0	24	0	-	52	*12	60	69	64	36	38	50
15	0	46	-	-	39	58	58	51	60	0	*12	50
16	*0	50	-	-	*11	59	59	*8.8	58	0	52	49
17	0	50	-	-	52	61	43	50	60	*0	52	-
18	38	54	-	-	55	58	*13	47	55	0	52	-
19	55	46	-	-	61	41	61	51	46	0	52	-
20	43	*11	-	-	63	0	63	63	*5.7	0	51	-
21	60	57	-	-	61	*16	63	64	53	33	36	-
22	43	59	-	0	43	61	65	46	58	50	*14	-
23	*14	52	-	0	*15	58	72	*10	50	35	50	-
24	52	56	-	0	61	61	49	56	53	*12	50	-
25	52	46	-	0	62	62	*17	57	56	50	49	-
26	50	37	-	*0	40	61	62	54	39	50	49	-
27	48	*37	-	0	66	41	57	55	*12	54	50	-
28	52	38	-	0	65	*0	60	52	48	38	35	-
29	38	40	-	0	*47	0	50	28	56	0	*13	-
30	*0	46	-	0	18	12	59	*6.5	56	0	47	-
31	0	-	-	0	-	50	-	39	57	-	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1938	901	61	0	29.1	1,790
November	1,054	60	0	35.1	2,090
December 1-14	120	48	0	8.57	238
March 22-31, 1939	0	0	0	0	0
April	1,214	66	0	40.5	2,410
May	1,384	67	0	44.6	2,750
June	1,538.6	72	5.6	51.3	3,050
July	1,483.4	69	4.1	47.9	2,940
August	1,293.6	64	5.7	41.7	2,570
September	888.0	57	0	29.6	1,760
October	1,347	58	12	43.5	2,670
November 1-16	180	50	0	11.2	357
The period	-	-	-	-	16,510

*Sunday.

Cochiti main canal at head, at Cochiti, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 35°38', long. 106°19', in sec. 16, T. 16 N., R. 6 E., a quarter of a mile upstream from Cochiti east side acequia, 8,400 feet downstream from heading, and 1½ miles northeast of Cochiti. Prior to Mar. 6 water-stage recorder and channel control at site about 1,000 feet downstream.

Records available.- May 1937 to November 1939 (discontinued). April 1936 to May 1937, at site about 1,600 feet downstream; records equivalent if flow of Cochiti east side acequia, which diverts from canal between the two sites, is added to earlier records.

Extremes.- Maximum daily discharge recorded during period October 1938 to November 1939, 116 second-feet Oct. 6; no flow at times.
1937-39: Maximum daily discharge, 130 second-feet May 31, Aug. 12, Sept. 9, 1937; no flow at times.

Remarks.- Records good for Mar. 22 to May 15 and Sept. 1 to Nov. 16; others fair. No record for Dec. 8 to Mar. 21. Water-stage recorder graph and results of discharge measurements furnished by Office of Indian Affairs. Canal diverts water from left bank of Rio Grande for irrigation. No diversion between station and head.

Discharge, in second-feet, 1938-39

Day	1938			1939								
	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	81	0	91	-	48	93	81	58	82	86	*46	49
2	*56	0	90	-	*35	93	87	*15	45	67	92	0
3	110	0	41	-	65	94	58	75	52	*0	92	0
4	113	0	*0	-	66	90	*13	59	76	44	92	0
5	113	0	0	-	66	†90	87	93	57	90	93	*0
6	116	*†45	0	-	68	†58	89	99	*27	91	92	0
7	103	†90	0	-	69	*39	91	98	60	92	67	0
8	0	†90	-	-	49	87	92	78	81	92	*46	0
9	*0	†90	-	-	*37	87	96	*40	75	73	88	0
10	0	92	-	-	76	85	67	102	74	*45	90	0
11	0	92	-	-	75	80	*48	96	‡77	89	90	0
12	0	71	-	-	72	56	104	103	62	91	92	*42
13	68	*23	-	-	71	0	101	98	*30	‡93	90	86
14	103	89	-	-	72	*37	100	100	79	64	65	86
15	73	90	-	-	47	84	98	73	77	0	*46	86
16	*52	89	-	-	*34	79	101	*35	77	0	92	86
17	100	84	-	-	73	82	69	94	87	*0	92	-
18	96	86	-	-	70	79	*52	93	87	0	92	-
19	98	61	-	-	75	50	104	98	64	0	91	-
20	94	*38	-	-	79	0	100	98	*33	47	90	-
21	106	91	-	-	80	*35	101	96	86	88	67	-
22	72	93	-	70	61	86	98	68	86	85	*56	-
23	*26	†92	-	68	*41	85	92	*42	‡82	55	89	-
24	103	84	-	70	87	84	63	100	83	*36	90	-
25	103	84	-	54	92	74	*50	96	‡83	86	90	-
26	99	76	-	*36	63	70	97	98	64	90	91	-
27	91	*60	-	66	†93	46	88	83	*42	93	90	-
28	96	86	-	63	68	*0	102	79	81	64	52	-
29	70	†87	-	63	60	0	93	42	85	0	*50	-
30	*0	†91	-	65	*47	36	90	*35	86	0	87	-
31	0	-	-	68	-	80	-	82	87	-	87	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1938	2,142	116	0	69.1	4,250
November	1,974	93	0	65.8	3,920
December 1-7	222	91	0	31.7	440
March 22-31, 1939	623	70	36	62.3	1,240
April	1,959	93	34	65.3	3,890
May	1,959	94	0	63.2	3,890
June	2,512	104	13	83.7	4,980
July	2,426	103	15	78.3	4,810
August	2,167	87	27	69.9	4,300
September	1,663	93	0	55.4	3,300
October	2,487	93	46	80.2	4,930
November 1-16	435	86	0	27.2	863
The period	-	-	-	-	32,200

*Sunday.
†Gage-height record doubtful or incomplete; discharge computed on basis of partly estimated or interpolated gage-height graph.
‡Stage-discharge relation affected by backwater from check; discharge computed on basis of study of gage-height record.

Santa Fe Creek near Santa Fe, N. Mex.

Location.- Water-stage recorder and sharp-crested control, lat. 35°41', long. 105°50' in SW¼SW¼ sec. 24, T. 17 N., R. 10 E., about 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 1939 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. All records equivalent.

Extremes.- Maximum discharge during year, 31 second-feet May 11; maximum gage height, 0.93 feet Apr. 6; minimum daily discharge, 1.5 second-feet July 29, 30.
1930-39: Maximum discharge, 139 second-feet Sept. 19, 1931 (gage height, 2.35 feet, former datum); minimum daily discharge, 0.6 second-foot Nov. 13, 1933.

Remarks.- Records good except those for periods of incomplete or missing gage-height record, Nov. 7, July 10, Aug. 4-10, 12-15, Aug. 24 to Sept. 4, which were computed on basis of available gage heights and knowledge of regulation upstream and are fair. Flow regulated at dam above station. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	3.8	2.5	2.3	2.3	2.3	15	25	13	5.7	1.9	3.4
2	4.0	4.0	2.5	2.1	2.3	2.3	15	25	13	5.9	1.9	3.3
3	4.9	4.0	4.7	2.1	2.3	2.3	15	26	13	5.9	1.9	3.3
4	4.9	3.8	6.8	2.1	2.3	2.3	18	26	12	5.7	1.9	3.3
5	4.9	4.0	6.8	2.1	2.3	2.3	28	26	13	5.7	1.9	3.3
6	4.9	4.0	4.7	2.1	2.3	2.3	27	27	12	5.7	1.9	3.3
7	4.7	4.0	2.3	2.3	2.3	2.3	24	29	11	5.4	1.9	3.0
8	4.9	4.0	2.1	2.3	2.3	2.3	24	28	11	5.4	3.4	3.0
9	5.2	4.0	2.3	2.3	2.3	2.3	23	27	11	5.4	4.9	3.0
10	5.2	4.0	2.3	2.3	2.3	2.3	23	28	11	5.4	4.7	3.0
11	5.2	3.8	2.3	2.3	2.3	2.3	21	29	11	5.4	4.9	3.0
12	5.2	4.0	2.3	2.3	2.3	4.2	20	27	10	5.4	4.9	3.0
13	5.2	4.0	2.3	2.3	2.3	8.4	19	27	10	5.4	4.9	3.0
14	5.2	4.0	2.3	2.3	2.3	10	20	27	7.3	4.0	4.9	3.0
15	5.2	4.0	2.3	2.3	2.5	12	20	25	4.0	1.9	4.9	3.0
16	4.9	4.0	2.3	2.3	2.5	12	18	23	4.0	1.7	4.9	3.3
17	4.5	4.0	2.3	2.3	2.5	12	17	21	4.0	3.0	5.2	3.8
18	4.0	3.8	2.3	2.3	2.5	12	16	21	4.0	4.2	5.2	3.8
19	4.5	3.8	2.1	2.3	2.5	12	15	21	4.0	4.7	5.2	3.8
20	4.5	3.8	2.1	2.3	2.3	13	15	21	3.8	5.4	5.2	3.8
21	4.5	3.5	2.3	2.3	2.3	13	15	20	4.0	5.4	4.0	3.8
22	4.5	3.5	2.3	2.3	2.3	13	16	18	4.0	5.2	3.5	3.8
23	4.5	3.8	2.3	2.3	2.3	13	21	17	3.8	5.2	3.5	3.8
24	4.7	3.5	2.3	2.3	2.3	14	21	16	3.8	5.2	3.5	3.8
25	4.5	3.3	2.3	2.3	2.3	14	23	15	4.0	5.2	3.5	3.3
26	4.5	2.7	2.3	2.3	2.3	14	22	13	4.7	5.2	3.5	2.9
27	4.2	2.5	2.3	2.3	2.3	15	23	13	6.2	5.2	3.4	2.9
28	4.2	2.5	2.3	2.3	2.3	16	23	13	6.2	2.5	3.4	2.9
29	4.0	2.7	2.3	2.3	-	16	23	13	6.2	1.5	3.4	2.9
30	4.0	2.7	2.3	2.3	-	16	25	13	5.9	1.5	3.4	3.0
31	3.8	-	2.3	2.3	-	15	-	13	-	1.7	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	142.3	5.2	2.9	4.59	282
November	109.5	4.0	2.5	3.65	217
December	84.9	6.8	2.1	2.74	168
Calendar year 1938	1,500.0	16	1.5	4.11	2,970
January	70.3	2.3	2.1	2.27	139
February	65.4	2.5	2.3	2.34	130
March	279.9	16	2.3	9.03	555
April	605	28	15	20.2	1,200
May	673	29	13	21.7	1,330
June	230.9	13	3.8	7.70	458
July	141.1	5.9	1.5	4.55	280
August	115.0	5.2	1.9	3.71	228
September	98.5	3.8	2.9	3.28	195
Water year 1938-39	2,615.8	29	1.5	7.17	5,180

San Felipe east side acequia near Domingo, N. Mex.

Location.- Water-stage recorder, lat. 35°31', long. 106°22', in NW¼SE¼ 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. Zero of gage is 5,156.94 feet above mean sea level (general adjustment of 1929).

Records available.- May 1936 to September 1939.

Extremes.- Maximum daily discharge recorded during year, 43 second-feet Apr. 23, 26; no flow at times.
1936-39: Maximum discharge, 116 second-feet Aug. 3, 1936 (gage height, 4.13 feet), result of overflow from Santo Domingo east riverside drain; no flow at times.

Remarks.- Records poor. Discharge represents diversion from left bank of Rio Grande for irrigation. Water-stage recorder graph and discharge measurements furnished by Office of Indian Affairs.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*6					-	5.2	35	24	15	0	18
2	*5					-	4.6	26	28	13	0	32
3	*5					-	4.8	30	27	12	0	33
4	*4					-	4.8	†30	29	15	0	30
5	*4					-	9.1	†30	24	21	0	24
6	3.7					-	4.1	38	27	18	0	21
7	5.6					-	.6	37	29	15	4.2	19
8	25					-	0	†29	31	14	13	21
9	‡11					-	0	†25	30	15	16	27
10	‡2					-	0	†25	30	15	25	29
11	‡0					-	0	†25	28	9.7	14	27
12	0					-	0	†25	26	15	16	24
13	0					-	0	27	26	21	34	20
14	0					-	0	25	30	23	26	26
15	0					-	0	23	28	34	19	16
16	0					-	0	21	26	33	15	17
17	0					-	0	21	25	14	11	13
18	0					-	0	18	16	1.2	9.7	2.2
19	0					-	0	16	15	8.2	19	0
20	0					-	0	14	22	30	27	0
21	0					-	18	14	22	31	25	4.9
22	0					-	40	14	22	36	15	19
23	0					-	43	16	23	38	12	16
24	0					-	41	26	18	22	4.7	8.6
25	0					-	39	25	17	19	13	.5
26	0					-	43	24	14	21	30	.8
27	0					-	35	19	13	7.2	29	5.7
28	0					-	32	18	15	11	27	8.0
29	0					11	34	20	15	3.9	25	11
30	0					8.5	31	17	15	1.5	14	4.5
31	0					6.4	-	14	-	0	8.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	71.3	25	0	2.30	141
November	0	0	0	0	0
December 1-21	0	0	0	0	0
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	389.2	43	0	13.0	772
May	727	38	14	23.5	1,440
June	695	31	13	23.2	1,380
July	532.7	38	0	17.2	1,060
August	451.9	34	0	14.6	896
September	478.2	33	0	15.9	948
Water year	-	-	-	-	-

*Gage height missing; discharge interpolated.
†Gage height missing; discharge computed on basis of recorded range in stage.
‡Gage height doubtful; discharge computed on basis of study of recorder record.

Jemez Creek near Jemes, N. Mex.

Location.- Water-stage recorder, lat. 35°39', long. 106°44', in SE¼NE¼ sec. 32, T. 17 N., R. 2 E., 700 feet upstream from diversion dam of Jemez west side and Jemez east ditches, about 1 mile downstream from Rio Guadalupe, and 4 miles north of town of Jemes.

Records available.- June 1936 to September 1939.

Extremes.- Maximum discharge during year, about 2,420 second-feet July 28 (gage height, 8.11 feet); minimum daily discharge, 12 second-feet July 12, 13.
1936-39: Maximum discharge, 3,000 second-feet Sept. 26, 1936 (gage height, 9.15 feet from floodmarks, by slope-area method; minimum daily discharge, that of July 12, 13, 1939.

Remarks.- Records good except those for periods of ice effect and those for July 28 to Sept. 30, which are fair. Several diversions for irrigation above and below station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	44	30	28	29	38	213	228	36	18	26	24
2	40	44	30	28	29	28	219	228	32	19	28	23
3	38	47	26	30	19	33	211	191	32	17	72	19
4	39	45	29	29	*35	33	434	178	30	16	39	16
5	43	47	29	*23	34	32	642	178	32	16	87	15
6	40	47	26	28	34	30	540	164	29	15	45	13
7	58	30	26	29	35	33	374	144	27	15	45	13
8	360	30	26	38	35	35	312	130	26	14	35	14
9	139	40	26	35	33	39	280	116	22	15	28	23
10	79	42	25	28	32	44	268	107	21	15	27	32
11	67	36	28	29	32	40	228	103	20	13	22	32
12	60	38	28	22	35	40	222	99	19	12	20	24
13	56	19	30	26	36	50	216	97	19	12	19	27
14	54	25	20	27	35	65	216	94	19	19	19	77
15	53	32	25	21	38	76	199	91	16	38	18	50
16	51	32	34	28	36	94	186	85	18	28	18	44
17	47	34	28	*26	34	191	169	89	16	21	17	47
18	45	28	22	*26	36	406	164	77	15	15	15	39
19	45	29	28	28	35	540	164	69	16	18	14	33
20	47	35	33	28	34	480	172	62	17	20	15	38
21	48	33	29	30	27	480	197	57	15	18	20	28
22	48	35	27	30	29	560	231	53	16	19	18	25
23	48	22	19	30	34	710	268	48	15	19	16	22
24	45	18	*19	*26	34	540	216	45	15	16	15	23
25	44	26	*21	*24	33	318	219	42	13	15	15	25
26	43	25	24	29	34	343	225	39	13	15	22	26
27	44	25	*22	30	29	329	205	38	14	18	42	30
28	45	24	24	35	29	258	197	36	16	176	45	28
29	45	25	26	*32	-	211	228	38	15	57	32	25
30	44	27	*25	29	-	188	249	39	15	63	23	24
31	43	-	26	36	-	188	-	38	-	33	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,900	360	38	61.3	3,770
November	984	47	18	32.8	1,950
December	811	34	19	26.2	1,610
Calendar year 1938	27,693	360	15	759	54,900
January	888	38	21	28.6	1,760
February	915	38	19	32.7	1,810
March	6,452	710	28	208	12,800
April	7,664	642	164	255	15,200
May	3,003	228	36	96.9	5,960
June	609	36	13	20.3	1,210
July	805	176	12	26.0	1,600
August	879	87	14	28.4	1,740
September	859	77	13	28.6	1,700
Water year 1938-39	25,769	710	12	70.6	51,100

Peak discharge.- Mar. 18 (11 p.m.) 890 sec.-ft.; Mar. 23 (2 a.m.) 980 sec.-ft.; Mar. 24 (1 a.m.) 935 sec.-ft.; Apr. 4 (7 p.m.) 1,000 sec.-ft.; July 28 (6 p.m.) about 2,420 sec.-ft.
*Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather records.

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 September 1939.

Extremes.- Maximum discharge during year, 4,100 second-feet July 28 (gage height, 6.30 feet), by slope-area method; minimum daily discharge, 0.7 second-foot Sept. 25. 1937-39: Maximum discharge, that of July 28, 1939; minimum daily discharge, that of Sept. 25, 1939.

Remarks.- Records fair except those for periods of ice effect and those for Mar. 1 to Sept. 30, which are poor. Discharge includes flow diverted by Zia ditch. Several diversions for irrigation above and below station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	38	*33	*34	39	†55	240	212	12	3.9	38	‡2
2	31	40	33	*37	39	†40	230	187	14	3.6	31	2.0
3	31	43	*31	38	*24	†50	240	154	18	3.9	114	3.2
4	29	42	33	*38	*39	†50	364	138	18	4.3	79	2.1
5	33	42	34	*31	*54	†45	538	126	14	3.4	57	2.6
6	31	41	32	33	*42	†40	628	132	12	1.6	54	2.7
7	40	35	32	36	*42	42	615	120	13	1.6	61	2.7
8	290	36	33	65	38	42	478	114	16	1.6	‡42	3.3
9	270	41	33	72	39	50	386	79	13	1.6	‡27	3.2
10	179	42	33	41	*34	57	353	85	10	1.3	‡23	3.9
11	120	39	36	42	*33	57	280	72	9.1	1.3	‡12	5.3
12	108	41	37	*36	*33	50	230	65	6.6	1.2	1.6	7.0
13	97	*27	39	*36	*39	50	195	‡64	6.3	1.2	5.2	4.2
14	85	*28	*31	*38	*40	61	179	‡63	4.3	6.6	1.9	85
15	72	40	31	*32	47	120	163	‡62	3.0	4.2	‡1	75
16	61	39	42	*42	43	187	171	61	2.1	6.9	‡1	50
17	65	38	38	*39	47	250	163	57	1.9	4.3	‡1	36
18	65	*33	32	*38	50	331	146	47	2.0	3.7	‡1	12
19	61	*31	36	39	50	667	154	43	2.0	3.0	‡1	3.3
20	61	39	43	*38	41	538	146	42	3.3	3.2	‡1.5	3.4
21	57	40	39	42	*35	563	171	40	2.8	2.2	‡1.5	2.2
22	54	38	38	40	*34	602	179	31	2.7	1.8	‡1.5	1.8
23	50	33	*31	42	*40	602	220	27	2.9	2.2	‡2	1.7
24	43	*22	*28	*34	39	602	195	21	2.1	2.2	‡2	1.0
25	43	*28	*30	*32	39	478	187	18	1.9	2.3	‡2	.7
26	43	*31	*33	36	41	478	187	16	1.8	2.4	‡2.5	9.7
27	41	32	*31	*34	43	397	204	18	2.4	2.7	‡3.0	18
28	41	*32	*31	54	*43	310	187	18	3.8	313	38	20
29	42	33	*38	*43	-	250	195	21	4.9	138	15	17
30	42	33	*33	*38	-	212	220	‡20	4.4	132	4.2	13
31	40	-	*31	57	-	230	-	‡18	-	54	‡2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,256	290	29	72.8	4,470
November	1,077	43	22	35.9	2,140
December	1,055	43	28	34.0	2,090
Calendar year 1938	29,013.2	408	2.0	79.5	57,540
January	1,257	72	31	40.5	2,490
February	1,127	54	24	40.2	2,240
March	7,506	667	40	242	14,890
April	7,844	628	146	261	15,560
May	2,171	212	16	70.0	4,310
June	210.3	18	1.8	7.01	417
July	715.2	313	1.2	23.1	1,420
August	631.9	114	1	20.4	1,250
September	394.0	85	.7	13.1	781
Water year 1938-39	26,244.4	667	.7	71.9	52,060

Peak discharge.- Oct. 8 (12 m.) 408 sec.-ft.; Apr. 5 (11 p.m.) 764 sec.-ft.; July 28 (9 p.m.) 4,100 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather records.

†Stage-discharge relation affected by construction work on dam crest; discharge computed on basis of weather records and records for station near Jemez.

‡Gage height missing; discharge computed on basis of weather records, records for Zia ditch, and study of gain and loss between this station and that near Jemez.

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., just downstream from Rito Penas Negras and 10 miles southeast of Cuba.

Records available.- December 1938 to September 1939.

Extremes.- Maximum discharge during period, 322 second-feet May 1 (gage height, 1.76 feet); minimum daily discharge, 0.3 second-foot July 13.

Remarks.- Records excellent for Apr. 16 to July 31 and good for Mar. 20 to Apr. 15, August, and September; others poor. Discharge for periods of ice effect, Jan. 5, 8-15, 24-27, Mar. 17, 18, computed on basis of gage heights and weather records; that for Feb. 10 to Mar. 16 computed on basis of twice-daily staff gage readings. Several diversions for irrigation above and below station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	2.3	2.3	1.9	48	199	13	1.9	2.6	0.9
2			-	1.7	2.6	1.9	53	162	12	1.5	2.8	.7
3			-	1.3	2.6	2.1	62	140	10	1.0	3.7	.6
4			-	1.9	2.8	2.1	105	128	13	1.2	2.6	.5
5			-	1.6	2.6	2.1	166	128	10	1.0	2.1	.5
6			-	1.3	2.6	2.1	123	105	8.7	.7	2.6	.4
7			-	1.3	2.3	2.1	85	85	7.7	.7	2.8	.4
8			-	1.5	2.3	2.1	82	72	7.2	.6	2.1	.6
9			-	1.7	2.6	2.1	85	67	6.7	.8	1.5	3.1
10			-	2.1	2.3	2.3	85	64	5.8	.6	1.3	3.1
11			-	2.1	2.3	2.3	72	64	5.4	.6	1.5	1.7
12			-	2.1	2.3	2.3	77	64	5.0	.4	1.3	1.5
13			-	2.1	2.3	2.8	62	60	4.7	.3	1.0	1.5
14			-	2.1	2.3	3.1	85	53	4.0	1.2	1.7	2.3
15			-	2.1	2.3	3.7	74	49	3.4	3.4	1.3	2.8
16			-	2.1	2.1	9.3	74	49	3.1	1.7	1.0	3.1
17			-	1.9	2.1	16	70	46	2.8	.8	.9	2.8
18			-	1.9	1.9	23	74	40	2.3	.8	.9	2.6
19			-	1.9	1.9	31	82	35	2.3	1.3	.8	4.5
20			-	1.9	1.9	28	98	31	2.1	.9	.6	1.5
21			-	1.7	1.9	30	144	27	2.1	.7	.6	1.2
22			-	1.7	2.1	40	199	23	1.9	1.3	.8	.9
23			-	1.7	2.1	62	194	21	1.7	1.3	.8	.8
24			-	1.9	2.1	53	157	18	1.3	.7	.6	.7
25			-	2.1	2.1	51	173	18	1.0	.5	1.2	.8
26			-	2.1	2.1	57	157	16	1.0	.6	1.0	3.0
27			-	2.1	2.1	57	144	15	1.2	1.2	1.6	2.8
28			3.1	2.3	2.1	46	162	14	1.2	7.3	3.1	1.9
29			3.1	2.3	-	38	194	15	1.5	9.9	1.3	1.5
30			2.6	2.3	-	35	210	14	2.8	5.0	.9	1.3
31			2.8	2.6	-	40	-	14	-	4.0	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	59.7	2.6	1.3	1.93	118
February	63.0	2.8	1.9	2.25	125
March	651.3	62	1.9	21.0	1,290
April	3,418	210	48	114	6,780
May	1,836	199	14	59.2	3,640
June	144.9	13	1.0	4.83	287
July	53.9	9.9	.3	1.74	107
August	47.9	3.7	.6	1.55	95
September	50.0	4.5	.4	1.67	99
The period	-	-	-	-	12,540

Peak discharge.- Apr. 22 (8 p.m.) 306 sec.-ft.; Apr. 29 (6 p.m.) 268 sec.-ft.; May 1 (7 p.m.) 322 sec.-ft.

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.

Records available.- December 1938 to September 1939.

Extremes.- Maximum discharge during period, 967 second-feet Apr. 4 (gage height, 5.14 feet), from rating curve extended logarithmically above 155 second-feet; minimum daily discharge, 6.2 second-feet Sept. 5.

Remarks.- Records good for Dec. 23 to Apr. 14 and fair for Apr. 15 to Sept. 30 except those for days of ice effect, Feb. 3, 11, Mar. 2, which were computed on basis of gage heights and weather records and are fair. Several diversions for irrigation above and below station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	10	11	15	98	200	28	9.9	16	8.5
2			-	11	14	11	109	195	26	9.2	21	7.8
3			-	12	9.0	12	109	158	24	9.2	22	7.4
4			-	11	12	12	330	142	24	8.5	17	7.0
5			-	8.0	14	12	387	140	26	8.5	23	6.2
6			-	12	14	10	320	129	22	7.8	18	6.6
7			-	12	14	14	200	109	21	7.4	18	7.0
8			-	13	12	14	160	98	20	7.4	14	7.8
9			-	13	13	16	151	89	18	7.4	12	13
10			-	10	10	16	149	84	18	7.4	11	14
11			-	12	10	16	125	82	16	7.4	9.9	13
12			-	8.0	12	16	121	79	16	7.0	9.2	12
13			-	10	12	21	123	76	15	6.6	7.8	13
14			-	11	12	29	123	73	14	11	8.5	21
15			-	8.0	13	36	113	70	13	17	7.4	18
16			-	12	13	53	104	64	12	13	7.4	17
17			-	11	12	82	98	66	12	11	7.0	20
18			-	11	12	84	102	56	11	9.9	7.0	16
19			-	12	12	96	109	53	12	11	7.0	15
20			-	12	12	98	117	47	12	11	7.4	22
21			-	14	9.0	100	146	42	12	11	7.4	12
22			-	12	11	151	195	39	11	11	7.0	11
23			7.5	12	13	256	230	36	12	9.9	7.8	8.5
24			6.4	9.0	14	208	178	33	12	9.9	7.8	8.5
25			8.5	9.0	14	151	190	32	12	7.8	11	8.5
26			10	10	14	151	193	29	11	7.8	16	9.2
27			7.5	10	12	160	171	28	9.9	8.5	18	13
28			8.0	14	10	125	171	26	9.9	32	26	11
29			9.5	13	-	105	205	27	9.2	43	15	9.2
30			9.0	12	-	94	222	30	9.2	30	11	9.2
31			9.0	15	-	89	-	29	-	21	9.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December 23-31	75.4	10	6.4	8.38	150
Calendar year	-	-	-	-	-
January	349.0	15	8.0	11.3	692
February	340.0	14	9.0	12.1	674
March	2,253	256	10	72.7	4,470
April	5,049	387	98	168	10,010
May	2,361	200	26	76.2	4,680
June	468.2	28	9.2	15.6	929
July	379.5	43	6.6	12.2	753
August	387.5	26	7.0	12.5	769
September	352.4	22	6.2	11.7	699
The period	-	-	-	-	23,830

Peak discharge.- Mar. 23 (1 a.m.) 378 sec.-ft.; Mar. 23 (9 p.m.) 366 sec.-ft., Apr. 4 (6 p.m.) 967 sec.-ft.; Apr. 5 (8 p.m.) 438 sec.-ft.; May 2 (1 a.m.) 289 sec.-ft.

Rio Cebolla near Jemez Springs, N. Mex.

Location.- Water-stage recorder, lat. 35°49', long. 106°49', in Canyon de San Diego grant, 0.3 mile upstream from confluence with Rio Las Vacas and 6 miles northwest of Jemez Springs, Sandoval County.

Records available.- December 1938 to October 1939 (discontinued).

Extremes.- Maximum discharge during period, 73 second-feet Apr. 4 (gage height, 2.24 feet), from rating curve extended logarithmically above 18 second-feet; minimum daily discharge, 4.2 second-feet Aug. 21, 23, Sept. 23.

Remarks.- Records good except those for periods of ice effect or missing gage heights, Dec. 30 to Jan. 5, Jan. 10-20, Jan. 23 to Mar. 13 (computed on basis of three discharge measurements, weather records, and records for Rio Guadalupe near Jemez Springs and Jemez Creek near Jemes), which are poor. No diversion above station.

Discharge, in second-feet, 1938-39

Day	1938	1939									
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
1	-	6.8	6.5	7	18	12	7.6	6.0	6.2	4.8	4.8
2	-	7.0	7	6.5	19	12	7.3	5.7	11	4.8	4.8
3	-	7.3	5.5	6.5	16	11	7.0	5.5	7.3	4.6	4.6
4	-	7.0	6.5	6.5	33	11	7.0	5.5	6.5	4.4	4.8
5	-	6.0	7	6.5	29	11	6.8	5.5	6.0	4.6	4.8
6	-	6.5	7	5.5	31	11	6.8	5.5	6.8	4.6	5.1
7	-	7.0	7	7	22	11	6.5	5.3	6.8	4.6	6.0
8	-	6.8	6.5	7	18	11	6.5	5.1	6.0	5.3	10
9	-	6.5	6.5	7.5	19	10	6.2	5.3	5.7	7.0	7.3
10	-	6.5	5.5	7.5	18	10	6.2	5.1	5.1	6.5	6.2
11	-	6.5	5.5	7.5	16	9.7	6.0	4.8	5.1	5.7	-
12	-	6	6	7.5	17	9.7	5.7	4.4	4.4	5.5	-
13	-	6.5	6	10	17	9.1	5.5	4.4	4.4	5.5	-
14	-	6.5	6	15	16	9.1	5.5	6.5	5.1	6.5	-
15	-	6	6	18	15	9.7	5.3	7.0	4.4	6.8	-
16	-	6.5	6	23	14	9.7	5.1	5.5	4.4	7.3	-
17	-	6.5	6	29	13	8.4	5.3	4.8	4.4	7.6	-
18	-	6.5	5.5	25	13	8.4	5.3	5.3	4.6	6.2	-
19	*6.8	6.5	5.5	26	13	8.4	5.5	5.7	4.6	6.8	-
20	-	6.5	5.5	22	13	7.9	5.5	5.5	4.4	6.5	-
21	-	6.8	5	20	12	7.3	5.5	5.3	4.2	5.3	-
22	-	6.2	5.5	27	12	6.5	5.3	5.3	4.4	4.6	-
23	-	7.0	5.5	32	12	6.2	5.5	5.3	4.2	4.2	-
24	-	6.5	6.5	34	12	6.2	5.5	4.6	4.6	4.8	-
25	-	6	6.5	21	12	6.0	5.3	4.8	5.3	4.8	-
26	-	6.5	6.5	21	12	6.0	5.3	5.1	9.2	5.5	-
27	-	6.5	6	24	12	5.5	5.3	5.3	8.8	6.8	-
28	-	7	5.5	18	12	6.5	5.5	7.6	8.7	5.3	-
29	6.8	6.5	-	16	12	7.3	5.5	14	6.0	5.1	-
30	5.5	6.5	-	14	13	8.1	6.5	8.1	5.3	4.8	-
31	5.7	7	-	15	-	7.9	-	7.0	5.3	-	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January 1939	203.9	7.3	6	6.58	404
February	170.0	7	5	6.07	337
March	492.5	34	5.5	15.9	977
April	491.0	33	12	16.4	974
May	273.6	12	5.5	8.83	543
June	177.8	7.6	5.1	5.93	353
July	180.8	14	4.4	5.83	359
August	179.2	11	4.2	5.78	355
September	166.8	7.6	4.2	5.56	331
October 1-10	58.4	10	4.6	5.84	116
The period	-	-	-	-	4,750

Peak discharge.- Mar. 17 (6 p.m.) 44 sec.-ft.; Apr. 4 (5 p.m.) 73 sec.-ft.; July 29 (5 p.m.) 72 sec.-ft.

*Discharge measurement.

Jemez west side ditch near Jemes, N. Mex.

Location.- Water-stage recorder and 4-foot Parshall flume, lat. 35°39', long. 106°44', in NW¼NW¼ sec. 4, T. 16 N., R. 2 E., 3,000 feet downstream from head gate and 3½ miles north of Jemes.

Records available.- April 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 25 second-feet May 28; no flow at times. 1936-39: Maximum daily discharge, 27 second-feet Apr. 30, 1936; no flow at times.

Remarks.- Records excellent except those for Sept. 19-30, which are good, and those for Dec. 20-22, 30, 31, which are poor. No diversion between station and head. Ditch diverts water from right bank of Jemez Creek for irrigation of Indian lands in Jemez Pueblo grant.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12		0				0	23	22	11	0	15
2	13		0				0	22	23	12	0	16
3	13		0				0	21	22	11	0	15
4	13		0				0	17	22	11	0	13
5	12		0				0	13	22	11	0	11
6	12		0				0	15	22	10	0	10
7	13		0				0	19	21	9.5	0	9.2
8	5.1		0				0	19	19	9.3	6.3	10
9	0		0				0	19	20	9.7	12	18
10	0		0				0	20	18	11	12	20
11	0		0				8.8	20	18	9.6	12	21
12	0		0				16	21	16	9.3	13	17
13	0		0				16	21	15	8.8	14	18
14	0		0				16	21	14	12	15	7.9
15	0		0				15	21	13	22	13	0
16	0		0				15	20	12	19	12	0
17	0		0				15	20	11	16	13	0
18	0		0				15	19	11	11	11	0
19	0		0				15	19	12	12	11	2.6
20	0		.1				16	19	12	14	11	7.9
21	0		.3				18	19	11	12	14	7.4
22	0		.2				20	17	10	13	13	7.2
23	0		0				21	20	9.8	13	12	5.8
24	0		0				20	22	10	11	11	5.2
25	0		0				20	23	10	10	11	5.2
26	0		0				20	23	9.1	10	17	5.4
27	0		0				20	24	8.8	12	13	6.0
28	0		0				20	25	11	13	10	6.3
29	0		0				24	24	11	0	17	5.4
30	0		.5				24	24	11	0	16	12
31	0		.5				-	15	-	0	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	93.1	13	0	3.00	185
November	0	0	0	0	0
December	1.6	.5	0	.05	3.2
Calendar year 1938	2,877.2	24	0	7.88	5,710
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	354.8	24	0	11.8	704
May	625	25	13	20.2	1,240
June	446.7	23	8.8	14.9	886
July	333.2	22	0	10.7	661
August	305.3	17	0	9.85	606
September	277.5	21	0	9.25	550
Water year 1938-39	2,437.2	25	0	6.68	4,840

Jemez east side ditch near Jemes, N. Mex.

Location.- Water-stage recorder and 4-foot Parshall flume, lat. 35°39', long. 106°44', in NE¼NW¼ sec. 4, T. 16 N., R. 2 E., about 4,500 feet downstream from head gate and 3 miles north of Jemes.

Records available.- April 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 11 second-feet Aug. 23; no flow at times.
1936-39: Maximum daily discharge, 13 second-feet Mar. 10, 11, 1937; no flow at times.

Remarks.- Records good. Ditch diverts water from left bank of Jemez Creek for irrigation of Indian lands in Jemez Pueblo grant. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	2.6	0	0			0	7.8	6.7	5.7	0	6.2
2	6.1	2.8	0	0			0	7.8	6.3	5.9	0	6.4
3	6.0	2.4	0	0			0	7.4	5.7	4.9	0	5.8
4	6.0	2.0	0	0			0	7.7	5.9	5.1	0	5.7
5	6.5	2.1	0	0			0	7.1	6.0	5.2	0	5.4
6	6.6	2.1	0	0			0	7.0	5.4	4.6	0	5.0
7	4.5	1.9	0	.1			0	8.3	4.8	4.7	0	4.8
8	2.7	2.4	0	.1			0	8.1	3.6	3.8	0	4.7
9	.1	3.0	0	0			0	7.9	1.9	4.3	1.3	6.5
10	0	4.6	0	0			0	7.6	2.3	3.8	5.8	7.6
11	1.3	5.1	0	0			3.7	7.4	3.1	3.7	6.5	7.4
12	1.9	5.6	0	0			6.6	7.2	3.5	3.2	5.9	6.0
13	1.7	4.7	0	0			6.5	7.0	3.8	7.2	5.8	6.1
14	1.9	4.1	0	0			6.4	7.1	3.7	7.8	6.4	3.5
15	2.3	1.8	.1	0			6.1	7.3	3.7	8.3	5.6	3.1
16	3.2	1.7	.1	0			6.2	7.1	3.5	7.2	5.5	4.6
17	3.8	1.8	0	0			5.9	7.4	3.3	6.3	5.9	6.2
18	3.2	1.7	0	0			6.1	6.2	4.4	4.7	5.2	7.2
19	3.2	1.9	0	0			6.1	4.6	4.5	5.3	4.4	6.7
20	3.1	1.1	0	0			6.1	4.0	4.0	5.7	4.9	6.7
21	3.0	0	0	0			6.7	5.0	4.9	4.8	6.0	6.3
22	3.0	0	0	0			8.0	5.8	5.8	8.7	5.8	6.1
23	2.9	0	0	0			8.3	5.7	5.6	4.6	11	4.9
24	3.0	.7	0	0			8.5	5.4	5.4	4.5	3.6	4.7
25	3.2	.2	0	0			8.3	5.3	5.0	4.1	5.0	9.5
26	2.7	.1	0	0			8.2	4.2	4.5	4.3	6.2	3.2
27	2.0	.1	0	0			8.1	4.1	4.4	5.7	6.1	4.1
28	3.0	.1	0	0			8.0	6.0	5.2	5.5	4.8	3.4
29	3.0	0	0	0			8.2	6.7	5.4	0	6.4	3.5
30	3.1	0	0	0			8.5	6.9	4.9	0	6.8	3.2
31	2.4	-	0	-			-	7.1	-	0	6.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	100.4	6.6	0	3.24	199
November	56.6	5.6	0	1.89	112
December	.2	.1	0	.01	.4
Calendar year 1938	1,308.4	10	0	3.58	2,600
January	.2	.1	0	.01	.4
February	0	0	0	0	0
March	0	0	0	0	0
April	140.5	8.5	0	4.68	279
May	204.2	8.3	4.0	6.59	405
June	137.2	6.7	1.9	4.57	272
July	149.6	8.7	0	4.83	297
August	131.3	11	0	4.24	260
September	164.5	9.5	3.1	5.48	326
Water year 1938-39	1,084.7	11	0	2.97	2,150

Antonio Pecos ditch at Jemes, N. Mex.

Location.- Water-stage recorder and 3-foot Parshall flume, lat. 35°37', long. 106°44', in SE¼SW¼ sec. 16, T. 16 N., R. 2 E., a third of a mile west of Jemes and about 2,500 feet downstream from head.

Records available.- June 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 6.4 second-feet May 21; no flow at times. 1936-39: Maximum daily discharge, 10 second-feet Apr. 29, 1938; no flow at times.

Remarks.- Records good. Ditch diverts water from left bank of Jemez Creek for irrigation of Indian lands in Jemez Pueblo grant. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	1.4	0.2	0.1	0.1		0	1.5	3.6	1.2	0.2	2.5
2	.2	2.3	.3	.1	0		0	.2	4.6	1.2	.5	3.3
3	.2	2.3	0	0	0		0	2.2	3.1	1.3	1.0	2.0
4	.1	1.9	0	0	0		0	1.6	.9	1.5	0	1.7
5	.3	1.9	0	0	0		0	4.1	1.8	1.3	0	1.8
6	.2	1.8	0	0	0		0	2.2	2.0	1.1	0	1.7
7	.4	.8	.1	0	0		0	3.3	2.4	1.3	.1	1.8
8	.2	1.0	.1	0	0		0	4.6	2.9	1.6	0	1.7
9	0	1.5	0	0	0		0	3.5	2.5	2.0	.9	1.4
10	0	1.4	.2	0	.4		0	4.7	2.2	1.9	.4	1.9
11	.5	.8	.6	0	.3		0	4.1	2.3	1.5	.3	1.2
12	.4	0	.4	0	.2		0	3.6	1.8	1.5	3.8	1.2
13	.1	0	0	0	0		.2	2.5	1.2	1.2	2.4	2.9
14	0	0	0	0	0		2.3	3.1	1.3	1.5	1.2	1.7
15	0	0	0	0	0		2.5	5.9	1.3	3.6	1.3	.9
16	.2	0	.3	0	0		.6	5.3	1.9	2.7	2.4	1.5
17	.2	0	.1	0	0		2.6	1.6	1.9	1.4	2.7	2.2
18	.3	0	.1	0	0		4.1	4.1	1.7	1.6	2.4	1.8
19	.6	0	.3	0	0		5.2	3.4	1.7	1.6	1.9	2.0
20	.8	0	.1	0	0		5.0	6.2	1.5	1.4	1.9	.9
21	1.2	0	0	0	0		5.4	6.4	1.4	1.2	1.6	.7
22	1.3	0	0	0	0		4.5	4.7	1.6	1.8	1.4	1.0
23	1.0	0	0	0	0		1.4	4.3	1.5	1.4	1.4	.6
24	1.0	0	0	0	0		2.4	2.3	1.5	1.6	2.7	1.1
25	.6	0	0	0	0		3.8	3.2	1.2	1.7	1.1	1.6
26	.5	0	0	0	0		4.9	5.2	1.1	1.6	1.5	1.1
27	.8	0	0	0	0		4.7	3.9	1.1	1.4	2.7	1.6
28	1.0	0	0	0	0		4.6	3.5	1.1	1.6	2.2	1.4
29	.8	0	0	0	-		5.4	1.6	1.5	1.2	2.6	2.5
30	.8	.3	0	0	-		4.5	2.8	1.4	.4	2.3	1.5
31	.9	-	0	0	-		-	4.8	-	0	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14.9	1.3	0	0.48	30
November	17.4	2.3	0	.58	35
December	2.8	.6	0	.09	5.6
Calendar year 1938	618.5	10	0	1.69	1,230
January	.2	.1	0	.01	.4
February	1.0	.4	0	.03	2.0
March	0	0	0	0	0
April	64.1	5.4	0	2.14	127
May	110.4	6.4	.2	3.56	219
June	56.2	4.8	.9	1.87	111
July	46.3	3.6	0	1.49	92
August	45.1	3.8	0	1.45	89
September	49.2	3.3	.6	1.64	98
Water year 1938-39	407.6	6.4	0	1.12	809

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San Ysidro ditch near San Ysidro, N. Mex.

Location.- Water-stage recorder and 3-foot Parshall flume, lat. 35°35', long. 106°46', in SE¼SE¼ sec. 30, T. 16 N., R. 2 E., 6,000 feet downstream from head and 1¼ miles north of San Ysidro.

Records available.- July 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 16 second-feet Apr. 22; no flow at times.
1936-39: Maximum daily discharge, that of Apr. 22, 1939; no flow at times.

Remarks.- Records good except those for periods of ice effect, Nov. 24-30, Jan. 9, which were computed on basis of gage heights and weather records and are poor. Ditch diverts water from right bank of Jemez Creek for irrigation of Spanish grants. One or two small diversions between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.5	0.3				0	8.2	4.6	1.3	9.2	4.4
2	0	.6	.2				0	8.3	4.1	1.4	8.3	4.6
3	0	.7	.1				0	5.6	6.4	1.3	10	4.5
4	0	.6	.2				.4	4.4	7.9	1.4	8.0	3.2
5	0	.7	.2				0	9.3	7.5	1.4	6.2	1.8
6	0	.6	.1				0	12	6.6	1.2	4.1	1.8
7	.6	.3	.2				0	9.0	4.5	1.5	4.9	2.0
8	8.1	.2	.1				0	6.6	4.2	1.3	2.7	2.2
9	2.5	.4	.1				0	6.6	1.9	1.5	1.2	4.0
10	1.5	.6	.2				.5	9.4	1.6	1.4	.8	4.0
11	1.2	.3	.2				2.0	14	1.6	1.2	.4	7.9
12	.9	.3	.3				1.6	14	1.6	1.1	1.1	5.7
13	.5	.1	.3				1.2	12	1.8	1.0	4.1	5.9
14	.4	0	.1				1.3	12	1.8	3.0	3.8	10
15	.4	.4	.1				.6	13	1.5	6.1	3.9	10
16	.2	.2	.7				.2	12	1.2	5.6	2.0	9.0
17	.4	.2	.5				0	12	1.3	3.1	2.1	8.6
18	.5	.1	.2				0	12	1.3	1.4	1.8	7.4
19	.5	0	.2				.1	12	1.4	1.4	1.8	6.4
20	.3	.3	1.0				7.0	13	1.5	1.4	1.9	5.0
21	.3	.4	.4				14	12	1.9	1.3	2.1	3.6
22	.3	.2	.3				16	12	1.4	1.5	2.3	2.6
23	.3	.1	.1				11	9.9	1.5	1.8	2.3	4.1
24	.3	0	.1				7.0	7.5	1.5	1.3	2.9	4.5
25	.2	0	.1				11	6.3	1.2	1.4	2.4	4.9
26	.2	0	.1				10	6.1	1.2	1.5	3.4	6.0
27	.4	0	0				6.6	6.3	1.5	1.6	6.4	6.6
28	.8	.2	.2				9.0	5.5	1.5	3.4	13	6.9
29	.8	.3	.1				13	6.0	1.4	4.7	9.1	5.8
30	.7	.2	0				11	6.2	1.5	11	4.6	4.6
31	.6	-	0				-	7.4	-	9.6	4.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	22.9	8.1	0	0.74	45
November	8.5	.7	0	.28	17
December	6.7	1.0	0	.22	13
Calendar year 1938	415.6	8.1	0	1.14	824
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	123.5	16	0	4.12	245
May	290.6	14	4.4	9.37	576
June	78.9	7.9	1.2	2.63	156
July	78.1	11	1.0	2.52	155
August	131.2	13	.4	4.23	260
September	158.0	10	1.8	5.27	313
Water year 1938-39	898.4	16	0	2.46	1,780

Zia ditch near San Ysidro, N. Mex.

Location.- Water-stage recorder and 4-foot Parshall flume, lat. 35°33', long. 106°45', in SE¼SE¼ sec. 1, T. 15 N., R. 1 E., 1 mile south of San Ysidro and about 6,500 feet downstream from head.

Records available.- June 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 15 second-feet Aug. 4; no flow at times. 1936-39: Maximum daily discharge, that of Aug. 4, 1939; no flow at times.

Remarks.- Records fair except those for periods of backwater from check in Parshall flume, which are poor. Ditch diverts water from left bank of Jemez Creek for irrigation of Zia Indian lands. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4				0	3.6	9.1	4.8	*1.6	5.6	1.4
2	0	.3				0	3.1	8.5	5.5	*1.6	5.5	2.2
3	0	1.6				0	2.8	10	6.0	*1.7	9.4	2.9
4	0	2.6				0	2.7	10	6.0	1.7	15	1.4
5	0	2.5				0	2.8	10	4.5	1.7	14	1.4
6	0	2.3				0	4.4	10	4.2	1.5	12	1.5
7	.2	1.6				0	4.7	9.8	4.5	1.3	12	1.4
8	.1	1.7				0	5.2	9.7	2.9	1.1	10	*1.8
9	0	1.3				0	5.7	9.7	3.5	1.1	8.9	2.2
10	0	1.2				0	5.6	8.4	3.1	1.0	6.3	2.4
11	0	1.0				0	5.8	5.9	3.6	.8	3.4	4.8
12	0	.7				0	2.1	6.2	3.3	.8	.8	5.4
13	0	.8				0	4.4	6.3	3.1	.7	2.5	2.6
14	.3	.6				0	10	9.1	2.8	3.5	2.7	7.7
15	0	.7				0	10	9.8	1.8	3.2	.1	2.8
16	0	.6				0	10	9.4	1.4	4.4	0	.8
17	1.4	.6				0	10	8.2	1.2	2.8	.9	.8
18	3.2	.4				0	5.3	7.4	1.1	3.0	.8	2.4
19	2.8	.6				0	2.9	7.0	1.4	*2.5	.9	.9
20	2.8	.5				0	9.8	6.8	*2.4	2.5	1.2	.8
21	2.5	.3				0	10	6.3	2.0	1.5	1.3	.6
22	1.9	.4				0	10	5.6	1.3	1.2	*1.2	.2
23	1.6	0				0	10	4.8	1.8	1.5	*1.4	.4
24	1.6	0				0	10	5.8	1.4	1.5	1.4	.2
25	1.2	0				0	9.4	6.0	1.3	1.5	1.4	0
26	1.0	0				0	9.0	5.4	1.3	1.8	1.8	.2
27	.8	0				.5	8.0	5.5	1.3	2.2	2.8	0
28	.6	0				2.5	8.0	5.8	1.2	3.0	12	4.5
29	.6	0				4.3	7.7	6.3	1.4	2.3	7.4	8.6
30	.5	0				4.3	7.5	6.2	1.6	5.1	3.0	8.1
31	.4	-				4.1	-	6.0	-	3.4	1.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	23.5	3.2	0	0.76	47
November	22.9	2.6	0	.76	45
December	0	0	0	0	0
Calendar year 1938	1,061.0	12	0	2.91	2,100
January	0	0	0	0	0
February	0	0	0	0	0
March	15.7	4.3	0	.51	31
April	200.5	10	2.1	6.68	398
May	235.0	10	4.8	7.58	466
June	81.7	6.0	1.1	2.72	162
July	63.5	5.1	.7	2.05	126
August	147.4	15	0	4.75	292
September	70.4	8.6	0	2.35	140
Water year 1938-39	860.6	15	0	2.36	1,710

*Stage-discharge relation affected by backwater from check; discharge computed on basis of study of gage-height record and records for Jemez Creek at San Ysidro.

Rio Puerco at Rio Puerco, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34°47', long. 107°00', in W½ sec. 31, T. 7 N., R. 1 W., in San Clemente grant, at Atchison, Topeka, & Santa Fe Railway bridge in hamlet of Rio Puerco, 7 miles downstream from San Jose River.

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 1939 in reports of Geological Survey. January 1913 to December 1925 and September 1926 to December 1927 in reports of State engineer.

Extremes.- Maximum discharge during year, 15,800 second-feet Aug. 4 (gage height, 5.10 feet), from rating curve extended above 2,500 second-feet; no flow at times.
1934-39: Maximum discharge, 28,300 second-feet Aug. 21, 1935 (gage height, 7.24 feet), from computation of flow over dam; no flow at times.

Remarks.- Records poor. Discharge for periods of missing or incomplete gage-height record, March 18-27, August 23, 24, based on available gage heights and weather records. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		1	0	0	0	8	14	0	0	213	8
2	0		1	0	0	0	4	20	0	0	213	1
3	0		2	0	0	0	2	20	0	0	440	0
4	0		10	1	0	0	1	24	3	0	3,050	0
5	0		11	0	0	0	65	14	4	0	342	0
6	0		7	0	1	0	305	9	0	0	52	0
7	0		8	0	1	0	93	6	0	0	154	59
8	1,690		10	6	7	0	45	1	0	0	438	52
9	911		3	8	3	0	22	1	0	0	80	332
10	55		2	6	0	0	15	0	0	0	24	198
11	11		3	3	1	0	9	0	0	0	8	836
12	8		2	1	1	58	6	0	0	0	1	579
13	5		1	1	1	230	4	0	0	0	0	179
14	3		0	0	2	310	3	0	0	0	106	1,170
15	1		0	0	3	453	3	0	0	49	55	2,510
16	0		1	0	2	290	3	0	0	106	36	145
17	0		1	0	1	52	1	0	0	8	14	26
18	0		0	0	1	50	3	0	0	0	4	14
19	0		1	0	0	45	4	0	0	0	20	5
20	0		2	0	0	40	4	0	0	0	14	1
21	0		1	1	0	35	3	0	0	0	978	15
22	0		1	1	0	30	1	0	0	0	414	8
23	0		1	1	0	30	0	0	0	0	125	2
24	0		0	1	0	25	0	0	0	0	35	1
25	0		0	0	0	20	11	0	0	0	16	0
26	0		0	0	0	15	14	0	0	0	303	23
27	0		0	1	0	10	11	0	0	0	310	9
28	0		0	1	0	9	12	0	0	0	138	1
29	0		0	0	-	11	10	0	0	490	80	2
30	0		0	0	-	14	11	0	0	592	39	1
31	0		0	1	-	12	-	0	-	255	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,684	1,690	0	86.6	5,320
November	0	0	0	0	0
December	69	11	0	2.2	137
Calendar year 1938	27,849	2,150	0	76.3	55,230
January	33	8	0	1.1	65
February	24	7	0	.9	48
March	1,739	453	0	56.1	3,450
April	673	305	0	22.4	1,330
May	109	24	0	3.5	216
June	7	4	0	.2	14
July	1,500	592	0	48.4	2,980
August	7,722	3,050	0	249	15,320
September	6,177	2,510	0	206	12,250
Water year 1938-39	20,737	3,050	0	56.8	41,130

Peak discharge.- Oct. 8 (4 p.m.) 5,840 sec.-ft.; Aug. 4 (9 a.m.) 15,800 sec.-ft.; Aug. 21 (1 p.m.) 9,320 sec.-ft.; Sept. 15 (5 a.m.) 6,940 sec.-ft.
Note.- Discharge less than half a second-foot on days for which zero is given.

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 village of Bluewater and 8 miles downstream from storage reservoir of Bluewater-Toltec Irrigation District. Prior to March 18, water-stage recorder at site 83 feet upstream, datum 1.57 feet higher.

Drainage area.- 235 square miles.

Records available.- May 1912 to December 1914 and October 1930 to September 1939 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, 127 second-feet Aug. 2 (gage height, 3.75 feet); minimum daily discharge, 0.5 second-foot Sept. 17.
1930-39: Maximum discharge, 1,010 second-feet Sept. 1, 1936 (gage height, 6.15 feet, former datum), from rating curve extended above 65 second-feet; no flow Mar. 9, 1931, Feb. 3, 1935.

Remarks.- Records fair except those for periods of ice effect, which are poor. Flow regulated by Bluewater-Toltec Reservoir.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.1	2.0	1.3	*1.8	†2.3	3.9	6.0	32	44	44	22	1.1
2	9.1	*1.8	1.3	*1.7	†2.3	*3.4	7.1	35	45	44	28	.9
3	9.5	*1.7	*1.3	1.6	†2.4	*3.4	7.4	50	36	38	14	5.4
4	9.5	*1.4	1.6	*1.4	2.4	2.9	8.0	51	29	24	12	2.0
5	11	*1.4	1.6	*1.4	2.4	2.6	4.2	51	25	20	12	1.5
6	10	*1.3	1.6	*1.7	2.4	*2.6	2.9	50	24	21	9.9	2.2
7	10	*1.4	1.4	1.6	1.8	2.4	2.8	34	30	27	5.6	.8
8	11	*1.3	1.3	1.6	1.8	2.4	6.9	4.3	23	25	5.4	5.6
9	11	*1.2	1.2	1.7	1.6	2.0	7.4	32	20	15	5.4	1.6
10	11	*1.2	2.3	1.8	1.7	1.6	7.4	66	24	27	5.3	1.4
11	14	*1.2	2.0	1.8	1.8	1.6	7.6	66	28	38	5.1	1.6
12	16	*1.2	1.4	*2.3	*2.2	1.3	7.6	63	29	35	8.6	.8
13	18	*1.2	1.4	2.0	*2.8	1.3	7.6	60	33	31	8.6	.7
14	16	*1.2	*1.5	*1.7	*3.1	1.4	7.6	59	38	31	6.5	.6
15	18	*1.2	1.8	*1.3	*2.9	1.4	7.8	57	38	35	21	.6
16	18	1.3	1.7	1.4	2.9	1.3	7.6	49	34	35	23	.6
17	18	1.4	2.0	*1.3	2.9	1.4	7.4	63	30	35	22	.5
18	19	*1.3	2.0	*1.4	2.9	1.5	7.4	63	28	35	16	.6
19	19	*1.2	1.8	*1.4	3.1	1.5	9.2	63	22	37	7.1	.7
20	20	*1.0	2.0	*1.8	2.9	1.6	15	56	19	42	4.5	6.3
21	20	*.9	1.8	2.0	*2.9	1.9	21	54	21	42	1.6	8.9
22	20	*.9	*1.8	2.0	*3.1	1.8	22	53	19	41	15	8.9
23	21	*.8	*1.7	1.8	*3.4	1.8	15	53	16	40	18	16
24	20	1.3	*1.7	*2.0	3.6	1.8	8.4	53	14	39	15	15
25	10	1.2	*1.7	*2.2	3.9	.9	7.4	61	28	39	7.1	2.2
26	9.5	1.2	*1.7	*2.0	3.4	2.0	7.4	54	39	38	2.1	15
27	9.5	1.2	*1.6	*2.0	3.4	2.1	7.4	39	40	38	1.2	12
28	9.5	1.1	*1.6	2.2	3.9	2.6	7.1	38	43	37	1.0	10
29	9.5	*1.1	*1.7	†2.2	-	2.5	18	38	46	36	3.9	10
30	9.8	1.3	*1.8	†2.3	-	2.3	20	44	46	26	5.3	9.9
31	2.8	-	*2.0	†2.3	-	2.3	-	28	-	24	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	420.8	21	2.8	13.6	835
November	37.9	2.0	.8	1.26	75
December	51.6	2.3	1.2	1.66	102
Calendar year 1938	6,467.4	78	.5	17.7	12,800
January	55.7	2.3	1.3	1.80	110
February	76.2	3.9	1.6	2.72	151
March	63.5	3.9	.9	2.05	126
April	278.6	22	2.8	9.29	553
May	1,519.3	66	4.3	49.0	3,010
June	911	46	14	30.4	1,810
July	1,039	44	15	33.5	2,060
August	314.7	28	1.0	10.2	624
September	143.4	16	.5	4.78	284
Water year 1938-39	4,911.7	66	.5	13.5	9,740

*Stage-discharge relation affected by ice; discharge computed on basis of gage height and weather records.
†Gage height missing; discharge interpolated.

San Jose River near Grants, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°04', long. 107°44', in SE¼SE¼ sec. 23, T. 10 N., R. 9 W., at west boundary of Acoma Indian Reservation and 8½ miles southeast of Grants.

Records available.- June 1936 to September 1939.

Extremes.- Maximum discharge during year, 173 second-feet Sept. 12 (gage height, 2.46 feet), from rating curve extended logarithmically above 60 second-feet; minimum daily discharge, 4.0 second-feet Jan. 2-6.
1936-39: Maximum discharge, 177 second-feet Sept. 29, 1937 (gage height, 2.48 feet), from rating curve extended logarithmically above 60 second-feet; minimum daily discharge, 4.0 second-feet Apr. 17-21, 1937, Jan. 2-6, 1939.

Remarks.- Records good except those for May and June, which are fair. Several diversions for irrigation above and below station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	5.3	5.0	4.3	5.3	5.8	7.9	5.0	5.0	5.5	5.0	5.0
2	4.7	5.3	5.0	4.0	5.3	5.3	7.2	5.0	4.7	5.5	5.3	5.0
3	4.7	5.0	4.7	4.0	5.0	5.8	5.8	5.3	4.7	5.5	5.5	4.7
4	4.7	5.0	4.7	4.0	5.3	6.1	6.4	5.0	5.3	5.5	6.7	4.7
5	4.7	5.3	4.7	4.0	5.3	5.5	7.9	5.0	5.3	5.3	5.8	4.7
6	4.7	5.3	4.7	4.0	5.0	5.3	9.1	5.0	5.3	5.0	5.3	4.7
7	4.7	5.3	4.7	4.3	4.7	5.5	7.5	5.0	5.5	5.4	5.0	4.7
8	4.7	5.5	4.7	4.5	4.7	6.1	7.2	5.0	5.8	5.3	5.0	4.7
9	4.7	5.5	4.7	4.5	4.7	6.1	6.9	4.7	5.8	5.3	5.0	4.7
10	5.0	5.5	4.5	4.3	4.5	6.4	6.1	4.5	6.1	5.3	5.0	4.7
11	4.7	5.8	4.5	4.3	4.5	6.1	5.8	4.5	5.8	5.3	5.0	12
12	4.5	5.5	4.5	4.5	4.5	5.8	5.8	4.5	6.1	5.3	5.0	95
13	4.5	5.5	4.5	4.7	4.5	5.8	5.8	4.7	6.4	5.0	5.0	24
14	4.5	5.5	4.5	4.5	4.5	5.8	5.5	4.5	6.4	5.0	5.0	11
15	4.5	5.5	4.7	4.5	5.0	5.5	5.3	4.5	6.4	5.0	4.7	6.7
16	4.7	5.3	4.7	4.7	5.3	5.5	5.0	4.5	6.7	5.0	4.7	5.8
17	4.7	5.3	4.7	4.5	5.0	5.3	5.0	4.5	7.2	4.7	4.5	5.3
18	4.7	5.3	4.5	4.5	5.3	5.3	5.0	4.7	6.9	4.7	4.5	5.0
19	4.7	5.0	4.5	4.3	5.5	5.5	5.0	4.7	6.9	5.0	4.5	5.0
20	5.0	5.0	4.7	4.7	5.3	5.3	5.0	4.3	6.7	5.0	4.7	5.5
21	5.0	5.0	4.7	5.0	5.3	6.4	5.0	4.3	6.7	5.0	4.7	5.5
22	5.0	5.3	4.7	5.3	5.5	6.1	5.0	4.5	6.9	5.0	4.7	5.3
23	5.0	5.0	4.7	5.0	6.1	7.2	5.3	4.5	6.9	4.7	5.0	5.0
24	5.0	5.3	4.7	4.7	5.8	9.1	5.3	4.7	6.7	4.7	5.0	5.0
25	5.0	5.3	4.7	5.3	6.4	9.1	5.3	4.5	6.7	4.7	7.6	5.3
26	5.0	5.3	4.5	5.3	5.5	8.7	4.7	4.7	6.4	4.7	5.3	5.3
27	5.0	5.3	4.5	5.3	5.3	7.9	5.0	4.7	6.4	4.7	5.3	5.3
28	5.0	5.3	4.5	5.3	5.5	8.7	5.0	4.7	6.1	5.0	5.5	5.3
29	5.0	5.3	4.3	5.3	-	10	5.0	5.0	5.8	9.6	5.3	5.0
30	5.0	5.0	4.3	5.0	-	11	5.0	5.0	5.8	5.3	5.0	5.3
31	5.0	-	4.3	5.3	-	8.7	-	5.0	-	5.0	5.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	148.8	5.0	4.5	4.80	295
November	158.8	5.8	5.0	5.29	315
December	143.1	5.0	4.3	4.62	284
Calendar year 1938	2,023.0	13	4.3	5.54	4,010
January	143.9	5.3	4.0	4.64	285
February	144.6	6.1	4.5	5.16	287
March	206.7	11	5.3	6.67	410
April	175.8	9.1	4.7	5.86	349
May	146.5	5.3	4.3	4.73	291
June	183.4	7.2	4.7	6.11	364
July	162.0	9.6	4.7	5.23	321
August	161.6	8.7	4.5	5.21	321
September	275.2	95	4.7	9.17	546
Water year 1938-39	2,050.4	95	4.0	5.62	4,070

Peak discharge.- July 29 (7 p.m.) 94 sec.-ft.; Sept. 12 (3 p.m.) 126 sec.-ft.; Sept. 12 (4 p.m.) 173 sec.-ft.

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 Atchesin, Topeka & Santa Fe Railway bridge and 4½ miles west of San Fidel. Prior to Oct. 6, natural control.

Records available.- June 1936 to September 1939.

Extremes.- Maximum discharge during year, 166 second-feet July 28 (gage height, 4.15 feet), from rating curve extended logarithmically above 50 second-feet on basis of theoretical discharge over control; minimum daily discharge, 0.7 second-foot June 13, July 3.
1936-39: Maximum discharge, that of July 28, 1939; minimum daily discharge, 0.5 second-foot Mar. 25, 26, 1937.

Remarks.- Records excellent except that for Dec. 21 (computed on basis of partial gage-height record) and those for July 13-25, which are fair, those for period of construction work on control, Oct. 3-5 (computed on basis of engineers' notes), and those for period of missing gage heights, Dec. 14-20 (computed on basis of study of recorded range in stage), all of which are poor. Several diversions for irrigation above and below station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	5.7	6.8	6.1	7.1	6.8	11	5.2	2.3	3.0	0.9	2.9
2	3.0	5.7	7.3	5.6	7.3	6.4	10	4.7	2.6	1.8	3.0	3.2
3	3	5.9	7.3	6.4	7.1	6.2	9.5	5.2	1.4	.7	2.7	4.2
4	1	5.7	7.5	5.6	7.5	6.2	9.5	5.2	1.8	1.2	11	4.2
5	1.5	5.9	7.5	5.1	7.3	6.1	11	5.2	2.6	1.3	3.9	3.9
6	3.2	5.7	7.5	4.7	7.3	5.6	12	5.4	1.8	1.8	4.7	4.0
7	2.1	6.4	7.3	5.2	7.3	6.1	12	6.1	2.1	1.2	9.4	4.7
8	2.3	6.4	6.8	6.2	7.5	8.0	10	4.7	3.0	1.7	3.6	7.0
9	3.0	6.4	7.5	5.6	7.5	7.8	9.0	1.3	1.2	1.5	4.0	4.4
10	3.6	2.9	6.0	6.2	7.3	7.5	9.5	1.8	1.2	1.6	5.9	2.8
11	4.3	3.4	5.9	7.5	7.1	6.2	8.6	2.3	1.2	2.8	4.0	3.4
12	4.2	3.2	6.2	7.3	7.1	5.9	8.6	1.6	1.1	2.8	1.5	44
13	3.9	3.0	4.7	7.3	7.3	6.1	8.4	1.7	.7	3.4	1.9	64
14	3.6	2.5	4.5	6.1	7.8	5.9	8.0	1.9	1.1	2.6	2.8	19
15	3.7	5.9	5	4.6	7.1	5.7	7.8	2.7	1.4	4.2	3.0	12
16	3.6	5.7	6	6.1	5.7	5.6	7.8	1.5	1.5	3.3	2.3	8.4
17	3.4	5.9	6	5.1	5.7	5.6	6.8	1.0	2.1	1.1	1.8	7.8
18	3.7	5.7	6	5.6	5.9	5.6	4.6	1.4	2.6	1.1	2.2	7.3
19	3.7	5.6	6	5.9	6.1	5.4	4.3	1.0	2.1	1.0	2.4	7.3
20	3.9	6.6	6	6.8	6.1	5.6	4.9	1.6	1.6	1.3	3.0	6.8
21	4.0	6.6	5.1	6.8	5.9	7.5	4.9	1.7	1.4	1.3	2.1	7.1
22	3.9	6.4	4.7	7.5	6.6	8.6	4.9	1.5	1.4	1.0	2.7	6.4
23	2.5	6.2	4.9	7.1	8.0	9.8	5.1	1.9	1.1	1.0	1.8	6.2
24	1.6	6.2	4.9	6.8	7.1	12	4.7	2.9	1.3	2.7	2.3	5.9
25	1.6	6.2	5.1	7.3	7.3	12	5.1	2.7	1.2	4.6	2.0	4.9
26	1.6	6.6	5.6	7.5	6.8	11	4.9	2.8	1.3	3.2	3.2	2.9
27	2.3	6.4	5.6	7.5	6.4	11	4.9	1.8	2.0	2.4	3.4	3.7
28	4.5	6.4	5.7	8.0	6.6	11	5.2	3.7	1.8	9.2	3.2	3.4
29	5.9	6.6	5.9	7.8	-	13	4.7	3.2	2.0	2.7	2.8	4.2
30	5.7	6.6	6.8	7.3	-	13	5.9	2.2	1.6	2.8	1.4	4.3
31	5.9	-	6.6	6.8	-	12	-	1.6	-	6.1	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	102.6	5.9	1	3.31	204
November	168.4	6.6	2.5	5.61	334
December	188.7	7.5	4.5	6.09	374
Calendar year 1938	1,607.7	9.5	.8	4.40	3,190
January	200.4	8.0	4.6	6.46	397
February	193.8	8.0	5.7	6.92	384
March	245.2	13	5.4	7.91	486
April	224.4	12	4.3	7.48	445
May	87.5	6.1	1.0	2.82	174
June	50.5	3.0	.7	1.68	100
July	76.4	9.2	.7	2.46	152
August	101.9	11	.9	3.29	202
September	270.3	64	2.8	9.01	536
Water year 1938-39	1,910.1	64	.7	5.23	3,790

Peak discharge.- July 28 (10 a.m.) 166 sec.-ft.; Aug. 7 (2 a.m.) 24 sec.-ft.; Sept. 13 (2 a.m.) 140 sec.-ft.

San Jose River near Casa Blanca, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°02', long. 107°27', in NW¼NE¼ 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. Zero of gage is 5,586.1 feet above mean sea level (Atchison, Topeka & Santa Fe Ry. bench mark).

Records available.- June 1936 to September 1939.

Extremes.- Maximum discharge during year, about 725 second-feet, Sept. 14 (gage height, 5.14 feet), from rating curve extended above 100 second-feet on basis of slope-area measurement at 460 second-feet; no flow at times.

1938-39: Maximum discharge, 1,110 second-feet July 26, 1937 (gage height, 5.60 feet from floodmarks in gage well), from rating curve extended above 50 second-feet on basis of slope-area measurement at 460 second-feet; no flow at times.

Remarks.- Records fair except those for periods of ice effect or missing or doubtful gage heights and those above 100 second-feet, which are poor. Several diversions for irrigation above and below station. Records do not include flow bypassed around station in New Laguna ditch wasteway. See records for New Laguna ditch wasteway near Casa Blanca.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	*0	1.6	5.6	9.2	9.1	0			0	*0	0
2	0	*0	2.9	5.0	*6	*7.8	0			0	*0	0
3	0	*0	3.8	2.3	*5	7.9	0			0	*3.8	0
4	0	*0	1.8	1.3	*7	7.8	10			0	32	0
5	0	*0	2.5	.4	*8	6.1	5.1			0	*1	0
6	0	*0	3.8	.6	*9	6.5	2.4			0	*.6	0
7	0	*0	3.6	.6	*10	7.2	2.8			0	*2	0
8	0	*.3	3.6	1.9	*11	7.8	2.0			0	*1	31
9	0	.6	3.4	2.6	5.7	8.3	.1			0	*0	*20
10	0	.5	2.0	*1.1	5.4	8.3	.4			0	*0	*.3
11	0	0	.3	*2.1	8.4	7.6	0			0	0	*0
12	0	0	.6	*3.3	*13	6.8	0			0	0	*74
13	0	.1	.7	*4.4	*15	6.5	0			0	0	135
14	0	.1	.1	*2.1	*14	4.4	0			0	0	186
15	0	1.5	1.0	.2	*11	4.5	0			0	0	61
16	0	.4	.7	*.6	8.9	3.9	0			0	0	4.0
17	0	.4	0	*.6	*7.6	2.1	0			0	0	*1
18	0	3.2	0	*.9	8.3	2.5	0			0	0	*0
19	0	3.7	.1	*5.1	*8.4	4.2	0			0	0	*0
20	0	2.6	0	10	*7.9	4.7	0			0	0	*0
21	0	2.2	.1	12	*6.7	4.6	0			0	0	*0
22	*0	1.0	0	9.4	*7.7	7.5	0			0	0	*0
23	*0	.3	.2	*13	10	8.6	0			0	0	*0
24	*0	.1	.5	*13	9.5	9.6	0			0	0	*0
25	*0	.1	1.4	*10	8.4	9.3	0			0	0	*.8
26	*0	0	.7	*10	8.2	9.6	0			0	0	*.8
27	*0	.2	.8	*10	*7.2	8.2	0			0	0	*0
28	*0	.2	1.2	14	*8.0	9.4	0			0	0	0
29	*0	.3	1.1	*15	-	3.7	0			33	0	0
30	*0	1.3	2.0	*12	-	.2	0			14	0	0
31	*0	-	4.5	10	-	0	-			12.9	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0.1	0.1	0	0	0.2
November	19.1	3.7	0	.64	38
December	45.0	4.5	0	1.45	89
Calendar year 1938	903.0	119	0	2.47	1,790
January	179.1	16	.2	5.78	355
February	244.5	15	5	8.73	485
March	194.7	9.6	0	6.28	386
April	22.8	10	0	.76	45
May	0	0	0	0	0
June	0	0	0	0	0
July	49.9	33	0	1.61	99
August	40.4	32	0	1.30	80
September	513.9	186	0	17.1	1,020
Water year 1938-39	1,309.5	186	0	3.59	2,600

Peak discharge.- Sept. 12 (9 p.m.) about 525 sec.-ft.; Sept. 13 (3 p.m.) 310 sec.-ft.; Sept. 14 (6 p.m.) about 725 sec.-ft.

*Gage-height record unreliable or missing or stage-discharge relation affected by ice; discharge computed on basis of weather records, recorder record and records for New Laguna ditch.

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 1939.

Extremes.- Maximum discharge during year, 3,160 second-feet Sept. 14 (gage height, 5.35 feet), by computation of flow over dam; no flow at times.
1937-39: Maximum discharge, 3,400 second-feet (revised) 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.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.7	4.0	3.6	*12	*4.0	2.0	2.9	0.4	0	0	†0
2	0	2.4	9.2	4.0	*6.7	*3.3	‡2.9	2.2	.5	0	0	†0
3	1.2	1.8	4.3	4.3	*1.5	*4.5	‡1.8	2.2	5.0	0	2.0	†0
4	8.0	.8	5.7	*2.3	*1.5	*8.1	32	2.2	4.8	0	1.6	†.5
5	2.9	1.1	4.2	*1.5	*2.5	*8.8	73	1.6	2.0	0	2.0	†6
6	2.7	2.0	12	*1.4	*4	6.0	16	‡1.0	0	0	47	†3
7	2.7	3.5	6.3	3.4	*6	*2.7	8.2	‡.8	3.7	0	3.6	†3
8	2.7	2.7	6.8	12	*10	*5.0	8.2	‡.8	3.6	0	4.5	†6
9	2.4	2.2	6.6	12	†4	6.5	8.9	‡.7	3.7	0	4.8	†10
10	.2	1.2	6.0	*3.0	†1.5	8.1	5.7	‡.7	3.9	0	5.4	†10
11	0	1.8	2.8	*2.2	†1.5	*12	2.2	‡.9	3.6	0	4.5	†4
12	0	.5	3.3	*.9	†2	*6.9	1.7	‡.9	3.4	0	5.1	†2
13	0	0	5.2	*3.6	†3	4.2	1.7	‡1.3	3.4	0	13	63
14	0	0	4.0	2.3	†4.5	4.5	1.7	1.6	2.8	0	3.1	632
15	0	.4	7.3	*3.4	†5	4.5	4.2	2.0	2.8	‡11	1.6	404
16	0	0	7.9	*3.9	†5	2.7	3.7	1.3	3.0	1.9	1.2	19
17	0	.8	*5.0	*4.3	†4.5	2.4	1.6	1.5	2.8	1.6	1.1	13
18	0	0	*3.9	*7.5	*4.2	2.7	2.4	1.5	3.6	6.7	1.5	.6
19	0	0	*4.7	*5.5	2.7	2.8	2.4	.9	4.5	7.3	3.1	5.1
20	0	4.9	8.8	3.9	*2.7	3.6	2.4	.4	4.2	6.9	12	4.2
21	0	3.7	*5.2	*4.5	*2.1	4.3	2.7	.9	3.9	7.1	4.5	7.9
22	0	2.7	*2.3	5.2	*4.3	6.7	2.0	16	4.0	7.3	4.2	7.9
23	0	.2	*2.4	*5.7	*4.0	5.2	2.7	9.7	3.9	10	3.3	16.9
24	0	0	*2.6	*2.7	*3.4	6.1	3.5	.4	2.3	13	3.3	1.5
25	0	.8	2.7	*3.3	*2.7	6.7	2.0	1.4	1.0	12	5.1	4.5
26	0	.8	2.3	*4.7	*2.4	7.3	2.2	3.7	0	16	†6	6.8
27	0	*2.2	*3.4	*5.2	2.8	8.4	2.7	4.5	0	13	†5	7.5
28	.1	*1.5	3.0	*6.1	4.7	13	2.7	5.2	0	13	†1	3.5
29	0	*2.7	*3.6	*5.7	-	14	3.7	6.3	0	‡1.5	†0	1.8
30	0	*4.4	*3.4	*5.9	-	6.6	6.3	3.1	0	27	†0	2.2
31	0	-	*4.3	*6.3	-	2.4	-	2.1	-	17	†0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	22.9	8.0	0	0.74	45
November	45.8	4.9	0	1.53	91
December	153.2	12	2.3	4.94	304
Calendar year 1938	3,339.5	552	0	9.15	6,620
January	140.3	12	.9	4.53	278
February	111.2	12	1.5	3.97	221
March	184.0	14	2.4	5.94	365
April	213.4	73	1.7	7.11	423
May	80.7	16	.4	2.60	160
June	76.8	5.0	0	2.56	152
July	171.7	27	0	5.54	341
August	149.5	47	0	4.82	297
September	1,235.9	632	0	41.2	2,450
Water year 1938-39	2,585.4	632	0	7.08	5,130

Peak discharge.- Aug. 6 (5 p.m.) 715 sec.-ft.; Sept. 13 (6 p.m.) 930 sec.-ft.; Sept. 14 (9 p.m.) 3,160 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of gage height and weather records.

†Gage height missing; discharge computed on basis of weather records and records for Mesita ditch near Laguna.

‡Stage-discharge relation uncertain; discharge computed on basis of records for Mesita ditch near Laguna.

Acomita Reservoir outlet near San Fidel, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 35°04', long. 107°36', in sec. 29, T. 10 N., R. 7 W., 500 feet downstream from Acomita Reservoir and 1¼ miles southeast of San Fidel.

Records available.- June 1938 to September 1939.

Extremes.- Maximum daily discharge during year, 3.2 second-feet May 20; no flow at times. 1938-39: Maximum daily discharge, 3.4 second-feet Sept. 29, 1938; no flow at times.

Remarks.- Records good. Discharge for period of doubtful gage heights, Feb. 3-7, 9-23, computed on basis of study of recorder trace and weather records. Discharge represents flow released from Acomita Reservoir for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7							-	1.9	0	2.8	1.2
2	.7							-	1.9	0	2.7	.8
3	.7							-	2.5	0	2.7	-
4	.5							-	2.3	0	2.7	0
5	0							-	2.2	0	2.7	.1
6	0							-	2.2	0	2.7	0
7	0							-	2.2	0	2.7	0
8	0							-	2.0	0	2.7	.3
9	0							-	2.0	0	2.7	.9
10	0							.9	2.0	0	2.7	1.0
11	0							2.0	1.9	0	2.5	1.1
12	1.8							1.5	1.9	0	2.7	1.1
13	1.5							1.1	1.6	0	2.5	1.1
14	0							2.5	1.4	0	2.5	1.1
15	0							3.0	1.1	0	2.3	1.2
16	0							3.0	.9	0	2.2	1.1
17	0							3.0	.1	.2	2.2	1.1
18	0							3.0	0	.3	2.0	1.1
19	-							3.0	0	.4	2.0	1.0
20	-							3.2	0	0	2.0	1.0
21	-							3.0	0	0	2.0	.9
22	-							3.0	0	0	2.0	.8
23	-							3.0	0	0	2.0	.7
24	-							2.8	0	.3	1.9	.5
25	-							2.8	0	0	1.9	0
26	-							2.7	.2	0	1.9	.4
27	-							2.7	0	0	1.9	.7
28	-							2.7	0	0	1.9	.7
29	-							2.5	0	.9	1.8	.7
30	-							2.5	0	2.8	1.6	.7
31	-							2.5	-	3.0	1.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	1.8	0	0.20	12
November	-	-	-	.03	1.5
December	-	-	-	.02	1.4
Calendar year	-	-	-	-	-
January	-	-	-	.04	2.2
February	-	-	-	.05	2.5
March	-	-	-	.05	3.4
April	-	-	-	.06	3.4
May	-	3.2	-	1.83	113
June	30.3	2.5	0	1.01	60
July	7.9	3.0	0	.25	16
August	70.3	2.8	1.4	2.27	139
September	21.32	1.2	0	.71	42
Water year 1938-39	-	3.2	0	.55	396

Note.- Discharge less than 0.1 second-foot on days for which no figure is given.

Seama-Paraje ditch near Casa Blanca, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°03', long. 107°32', in sec. 36, T. 10 N., R. 7 W., three-quarters of a mile east of west boundary of Laguna Indian Reservation, 1 mile downstream from head, and 3 miles west of Casa Blanca.

Records available.- March 1937 to September 1939.

Extremes.- Maximum daily discharge during year, 4.5 second-feet; no flow at times.
1937-39: Maximum daily discharge, 9.0 second-feet July 3, 1937; no flow at times.

Remarks.- Records good except those for Aug. 10 to Sept. 27, which are fair, and those for periods of ice effect, Nov. 8, 13-15 (computed on basis of gage heights and weather records), which are poor. Ditch diverts water from right bank of San Jose River on Acoma Indian Reservation for irrigation on Laguna Indian lands. Several small diversions between station and heads.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	1.2				0	1.3	0.8	0.5	0.1	0.5	0.4
2	.1	2.0				0	2.6	1.1	.4	.1	.5	.6
3	.8	2.1				0	1.9	.8	.4	.1	1.6	.4
4	.9	1.9				0	2.4	2.2	1.6	.2	3.3	.4
5	.8	.9				0	1.9	1.5	2.7	.1	1.2	.6
6	.8	0				0	0	1.1	.2	.2	2.4	.6
7	1.2	.1				0	0	1.2	.8	.1	3.1	.7
8	.8	.2				0	.5	1.7	.3	.1	.9	1.1
9	1.3	.3				0	1.7	.7	.2	.1	.8	2.3
10	1.4	.2				0	1.1	.6	.2	.1	1.1	2.0
11	1.3	.1				0	.9	.6	.9	.1	.7	.5
12	1.5	.1				0	2.3	.6	1.6	.1	.7	2.5
13	2.0	.2				0	2.5	.6	.3	.1	.7	2.6
14	2.4	.3				0	2.5	2.0	.6	.3	1.6	3.9
15	1.8	.2				0	2.7	3.6	.2	1.2	2.8	2.8
16	1.6	.1				0	2.5	3.6	.2	.6	1.4	2.8
17	1.0	.1				0	1.5	1.9	.3	.2	.4	1.5
18	.6	0				0	.5	.5	.3	.1	1.8	1.7
19	.4	0				0	.2	.4	.2	.2	1.1	1.7
20	.5	0				0	.4	.4	.3	.1	1.2	1.6
21	1.7	0				0	1.0	1.7	.2	.2	2.5	1.6
22	1.2	0				0	1.1	3.0	.2	.2	2.0	3.7
23	.9	0				0	1.2	2.9	.2	.1	.6	3.7
24	.2	0				0	1.0	1.6	.1	.1	.6	3.6
25	1.8	0				0	.4	.4	.1	.1	.5	2.5
26	3.0	0				0	1.2	.4	.2	.2	.6	2.0
27	1.6	0				0	.8	.4	.2	.2	1.1	3.0
28	1.0	0				0	1.5	1.8	.2	.3	2.5	4.5
29	3.4	0				.4	.8	2.9	.1	2.5	.7	3.9
30	2.4	0				.3	1.1	.7	.2	2.5	.6	4.4
31	.6	-				1.3	-	.9	-	.8	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	39.4	3.4	0.1	1.27	78
November	10.0	2.1	0	.33	20
December	0	0	0	0	0
Calendar year 1938	316.7	3.4	0	.87	629
January	0	0	0	0	0
February	0	0	0	0	0
March	2.0	1.3	0	.06	4.0
April	39.8	2.8	0	1.33	79
May	42.9	3.6	.4	1.38	85
June	13.9	2.7	.1	.46	28
July	11.4	2.5	.1	.37	23
August	40.3	3.3	.4	1.30	80
September	64.5	4.5	.4	2.15	128
Water year 1938-39	264.2	4.5	0	.72	525

Casa Blanca ditch at Casa Blanca, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°03', long. 107°29', near NE cor. sec. 5, T. 9 N., R. 6 W., hald a mile west of Casa Blanca and 1¼ miles downstream from head gate.

Records available.- February 1937 to September 1939.

Extremes.- Maximum daily discharge during year, 4.9 second-feet Apr. 3; no flow at times. 1937-39: Maximum daily discharge, 6.7 second-feet Sept. 4, 1937; no flow at times.

Remarks.- Records good except those for period of missing gage heights, Nov. 4-8 (computed on basis of recorded range in stage and weather records), and those for period of doubtful gage heights, Mar. 13-28 (estimated), which are poor. Ditch diverts water from right bank of San Jose River for irrigation of Indian lands. Several small diversions between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1					0	1.6	0	0	0	0	0
2	.1					0	2.5	0	0	0	.1	0
3	.1					0	4.9	0	0	.4	1.0	0
4	.1					0	3.3	0	0	0	2.7	0
5	.4					0	.2	.3	0	0	.2	0
6	.8					0	0	.2	1.2	0	.1	0
7	.9					0	0	0	1.0	0	1.2	.3
8	.8					0	0	0	0	0	.3	.2
9	.7					0	0	0	0	0	0	1.0
10	.7					0	1.2	0	0	0	0	.1
11	.7					0	1.7	0	0	0	0	.1
12	.8					0	1.8	0	0	0	0	.1
13	.7						.5	0	.5	0	0	1.0
14	.7						.1	0	.3	0	0	3.6
15	.7						.1	0	0	.1	.1	.3
16	.7						.2	0	0	0	0	.1
17	.7						.6	0	0	0	.2	.1
18	.7						.6	0	0	0	0	.1
19	.8						.6	0	0	0	.2	.1
20	.8					*.5	.6	0	0	0	0	.1
21	.9						.7	0	0	0	0	.1
22	.9						.6	0	0	0	.9	.9
23	.9						.6	0	0	0	.5	3.0
24	.8						.7	0	0	0	.3	2.7
25	.8						.6	0	0	0	.3	3.0
26	.9						.4	0	0	0	0	1.9
27	1.0						0	0	0	0	0	1.9
28	.7					*.5	0	0	0	0	0	.2
29	.1					.1	.2	0	0	1.6	.8	.3
30	.1					.1	.2	1.1	0	.4	.9	.2
31	0					1.8	-	1.1	-	.2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	19.1	1.0	0	0.62	38
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	129.6	2.9	0	.36	256
January	0	0	0	0	0
February	0	0	0	0	0
March	10.0	1.8	0	.32	20
April	24.5	4.9	0	.82	49
May	2.7	1.1	0	.09	5.4
June	3.0	1.2	0	.10	6.0
July	2.7	1.6	0	.09	5.4
August	9.8	2.7	0	.32	19
September	21.6	3.8	0	.72	43
Water year 1938-39	93.4	4.9	0	.26	186

New Laguna ditch near New Laguna, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°02', long. 107°27', in sec. 2, T. 9 N., R. 6 W., just upstream from flume over Encinal Creek, three-quarters of a mile downstream from head, and 1¼ miles west of New Laguna.

Records available.- February 1937 to September 1939.

Extremes.- Maximum daily discharge during year, 4.4 second-feet Aug. 4: no flow at times. 1937-39: Maximum daily discharge, 5.1 second-feet June 29, Sept. 4, 1937; no flow at times.

Remarks.- Records good except those for August and September, which are fair, and those for periods of ice effect and missing gage heights, which are poor. Ditch diverts water from left bank of San Jose River for irrigation. Several small diversions between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	0.6	0.1	*2.0		0	0	0.2		0	0	0
2	1.4	1.0	0	*.5		0	0	0		0	0	0
3	1.3	1.1	0	*.1		0	2.2	0		0	.3	0
4	1.0	1.0	0	*0		0	2.5	.6		0	4.4	0
5	.8	.4	1.6	*0		0	1.6	.8		0	1.1	0
6	.4	.1	2.9	*0		0	0	.2		0	0	0
7	.5	0	3.0	0		0	0	1.4		0	.3	.4
8	.5	.9	3.0	0		0	0	1.0		0	0	.5
9	.2	1.8	3.0	0		0	2.3	.6		0	0	2.1
10	1.0	1.6	1.7	0		0	.1	0		0	0	1.0
11	.8	1.3	1.4	0		0	1.4	0		0	0	0
12	0	1.4	2.6	0		0	.9	0		0	0	0
13	.8	*.6	2.3	0		0	1.7	0		0	0	1.0
14	.8	*.8	*.8	0		0	2.3	0		0	0	1.6
15	.7	*1.2	*0	0		0	1.1	1.0		0	0	.2
16	.7	*1.2	0	0		0	1.6	2.9		0	0	.3
17	.7	1.5	0	0		0	2.0	2.1		0	0	.3
18	.6	*.7	0	*0		0	1.4	.3		0	0	.3
19	.7		0	*0		0	.1	0		0	0	.6
20	.7		0	0		0	.4	0		0	0	.6
21	.7		0	0		0	.1	0		0	.8	.9
22	.5		0	0		0	.7	.3		0	.1	.9
23	.7		0	0		0	.6	.1		0	0	1.2
24	.6	†.5	0	0		0	1.7	.1		0	0	1.0
25	.2		0	0		0	.2	.3		0	0	.5
26	.9		*.1	0		0	.2	.2		0	0	.4
27	.8		*0	0		0	.8	.2		0	.2	.3
28	.5		*0	0		.7	.3	.6		0	1.7	.5
29	.8		*.1	0		0	.2	1.0		1.7	.3	.6
30	1.3	*.2	*.2	0		.1	1.1	1.0		1.5	0	.7
31	.6	-	*.5	0		.3	-	0		.8	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	23.2	2.0	0	0.75	46
November	22.9	1.8	0	.76	45
December	23.3	3.0	0	.75	46
Calendar year 1938	206.0	4.3	0	.56	409
January	2.6	2.0	0	.08	5.2
February	0	0	0	0	0
March	1.1	.7	0	.04	2.2
April	27.5	2.5	0	.92	55
May	14.9	2.9	0	.48	30
June	0	0	0	0	0
July	4.0	1.7	0	.13	7.9
August	9.2	4.4	0	.30	18
September	15.9	2.1	0	.53	32
Water year 1938-39	144.6	4.4	0	.40	287

*Stage-discharge relation affected by ice; discharge computed on basis of gage height and weather records.
†Gage height missing; discharge estimated.

New Laguna ditch wasteway near Casa Blanca, N. Mex.

Location.- Water-stage recorder and 2-foot Parshall flume, lat. 35°02', long. 107°27', in NW¼ sec. 3, T. 9 N., R. 6 W., 700 feet downstream from waste gate and 1½ miles east of Casa Blanca.

Records available.- March 1937 to September 1939.

Extremes.- Maximum daily discharge during year, 12 second-feet Sept. 13; no flow at times. 1937-39: Maximum daily discharge, 15 second-feet (estimated) July 28, 1937; no flow at times.

Remarks.- Records fair except those for periods of missing gage heights, periods of ice effect, and periods of uncertain stage-discharge relation, which are poor. Discharge represents unused water returned from New Laguna ditch to San Jose River below station on that river near Casa Blanca.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	9.5	0.4	*0.3	0	3.6			0	0	0
2	0	0	7.4	†3.7	*.3	.1	2.3			0	0	0
3	0	0	7.6	†6.0	*.3	.1	3.2			0	0	0
4	0	0	7.1	†5.2	*.3	0	8.8			0	.4	0
5	0	0	3.0	†5.3	*.3	0	9.1			0	.1	0
6	0	0	.4	†5.5	*.3	0	8.2			0	0	0
7	0	*0	.3	7.8	*.3	0	8.2			0	3.3	0
8	0	*.4	.2	7.4	*.3	0	7.8			0	.1	.5
9	0	*1.8	.3	†5.9	*.3	0	6.3			0	0	.2
10	0	1.6	4.4	†5	*.3	0	6.0			0	0	0
11	0	.6	4.4	†5	.2	0	3.3			0	0	0
12	0	.4	3.5	†3.4	.2	0	2.0			0	0	2.8
13	0	.4	4.1	†5.2	.3	0	.6			0	0	12
14	0	.3	†3.5	†5.9	.2	0	.3			0	0	‡6.6
15	0	.2	6.7	†4.7	.3	0	.4			0	0	‡7.9
16	0	.3	6.0	†5.1	.2	0	.3			0	0	‡6.2
17	0	.2	4.2	†4.8	.1	0	.2			0	0	‡5.7
18	0	.2	3.5	†6.4	0	0	.1			0	0	‡5.3
19	0	.8	‡5.4	†2.2	.2	0	.1			0	0	‡4.8
20	0	†1.2	‡7.3	†.9	.3	0	0			0	0	‡4.4
21	0	1.9	6.8	†1.0	.4	0	.1			0	0	‡4.8
22	0	3.2	5.1	.9	.2	0	.1			0	0	‡3.1
23	0	†2.4	3.7	1.2	.2	0	0			0	0	.8
24	0	†3.8	†2.6	†.5	0	0	0			0	0	.7
25	0	*4	†4.1	†.6	0	0	0			0	0	‡2.8
26	0	*4	†6.6	†.6	.1	0	0			0	0	‡3.6
27	0	*6	†6.2	†.8	0	0	0			0	0	.4
28	0	*6	†5.5	.6	0	4.9	0			0	.1	.3
29	0	*8	†5.3	†.5	-	9.4	.1			1.0	0	.1
30	0	*9.2	†3.8	†.4	-	8.2	.2			1.9	0	.1
31	.2	-	†.6	*.4	-	6.0	-			.4	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0.2	0.2	0	0.01	0.4
November	56.9	9.2	0	1.90	113
December	139.1	9.5	.2	4.49	276
Calendar year 1938	519.9	9.5	0	1.42	1,030
January	103.3	7.8	.4	3.33	205
February	5.9	.4	0	.21	12
March	28.7	9.4	0	.93	57
April	71.3	9.1	0	2.38	141
May	0	0	0	0	0
June	0	0	0	0	0
July	3.3	1.9	0	.11	6.5
August	4.0	3.3	0	.13	7.9
September	73.1	12	0	2.44	145
Water year 1938-39	485.8	12	0	1.33	964

*Gage height missing; discharge computed on basis of weather records and records for San Jose near Casa Blanca.
†Stage-discharge relation affected by ice; discharge computed on basis of gage height and weather records.
‡Stage-discharge relation uncertain; discharge computed on basis of gage height and engineers' notes.

Encinal Creek near Casa Blanca, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°08', long. 107°28', in sec. 34, T. 11 N., R. 6 W., 150 feet upstream from diversion dam for Encinal Pueblo ditches, 1½ miles north of Encinal Pueblo, and 6½ miles north of Casa Blanca.

Records available.- January 1937 to September 1939.

Extremes.- Maximum discharge during year, 84 second-feet July 31 (gage height, 3.05 feet), by slope-area method; no flow July 4-8, 11-13, Sept. 29, 30.
1937-39: Maximum discharge, 215 second-feet Sept. 4, 1938 (gage height, 5.0 feet), from rating curve extended above 1 second-foot on basis of slope-area measurement at 93 second-feet; no flow at times.

Remarks.- Records poor. One diversion above station and one below for irrigation of Indian land.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	0.1	0.3	0.3	0.4	*0.4	0.1	0.1		-		-
2	-	.1	.3	.4	†.4	*.4	.1	.1		-		-
3	-	.2	.3	.4	*.3	*.4	.1	.1		-		-
4	-	.2	.4	.3	*.4	*.4	.4	.1		0		-
5	-	.2	.4	.3	*.4	*.4	.1	.1		0		-
6	-	.2	.3	.3	.4	*.4	.2	.1		0		-
7	-	.1	.4	.4	.5	*.4	.2	.1		0		0.3
8	-	.1	.4	.5	.5	*.4	.2	.1		0		-
9	-	.1	.4	.4	.5	.5	.1	.1		-		-
10	-	.2	.3	.3	.4	.4	.1	.1		-		-
11	-	.2	.3	.3	†.5	.3	.1	.1		0		-
12	-	.2	.4	.3	†.4	.4	.1	.1		0		-
13	-	.2	.3	.3	.5	.4	.1	.1		0		-
14	-	.2	.3	.2	.5	.4	.1	.1		.1		-
15	-	.2	.4	.2	.6	.4	.1	.1		-		-
16	-	.2	.4	.2	.5	.4	.1	.1		-		-
17	-	.2	.4	.2	.5	.3	.1	-		-		-
18	-	.2	.4	.2	.5	.3	.1	-		-		-
19	-	.2	.4	.3	.5	.3	.1	-		-		-
20	-	.1	.5	.3	.5	.2	.1	-		-		-
21	-	.1	.4	.3	.5	.2	.1	-		-		-
22	-	.1	.3	.4	.5	.2	.1	-		-		-
23	-	.1	.3	.4	.7	.2	.1	-		-		-
24	-	.1	.3	.3	.6	.2	.1	-		-		-
25	-	-	.3	.3	.3	.2	.1	-		-	0.2	-
26	-	-	.3	.3	*.4	.2	.1	-		-		-
27	-	.1	.3	.3	*.4	.2	.1	-		-		-
28	-	.1	.3	.4	*.4	.2	.1	-		.2		-
29	-	.1	.3	.3	-	.2	.1	-		-		0
30	-	.2	.3	.3	-	.1	.1	-		.4		0
31	0.1	-	.3	.4	-	.1	-	-		3.0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1.46	0.1	-	0.05	2.9
November	4.48	.2	-	.15	8.9
December	10.7	.5	.3	.35	21
Calendar year 1938	76.14	4.3	0	.21	150
January	9.8	.5	.2	.32	19
February	13.0	.7	.3	.46	26
March	9.5	.5	.1	.31	19
April	3.6	.4	.1	.12	7.1
May	2.63	.1	-	.08	5.2
June	.93	-	-	.03	1.8
July	4.0	3.0	0	.13	7.9
August	.64	.2	-	.03	1.7
September	.68	.3	0	.02	1.3
Water year 1938-39	61.62	3.0	0	.17	122

Peak discharge.- July 30 (1 p.m.) about 38 sec.-ft.; July 31 (3 p.m.) about 84 sec.-ft.; Sept. 7 (2 p.m.) about 16 sec.-ft.
*Gage height missing or doubtful; discharge computed on basis of weather records.
†Stage-discharge relation affected by ice; discharge computed on basis of gage height and weather records.
Note.- Discharge less than 0.1 second-foot on days for which no figure is given.

Laguna ditch at New Laguna, N. Mex.

Location.- Water-stage recorder and 3-foot Parshall flume, lat. 35°02', long. 107°24', in SW¼NW¼ sec. 8, T. 9 N., R. 5 W., three-quarters of a mile southeast of New Laguna and 1 mile downstream from head gate.

Records available.- October 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 1.8 second-feet July 30; no flow at times.
1936-39: Maximum daily discharge, 2.0 second-feet Aug. 23, 1938; no flow at times.

Remarks.- Records good. Ditch supplied with water for irrigation from New Laguna Reservoir on San Jose River at New Laguna. No diversion between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0.4	0.3	1.1	0	0.6	0
2						0	0	.4	.6	0	.2	0
3						0	.3	.4	.2	0	.4	0
4						0	.2	.2	0	0	0	0
5						0	0	.4	0	0	0	0
6						0	0	.5	0	0	0	0
7						0	0	.8	0	0	0	0
8						0	0	.4	0	0	.6	.4
9						0	0	.6	0	0	.2	0
10						0	0	.2	0	0	.1	0
11						0	0	.3	0	0	0	0
12						0	0	.5	0	0	.2	0
13						0	0	.4	0	0	.1	.1
14						0	.2	.7	0	0	.2	0
15						0	.4	.4	0	0	0	0
16						0	0	.1	0	0	.6	0
17						0	.2	.1	0	0	.5	0
18						0	.3	0	0	0	0	0
19						0	.2	.5	0	0	.4	0
20						0	.5	.9	0	0	0	0
21						0	.6	0	0	0	.5	0
22						0	.1	0	0	0	.3	0
23						0	.7	.8	0	0	0	0
24						0	.4	.6	0	0	.4	0
25						0	0	.5	0	0	.5	0
26						0	.3	.7	0	0	.5	0
27						.1	.1	.9	0	0	0	0
28						0	.4	1.0	0	0	.3	0
29						.6	.2	1.3	0	.9	.7	0
30						.4	.3	.7	0	1.8	.3	0
31						.7	-	.9	-	0	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	63.6	2.0	0	.17	126
January	0	0	0	0	0
February	0	0	0	0	0
March	1.8	.7	0	.06	3.6
April	5.8	.7	0	.19	12
May	15.5	1.3	0	.50	31
June	1.9	1.1	0	.06	3.8
July	2.7	1.8	0	.09	5.4
August	7.7	.7	0	.25	15
September	.5	.4	0	.02	1.0
Water year 1938-39	55.9	1.8	0	.10	72

Paguate 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 Paguate Pueblo, 5 miles upstream from confluence with Cebolleta Creek, and 8½ miles northwest of Laguna.

Records available.- February 1937 to September 1939.

Extremes.- Maximum discharge during year, 108 second-feet July 31 (gage height, 3.37 feet), from rating curve extended above 2.5 second-feet on basis of slope-area measurement of 82 second-feet; minimum daily discharge, 0.4 second-foot on many days in June and July.

1937-39: Maximum gage height, 4.28 feet Aug. 1, 1937 (discharge not determined); minimum daily discharge, 0.2 second-foot several days in June and July 1937, Aug. 20, 1938.

Remarks.- Records good except those for period of doubtful gage heights, Aug. 3-9 (computed on basis of study of recorder record and weather records), and those for period of missing gage heights Sept. 17-26 (computed on basis of recorded range in stage and weather records), which are poor. No diversions above station; several below.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.8	1.2	1.1	1.0	1.2	2.4	1.2	0.6	0.5	2.4	0.5
2	.8	.8	1.2	1.0	1.0	.9	2.2	1.2	.6	.4	3.3	.5
3	.8	.8	1.2	1.0	.8	1.2	1.8	1.1	.6	.6	1.0	.5
4	.8	.8	1.2	1.0	1.4	1.4	5.2	1.4	.6	.6	.7	.5
5	.8	.9	1.2	1.0	1.4	1.0	13	1.0	.6	.5	.5	.5
6	.8	.9	1.2	1.1	1.1	.9	5.4	1.0	.6	.4	1.0	.5
7	1.0	.8	1.2	1.1	1.1	1.2	3.0	1.0	.6	.4	.8	1.0
8	.8	.8	1.2	1.5	1.1	1.5	2.7	1.0	.5	.4	.6	.6
9	.8	.8	1.2	1.2	.7	1.5	1.9	.9	.5	.4	1.0	.6
10	.8	.9	1.2	1.0	.9	1.4	1.6	.9	.4	.4	.7	.6
11	.7	.9	1.1	1.1	1.0	1.4	1.4	.8	.4	.4	.6	.6
12	.7	1.0	1.1	.8	.9	1.4	1.2	.8	.4	.4	.6	.6
13	.7	.8	1.1	1.0	1.0	1.4	1.2	.8	.4	.4	.7	1.9
14	.7	.9	.9	.9	1.0	1.4	1.2	.8	.4	1.9	.6	.6
15	.6	.9	1.1	.8	1.0	1.4	1.2	.8	.4	3.7	.6	.6
16	.7	1.0	1.1	1.0	1.0	1.6	1.1	.8	.4	.7	.6	.7
17	.7	1.0	1.1	1.0	1.0	1.6	1.1	.8	.4	.5	.6	.6
18	.7	.9	1.0	1.0	1.0	1.4	1.1	.8	.4	.5	.6	.5
19	.7	.9	1.0	1.0	1.0	1.4	1.1	.7	.4	.4	.6	.5
20	.7	1.1	1.2	1.1	1.0	1.4	1.1	.7	.5	.4	.7	.5
21	.7	1.1	1.1	1.0	.8	1.4	1.1	.7	.5	.4	3.1	.5
22	.7	1.1	1.0	1.2	.9	1.5	1.1	.7	.6	.4	.7	.5
23	.7	.8	1.0	1.2	1.1	1.6	1.2	.7	.5	.5	.6	.5
24	.7	.7	.8	1.0	1.4	1.9	1.1	.7	.4	.4	.6	.5
25	.8	1.0	.8	.8	1.4	1.8	1.1	.7	.4	.4	.6	.8
26	.8	1.0	.9	1.0	1.2	1.6	1.1	.7	.4	.4	.7	.6
27	.8	1.0	.8	1.1	1.0	2.1	1.1	.7	.5	.5	.6	.6
28	.8	1.0	.8	1.4	1.0	2.4	1.1	.7	.4	.7	.6	.6
29	.8	1.0	.8	1.2	-	2.4	1.4	.7	.5	.7	.6	.6
30	.8	1.2	.8	1.1	-	2.7	1.4	.7	.5	1.9	.5	.6
31	.8	-	.8	1.2	-	3.0	-	.7	-	8.6	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	23.5	1.0	0.6	0.76	47
November	27.6	1.2	.7	.92	55
December	32.3	1.2	.8	1.04	64
Calendar year 1938	355.9	6.1	.2	.98	708
January	32.9	1.5	.8	1.06	65
February	29.2	1.4	.7	1.04	58
March	49.0	3.0	.9	1.58	97
April	62.6	13	1.1	2.09	124
May	26.2	1.4	.7	.85	52
June	14.3	.6	.4	.48	28
July	28.8	8.6	.4	.93	57
August	27.3	3.3	.5	.88	54
September	18.7	1.9	.5	.62	37
Water year 1938-39	372.4	13	.4	1.02	738

Peak discharge.- April 5 (7 a.m.) 18 sec.-ft.; July 31 (3 p.m.) about 108 sec.-ft.; July 31 (4 p.m.) about 78 sec.-ft.

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Mesita ditch near Laguna, N. Mex.

Location.- Water-stage recorder and 3-foot Parshall flume, lat. 35°01', long. 107°19', in SE¼ sec. 12, T. 9 N., R. 5 W., in Mesita Indian village, 4,300 feet downstream from head gate and 4½ miles east of Laguna.

Records available.- June 1936 to September 1939.

Extremes.- Maximum daily discharge during year, 10 second-feet July 26; no flow at times.
1936-39: Maximum daily discharge, 12 second-feet July 19, 1938; no flow at times.

Remarks.- Records good except those for periods of backwater, periods of faulty intake action, and periods of missing gage heights, which are poor. Ditch diverts water from right bank of San Jose River for irrigation of Indian lands. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0				0	0	1.9	*0.3	0	0	0
2	0	0				0	2.6	1.7	.3	0	0	0
3	1.0	0				0	2.0	1.9	2.8	0	1.2	0
4	5.6	0				0	4.0	1.8	3.2	0	1.3	0
5	2.4	0				0	0	1.6	*1.6	0	1.0	5.3
6	2.3	0				0	0	.9	0	0	4.7	1.7
7	2.5	0				*.3	0	.7	3.4	0	3.4	2.3
8	2.3	0				*1.0	0	.7	3.7	0	5.2	4.1
9	*2.2	0				*3.8	0	*.6	3.3	0	5.4	7.0
10	.4	0				6.3	1.1	.6	3.7	0	5.5	7.6
11	0	0				4.3	0	.8	3.3	0	4.6	3.1
12	0	0				3.7	1.5	*.8	3.3	0	*4.4	2.0
13	0	0				4.1	1.6	1.2	3.5	0	5.0	.2
14	0	0				4.2	1.4	1.7	3.1	0	.9	1.0
15	0	0				4.1	3.2	2.0	2.9	1.5	.4	1.1
16	0	0				2.6	[illegible]	1.5	*3.1	1.2	.5	.5
17	0	0				2.0	2.[illegible]	1.3	*3.0	.5	1.0	.3
18	0	0				2.5	2.6	1.4	3.1	4.3	1.4	.1
19	0	0				2.9	*2.5	.9	3.2	*4.3	2.5	0
20	0	0				3.2	2.5	.5	3.2	4.2	3.0	0
21	0	0				4.2	2.7	.8	2.9	4.4	2.5	0
22	0	0				5.9	*2.3	7.5	2.9	†4.5	3.2	0
23	0	0				5.2	2.6	5.5	2.6	†5	2.5	.5
24	0	0				5.6	2.8	.5	2.0	†6	2.6	.9
25	0	0				6.2	2.3	1.1	.8	†7.6	2.6	3.1
26	0	0				6.8	2.2	3.0	0	10	2.9	3.8
27	0	0				7.3	2.0	3.3	0	9.2	.6	5.0
28	0	0				7.6	.8	3.4	0	8.2	0	1.1
29	0	0				1.9	.8	3.7	0	1.3	0	2.0
30	0	.7				0	1.7	2.1	0	.1	0	2.3
31	0	-				0	-	*1.1	-	.1	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	18.7	5.6	0	0.60	37
November	.7	.7	0	.02	1.4
December	0	0	0	0	0
Calendar year 1938	446.7	12	0	1.22	884
January	0	0	0	0	0
February	0	0	0	0	0
March	95.7	7.6	0	3.09	190
April	50.9	4.0	0	1.70	101
May	56.5	7.5	.5	1.82	112
June	65.2	3.7	0	2.17	129
July	72.4	10	0	2.34	144
August	68.3	5.5	0	2.20	135
September	55.0	7.6	0	1.83	109
Water year 1938-39	483.4	10	0	1.32	958

*Stage-discharge relation affected by backwater or faulty intake action; discharge computed on basis of study of recorder trace and partly estimated gage height.
†Gage height missing; discharge computed on basis of records for San Jose River near Laguna.

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. Zero of gage is 4,659.74 feet above mean sea level (general adjustment of 1929).

Records available.- April 1936 to September 1939.

Extremes.- Maximum discharge during year, 240 second-feet May 27 (gage height, 4.94 feet); no flow at times.
1937-39: Maximum discharge, 258 second-feet May 21, 1937 (gage height, 5.48 feet); no flow at times.

Remarks.- Records fair except those for periods of missing or doubtful gage heights, Mar. 14-16, 19, 24, 25, Apr. 2, which were computed on basis of partial recorder graph, recorded range in stage and recorder record for station at head of canal, and are poor. Canal diverts water from right bank of Rio Grande for irrigation. Three acequias, together irrigating about 300 acres, divert water between station and head.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	189	103	1	1	1	1	96	115	200	152	22	138
2	184	50	1	1	1	1	18	161	219	162	89	95
3	185	1	1	1	1	1	100	184	193	141	0	55
4	180	1	1	1	1	1	64	160	118	72	0	67
5	170	1	1	1	1	1	24	150	210	42	0	59
6	176	1	1	1	1	1	96	143	199	89	21	58
7	157	48	1	1	1	1	72	88	191	136	120	53
8	82	79	1	1	1	1	102	150	161	134	111	67
9	1	75	1	1	1	1	95	166	130	93	131	99
10	1	112	1	1	1	1	121	156	98	154	107	155
11	1	112	1	1	1	1	130	146	103	144	126	71
12	1	94	1	1	1	1	126	173	90	127	99	75
13	1	13	1	1	1	1	127	148	82	104	83	101
14	1	123	1	1	1	1	141	159	115	59	95	21
15	1	122	1	1	1	1	160	165	64	67	91	0
16	47	124	1	1	1	33	141	160	46	130	75	0
17	51	105	1	1	1	67	134	171	39	150	79	0
18	1	1	1	1	1	108	108	173	33	165	62	0
19	1	1	1	1	1	60	148	174	32	161	53	0
20	63	1	1	1	1	80	148	165	17	173	53	0
21	85	1	1	1	1	62	155	157	95	141	72	37
22	83	1	1	1	1	132	142	173	118	119	171	138
23	40	1	1	1	1	124	117	183	78	62	163	135
24	115	1	1	1	1	121	153	172	136	123	156	92
25	116	1	1	1	1	123	157	210	133	120	167	133
26	123	1	1	1	1	72	159	206	176	110	153	111
27	118	1	1	1	1	117	155	194	195	106	155	1
28	114	1	1	1	1	95	144	169	198	102	160	1
29	121	1	1	1	-	85	117	184	187	37	185	98
30	79	1	1	1	-	69	2	191	168	0	196	125
31	111	-	1	1	-	84	-	195	-	0	207	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,598	189	1	83.8	5,150
November	1,177	124	1	39.2	2,330
December	31	1	1	1.0	61
Calendar year 1938	32,789	234	0	89.8	65,020
January	31	1	1	1.0	61
February	28	1	1	1.0	56
March	1,447	132	1	46.7	2,870
April	3,452	160	2	115	6,850
May	5,132	210	88	166	10,180
June	3,824	219	17	127	7,580
July	3,375	173	0	109	6,690
August	3,202	207	0	103	6,350
September	1,985	155	0	66.2	3,940
Water year 1938-39	26,282	219	0	72.0	52,120

Alamosa River near Monticello, N. Mex.

Location.- Water-stage recorder, lat. 33°35', long. 107°36', in SW¼ sec. 31, T. 8 S., R. 7 W., at Alamosa dam site and old Fort Ojo Caliente, just downstream from Wildhorse Creek, 15 miles northwest of Monticello.

Drainage area.- 470 square miles.

Records available.- May 1931 to September 1939 in reports of Geological Survey. October to December 1929 and May to December 1931 in reports of State engineer.

Extremes.- Maximum gage height during year, 7.21 feet July 14 (discharge not determined); minimum daily discharge, 5.8 second-feet April 28, 30, May 3.
1931-39: 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. Discharge for period of missing gage heights July 14-18, computed on basis of weather records and knowledge of local conditions. No diversion above station. Entire normal flow diverted below station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	7.0	6.6	7.0	7.3	6.4	6.4	6.0	6.0	7.3	37	7.8
2	6.4	7.0	6.4	7.0	7.3	6.4	6.4	6.0	6.0	7.3	74	7.8
3	6.4	7.0	6.4	7.0	7.3	6.4	6.4	5.8	11	7.3	65	7.5
4	6.4	7.0	6.4	7.0	7.3	6.4	6.4	6.0	8.0	7.3	14	7.8
5	6.4	6.6	6.4	7.3	7.3	6.4	6.4	6.0	7.3	7.3	9.6	7.8
6	6.6	6.8	6.6	7.3	7.3	6.4	6.4	6.0	7.3	7.3	9.3	7.8
7	6.6	6.8	6.6	7.5	7.3	6.4	6.4	6.0	7.3	7.3	8.8	7.5
8	6.6	6.8	6.4	7.5	6.8	6.6	6.4	6.0	7.3	7.3	8.8	7.5
9	6.6	6.8	6.4	7.5	6.8	6.6	6.4	6.2	7.3	7.3	19	7.5
10	6.6	6.8	6.4	7.5	7.0	6.6	6.4	6.2	7.3	7.0	9.1	7.5
11	6.6	6.6	6.4	7.5	7.0	6.6	6.6	6.2	7.0	7.0	12	7.5
12	6.8	6.6	6.4	7.5	6.8	6.4	6.8	6.0	7.0	6.8	8.0	7.8
13	6.8	6.6	6.4	7.5	6.8	6.4	6.8	6.2	7.0	6.8	7.8	9.9
14	6.8	6.4	6.4	7.5	6.8	6.4	6.8	6.2	7.3	80	8.0	13
15	6.8	6.6	6.4	7.5	6.8	6.4	6.6	6.2	7.3	7	8.0	81
16	6.8	6.2	6.6	7.5	6.8	6.4	6.6	6.2	7.3	7	8.3	8.8
17	6.8	6.2	6.4	7.3	6.8	6.4	6.6	6.2	7.3	9	7.5	22
18	6.6	6.6	6.4	7.0	6.8	6.4	6.4	6.2	7.3	7	7.5	7.5
19	6.6	6.6	6.6	7.0	6.6	6.6	6.4	6.2	7.3	6.6	7.5	6.8
20	6.6	6.6	6.6	7.0	6.6	6.6	6.4	6.2	7.3	6.6	7.8	6.4
21	6.8	6.6	6.6	7.3	6.4	6.4	6.4	6.2	7.3	6.6	46	6.6
22	6.8	6.4	6.4	7.3	6.4	6.6	6.4	6.0	7.3	6.8	6.8	6.6
23	6.8	6.4	6.6	7.3	6.4	6.6	6.4	6.0	7.5	6.8	6.8	6.6
24	6.8	6.6	6.6	7.3	6.4	6.6	6.4	6.0	7.5	6.8	6.8	6.6
25	6.8	6.6	6.6	7.3	6.2	6.6	6.4	6.0	7.5	6.8	7.7	8.6
26	6.8	6.6	6.6	7.3	6.2	6.6	6.4	6.0	7.5	8.2	7.8	6.6
27	6.8	6.4	6.8	7.3	6.2	6.6	6.0	6.0	7.5	7.0	8.0	6.6
28	7.0	6.4	6.8	7.3	6.4	6.8	5.8	6.0	7.3	9.3	8.0	6.6
29	7.0	6.4	7.0	7.0	-	6.6	6.0	6.0	7.3	24	7.8	6.6
30	7.0	6.4	7.0	7.3	-	6.4	5.8	6.2	7.3	33	7.8	6.4
31	7.0	-	7.0	7.3	-	6.4	-	6.0	-	10	7.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	207.8	7.0	6.4	6.70	412
November	198.4	7.0	6.2	6.61	394
December	203.2	7.0	6.4	6.55	403
Calendar year 1938	2,645.9	74	5.6	7.25	5,250
January	225.9	7.5	7.0	7.29	448
February	190.1	7.3	6.2	6.79	377
March	201.4	6.8	6.4	6.50	399
April	192.0	6.8	5.8	6.40	381
May	188.4	6.2	5.8	6.08	374
June	220.9	11	6.0	7.36	438
July	341.8	80	6.6	11.0	678
August	458.3	74	6.8	14.8	909
September	313.0	81	6.4	10.4	621
Water year 1938-39	2,941.2	81	5.8	8.06	5,830

Pecos River at Irvin ranch, near Pecos, N. Mex.

Location.- Water-stage recorder, lat. 35°42'25", long. 105°41'00", in NE¼NE¼ sec. 17, T. 17 N., R. 12 E., at bridge on private road on Irvin ranch, 600 feet upstream from Indian Creek, 2 miles downstream from Espiritu Santo Creek, and 11 miles north of Pecos.

Drainage area.- 175 square miles.

Records available.- March 1910 to December 1914 (published as Pecos River near Cowles) and October 1930 to September 1939 in reports of Geological Survey. March 1910 to December 1931 in reports of State engineer (published as Pecos River near Cowles prior to 1926).

Extremes.- Maximum discharge during year, 410 second-feet May 11 (gage height, 2.76 feet); minimum daily discharge, 20 second-feet Dec. 24-31, Jan. 14-16, Feb. 3, 4.
1930-39: Maximum discharge, 1,390 second-feet Sept. 24, 1931 (gage height, 3.70 feet) from rating table extended logarithmically above 500 second-feet; minimum daily discharge, 6.1 second-feet Jan. 16, 1934.

Remarks.- Records good except those for periods of ice effect, which are poor. Discharge for periods of missing gage heights, Oct. 3, 4, Aug. 23, interpolated. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	60	*32	*25	*27	27	112	304	190	47	64	39
2	64	58	*32	*30	*25	30	142	308	184	43	97	36
3	63	57	*32	32	*20	*30	156	304	175	42	130	33
4	63	54	34	30	*20	30	212	304	172	41	118	32
5	62	58	33	*25	*25	32	212	321	167	39	116	31
6	61	49	33	*25	*25	*32	216	352	156	37	184	30
7	92	37	33	*25	*25	32	172	348	145	35	175	29
8	178	*45	32	*30	*25	33	161	338	135	70	140	29
9	145	*50	32	30	*25	32	170	338	128	67	114	33
10	118	57	30	*30	*25	33	187	352	118	44	99	92
11	110	53	30	30	*25	31	158	374	112	38	88	48
12	101	49	30	*30	*25	32	148	384	103	34	79	40
13	95	*40	30	*25	*25	42	164	370	97	32	82	43
14	94	*45	*30	*20	*25	52	187	366	94	61	88	62
15	92	50	*30	*20	*25	57	181	343	88	86	78	118
16	95	47	34	*20	*25	64	170	325	81	61	70	164
17	90	46	31	*25	*25	73	153	296	78	53	64	142
18	84	38	31	*25	24	82	145	291	74	50	58	132
19	81	43	32	*25	26	95	156	304	70	53	55	121
20	78	43	33	*25	25	105	178	317	68	44	53	103
21	76	42	31	27	*25	90	220	312	65	41	55	94
22	74	39	30	28	*25	82	264	304	61	41	53	86
23	73	30	*25	*27	*27	99	287	296	61	48	51	81
24	70	*25	*20	*26	28	125	267	283	60	39	49	78
25	68	*25	*20	*25	28	110	267	264	54	39	49	71
26	65	*30	*20	*25	26	123	264	244	53	52	48	71
27	65	*30	*20	*25	*26	130	248	226	53	62	57	70
28	64	*30	*20	*25	*27	107	264	223	55	62	53	67
29	62	*32	*20	*26	-	92	283	212	54	68	46	61
30	61	*35	*20	*27	-	82	291	203	49	67	41	58
31	60	-	*20	28	-	86	-	197	-	64	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,571	178	60	82.9	5,100
November	1,297	60	25	43.2	2,570
December	880	34	20	28.4	1,750
Calendar year 1938	26,222	237	16	71.8	52,030
January	816	32	20	28.3	1,620
February	704	28	20	25.1	1,400
March	2,070	130	27	66.8	4,110
April	6,035	291	112	201	11,970
May	9,403	384	197	303	18,650
June	3,000	190	49	100	5,950
July	1,560	86	32	50.3	3,090
August	2,495	184	41	80.5	4,950
September	2,094	164	29	69.8	4,150
Water year 1938-39	32,925	384	20	90.2	65,310

*Stage-discharge relation affected by ice; discharge computed on basis of two discharge measurements, gage height, weather records, and records for station near Anton Chico.

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 (all details of location revised).

Records available.- April 1910 to December 1914 and October 1930 to September 1939 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, where distances upstream from present site range from a sixth of a mile to 5 miles; records believed to be equivalent.

Extremes.- Maximum discharge during year, 14,800 second-feet Oct. 8 (gage height, 13.1 feet); minimum daily discharge, 2 second-feet Sept. 3-11.
1930-39: Maximum discharge, 40,300 second-feet June 1, 1937 (gage height, 20.34 feet), by slope-area method; no flow at times.

Remarks.- Records good except those for periods of ice effect and missing gage heights, which were computed on basis of partly estimated gage heights, weather records, and records for Pecos River at Santa Rosa, and are poor. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	44	29	22	*20	27	176	316	182	94	378	5
2	41	41	27	25	*15	34	192	328	176	17	195	3
3	28	44	23	24	*15	35	242	354	162	12	221	2
4	22	44	19	24	*18	30	268	354	124	5	209	2
5	29	42	*25	17	*20	32	364	358	118	5	176	2
6	29	44	*25	16	*25	28	392	328	102	5	249	†2
7	32	46	23	22	*30	25	358	344	89	6	239	†2
8	1,550	39	21	58	34	30	310	337	83	7	206	†2
9	559	25	16	53	31	41	292	325	72	5	168	†2
10	325	44	17	28	*25	38	295	322	59	5	131	†2
11	171	45	15	32	*20	39	316	325	54	5	110	†2
12	128	38	18	28	*25	43	289	334	49	5	94	†4
13	113	35	21	19	30	45	268	340	42	5	77	5
14	98	31	23	16	30	49	270	331	37	264	114	†16
15	91	23	22	18	*27	70	292	347	28	508	134	†274
16	90	33	15	22	*26	107	301	325	36	118	68	310
17	95	30	27	*22	27	128	272	298	11	81	50	236
18	103	31	30	*20	42	142	248	272	9	60	38	223
19	95	30	25	22	30	162	225	265	5	46	18	206
20	93	24	30	28	22	190	207	252	5	41	22	188
21	83	25	33	33	*23	230	221	248	4	32	234	157
22	65	*23	30	39	23	240	245	255	5	54	80	136
23	61	*20	25	37	20	216	289	225	61	16	44	120
24	61	*20	21	33	25	265	322	216	24	17	43	106
25	61	*20	14	37	*30	313	313	218	13	9	30	100
26	52	*20	13	25	35	280	310	205	21	277	19	92
27	49	*23	10	26	32	280	298	194	53	231	20	84
28	48	*26	*10	28	27	304	286	182	9	179	44	80
29	48	31	*15	33	-	270	292	214	9	319	28	76
30	48	34	20	31	-	223	304	194	134	473	13	73
31	47	-	*20	25	-	190	-	173	-	378	6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,375	1,550	22	141	8,680
November	975	46	20	32.5	1,930
December	662	33	10	21.4	1,310
Calendar year 1938	36,424.1	1,820	1.2	99.8	72,250
January	863	58	16	27.8	1,710
February	727	42	15	26.0	1,440
March	4,106	313	25	132	8,140
April	8,457	392	176	282	16,770
May	8,779	358	173	283	17,410
June	1,776	182	4	59.2	3,520
July	3,279	508	5	106	6,500
August	3,458	378	6	112	6,860
September	2,512	310	2	83.7	4,980
Water year 1938-39	39,969	1,550	2	110	79,250

Peak discharge.- Oct. 8 (3 p.m.) 14,800 sec.-ft.; July 14 (11 p.m.) 1,400 sec.-ft.; Aug. 1 (8 p.m.) 1,220 sec.-ft.
*Stage-discharge relation affected by ice.
†Gage height missing.

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. Prior to July 13, natural control.

Records available.- May 1903 to December 1906, February 1910 to July 1911, September 1912 to December 1914, and October 1930 to September 1939 in reports of Geological Survey. February 1910 to July 1911 and September 1912 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 13,500 second-feet Aug. 2 (gage height, 9.8 feet); minimum daily discharge, 12 second-feet Mar. 16.
1930-39: Maximum discharge, 55,200 second-feet June 2, 1937 (gage height, 25.7 feet), from rating curve extended logarithmically above 35,000 second-feet; minimum daily discharge, 2.7 second-feet June 25, 1937.

Remarks.- Records fair except those for periods of ice effect and periods of missing or fragmentary gage-height record, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	20	17	21	14	22	94	135	64	20	514	21
2	16	20	17	20	14	19	78	169	46	40	3,100	21
3	16	21	16	18	*13	18	79	181	†35	21	671	21
4	15	18	18	16	*13	16	138	279	†25	21	284	‡20
5	14	18	18	16	*14	15	273	299	†22	21	179	19
6	16	20	18	19	*16	15	385	153	†20	‡20	138	17
7	21	19	17	21	18	*15	350	153	†20	‡19	170	15
8	3,170	21	18	64	20	*15	315	162	†21	‡19	158	17
9	1,560	20	18	52	14	15	250	159	†22	‡18	124	16
10	2,900	18	18	25	*13	16	205	138	†23	17	101	17
11	421	18	18	18	*13	14	201	147	†23	15	78	17
12	210	16	19	17	16	14	197	150	†23	15	51	17
13	122	16	21	16	16	14	150	153	†22	16	49	17
14	76	16	20	15	15	13	141	165	†20	918	26	20
15	52	17	21	16	14	13	141	277	†17	764	24	157
16	36	16	21	15	16	12	162	135	18	1,490	25	906
17	28	15	20	16	42	13	156	130	23	409	35	535
18	25	16	19	13	54	13	132	125	29	114	22	324
19	22	18	19	14	34	14	114	109	34	58	21	236
20	23	18	34	15	27	39	94	105	96	29	21	192
21	22	18	27	16	25	72	68	87	26	26	26	150
22	21	18	21	18	32	109	78	87	22	137	121	104
23	20	16	20	15	26	138	98	91	23	49	91	75
24	20	*15	19	18	22	112	147	70	31	32	35	52
25	19	*15	18	15	19	169	173	56	37	93	22	43
26	18	*16	18	16	20	267	150	58	29	86	21	32
27	19	*17	15	15	37	189	153	54	478	220	21	26
28	19	18	17	16	26	201	147	65	41	142	21	22
29	20	19	21	16	-	255	127	394	24	287	21	20
30	20	20	20	15	-	177	130	119	19	†1,500	21	21
31	19	-	18	14	-	127	-	190	-	†1,100	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,977	3,170	14	290	17,810
November	533	21	15	17.8	1,060
December	601	34	15	19.4	1,190
Calendar year 1938	74,083.2	9,440	8.4	203	147,000
January	601	64	13	19.4	1,190
February	603	54	13	21.5	1,200
March	2,141	267	12	69.1	4,250
April	4,926	385	68	164	9,770
May	4,595	394	54	148	9,110
June	1,333	478	17	44.4	2,640
July	7,716	1,500	15	249	15,300
August	6,212	3,100	21	200	12,320
September	3,150	906	15	105	6,250
Water year 1938-39	41,388	3,170	12	113	82,090

Peak discharge.- Oct. 8 (2 p.m.) 11,000 sec.-ft.; Oct. 10 (2 a.m.) 8,210 sec.-ft.; Aug. 2 (3 a.m.) 13,500 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of gage height, weather records, and records for stations near Anton Chico and near Puerto de Luna.

†Gage-height record missing or fragmentary; discharge computed on basis of weather records, recorded gage heights, and records for station near Puerto de Luna.

‡Gage height missing; discharge interpolated.

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, 11 miles northwest of Alamogordo Dam, and 12 miles below Pintada Canyon.

Records available.- April 1938 to September 1939.

Extremes.- Maximum discharge during period ending Sept. 30, 1938, 24,700 second-feet Sept. 6 (gage height, 10.33 feet), from rating curve extended above 7,000 second-feet on basis of flow at Santa Rosa; minimum daily discharge, 59 second-feet Aug. 23.

Maximum discharge during water year 1938-39, 11,600 second-feet (gage height, 6.10 feet), from rating curve extended above 7,000 second-feet on basis of flow at Santa Rosa; minimum daily discharge, 65 second-feet July 12.

Maximum stage known, 20.5 feet June 4, 1937 (discharge not determined).

Remarks.- Records good except those for periods of missing, incomplete, or doubtful gage-height record (computed on basis of weather records, discharge measurements, recorded gage heights, and records for Pecos River at Santa Rosa) and those above 7,000 second-feet, all of which are poor. Many diversions above station for irrigation. Discharge represents inflow to Alamogordo Reservoir (capacity 157,000 acre-feet). Gage-height record collected in cooperation with Bureau of Reclamation, which also furnished results of three discharge measurements.

Discharge, in second-feet, 1938-39

1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	163	106	*500	134	270
2							-	106	121	*300	103	*1,200
3							-	93	131	*200	91	*4,000
4							-	*110	89	*100	124	*7,000
5							-	146	245	*90	93	*3,000
6							-	138	*100	*90	79	*9,500
7							-	124	*80	*80	83	*2,000
8							-	119	*400	79	76	*800
9							-	117	450	77	72	*400
10							-	112	285	79	70	*700
11							-	103	210	76	72	510
12							-	93	155	72	74	441
13							-	93	*6,000	67	74	490
14							-	83	*3,000	300	77	273
15							-	79	*700	198	442	185
16							-	128	*400	180	146	175
17							-	91	*200	220	110	522
18							-	103	*140	*1,800	93	460
19							-	134	*120	*3,400	81	195
20							-	138	112	*1,500	70	*180
21							-	149	95	2,550	78	*160
22							-	152	85	*1,000	62	*150
23							-	152	76	*400	59	*140
24							79	152	85	*300	62	*130
25							79	155	87	*150	62	*120
26							89	138	83	152	64	112
27							149	124	575	126	62	108
28							166	112	1,170	1,090	65	103
29							166	103	871	*500	64	97
30							454	112	*1,250	*250	65	97
31							-	101	-	*150	69	-

*Missing, incomplete, or doubtful gage height.

Discharge, in second-feet, of Pecos River near Puerto de Luna, N. Mex., 1938-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	85	85	79	95	101	172		237	126	649	89
2	91	83	85	85	99	103	155	*200	146	136	3,120	81
3	83	83	87	81	96	97	146		124	138	780	85
4	85	83	83	79	99	95	*200		114	95	360	93
5	83	81	85	79	103	89	*300	*300	108	87	*300	91
6	79	83	85	81	99	89	*400		95	85	*250	83
7	184	81	91	95	101	89	*400		83	79	220	83
8	2,390	93	89	169	91	89	*350		76	77	231	87
9	*1,700	89	91	166	95	87	*300		79	72	225	85
10	*3,000	83	87	131	79	87			79	77	190	85
11	*700	76	83	112	95	85	*250		89	69	190	85
12	*300	81	87	101	91	85			93	65	155	93
13	*200	81	87	101	99	87			93	110	136	95
14	*150	81	85	101	99	85		*200	91	*2,900	134	119
15	*120	85	85	99	93	83			83	*2,500	114	99
16	*110	85	87	101	87	87	*200		74	*3,000	114	719
17	106	79	85	101	91	89			67	*1,000	163	756
18	106	79	85	99	128	89			70	*300	*130	387
19	103	85	87	101	126	85			81	*200	*120	273
20	101	85	*112	99	108	97			101	*150	*110	205
21	106	87	117	101	103	134	*150		322	*130	*110	195
22	101	85	97	114	101	163			112	*200	146	195
23	97	79	95	114	117	200		*150	91	*130	185	172
24	97	77	97	112	103	195			103	†110	149	152
25	95	87	87	108	106	190		131	112	*150	110	126
26	91	81	85	99	95	255	*200	124	110	*200	93	112
27	97	81	74	99	101	261		124	823	249	87	110
28	93	85	77	101	110	225		128	*300	1,290	89	103
29	93	87	81	101	-	249		512	*150	1,080	85	93
30	89	93	87	99	-	225		285	110	1,320	89	95
31	87	-	81	95	-	200	-	285	-	1,620	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 24-30, 1938	1,182	454	79	169	2,340
May	3,723	163	79	120	7,380
June	17,421	6,000	76	581	34,550
July	16,076	3,400	67	519	31,890
August	2,876	442	59	92.8	5,700
September	33,518	9,500	97	1,117	66,480
The period	-	-	-	-	148,300
October 1938	10,843	3,000	79	350	21,510
November	2,503	93	76	83.4	4,960
December	2,729	117	74	88.0	5,410
Calendar year	-	-	-	-	-
January 1939	3,203	169	79	103	6,350
February	2,810	128	79	100	5,570
March	4,095	261	83	132	8,120
April	6,573	400	-	219	13,040
May	6,489	512	124	209	12,870
June	4,216	823	67	141	8,360
July	17,745	3,000	65	572	35,200
August	8,925	3,120	85	288	17,700
September	5,046	756	81	168	10,010
Water year 1938-39	75,177	3,120	65	206	149,100

Peak discharge.- June 13, 1938 (7 a.m.) 17,400 sec.-ft.; Sept. 4, 1938 (9 p.m.) 19,900 sec.-ft.; Sept. 6, 1938 (9 a.m.) 24,700 sec.-ft.; Oct. 8, 1938 (6 p.m.) 9,020 sec.-ft.; Oct. 10, 1938 (6 a.m.) 7,050 sec.-ft.; July 28, 1939 (7 p.m.) 8,450 sec.-ft.; Aug. 2, 1939 (7 a.m.) 11,600 sec.-ft.

*Missing, incomplete, or doubtful gage height.

†Discharge measurement.

Alamogordo Reservoir near Guadalupe, N. Mex.

Location.- Mercury gage, lat. 34°36'30", long. 104°23'10", in SW¼ sec. 34, T. 5 N., R. 24 E., at Alamogordo Dam on Pecos River, 5 miles northeast of Guadalupe. Zero of gage is at mean sea level (Bureau of Reclamation datum).

Records available.- January to September 1939.

Extremes.- Maximum daily contents during period, 110,500 acre-feet Mar. 25 (elevation, 4,265.35 feet): minimum daily, 61,800 acre-feet June 28, 29 (elevation, 4,247.4 feet).

Remarks.- Reservoir is formed by Alamogordo Dam, which was completed in 1938; storage began in 1938. Capacity, 157,000 acre-feet between elevations 4,200.0 feet (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.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Furnished by Bureau of Reclamation)

4,200	9,000	4,220	22,000	4,240	47,000	4,260	92,000
4,205	11,000	4,225	27,000	4,245	57,000	4,265	109,000
4,210	14,200	4,230	32,300	4,250	67,000	4,270	131,000
4,215	18,000	4,235	39,000	4,255	78,500	4,275	157,000

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				99,500	104,100	107,300	91,200	99,500	84,700	62,100	96,400	108,200
2				99,600	104,200	107,300	91,200	99,800	85,000	62,300	98,800	107,800
3				99,800	104,200	107,500	91,300	97,400	85,000	62,300	104,600	107,500
4				100,000	104,200	107,800	91,500	91,900	85,000	62,300	106,800	107,500
5				100,000	104,400	107,800	92,200	88,900	85,000	62,300	107,300	107,100
6				100,200	104,800	108,200	92,700	84,600	85,000	62,300	107,500	106,800
7				100,200	104,900	108,200	93,400	79,700	85,000	62,300	107,800	106,800
8				100,800	105,100	108,200	94,000	79,700	85,000	62,300	108,000	106,800
9				101,200	105,100	108,300	95,100	80,000	84,700	62,300	108,000	99,600
10				101,200	105,100	108,500	95,600	80,300	84,600	62,200	108,000	88,800
11				101,400	105,100	109,000	95,700	80,500	84,400	62,100	108,200	86,700
12				101,500	105,300	109,000	95,700	80,700	84,200	61,900	108,200	86,600
13				101,700	105,400	109,000	96,100	80,700	83,900	63,200	108,200	86,600
14				101,900	105,600	109,000	96,400	80,900	83,900	67,600	108,300	86,500
15				102,000	105,600	109,000	96,800	81,500	83,900	71,700	108,300	86,300
16				102,000	105,800	109,000	96,900	82,100	83,900	75,300	108,300	86,300
17				102,200	105,900	109,000	97,100	82,600	83,600	78,400	108,300	87,700
18				102,400	105,900	109,000	97,300	82,800	83,400	79,000	108,300	88,500
19				102,500	106,100	109,000	97,400	83,100	83,100	79,600	108,300	88,900
20				102,500	106,300	109,000	98,000	83,200	82,500	79,600	108,300	89,200
21				102,700	106,300	109,000	98,000	83,400	80,300	79,400	108,300	89,400
22				102,900	106,400	109,400	98,100	83,400	76,000	79,400	108,300	89,400
23				102,900	106,600	109,700	98,300	83,400	73,700	79,400	108,300	89,700
24				103,000	106,800	110,100	98,300	83,400	70,400	79,600	108,300	89,800
25				103,200	107,000	110,500	98,500	83,400	67,600	79,600	108,500	89,800
26				103,400	107,000	98,500	98,600	83,400	65,100	79,700	108,500	90,000
27				103,400	107,100	91,100	98,800	83,400	62,500	80,100	108,500	90,000
28				103,600	107,100	90,100	99,000	83,400	61,800	80,500	108,300	89,800
29				103,700	-	90,100	99,100	83,500	61,800	85,500	108,300	89,800
30				103,700	-	90,400	99,100	84,200	61,900	87,800	108,300	89,700
31				103,900	-	90,900	-	84,600	-	93,400	108,300	-

Monthly elevation and contents, January to September 1939

Date	Elevation in feet	Contents (acre-feet)	Change in contents during month (acre-feet)
Dec. 31	4,262.15	99,300	-
Jan. 31	4,263.5	103,900	+4,600
Feb. 28	4,264.45	107,100	+3,200
Mar. 31	4,259.6	90,900	-16,200
Apr. 30	4,262.1	99,100	+8,200
May 31	4,257.25	84,600	-14,500
June 30	4,247.45	61,900	-22,700
July 31	4,260.4	93,400	+31,500
Aug. 31	4,264.8	108,300	+14,900
Sept. 30	4,259.15	89,700	-18,600
The period	-	-	-9,600

Pecos River near Guadalupe, N. Mex.

Location.- Water-stage recorder, lat. 34°36', long. 104°24', in sec. 2, T. 4 N., R. 24 E., half a mile downstream from Alamogordo Dam, 1⅝ miles downstream from Alamogordo Creek, and 3⅛ miles north of Guadalupe.

Records available.- October 1912 to December 1914, October 1930 to September 1936 (at site 1⅛ miles upstream, former datum), and September 1936, to September 1939 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 7,020 second-feet March 25 (gage height, 6.65 feet); minimum daily discharge, 1.0 second-foot Jan. 6, Feb. 6, 7, 10, 11, 14, 15, 27, 28, Mar. 1-3, 9.

1930-39: Maximum discharge, 27,000 second-feet Oct. 11, 1930 (gage height, 12.8 feet, former site and datum), from rating curve extended logarithmically above 13,500 second-feet; no flow Sept. 1-3, 5, Nov. 22, 27, 1937.

Remarks.- Records good except those for periods of missing or partial gage-height record, Oct. 10-17, Nov. 4-11, Mar. 22, 23, Apr. 4-9, July 29 to Aug. 1 (computed on basis of 2 discharge meaeurements, recorded gage heights, and estimates of seepage), and those below 10 second-feet, all of which are poor. Flow regulated by storage in Alamogordo Reservoir (capacity, 157,000 acre-feet). Many diversions above station for irrigation. Bureau of Reclamation furnished 29 discharge measurements and daily etaff-gage readings.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	96	2.4	2.3	1.8	1.0	76	85	107	92	55	122
2	68	91	51	2.3	1.8	1.0	80	895	107	94	76	120
3	88	81	107	2.4	2.0	1.0	77	2,660	107	94	90	117
4	94	55	101	2.3	1.8	1.6	3	3,030	107	94	97	117
5	91	2.0	101	1.5	1.5	2.3	3	2,320	107	97	104	117
6	91	2.0	101	1.0	1.0	2.3	3	2,860	107	102	112	120
7	94	*2.0	101	1.3	1.0	2.3	3	1,080	104	102	94	117
8	94	2.0	101	1.6	1.5	2.6	3	87	104	99	97	2,170
9	81	2.0	90	1.6	1.3	1.0	19	85	104	99	102	5,040
10	45	2.0	2.4	2.3	1.0	1.3	76	85	104	99	102	3,740
11	4.6	2.0	35	2.1	1.0	2.3	76	87	104	99	104	133
12	4.6	2.6	110	2.3	1.3	3.2	76	90	104	97	99	136
13	*4.6	2.6	107	2.3	1.3	2.6	78	99	104	97	99	136
14	4.6	2.6	70	2.3	1.0	2.4	80	97	104	128	99	136
15	4.6	2.6	2.4	2.3	1.0	2.4	78	94	107	78	99	136
16	4.6	2.9	2.4	2.3	1.6	3.2	78	102	104	58	99	117
17	35	2.9	2.4	2.3	1.6	2.6	78	99	107	117	102	94
18	72	2.3	2.4	2.3	1.3	48	78	94	104	85	102	99
19	72	2.1	2.4	2.1	1.6	72	76	102	102	87	102	99
20	91	2.0	2.4	2.1	1.3	74	73	102	1,590	85	99	102
21	91	2.3	2.4	2.1	1.6	72	78	104	2,140	80	102	94
22	88	2.4	2.4	2.0	1.6	65	78	104	1,690	82	102	87
23	88	2.3	2.4	1.8	1.6	5.1	78	104	1,660	85	94	87
24	84	2.1	2.4	1.8	1.3	5.1	76	104	1,640	90	94	90
25	81	2.1	2.4	2.1	1.3	3,500	76	102	1,820	90	92	94
26	81	2.1	2.4	2.0	1.3	5,380	73	102	1,620	90	94	92
27	86	2.1	2.4	2.0	1.0	2,710	76	102	1,610	90	92	85
28	86	2.3	2.3	2.1	1.0	73	78	107	929	90	92	87
29	86	2.3	2.3	2.3	-	69	80	104	87	30	94	87
30	84	2.6	2.3	2.1	-	73	82	104	92	2	92	90
31	86	-	2.3	2.1	-	76	-	107	-	2	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,095.6	94	4.6	67.6	4,160
November	382.2	96	2.0	12.7	758
December	1,120.2	110	2.3	36.1	2,220
Calendar year 1938	54,626.5	1,630	.1	150	108,400
January	63.4	2.4	1.0	2.05	126
February	38.4	2.0	1.0	1.37	76
March	12,257.3	5,380	1.0	395	24,310
April	1,869	82	3	63.0	3,750
May	15,297	3,030	86	493	30,340
June	16,676	2,140	87	556	33,080
July	2,634	128	2	85.0	5,220
August	2,993	112	55	96.5	5,940
September	13,861	5,040	85	462	27,490
Water year 1938-39	69,307.1	5,380	1.0	190	137,500

Note.- Once-daily staff-gage readings Nov. 12-30, Dec. 11, Dec. 15 to Mar. 17, and Mar. 24.
*Discharge measurement.

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. Prior to Nov. 1 water-stage recorder in W½ sec. 35, T. 8 S., R. 25 E., at highway bridge 2 miles upstream.

Records available.- July 1937 to September 1939 in reports of Geological Survey. August 1921 to July 1923 in reports of State engineer.

Extremes.- Maximum discharge during year, 9,040 second-feet Apr. 5 (gage height, 7.50 feet), from rating curve extended logarithmically above 5,640 second-feet; no flow Mar. 11, 13-19, June 8-19, Sept. 6-8.

1937-39: Maximum discharge, that of Apr. 5, 1939; no flow at times.

Flood of May 28, 1937, reached a discharge of 53,300 second-feet (gage height, about 14.0 feet), by slope-area method.

Remarks.- Records good except those for periods of ice effect, Feb. 2, 6, 8-10, and those for days of partial gage-height record, May 15, 16 (computed on basis of gage heights, weather records, and records for station near Lake Arthur), and those for periods of rapidly changing stage, all of which are poor. Many diversions for irrigation above station. Flow regulated by storage in Alamogordo Reservoir (capacity 157,000 acre-feet). Bureau of Reclamation furnished 19 discharge measurements.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	49	9.5	14	8.2	1.1	100	16	78	280	305	11
2	1.1	45	10	16	9.0	1.1	75	14	40	105	145	4.9
3	.7	40	11	16	9.0	.8	66	12	18	60	268	2.3
4	.7	34	11	13	9.5	.5	58	1,720	7.1	82	1,000	.1.6
5	.7	47	9.0	9.5	11	.3	2,790	2,750	3.9	58	398	.5
6	.6	50	8.6	9.5	7.7	.6	1,160	2,030	1.1	28	207	0
7	.5	43	8.2	10	8.6	.2	260	2,620	.2	16	131	0
8	15	39	18	30	9.0	.4	153	1,700	0	16	116	0
9	85	32	36	24	8.6	.3	112	316	0	6.5	136	452
10	1,080	23	36	25	6.2	.2	84	169	0	8.6	94	4,220
11	2,000	19	33	60	4.6	0	64	107	0	1.6	76	3,910
12	237	15	30	58	4.9	.3	54	80	0	.6	73	547
13	116	12	28	39	4.9	0	46	58	0	29	71	256
14	85	11	37	30	4.1	0	53	56	0	3,240	771	163
15	54	10	31	23	2.8	0	54	53	0	2,430	433	107
16	33	7.7	34	20	2.8	0	48	50	0	364	153	105
17	25	6.5	39	17	2.8	0	45	80	0	193	86	114
18	21	5.5	50	15	4.1	0	41	69	0	136	73	136
19	18	5.2	47	11	3.9	0	42	43	0	283	54	189
20	16	4.9	39	11	3.2	6.3	41	33	252	134	40	102
21	13	5.2	33	12	2.3	11	37	29	73	86	42	73
22	19	4.6	30	13	2.8	6.5	32	19	1,530	67	471	62
23	54	4.1	29	12	3.7	16	27	15	1,300	46	265	53
24	72	3.4	29	10	3.4	8.6	24	9.0	1,280	34	109	54
25	68	3.9	26	11	2.3	18	23	5.8	1,280	41	78	54
26	75	3.9	24	11	1.8	1,780	24	4.6	1,300	114	52	45
27	72	3.7	18	10	1.2	5,040	23	5.5	1,320	166	35	36
28	70	3.7	15	9.5	1.1	3,130	20	4.9	1,470	136	23	31
29	62	3.7	17	9.0	-	737	17	17	1,410	134	17	27
30	60	5.5	16	8.6	-	222	16	9.5	391	429	15	30
31	54	-	14	9.0	-	128	-	59	-	1,070	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,409.8	2,000	0.5	142	8,750
November	540.5	50	3.4	18.0	1,070
December	776.3	50	8.2	25.0	1,540
Calendar year 1938	54,219.9	2,000	0	149	107,500
January	566.1	60	8.6	18.3	1,120
February	143.5	11	1.1	5.12	285
March	11,109.2	5,040	0	358	22,030
April	5,589	2,790	16	186	11,090
May	12,154.3	2,750	4.6	392	24,110
June	11,754.3	1,530	0	392	23,310
July	9,794.3	3,240	.6	316	19,430
August	5,753	1,000	15	186	11,410
September	10,786.3	4,220	0	360	21,390
Water year 1938-39	73,376.6	5,040	0	201	145,500

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.

Records available.- August 1938 to September 1939.

Extremes.- Maximum discharge during period August and September 1938, 10,500 second-feet Sept. 5 (gage height, 11.08 feet), from rating curve extended above 5,000 second-feet on basis of slope-area measurements; minimum daily discharge, 18 second-feet Aug. 24.
Maximum discharge during water year 1938-39, 5,840 second-feet Apr. 6 (gage height, 8.5 feet, from floodmarks); minimum daily discharge, 8 second-feet Sept. 8.
Maximum stage known, 21.77 feet May 30, 1937 (discharge 51,500 second-feet, by slope-area measurements), but may have been higher during floods of 1904 and 1919.

Remarks.- Records good except those for days of doubtful or missing gage heights, which were computed on basis of recorded gage heights, weather records, and records for Pecos River near Artesia and are poor. Many diversions above and below station for irrigation. Flow regulated to some extent by operation of gates at Alamogordo Dam, about 150 miles upstream. Bureau of Reclamation cooperated in collecting gage-height record and furnished 19 discharge measurements.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 3 to Sept. 30)

1.6	4.9	2.6	101	4.2	710	6.0	2,430
1.8	15.5	3.0	185	4.6	1,010	6.5	3,030
2.0	30	3.4	310	5.0	1,360	7.5	4,360
2.3	60	3.8	480	5.5	1,870	8.5	5,840

Discharge, in second-feet, 1938-39

1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1											-	274
2											-	203
3											-	411
4											-	1,440
5											-	3,640
6											-	*900
7											-	*550
8											-	852
9											-	1,310
10											-	*650
11											-	*340
12											-	*270
13											-	212
14											-	194
15											-	218
16											-	164
17											-	122
18											-	106
19											-	110
20											-	108
21											-	101
22											-	103
23											-	*95
24											18	92
25											308	82
26											960	78
27											1,070	71
28											1,080	68
29											1,090	70
30											1,130	66
31											609	-

*Gage height missing or doubtful.

Discharge, in second-feet, of Pecos River near Lake Arthur, N. Mex., 1938-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	160	82	100	108	90	224	*90	71	398	690	39
2	58	153	85	98	101	78	193	80	83	374	374	34
3	57	151	83	98	98	75	162	72	103	196	230	41
4	52	151	86	103	98	75	142	67	92	140	1,270	39
5	51	156	85	98	98	80	145	*2,350	75	111	1,010	21
6	51	149	83	98	106	79	*2,200	2,220	56	101	414	13
7	51	156	78	100	115	78	*780	*2,500	49	78	314	9
8	72	162	71	111	116	75	*420	*2,600	47	45	207	8
9	156	160	73	120	120	75	303	998	44	34	172	9
10	165	160	75	134	120	72	227	382	34	41	178	1,200
11	2,100	153	106	130	116	80	178	245	38	28	158	4,080
12	1,500	145	106	134	124	76	142	188	42	18	136	2,220
13	576	134	106	160	124	75	126	153	26	16	122	515
14	374	130	103	160	104	66	115	151	23	42	136	306
15	252	128	100	140	88	59	108	145	25	*3,700	692	236
16	209	128	101	128	89	64	124	122	21	1,200	370	374
17	178	126	110	122	89	68	130	111	13	422	215	190
18	162	122	115	116	88	67	118	98	9	282	158	168
19	156	122	110	110	89	75	111	113	18	683	132	158
20	147	122	118	106	98	86	111	118	11	511	115	233
21	145	130	128	104	92	83	106	108	72	265	101	185
22	145	108	118	104	88	94	106	101	876	165	85	138
23	138	94	111	120	89	111	115	78	1,410	142	358	108
24	130	90	110	122	100	104	108	66	1,220	113	296	108
25	147	90	110	115	101	110	95	56	1,200	*90	151	101
26	165	88	116	104	104	100	98	41	1,220	*60	128	96
27	165	88	120	110	106	3,200	104	45	1,220	*100	108	92
28	165	85	108	116	98	4,230	101	58	1,410	*150	88	83
29	170	83	101	118	-	*2,010	96	70	1,360	196	68	75
30	168	82	98	104	-	*554	96	73	1,020	227	53	64
31	165	-	101	103	-	326	-	74	-	1,880	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
August 24-31, 1938	6,265	1,130	18	783	12,430
September	12,900	3,640	66	430	25,590
Water year	-	-	-	-	-
October 1938	8,132	2,100	51	262	16,130
November	3,806	162	82	127	7,550
December	3,097	128	71	99.9	6,140
Calendar year	-	-	-	-	-
January 1939	3,586	160	98	116	7,110
February	2,867	124	88	102	5,690
March	12,415	4,230	59	400	24,620
April	7,084	2,200	95	236	14,050
May	13,573	2,600	41	438	26,920
June	11,888	1,410	9	396	23,580
July	11,808	3,700	16	381	23,420
August	8,571	1,270	42	276	17,000
September	10,943	4,080	8	365	21,710
Water year 1938-39	97,770	4,230	8	268	193,900

*Gage height missing or doubtful.

Pecos River near Artesia, N. Mex.

Location.- Water-stage recorder, lat. 32°50'00", long. 104°19'35" in W½ sec. 18, T. 17 S., R. 27 E., at bridge on Artesia-Lovington highway, 4.5 miles east of Artesia, about 8 miles upstream from Rio Penasco, and about 19 miles upstream from McMillan Dam.

Records available.- March 1905 to September 1925 and October 1931 to February 1936 (published as Pecos River near Dayton), and February 1936 to September 1939 in reports of Geological Survey. March 1905 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 5,330 second-feet July 15; maximum gage height, 10.95 feet Aug. 4; minimum daily discharge, 12 second-feet June 21.
1905-39: Maximum gage height, 15.9 feet Sept. 18, 1919, former site and datum (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 for periods of fragmentary gage-height record, Mar. 29, 30, Apr. 6. 7, July 16, Aug. 4, 18, 19, 24-27 (computed on basis of partly estimated gage heights, weather records, and records for station near Lake Arthur) and those above 2,000 second-feet, all of which are poor. Many diversions above station for irrigation. Flow regulated to some extent by operation of gates at Alamogordo Reservoir. Discharge represents inflow to McMillan Reservoir. Reservoir stores water for irrigation of about 25,000 acres of land in Carlsbad project. Bureau of Reclamation cooperated in collecting gage-height record and furnished 23 discharge measurements.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	172	98	118	123	119	270	116	85	534	781	39
2	70	168	98	116	126	105	224	97	73	380	435	34
3	69	168	99	116	123	100	198	92	105	242	256	31
4	64	170	102	117	119	97	151	88	101	162	2,040	39
5	64	172	106	118	119	100	139	1,700	92	132	1,030	33
6	62	166	105	117	119	102	2,450	2,480	72	106	555	20
7	61	164	99	118	125	101	960	2,260	57	101	368	17
8	66	176	93	132	130	100	510	2,780	53	71	248	17
9	137	178	87	135	130	97	340	1,370	49	48	195	15
10	198	176 e	85	145	132	96	266	522	44	44	164	317
11	1,270	170	90	151	132	95	198	290	38	42	170	3,640
12	2,030	156	122	146	132	99	156	215	47	29	145	2,680
13	859	143	119	159	138	104	139	176	45	24	130	621
14	540	141	124	176	135	91	130	153	28	32	145	355
15	335	139	118	162	113	83	121	157	24	3,220	413	254
16	242	141	113	148	105	80	130	136	24	1,700	557	353
17	198	139	119	142	104	81	145	123	20	672	290	288
18	176	138	129	136	105	85	136	108	17	392	207	182
19	162	138	131	132	108	84	122	100	13	457	162	165
20	156	141	126	130	114	106	113	130	20	763	139	188
21	156	141	141	128	117	104	114	113	12	368	122	228
22	156	139	145	123	114	100	114	109	622	216	108	153
23	149	119	132	130	110	117	121	83	1,280	162	241	119
24	145	105	127	138	112	118	126	68	1,160	136	392	105
25	149	105	127	139	119	110	105	59	1,240	108	200	108
26	168	104	127	130	121	116	101	46	1,280	75	146	96
27	178	102	134	125	126	1,810	105	38	1,340	81	116	92
28	172	104	131	132	121	4,570	110	48	1,480	144	101	84
29	180	100	122	135	-	2,500	106	82	1,540	167	75	75
30	178	100	114	129	-	800	109	81	1,310	218	58	63
31	180	-	111	125	-	405	-	90	-	1,200	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,642	2,030	61	279	17,140
November	4,275	178	100	142	8,480
December	3,574	145	85	115	7,090
Calendar year 1938	88,429	2,670	8	242	175,400
January	4,148	176	116	134	8,230
February	3,372	138	104	120	6,690
March	12,675	4,570	80	409	25,140
April	8,009	2,450	101	267	15,890
May	13,910	2,780	38	449	27,590
June	12,271	1,540	12	409	24,340
July	12,026	3,220	24	388	23,850
August	10,037	2,040	48	324	19,910
September	10,411	3,640	15	347	20,650
Water year 1938-39	103,350	4,570	12	283	205,000

Lake McMillan near Lakewood, N. Mex.

Location.- Staff gage, lat. 32°35'45", long. 104°20'55", in SE¼ sec. 2, T. 20 S., R. 26 E., at McMillan Dam on Pecos River, 3 miles southeast of Lakewood. Zero of gage is 3,241.6 feet above mean sea level (Bureau of Reclamation datum).

Records available.- January to September 1939.

Extremes.- Maximum daily contents during period, 28,000 acre-feet May 16, 17 (gage height, 24.0 feet); minimum daily, 7,900 acre-feet June 24 (gage height, 18.55 feet).

Remarks.- Lake is formed by McMillan Dam, which was completed in 1906; storage began in 1906. Capacity, 38,500 acre-feet between gage heights 0 foot (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. Gage read twice daily. Contents computed from mean daily gage heights. Gage-height record and capacity curve furnished by Bureau of Reclamation.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Furnished by Bureau of Reclamation)

16	2,120	20	12,300	24	28,000
17	4,020	21	15,750	25	32,800
18	6,400	22	19,530	26	38,000
19	9,180	23	23,620		

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				16,100	15,200	13,600	20,300	14,600	22,400	16,100	16,700	17,900
2				16,100	15,200	13,500	20,300	14,300	22,000	17,700	17,600	16,800
3				16,100	15,200	13,400	19,900	13,800	21,500	18,200	18,200	15,700
4				15,800	15,200	13,200	19,300	13,100	21,000	18,600	19,100	15,200
5				15,600	15,100	13,100	18,600	12,600	20,700	18,400	21,000	14,400
6				15,800	15,000	13,000	18,000	13,100	20,500	18,400	23,800	13,300
7				15,800	15,000	13,000	18,300	15,400	19,900	18,100	25,800	12,400
8				15,800	15,000	12,800	20,300	18,400	19,100	18,000	26,700	11,300
9				15,800	14,800	12,600	21,300	22,300	18,600	17,700	26,900	10,600
10				15,800	14,800	12,500	22,000	25,800	18,400	17,400	26,900	9,700
11				15,800	14,800	12,300	21,900	27,200	18,000	16,600	27,100	8,900
12				15,800	14,800	12,300	21,500	27,300	17,600	15,500	26,900	9,200
13				15,800	14,800	12,300	21,500	27,300	16,800	14,500	26,700	11,000
14				15,800	14,800	12,100	21,000	27,600	15,600	13,700	26,600	13,200
15				15,600	14,700	12,000	20,700	27,800	14,800	12,900	26,100	14,200
16				15,800	14,700	12,000	20,300	28,000	14,200	13,000	26,200	14,900
17				15,800	14,600	11,900	20,100	28,000	13,300	14,700	26,200	15,600
18				16,100	14,500	11,800	19,500	27,600	12,100	16,500	26,000	15,900
19				15,800	14,300	11,500	19,100	27,300	11,500	17,700	25,700	16,100
20				15,800	14,300	11,300	18,700	27,000	10,500	18,100	25,200	16,100
21				15,800	14,200	11,300	18,300	26,900	9,500	18,800	24,700	16,100
22				15,800	14,200	11,200	17,900	26,600	8,900	19,500	23,800	16,500
23				15,800	14,000	11,200	17,500	26,100	8,000	19,500	23,300	16,500
24				15,800	14,000	11,100	17,100	25,900	7,900	19,500	22,700	16,500
25				15,800	14,000	11,000	16,800	25,400	8,500	19,300	22,400	16,500
26				15,800	14,000	10,700	16,400	25,000	9,200	18,900	22,000	16,500
27				15,600	13,600	10,500	16,000	24,700	10,600	18,800	21,500	16,300
28				15,600	13,600	10,500	15,700	24,400	11,900	18,700	20,900	15,900
29				15,400	-	12,600	15,300	24,000	13,300	18,100	20,100	15,600
30				15,400	-	16,600	15,000	23,500	14,600	17,400	19,500	15,000
31				15,400	-	19,500	-	23,000	-	16,900	18,800	-

Monthly gage height and contents, January to September 1939

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Jan. 1	21.1	16,100	-
Jan. 31	20.9	15,400	-700
Feb. 28	20.4	13,600	-1,800
Mar. 31	22.0	19,500	+5,900
Apr. 30	20.78	15,000	-4,500
May 31	22.85	23,000	+8,000
June 30	20.68	14,600	-8,400
July 31	21.32	16,900	+2,300
Aug. 31	21.82	18,800	+1,900
Sept. 30	20.78	15,000	-3,800
The period	-	-	-1,100

Pecos River below McMillan Dam, near Lakewood, N. Mex.

Location.- Water-stage recorder, lat. 32°35'30", long. 104°21'00", in NE¼ sec. 11, T. 20 S., R. 26 E., 700 feet below McMillan Dam and 3 miles southeast of Lakewood.

Records available.- August to September 1939.

Extremes.- Maximum discharge during period, 300 second-feet Aug. 31 (gage height, 2.72 feet); no flow at times in period Sept. 16-28.

Remarks.- Records excellent. Discharge for Aug. 31 computed on basis of gage heights and record of gate operation at McMillan Dam. Flow regulated by Alamagordo and McMillan Reservoirs. Many diversions above station.

Discharge, in second-feet, Aug. 20 to Sept. 30, 1939

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	295	11	-	278	21	213	1
2	-	295	12	-	275	22	213	0
3	-	295	13	-	280	23	213	0
4	-	292	14	-	240	24	213	0
5	-	290	15	-	137	25	213	0
6	-	290	16	-	76	26	213	0
7	-	285	17	-	0	27	213	0
8	-	282	18	-	0	28	213	73
9	-	280	19	-	0	29	213	92
10	-	280	20	213	0	30	213	92
						31	253	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
August 20-31...	2,596	253	213	216	5,150
September.....	4,428	295	0	148	8,780

Pecos River at dam site 3, near Carlsbad, N. Mex.

Location.- Water-stage recorder, lat. 32°30'30", long. 104°19'30", in E½ sec. 6, T. 21 S., R. 26 E., at dam site 3 of Carlsbad project of Bureau of Reclamation, about a mile upstream from flow line of Lake Avalon, 8 miles northwest of Carlsbad.

Records available.- August to September 1939.

Extremes.- Maximum discharge during period, 453 second-feet Sept. 1-5 (gage height, 1.26 feet); minimum daily discharge, 150 second-feet Sept. 21-27 (gage height, 0.60 foot).

Remarks.- Records excellent except those for period of missing gage heights, Sept. 8-11 (interpolated), and those for Sept. 14, 15 (computed on basis of partially estimated gage heights and records for station below McMillan dam), all of which are good. Flow regulated by storage in Alamagordo and McMillan Reservoirs. Many diversions above station for irrigation. Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, Aug. 22 to Sept. 30, 1939

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	453	11	-	433	21	-	150
2	-	453	12	-	431	22	375	150
3	-	453	13	-	431	23	375	150
4	-	453	14	-	415	24	375	150
5	-	453	15	-	316	25	375	150
6	-	448	16	-	252	26	375	150
7	-	442	17	-	182	27	375	150
8	-	440	18	-	162	28	370	174
9	-	438	19	-	158	29	370	230
10	-	435	20	-	154	30	365	230
						31	385	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
August 22-31...	3,740	385	365	374	7,420
September.....	9,086	453	150	303	18,020

Lake Avalon near Carlsbad, N. Mex.

Location.- Staff gage, lat. 32°29'25", long. 104°15'00", in SW¼ sec. 12, T. 21 S., R. 26 E., at Avalon Dam on Pecos River, 5 miles north of Carlsbad. Zero of gage is 3,157.0 feet above mean sea level (Bureau of Reclamation datum).

Records available.- January to September 1939.

Extremes.- Maximum daily contents during period, 6,010 acre-feet Jan. 12-31 (gage height, 20.2 feet); minimum daily contents, 1,120 acre-feet Sept. 29 (gage height, 13.35 feet).

Remarks.- Lake is formed by Avalon dam; storage began in 1906. Capacity, 6,720 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 except during period Aug. 20-26, when it was read once daily; contents computed from mean daily gage heights. Gage-height record and capacity curve furnished by Bureau of Reclamation.

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				5,480	5,820	5,370	1,880	3,320	1,940	3,540	2,620	1,700
2				5,600	5,650	5,420	1,850	3,400	1,970	3,820	2,960	1,690
3				5,690	5,690	5,460	1,830	3,520	1,990	4,100	2,980	1,660
4				5,770	5,710	5,500	1,820	3,640	2,100	4,320	2,680	1,620
5				5,840	5,690	5,540	1,790	3,720	2,240	4,520	2,580	1,580
6				5,690	5,580	5,580	1,810	3,800	2,350	4,220	2,610	1,570
7				5,500	5,430	5,630	2,190	3,840	2,360	3,760	2,680	1,570
8				5,500	5,350	5,800	2,560	3,920	2,340	3,140	2,680	1,600
9				5,670	5,240	5,920	2,840	3,840	2,240	2,480	2,680	1,640
10				5,820	5,060	5,920	2,920	3,760	2,100	1,990	2,480	1,690
11				5,970	4,970	5,970	2,900	3,680	1,970	1,760	2,260	1,730
12				6,010	4,900	5,970	2,840	3,640	1,880	1,910	2,040	1,790
13				6,010	4,900	5,740	2,780	3,520	1,720	2,040	2,020	1,880
14				6,010	4,820	5,420	2,770	3,360	1,570	2,270	1,950	2,070
15				6,010	4,760	4,990	2,830	3,300	1,540	2,620	1,970	2,380
16				6,010	4,800	4,620	2,960	3,740	1,460	2,810	2,140	2,550
17				6,010	4,820	4,260	3,160	3,900	1,390	2,860	2,280	2,620
18				6,010	4,860	3,980	3,340	4,040	1,390	2,960	2,460	2,620
19				6,010	4,920	3,880	3,470	4,120	1,390	3,540	2,610	2,620
20				6,010	4,950	3,760	3,500	4,220	1,380	3,620	2,040	2,540
21				6,010	4,990	3,640	3,440	4,360	1,350	3,600	1,970	2,350
22				6,010	5,030	3,500	3,380	4,440	1,680	3,520	1,910	2,150
23				6,010	5,080	3,380	3,440	4,360	2,840	3,440	2,100	1,990
24				6,010	5,090	3,160	3,500	4,200	3,200	3,340	2,240	1,930
25				6,010	5,180	2,940	3,500	3,820	3,180	3,140	2,440	1,810
26				6,010	5,240	2,640	3,440	3,400	3,180	2,730	2,580	1,750
27				6,010	5,290	2,260	3,320	2,980	3,380	2,260	2,260	1,500
28				6,010	5,330	1,990	3,200	2,640	3,580	1,730	2,190	1,210
29				6,010	-	2,040	3,130	2,280	3,560	1,450	2,100	1,120
30				6,010	-	1,910	3,180	2,040	3,540	1,490	1,970	1,140
31				6,010	-	1,910	-	1,990	-	1,950	1,830	-

Monthly gage height and contents, January to September, 1939

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Jan. 1	19.58	5,480	-
Jan. 31	20.2	6,010	+530
Feb. 28	19.4	5,330	-680
Mar. 31	14.95	1,910	-3,420
Apr. 30	16.75	3,180	+1,270
May 31	15.08	1,990	-1,190
June 30	17.2	3,540	+1,550
July 31	15.02	1,950	-1,590
Aug. 31	14.82	1,830	-120
Sept. 30	13.4	1,140	-690
The period	-	-	-4,340

Pecos River at Carlsbad, N. Mex.

Location.- Water-stage recorder, lat. 32°24'50", long. 104°13'20", in NW¼SE¼ sec. 6, T. 22 S., R. 27 E., at Green Street Bridge in Carlsbad. Zero of gage is 3,080.38 feet above mean sea level (general adjustment of 1929).

Records available.- May 1903 to March 1908, May 1914 to September 1925, October 1928 to September 1930, and October 1931 to September 1939 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.

Average discharge.- 27 years (1903-4, 1905-6, 1914-39) 297 second-feet.

Extremes.- Maximum discharge during year, 1,070 second-feet June 22 (gage height, 2.20 feet); minimum daily discharge, 56 second-feet Aug. 16-28, 16-28, Sept. 17, 18, 22-25, 29, 30.

1903-8, 1914-39: Maximum discharge, 85,700 second-feet Aug. 7, 1916 (gage height, about 21.0 feet), from rating curve extended logarithmically above 34,000 second-feet; no flow May 9, 1904.

Remarks.- Records good. Flow regulated by Alamogordo, McMillan, and Avalon Reservoirs and at low stages by operations of power plant. Large diversions above station for irrigation. Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	73	136	124	128	140	80	73	80	64	64	61
2	73	78	128	124	92	144	80	73	76	64	64	61
3	71	75	124	121	86	140	83	73	76	64	64	61
4	71	76	121	121	70	140	80	80	80	64	70	58
5	73	77	121	121	70	140	73	80	73	64	64	61
6	73	72	117	338	76	136	76	76	73	64	64	61
7	77	70	121	197	73	110	73	73	73	61	61	61
8	78	75	121	192	76	76	73	73	70	61	61	61
9	89	82	121	110	70	89	73	73	70	61	61	64
10	72	178	98	96	70	153	70	73	70	61	61	64
11	72	201	121	89	73	92	67	73	73	61	58	64
12	73	169	114	121	76	73	70	73	67	64	58	64
13	89	148	92	128	80	73	73	70	67	67	58	64
14	72	148	92	132	83	73	73	76	67	67	58	58
15	73	144	92	140	58	73	67	76	67	67	58	58
16	71	144	110	140	80	76	70	76	67	70	56	58
17	78	144	124	136	106	80	67	73	64	67	56	56
18	88	144	106	136	157	76	67	76	67	73	56	56
19	71	161	99	140	161	83	67	76	64	76	56	58
20	73	161	106	140	157	80	73	76	70	67	56	58
21	74	161	106	140	157	80	73	76	67	64	56	58
22	70	153	106	132	157	80	76	76	214	64	56	56
23	75	153	99	132	157	76	73	80	83	64	56	56
24	71	148	136	128	161	76	67	80	80	64	56	56
25	73	144	161	128	144	76	70	80	73	64	56	56
26	75	144	157	128	148	73	70	80	70	64	56	58
27	74	140	157	132	140	76	70	80	73	67	56	58
28	76	140	157	132	144	73	70	86	73	64	56	58
29	75	136	153	124	-	76	73	80	70	64	58	56
30	72	136	153	157	-	76	73	83	67	67	58	56
31	79	-	128	161	-	80	-	80	-	67	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,331	89	70	75.2	4,620
November	3,875	201	70	129	7,690
December	3,777	161	92	122	7,490
Calendar year 1938	40,452	3,630	10	111	80,240
January	4,340	338	89	140	8,610
February	3,050	161	58	109	6,050
March	2,889	153	73	93.2	5,730
April	2,170	83	67	72.3	4,300
May	2,373	86	70	76.5	4,710
June	2,284	214	64	76.1	4,530
July	2,020	76	61	65.2	4,010
August	1,826	70	56	58.9	3,620
September	1,775	64	56	59.2	3,520
Water year 1938-39	32,710	338	56	89.6	64,880

Pecos River near Malaga, N. Mex.

Location.- Water-stage recorder, lat. 32°12'30", long. 104°01'30", in NW¼NW¼ sec. 19, T. 24 S., R. 29 E., 3 miles southeast of Malaga, and 3 miles downstream from Black River. Zero of gage is 2,898.68 feet above mean sea level (general adjustment of 1929).

Records available.- May 1920 to September 1925 and October 1931 to September 1939 in reports of Geological Survey. January 1921 to December 1931 in reports of State engineer.

Average discharge.- 19 years (1920-39), 283 second-feet.

Extremes.- Maximum discharge during year, 618 second-feet Aug. 21 (gage height, 2.74 feet); minimum daily discharge, 42 second-feet July 8.
1920-39: Maximum discharge, 38,200 second-feet June 1, 1937 (gage height, 25.7 feet); no flow Aug. 20-22, 1934.
Maximum stage known, 26.4 feet in September 1919 (discharge not determined).

Remarks.- Records excellent. Flow controlled by storage in Alamogordo, McMillan, and Avalon Reservoirs and by several small diversion dams for power and irrigation. Many diversions above station for irrigation. Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	131	174	194	248	159	56	103	126	81	103	96
2	129	129	143	189	196	178	73	111	131	78	114	83
3	114	129	139	131	238	172	81	103	118	78	105	96
4	141	129	153	170	163	174	71	109	95	71	86	83
5	141	105	161	145	149	180	62	103	96	56	129	68
6	137	129	157	155	149	147	118	100	88	59	109	90
7	135	131	147	317	216	176	145	102	90	62	98	76
8	133	131	163	243	151	166	141	105	91	42	93	76
9	133	124	143	219	145	96	112	81	86	70	100	83
10	178	127	155	183	139	109	98	86	83	202	90	71
11	151	194	153	135	139	145	96	88	84	83	64	91
12	135	200	143	151	145	96	103	93	109	78	91	116
13	139	194	180	133	143	112	105	114	93	73	96	126
14	145	176	170	183	112	114	103	135	86	159	124	112
15	135	178	149	178	133	109	93	168	100	124	112	131
16	126	174	126	178	145	100	90	196	67	107	93	112
17	126	161	127	174	139	118	102	151	93	105	159	122
18	127	161	153	137	141	98	90	168	83	103	194	116
19	133	170	157	141	185	93	86	137	105	231	135	120
20	155	187	149	166	185	105	79	131	124	141	147	124
21	161	196	131	163	168	91	84	124	124	126	279	98
22	155	180	151	163	194	95	88	124	133	91	131	114
23	145	178	131	170	174	105	102	124	231	133	127	129
24	137	174	155	147	178	100	102	114	143	122	135	120
25	143	176	185	174	178	102	79	112	120	127	122	100
26	157	174	200	172	172	90	79	98	105	126	133	111
27	149	172	166	168	153	71	70	78	120	139	126	103
28	139	172	194	168	176	73	88	83	105	145	112	116
29	139	127	205	176	-	56	93	93	96	131	109	116
30	135	147	203	183	-	53	120	124	78	120	91	137
31	129	-	198	191	-	59	-	122	-	143	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,313	178	111	139	8,550
November	4,756	200	105	159	9,430
December	4,961	205	126	160	9,840
Calendar year 1938	55,960	3,320	32	153	111,000
January	5,397	317	131	174	10,700
February	4,654	248	112	166	9,230
March	3,542	180	53	114	7,030
April	2,809	145	56	93.6	5,570
May	3,580	196	78	115	7,100
June	3,203	231	67	107	6,350
July	3,406	231	42	110	6,760
August	3,705	279	64	120	7,350
September	3,136	137	68	105	6,220
Water year 1938-39	47,462	317	42	130	94,130

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.

Records available.- July 1936 to September 1939.

Extremes.- Maximum discharge for period ending Sept. 30, 1938, 3,000 second-feet Sept. 2 (gage height, 3.49 feet), from rating curve extended above 265 second-feet on basis of records for station near Malaga, 6 miles upstream; minimum daily discharge, 33 second-feet Aug. 12, 13.

Maximum discharge during water year 1938-39, 536 second-feet Aug. 21 (gage height, 1.68 feet); minimum daily discharge, 58 second-feet July 8.

Remarks.- Records good. Discharge for periods of missing or fragmentary gage heights, Aug. 3-5, 1938, Apr. 12-14, 1939, computed on basis of records for station near Malaga; that for Apr. 15-17 computed on basis of daily staff-gage readings. Flow regulated by Alamogordo, McMillan, and Avalon Reservoirs and several small diversions and power dams below Carlsbad. Many diversions above station for irrigation.

Discharge, in second-feet, 1938-39

1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-		-	131	134
2								-		-	122	889
3								-		-	120	480
4								-		-	135	255
5								-		-	125	185
6								-		-	80	177
7								-		-	61	181
8								-		-	44	198
9								-		-	47	190
10								-		-	47	162
11								-		-	36	155
12								-		89	33	138
13								-		151	33	155
14								-		96	78	151
15								-		373	61	162
16								-		170	76	166
17								-		84	49	194
18								*80		159	58	162
19								*104		125	60	144
20								-		141	63	151
21								-		162	89	170
22								-		304	71	144
23								-		198	89	134
24								-		159	91	141
25								-		138	99	141
26								*148		144	99	131
27								*99		144	86	134
28								-		151	94	131
29								-		131	89	138
30								-		138	109	144
31								-		138	125	-

*Discharge measurement.

Discharge, in second-feet, of Pecos River at Pierce Canyon Crossing, near Malaga, N. Mex., 1938-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134	159	202	190	266	170	80	138	134	89	131	96
2	138	151	170	198	215	202	99	138	159	84	125	82
3	128	155	166	144	250	190	112	131	151	91	118	80
4	138	155	177	170	177	194	91	128	118	89	96	102
5	141	148	181	151	166	198	84	131	112	76	141	67
6	141	138	181	159	155	170	115	128	89	73	131	89
7	141	159	170	305	211	190	185	125	107	73	115	80
8	144	174	190	250	162	190	185	134	104	58	102	78
9	151	159	166	250	151	122	151	104	96	76	104	89
10	190	159	177	211	141	122	141	107	89	207	89	73
11	170	220	174	166	148	159	122	104	86	118	67	91
12	144	220	159	181	148	134	120	115	118	104	94	118
13	144	234	198	151	144	125	125	118	107	94	89	134
14	155	202	185	194	125	131	120	134	96	155	134	115
15	148	198	166	194	125	131	104	159	102	144	122	141
16	134	194	148	194	144	107	99	215	76	122	112	125
17	131	185	155	190	138	141	107	166	96	122	170	118
18	138	181	177	159	151	118	107	174	84	115	224	118
19	144	190	177	162	198	96	102	151	96	202	141	115
20	166	215	166	181	207	122	84	141	112	159	138	131
21	181	220	148	181	190	99	84	134	115	138	260	128
22	174	215	166	174	211	104	82	134	125	96	148	118
23	162	207	144	181	194	109	104	128	190	125	134	118
24	155	202	166	166	198	102	104	122	155	134	141	131
25	148	211	198	185	194	107	82	118	122	125	125	112
26	162	202	211	174	185	99	89	115	118	118	134	107
27	166	198	174	174	162	78	89	107	122	134	131	109
28	162	198	194	177	194	71	104	104	112	148	122	115
29	162	159	207	185	-	61	107	118	91	134	118	118
30	155	174	207	202	-	63	141	134	80	125	125	138
31	151	-	202	181	-	76	-	134	-	159	99	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 12-31, 1938	3,195	373	84	160	6,340
August	2,500	135	33	80.6	4,960
September	5,837	889	131	195	11,580
The period	-	-	-	-	22,880
October 1938	4,698	190	128	152	9,320
November	5,582	234	138	186	11,070
December	5,502	211	144	177	10,910
Calendar year	-	-	-	-	-
January 1939	5,780	305	144	186	11,460
February	4,950	266	125	177	9,820
March	3,981	202	61	128	7,900
April	3,319	185	80	111	6,580
May	4,089	215	104	132	8,110
June	3,362	190	76	112	6,670
July	3,687	207	58	119	7,310
August	3,980	260	67	128	7,890
September	3,236	141	67	108	6,420
Water year 1938-39	52,166	305	58	143	103,500

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, 5½ miles upstream from Delaware River. Zero of gage is 2,850.0 feet above mean sea level (general adjustment of 1929).

Records available.- October 1937 to September 1939.

Extremes.- Maximum discharge during year, 1,090 second-feet Aug. 15 (gage height, 5.60 feet); minimum, 54 second-feet July 9, Sept. 6; minimum daily discharge, 65 second-feet Mar. 30.
1937-39: Maximum discharge, 6,460 second-feet June 28, 1938 (gage height, 10.12 feet); minimum, 34 second-feet Aug. 13, 1938.

Remarks.- Records excellent except those for period of missing gage heights. Jan. 13-20, which were computed on basis of two discharge measurements, available gage heights, and recorded range of stage and are good. Flow regulated to large extent by reservoirs of Carlsbad project. Sum of discharge at this station and that at stations on Delaware River near Red Bluff is practically equivalent to discharge at former station near Angeles, Tex.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	141	155	208	191	279	165	85	143	136	91	150	93
2	132	158	186	199	239	188	89	138	158	91	99	89
3	143	155	175	165	229	188	118	136	160	97	114	76
4	125	152	178	152	214	186	105	127	136	93	103	107
5	150	155	186	158	191	191	87	132	125	91	239	70
6	145	127	191	152	165	191	89	127	97	73	150	73
7	145	162	186	254	188	162	158	125	103	76	136	91
8	148	165	188	304	205	191	172	125	103	76	123	78
9	165	155	188	265	168	165	158	109	99	68	107	82
10	168	152	180	211	162	120	136	107	93	227	105	87
11	197	190	188	180	158	136	123	105	91	142	89	80
12	160	220	178	165	165	162	123	109	107	109	97	109
13	158	242	197	172	168	120	125	114	116	99	99	138
14	160	208	205	174	165	136	116	132	101	146	189	125
15	155	211	191	175	134	138	118	158	91	165	354	141
16	143	202	172	177	162	114	103	222	105	136	143	138
17	136	188	158	178	152	134	112	188	87	129	166	127
18	136	183	165	180	168	125	114	175	89	116	286	134
19	138	180	186	181	178	109	112	172	95	180	152	127
20	141	202	178	185	214	127	99	150	116	190	134	136
21	172	217	168	197	186	109	95	138	120	155	259	107
22	165	208	150	188	205	114	89	138	118	114	175	107
23	162	202	168	205	202	118	103	132	141	111	127	116
24	160	202	148	178	197	116	107	134	233	138	138	143
25	143	202	186	188	194	116	99	127	129	125	134	120
26	155	202	217	199	188	107	95	123	125	116	132	95
27	168	202	180	197	180	95	99	118	125	116	141	114
28	162	208	191	191	178	80	99	112	132	152	120	109
29	162	180	208	194	-	80	103	127	101	150	125	123
30	155	162	205	220	-	65	127	132	93	154	105	120
31	158	-	205	186	-	71	-	155	-	155	95	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,748	197	125	153	9,420
November	5,547	242	127	185	11,000
December	5,710	217	148	184	11,330
Calendar year 1938	62,037	3,680	37	170	123,000
January	5,959	304	152	192	11,820
February	5,234	279	134	187	10,380
March	4,119	191	65	133	8,170
April	3,358	172	85	112	6,660
May	4,230	222	105	136	8,390
June	3,525	233	87	118	6,990
July	3,881	227	68	125	7,700
August	4,586	354	89	148	9,100
September	3,255	143	70	108	6,460
Water year 1938-39	54,152	354	65	148	107,400

Peak discharge.- July 30 (6:45 p.m.) 597 sec.-ft.; Aug. 5 (2:30 a.m.) 666 sec.-ft.; Aug. 15 (1 a.m.) 1,090 sec.-ft.

Pecos River near Orla, Tex.

Location.- Water-stage recorder, lat. 31°49', long. 103°48', about 600 feet upstream from Pasotex (corrected) pipe-line crossing, 6 miles southeast of Orla, Reeves County, and 19 miles downstream from Red Bluff Dam. Zero of gage is 2,718.0 feet above mean sea level (general adjustment of 1929).

Records available.- May 1937 to September 1939.

Extremes.- 1937: Maximum discharge during period, 8,230 second-feet (revised) June 9 (gage height, 9.93 feet), computed on basis of slope-area measurement at site 16 miles upstream in Salt Draw; minimum daily discharge, 2 second-feet (revised) June 3.

1937-38: Maximum discharge during year, 2,280 second-feet (supersedes figure published in Water-Supply Paper 858) June 28 (gage height, 5.06 feet), from rating curve extended above 700 second-feet on basis of one slope-area measurement; minimum daily discharge, 84 second-feet Mar. 21.

1938-39: Maximum discharge during year, 2,690 second-feet June 21 (gage height, 5.55 feet), from rating curve extended logarithmically above 700 second-feet; minimum, 24 second-feet Feb. 8, minimum daily discharge, 58 second-feet Feb. 7.

1937-39: Maximum discharge, that of June 9, 1937; minimum daily discharge, that of June 3, 1937.

Peak discharge over spillway at Red Bluff Dam, 4 miles north of Orla, 8,360 second-feet (revised) June 9, 1937, superseding figure published in Water-Supply Paper 828, p. 429.

Remarks.- Records good except those above 700 second-feet, which are fair. Diversions above station for irrigation. Discharge represents release from Red Bluff Reservoir (capacity at spillway crest, 284,000 acre-feet) with occasional run-off from arroyos between dam and station.

Revisions.- Revised figures of discharge for the period May to September 1937, superseding those published in Water-Supply Paper 828 are given herein.

Discharge, in second-feet, 1937, 1938-39

1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	*4	402	838	*380
2								-	*3	682	832	384
3								-	*2	880	832	389
4								-	7.0	880	766	372
5								-	471	880	446	
6								-	3,100	736	565	
7								-	3,380	480	545	
8								-	4,920	490	540	
9								-	7,250	475	545	
10								-	4,960	485	550	260
11								-	*2,630	505	555	
12								-	5,850	515	565	
13								-	5,530	480	590	
14								-	4,090	490	820	
15								-	5,460	251	718	
16								-	4,530	265	712	156
17								-	3,130	268	676	159
18								-	4,690	268	595	159
19								-	2,640	268	600	159
20								-	952	262	580	159
21								-	700	262	530	159
22								-	540	282	485	159
23								-	456	416	420	165
24								-	425	360	412	162
25								-	*410	412	402	276
26								12	*400	610	389	195
27								5.1	*400	625	380	174
28								83	*390	625	376	162
29								383	384	645	376	168
30								35	389	736	364	159
31								7.0	-	838	368	-

Discharge, in second-feet, of Pecos River near Orla, Tex., 1937, 1938-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	220	165	108	65	74	67	433	385	310	644	327	618
2	213	91	106	65	74	74	428	385	314	676	301	608
3	220	65	106	67	74	74	448	372	310	687	354	460
4	227	65	106	65	72	72	603	344	314	687	395	443
5	231	65	103	65	69	69	603	349	310	687	380	443
6	235	63	103	65	63	69	597	340	310	734	340	428
7	238	65	86	69	58	86	597	340	310	745	246	380
8	235	67	79	86	62	89	571	349	340	745	277	380
9	224	67	79	67	81	77	551	344	344	745	285	423
10	202	67	77	79	67	74	556	340	331	756	253	493
11	165	67	77	91	65	94	561	331	331	644	285	488
12	162	65	81	74	63	91	561	362	336	681	253	488
13	136	84	94	69	63	97	566	376	336	687	185	488
14	142	86	79	67	63	103	556	349	327	611	182	483
15	162	97	67	65	65	155	514	206	318	433	178	478
16	149	94	67	67	65	168	478	213	336	404	210	478
17	149	84	65	65	65	185	483	188	281	399	231	448
18	182	84	65	65	65	188	493	178	257	390	325	443
19	192	84	65	65	63	227	395	192	257	390	301	438
20	199	84	67	65	63	246	433	185	344	390	331	404
21	196	100	67	65	77	250	409	185	947	390	331	301
22	168	94	67	67	79	257	419	182	236	390	349	227
23	149	91	67	69	69	273	428	178	257	244	414	224
24	149	91	65	79	69	293	419	188	288	246	448	224
25	165	91	72	81	67	289	419	231	530	257	443	220
26	162	91	69	72	67	289	409	242	577	273	448	213
27	168	149	81	72	67	289	390	257	809	261	448	213
28	178	142	81	77	67	331	376	281	681	261	453	213
29	175	139	72	69	-	354	376	310	655	285	525	210
30	149	120	67	72	-	423	390	314	644	310	535	210
31	146	-	67	74	-	433	-	301	-	396	618	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
May 26-31, 1937	525.1	383	5.1	87.5	1,040
June	68,093.0	7,250	2	2,270	135,100
July	15,773	880	251	509	31,290
August	17,374	838	364	560	34,460
September	6,956	-	-	232	13,800
The period	-	-	-	-	215,700
October 1938	5,688	238	136	183	11,280
November	2,717	165	63	90.6	5,390
December	2,455	108	65	79.2	4,870
Calendar year 1938	105,611	1,140	63	289	209,500
January 1939	2,183	91	65	70.4	4,330
February	1,896	81	58	67.7	3,760
March	5,786	433	67	187	11,480
April	14,462	603	376	482	28,680
May	8,797	385	178	284	17,450
June	11,940	947	236	398	23,680
July	15,448	756	244	498	30,640
August	10,651	618	178	344	21,130
September	11,567	618	210	386	22,940
Water year 1938-39	93,590	947	58	256	185,600

Peak discharge.- June 21, 1939 (2:30 a.m.) 2,690 sec.-ft.; June 27, 1939 (10:15 a.m.) 1,080 sec.-ft.; July 10, 1939 (11 a.m.) 975 sec.-ft.

Diversions from Pecos River above Gallinas River

El Llano de la Presa acequia near San Jose, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°25', long. 105°29', in SE¼ sec. 30, T. 14 N., R. 14 E., 400 feet downstream from head gate, a quarter of a mile south of community of San Juan, and 1¼ miles northwest of San Jose.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 4.1 second-feet Sept. 15; no flow at times.

Remarks.- Records good except those for periods of missing or fragmentary gage heights, July 24-26, Sept. 23-27, which were based on records for Pecos River near San Jose and De La Agua Caliente acequia at head and are poor. Acequia diverts water from right bank of Pecos River for irrigation near San Jose. No diversion between station and head.

Discharge, in second-feet, July 14 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	1.1	11	-	0.8	3.4	21	0.2	3.4	2.2
2	-	0	1.4	12	-	.5	2.8	22	.7	2.5	1.9
3	-	0	1.2	13	-	.6	1.9	23	.9	2.5	1.6
4	-	0	1.2	14	3.0	1.1	4.0	24	1.7	2.2	1.6
5	-	.1	1.0	15	0	1.1	4.1	25	1.7	1.7	1.6
6	-	0	.9	16	0	.8	3.3	26	1.8	2.1	1.5
7	-	.5	.6	17	0	.7	3.4	27	0	1.7	1.4
8	-	.7	.8	18	.1	1.5	3.1	28	.2	2.5	1.4
9	-	.8	1.1	19	.1	2.0	2.8	29	0	1.6	1.2
10	-	.9	1.9	20	.1	3.4	2.4	30	0	1.0	1.2
								31	0	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 14-31	10.5	3.0	0	0.58	21
August	37.6	3.4	0	1.21	75
September	57.6	4.1	.8	1.92	114
The period	-	-	-	-	210

De La Agua Caliente acequia at head, near San Jose, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°25', long. 105°29', in SE¼ sec. 30, T. 14 N., R. 14 E., 500 feet downstream from head gate, a quarter of a mile south of community of San Juan, and 1¼ miles northwest of San Jose.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 6.2 second-feet Aug. 18; no flow at times.

Remarks.- Records good except those for period of missing gage heights, Sept. 15-20, which were computed on basis of records for El Llano de la Presa acequia and Pecos River near San Jose, and are poor. Acequia diverts water from left bank of Pecos River for irrigation near San Jose. No diversion between station and head.

Discharge, in second-feet, July 14 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	4.2	11	-	1.2	2.6	21	3.4	0.2	0.1
2	-	0	5.4	12	-	2.5	2.0	22	3.8	0	.1
3	-	0	5.2	13	-	2.5	1.9	23	3.6	0	.1
4	-	0	3.6	14	0.5	2.2	2.6	24	4.9	.9	.1
5	-	.2	2.7	15	0	1.8	.7	25	5.1	1.3	.6
6	-	0	2.4	16	0	1.6	.2	26	4.3	1.5	1.0
7	-	0	2.2	17	0	3.2	.2	27	.6	1.3	1.0
8	-	0	2.1	18	0	6.2	.1	28	.7	1.6	1.0
9	-	0	2.2	19	1.0	5.5	.1	29	0	2.4	.8
10	-	.5	2.8	20	3.6	5.5	.1	30	0	3.2	.7
								31	0	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 14-31	31.5	5.1	0	1.75	62
August	48.3	6.2	0	1.56	96
September	48.8	5.4	.1	1.63	97
The period	-	-	-	-	255

Diversions from Pecos River above Gallinas River

De La Agua Caliente acequia at end, near San Jose, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°24', long. 105°28', in SE¼ sec. 32, T. 14 N., R. 14 E., 150 feet upstream from outlet to Ancon de Sarracino ditch and 0.1 mile east of San Jose.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 4.3 second-feet Aug. 20; no flow at times.

Remarks.- Records poor. Discharge for period of missing gage heights, July 26, 27, estimated. Discharge represents unused water returned to Ancon de Sarracino ditch.

Discharge, in second-feet, July 15 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0.1	1.2	11	-	0.5	1.4	21	0.4	0.2	0.9
2	-	.7	2.6	12	-	.6	.e	22	2.1	0	.7
3	-	.7	2.6	13	-	1.3	1.9	23	2.3	.2	.6
4	-	.4	1.3	14	-	0	2.2	24	2.6	.4	.6
5	-	.3	1.1	15	0.2	0	4.0	25	4.2	.1	.7
6	-	.3	1.8	16	0	0	3.6	26	3.0	0	.8
7	-	.2	1.7	17	0	.4	1.e	27	1.0	.4	.8
8	-	.1	1.8	18	0	2.5	.9	28	.3	.5	.9
9	-	0	2.0	19	0	2.8	1.0	29	.5	.6	.8
10	-	.3	1.9	20	0	4.3	1.0	30	.1	1.3	.8
								31	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 15-31	16.7	4.2	0	0.98	33
August	19.2	4.3	0	.62	38
September	44.2	4.0	.6	1.47	88
The period	-	-	-	-	159

Ancon de Sarracino acequia at San Jose, N. Mex.

Location.- Water-stage recorder, lat. 35°24', long. 105°28', in SE¼ sec. 32, T. 14 N., R. 14 E., at San Jose, 150 feet downstream from Acequia del Agua Caliente, 700 feet downstream from head gate, and 800 feet downstream from U. S. Highway 85.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 12 second-feet Aug. 20, Sept. 15; no flow at times.

Remarks.- Records good. Ditch diverts water from left bank of Pecos River and unused water at end of De La Agua Caliente acequia, for irrigation below San Jose. No diversion between station and head.

Discharge, in second-feet, July 15 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0.2	3.2	11	-	2.7	6.4	21	2.5	8.5	7.6
2	-	1.0	4.4	12	-	2.5	4.9	22	3.4	6.4	7.3
3	-	.8	4.9	13	-	2.8	4.9	23	4.2	6.2	7.2
4	-	.5	3.4	14	-	4.3	7.3	24	4.3	6.e	6.7
5	-	1.2	2.5	15	0	5.5	12	25	4.1	5.8	6.6
6	-	.8	2.5	16	0	4.9	11	26	4.2	6.1	6.4
7	-	.6	2.6	17	0	3.9	9.4	27	1.8	6.0	5.e
8	-	.5	2.6	18	0	5.0	9.0	28	1.3	6.4	6.0
9	-	.8	3.0	19	0	8.4	e.6	29	.2	4.4	5.4
10	-	2.5	4.0	20	1.0	12	7.9	30	.4	3.2	4.4
								31	0	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 15-31	27.4	4.3	0	1.61	54
August	122.5	12	.2	3.95	243
September	177.9	12	2.5	5.93	353
The period	-	-	-	-	650

Diversions from Pecos River above Gallinas River

Ribera ditch at Ribera, N. Mex.

Location.- Measuring section, lat. 35°22'40", long. 105°27'20", in SE¼ sec. 4, T. 13 N., R. 14 E., 25 feet downstream from head gate and 0.5 mile northwest of Ribera.

Records available.- August to September 1939 (discharge measurements only).

Remarks.- Discharge represents water diverted from Pecos River for irrigation at Ribera.

Discharge measurements, in second-feet, 1939

Aug. 24	*0.5
30	6.97
Sept. 6	7.81
13	7.38
20	5.26
27	4.71

*Estimated.

Los Trigos ditch near Ribera, N. Mex.

Location.- Water-stage recorder, lat. 35°21', long. 105°26', in E½ sec. 15, T. 13 N., R. 14 E., 300 feet downstream from heading, three-quarters of a mile south of community of San Miguel, and 2 miles south of Ribera.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 7.0 second-feet Aug. 20; minimum daily, 0.3 second-foot July 31, Aug. 6.

Remarks.- Records good except those for period of missing gage heights, Aug. 19-22, which were computed on basis of recorded range in stage and records for Ancon de Sarracino ditch at San Jose and Pecos River near San Jose and are poor. Ditch diverts water from left bank of Pecos River for irrigation near community of Pueblo. Diversion above station irrigates about 1 acre.

Discharge, in second-feet, July 15 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	2.2	5.0	11	-	3.6	3.7	21	2.3	6.0	4.5
2	-	4.5	4.8	12	-	3.4	3.4	22	2.7	4.5	4.3
3	-	2.7	4.5	13	-	3.7	3.3	23	2.7	3.5	4.2
4	-	2.7	4.2	14	-	3.5	3.5	24	2.6	3.3	4.2
5	-	2.0	4.2	16	3.7	3.8	2.3	25	2.2	3.0	3.4
6	-	.3	3.6	17	1.5	4.6	.7	26	1.0	3.6	2.3
7	-	2.3	3.2	18	1.2	5.8	.4	27	1.2	3.8	2.2
8	-	4.5	3.2	19	1.5	5.7	.5	28	1.1	3.4	2.2
9	-	4.2	3.6	20	1.9	6.0	.5	29	1.0	2.7	2.2
10	-	3.8	3.3	21	2.0	7.0	2.9	30	1.2	4.4	2.1
								31	.3	5.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 15-31	30.1	3.7	0.3	1.77	60
August	119.7	7.0	.3	3.86	237
September	91.8	5.0	.4	3.06	182
The period	-	-	-	-	479

Diversions from Pecos River above Gallinas River

West Pueblo community ditch near Ribera, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°20', long. 105°26', in SW¼ sec. 23, T. 13 N., R. 14 E., 300 feet downstream from head gate, a quarter of a mile north of community of Pueblo, and 3 miles south of Ribera.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 8.8 second-feet Sept. 11; no flow July 29 to Aug. 1.

Remarks.- Records good. Ditch diverts water from right bank of Pecos River for irrigation near community of Pueblo. No diversion below station and head.

Discharge, in second-feet, July 15 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	1.7	11	-	3.4	8.8	21	2.5	2.9	6.4
2	-	1.0	1.5	12	-	3.3	7.6	22	3.3	3.2	6.2
3	-	3.9	1.4	13	-	.7	6.4	23	1.4	4.4	6.0
4	-	2.4	1.1	14	-	1.7	6.1	24	2.2	4.2	5.8
5	-	4.0	2.2	15	0.7	4.0	5.3	25	1.5	3.3	5.6
6	-	1.9	3.6	16	.6	4.1	.9	26	.4	4.1	6.6
7	-	2.4	4.8	17	.4	4.5	.9	27	.2	3.5	7.6
8	-	3.2	4.8	18	1.4	3.1	5.0	28	.2	3.4	7.5
9	-	3.1	5.4	19	1.4	3.7	7.4	29	0	2.9	7.4
10	-	2.2	6.3	20	1.3	4.4	6.9	30	0	2.8	7.4
								31	0	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 15-31	17.5	3.3	0	1.03	35
August	93.9	4.5	0	3.03	186
September	154.6	8.8	.9	5.15	307
The period	-	-	-	-	528

La Fragua ditch near Sena, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°19', long. 105°24', in NW¼ sec. 36, T. 13 N., R. 14 E., 150 feet downstream from head gate and 1½ miles northwest of Sena.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 9.8 second-feet Sept. 11; minimum daily, 0.7 second-foot July 30.

Remarks.- Records good. Ditch diverts water from left bank of Pecos River for irrigation near Sena. No diversion between station and head.

Discharge, in second-feet, July 16 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	3.9	5.0	11	-	4.9	9.8	21	5.2	3.6	5.1
2	-	3.6	4.6	12	-	4.6	8.9	22	4.1	4.4	4.6
3	-	1.0	4.2	13	-	4.3	8.6	23	4.9	4.6	6.2
4	-	.9	3.5	14	-	4.9	8.5	24	6.4	4.0	5.3
5	-	1.0	4.3	15	-	5.0	3.1	25	4.2	4.7	3.7
6	-	2.3	5.7	16	3.4	4.0	1.6	26	2.2	6.7	5.5
7	-	4.7	5.6	17	4.1	4.2	2.9	27	3.7	4.2	4.0
8	-	4.5	5.8	18	3.9	5.9	5.8	28	3.7	4.1	4.0
9	-	4.9	6.7	19	4.3	4.9	6.0	29	2.3	5.4	4.8
10	-	5.0	7.2	20	5.3	3.1	4.4	30	.7	5.7	3.9
								31	2.3	5.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 16-31	60.7	6.4	0.7	3.79	120
August	130.6	6.7	.9	4.21	259
September	159.3	9.8	1.6	5.31	316
The period	-	-	-	-	695

Diversions from Pecos River above Gallinas River

Gonzales ditch at Sena, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°18', long. 105°24', in SW¼ sec. 31, T. 13 N., R. 15 E., 150 feet downstream from spillway, 1,200 feet downstream from head gate, and 0.7 mile northwest of Sena.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 4.2 second-feet Sept. 28, 29; no flow at times.

Remarks.- Records good except those for periods of missing or fragmentary gage heights, July 23-27, July 31 to Aug. 2, which were computed on basis of partly estimated gage heights and records for South ditch near Villanueva and are poor. Ditch diverts water from right bank of Pecos River for irrigation near community of Gonzales. No diversion between station and head.

Discharge, in second-feet, July 16 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0.2	1.0	11	-	0	3.7	21	1.4	1.3	0.4
2	-	1.5	.8	12	-	.1	.5	22	2.0	1.0	.4
3	-	1.0	1.0	13	-	.9	.5	23	2.0	3.0	.3
4	-	.4	.8	14	-	.7	.6	24	2.0	2.6	.3
5	-	.4	.3	15	-	.1	1.0	25	2.5	2.1	.3
6	-	.2	.8	16	0.2	0	.6	26	1.0	2.2	.9
7	-	.2	1.3	17	0	0	.6	27	.2	2.2	4.0
8	-	.1	1.9	18	.8	.2	.5	28	.7	1.7	4.2
9	-	0	2.6	19	2.6	.2	.5	29	1.3	1.9	4.2
10	-	0	2.9	20	2.6	2.0	.5	30	1.2	1.9	3.8
								31	.3	1.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 16-31.....	20.8	2.6	0	1.30	41
August.....	29.5	3.0	0	.95	59
September.....	41.2	4.2	.3	1.37	82
The period.....	-	-	-	-	182

North ditch at Villanueva, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°16', long. 105°22', on line between sections 8 and 17, T. 12 N., R. 15 E., 30 feet upstream from wagon bridge, 1,600 feet downstream from head gate, and 1 mile northwest of Villanueva.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 5.4 second-feet Sept. 11; no flow at times.

Remarks.- Records good. Ditch diverts water from left bank of Pecos River for irrigation at Villanueva. No diversion between station and head.

Discharge, in second-feet, July 15 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	5.0	11	-	3.5	5.4	21	4.0	0	0
2	-	0	5.0	12	-	3.4	5.1	22	4.1	0	0
3	-	0	4.9	13	-	3.5	4.7	23	4.3	0	0
4	-	0	4.8	14	-	3.4	5.2	24	4.2	.1	0
5	-	0	4.5	15	0	3.3	.2	25	3.1	1.2	0
6	-	0	4.2	16	.3	3.3	.2	26	0	3.6	0
7	-	0	4.1	17	.3	3.2	.2	27	0	3.6	0
8	-	0	4.0	18	.6	3.1	.6	28	0	2.6	0
9	-	.3	4.1	19	.8	3.1	.4	29	0	4.9	0
10	-	1.2	4.2	20	1.7	3.1	.2	30	0	5.1	0
								31	0	5.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 15-31.....	23.4	4.3	0	1.38	46
August.....	60.6	5.1	0	1.95	120
September.....	66.9	5.4	0	2.23	133
The period.....	-	-	-	-	299

Diversions from Pecos River above Gallinas River

South ditch near Villanueva, N. Mex.

Location.- Water-stage recorder, lat. 35°16', long. 105°23', in NE¼ sec. 18, T. 12 N., R. 15 E., 200 feet downstream from head gate and 1¼ miles northwest of Villanueva.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 8.0 second-feet Sept. 11; no flow July 15, 16, 26.

Remarks.- Records fair. Ditch diverts water from right bank of Pecos River for irrigation near Villanueva. No diversion between station and head.

Discharge, in second-feet, July 15 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	1.0	6.0	11	-	0.3	8.0	21	3.5	4.4	2.6
2	-	1.7	5.4	12	-	.9	6.8	22	4.2	4.7	2.5
3	-	1.8	5.4	13	-	1.7	6.2	23	4.8	4.8	2.5
4	-	1.7	4.9	14	-	1.4	5.0	24	4.4	4.0	2.5
5	-	1.5	4.0	15	0	3.8	2.8	25	2.8	3.1	2.2
6	-	.8	3.2	16	0	4.9	2.7	26	0	3.2	1.5
7	-	.6	2.9	17	2.0	4.5	2.7	27	.1	4.0	1.5
8	-	.5	2.8	18	4.5	4.0	2.7	28	.1	4.1	1.5
9	-	.4	3.6	19	3.9	3.9	2.7	29	.2	4.6	1.5
10	-	.4	4.3	20	3.6	3.1	2.6	30	.6	6.1	2.1
								31	.5	6.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 15-31	35.2	4.8	0	2.07	70
August	88.4	6.5	.3	2.85	175
September	105.1	8.0	1.5	3.50	208
The period	-	-	-	-	453

El Cerrito community ditch near Villanueva, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°16', long. 105°19', in NW¼ sec. 14, T. 12 N., R. 15 E., about 300 feet downstream from head gate, half a mile west of community of El Cerrito, and 2 miles east of Villanueva.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 3.6 second-feet Aug. 19; no flow at times.

Remarks.- Records good. Ditch diverts water from right bank of Pecos River for irrigation near El Cerrito. No diversion between station and head.

Discharge, in second-feet, July 15 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	0.8	11	-	0	3.4	21	0.6	0.4	2.6
2	-	.1	1.0	12	-	0	2.6	22	.5	.9	2.1
3	-	0	.8	13	-	0	2.5	23	.8	1.7	1.8
4	-	0	.7	14	-	0	2.1	24	.7	1.6	1.8
5	-	0	.6	15	0.3	0	3.4	25	.8	1.3	1.3
6	-	0	.7	16	1.0	1.4	2.9	26	0	1.3	.7
7	-	0	1.0	17	1.5	2.7	3.3	27	.4	1.3	.7
8	-	0	1.1	18	1.4	3.2	3.4	28	.1	1.4	.7
9	-	0	1.3	19	1.1	3.6	3.2	29	.2	1.1	.6
10	-	0	1.6	20	1.0	2.8	2.9	30	.3	.9	.6
								31	.1	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 15-31	10.8	1.5	0	0.64	21
August	26.5	3.6	0	.85	53
September	52.2	3.4	.6	1.74	104
The period	-	-	-	-	178

Diversions from Pecos River above Gallinas River

Tecolotito community ditch near Anton Chico, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°14', long. 105°10', in E½ sec. 30, T. 12 N., R. 17 E. (projected), in Anton Chico grant, 200 feet downstream from heading, half a mile west of community of Tecolotito, and 3 miles northwest of Anton Chico.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 19 second-feet July 25; no flow Sept. 16-18.

Remarks.- Records good except that for day of missing gage height, July 31, which was computed on basis of partly estimated gage height and records for Hormigoso community ditch near Anton Chico and is poor. Ditch diverts water from right bank of Pecos River for irrigation near Anton Chico. No diversion between station and head.

Discharge, in second-feet, July 16 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	11	12	11	-	11	16	21	5.7	12	10
2	-	11	11	12	-	10	17	22	5.5	11	10
3	-	12	10	13	-	10	13	23	7.5	11	10
4	-	11	12	14	-	11	14	24	16	10	10
5	-	11	13	15	-	14	13	25	19	10	10
6	-	12	13	16	-	15	0	26	13	10	10
7	-	11	10	17	-	14	0	27	8.9	13	10
8	-	11	9.3	18	2.5	14	0	28	9.3	15	10
9	-	11	9.3	19	3.6	14	4.2	29	9.3	14	10
10	-	11	12	20	5.7	11	10	30	6.6	13	10
								31	12	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 18-31	124.6	19	2.5	8.90	247
August	368	15	10	11.9	730
September	297.8	17	0	9.93	591
The period	-	-	-	-	1,570

Hormigoso community ditch near Anton Chico, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°13', long. 105°10', in NW¼ sec. 5, T. 11 N., R. 17 E., (projected), in Anton Chico grant, three-quarters of a mile downstream from head gate and 1½ miles northwest of Anton Chico.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 30 second-feet Aug. 14; no flow July 31, Aug. 2, 3.

Remarks.- Records good except for Sept. 5, which was computed on basis of partly estimated gage height and is poor. Ditch diverts water from left bank of Pecos River for irrigation between Anton Chico and Delia. No diversion between station and head.

Discharge, in second-feet, July 18 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0.6	14	11	-	21	3.3	21	17	26	20
2	-	0	12	12	-	19	20	22	16	20	18
3	-	0	10	13	-	23	16	23	18	22	18
4	-	6.1	8.6	14	-	30	18	24	17	21	19
5	-	23	6.0	15	-	29	22	25	17	19	18
6	-	22	2.8	16	-	25	8.1	26	22	18	18
7	-	21	2.6	17	-	26	4.3	27	18	19	18
8	-	21	2.6	18	14	24	12	28	13	21	18
9	-	20	2.5	19	15	25	21	29	6.3	20	18
10	-	21	2.5	20	12	25	21	30	.8	18	18
								31	0	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 18-31	186.1	22	0	13.3	369
August	601.6	30	0	19.4	1,190
September	392.3	22	2.5	13.1	778
The period	-	-	-	-	2,340

Gallinas River near Montezuma, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°39', long. 105°19' (revised), in Las Vegas grant, 2 miles west of Montezuma, San Miguel County.

Drainage area.- 66 square miles.

Records available.- October 1930 to September 1939 in reports of Geological Survey. March 1915 to December 1931 in reports of State engineer.

Average discharge.- 13 years (1926-39), 17.6 second-feet.

Extremes.- Maximum discharge during year, 465 second-feet Aug. 1 (gage height, 2.97 feet); minimum daily discharge, 2.3 second-feet July 8, 11-13.
1930-39: Maximum discharge, 1,420 second-feet Aug. 5, 1935 (gage height, 4.98 feet), from rating curve extended logarithmically above 350 second-feet; minimum daily discharge, 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 and periods of missing or doubtful gage heights, which are poor. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	7.2	*5.5		3.9	7.2	33	52	16	7.6	71	6.7
2	10	6.7	*5.5		*4.0	5.5	38	55	14	6.2	39	4.5
3	10	6.7	*5.5		†4.0	6.7	41	55	13	4.5	43	3.2
4	10	6.7	*6.0	†5.0	6.2	6.7	63	55	13	3.9	48	3.9
5	10	6.7	4.8		6.7	7.2	96	49	11	4.5	38	4.5
6	9.4	7.2	4.5		*7.0	8.0	84	47	8.5	3.9	50	3.9
7	11	6.7	4.2	‡4.5	7.2	8.0	82	44	8.5	3.2	46	3.6
8	76	*6.9	5.2		5.8	9.0	88	42	7.2	2.3	43	3.9
9	38	*7.0	5.5		5.5	11	84	40	6.7	2.9	32	3.6
10	33	7.2	5.5	†4.0		13	82	38	6.2	2.4	25	2.9
11	27	6.7	5.5			14	70	38	6.2	2.3	22	4.5
12	22	7.2	5.5		*7.0	14	60	40	5.8	2.3	20	3.9
13	18	5.8	*6.5			18	59	38	4.8	2.3	21	4.8
14	15	6.7	*8.0	‡3.9		22	60	36	3.6	26	24	9.0
15	14	6.2	*7.0			22	59	34	2.9	52	19	21
16	13	5.8	6.2		7.2	25	55	31	2.6	24	15	37
17	13	6.2	5.5	†4.5	8.5	26	49	29	2.6	15	13	51
18	11	4.8	5.5		5.8	29	46	28	2.6	11	11	43
19	10	5.8	5.8		5.8	30	44	27	2.6	9.0	9.8	35
20	10	5.8	5.8		4.8	34	46	26	2.4	7.2	22	28
21	10	5.5	5.5	‡5.2	*5.0	36	47	25	2.6	5.2	14	23
22	9.8	4.2	*5.0		*6.0	36	50	23	2.6	5.2	9.4	20
23	9.4	4.5	*4.5	†7.0	*7.0	38	58	22	2.9	10	10	16
24	9.0		*4.0		7.6	46	58	22	2.9	9.0	12	16
25	8.5		*4.0	8.5	8.0	42	56	22	2.9	8.0	9.0	14
26	7.2	*5.0	*4.0	6.2	7.6	40	55	22	2.9	17	6.2	12
27	7.2		*4.0	6.7	7.6	43	50	20	5.2	26	9.4	11
28	6.7		*4.0	6.2	6.2	40	48	20	5.5	24	9.8	11
29	7.2		3.9	5.2	-	34	50	20	6.7	34	7.2	9.8
30	6.7		3.9	5.2	-	30	52	18	19	92	8.5	9.4
31	6.7	-	*5.0	4.5	-	29	-	18	-	63	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	459.8	76	6.7	14.8	912
November	179.2	7.2	4.2	5.97	355
December	161.3	8.0	3.9	5.20	320
Calendar year 1938	4,411.4	220	.8	12.1	8,760
January	158.1	8.5	-	5.10	314
February	179.4	8.5	3.9	6.41	356
March	730.3	46	5.5	23.6	1,450
April	1,763	96	33	58.8	3,500
May	1,036	55	18	33.4	2,050
June	193.4	19	2.4	6.45	384
July	485.9	92	2.3	15.7	964
August	715.8	71	6.2	23.1	1,420
September	420.1	51	2.9	14.0	833
Water year 1938-39	6,482.3	96	2.3	17.8	12,860

Peak discharge.- Oct. 8 (4 a.m.) 314 sec.-ft.; Aug. 1 (9 p.m.) 465 sec.-ft.; Aug. 20 (8 p.m.) 239 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of gage height, weather records and records for station at Montezuma.

†Gage height missing or doubtful; discharge computed on basis of three staff-gage readings, weather records and records for station at Montezuma.

‡Computed on basis of staff-gage readings.

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Gallinas River at Montezuma, N. Mex.

Location.- Water-stage recorder, lat. 35°39'15", long. 105°16'30" (revised) in Las Vegas grant, at highway bridge, half a mile downstream from Montezuma, San Miguel County, and 5 miles northwest of Las Vegas.

Drainage area.- 89 square miles.

Records available.- August 1903 to December 1914(prior to October 1904, gage heights only) and October 1930 to September 1939 in reports of Geological Survey. October 1904 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 402 second-feet Aug. 1 (gage height, 3.90 feet); minimum daily discharge, 0.6 second-foot July 5, 10-12.
1930-39: Maximum discharge, 720 second-feet Oct. 1, 1930 (gage height, 4.81 feet), from rating curve extended logarithmically above 81 second-feet; no flow Oct. 4-7, 1934.

Remarks.- Records fair except those for periods of missing gage heights, which are poor. Flow regulated by reservoirs owned by Agua Pura Co. Several diversions for irrigation and municipal supply above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	3.3	1.8		3.7	4.6	†32	47	12	11	88	7.9
2	16	3.3	1.8		3.7	3.9	*40	49	11	3.2	47	6.2
3	14	2.8	2.0		3.7	4.3	*45	54	9.7	1.2	47	4.7
4	13	2.4			3.9	4.6	*65	54	7.3	.8	54	3.7
5	14	2.0		*2.5	3.9	3.7	*100	52	7.3	.6	40	3.7
6	10	2.2	*2.0		3.5	3.5	*85	45	6.2	.7	57	3.2
7	9.5	*2.1			3.5	3.9	*80	39	3.2	.8	50	2.8
8	*70	*2.0			3.1	6.4	76	36	2.2	.7	49	2.5
9	52	*2.0		2.6	3.3	6.4	78	34	2.0	.7	34	3.2
10	42	*1.9	†2.0	2.0	2.4	9.0	80	32	2.0	.6	26	2.8
11	30	1.8		2.2	2.8	10	66	32	2.0	.6	22	2.5
12	*22	2.2		2.4	3.3	11	54	34	2.2	.6	18	2.2
13	*17	2.0		2.4	3.5	17	50	34	2.5	.7	17	2.5
14	*14	2.0	*2.2	2.2	3.3	23	49	33	2.5	1.0	22	3.2
15	13	1.7		2.2	3.1	23	49	28	2.0	71	18	18
16	12	1.7		2.4	3.3	26	46	26	2.0	30	14	39
17	9.5	1.7	†2.4	2.6	2.8	26	41	23	2.2	16	11	55
18	7.5	1.5		2.0	3.5	29	35	22	2.0	10	9.1	53
19	7.5	1.5		2.6	3.5	32	33	19	1.8	6.2	7.3	40
20	7.5	1.4		3.5	3.7	38	35	17	2.0	4.7	7.3	26
21	6.8	1.4		5.7	3.3	42	36	15	2.2	4.7	23	24
22	6.8	1.4		6.4	3.1	40	42	14	2.0	3.7	9.1	19
23	6.8	1.4		5.3	3.7	41	53	14	1.8	3.2	8.5	18
24	6.8	1.4		5.3	5.0	48	54	14	1.6	3.2	10	16
25	6.1	1.5	*2.0	5.3	5.0	48	55	14	1.2	3.2	6.7	15
26	6.1	1.7		4.6	3.7	*40	54	16	1.2	3.2	6.7	12
27	5.7	2.0		3.9	3.5	*45	47	15	1.2	30	6.2	12
28	5.3	1.8		5.7	3.5	*40	43	14	1.0	24	7.3	10
29	3.3	1.7		5.7	-	*35	46	15	.9	36	7.3	10
30	2.6	1.7		4.3	-	*30	46	12	7.2	97	5.7	9.7
31	3.1	-		4.6	-	*30	-	14	-	74	5.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	456.9	70	2.6	14.7	906
November	57.5	3.3	1.4	1.92	114
December	63.2	-	-	2.04	125
Calendar year 1938	3,954.9	214	.5	10.8	7,840
January	105.9	6.4	2.0	3.42	210
February	98.3	5.0	2.4	3.51	195
March	724.3	48	3.5	23.4	1,440
April	1,615	100	32	53.8	3,200
May	867	54	12	28.0	1,720
June	104.4	12	.9	3.48	207
July	443.3	97	.6	14.3	879
August	733.9	88	5.7	23.7	1,460
September	427.8	55	2.2	14.3	849
Water year 1938-39	5,697.5	100	.6	15.6	11,300

Peak discharge.- July 15 (4 a.m.) 110 sec.-ft.; July 30 (1 p.m.) 176 sec.-ft.; Aug. 1 (9 p.m.) 402 sec.-ft.

*Gage height missing; discharge computed on basis of three staff gage readings, recorded range of stage, weather records, and records for station near Montezuma.

†Computed on basis of staff gage reading.

Lower Colonias community ditch near Colonias, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 35°08', long. 104°52', in sec. 36, T. 11 N., R. 19 E. (projected), in Anton Chico grant, half a mile downstream from head gate and 2 miles northwest of Colonias.
Records available.- July to September 1939.
Extremes.- Maximum daily discharge during period, 18 second-feet Sept. 16; no flow at times.
Remarks.- Records good except those for days of missing or doubtful gage heights, July 25, Sept. 15, 16, which were computed on basis of partly estimated gage heights and records for Pecos River at Santa Rosa and are poor. Ditch diverts water from right bank of Pecos River for irrigation near Colonias. No diversion between station and head.

Discharge, in second-feet, July 18 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	2.0	0	11	-	5.6	0	21	0	5.1	10
2	-	0	0	12	-	4.3	0	22	.6	8.8	9.1
3	-	0	0	13	-	2.7	0	23	0	4.3	8.1
4	-	.1	0	14	-	1.6	0	24	0	2.2	7.3
5	-	4.5	0	15	-	4.3	17	25	.5	1.8	6.3
6	-	7.3	0	16	-	4.9	18	26	5.0	1.0	5.6
7	-	9.4	0	17	-	.8	0	27	3.2	.2	4.6
8	-	10	0	18	4.2	0	0	28	11	0	4.1
9	-	9.3	0	19	2.3	0	7.2	29	15	0	3.6
10	-	7.3	0	20	.2	.6	12	30	0	0	3.6
								31	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 18-31.....	42.0	15	0	3.00	83
August.....	98.1	10	0	3.16	195
September.....	116.5	18	0	3.88	231
The period.....	-	-	-	-	509

East ditch near Puerto de Luna, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 34°53', long. 104°39', in NE¼ sec. 31, T. 8 N., R. 22 E., 2 miles downstream from head gate and 3½ miles northwest of Puerto de Luna.
Records available.- July to September 1939.
Remarks.- No flow during period. Ditch diverts water from left bank of Pecos River for irrigation near Puerto de Luna. No diversion between station and head.

Fort Sumner Irrigation District canal at Fort Sumner, N. Mex.

Location.- Water-stage recorder and Cipoletti weir, lat. 34°29', long. 104°15', in SE¼ sec. 18, T. 3 N., R. 26 E., about 2½ miles downstream from head gate and half a mile west of Fort Sumner.
Records available.- July to September 1939.
Extremes.- Maximum daily discharge during period, 99 second-feet Sept. 8; no flow July 17, July 30 to Aug. 1, Aug. 4.
Remarks.- Records excellent. Ditch diverts water from left bank of Pecos River for irrigation of land in Fort Sumner irrigation district. No diversion between station and head.

Discharge, in second-feet, July 17 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	84	11	-	89	1	21	78	45	84
2	-	17	93	12	-	80	53	22	74	58	78
3	-	38	91	13	-	76	76	23	61	76	75
4	-	0	95	14	-	58	80	24	72	84	77
5	-	48	95	15	-	85	78	25	65	79	78
6	-	1	95	16	-	85	5	26	48	80	82
7	-	45	97	17	0	65	41	27	77	86	74
8	-	74	99	18	7	84	74	28	71	86	71
9	-	77	89	19	50	86	82	29	1	86	74
10	-	87	80	20	79	80	83	30	0	86	76
								31	0	86	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 17-31.....	683	79	0	45.5	1,350
August.....	2,027	89	0	65.4	4,020
September.....	2,260	99	1	75.3	4,480
The period.....	-	-	-	-	9,850

Note.- The following discharge measurements were made in April and June 1939: Apr. 11, 69 sec.-ft.; June 3, 88 sec.-ft.; June 13, 92 sec.-ft.

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.

Records available.- October 1930 to September 1939 in reports of Geological Survey. August 1930 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 440 second-feet Sept. 16 (gage height, 3.04 feet); minimum daily discharge, 0.4 second-foot July 8, 10-12, Sept. 11.
1930-39: Maximum discharge, 5,680 second-feet May 31, 1937 (gage height, 13.4 feet), from rating curve extended above 128 second-feet on basis of velocity-area studies; no flow Aug. 15, 16, 1935.

Remarks.- Records fair except those for periods of missing gage heights, Nov. 30 to Dec. 3, Apr. 7, 8, July 19, 20, Aug. 21, 22 (computed on basis of weather records and records for Rio Bonito at Hondo and Rio Hondo at Diamond A ranch, near Roswell), and those for Aug. 28 to Sept. 2 (interpolated), all of which are poor. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	8.3		8.3	5.0	12	30	3.4	1.2	0.5	38	1.7
2	15	6.9	7.5	8.3	4.8	9.8	26	3.4	1.5	.5	53	1.4
3	14	7.2		8.0	4.4	9.0	24	3.2	1.3	.5	19	1.2
4	12	8.3	8.0	7.2	4.8	12	25	3.7	1.2	.5	25	1.1
5	12	8.3	8.0	8.0	3.7	15	36	3.2	1.3	.5	36	.9
6	12	8.6	7.6	7.2	5.0	12	44	3.0	1.1	.5	104	.8
7	12	8.6	8.0	8.6	5.8	12	40	3.4	.9	.5	88	.6
8	12	8.3	7.6	11	6.6	12	35	2.5	.7	.4	50	.5
9	12	8.0	8.0	11	9.4	7.6	33	2.2	.8	.5	38	.5
10	13	8.0	7.2	9.4	13	10	32	1.4	1.0	.4	28	.5
11	12	8.0	7.2	8.3	15	12	32	1.4	1.2	.4	28	.4
12	11	6.9	7.2	9.8	15	14	32	2.0	.9	.4	30	.6
13	11	6.9	7.2	11	15	14	33	2.5	.7	.6	21	1.3
14	11	6.9	7.2	13	12	14	32	3.2	.7	22	43	1.5
15	11	7.2	7.6	12	11	15	32	3.4	.6	9.0	33	4.8
16	11	7.2	7.6	11	13	19	32	2.7	.5	8.3	32	77
17	9.8	7.6	7.2	8.3	13	19	27	1.8	.5	8.0	24	33
18	9.4	7.6	7.2	7.6	13	20	22	1.7	.5	3.7	19	30
19	9.4	7.6	7.2	8.0	14	22	19	1.3	.5	3.5	17	33
20	9.4	7.6	7.6	8.6	14	25	15	1.4	.5	2.0	16	32
21	9.4	7.6	7.6	9.8	12	36	13	1.5	.5	3.7	14	29
22	9.4	6.9	7.6	10	12	45	17	1.7	.6	1.4	13	26
23	9.8	6.9	8.0	9.0	13	71	18	1.8	2.0	1.2	12	22
24	10	6.9	7.6	7.2	13	65	13	1.8	1.1	1.3	6.9	18
25	10	7.2	7.6	8.0	8.6	62	9.0	1.8	.6	1.3	4.8	15
26	11	6.6	7.6	7.6	14	56	5.3	1.7	.6	2.0	3.7	12
27	10	6.6	7.2	6.9	13	50	3.2	1.5	.6	1.3	2.9	10
28	9.0	6.6	7.2	6.2	11	46	3.4	2.2	.5	4.1	2.7	6.9
29	8.0	7.2	7.2	4.8	-	45	2.9	1.8	.5	2.2	2.4	5.5
30	8.6	7.5	7.6	6.6	-	38	3.2	1.1	.5	3.7	2.2	5.3
31	8.6	-	8.0	5.3	-	33	-	1.2	-	16	1.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	340.8	18	8.0	11.0	676
November	224.0	8.6	6.6	7.47	444
December	233.3	8.0	7.2	7.53	463
Calendar year 1938	5,959.4	520	.7	16.3	11,820
January	266.0	13	4.8	8.58	528
February	294.1	15	3.7	10.5	583
March	832.4	71	7.6	26.9	1,650
April	689.0	44	2.9	23.0	1,370
May	68.9	3.7	1.1	2.22	137
June	25.1	2.0	.5	.84	50
July	100.9	22	.4	3.25	200
August	808.5	104	1.9	26.1	1,600
September	372.5	77	.4	12.4	739
Water year 1938-39	4,255.5	104	.4	11.7	8,440

Peak discharge.- Aug. 14 (1 p.m.) 372 sec.-ft.; Sept. 16 (4 a.m.) 440 sec.-ft.; Sept. 16 (9 a.m.) 260 sec.-ft.

Rio Bonito at Hondo, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 33°23', long. 105°16', in NE¼NW¼ sec. 4, T. 11 S., R. 17 E., at Hondo, half a mile upstream from confluence with Rio Ruidoso (which forms Rio Hondo).

Records available.- October 1930 to September 1939 in reports of Geological Survey. August 1930 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 520 second-feet September 16 (gage height, 3.01 feet), from rating curve extended above 82 second-feet on basis of slope-area determination of 9,270 second-feet; no flow at times.
1930-39: Maximum discharge, 9,270 second-feet May 31, 1937 (gage height, 19.0 feet), by slope-area method; no flow at times.

Remarks.- Records poor. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	0.3	0.6	0			0	1.2	0	1.1	7.4	0
2	1.7	.4	.6	0			0	1.6	0	0	14	0
3	1.4	2.9	.5	0			0	3.9	0	0	38	0
4	1.0	3.3	.6	0			0	5.2	0	0	18	0
5	1.5	3.6	.6	0			.9	3.3	0	0	9.1	0
6	1.6	3.6	.6	.1			6.0	3.0	0	0	11	0
7	20	3.1	*.5	.2			7.1	3.0	0	0	9.1	0
8	17	4.3	*.4	1.1			6.0	1.9	0	0	7.1	0
9	7.4	4.6	*.2	.4			5.2	1.3	0	0	5.7	0
10	5.5	5.7	*.1	.3			4.8	*1.0	0	0	7.4	0
11	5.0	6.0	0	.4			3.1	*.5	0	0	13	0
12	4.6	6.4	0	.5			3.3	0	0	0	6.4	0
13	4.3	7.4	0	.5			3.9	0	0	0	4.3	0
14	3.9	5.5	0	.8			6.4	0	0	.6	9.1	0
15	3.0	3.0	0	1.0			7.7	0	0	0	7.4	3.4
16	3.9	1.0	0	1.2			8.8	0	0	0	7.4	82
17	3.4	.9	0	1.9			7.7	0	0	0	5.2	7.1
18	2.8	1.5	0	1.6			4.8	0	0	.6	2.0	7.1
19	2.6	2.5	0	1.6			1.6	0	0	.2	.8	7.7
20	3.4	*2.0	0	1.5			0	0	0	.2	0	5.2
21	3.3	*1.5	0	1.2			0	0	0	3.4	.7	2.5
22	3.3	*1	0	1.2			0	0	0	3.6	1.1	*1.5
23	3.4	*1	0	1.1			0	0	0	2.1	1.0	.4
24	2.2	*1	0	.8			0	0	0	1.7	.5	0
25	1.9	*1	0	0			0	0	0	1.0	1.5	0
26	2.6	*.5	0	0			0	0	0	.2	.7	0
27	4.1	.4	0	0			1.0	0	0	.3	.4	0
28	*2.5	.4	0	0			1.0	1.2	0	4.2	.4	0
29	*1.5	.4	*0	0			1.1	.8	3.3	3.6	.4	0
30	.1	.5	0	0			.8	.5	2.9	3.3	0	0
31	.2	-	0	0			-	0	-	5.2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	121.5	20	0.1	3.92	241
November	75.7	7.4	.3	2.52	150
December	4.7	.6	0	.15	9.3
Calendar year 1938	1,551.0	160	0	4.25	3,090
January	17.4	1.9	0	.56	35
February	0	0	0	0	0
March	0	0	0	0	0
April	81.2	8.8	0	2.71	161
May	28.4	5.2	0	.92	56
June	6.2	3.3	0	.21	12
July	31.3	5.2	0	1.01	62
August	189.1	38	0	6.10	375
September	116.9	82	0	3.90	232
Water year 1938-39	672.4	82	0	1.84	1,330

Peak discharge.- Oct. 7 (8 p.m.) 180 sec.-ft.; Aug. 3 (6 p.m.) 238 sec.-ft.; Sept. 16 (7 a.m.) 520 sec.-ft.

*Gage-height record missing or fragmentary; discharge computed on basis of records for Rio Ruidoso at Hondo and Rio Hondo near Roswell.

Hagerman canal near Roswell, N. Mex.

Location.- Water-stage recorder, lat. 33°24'10", long. 104°26'20", in NE¼ sec. 31, T. 10 S., R. 25 E., 15 feet downstream from head gates and 5 miles east of Roswell.
Records available.- July to September 1939.
Extremes.- Maximum daily discharge during period, 88 second-feet July 31; minimum daily, 27 second-feet Aug. 20.
Remarks.- Records excellent. Canal diverts water from right bank of Rio Hondo for irrigation near Dexter. No diversion between station and head.

Discharge, in second-feet, July 22 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	54	31	11	-	38	32	21	-	28	36
2	-	47	31	12	-	28	30	22	48	28	36
3	-	44	30	13	-	28	30	23	46	28	36
4	-	60	28	14	-	28	31	24	44	29	36
5	-	47	28	15	-	28	32	25	36	29	36
6	-	45	29	16	-	28	35	26	51	32	34
7	-	58	30	17	-	29	43	27	38	33	32
8	-	43	30	18	-	28	36	28	34	29	32
9	-	37	32	19	-	28	36	29	31	28	33
10	-	36	32	20	-	27	36	30	36	30	34
								31	88	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 22-31.....	452	88	31	45.2	897
August.....	1,086	60	27	35.0	2,150
September.....	987	43	28	32.9	1,960
The period.....	-	-	-	-	5,010

Roswell drain 1 near Roswell, N. Mex.

Location.- Measuring section, lat. 33°23'00", long. 104°25'30", in NW¼ sec. 5, T. 11 S., R. 25 E., 100 feet above outlet to Hagerman canal and 4½ miles east of Roswell.
Records available.- August to September 1939 (discharge measurements only).
Remarks.- Discharge represents ground water from irrigated lands discharged into Hagerman canal.

Discharge measurements, in second-feet, 1939

Aug. 16	0.62	Sept. 5	0.31
23	.58	19	.52
29	.32	26	.52

Reins pump ditch near Dexter, N. Mex.

Location.- Water-stage recorder, lat. 33°11'45", long. 104°18'40", in NE¼ sec. 14, T. 13 S., R. 26 E., 12 feet downstream from pumping station, 2 miles downstream from Dexter Bridge, and 3½ miles east of Dexter.
Records available.- July to September 1939.
Extremes.- Maximum daily discharge during period, 2.0 second-feet Sept. 23; no flow at times.
Remarks.- Records fair. Discharge computed on basis of three discharge measurements, recorded operation of 7-inch centrifugal pump, and study of river stage. Flow regulated by pumping plant, which diverts water from left bank of Pecos River for irrigation.

Discharge, in second-feet, July 22 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	1.0	11	-	0	0	21	-	0	1.4
2	-	0	.9	12	-	0	0	22	0	0	1.6
3	-	0	0	13	-	0	0	23	0	0	2.0
4	-	0	0	14	-	0	.9	24	0	0	0
5	-	0	.2	15	-	0	.6	25	0	0	0
6	-	0	0	16	-	0	.9	26	0	0	0
7	-	0	.8	17	-	0	1.0	27	0	0	0
8	-	0	1.0	18	-	0	1.4	28	0	0	0
9	-	0	.4	19	-	0	1.5	29	0	0	0
10	-	0	0	20	-	0	1.6	30	0	.8	0
								31	0	1.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 22-31.....	0	0	0	0	0
August.....	1.9	1.1	0	.06	3.8
September.....	17.2	2.0	0	.57	34
The period.....	-	-	-	-	38

Greenfield drain 1 near Dexter, N. Mex.

Location.- Measuring section, lat. 33°10'00", long. 104°18'30", in SE¼ sec. 23, T. 13 S., R. 26 E., 50 feet downstream from the drain outlet, 75 feet upstream from outlet to Pecos River, 2⅛ miles east of Greenfield, and 4 miles southeast of Dexter.
Records available.- August to September 1939 (discharge measurements only).
Remarks.- Discharge represents ground water returned from irrigated lands to Pecos River.

Discharge measurements, in second-feet, 1939

Aug. 30	0.43	Sept. 26	0.43
Sept. 5	.33		

Greenfield drain 2 near Dexter, N. Mex.

Location.- Measuring section, lat. 33°09'20", long. 104°19'00", in SW¼ sec. 26, T. 13 S., R. 26 E., 150 feet upstream from outlet to Pecos River, 2⅛ miles southeast of Greenfield, and 4⅛ miles southeast of Dexter.
Records available.- August to September 1939 (discharge measurements only).
Remarks.- Discharge represents ground water returned from irrigated lands to Pecos River.

Discharge measurements, in second-feet, 1939

Aug. 24	0.59	Sept. 20	0.78
30	.62	26	.80
Sept. 5	.55		

Greenfield drain 3 near Dexter, N. Mex.

Location.- Measuring section, lat. 33°09'10", long. 104°19'00", in SW¼ sec. 26, T. 13 S., R. 26 E., 40 feet upstream from outlet to Pecos River, 2⅛ miles southeast of Greenfield, and 4⅛ miles southeast of Dexter.
Records available.- August to September 1939 (discharge measurements only).
Remarks.- Discharge represents ground water returned from irrigated lands to Pecos River.

Discharge measurements, in second-feet, 1939

Aug. 24	0.27	Sept. 20	0.24
30	.26	26	.22
Sept. 5	.28		

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, 1½ miles northwest of Hagerman, and 2⅛ miles upstream from mouth.
Records available.- April to September 1939. March 1932 to April 1939, at site 1 mile downstream. Records for periods of low flow not equivalent.
Extremes.- Maximum discharge during period, 6,230 second-feet July 30 (gage height, 10.85 feet); minimum daily discharge, 0.9 second-foot, Sept. 14, 15.
Maximum stage known, 19.5 feet from floodmarks, May 29, 1937 (discharge, 23,600 second-feet, by slope-area method).
Remarks.- Records fair. Several diversions above station for irrigation.

Discharge, in second-feet, Apr. 4 to Sept. 30, 1939

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	2.4	3.9	1.6	24	1.6	11	2.2	2.4	2.6	1.4	1.6	1.0	21	2.8	3.0	2.2	1.2	2.0	1.2
2	-	2.8	3.0	1.6	2.0	1.6	12	2.6	2.4	2.6	1.6	1.6	1.0	22	2.8	3.0	3.4	1.4	1.6	1.2
3	-	2.8	2.6	1.6	1.8	1.4	13	2.6	2.4	2.6	1.4	1.6	1.0	23	2.8	2.8	2.4	1.2	1.6	1.0
4	1.8	2.4	2.6	1.8	1.8	1.4	14	2.4	2.4	2.4	1.4	1.8	.9	24	3.0	2.6	2.0	1.2	1.4	1.0
5	1.4	2.3	2.4	1.6	1.6	1.4	15	2.6	2.4	2.4	1.6	1.6	.9	25	3.0	2.2	1.8	1.4	1.6	1.0
6	1.0	2.6	2.4	1.8	1.6	1.2	16	2.6	2.0	2.2	1.6	1.8	1.0	26	3.0	2.2	2.0	1.4	1.4	1.0
7	1.4	2.8	2.2	1.6	1.6	1.2	17	2.4	2.0	2.2	1.4	1.6	1.0	27	2.8	2.2	2.0	1.4	1.2	1.2
8	1.6	3.0	2.4	1.6	1.6	1.0	18	2.4	2.2	2.2	2.0	2.0	1.0	28	2.8	2.2	2.0	1.6	1.2	1.0
9	1.0	2.6	2.6	1.6	1.6	1.0	19	2.6	2.0	2.4	2.0	2.0	1.2	29	2.6	2.4	2.0	1.8	1.2	1.0
10	2.4	2.4	2.4	1.6	1.6	1.0	20	3.0	2.2	2.2	1.6	2.0	1.2	30	2.6	2.8	1.6	421	1.2	1.2
														31	-	4.4	-	548	1.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 4-30	65.2	3.0	1.0	2.41	129
May	78.3	4.4	2.0	2.53	155
June	71.9	3.9	1.6	2.40	143
July	1,314.0	848	1.2	42.4	2,610
August	72.6	24	1.2	2.34	144
September	33.8	1.6	.9	1.13	67
The period	-	-	-	-	3,250

Peak discharge.- July 30 (11 p.m.) 6,230 sec.-ft.; July 31 (3 a.m.) 2,050 sec.-ft.; July 31(8 a.m.) 1,540 sec.-ft.

Rio Felix near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°07', long. 104°20', in sec. 3, T. 14 S., R. 26 E., a quarter of a mile downstream from bridge on U. S. Highway 285, 1.5 miles north of Hagerman, and 1.6 miles upstream from mouth.

Records available.- March 1932 to April 1939 (discontinued).

Extremes.- Maximum discharge during period, 198 second-feet Oct. 11; maximum gage height, 3.82 feet Oct. 8; minimum daily discharge, 4.3 second-feet Apr. 2.
1932-39: Maximum discharge, 23,600 second-feet May 29, 1937 (gage height, 20.25 feet), from rating curve extended above 1,050 second-feet on basis of slope-area measurements at gage heights 12.62, 19.02, and 20.25 feet; minimum daily discharge, that of Apr. 2, 1939.

Remarks.- Records fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	12	13	8.8	19	9.2	5.0	-				
2	10	12	12	9.2	12	8.8	4.3	*9.6				
3	11	11	12	9.2	10	8.8	4.5	-				
4	12	10	11	9.2	12	8.8	7.6	-				
5	11	9.8	9.8	9.8	17	8.8	-	-				
6	12	9.8	8.8	10	22	8.8	-	-	*9.6			
7	12	9.2	8.8	11	32	8.8	-	-				
8	34	9.2	8.4	10	33	8.8	-	-				
9	31	9.2	8.4	10	36	9.2	-	-				
10	38	9.2	8.4	9.8	35	9.8	-	-		*7.0		
11	49	9.2	8.8	15	35	8.8	-	-				
12	65	9.2	8.4	18	40	8.8	-	-				
13	68	8.8	8.4	10	32	8.8	-	-				
14	59	8.8	8.0	12	13	9.2	-	-				
15	50	8.8	8.0	11	12	9.8	*8.2	-				
16	51	8.8	8.0	11	10	9.8	-	-				
17	50	9.2	7.6	10	9.2	9.8	-	-				
18	54	8.4	10	11	9.2	9.8	-	-				
19	53	8.8	7.6	11	9.2	9.8	-	-				
20	53	23	7.6	10	9.2	9.2	-	-				*6.7
21	54	38	7.6	12	9.2	8.8	-	-				
22	54	26	7.6	31	9.2	8.8	-	-				
23	50	18	7.6	33	24	8.8	-	-			*8.1	
24	45	17	7.6	33	24	8.8	-	*9.2				
25	41	17	9.8	18	21	8.4	-	-				
26	41	15	22	23	26	8.0	-	-				
27	28	13	10	32	28	8.0	-	-				
28	15	14	8.4	29	25	7.6	-	-				
29	13	14	8.4	22	-	6.4	-	-				
30	13	13	8.8	19	-	6.0	-	-				
31	12	-	8.8	20	-	5.0	-	-				

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,099	68	10	35.5	2,180
November	389.4	38	8.4	13.0	772
December	289.6	22	7.6	9.34	574
Calendar year 1938	11,845.6	3,810	4.5	32.5	23,500
January	488.0	33	8.8	15.7	968
February	573.2	40	9.2	20.5	1,140
March	268.2	9.8	5.0	8.65	532
April	-	-	-	-	-
May	-	-	-	-	-
June	-	-	-	-	-
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	6,170

Peak discharge.- Oct. 8 (9 p.m.) 195 sec.-ft.; Oct. 11 (7 p.m.) 198 sec.-ft.
*Discharge measurement.

Diversions from Pecos River between Rio Felix and Cottonwood Creek

Deason pump ditch near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°08'30", long. 104°18'40", in SE¼ sec. 35, T. 13 S., R. 26 E., 25 feet downstream from pumping station and 2 miles northeast of Hagerman.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 3.2 second-feet Aug. 23; no flow at times.

Remarks.- Records good. Discharge regulated by pumping plant, which diverts water from left bank of Pecos River for irrigation.

Discharge, in second-feet, July 22 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0.8	0	11	-	0	2.5	21	-	2.9	0
2	-	3.0	0	12	-	0	2.2	22	0	1.8	0
3	-	.3	0	13	-	0	0	23	0	3.2	0
4	-	.5	1.2	14	-	0	0	24	0	3.1	0
5	-	0	0	15	-	0	0	25	0	.5	0
6	-	0	0	16	-	0	0	26	0	0	0
7	-	0	2.2	17	-	3.0	0	27	0	0	0
8	-	0	2.9	18	-	0	0	28	0	0	0
9	-	0	0	19	-	2.9	0	29	0	0	0
10	-	0	0	20	-	0	0	30	0	0	0
								31	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 22-39	0	0	0	0	0
August	22.0	3.2	0	.71	44
September	11.0	2.9	0	.37	22
The period	-	-	-	-	66

Kiper-Stine-Turner-Hall pump ditch near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°08'00", long. 104°18'50", in NW¼ sec. 2, T. 14 S., R. 26 E., at pumping station, 1⅜ miles northeast of Hagerman.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 2.8 second-feet Aug. 5; no flow at times.

Remarks.- Records fair. Discharge computed on basis of four discharge measurements and recorded operation of 10-inch centrifugal pump. Discharge regulated by pumping plant, which diverts water from right bank of Pecos River for irrigation.

Discharge, in second-feet, July 23 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	1.9	0	11	-	1.0	2.0	21	-	1.8	0
2	-	1.9	0	12	-	1.6	0	22	-	1.5	0
3	-	1.9	0	13	-	0	0	23	0	1.5	.6
4	-	2.3	1.3	14	-	1.6	0	24	.5	1.8	0
5	-	2.8	2.0	15	-	1.8	0	25	0	0	.9
6	-	0	1.8	16	-	1.6	0	26	0	0	1.2
7	-	2.3	2.0	17	-	0	0	27	0	0	1.7
8	-	2.0	2.6	18	-	0	0	28	0	1.6	1.5
9	-	.8	2.0	19	-	0	0	29	0	0	0
10	-	2.0	0	20	-	0	0	30	0	0	0
								31	1.6	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 23-31	2.1	1.6	0	0.23	4.2
August	33.9	2.8	0	1.09	67
September	19.6	2.6	0	.65	39
The period	-	-	-	-	110

Diversions from Pecos River between Rio Felix and Cottonwood Creek

McWhirt pump ditch near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°07'50", long. 104°18'00", in NW¼ sec. 1, T. 14 S., R. 26 E., just downstream from pumping station and 2.0 miles northeast of Hagerman.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 5.5 second-feet July 28; no flow at times.

Remarks.- Records fair. Discharge computed on basis of seven discharge measurements, record of operation of 12-inch centrifugal pump, and records for Pecos River near Acme and near Lake Arthur. Discharge regulated by pumping plant, which diverts water from left bank of Pecos River for irrigation.

Discharge, in second-feet, July 22 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	2.3	3.0	11	-	0	3.7	21	-	4.0	0
2	-	4.7	0	12	-	0	0	22	0	3.6	3.5
3	-	4.0	0	13	-	0	0	23	0	4.1	3.8
4	-	0	.9	14	-	3.8	0	24	3.2	3.8	0
5	-	0	2.3	15	-	4.1	1.3	25	4.6	4.4	2.2
6	-	0	0	16	-	4.1	1.3	26	3.8	4.0	4.1
7	-	0	3.5	17	-	4.4	0	27	5.3	0	4.4
8	-	0	3.8	18	-	4.8	1.3	28	5.5	4.0	5.4
9	-	.7	0	19	-	4.8	.6	29	3.8	4.9	4.4
10	-	0	2.3	20	-	0	0	30	0	3.9	5.0
								31	0	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 22-31	26.2	5.5	0	2.62	52
August	78.2	4.9	0	2.52	155
September	56.8	5.4	0	1.89	113
The period	-	-	-	-	320

Union Central Life Insurance Co. high pump ditch near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°07'20", long. 104°18'10", in NE¼ sec. 11, T. 14 S., R. 26 E., just downstream from pumping plant, 1.5 miles northeast of Hagerman.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 6.1 second-feet Sept. 15; no flow at times.

Remarks.- Records good. Discharge computed on basis of four discharge measurements, record of operation of 10-inch centrifugal pump, and records for Pecos River near Acme and Lake Arthur. Discharge regulated by pumping plant, which diverts water from right bank of Pecos River for irrigation.

Discharge, in second-feet, July 24 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	0	11	-	4.1	0	21	-	3.1	0
2	-	0	.7	12	-	5.3	1.6	22	-	0	0
3	-	0	0	13	-	5.5	2.6	23	-	0	0
4	-	0	0	14	-	2.1	3.4	24	4.0	4.4	0
5	-	0	0	15	-	1.2	6.1	25	3.3	5.8	0
6	-	0	0	16	-	0	3.4	26	.5	3.4	0
7	-	0	0	17	-	2.4	2.3	27	3.3	5.8	0
8	-	0	0	18	-	1.7	0	28	5.6	2.9	0
9	-	0	0	19	-	1.4	0	29	5.1	0	0
10	-	0	0	20	-	0	0	30	0	4.4	0
								31	0	4.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 24-31	21.8	5.6	0	2.72	43
August	57.9	5.8	0	1.87	115
September	20.1	6.1	0	.67	40
The period	-	-	-	-	198

Diversions from Pecos River between Rio Felix and Cottonwood Creek

Union Central Life Insurance Co. low pump ditch near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°07'20", long. 104°18'10", in NE¼ sec. 11, T. 14 S., R. 26 E., just downstream from pumping plant, 1.5 miles northeast of Hagerman.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 7.0 second-feet Aug. 10; no flow at times.

Remarks.- Records good. Discharge computed on basis of three discharge measurements, record of operation of 10-inch centrifugal pump, and records for Pecos River near Acme and near Lake Arthur. Discharge regulated by pumping plant, which diverts water from right bank of Pecos River for irrigation.

Discharge, in second-feet, July 24 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	1.7	11	-	1.8	2.6	21	-	0	0
2	-	0	0	12	-	.3	4.7	22	-	0	0
3	-	3.8	0	13	-	0	4.0	23	-	0	0
4	-	5.5	4.7	14	-	4.4	3.0	24	0	0	0
5	-	5.5	5.0	15	-	3.5	0	25	0	0	0
6	-	1.5	4.7	16	-	3.5	0	26	1.8	2.9	0
7	-	4.7	4.6	17	-	0	0	27	.9	0	0
8	-	5.5	6.4	18	-	.9	0	28	0	1.7	0
9	-	5.0	6.4	19	-	0	0	29	0	2.9	2.2
10	-	7.0	5.1	20	-	0	0	30	0	0	2.8
								31	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 24-31	2.7	1.8	0	0.34	5.4
August	60.4	7.0	0	1.95	120
September	57.9	6.4	0	1.93	115
The period	-	-	-	-	240

Kirkland pump ditch near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°06'30", long. 104°17'00", in NW¼ sec. 18, T. 14 S., R. 27 E., just downstream from pumping station, 2½ miles east of Hagerman.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 1.4 second-feet Aug. 25; no flow at times.

Remarks.- Records fair. Discharge computed on basis of three discharge measurements, record of operation of 8-inch centrifugal pump, and records for Pecos River near Acme and near Lake Arthur. Discharge regulated by pumping plant, which diverts water from right bank of Pecos River for irrigation.

Discharge, in second-feet, July 23 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	0.4	11	-	0	0	21	-	0	0
2	-	0	0	12	-	0	0	22	-	0	0
3	-	0	0	13	-	0	0	23	0	0	0
4	-	0	0	14	-	0	0	24	0	.4	0
5	-	0	0	15	-	0	0	25	0	1.4	0
6	-	0	0	16	-	0	0	26	.4	1.1	0
7	-	0	.7	17	-	0	0	27	.4	0	0
8	-	0	0	18	-	0	0	28	1.2	1.1	0
9	-	0	0	19	-	0	0	29	1.3	1.0	0
10	-	0	0	20	-	0	0	30	.5	.6	0
								31	0	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 23-31	3.8	1.3	0	0.42	7.5
August	6.6	1.4	0	.21	13
September	1.1	.7	0	.04	2.2
The period	-	-	-	-	23

Diversions from Pecos River between Rio Felix and Cottonwood Creek

Eccles pump ditch near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°04'50", long. 104°17'40", in SW¼ sec. 24, T. 14 S., R. 26 E., just downstream from pumping station, 3 miles southeast of Hagerman.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 4.3 second-feet Aug. 26; no flow at times.

Remarks.- Records fair. Daily discharge computed on basis of two discharge measurements, records of operation of 12-inch centrifugal pump, and records for Pecos River near Acme and near Lake Arthur. Discharge regulated by pumping plant, which diverts water from right bank of Pecos River for irrigation.

Discharge, in second-feet, July 24 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	0	11	-	0	0	21	-	1.3	0
2	-	0	0	12	-	0	0	22	-	1.3	0
3	-	0	0	13	-	0	0	23	-	3.3	0
4	-	0	0	14	-	0	0	24	0.9	3.6	0
5	-	0	0	15	-	1.4	0	25	.3	3.3	0
6	-	0	0	16	-	0	0	26	2.9	4.3	0
7	-	0	0	17	-	3.5	0	27	3.4	0	0
8	-	0	0	18	-	0	0	28	0	.8	0
9	-	0	0	19	-	0	0	29	0	3.2	0
10	-	0	0	20	-	0	0	30	0	0	0
								31	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 24-31	7.5	3.4	0	0.94	15
August	26.0	4.3	0	.84	52
September	0	0	0	0	0
The period	-	-	-	-	67

Buffalo Valley pump ditch near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°03'00", long. 104°16'20", in NW¼ sec. 6, T. 15 S., R. 27 E., just downstream from pumping station, 5 miles southeast of Hagerman.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 8.2 second-feet Sept. 11; no flow at times.

Remarks.- Records fair. Daily discharge computed on basis of six discharge measurements, records of operation of 15-inch centrifugal pump, and records for Pecos River near Acme and near Lake Arthur. Discharge regulated by pumping plant, which diverts water from left bank of Pecos River for irrigation.

Discharge, in second-feet, July 22 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	7.6	11	-	0	8.2	21	-	0	2.1
2	-	5.2	7.6	12	-	0	6.1	22	0	1.0	6.4
3	-	7.8	7.6	13	-	0	5.5	23	0	0	5.3
4	-	0	7.6	14	-	0	6.5	24	0	0	0
5	-	0	6.6	15	-	0	5.4	25	0	0	0
6	-	0	7.5	16	-	0	3.1	26	0	0	3.2
7	-	0	7.5	17	-	0	1.6	27	1.3	0	6.1
8	-	0	7.4	18	-	0	4.0	28	0	0	6.4
9	-	0	4.4	19	-	0	2.1	29	0	4.1	6.1
10	-	0	7.8	20	-	0	.5	30	0	7.6	6.4
								31	0	7.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 22-31	1.3	1.3	0	0.13	2.6
August	33.3	7.8	0	1.07	66
September	156.6	8.2	0	5.22	311
The period	-	-	-	-	380

Diversions from Pecos River between Rio Felix and Cottonwood Creek

Haroldale pump ditch near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°02'20", long. 104°16'10", in SE¼ sec. 6, T. 15 S., R. 27 E., just downstream from pumping station, 6 miles southeast of Hagerman.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 9.6 second-feet Sept. 10; no flow at times.

Remarks.- Records fair. Discharge completely regulated at pumping plant, which diverts water from left bank of Pecos River for irrigation.

Discharge, in second-feet, July 22 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	2.5	0	11	-	0	7.8	21	-	0	0
2	-	3.8	0	12	-	0	0	22	0	0	0
3	-	1.3	0	13	-	0	2.4	23	0	0	0
4	-	0	0	14	-	0	8.9	24	6.3	0	0
5	-	0	2.8	15	-	0	9.0	25	8.4	0	0
6	-	0	6.6	16	-	0	0	26	8.0	0	0
7	-	0	7.5	17	-	0	0	27	5.8	0	0
8	-	0	4.4	18	-	0	0	28	4.0	0	0
9	-	0	6.9	19	-	0	0	29	0	.2	0
10	-	0	9.6	20	-	0	0	30	0	0	0
								31	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 22-31	32.5	8.4	0	3.25	64
August	7.8	3.8	0	.25	15
September	65.9	9.6	0	2.20	131
The period	-	-	-	-	210

Haven pump ditch near Lake Arthur, N. Mex.

Location.- Water-stage recorder, lat. 32°59'10", long. 104°19'30", in NE¼ sec. 27, T. 15 S., R. 26 E., just downstream from pumping plant, 500 feet downstream from county highway bridge over Pecos River and 2¾ miles east of Lake Arthur.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 1.5 second-feet Aug. 29, 30; no flow at times.

Remarks.- Records fair. Records computed on basis of nine discharge measurements, records of operation of 10-inch deep-well turbine pump, and records for Pecos River near Lake Arthur. Discharge regulated by pumping plant, which diverts water from left bank of Pecos River for irrigation.

Discharge, in second-fet, July 23 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	1.1	1.2	11	-	1.2	0.9	21	-	0	1.0
2	-	1.1	1.2	12	-	1.1	.8	22	-	0	1.0
3	-	1.1	0	13	-	0	.7	23	0	0	.8
4	-	0	1.2	14	-	0	1.0	24	.8	1.4	0
5	-	0	1.0	15	-	0	1.0	25	.9	1.4	0
6	-	0	0	16	-	1.2	.3	26	1.0	1.2	0
7	-	.5	1.1	17	-	1.1	0	27	1.1	0	.9
8	-	0	1.1	18	-	1.2	.3	28	1.2	1.4	.9
9	-	1.1	1.0	19	-	.4	0	29	.8	1.5	.6
10	-	1.2	0	20	-	0	0	30	0	1.5	0
								31	1.1	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 23-31	6.9	1.2	0	0.77	14
August	22.0	1.5	0	.71	44
September	18.0	1.2	0	.60	36
The period	-	-	-	-	94

Diversions from Pecos River between Rio Felix and Cottonwood Creek

Evans pump ditch near Lake Arthur, N. Mex.

Location.- Water-stage recorder, lat. 32°58'40", long. 104°21'20", in SE¼ sec. 29, T. 15 S., R. 26 E., just downstream from pumping station, 1¼ miles southeast of Lake Arthur.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 4.0 second-feet Aug. 1; no flow at times.

Remarks.- Records fair except those estimated, which are poor. Discharge computed on basis of 10 discharge measurements, record of operation of 10-inch centrifugal pump, and records for Pecos River near Lake Arthur. Discharge regulated by pumping plant, which diverts water from right bank of Pecos River for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	4.0	1.6
2										-	3.8	2.9
3										-	3.2	2.3
4										-	1.5	1.7
5										-	1.7	2.2
6										-	.3	*2.7
7										-	}	*3.4
8										-	*1.0	3.4
9										-	}	2.4
10										-	*1.8	1.5
11										-	1.8	2.1
12										-	0	1.9
13										-	0	*2.3
14										-	0	*3.0
15										-	0	3.0
16										-	1.7	0
17										-	*1.7	0
18										-	1.8	0
19										-	}	0
20										-	}	0
21										-	*2.0	0
22										-	}	1.0
23										-	}	1.6
24										1.3	*3.5	2.5
25										2.7	1.2	1.2
26										2.4	2.8	1.8
27										2.1	3.5	1.8
28										1.6	3.2	.9
29										1.0	3.2	1.5
30										1.2	*3.0	2.2
31										2.8	*2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	-	-	-	-	-
June	-	-	-	-	-
July 24-31	15.1	2.8	1.0	1.89	30
August	58.7	4.0	0	1.89	116
September	50.9	3.4	0	1.70	101
The period	-	-	-	-	247

*Record of pump operation missing or incomplete; discharge estimated.

Cottonwood Creek near Lake Arthur, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°55'00" (revised), long. 104°22'00", in SW¼SE¼ sec. 15 (revised), T. 16 S., R. 26 E., 1⅛ miles upstream from mouth and 3⅛ miles south of Lake Arthur.

Records available.- March 1932 to September 1939.

Extremes.- Maximum discharge during year, 16 second-feet June 23 (gage height, 2.59 feet), from rating curve extended logarithmically above 10 second-feet; no flow July 18, 27, 28.

1932-39: Maximum discharge, 1,100 second-feet June 13, 1935, from rating curve extended logarithmically above 15 second-feet; maximum gage height, 13.5 feet May 30, 1937 (present datum, from floodmarks; backwater from Pecos River); no flow May 19-22, 24, 1936, July 10, 11, 1938, July 18, 27, 28, 1939.

Remarks.- Records for April poor, others good. Discharge for periods of missing gage heights, April 20-25, interpolated. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	7.8	8.1	8.4	9.7	11	11	6.0	6.0	4.1	0.1	1.4
2	3.9	7.9	8.3	8.5	10	11	10	6.0	5.6	4.1	.4	1.4
3	3.3	7.9	7.6	8.9	10	12	7.0	6.4	5.4	3.8	.3	1.4
4	2.8	8.1	7.5	8.5	11	11	3.5	6.3	5.3	3.4	2.5	1.4
5	2.9	8.0	7.6	8.4	11	11	5.3	6.3	5.0	3.5	2.7	1.3
6	3.3	8.0	7.9	8.5	10	11	7.8	6.3	4.8	3.3	2.6	1.3
7	3.5	8.3	7.9	8.9	11	11	8.3	6.2	4.5	3.2	2.7	1.2
8	3.7	8.5	7.9	11	11	11	4.9	6.0	4.3	3.0	3.8	1.1
9	6.3	8.5	8.0	9.4	11	11	5.6	5.7	4.3	3.0	3.0	1.2
10	6.1	8.4	8.8	8.6	10	12	8.2	5.7	3.9	2.8	2.9	1.2
11	6.6	7.8	8.5	9.8	10	11	6.2	5.6	3.9	2.8	2.9	1.3
12	7.6	7.8	8.3	11	11	10	7.2	5.4	3.6	1.4	2.9	1.3
13	6.8	7.8	8.3	9.8	11	10	7.5	5.6	3.6	.3	2.9	1.2
14	6.4	8.3	8.4	9.7	10	8.1	8.2	6.0	3.5	1.6	2.9	1.3
15	6.2	8.8	8.6	9.7	10	8.3	8.0	6.2	3.4	.1	2.8	1.4
16	6.3	9.1	8.0	10	10	8.3	7.5	6.0	3.3	1.6	2.8	1.6
17	6.6	8.8	7.2	9.7	10	9.0	8.1	5.2	3.0	1.8	2.7	1.7
18	6.4	8.8	7.2	9.8	11	9.1	8.4	4.9	2.9	0	2.6	1.6
19	6.4	9.0	7.3	10	11	9.5	8.3	4.8	2.8	.5	2.5	1.6
20	6.8	9.1	7.6	10	11	11	8.0	4.1	2.9	.8	2.4	1.4
21	7.2	9.0	7.6	9.5	11	12	7.8	4.8	2.8	2.9	2.2	1.4
22	7.2	8.6	7.8	9.3	11	7.1	7.5	2.3	6.2	1.4	2.1	1.4
23	7.1	8.6	7.8	10	11	11	7.2	2.4	10	.1	2.1	1.2
24	6.8	8.6	7.6	10	11	6.8	6.9	1.6	5.3	.7	2.0	1.1
25	6.8	8.3	8.2	9.8	11	4.6	6.7	.8	4.5	1.6	2.0	1.3
26	6.9	7.6	8.8	9.6	11	10	*6.4	1.0	4.4	.8	2.0	1.2
27	7.2	7.1	8.3	10	11	5.9	5.4	2.2	4.1	0	2.0	1.2
28	7.5	7.1	8.4	10	11	2.6	5.6	4.1	3.9	0	1.9	1.2
29	7.5	7.1	8.3	10	-	3.4	5.7	4.6	3.8	2.6	1.6	1.2
30	7.5	7.5	8.3	10	-	4.1	5.9	5.9	3.8	2.9	1.4	1.2
31	7.8	-	8.3	11	-	10	-	6.0	-	1.6	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	185.6	7.8	2.8	5.99	368
November	246.2	9.1	7.1	8.21	488
December	248.4	8.8	7.2	8.01	493
Calendar year 1938	2,342.4	26	0	6.42	4,650
January	297.8	11	8.4	9.61	591
February	297.7	11	9.7	10.6	590
March	283.8	12	2.6	9.15	563
April	213.1	11	3.5	7.10	423
May	150.4	6.4	.8	4.85	298
June	130.8	10	2.8	4.36	259
July	59.7	4.1	0	1.93	118
August	69.0	5.8	.1	2.23	137
September	39.7	1.7	1.1	1.32	79
Water year 1938-39	2,222.2	12	0	6.09	4,410

*Discharge measurement.

Diversions and drains on Pecos River between Cottonwood Creek and Delaware River

Carlsbad project main canal near Carlsbad, N. Mex.

Location.- Water-stage recorder and timber control, lat. 32°29'20", long. 104°15'00", in SW¼ sec. 12, T. 21 S., R. 26 E., 100 feet downstream from head gates at Avalon Dam, and 5 miles north of Carlsbad.

Records available.- July to September 1939.

Extremes.- Maximum daily discharge during period, 476 second-feet Sept. 1; no flow July 3, 4.

Remarks.- Records good except those for July 18, 19, which were computed on basis of partly estimated gage heights and are fair. Canal diverts water from left bank of Pecos River for irrigation of 25,000 acres under the Carlsbad project of Bureau of Reclamation. No diversion between station and head.

Discharge, in second-feet, July 3 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	268	476	11	348	274	406	21	170	292	214
2	-	289	470	12	352	241	374	22	171	334	205
3	0	292	472	13	364	188	340	23	165	440	190
4	0	287	468	14	267	205	289	24	214	436	170
5	95	174	452	15	226	262	208	25	274	442	171
6	302	113	446	16	200	294	168	26	321	428	203
7	376	104	434	17	198	300	147	27	354	414	266
8	406	142	420	18	200	294	144	28	390	394	255
9	396	193	410	19	220	268	140	29	350	406	228
10	382	251	398	20	184	259	176	30	289	420	202
								31	287	454	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 3-31	7,521	406	0	259	14,920
August	9,158	454	104	295	18,160
September	8,942	476	140	298	17,740
The period	-	-	-	-	50,820

Drain A near Carlsbad, N. Mex.

Location.- Measuring section, lat. 32°23'30", long. 104°10'00", in NW¼ sec. 14, T. 22 S., R. 27 E., 150 feet upstream from outlet to Pecos River and 4 miles southeast of Carlsbad.

Records available.- August to September 1939 (discharge measurements only).

Remarks.- Discharge represents ground water returned to Pecos River from irrigated lands in Carlsbad project of Bureau of Reclamation.

Discharge measurements, in second-feet, 1939

Aug. 29	2.52	Sept. 19	3.11
Sept. 5	3.16	26	2.83
12	3.05		

Drain B near Carlsbad, N. Mex.

Location.- Measuring section, lat. 32°23'00", long. 104°09'30", in SE¼ sec. 14, T. 22 S., R. 27 E., 500 feet upstream from outlet to Pecos River and 4¾ miles southeast of Carlsbad.

Records available.- August to September 1939 (discharge measurements only).

Remarks.- Discharge represents ground water returned to Pecos River from irrigated lands in Carlsbad project of Bureau of Reclamation.

Discharge measurements, in second-feet, 1939

Aug. 29	2.22	Sept. 19	2.55
Sept. 5	5.15	26	3.06
12	4.71		

Diversions and drains on Pecos River between Cottonwood Creek and Delaware River

Dickson Farms Co. canal near Carlsbad, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 32°23'00", long. 104°08'20", in NE¼ sec. 24, T. 22 S., R. 27 E., a quarter of a mile downstream from head gate and 6 miles southeast of Carlsbad.
Records available.- July to September 1939.
Extremes.- Maximum daily discharge during period, 13 second-feet Sept. 7, 17, 18; no flow Sept. 1.
Remarks.- Records good. Canal diverts water for irrigation from left bank of Pecos River at Public Utilities Power Dam. No diversion between station and head.

Discharge, in second-feet, July 5 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0.2	0	11	11	0.5	12	21	0.2	8.7	11
2	-	.2	2.7	12	10	.5	11	22	.2	11	11
3	-	.3	9.5	13	7.4	.5	11	23	.2	9.8	9.5
4	-	.6	7.8	14	.2	3.1	11	24	.2	9.7	9.6
5	7.1	.5	12	15	.2	7.0	11	25	.2	10	11
6	11	.5	12	16	.2	7.1	12	26	.1	7.2	11
7	11	.5	13	17	.2	5.5	13	27	6.2	.8	12
8	11	.4	12	18	.2	.1	13	28	9.5	3.1	12
9	8.7	.4	12	19	.2	2.5	12	29	.3	10	12
10	6.7	.5	12	20	.2	9.5	11	30	.3	6.4	11
								31	.2	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 5-31	102.9	11	0.1	3.81	204
August	119.9	11	.2	3.87	238
September	320.1	13	0	10.7	635
The period	-	-	-	-	1,080

Drain C near Carlsbad, N. Mex.

Location.- Measuring section, lat. 32°22'30", long. 104°09'10", in SE¼ sec. 24, T. 22 S., R. 27 E., 300 feet upstream from outlet to Pecos River, 2½ miles northeast of Otis, and 6 miles southeast of Carlsbad.
Records available.- August to September 1939 (discharge measurements only).
Remarks.- Discharge represents ground water returned to Pecos River from irrigated lands in Carlsbad project of Bureau of Reclamation.

Discharge measurements, in second-feet, 1939

Aug. 29	1.91	Sept. 19	1.93
Sept. 5	1.69	26	1.82
12	1.99		

Drain E near Loving, N. Mex.

Location.- Measuring section, lat. 32°21'20", long. 104°07'00", in SW¼ sec. 29, T. 22 S., R. 28 E., 75 feet upstream from outlet to Pecos River, 3 miles east of Otis, and 5 miles north of Loving.
Records available.- August to September 1939 (discharge measurements only).
Remarks.- Discharge represents ground water returned to Pecos River from irrigated lands in Carlsbad project of Bureau of Reclamation.

Discharge measurements, in second-feet, 1939

Aug. 29	3.32	Sept. 19	3.17
Sept. 5	4.08	26	2.75
12	3.07		

Cass Draw drain near Loving, N. Mex.

Location.- Measuring section, lat. 32°20'00", long. 104°06'50", in NW¼ sec. 5, T. 23 S., R. 28 E., an eighth of a mile upstream from outlet to Pecos River and 3 miles northwest of Loving.
Records available.- August to September 1939 (discharge measurements only).
Remarks.- Discharge represents ground water returned to Pecos River from irrigated lands in Carlsbad project of Bureau of Reclamation.

Discharge measurements, in second-feet, 1939

Aug. 29	5.93	Sept. 19	6.70
Sept. 5	7.84	26	6.49
12	8.03		

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Diversions and drains on Pecos River between Cottonwood Creek and Delaware River

Harroun canal near Loving, N. Mex.

Location.- Water-stage recorder, lat. 32°18'50", long. 104°03'30", in S½ sec. 11, T. 23 S., R. 28 E., 200 feet downstream from head gate and 3 miles northeast of Loving.
Records available.- July to September 1939.
Extremes.- Maximum daily discharge during period, 79 second-feet Sept. 8, 10; minimum daily, 54 second-feet July 24.
Remarks.- Records excellent. Canal diverts water from left bank of Pecos River for irrigation and for industrial use at U. S. Potash Co. refinery. No diversion between station and head.

Discharge, in second-feet, July 11 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	55	71	11	77	75	70	21	55	56	56
2	-	63	71	12	76	75	56	22	55	55	56
3	-	72	72	13	62	75	56	23	55	56	57
4	-	75	68	14	55	75	56	24	54	56	56
5	-	75	71	15	55	75	56	25	55	56	56
6	-	75	71	16	55	76	56	26	55	56	56
7	-	75	74	17	55	75	56	27	55	55	56
8	-	75	79	18	55	75	56	28	55	56	56
9	-	75	78	19	55	75	56	29	55	56	56
10	-	74	79	20	55	69	56	30	55	56	56
								31	55	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 11-31	1,204	77	54	57.3	2,390
August	2,079	76	55	67.1	4,120
September	1,869	79	56	62.3	3,710
The period	-	-	-	-	10,220

United States Potash Co. waste ditch near Loving, N. Mex.

Location.- Water-stage recorder and rectangular weir, lat. 32°18'10", long. 104°01'30", in N½ sec. 18, T. 23 S., R. 29 E., three-quarters of a mile southeast of United States Potash Co. refinery and 4½ miles northeast of Loving.
Records available.- August to September 1939.
Extremes.- Maximum daily discharge during period, 3.7 second-feet Sept. 28, 29; minimum daily, 2.4 second-feet Sept. 15.
Remarks.- Records fair. Discharge for Sept. 25 interpolated. Discharge represents waste from potash refinary discharged into Laguna Grande de la Sal.

Discharge, in second-feet, Aug. 21 to Sept. 30, 1939

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	3.1	11	-	2.8	21	3.2	3.0
2	-	3.0	12	-	3.0	22	3.2	3.4
3	-	3.0	13	-	3.1	23	3.0	3.2
4	-	2.9	14	-	2.6	24	3.1	3.2
5	-	2.8	15	-	2.4	25	3.2	3.2
6	-	2.7	16	-	2.7	26	2.7	3.1
7	-	2.8	17	-	2.8	27	2.6	3.2
8	-	2.8	18	-	2.8	28	2.7	3.7
9	-	2.8	19	-	2.8	29	2.8	3.7
10	-	2.8	20	-	3.1	30	2.8	3.5
						31	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
August 21-31	32.3	3.2	2.6	2.94	64
September	90.0	3.7	2.4	3.00	179

Diversions and drains on Pecos River between Cottonwood Creek and Delaware River

Harroun canal wasteway 1 near Loving, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 32°17'30", long. 104°01'50", in NW¼ sec. 19, T. 23 S., R. 29 E., 15 feet downstream from waste gate, half a mile upstream from outlet to Pecos River, and 4 miles east of Loving.
Records available.- July to September 1939.
Extremes.- Maximum daily discharge during period, 52 second-feet Aug. 26; no flow at times.
Remarks.- Records fair. Discharge represents waste water returned to Pecos River.

Discharge, in second-feet, July 6 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	0	11	0	0.5	2.4	21	2.0	51	14
2	-	0	.5	12	0	2.4	2.4	22	20	50	14
3	-	0	2.4	13	0	2.8	2.4	23	47	51	17
4	-	0	1.9	14	0	2.4	2.8	24	46	51	21
5	-	0	2.0	15	0	2.4	2.4	25	47	51	21
6	0	5.1	.8	16	0	2.4	2.4	26	44	52	21
7	0	7.7	0	17	0	2.4	2.4	27	45	26	21
8	0	6.4	.7	18	0	14	6.4	28	45	0	21
9	0	5.2	2.4	19	11	29	15	29	27	0	21
10	0	1.0	2.4	20	12	38	14	30	4.5	0	22
								31	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 6-31	350.5	47	0	13.5	695
August	453.7	52	0	14.6	900
September	258.7	22	0	8.62	513
The period	-	-	-	-	2,110

Harroun canal wasteway 2 near Malaga, N. Mex.

Location.- Water-stage recorder and Cipolletti weir, lat. 32°15', long. 104°02', in S½ sec. 31, T. 23 S., R. 29 E., half a mile downstream from waste gate, half a mile north of Community of Jaliseo (Harroun), and 4 miles northeast of Malaga.
Records available.- July to September 1939.
Extremes.- Maximum daily discharge during period, 11 second-feet July 31, Sept. 11; no flow July 27, 28, Aug. 26.
Remarks.- Records good. Discharge represents unused water returned to Pecos River.

Discharge, in second-feet, July 14 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	6.6	3.5	11	-	1.2	11	21	2.1	0.9	0.3
2	-	4.1	.4	12	-	3.4	.6	22	3.5	.1	2.1
3	-	5.7	.5	13	-	3.5	.6	23	.2	.1	3.8
4	-	5.9	.4	14	2.0	3.5	.6	24	.1	.1	3.1
5	-	5.0	.4	15	6.6	2.1	4.2	25	.1	.1	.9
6	-	.4	.4	16	7.5	5.6	7.2	26	.1	0	.9
7	-	.2	.4	17	7.5	4.7	9.9	27	0	3.1	2.5
8	-	.2	.4	18	7.7	6.2	3.6	28	0	3.7	4.8
9	-	.2	.4	19	5.0	3.2	1.2	29	3.7	2.8	4.8
10	-	.2	.4	20	1.4	5.2	.4	30	9.8	4.4	4.4
								31	11	1.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 14-31	68.3	11	0	3.79	135
August	84.3	6.6	0	2.72	167
September	74.1	11	.3	2.47	147
The period	-	-	-	-	449

Diversions and drains on Pecos River between Cottonwood Creek and Delaware River

Harroun canal wasteway 3 near Malaga, N. Mex.

Location.- Water-stage recorder, lat. 32°13', long. 104°01', in NW¼ sec. 17, T. 24 S., R. 29 E., half a mile upstream from outlet to Pecos River and 3½ miles east of Malaga.
Records available.- July to September 1939.
Extremes.- Maximum daily discharge during period, 28 second-feet July 11; no flow at times.
Remarks.- Records good except those for July 8, 9, which were computed on basis of one discharge measurement and partial gage-height record and are poor. Discharge represents waste water returned from Harroun canal to Pecos River.

Discharge, in second-feet, July 8 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	15	4.6	11	26	7.3	4.6	21	1.8	0.1	0.3
2	-	7.3	2.0	12	21	5.2	2.9	22	.8	0	3.6
3	-	7.5	2.0	13	20	4.3	1.6	23	.1	0	5.1
4	-	11	2.0	14	10	6.4	6.6	24	0	0	3.6
5	-	12	1.5	15	8.1	7.5	6.9	25	0	0	1.6
6	-	16	1.5	16	11	11	4.6	26	0	0	2.1
7	-	12	1.5	17	8.7	17	4.6	27	0	.2	5.9
8	10	5.7	1.6	18	5.6	9.2	3.3	28	0	10	5.1
9	20	3.1	1.0	19	5.4	1.6	1.5	29	.9	11	3.6
10	24	2.4	.4	20	1.6	1.6	.9	30	18	7.5	2.6
								31	21	4.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 8-31	216.0	28	0	9.00	428
August	196.0	17	0	6.32	389
September	89.3	6.9	.3	2.98	177
The period	-	-	-	-	994

Livingston pump ditch near Malaga, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 32°12', long. 104°00', in SE¼ sec. 20, T. 24 S., R. 29 E., 125 feet downstream from pump and 4½ miles southeast of Malaga.
Records available.- July to September 1939.
Extremes.- Maximum daily discharge during period, 7.9 second-feet Sept. 6; no flow at times.
Remarks.- Records good. Ditch diverts water from left bank of Pecos River, by means of 12-inch centrifugal pump, for irrigation of the Livingston farm.

Discharge, in second-feet, July 13 to Sept. 30, 1939

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	0	6.0	11	-	2.4	0	21	6.0	0	0
2	-	0	5.8	12	-	5.2	0	22	4.8	0	0
3	-	0	5.8	13	0	7.5	0	23	0	0	0
4	-	0	7.7	14	0	2.1	0	24	0	0	0
5	-	0	5.8	15	0	0	0	25	3.3	0	0
6	-	0	7.9	16	0	0	0	26	7.2	0	0
7	-	0	1.3	17	2.3	0	0	27	7.3	0	0
8	-	0	0	18	5.9	0	0	28	7.4	5.0	0
9	-	3.6	0	19	7.3	0	0	29	6.4	7.7	0
10	-	7.0	0	20	7.0	0	0	30	5.8	7.4	0
								31	0	7.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 13-31	70.7	7.4	0	3.72	140
August	55.2	7.7	0	1.78	109
September	40.3	7.9	0	1.34	80
The period	-	-	-	-	329

Delaware River near Red Bluff, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°01', long. 104°03', at bridge on U. S. Highway 285, 3½ miles upstream from mouth and 4 miles south of Red Bluff, Eddy County. Zero of gage is 2,900.7 feet above mean sea level (general adjustment of 1929).

Records available.- October 1937 to September 1939. April 1912 to September 1913 at site 3 miles upstream (published as Delaware River near Malaga, N. Mex.). May 1914 to June 1915 (period as published in Water-Supply Paper 858 in error), at site 2½ miles downstream (published as Delaware River near Angeles, Tex.). All records equivalent.

Extremes.- Maximum discharge during year, 10,600 second-feet June 20 (gage height, 9.70 feet), from rating curve extended above 500 second-feet on basis of one slope-area measurement; minimum, 0.3 second-foot June 17 (gage height, 0.79 foot).
1937-39: Maximum discharge, 34,600 second-feet June 27, 1938 (gage height, 18.00 feet, from floodmarks), by slope-area method; no flow June 11-13, 20-24, 1938.

Remarks.- Records good except those above 500 second-feet, which are poor. Discharge for May 10-16 and June 5 computed on basis of partial gage-height record. No diversion above station.

Rating table, water-year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-6)

0.8	0.3	1.8	17.5	2.6	130
.9	.7	2.0	26.0	3.0	290
1.1	2.4	2.2	39.5	3.5	570
1.4	7.0	2.3	51	4.0	1,040
1.6	11.7	2.4	70	5.0	2,400

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	2.4	2.8	3.1	3.1	3.3	2.8	2.5	3.4	3.0	56	1.7
2	2.3	2.2	2.5	3.1	3.7	3.6	2.5	2.2	2.0	2.4	20	1.6
3	2.3	2.1	2.4	3.1	4.3	3.6	2.6	3.9	1.5	1.6	14	1.5
4	2.3	2.1	2.4	2.9	4.5	3.6	2.6	2.4	1.4	1.4	16	1.3
5	2.3	2.0	2.4	2.8	4.0	3.3	2.4	7.3	1.6	1.4	5.3	1.2
6	2.3	2.0	2.5	2.8	3.7	3.1	3.1	2.3	1.5	1.6	146	1.2
7	2.3	2.6	2.6	4.1	3.6	3.4	4.2	1.7	1.3	1.0	24	1.2
8	2.4	2.8	2.6	5.7	3.3	3.6	4.2	1.7	1.2	.8	15	1.2
9	3.7	2.6	2.8	3.3	3.1	3.7	3.3	1.7	1.1	131	5.6	1.2
10	56	2.6	2.6	3.4	3.1	3.6	2.6	1.6	.8	38	3.7	1.3
11	47	2.5	2.3	5.1	3.4	3.1	2.4	1.5	.9	3.5	3.0	1.3
12	14	2.2	2.4	5.4	3.6	2.9	2.4	1.3	.8	1.8	154	1.3
13	14	2.1	2.6	4.3	3.6	3.0	2.6	1.3	.8	44	31	6.8
14	6.1	2.3	2.8	3.8	3.4	3.0	2.6	1.7	.7	4.3	33	8.2
15	4.2	2.5	2.8	3.6	3.4	2.9	2.3	2.2	.6	2.6	13	3.7
16	3.1	2.5	2.9	3.6	3.1	3.0	2.1	2.0	.6	7.1	7.0	2.4
17	2.9	2.4	2.8	3.3	3.3	3.1	2.1	1.7	.5	4.6	9.6	5.5
18	2.9	2.0	2.8	3.1	3.6	3.3	2.3	1.5	.4	2.6	13	3.3
19	2.8	2.3	2.9	3.1	3.7	3.6	2.4	1.3	.5	5.0	5.6	2.3
20	2.5	2.5	2.9	3.3	3.6	5.0	2.1	1.2	1,480	2.9	3.3	2.0
21	2.8	2.4	2.9	3.4	3.6	6.3	2.2	1.1	133	1.8	6.7	1.6
22	2.6	2.3	3.0	3.3	3.7	6.1	2.2	1.0	8.4	1.4	30	1.6
23	2.5	2.4	3.0	3.4	3.7	5.8	2.3	.9	4.5	1.2	9.6	1.5
24	2.5	2.4	3.0	3.3	3.8	5.0	2.2	1.1	3.0	1.0	3.6	1.4
25	2.6	2.5	3.7	3.4	3.7	3.8	2.1	1.1	2.3	.9	2.8	1.4
26	2.5	2.6	3.6	3.4	3.7	3.1	2.1	1.1	1.7	26	2.2	1.3
27	2.4	2.6	3.0	3.6	3.1	2.9	2.1	1.2	1.7	23	2.0	1.3
28	2.5	2.6	3.1	3.6	3.3	2.6	2.1	1.3	5.3	7.9	1.8	1.2
29	2.4	2.8	3.0	3.4	-	2.8	2.2	114	15	8.7	1.8	.9
30	2.4	2.9	3.0	3.4	-	2.9	2.4	20	5.4	6.1	1.7	1.1
31	2.4	-	3.0	3.3	-	2.9	-	6.4	-	20	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	205.3	56	2.3	6.62	407
November	72.2	2.9	2.0	2.41	143
December	87.1	3.7	2.3	2.81	173
Calendar year 1938	12,203.9	7,500	0	33.4	24,200
January	110.4	5.7	2.8	3.56	219
February	99.7	4.5	3.1	3.56	198
March	111.9	6.3	2.6	3.61	222
April	75.5	4.2	2.1	2.52	150
May	192.2	114	.9	6.20	381
June	1,681.9	1,480	.4	56.1	3,340
July	358.6	131	.8	11.6	711
August	642.1	154	1.7	20.7	1,270
September	63.5	8.2	.9	2.12	126
Water year 1938-39	3,700.4	1,480	.4	10.1	7,340

Peak discharge.- June 20 (7 p.m.) 10,600 sec.-ft.; July 9 (8:30 p.m.) 1,160 sec.-ft.; Aug. 6 (6:30 p.m.) 860 sec.-ft.

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 1939.

Extremes.- Maximum discharge during year, 102 second-feet Aug. 14 (gage height, 2.16 feet); no flow at times.
1932-39: Maximum gage height 8.00 feet Sept. 29, 1932, from floodmarks (discharge not determined); no flow at times.

Remarks.- Records fair. No diversion.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0			0					0	0	3.5	0.1
2	0			0					0	0	2.1	0
3	0			0					0	0	1.4	0
4	0			0					0	0	1.2	0
5	0			0					0	0	1.4	0
6	0			0					0	0	1.1	0
7	0			0					0	0	1.7	0
8	0			0					0	0	1.6	0
9	0			0					0	0	1.3	0
10	.1			0					0	0	2.8	0
11	.1			.3					0	0	3.7	0
12	.2			.4					0	0	3.0	0
13	.2			.2					0	1.8	3.0	0
14	.3			.1					0	4.6	21	0
15	.2			.1					0	6.4	40	0
16	.2			.1					0	2.0	24	.e
17	.1			.1					0	1.2	15	1.3
18	0			.1					0	.6	16	.7
19	0			.1					0	.5	12	.4
20	0			.1					0	.7	7.2	.2
21	0			0					16	.6	5.0	.1
22	0			0					1.0	.4	3.7	0
23	0			0					0	.2	5.0	0
24	0			0					0	.2	4.2	0
25	0			0					0	.1	2.6	0
26	0			0					0	0	1.6	0
27	0			0					0	.4	1.1	0
28	0			0					0	6.9	.7	0
29	0			0					0	3.2	.4	0
30	0			0					0	3.2	.2	0
31	0			0					-	4.5	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1.4	0.3	0	0.05	2.8
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	3,414.0	607	0	9.35	6,780
January	1.6	.4	0	.05	3.2
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	17.0	16	0	.57	34
July	37.7	6.9	0	1.22	75
August	187.6	40	.1	6.05	372
September	3.6	1.3	0	.12	7.1
Water year 1938-39	248.9	40	0	.68	494

Peak discharge.- June 21 (5:30 a.m.) 86 sec.-ft.; Aug. 14 (6 p.m.) 102 sec.-ft.; Aug. 15 (4 p.m.) 78 sec.-ft.

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 1939.
Average discharge.- 14 years, 234 second-feet.
Extremes.- Maximum discharge during year, 10,500 second-feet May 4 (gage height, 9.60 feet), from rating curve extended above 4,500 second-feet on basis of 3 float and 2 slope-area measurements; minimum, 77 second-feet May 3, 4.
1925-39: 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 1,000 second-feet, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	105	103	99	91	84	84	79	95	89	95	95
2	111	107	103	99	89	84	84	79	132	88	93	93
3	113	107	101	99	89	84	84	79	381	88	93	93
4	113	107	101	99	88	84	84	1,820	135	88	95	93
5	113	107	101	95	89	84	84	158	127	88	93	93
6	113	107	101	95	89	84	84	129	123	86	97	93
7	113	103	101	97	88	84	86	119	121	86	93	93
8	113	103	101	99	88	84	86	113	119	86	93	93
9	113	103	101	97	88	86	86	109	115	86	101	93
10	113	103	101	95	88	86	86	105	113	86	93	93
11	113	103	101	99	88	86	86	103	111	84	93	95
12	113	103	101	101	88	84	86	101	109	89	108	95
13	113	103	101	97	88	84	86	103	109	95	101	95
14	109	99	101	95	88	84	86	99	105	209	101	93
15	109	99	101	95	88	86	86	97	103	1,070	99	93
16	109	101	101	91	88	84	86	97	101	179	99	93
17	109	101	101	93	89	84	86	95	101	121	99	93
18	109	101	101	91	88	84	86	93	101	113	99	93
19	109	101	101	91	88	84	86	91	99	111	97	93
20	109	99	101	91	88	84	86	89	99	109	97	93
21	109	101	101	91	84	86	86	88	97	107	95	91
22	109	101	101	91	84	86	84	86	95	105	95	91
23	109	101	101	91	84	84	84	84	93	103	95	91
24	109	101	101	91	86	84	82	86	93	101	95	91
25	109	101	103	89	86	84	82	84	91	101	95	91
26	109	101	101	91	84	84	82	84	91	99	95	91
27	109	101	99	91	84	84	82	84	91	99	95	91
28	109	101	99	91	84	84	81	82	91	97	95	91
29	109	101	99	91	-	84	79	84	89	97	95	91
30	109	103	99	89	-	84	79	91	89	97	95	91
31	105	-	99	89	-	84	-	106	-	97	95	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,423	113	105	110	6,790
November	3,074	107	99	102	6,100
December	3,127	103	99	101	6,200
Calendar year 1938	178,250	49,500	74	488	353,500
January	2,913	101	89	94.0	5,780
February	2,444	91	84	87.3	4,850
March	2,616	86	84	84.4	5,190
April	2,529	86	79	84.3	5,020
May	4,717	1,820	79	152	9,360
June	3,419	381	89	114	6,780
July	4,154	1,070	84	134	8,240
August	2,984	108	93	96.3	5,920
September	2,778	95	91	92.6	5,510
Water year 1938-39	38,178	1,820	79	105	75,740

Peak discharge.- May 4 (7 a.m.) 10,500 sec.-ft.; June 3 (1 a.m.) 1,460 sec.-ft.; July 15 (12:10 a.m.) 2,770 sec.-ft.

Las Moras Springs at Brackettville, Tex.

Location.- Lat. 29°18'30", long. 100°25'00", at Brackettville, Kinney County, 550 feet upstream from bridge on Brackettville-Fort Clark road and 1,000 feet downstream from head of springs.
Records available.- December 1895 to August 1938 (occasional discharge measurements, published as miscellaneous measurements), September 1938 to September 1939 (discharge measurements only).
Remarks.- Discharge measurements represent total flow of springs. Flow partly regulated during summer months by dam at recreational center 400 feet upstream. Diversions for domestic use above station by U. S. Army, (about 1 second-foot, for Fort Clark) and city of Brackettville.

Discharge measurements, in second-feet, 1938-39

Nov. 4	20.3	June 5	11.4
Feb. 6	15.2	Aug. 8	43.2
Mar.12	14.0	Sept.20	26.4
Apr.26	12.4	Oct. 31	42.2

Mimbres River near Mimbres, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°52', long. 107°59', in SE¼NW¼ sec. 33, T. 16 S., R. 11 W., about 1 mile downstream from Bear Canyon and 1½ miles northwest of Mimbres.

Drainage area.- 183 square miles.

Records available.- October 1930 to September 1939 in reports of Geological Survey. May 1921 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,230 second-feet Aug. 6 (gage height, 4.89 feet), from rating curve extended logarithmically above 310 second-feet; minimum daily discharge, 2.4 second-feet July 12.

1930-39: Maximum discharge, 2,060 second-feet July 17, 1933, from rating curve extended logarithmically above 120 second-feet; maximum gage height, 4.89 feet Aug. 6, 1939; minimum daily discharge, 1.4 second-feet July 11, 12, 1933.

Remarks.- Records fair. Discharge for Sept. 14 based on partially estimated gage height. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	10	8.3	5.9	5.1	4.5	3.8	6.7	5.7	11	7.4	5.0
2	3.8	10	7.9	5.9	5.1	4.5	3.5	6.7	5.7	11	36	5.0
3	4.0	10	7.9	6.2	4.8	4.5	3.1	7.0	5.5	9.9	12	4.3
4	4.0	10	7.9	5.6	4.8	4.5	2.9	6.4	5.5	9.0	52	3.5
5	4.5	10	7.9	5.6	5.1	4.6	3.3	6.4	5.7	4.7	53	3.3
6	4.5	10	7.9	5.9	5.4	4.5	3.8	7.0	6.0	4.3	146	3.5
7	4.5	9.6	7.9	5.9	5.1	4.3	4.0	7.7	5.5	3.8	31	3.8
8	5.1	9.6	7.9	5.9	5.1	4.3	4.3	6.7	4.7	3.8	16	5.0
9	5.4	9.6	7.9	5.9	5.1	4.3	4.3	5.5	4.7	4.0	15	5.2
10	5.9	9.6	7.5	5.9	5.1	4.3	3.8	5.7	4.0	4.0	9.4	6.0
11	5.9	9.6	7.5	5.9	4.8	4.3	3.8	5.7	4.3	3.1	18	7.0
12	5.9	9.6	7.5	5.9	4.8	4.3	4.0	6.0	4.0	2.4	8.3	6.7
13	6.2	9.2	8.3	5.9	4.5	4.3	4.0	5.5	3.5	2.6	48	6.7
14	6.4	9.2	7.5	5.9	4.5	4.3	4.3	7.0	4.0	3.1	11	12
15	7.1	9.2	7.9	5.9	4.5	4.5	5.0	6.7	4.3	20	8.3	36
16	7.5	8.8	8.3	5.9	5.1	4.6	5.5	6.4	4.7	29	7.0	28
17	7.5	8.8	7.5	5.9	4.8	4.5	5.5	5.7	5.2	15	8.7	22
18	7.9	8.8	7.1	5.6	4.8	4.3	5.5	6.4	5.7	23	7.7	17
19	8.3	8.8	7.1	5.4	4.6	4.7	5.2	6.0	4.7	41	6.7	14
20	8.8	8.8	8.3	5.4	4.5	5.0	6.0	6.0	4.3	16	6.4	12
21	8.8	8.8	7.1	5.6	4.5	6.0	5.7	6.0	3.8	16	7.0	11
22	8.8	8.3	6.7	5.6	4.5	7.7	6.0	5.5	6.7	15	14	9.9
23	9.2	8.3	6.7	5.4	4.5	20	6.7	5.0	14	14	5.5	9.4
24	9.2	8.3	6.4	5.1	4.5	18	6.4	4.3	11	14	26	9.0
25	9.2	8.3	6.2	5.1	4.5	14	7.4	4.3	9.0	13	28	8.0
26	9.6	8.3	5.9	5.1	4.5	10	8.3	4.3	9.4	13	18	7.7
27	9.6	8.3	5.9	5.1	4.5	9.0	8.3	3.5	10	12	18	7.7
28	9.6	8.3	5.9	5.4	4.5	7.7	7.7	4.0	9.0	13	9.9	8.0
29	9.2	8.3	5.9	5.1	-	5.5	7.4	4.3	9.0	24	5.5	8.0
30	9.2	8.3	5.9	5.1	-	4.5	7.0	4.7	11	12	5.0	8.0
31	10	-	5.9	5.1	-	4.0	-	5.5	-	8.0	4.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	219.2	10	3.6	7.07	435
November	272.7	10	8.3	9.09	541
December	224.5	8.3	5.9	7.24	445
Calendar year 1938	2,388.2	360	1.5	6.54	4,740
January	174.1	6.2	5.1	5.62	345
February	133.5	5.4	4.5	4.77	265
March	195.3	20	4.0	6.30	387
April	156.5	8.3	2.9	5.22	310
May	178.6	7.7	3.5	5.76	354
June	190.6	14	3.5	6.35	378
July	374.7	41	2.4	12.1	743
August	649.5	146	4.7	21.0	1,290
September	292.7	36	3.3	9.76	581
Water year 1938-39	3,061.9	146	2.4	8.39	6,070

Peak discharge.- Aug. 4 (2 p.m.) 756 sec.-ft.; Aug. 5 (2 p.m.) 205 sec.-ft.; Aug. 5 (7 p.m.) 230 sec.-ft.; Aug. 6 (4 p.m.) 1,230 sec.-ft.; Aug. 11 (1 p.m.) 364 sec.-ft.; Aug. 13 (4 p.m.) 557 sec.-ft.

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., about 6 miles northeast of Faywood Hot Springs, 10 miles northeast of Faywood, and about 12 miles upstream from San Vicente Arroyo.

Drainage area.- 485 square miles.

Records available.- April 1908 to December 1914 and October 1930 to September 1939 in reports of Geological Survey. April 1908 to December 1931 in reports of State engineer.

Extremes.- Maximum gage height during year, 10.0 feet Aug. 4 (discharge not determined); minimum daily discharge, 0.2 second-foot many times.
1930-39: Maximum gage height, that of Aug. 4, 1939 (discharge not determined); no flow at times.

Remarks.- Records poor. Discharge for period of missing or incomplete gage-height record, Aug. 4-22, computed on basis of two discharge measurements, weather records, engineers' and observer's notes, and records for station near Mimbres. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	0.3	0.8	1.5	0.2	3.9	2.3	2.3	1.2	0.6	7.6	2.3
2	1.8	.3	.5	1.5	.2	3.1	2.3	2.6	1.4	.6	8.0	2.6
3	3.1	.7	.3	1.4	.2	3.1	2.0	2.6	1.4	.7	37	2.3
4	2.0	.6	.5	2.3	.2	2.0	1.4	2.3	1.5	.6	2,000	2.3
5	1.5	.6	.3	1.4	1.8	3.1	5.5	2.3	1.4	.5	200	2.3
6	1.2	.5	.3	1.5	4.2	2.3	6.8	2.6	1.2	.6	150	2.3
7	1.0	.5	.6	1.2	1.8	1.5	1.5	2.8	1.2	.5	100	2.0
8	.7	.6	.5	1.4	2.6	1.4	2.0	2.8	1.8	.3	50	2.3
9	.8	.6	.3	1.5	4.2	1.4	2.0	2.8	2.6	.6	30	2.6
10	.8	.6	.7	1.8	5.9	2.0	1.8	2.3	3.4	.7	15	2.6
11	.8	.7	.5	1.8	5.5	1.4	2.0	2.3	4.2	.8	20	2.8
12	1.0	.7	.6	2.0	6.4	1.8	2.3	2.6	5.5	.3	15	2.8
13	.8	.7	.7	2.0	8.1	3.1	2.6	2.6	4.6	.2	70	53
14	1.0	.2	.2	1.8	8.5	4.6	2.8	2.8	2.3	.2	25	359
15	1.0	.2	.2	2.0	9.2	2.3	2.6	2.6	1.0	36	10	570
16	.7	.2	1.0	1.8	9.8	5.1	2.8	2.6	.3	149	5	213
17	.7	.3	.6	1.5	9.8	5.5	2.6	2.3	.2	198	6	123
18	.7	.2	.3	1.8	8.1	5.5	2.3	2.6	.2	72	5	66
19	.6	.2	1.0	2.0	5.5	8.1	2.3	2.3	.2	1.8	3	32
20	1.0	.2	2.3	2.0	4.6	9.8	2.0	2.6	.2	1.4	2	14
21	.8	.2	1.8	2.0	4.6	4.2	2.0	2.6	.2	1.0	5	6.4
22	.8	.2	2.0	2.0	5.5	3.7	2.0	2.3	.5	1.2	18	5.1
23	.8	.2	2.3	1.8	6.4	4.2	2.3	2.0	1.0	1.2	13	3.7
24	1.2	.6	2.3	2.0	6.4	9.2	2.3	2.0	1.2	.8	23	3.4
25	1.0	.7	2.0	2.3	6.8	4.6	2.3	1.8	1.2	.8	48	2.8
26	1.0	.6	2.3	2.0	6.4	2.3	2.3	2.0	1.1	1.4	16	2.8
27	.7	.8	2.3	2.0	5.9	3.1	2.6	2.0	1.0	.8	5.9	2.6
28	.8	.8	2.8	1.8	5.1	5.1	2.6	1.8	.8	.7	4.2	2.0
29	.6	.8	2.8	.8	-	3.1	2.8	2.0	1.0	19	2.6	1.5
30	.5	1.0	2.8	.5	-	12	2.6	1.6	.8	10	2.3	1.5
31	.3	-	1.5	.2	-	9.2	-	1.5	-	186	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	30.2	3.1	0.3	0.97	60
November	14.8	1.0	.2	.49	29
December	37.1	2.8	.2	1.20	74
Calendar year 1938	1,580.1	454	0	4.33	3,140
January	51.6	2.3	.2	1.66	102
February	143.9	9.8	.2	5.14	285
March	131.7	12	1.4	4.25	261
April	75.7	6.8	1.4	2.52	150
May	72.5	2.8	1.5	2.34	144
June	44.6	5.5	.2	1.49	88
July	688.3	198	.2	22.2	1,370
August	2,899.2	2,000	2	93.5	5,750
September	1,491.0	670	1.5	49.7	2,960
Water year 1938-39	5,680.6	2,000	.2	15.6	11,270

Peak discharge.- July 16 (9 p.m.) 2,520 sec.-ft.; July 17 (4 p.m.) 1,780 sec.-ft.; July 18 (4 p.m.) 2,760 sec.-ft.; July 31 (3 p.m.) 2,600 sec.-ft.

Bear Canyon near Mimbres, N. Mex.

Location.- Water-stage recorder and concrete Parshall flume, lat. 32°53', long. 108°00', in SE 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 1939.

Extremes.- Maximum gage height during year, 2.50 feet Aug. 6 (discharge not determined); no flow during long periods.
1937-39: Maximum gage height that of Aug. 6, 1939; no flow during long periods.

Remarks.- Records good except those for days of missing gage heights and those above 20 second-feet, 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 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									0	3.9	1.1	0
2									0	4.1	1.0	0
3									0	4.0	1.0	0
4									0	3.0	1.1	0
5									0	0	7.6	0
6									0	*0	28	0
7									0	*0	25	0
8									0	*0	4.6	0
9									0	*0	*2	0
10									0	*0	1.7	.1
11									0	*0	1.4	.2
12									0	*0	1.1	.2
13									0	*0	1.2	0
14									0	*0	1.6	0
15									0	*0	1.7	*0
16									e	*0	1.3	*0
17									0	*0	2.8	*.2
18									0	*15	1.6	*.3
19									0	*30	.9	*.3
20									0	*9	.7	*.3
21									0	*9	.2	.3
22									3.3	*8	0	.3
23									11	*8	0	.3
24									7.3	*7	0	.3
25									4.9	*7	.1	.3
26									4.9	*6	0	.3
27									4.0	*6	0	.3
28									3.5	*5	0	.2
29									3.5	4.8	0	.2
30									3.6	3.3	0	.2
31									-	1.1	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1938	60.0	7.4	0	.16	119
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	0	0	0	0	0
June	46.0	11	0	1.53	91
July	134.2	30	0	4.33	266
August	87.7	28	0	2.83	174
September	4.3	.3	0	.14	8.5
Water year 1938-39	272.2	30	0	.75	540

*Gage heights missing or incomplete; discharge based on records for Mimbres River near Mimbres and weather records.

Rio Tularosa near Tularosa, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 33°07', long. 105°57', in SW¼SW¼ sec. 15, T. 14 S., R. 10 E., 200 feet upstream from diversion dam for Tularosa community ditch and 3 miles northeast of Tularosa. Prior to Mar. 9, 1938, water-stage recorder and natural control at same site, different datum.

Records available.- December 1912 to December 1914 and October 1931 to September 1939 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 water year 1937-38, 9,640 second-feet Sept. 3 (gage height, 8.50 feet from floodmarks), from rating curve extended above 20 second-feet on basis of slope-area determinations of 2,040 and 9,640 second-feet; minimum daily discharge not determined.

Maximum discharge during water year 1938-39, 4,770 second-feet July 26, from rating curve extended above 20 second-feet on basis of slope-area determinations of 2,040 and 9,640 second-feet; minimum daily discharge, 3 second-feet July 3.

1931-39: Maximum discharge and gage height, those of Sept. 3, 1938; minimum daily discharge, 1 second-foot July 31, Aug. 1, 1934.

Remarks.- Records poor. Diversion above station for irrigation.

Discharge in second-feet, 1937-39

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	14	12	-	14	-		5	8	17	14	-
2	-	-	-	11	14	-		5	8	37	14	-
3	-	-	-	-	14	-		8	8	17	13	-
4	-	-	12	-	-	-		9	8	15	36	-
5	4	-	11	-	-	-		10	8	14	13	-
6	4	-	-	-	-	-		10	6	13	13	-
7	4	-	-	-	-	-		10	5	13	17	-
8	4	-	-	-	14	-		11	5	10	-	-
9	6	-	-	-	14	13		10	4	9	-	-
10	6	-	-	11	14	13		9	4	7	-	-
11	6	-	12	-	14	13		9	4	23	-	-
12	6	-	-	-	14	11		9	5	18	-	*13
13	6	-	-	-	14	11		9	6	13	-	-
14	-	-	-	-	-	10		8	9	14	-	*17
15	-	-	12	-	14	11		7	9	26	-	-
16	-	-	12	-	13	10		7	9	15	-	13
17	-	-	11	11	13	10		11	9	35	-	14
18	-	-	12	-	13	9		11	9	30	-	12
19	-	-	12	-	13	8		11	9	13	-	14
20	-	-	-	-	14	6		11	6	15	-	13
21	-	-	11	-	14	6		10	5	15	-	12
22	-	-	-	10	-	5		11	4	13	-	13
23	-	13	-	14	14	4		7	6	11	-	12
24	13	12	-	14	14	4		6	6	11	-	12
25	13	-	11	-	14	5		6	8	12	-	12
26	13	-	-	-	-	5		6	6	15	12	12
27	13	12	-	14	-	-		6	7	18	-	10
28	13	12	-	14	-	-		6	113	14	-	10
29	13	12	-	14	-	-		4	29	18	-	14
30	13	12	-	14	-	-		4	25	17	-	15
31	14	-	-	14	-	-		7	-	15	-	-

*Discharge measurement.

Discharge, in second-feet, of Rio Tularosa near Tularosa, N. Mex., 1937-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	13	11	10	10	11	12	10	8	6	14	9
2	13	16	11	10	11	12	12	8	6	4	25	9
3	14	17	12	11	9	12	10	9	7	3	14	9
4	14	15	12	11	10	12	10	10	5	9	*60	7
5	13	15	12	10	11	13	11	8	6	10	20	6
6	11	13	12	11	11	12	13	7	11	9	17	6
7	12	13	12	12	11	13	13	7	11	8	16	6
8	12	14	12	14	11	12	12	7	11	7	16	5
9	12	13	11	12	11	12	11	11	10	8	20	5
10	10	14	11	11	12	11	12	10	10	6	*80	5
11	10	14	12	11	13	11	12	10	11	5	*30	6
12	11	13	12	11	14	11	12	10	8	5	20	8
13	9	13	12	11	14	12	12	11	6	5	29	20
14	10	12	11	11	13	10	12	11	6	6	73	39
15	10	11	12	11	13	11	12	8	6	7	35	11
16	9	11	17	11	13	10	12	6	6	4		13
17	12	11	12	11	12	11	9	6	6	4		11
18	12	11	12	10	14	11	10	6	4	10		*15
19	13	11	12	10	13	11	10	6	4	10	*15	*14
20	14	11	17	11	14	14	9	6	11	10		*13
21	14	11	12	11	12	12	9	4	10	19		12
22	14	12	12	12	12	12	9	4	10	11		11
23	15	11	11	12	12	12	7	9	11	9	11	10
24	13	11	11	12	13	11	8	9	11	6	11	9
25	12	12	11	13	13	10	13	9	10	6	12	10
26	13	10	11	12	12	10	13	9	6	*320	10	9
27	14	11	11	11	12	9	13	9	6	60	10	10
28	13	11	10	11	11	10	12	26	6	*65	9	10
29	14	11	9	11	-	10	13	10	6	18	10	10
30	14	11	9	11	-	11	13	9	7	15	8	9
31	14	-	9	10	-	10	-	9	-	15	8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
May 1938	253	11	4	8.2	502
June	348	113	4	11.6	690
July	513	37	7	16.5	1,020
August 1-7	120	36	13	17.1	238
September 16-30	188	15	10	12.5	373
Water year	-	-	-	-	-
October 1938	384	15	9	12.4	762
November	372	17	10	12.4	738
December	361	17	9	11.6	716
Calendar year 1938	-	-	-	-	-
January 1939	346	14	10	11.2	686
February	337	14	9	12.0	668
March	349	14	9	11.3	692
April	336	13	7	11.2	666
May	274	26	4	8.8	543
June	236	11	4	7.9	468
July	680	320	3	21.9	1,350
August	663	80	8	21.4	1,320
September	317	39	5	10.6	629
Water year 1938-39	4,655	320	3	12.6	9,240

*Gage height missing or incomplete; discharge estimated.

Alamogordo-La Luz ditch at La Luz, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 32°58'50", long. 105°56'15", in SW¼ sec. 25, T. 15 S., R. 10 E., a quarter of a mile upstream from La Luz and half mile downstream from head gate.

Records available.- October 1934 to September 1939.

Extremes.- Maximum daily discharge during year, 8.1 second-feet Feb. 12; minimum daily, 0.7 second-foot Mar. 9, 10.
1934-39: 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 except those for period of fragmentary gage heights, Sept. 16-18, which were computed on basis of partly estimated gage heights, and are poor. Ditch diverts water from left bank of Rio La Luz for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	5.6	5.9	5.3	6.9	6.6	6.7	4.0	2.8	1.9	5.4	2.4
2	5.8	6.6	6.1	5.3	7.1	6.7	7.4	3.8	2.2	2.2	2.9	2.3
3	5.8	6.2	6.1	5.3	6.0	5.3	7.4	4.0	2.6	1.9	3.3	2.4
4	5.9	5.9	5.9	5.3	5.8	6.1	7.8	3.8	2.8	2.7	4.9	2.8
5	5.4	5.9	5.9	5.1	7.2	5.6	7.8	3.2	2.2	1.4	3.7	2.7
6	5.3	5.8	5.8	5.3	7.1	4.5	7.8	4.0	2.3	1.4	6.6	2.4
7	5.3	5.0	5.8	5.3	6.9	5.0	7.4	4.1	2.0	1.7	5.4	2.4
8	5.9	5.1	5.6	2.0	6.9	4.2	6.7	3.4	2.2	1.5	5.9	2.4
9	5.9	5.4	5.4	3.9	6.9	.7	6.7	3.2	2.3	1.7	4.0	2.6
10	5.6	5.3	5.4	5.8	6.7	.7	6.4	2.8	2.2	1.5	4.9	2.3
11	5.6	5.1	5.4	5.8	6.5	1.0	5.9	3.2	2.7	1.2	7.8	2.3
12	5.3	5.1	5.3	5.4	8.1	2.2	6.7	2.8	2.6	1.1	3.8	3.3
13	5.1	5.3	5.3	5.4	7.8	4.4	5.6	3.4	2.6	1.3	4.4	3.6
14	5.0	5.1	5.4	5.4	7.6	4.2	5.3	3.6	2.1	3.1	4.4	5.5
15	4.1	5.3	5.4	5.0	7.2	4.2	5.4	3.4	2.1	2.0	6.0	3.7
16	5.0	5.3	5.6	5.4	7.4	4.7	5.6	3.8	2.2	2.3	7.7	5
17	6.2	5.4	5.1	3.6	6.2	4.2	5.9	3.2	2.2	2.1	5.8	7
18	6.2	5.3	5.1	.8	7.1	4.7	5.0	3.0	2.6	3.5	5.0	6
19	5.9	5.3	5.3	2.9	7.4	5.6	5.1	3.2	2.3	2.0	4.7	5.9
20	6.4	5.3	5.1	6.6	7.4	7.2	4.8	3.4	2.0	2.4	5.6	5.6
21	6.4	5.1	6.1	6.1	7.4	6.1	4.2	3.2	2.2	2.6	4.5	5.8
22	6.6	5.3	5.9	5.9	7.1	6.6	4.1	2.9	2.1	2.1	4.7	5.4
23	6.4	5.1	5.9	5.9	6.9	7.2	4.7	3.2	2.7	2.3	4.1	5.6
24	6.2	4.7	5.9	6.1	6.9	6.7	4.4	3.0	1.3	2.1	5.1	5.9
25	6.1	5.3	5.6	6.1	6.6	6.9	4.5	2.8	1.5	1.8	4.0	5.3
26	5.9	5.4	5.4	5.9	6.6	6.7	4.5	2.9	1.7	4.0	4.2	4.8
27	6.6	5.3	5.3	5.9	6.6	6.6	4.4	2.7	1.7	3.2	4.4	5.0
28	6.1	5.3	5.4	6.1	6.7	6.7	4.1	3.0	3.4	3.4	2.9	5.3
29	5.9	5.3	5.4	4.8	-	7.2	4.1	2.9	3.3	7.4	2.6	5.1
30	5.9	5.6	5.4	1.6	-	6.4	5.1	2.8	2.4	2.8	2.7	5.6
31	5.8	-	5.4	3.2	-	6.7	-	2.3	-	5.1	2.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	179.4	6.6	4.1	5.79	356
November	161.7	6.6	4.7	5.39	321
December	172.6	6.1	5.1	5.57	342
Calendar year 1938	1,669.2	8.1	0	4.57	3,310
January	152.5	6.6	.8	4.92	302
February	195.0	8.1	5.8	6.96	387
March	161.6	7.2	.7	5.21	321
April	171.5	7.8	4.1	5.72	340
May	101.0	4.1	2.3	3.26	200
June	69.3	3.4	1.3	2.31	137
July	75.7	7.4	1.1	2.44	150
August	143.7	7.8	2.3	4.64	285
September	126.6	7	2.3	4.22	251
Water year 1938-39	1,710.6	8.1	.7	4.69	3,390

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 Alamo Canyon and 2 miles southeast of Alamogordo.

Records available.- October 1932 to September 1939.

Extremes.- Maximum discharge during year, 1.8 second-feet Nov. 21 (gage height, 0.43 foot); minimum daily, 0.1 second-foot Nov. 1.
1932-39: Maximum discharge, 6.2 second-feet July 8, 1936 (gage height, 0.89 foot, former site and datum); no flow July 7, 1933.

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 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	0.1	1.1	1.4	1.2	1.8	1.6	1.6	1.5	1.4	1.5	1.4
2	1.6	.9	1.2	1.4	1.4	1.5	1.6	1.6	1.5	1.5	1.5	1.5
3	1.6	1.0	1.1	1.5	1.4	1.5	1.8	1.6	1.5	1.4	1.5	1.4
4	1.6	1.0	1.5	1.5	1.4	1.5	1.6	1.6	1.5	1.5	1.5	1.4
5	1.6	1.0	1.6	1.0	1.5	1.6	1.5	1.6	1.5	1.5	1.5	1.4
6	1.6	.9	1.0	1.4	1.0	1.6	1.5	1.6	1.5	1.4	1.5	1.4
7	1.6	.9	1.0	1.5	1.4	1.6	1.6	1.6	1.5	1.5	1.4	1.5
8	1.6	.8	1.5	1.5	1.0	1.6	1.6	1.6	1.5	1.4	1.5	1.4
9	1.6	.7	1.1	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5
10	1.6	.6	1.5	1.5	1.6	1.6	1.6	1.6	1.5	1.4	1.4	1.5
11	1.6	.6	1.6	1.0	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.4
12	1.6	.7	1.1	1.0	1.7	1.6	1.6	1.6	1.5	1.4	1.4	1.4
13	1.5	.7	1.1	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.4
14	1.5	.6	1.0	1.4	1.1	1.0	1.6	1.6	1.5	1.5	1.4	1.5
15	1.5	.6	1.5	1.5	1.4	1.5	1.6	1.6	1.5	1.4	1.4	1.4
16	1.6	.5	1.5	1.5	1.0	1.1	1.6	1.6	1.5	1.4	1.5	1.4
17	1.6	.5	1.5	1.0	1.4	1.6	1.6	1.6	1.5	1.4	1.4	1.4
18	1.6	.8	1.5	1.4	1.5	1.6	1.6	1.6	1.5	1.4	1.4	1.4
19	1.6	1.4	1.5	1.4	1.6	1.6	1.6	1.6	1.5	1.4	1.4	1.5
20	1.6	1.3	1.5	1.5	1.0	1.6	1.6	1.6	1.5	1.4	1.4	1.4
21	1.6	1.2	1.0	1.6	1.0	1.6	1.6	1.6	1.5	1.4	1.4	1.4
22	1.5	1.5	1.1	1.6	1.2	1.6	1.6	1.6	1.5	1.5	1.5	1.4
23	1.6	1.2	1.5	.9	1.1	1.6	1.6	1.6	1.4	1.5	1.4	1.4
24	1.6	1.5	1.4	1.5	1.1	1.6	1.6	1.6	1.4	1.5	1.4	1.4
25	1.6	1.5	1.4	1.1	1.6	1.6	1.5	1.6	1.5	1.4	1.4	1.5
26	1.6	1.5	1.5	1.5	1.6	1.6	1.5	1.6	1.5	1.4	1.4	1.5
27	1.6	1.5	1.1	1.0	1.2	1.6	1.6	1.5	1.5	1.4	1.4	1.4
28	1.6	1.5	1.0	1.4	1.6	1.6	1.6	1.6	1.5	1.4	1.4	1.5
29	1.6	1.3	1.0	1.4	-	1.6	1.6	1.6	1.5	1.5	1.4	1.4
30	1.6	1.1	1.4	1.0	-	1.6	1.6	1.6	1.4	1.5	1.4	1.4
31	.6	-	1.4	1.5	-	1.6	-	1.5	-	1.5	1.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	48.2	1.6	0.6	1.55	96
November	29.4	1.5	.1	.98	58
December	40.2	1.6	1.0	1.30	80
Calendar year 1938	497.9	1.6	.1	1.36	988
January	41.9	1.6	.9	1.35	83
February	37.8	1.7	1.0	1.35	75
March	48.1	1.6	1.0	1.55	95
April	47.6	1.6	1.5	1.59	94
May	49.4	1.6	1.5	1.59	98
June	44.7	1.5	1.4	1.49	89
July	44.8	1.5	1.4	1.45	89
August	44.5	1.5	1.4	1.44	88
September	42.9	1.5	1.4	1.43	85
Water year 1938-39	519.5	1.7	.1	1.42	1,030

In addition to the records of stream flow obtained at gaging stations in the western Gulf of Mexico basins and reported in the preceding pages, measurements of flow were made at other points, as indicated in the following table. These include measurements made in the Rio Grande Basin at points other than gaging stations during the water year 1936-37 but not previously published.

Miscellaneous discharge measurements in western Gulf of Mexico basins during the water year October 1938 to September 1939

Sabine River Basin

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Jan. 21	Little Cow Creek.	Sabine River.....	500 feet upstream from bridge on State Highway 87, ½ mile south of Burkeville, Tex.	51.5
May 11	....do.....	....do.....	....do.....	33.9
July 11	....do.....	....do.....	....do.....	46.0
Aug. 12	....do.....	....do.....	....do.....	34.3
Sept.12	....do.....	....do.....	....do.....	29.3
May 11	....do.....	....do.....	⅛ mile downstream from McGraw Creek, 2⅝ miles southeast of Burkeville, Tex.	57.2
July 11	....do.....	....do.....	....do.....	69.9
Aug. 12	....do.....	....do.....	....do.....	45.4
Sept.12	....do.....	....do.....	....do.....	38.4
July 12	Quicksand Creek..	....do.....	Bridge on U. S. Highway 190, 0.7 mile upstream from mouth, Tex.	26.0
Aug. 10	....do.....	....do.....	....do.....	18.0
Sept.12	....do.....	....do.....	....do.....	19.1

Neches River Basin

Sept. 9	Pine Island Bayou	Neches River.....	Near Voth, Tex.....	*3.43

*All tributaries between measuring section and Voth were dry.

Brazos River Basin

Aug. 25	Brazos River.....	Gulf of Mexico...	3½ miles west of Juliff, Tex.....	*470
Apr. 25	Clear Fork of Brazos River.	Brazos River.....	About a mile upstream from Mulberry Creek, near Hawley, Tex.	†1.8
May 23	....do.....	....do.....	....do.....	50.3
July 10	....do.....	....do.....	....do.....	22.7
18	....do.....	....do.....	....do.....	17.6
Aug. 2	....do.....	....do.....	....do.....	17.7
29	....do.....	....do.....	....do.....	4.87
Sept.16	....do.....	....do.....	....do.....	†1.0
Apr. 25	Mulberry Creek...	Clear Fork of Brazos River.	About a mile upstream from mouth, near Hawley, Tex.	0
May 23	....do.....	....do.....	....do.....	†.05
July 10	....do.....	....do.....	....do.....	0
18	....do.....	....do.....	....do.....	0
Aug. 2	....do.....	....do.....	....do.....	0
29	....do.....	....do.....	....do.....	0
Sept.16	....do.....	....do.....	....do.....	0
Apr. 12	Bosque River.....	Brazos River.....	About 1 mile upstream from mouth, near Bosqueville, Tex.	‡137
22	....do.....	....do.....	....do.....	‡78.4
27	....do.....	....do.....	....do.....	‡80.9
May 1	....do.....	....do.....	....do.....	‡66.5
4	....do.....	....do.....	....do.....	‡70.4
5	....do.....	....do.....	....do.....	‡66.8
11	....do.....	....do.....	....do.....	‡9.87
11	....do.....	....do.....	....do.....	‡9.59
Aug. 24	....do.....	....do.....	....do.....	‡5.62
25	South Texas Water Co.'s canal.	....do.....	3½ miles west of Juliff, Tex.....	304

*Discharge of South Texas Water Co.'s canal not included.
†Estimated.
‡Furnished by U. S. Soil Conservation Service, Waco, Tex.

Colorado River Basin

June 20	Colorado River...	Gulf of Mexico...	2½ miles northwest of Colorado, Tex....	*66,500
20	....do.....	....do.....	5 miles south of Colorado, Tex.....	*72,300
19	Deep Creek.....	Colorado River...	½ mile south of Snyder, Tex.....	*36,400
Nov. 9	Irrigation canal.	South Concho River.	At head at Christoval, Tex.....	19.8
Dec. 23	....do.....	....do.....	....do.....	12.2
Feb. 14	....do.....	....do.....	....do.....	4.36
Mar. 20	....do.....	....do.....	....do.....	11.8
Apr. 16	....do.....	....do.....	....do.....	20.4
June 3	....do.....	....do.....	....do.....	14.6
July 12	....do.....	....do.....	....do.....	16.2
Aug. 14	....do.....	....do.....	....do.....	10.5
Sept.12	....do.....	....do.....	....do.....	13.4
Feb. 25	Sycamore Springs.	San Saba River...	12½ miles southwest of Richland Springs, Tex., Spring 273.†	1.26
25	Deep Creek Springs.	....do.....	11½ miles south of Richland Springs, Tex., Spring 306.†	3.15
25	Flemming Springs.	....do.....	9 miles south of Richland Springs, Tex., Spring 238.†	4.55
Oct. 28	Walnut (Sloan) Springs.	....do.....	7 miles southwest of Algerita, Tex., Spring 236.†	6.24
Feb. 25	Hart Spring.....	....do.....	7.4 miles southeast of Richland Springs, Tex., Spring 235.†	2.03
25	Mud Springs.....	....do.....	7.4 miles southeast of Richland Springs, Tex., Spring 234.†	.98

*Slope-area measurement.
†Ground-water division identification number.

Miscellaneous discharge measurements in western Gulf of Mexico basins during the water year October 1938 to September 1939--Continued

Colorado River Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Feb. 25	Bogard Springs...	San Saba River...	7.4 miles southeast of Richland Springs, Tex., Spring 233.†	0.75
Oct. 28	Baker Springs....	....do.....	3.9 miles southwest of Algerita, Tex., Spring 230.†	3.82
28	Hall Springs.....	Richland Creek...	3.7 miles west of Richland Springs, Tex., Spring 20.†	2.52
28	Richland Springs.	....do.....	At Richland Springs, Tex., Spring 218†.	3.43
Feb. 24	San Saba Springs.	San Saba River...	At San Saba, Tex., Spring 98.†	9.70
Oct. 29	Dalton Springs...	....do.....	4 miles southeast of San Saba, Tex., Spring 90.†	.90
29	Parker Springs...	Colorado River...	3.6 miles northwest of Bend, Tex., Spring 357.†	1.86
29	Heck Springs.....	Cherokee Creek...	3.7 miles west of Cherokee, Tex., Spring 343.†	2.57
29	Gorman Springs...	Colorado River...	3.1 miles southeast of Bend, Tex., Spring 370.†	2.03
Feb. 26	Seven Springs....	....do.....	5.5 miles east of Chappel, Tex., Spring 374.†	.55
26	Post Oak Spring..	....do.....	6.2 miles east of Chappel, Tex., Spring 375.†	1.07
26	Jennings Creek Spring.....	....do.....	6.5 miles east of Chappel, Tex., Spring 376.†	1.48
26	Boiling Spring...	Fall Creek.....	10.4 miles southeast of Chappel, Tex., Spring 426.†	4.33
22	South Llano River	Llano River.....	Just upstream from Seven Hundred Springs.	14.9
22	....do.....	....do.....	Just downstream from Seven Hundred Springs.	29.0
22	Tanner Springs...	South Llano River	6 miles southwest of Telegraph, Tex.	9.28
22	Seven Hundred Springs.	....do.....	5 miles southwest of Telegraph, Tex.	14.1
Apr. 22	Big Paint Creek Springs.	Paint Creek.....	4¾ miles south of Telegraph, Tex.	21.7
Oct. 15	Barton Creek.....	Colorado River...	Above Barton Springs, Austin, Tex.....	0
Nov. 14	....do.....	....do.....	....do.....	0
Jan. 3	....do.....	....do.....	....do.....	0
28	....do.....	....do.....	....do.....	0
Feb. 16	....do.....	....do.....	....do.....	0
Mar. 23	....do.....	....do.....	....do.....	0
Apr. 12	....do.....	....do.....	....do.....	0
May 3	....do.....	....do.....	....do.....	0
June 5	....do.....	....do.....	....do.....	0
July 28	....do.....	....do.....	....do.....	0
Sept.14	....do.....	....do.....	....do.....	0
Oct. 15	Barton Springs...	Barton Creek.....	Austin, Tex.....	‡24.7
Nov. 14	....do.....	....do.....	....do.....	‡23.9
Jan. 3	....do.....	....do.....	....do.....	‡24.0
28	....do.....	....do.....	....do.....	**23.3
Feb. 16	....do.....	....do.....	....do.....	‡23.0
Mar. 23	....do.....	....do.....	....do.....	‡16.8
Apr. 12	....do.....	....do.....	....do.....	‡18.8
May 3	....do.....	....do.....	....do.....	‡19.1
June 5	....do.....	....do.....	....do.....	‡13.9
July 28	....do.....	....do.....	....do.....	**18.0
Sept.14	....do.....	....do.....	....do.....	‡16.0

†Ground-water division identification number.
‡Includes flow of Old Mill Spring.
**Old Mill Spring not flowing.

Guadalupe River Basin

Oct. 31	San Marcos River.	Guadalupe River..	San Marcos, Tex.....	116
Dec. 7	....do.....	....do.....	....do.....	106
Feb. 1	....do.....	....do.....	....do.....	108
Mar. 8	....do.....	....do.....	....do.....	105
Apr. 27	....do.....	....do.....	....do.....	106
June 15	....do.....	....do.....	....do.....	94.8
July 22	....do.....	....do.....	....do.....	71.0
27	....do.....	....do.....	....do.....	65.1
Aug. 28	....do.....	....do.....	....do.....	*72.8
Dec. 9	San Antonio River	....do.....	San Antonio, Tex., 1.4 miles downstream from Olmos Dam.	36.3
Feb. 20	....do.....	....do.....	San Antonio, Tex.....	36.6
23	....do.....	....do.....	....do.....	33.9
27	....do.....	....do.....	....do.....	34.9
Dec. 9	....do.....	....do.....	San Antonio, Tex., 0.9 mile upstream from San Pedro Creek.	63.4
9	....do.....	....do.....	¼ mile upstream from Sixmile Creek, 4.5 miles upstream from Salado Creek, near San Antonio, Tex.	43.9
9	....do.....	....do.....	200 feet upstream from Medina River, near San Antonio, Tex.	95.1
Feb. 20	Artesian Well No. 2.	San Antonio River	San Antonio, Tex., at San Antonio Public Service Co.'s plant.	11.2
23	....do.....	....do.....	....do.....	11.2
27	....do.....	....do.....	....do.....	11.0
May 11	Medina River.....	....do.....	¼ mile downstream from site of discontinued U. S. Geol. Survey gaging station near Rio Medina, Tex.	29.8
Aug. 25	....do.....	....do.....	....do.....	37.1

*Flow regulated by power plant upstream.

Miscellaneous discharge measurements in western Gulf of Mexico basins during the water year October 1938 to September 1939--Continued

Guadalupe River Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Dec. 9	Medina River.....	San Antonio River	⅛ mile upstream from mouth, near San Antonio, Tex.	46.3
May 10	Medina canal.....	Medina River.....	¼ mile below head, near Rio Medina, Tex.	98.6
11	....do.....	....do.....	....do.....	95.7
Aug. 25	....do.....	....do.....	....do.....	145
25	....do.....	....do.....	....do.....	173
25	....do.....	....do.....	....do.....	101
May 10	....do.....	....do.....	1½ miles upstream from D-1 canal, 3.2 miles west of Lacoste, Tex.	97.1
11	....do.....	....do.....	....do.....	92.6

Nueces River Basin

Aug. 14	Nueces River.....	Gulf of Mexico...	500 feet upstream from Nineteenmile crossing of U. S. Highway 83-B, 1.6 miles southeast of Laguna, Tex.	154
15	....do.....	....do.....	1.8 miles downstream from Nineteenmile crossing, 3 miles south of Laguna, Tex.	150
15	....do.....	....do.....	5.4 miles upstream from West Nueces River, 5.2 miles southeast of Laguna, Tex.	131
16	....do.....	....do.....	3.8 miles upstream from West Nueces River, 6.8 miles southeast of Laguna, Tex.	114
16	....do.....	....do.....	1.3 miles upstream from West Nueces River, 12 miles northwest of Uvalde, Tex.	84.1
17	....do.....	....do.....	Just downstream from West Nueces River, 11⅛ miles northwest of Uvalde, Tex.	47.3
17	....do.....	....do.....	1.6 miles downstream from West Nueces River, 10 miles northwest of Uvalde, Tex.	20.1
18	....do.....	....do.....	0.3 mile downstream from Texas & New Orleans R. R. bridge, 7⅛ miles west of Uvalde, Tex.	4.69
18	....do.....	....do.....	0.5 mile downstream from Texas & New Orleans R. R. bridge, 7⅛ miles west of Uvalde, Tex.	0
18	....do.....	....do.....	At bridge on U. S. Highway 90, 7 miles west of Uvalde, Tex.	0
18	....do.....	....do.....	1.2 miles downstream from bridge on U.S. Highway 90, 7 miles west of Uvalde, Tex.	0
18	....do.....	....do.....	At former gaging station, near Uvalde, Tex., 7 miles southwest of Uvalde.	18.2
19	....do.....	....do.....	1 mile downstream from former gaging station near Uvalde, Tex., 7⅛ miles southwest of Uvalde.	26.6
19	....do.....	....do.....	2 miles upstream from present gaging station below Uvalde, Tex., 8⅛ miles southwest of Uvalde.	24.7
21	....do.....	....do.....	1.5 miles downstream from present gaging station below Uvalde, Tex., 9 miles southwest of Uvalde.	30.2
22	....do.....	....do.....	At bridge on U. S. Highway 83, 10⅛ miles southwest of Uvalde, Tex.	23.1
22	....do.....	....do.....	1 mile downstream from crossing of old Uvalde-La Pryor road, 7 miles north of La Pryor, Tex.	22.1
22	....do.....	....do.....	At gas well, 5 miles northeast of La Pryor, Tex.	16.8
23	....do.....	....do.....	1,200 feet downstream from Batesville-La Pryor road bridge, 3 miles east of La Pryor, Tex.	4.80
23	....do.....	....do.....	3.3 miles downstream from bridge on Batesville-La Pryor road, 4⅛ miles southeast of La Pryor, Tex.	16.8
25	....do.....	....do.....	3.6 miles upstream from Mitt-Smith crossing, 7 miles south of La Pryor, Tex.	16.9
25	....do.....	....do.....	At Miff-Smith crossing, 9.5 miles south of La Pryor, Tex.	18.5
25	....do.....	....do.....	3.3 miles downstream from Mitt-Smith crossing 11⅛ miles south of La Pryor, Tex.	18.2
26	....do.....	....do.....	On Thoreen-Walker ranch, 13⅛ miles south of La Pryor, Tex.	19.5
Sept. 5		....do.....	6⅛ miles northwest of Calallen, Tex.....	130
Aug. 17	West Nueces River	Nueces River.....	At confluence with Nueces River, Tex.	0
June 28	Schwandners Spring.	West Nueces River	16.3 miles northwest of Laguna, Tex.....	2.24
28	Live Oak Creek...	....do.....	7⅛ miles northwest of Laguna, Tex.	.32
Aug. 19	Unnamed spring...	Nueces River.....	At spring, 2 miles upstream from present gaging station on Nueces River below Uvalde, Tex.	*1.5
19	....do.....	....do.....	In channel, 300 feet downstream from spring, Tex.	.76
Feb. 7	Leona River.....	....do.....	1.7 miles southeast of Uvalde, Tex.....	12.8
Mar. 13	....do.....	....do.....	....do.....	13.0
Apr. 25	....do.....	....do.....	....do.....	11.1
June 2	....do.....	....do.....	....do.....	9.23

*Estimated.

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Miscellaneous discharge measurements in western Gulf of Mexico basins during the water year October 1938 to September 1939--Continued

Rio Grande Basin*

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
1938				
Nov. 1	Allen Creek.....	Costilla Creek...	Above Costilla dam and reservoir, about 16 miles east of Costilla, N. Mex.	‡0.25
1939				
May 4	....do.....	....do.....	....do.....	1.54
19	....do.....	....do.....	....do.....	1.89
June 15	....do.....	....do.....	....do.....	1.34
July 20	....do.....	....do.....	....do.....	‡.15
Aug. 3	....do.....	....do.....	....do.....	‡.05
26	....do.....	....do.....	....do.....	‡.10
1938				
Dec. 27	Bee Line ditch...	Rio Lucero.....	E½ sec. 21, T. 26 N., R. 13 E., at head, 3½ miles south of town of Arroyo Seco, N. Mex.	‡.20
1939				
Apr. 6	....do.....	....do.....	....do.....	‡1.0
May 3	....do.....	....do.....	....do.....	‡.4
17	....do.....	....do.....	....do.....	5.02
June 7	....do.....	....do.....	....do.....	‡.6
Sept. 5	....do.....	....do.....	....do.....	0
19	....do.....	....do.....	....do.....	0
1938				
Oct. 13	Rio Tesuque.....	Rio Pojoaque.....	Sec. 33, T. 18 N., R. 10 E., 0.6 mile above station "Rio Tesuque above diversions," 1.6 miles upstream from Rito Tesuque, 4½ miles northeast of Santa Fe, N. Mex.	1.90
13	....do.....	....do.....	....do.....	1.94
31	Santa Fe Creek...	Rio Grande.....	Sec. 24, T. 17 N., 10 E., above upper reservoir, 6½ miles east of Santa Fe, N. Mex.	3.75
Dec. 13	....do.....	....do.....	....do.....	1.92
1939				
Mar. 29	....do.....	....do.....	....do.....	12.1
Apr. 15	....do.....	....do.....	....do.....	18.0
May 13	....do.....	....do.....	....do.....	26.4
22	....do.....	....do.....	....do.....	10.5
June 27	....do.....	....do.....	....do.....	2.67
July 15	....do.....	....do.....	....do.....	4.27
Aug. 11	....do.....	....do.....	....do.....	2.72
19	....do.....	....do.....	....do.....	2.89
Sept. 5	....do.....	....do.....	....do.....	1.84
20	....do.....	....do.....	....do.....	7.38
1938				
Oct. 23	Comanche Springs.	Comanche Creek...	At main canal, ¼ mile below diversion dam, at Ft. Stockton, Tex.	41.0
1939				
Jan. 5	....do.....	....do.....	....do.....	41.9
Mar. 2	....do.....	....do.....	....do.....	42.3
May 24	....do.....	....do.....	....do.....	42.5
July 25	....do.....	....do.....	....do.....	41.2
Feb. 6	Mud Springs (Mud Creek).	Sycamore Creek...	16 miles northwest of Brackettville, Tex.	7.58
Mar. 12	....do.....	....do.....	....do.....	5.17
Apr. 26	....do.....	....do.....	....do.....	2.87
June 5	....do.....	....do.....	....do.....	1.84
Aug. 11	....do.....	....do.....	....do.....	2.63
Sept. 19	....do.....	....do.....	....do.....	3.25
Feb. 17	Pecos River.....	Rio Grande.....	SE¼NE¼ sec. 9, T. 11 S., R. 25 E., just above mouth of Rio Hondo, 6 miles east of Roswell, N. Mex.	22.0
17	....do.....	....do.....	NW¼SW¼ sec. 10, T. 11 S., R. 25 E., just below mouth of Rio Hondo, 6 miles east of Roswell, N. Mex.	30.4
17	....do.....	....do.....	NW¼ sec. 10, T. 13S., R. 26 E., 2½ miles northeast of Dexter, N. Mex.	50.4
1938				
Dec. 18	....do.....	....do.....	NW¼NW¼ sec. 7, T. 14S., R. 27 E., at Hagerman Bridge, 2 miles east of Hagerman, N. Mex.	74.1
1939				
Feb. 17	....do.....	....do.....	....do.....	71.4
17	....do.....	....do.....	Sec. 18, T. 18 S., R. 27 E., ¼ mile above old Dayton station, 1 mile above mouth of Rio Penasco and 4 miles northeast of Dayton, N. Mex.	110
1937				
July 13	....do.....	....do.....	SE¼ sec. 20, T. 24 S., R. 29 E., below Livingston pump, 4 miles southeast of Malaga, N. Mex.	376
13	....do.....	....do.....	....do.....	350
13	....do.....	....do.....	....do.....	335
13	....do.....	....do.....	....do.....	341
13	....do.....	....do.....	....do.....	341
13	....do.....	....do.....	....do.....	380
13	....do.....	....do.....	....do.....	433
14	....do.....	....do.....	....do.....	433

*Miscellaneous discharge measurements made during the water years 1936-37 and 1938-39 in this basin are here included.

‡Estimated.

Miscellaneous discharge measurements in western Gulf of Mexico basins during the water year October 1938 to September 1939--Continued

Rio Grande Basin*--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
1937				
July 14	Pecos River.....	Rio Grande.....	SE¼ sec. 20, T. 24 S., R. 29 E., below Livingston pump, 4 miles southeast of Malaga, N. Mex.	420
14	....do.....	....do.....	....do.....	401
14	....do.....	....do.....	....do.....	378
14	....do.....	....do.....	....do.....	365
1939				
Feb. 14	....do.....	....do.....	....do.....	140
14	....do.....	....do.....	....do.....	131
14	....do.....	....do.....	....do.....	125
14	....do.....	....do.....	....do.....	122
14	....do.....	....do.....	....do.....	120
14	....do.....	....do.....	....do.....	116
14	....do.....	....do.....	....do.....	114
14	....do.....	....do.....	....do.....	110
14	....do.....	....do.....	....do.....	102
14	....do.....	....do.....	....do.....	98.3
14	....do.....	....do.....	....do.....	95.9
14	....do.....	....do.....	....do.....	103
15	....do.....	....do.....	....do.....	119
15	....do.....	....do.....	....do.....	132
15	....do.....	....do.....	....do.....	135
15	....do.....	....do.....	....do.....	138
15	....do.....	....do.....	....do.....	144
15	....do.....	....do.....	....do.....	145
15	....do.....	....do.....	....do.....	143
15	....do.....	....do.....	....do.....	144
15	....do.....	....do.....	....do.....	142
15	....do.....	....do.....	....do.....	147
15	....do.....	....do.....	....do.....	146
15	....do.....	....do.....	....do.....	153
17	Walnut Creek.....	Pecos River.....	SE¼ sec. 32, T. 15 S., R. 26 E., ¼ mile above mouth, 2 miles south of Lake Arthur, N. Mex.	‡.10
14	Black River.....	....do.....	SE¼ sec. 2, T. 24 S., R. 28 E., ½ mile above mouth, 1½ miles northeast of Malaga, N. Mex.	10.1
1937				
July 13	Livingston pump ditch.	....do.....	SE¼ sec. 20, T. 24 S., R. 29 E., at Livingston pump, 4 miles southeast of Malaga, N. Mex.	7.75
1939				
Feb. 6	Pinto Springs....	Pinto Creek.....	7½ miles northwest of Brackettville, Tex.	5.17
Mar. 12	....do.....	....do.....	....do.....	4.46
12	....do.....	....do.....	....do.....	†2.40
Apr. 26	....do.....	....do.....	....do.....	2.13
June 5	....do.....	....do.....	....do.....	.70
Aug. 11	....do.....	....do.....	....do.....	7.77
11	....do.....	....do.....	....do.....	†5.99
Sept.19	....do.....	....do.....	....do.....	7.27

*Miscellaneous discharge measurements made during the water years 1936-37 and 1938-39 in this basin are here included.
†Not entire flow of springs.
‡Estimated.

Mimbres River Basin

June 27	Unnamed diversion.	Bear Canyon.....	S½ sec. 29, T. 16 S., R. 11 W., just below Bear Canyon Dam, 100 feet above bridge on State Highway 167, 2 miles northwest of Mimbres, N. Mex.	1.95
July 1	....do.....	....do.....	....do.....	1.40
29	....do.....	....do.....	....do.....	1.06
Aug. 3	....do.....	....do.....	....do.....	1.21
10	....do.....	....do.....	....do.....	0
24	....do.....	....do.....	....do.....	1.13
31	....do.....	....do.....	....do.....	1.12
Sept. 7	....do.....	....do.....	....do.....	1.09
14	....do.....	....do.....	....do.....	1.14
21	....do.....	....do.....	....do.....	.85
28	....do.....	....do.....	....do.....	.79

Part 8. Western Gulf of Mexico basins

The following tables summarize in convenient form for general reference and for use in preliminary investigations the figures of yearly discharge and run-off for certain gaging stations in the Western Gulf of Mexico basins, previously published in the annual series of water-supply papers. All gaging stations, both active and discontinued, at which 10 or more complete years of record have been collected and published are represented, also some special stations, as noted below. The summaries present figures of maximum and minimum daily discharge and yearly mean discharge and run-off, for both the water years ending September 30 and the calendar years. The figures for the water years prior to 1912 and figures for the calendar years 1912 to 1933 have not been previously published in the annual water-supply papers but are included in these summaries.

The number of the water-supply paper in which the figures of daily and monthly discharge as well as yearly discharge are published is shown in the column headed W.S.P. (no. and page). The descriptions contained in the water-supply papers indicated give detailed information relative to the gaging stations, including location, diversions, regulation by storage, effect of irrigation, and other pertinent information. Records for stations which were operated prior to 1901 are generally contained in the annual reports of the Geological Survey. Reference is made to these reports if records have not also been published in water-supply papers.

Figures of drainage area are given for each station when known. These figures have been revised from time to time as more accurate maps have become available. The discharge per square mile and run-off in inches in the following tables, in general, have been revised according to the latest figure for the drainage area.

Summaries for incomplete years are given for those stations in irrigated regions for which seasonal records were collected in order to show the flow available for irrigation. They have been compiled from the records of daily and monthly discharge contained in the water-supply paper indicated. For summaries after 1912 if the period extends beyond September 30, records of daily and monthly discharge after that day are contained in the water-supply paper indicated for the following year. An incomplete year is included for other stations if the maximum daily discharge or minimum daily discharge for all the years of record occurred in that year.

Former names under which records for some of the stations have been published in the annual water-supply papers are indicated in these yearly summaries as follows:

1. If the name of the stream or town or other feature to which the station is referred has been changed, the former name is given in parentheses, indicating that records for some of the earlier years are published under the obsolete name.

2. If the entire name of a station has been changed, the superseded name and years when it was used are given in parentheses beneath the present name.

Summary of yearly discharge, in second-feet, at stations in SABINE RIVER BASIN

Sabine River near Longview, Tex.
(Drainage area, 3,013 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1904	132-19	-	-	-	-	6,544	36	811	585,600
1905	174-13	19,500	36	3,670	2,650,000	19,480	122	4,290	3,138,000
1906	210-22	17,400	63	2,480	1,800,000	13,200	63	2,270	1,630,000
1924	588-15	-	-	-	-	6,110	21	1,230	896,000
1925	608-15	3,760	14	311	226,000	3,760	14	491	355,000
1926	628-11	8,320	33	2,020	1,460,000	8,320	53	2,030	1,470,000
1927	648-10	18,700	53	2,500	1,810,000	18,700	64	2,500	1,810,000
1928	668-11	5,320	17	1,080	784,000	21,600	17	1,510	1,090,000
1929	688-11	21,600	15	2,920	2,110,000	15,800	15	2,370	1,720,000
1930	703-11	21,500	26	1,730	1,250,000	21,500	26	1,880	1,360,000
1931	718-11	6,520	27	909	659,000	6,520	22	873	632,000
1932	733-11	16,600	22	2,250	1,630,000	16,600	23	2,090	1,520,000

Sabine River at Logansport, La.
(Drainage area, 4,858 square miles)

1904	850-60	6,090	70	1,210	e76,000	14,500	65	1,211	878,900
1905	850-60	33,600	65	6,352	4,599,000	33,600	239	7,017	5,080,000
1906	850-60	20,000	239	4,311	3,120,000	20,000	251	3,946	2,857,000
1907	850-60	10,800	65	2,930	2,120,000	10,800	65	3,385	2,448,000
1908	850-60	30,100	70	4,366	3,167,000	30,100	192	3,564	2,587,000
1909	850-60	6,330	33	792	574,000	6,330	30	756	547,600

Summary of yearly discharge, in second-feet, at stations in Sabine River Basin--Continued

Sabine River at Logansport, La.--Continued
(Drainage area, 4,858 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1910	850-60	7,540	22	1,070	776,000	7,540	20	980	709,400
1911	850-60	6,980	20	675	489,000	6,980	22	796	576,700
1912	850-60	16,200	27	2,515	1,826,000	16,200	81	2,415	1,754,000
1913	850-60	11,900	60	1,760	1,270,000	16,300	60	2,940	2,130,000
1914	850-60	36,000	119	4,767	3,451,000	36,000	119	3,854	2,790,000
1915	850-60	47,000	192	5,030	3,642,000	47,000	390	5,096	3,689,000
1916	850-60	13,800	102	2,497	1,812,000	13,800	81	2,229	1,618,000
1917	850-60	5,100	81	1,030	742,000	5,100	81	981	709,100
1918	850-60	8,890	81	865	627,000	8,890	102	1,190	861,800
1919	850-60	10,700	119	3,210	2,320,000	29,400	743	5,720	4,141,000
1923	850-60	12,200	55	2,421	1,753,000	12,200	55	2,870	2,078,000
1924	588-17	14,000	43	3,540	2,570,000	14,000	32	3,021	2,192,000
1925	608-17	3,090	-	425	308,000	12,800	-	909	657,900
1926	628-13	23,000	33	3,630	2,630,000	23,000	60	3,425	2,479,000
1927	648-11	20,900	60	3,720	2,690,000	20,900	81	3,650	2,642,000
1928	668-11	9,860	47	1,830	1,330,000	9,860	47	2,118	1,537,000
1929	688-12	-	47	3,600	2,600,000	-	47	3,206	2,320,000
1930	703-11	34,800	58	3,080	2,230,000	34,800	88	3,286	2,378,000
1931	718-12	10,700	68	1,840	1,330,000	16,200	34	2,164	1,567,000
1932	733-13	40,200	34	5,420	3,940,000	40,200	58	4,829	3,516,000
1933	748-12	-	58	3,530	2,560,000	-	120	3,550	2,570,000
1934	763-12	17,400	23	2,470	1,780,000	17,400	23	2,657	1,923,000
1935	788-16	36,000	34	3,678	2,662,000	36,000	139	3,937	2,850,000
1936	808-17	8,400	24	1,159	841,400	4,830	24	866	628,800
1937	828-12	11,800	24	2,334	1,690,000	11,800	55	2,467	1,786,000
1938	858-13	25,400	52	4,358	3,155,000	25,400	33	4,049	2,931,000
1939	878-21	13,600	16	1,831	1,326,000	-	-	-	-

Sabine River near Bon Wier, Tex.
(Drainage area, 8,323 square miles)

1924	588-20	-	-	-	-	-	-	8,450	6,130,000
1925	608-20	-	-	1,350	975,000	41,400	-	3,100	2,240,000
1926	628-14	41,400	320	8,300	6,000,000	30,300	320	7,160	5,180,000
1927	648-11	45,600	260	8,750	6,340,000	45,600	260	8,480	6,140,000
1928	668-12	18,400	390	4,010	2,910,000	18,400	390	4,050	2,940,000
1929	688-12	40,000	440	7,360	5,320,000	40,000	265	7,830	5,660,000
1930	703-12	26,100	265	6,120	4,430,000	26,100	335	6,360	4,610,000
1931	718-13	24,600	335	5,160	3,730,000	24,600	250	5,060	3,660,000
1932	733-14	56,600	250	10,600	7,700,000	56,600	270	9,880	7,180,000
1933	748-13	63,000	270	8,750	6,330,000	63,000	710	8,640	6,250,000
1934	763-13	35,200	270	6,900	4,990,000	-	-	-	-

Sabine River near Ruliff, Tex.
(Drainage area, 9,448 square miles)

1925	608-22	16,400	372	1,710	1,240,000	50,000	372	4,180	3,030,000
1926	628-15	50,000	683	9,940	7,200,000	29,700	842	7,860	5,680,000
1927	648-12	52,200	714	8,930	6,460,000	52,200	714	8,920	6,450,000
1928	668-13	19,200	534	4,580	3,320,000	19,200	476	4,510	3,270,000
1929	688-13	61,200	476	7,840	5,680,000	61,200	547	8,410	6,090,000
1930	703-13	23,700	547	7,160	5,180,000	23,700	632	7,540	5,460,000
1931	718-14	29,000	575	6,550	4,740,000	29,300	498	6,320	4,580,000
1932	733-15	62,800	405	12,300	8,910,000	62,300	362	11,500	8,370,000
1933	748-14	67,000	362	10,200	7,370,000	67,000	878	10,100	7,280,000
1934	763-14	45,600	405	8,640	6,270,000	45,600	405	9,236	6,685,000
1935	788-17	75,000	405	10,080	7,297,000	75,000	918	10,700	7,748,000
1936	808-18	31,600	577	3,701	2,687,000	10,600	549	2,710	1,967,000
1937	828-13	30,400	549	6,382	4,620,000	30,400	606	6,391	4,626,000
1938	858-14	51,600	700	9,047	6,550,000	51,600	568	8,794	6,366,000
1939	878-24	31,200	338	5,863	-	-	-	-	-

NECHES RIVER BASIN

Neches River near Rockland, Tex.
(Drainage area, 3,539 square miles)

1904	850-63	7,750	61	834	605,000	7,750	20	823	597,000
1905	850-63	24,600	20	3,830	2,770,000	24,600	104	4,150	3,010,000
1906	850-63	8,450	104	2,080	1,510,000	8,450	104	1,930	1,400,000
1907	850-63	17,200	135	2,220	1,610,000	30,400	135	3,380	2,450,000
1908	850-63	30,400	135	4,540	3,290,000	24,600	169	3,260	2,360,000
1909	850-63	3,920	-	610	442,000	3,920	-	560	405,000
1910	850-63	7,260	-	1,030	749,000	7,260	-	983	712,000
1913	850-63	-	-	-	-	11,000	104	1,600	1,160,000
1914	850-63	16,900	104	3,130	2,270,000	16,900	104	3,010	2,180,000
1915	850-63	23,600	119	2,630	1,900,000	23,600	135	2,490	1,810,000
1916	850-63	25,600	135	2,180	1,580,000	25,600	135	2,040	1,480,000
1917	850-63	2,620	104	575	417,000	2,620	104	510	369,000
1918	850-63	2,570	-	395	286,000	3,080	-	529	383,000
1919	850-63	16.900	-	2,450	1,780,000	16,900	135	3,450	2,490,000
1920	850-63	35,800	151	3,360	2,440,000	35,800	91	2,470	1,790,000
1921	850-63	14,700	91	3,500	2,540,000	14,700	-	3,260	2,360,000
1922	850-63	45,200	-	4,170	3,020,000	45,200	-	4,190	3,040,000
1923	850-63	37,500	-	2,820	2,040,000	37,500	-	3,650	2,640,000
1924	588-25	14,200	50	4,190	3,040,000	14,200	50	3,320	2,410,000
1925	608-28	2,520	7.0	227	164,000	12,600	7.0	1,060	768,000
1926	628-19	15,100	119	3,480	2,520,000	15,100	57	2,890	2,090,000
1927	648-14	14,100	57	3,020	2,180,000	14,100	57	2,840	2,050,000

Summary of yearly discharge, in second-feet, at stations in Neches River Basin--Continued

Neches River near Rockland, Tex.--Continued
(Drainage area, 3,539 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1928	668-14	4,290	30	851	618,000	4,290	21	847	615,000
1929	688-14	34,200	21	2,560	1,850,000	34,200	30	2,600	1,880,000
1930	703-14	10,500	30	1,880	1,360,000	10,500	35	2,200	1,590,000
1931	718-15	7,450	8.0	2,060	1,490,000	7,450	3.0	1,910	1,380,000
1932	733-16	33,600	3.0	3,530	2,560,000	33,600	50	3,310	2,400,000
1933	748-15	8,990	61	1,930	1,400,000	8,990	69	1,880	1,360,000
1934	763-15	12,100	15	2,140	1,550,000	12,100	15	2,370	1,716,000
1935	788-18	47,900	19	3,594	2,602,000	47,900	100	3,807	2,757,000
1936	808-19	11,000	53	1,433	1,041,000	11,000	49	1,048	760,500
1937	828-14	6,980	24	1,282	928,400	6,980	24	1,390	1,007,000
1938	858-15	15,900	24	1,933	1,399,000	15,900	18	1,766	1,279,000
1939	878-29	9,680	7.5	1,180	854,400	-	-	-	-

Neches River at Evadale, Tex.
(Drainage area, 7,908 square miles)

1905	174-15	18,300	202	6,350	4,600,000	18,300	484	7,060	5,110,000
1906	210-28	12,300	484	4,140	2,970,000	12,300	560	3,920	2,830,000
1924	588-27	40,600	387	11,900	8,650,000	40,600	370	9,640	6,990,000
1925	608-29	9,750	148	994	720,000	30,000	148	3,120	2,260,000
1926	628-20	30,000	252	8,440	6,110,000	30,000	422	6,660	4,820,000
1927	648-15	27,800	348	7,250	5,250,000	27,800	348	7,050	5,110,000
1928	668-15	11,800	267	2,590	1,880,000	11,800	255	2,590	1,880,000
1929	718-16	83,800	255	7,500	5,450,000	83,800	333	7,820	5,660,000
1930	703-15	20,600	292	5,120	3,700,000	20,600	292	5,730	4,150,000
1931	718-16	17,900	243	5,450	5,930,000	17,900	205	5,060	3,670,000
1932	733-17	73,400	205	9,750	7,080,000	73,400	285	9,260	6,730,000
1933	748-16	19,900	285	5,570	4,030,000	19,900	451	5,440	3,940,000
1934	763-16	24,800	217	5,790	4,200,000	24,800	217	6,293	4,555,000
1935	788-19	64,100	217	8,302	6,010,000	64,100	471	8,935	6,468,000
1936	808-20	21,200	397	3,740	2,715,000	15,500	331	2,739	1,988,000
1937	828-15	19,300	256	3,971	2,875,000	19,300	243	4,147	3,002,000
1938	858-16	39,200	243	5,393	3,904,000	39,200	232	5,097	3,690,000
1939	878-30	21,400	159	3,758	2,721,000	-	-	-	-

Angelina River near Lufkin, Tex.
(Drainage area, 1,575 square miles)

1924	718-18	13,900	39	1,940	1,400,000	13,900	30	1,660	1,210,000
1925	608-32	642	14	148	107,000	21,900	14	906	656,000
1926	718-18	21,900	17	1,870	1,350,000	10,300	21	1,180	852,000
1927	648-17	10,700	21	1,220	879,000	10,700	22	1,190	861,000
1928	668-16	3,140	11	544	395,000	3,640	10	612	444,000
1929	688-16	8,160	10	1,050	765,000	8,160	15	1,020	740,000
1930	703-16	9,930	14	1,050	762,000	9,930	14	1,170	850,000
1931	718-18	4,260	12	1,080	781,000	6,560	7.5	1,120	808,000
1932	733-18	36,800	7.5	2,470	1,790,000	36,800	28	2,250	1,630,000
1933	748-17	7,100	32	1,160	838,000	7,100	45	1,160	837,000
1934	763-17	11,500	4.5	1,000	726,000	-	-	-	-

Angelina River at Horger, Tex.
(Drainage area, 3,435 square miles)

1929	688-17	33,300	48	3,050	2,200,000	33,300	36	3,190	2,310,000
1930	703-17	9,960	36	2,410	1,740,000	9,960	-	2,710	1,960,000
1931	718-21	9,370	47	2,550	1,840,000	10,000	35	2,440	1,760,000
1932	733-19	47,400	35	4,870	3,530,000	47,400	61	4,490	3,260,000
1933	748-18	14,000	61	2,880	2,080,000	14,000	147	2,840	2,060,000
1934	763-18	16,000	47	2,910	2,110,000	16,000	43	3,173	2,297,000
1935	788-20	28,700	43	3,497	2,532,000	28,700	94	3,706	2,683,000
1936	808-21	11,200	62	1,362	988,700	7,170	62	912	662,100
1937	828-16	9,840	13	1,886	1,365,000	9,840	13	2,028	1,468,000
1938	858-17	24,100	50	2,662	1,927,000	24,100	73	2,494	1,806,000
1939	878-32	11,600	42	1,701	1,231,000	-	-	-	-

TRINITY RIVER BASIN

West Fork of Trinity River at Bridgeport, Tex.
(Published as Trinity River at Bridgeport, 1909-16)
(Drainage area, 1,012 square miles)

1909	850-66	4,080	0	100	72,600	3,660	0	71.7	51,900
1911	850-66	8,240	0	152	110,000	8,240	0	171	124,000
1912	850-66	5,570	0	108	78,400	5,570	0	97.5	70,600
1913	850-66	3,220	0	74.6	53,900	9,080	0	231	167,000
1914	850-66	10,800	1.0	506	366,000	10,800	1.0	351	254,000
1915	408-12	19,500	1.1	540	391,000	19,500	0	548	397,000
1916	438-13	9,360	0	201	146,000	9,360	.5	202	147,000
1917	458-10	2,410	0	78.4	56,700	2,410	0	58.1	42,000
1918	478-6	5,620	0	104	75,100	5,620	0	199	144,000
1919	508-6	4,830	0	290	210,000	5,490	0	301	218,000
1920	508-6	11,600	.6	502	365,000	11,600	.6	462	336,000
1921	528-10	7,760	.5	147	107,000	7,760	.3	81.5	58,900
1922	548-12	9,560	0	224	162,000	9,560	0	234	169,000
1923	568-10	13,800	0	296	214,000	13,800	0	464	336,000
1924	588-35	9,460	0	228	165,000	3,300	0	50.2	36,500
1925	608-38	2,620	0	75.4	54,600	2,620	0	82.6	59,800
1926	628-25	4,060	0	181	131,000	4,060	0	241	174,000

Summary of yearly discharge, in second-feet, at stations in Trinity River Basin--Continued

West Fork of Trinity River at Bridgeport, Tex.--Continued
(Drainage area, 1,012 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1927	648-19	5,600	0	283	205,000	5,600	0	238	172,000
1928	668-18	2,920	0	136	99,200	2,920	0	132	96,000
1929	688-18	4,810	0	144	104,000	4,810	0	135	97,600

West Fork of Trinity River at Lake Worth Dam, above Fort Worth, Tex.
(Drainage area, 1,872 square miles)

1924	586-37	8,110	0	434	315,000	3,080	0	144	105,000
1925	608-40	2,800	0	64.6	46,700	2,800	0	72.4	52,400
1926	628-27	3,910	0	329	238,000	3,910	0	393	284,000
1927	648-20	6,510	0	457	330,000	6,510	0	420	304,000
1928	668-19	3,140	0	266	194,000	3,140	0	255	185,000
1929	688-19	6,410	0	264	191,000	6,410	0	245	177,000
1930	703-18	6,190	0	232	168,000	6,190	0	412	299,000
1931	718-22	4,560	0	335	243,000	4,180	0	260	189,000
1932	733-20	4,680	0	688	500,000	4,680	0	599	436,000
1933	748-19	3,140	0	370	268,000	3,140	0	361	261,000
1934	763-19	406	0	39.6	28,700	-	-	-	-

West Fork of Trinity River at Fort Worth, Tex.
(Drainage area, 2,431 square miles)

1921	528-12	6,030	1.9	421	305,000	6,030	1.4	312	226,000
1922	548-13	47,300	1.4	708	513,000	47,300	2.8	709	513,000
1923	568-11	13,700	.9	446	323,000	13,700	.9	706	512,000
1924	588-38	6,480	0	508	369,000	4,240	0	247	179,000
1925	608-41	5,350	0	104	75,400	5,350	0	116	84,200
1926	628-28	-	-	395	286,000	-	-	461	334,000
1927	648-21	4,540	-	456	331,000	4,540	-	419	304,000
1928	668-20	-	-	340	247,000	-	0	334	243,000
1929	688-20	-	0	363	263,000	-	0	331	240,000
1930	703-19	11,300	0	274	198,000	11,300	0	464	336,000
1931	718-23	4,000	0	396	287,000	4,000	0	314	227,000
1932	733-21	10,900	0	877	636,000	10,900	2.3	793	575,000
1933	748-20	3,100	0.1	471	341,000	3,100	.1	455	329,000
1934	763-20	1,040	0	64.1	46,400	1,040	0	51.6	37,360
1935	788-21	12,400	.1	394	285,000	12,400	.1	420	304,400
1936	808-22	7,770	0	222	161,400	7,770	0	348	252,900
1937	828-17	1,980	0	254	183,800	1,500	0	132	95,440
1938	858-18	6,950	0	438	317,400	6,950	.1	426	308,300
1939	878-37	1,610	0	82.2	59,500	-	-	-	-

West Fork of Trinity River at Grand Prairie, Tex.
(Drainage area, 2,886 square miles)

*1925	628-29	-	4.5	-	-	-	4.5	-	-
1926	628-29	5,330	12	430	312,000	5,330	12	472	342,000
1927	648-22	4,920	8.6	460	333,000	4,920	8.6	450	326,000
1928	668-21	6,190	16	421	305,000	7,780	16	438	318,000
1929	688-21	7,780	12	479	346,000	6,890	12	408	295,000
1930	703-20	13,600	11	356	258,000	13,600	11	566	410,000
1931	718-24	4,620	8.0	461	334,000	3,960	8.0	356	258,000
1932	733-22	13,400	8.9	1,120	811,000	13,400	24	1,060	767,000
1933	748-21	6,120	27	636	461,000	6,120	19	602	436,000
1934	763-21	1,750	16	111	80,800	1,750	16	98.8	71,550
1935	788-22	11,500	21	521	377,200	11,500	21	550	398,500
1936	808-23	6,840	17	264	192,000	6,840	17	397	287,800
1937	828-18	3,100	12	313	226,800	3,010	12	204	148,000
1938	858-19	10,900	14	598	432,900	10,900	14	560	405,400
1939	878-38	-	10	111	80,310	-	-	-	-

*Year incomplete.

Trinity River at Dallas, Tex.
(Drainage area, 6,001 square miles)

1904	850-69	7,560	9	549	398,000	7,560	9	448	325,000
1905	850-69	20,800	13	1,430	1,040,000	20,800	16	1,700	1,230,000
1906	850-69	21,400	50	1,910	1,380,000	21,400	125	1,680	1,220,000
1907	850-69	10,200	15	814	590,000	10,200	15	1,080	782,000
1908	850-69	152,000	15	4,100	2,970,000	152,000	73	3,940	2,850,000
1909	850-69	8,220	-	224	162,000	-	-	145	105,000
1910	850-69	5,150	-	290	210,000	5,150	-	220	159,000
1911	850-69	-	-	190	138,000	-	-	236	171,000
1912	850-69	8,680	-	416	302,000	8,680	-	371	270,000
1913	850-69	-	-	139	101,000	43,100	-	1,120	808,000
1914	850-69	43,100	30	2,410	1,580,000	-	30	1,650	1,200,000
1915	850-69	38,200	40	2,450	1,770,000	38,200	71	2,390	1,730,000
1916	850-69	53,200	-	2,070	1,500,000	53,200	-	1,910	1,390,000
1917	850-69	7,890	-	304	220,000	7,890	10	299	216,000
1918	850-69	-	-	395	286,000	43,100	-	1,340	966,000
1919	850-69	43,100	-	2,570	1,860,000	32,200	33	2,770	2,000,000
1920	850-69	51,800	113	4,170	3,020,000	51,800	145	3,460	2,510,000
1921	528-14	17,200	20	1,620	1,170,000	17,200	20	1,200	866,000
1922	548-16	72,100	20	1,880	1,360,000	72,100	10	1,880	1,370,000
1923	568-13	37,600	10	917	664,000	42,400	15	1,690	1,220,000
1924	588-40	42,400	9.2	1,640	1,190,000	16,800	9.2	854	620,000
1925	608-44	17,200	8.2	380	275,000	17,200	8.2	452	327,000

Summary of yearly discharge, in second-feet, at stations in Trinity River Basin--Continued

Trinity River at Dallas, Tex.--Continued
(Drainage area, 6,001 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1926	628-31	11,100	15	1,400	1,010,000	11,100	27	1,490	1,080,000
1927	648-23	13,200	23	1,590	1,150,000	13,200	23	1,670	1,210,000
1928	668-22	10,900	17	941	684,000	32,800	17	987	716,000
1929	688-22	32,800	17	1,580	1,140,000	19,200	17	1,410	1,020,000
1930	703-21	32,800	17	1,010	729,000	32,800	23	1,320	953,000
*1931	718-25	8,980	57	1,120	812,000	8,380	62	859	622,000
*1932	733-23	41,400	71	2,780	2,020,000	41,400	86	2,770	2,010,000
1933	748-22	16,400	125	1,470	1,060,000	16,400	96	1,370	993,000
1934	763-22	8,800	22	440	318,000	8,800	22	401	290,200
1935	788-23	75,100	16	1,958	1,417,000	75,100	16	2,209	1,599,000
1936	808-24	22,800	25	789	573,000	22,800	25	1,008	731,400
1937	828-19	14,800	56	1,042	754,500	6,490	56	719	520,800
1938	858-20	60,900	54	2,260	1,636,000	60,900	18	2,114	1,530,000
1939	878-39	9,770	18	269	194,000	-	-	-	-

*Records collected at site 6 miles downstream; drainage area, 6,040 square miles.

Trinity River near Oakwood, Tex.
(Drainage area, 12,840 square miles)

1905	850-70	-	-	-	-	45,700	4.4	8,240	5,970,000
1906	850-70	26,800	4.4	5,790	4,180,000	28,600	50	5,510	3,990,000
1908	850-70	129,000	12	12,100	8,780,000	129,000	12	10,700	7,780,000
1909	850-70	7,460	0	414	301,000	3,590	0	269	195,000
1910	850-70	13,000	0	840	611,000	13,000	0	749	543,000
1911	850-70	7,920	0	594	427,000	7,920	0	747	504,000
1912	850-70	13,000	0	1,310	951,000	13,000	0	1,210	877,000
1913	850-70	10,300	0	529	387,000	124,000	0	4,300	3,110,000
1915	850-70	-	-	-	-	95,600	75	8,870	6,420,000
1916	850-70	72,600	35	5,640	4,030,000	72,600	22	5,280	3,830,000
1917	850-70	11,100	22	688	499,000	11,100	28	681	492,000
1921	850-70	-	-	-	-	33,800	9.8	3,960	2,870,000
1922	850-70	67,100	9.8	6,830	4,970,000	67,100	17	6,870	4,970,000
1923	850-70	35,300	12	2,390	1,720,000	50,800	12	4,280	3,100,000
1924	588-43	50,800	7.8	5,850	4,250,000	-	7.8	3,950	2,870,000
1925	608-47	13,000	-	657	476,000	13,200	28	1,090	786,000
1926	628-33	20,500	62	5,100	3,690,000	20,500	58	5,370	3,890,000
1927	648-24	29,200	58	5,540	4,010,000	29,200	86	5,320	3,850,000
1928	668-23	16,800	80	3,000	2,180,000	20,300	62	3,220	2,330,000
1929	688-23	68,000	62	5,580	4,040,000	68,000	86	5,390	3,900,000
1930	703-22	81,000	50	4,890	3,540,000	81,000	50	5,460	3,950,000
1931	718-26	18,700	50	3,260	2,360,000	13,600	50	2,400	1,740,000
1932	733-24	57,600	62	8,850	6,430,000	57,600	117	8,860	6,440,000
1933	748-23	16,900	205	3,610	2,620,000	16,900	157	3,460	2,510,000
1934	763-23	24,200	22	2,350	1,700,000	24,200	22	2,418	1,750,000
1935	788-24	48,400	79	5,821	4,214,000	48,400	208	6,646	4,811,000
1936	808-25	21,300	61	2,121	1,540,000	39,600	61	3,120	2,265,000
1937	828-20	39,600	92	4,370	3,164,000	16,700	76	2,930	2,121,000
1938	858-21	61,700	76	7,562	5,474,000	61,700	102	7,068	5,117,000
1939	878-41	16,200	86	1,520	1,101,000	-	-	-	-

Trinity River at Riverside, Tex.
(Drainage area, 15,510 square miles)

1903	99-322	-	-	-	-	27,300	225	6,900	4,980,000
1904	132-25	17,600	170	3,420	2,480,000	17,600	160	2,940	2,120,000
1905	174-17	38,500	160	*9,670	7,010,000	38,500	360	10,800	7,840,000
1906	210-33	22,800	360	*7,680	5,560,000	22,800	386	7,200	5,200,000
1924	588-44	58,200	180	9,120	6,610,000	58,200	130	6,950	5,020,000
1925	608-48	12,800	70	782	566,000	54,100	70	2,250	1,630,000
1926	628-35	63,300	115	8,630	6,250,000	63,300	210	8,270	5,990,000
1927	648-25	47,800	170	7,530	5,450,000	47,800	170	7,080	5,120,000
1928	668-24	18,100	115	4,040	2,930,000	18,100	85	3,980	2,890,000
1929	688-23	75,800	85	8,070	5,840,000	75,800	190	8,010	5,800,000
1930	703-23	75,200	130	6,370	4,610,000	75,200	130	7,210	5,220,000
1931	718-27	28,000	70	4,920	3,560,000	28,000	70	3,990	2,890,000
1932	733-25	56,000	70	10,900	7,910,000	56,000	300	10,700	7,730,000
1933	748-24	21,700	300	4,770	3,450,000	21,700	295	4,670	3,380,000
1934	763-24	46,400	90	4,450	3,220,000	46,400	90	4,684	3,392,000
1935	788-25	60,700	92	9,102	6,590,000	60,700	620	10,220	7,398,000
1936	808-26	34,700	100	3,430	2,490,000	25,300	100	3,963	2,877,000
1937	828-21	25,300	110	5,216	3,776,000	20,400	110	3,787	2,742,000
1938	858-22	44,700	149	8,902	6,444,000	44,700	140	8,385	6,070,000
1939	878-43	23,700	140	2,496	1,807,000	-	-	-	-

*Erroneous figure published in Water-Supply Paper 850, p. 71.

Trinity River at Romayor, Tex.
(Drainage area, 17,190 square miles)

1925	608-50	11,700	132	913	660,000	45,600	132	2,860	2,070,000
1926	628-36	46,600	200	9,790	7,090,000	46,600	415	8,900	6,440,000
1927	648-26	40,600	390	8,130	5,880,000	40,600	390	7,840	5,670,000
1928	668-25	17,400	240	4,540	3,300,000	-	-	4,450	3,230,000
1929	688-24	66,800	-	9,570	6,930,000	66,800	400	9,510	6,880,000
1930	703-24	57,700	245	6,780	4,910,000	57,700	245	7,800	5,650,000
1931	718-28	24,600	195	5,840	4,220,000	24,600	-	4,820	3,490,000
1932	733-26	50,800	-	11,400	8,290,000	50,800	525	11,000	7,980,000
1933	748-25	30,900	525	5,300	3,840,000	30,900	405	5,190	3,750,000

Summary of yearly discharge, in second-feet, at stations in Trinity River Basin--Continued

Trinity River at Romayor, Tex.--Continued
(Drainage area, 17,190 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1934	763-25	44,100	180	4,730	3,430,000	44,100	180	5,219	3,779,000
1935	788-26	61,600	257	10,700	7,748,000	61,600	755	11,970	8,667,000
1936	808-27	46,600	295	4,174	3,030,000	25,000	295	4,192	3,044,000
1937	828-22	23,000	245	5,388	3,901,000	21,600	245	4,128	2,989,000
1938	858-23	41,300	245	9,328	6,753,000	41,300	353	8,808	6,376,000
1939	878-44	30,400	230	2,991	2,165,000	-	-	-	-

Clear Fork of Trinity River at Fort Worth, Tex.
(Drainage area, 522 square miles)

1925	608-51	6,720	0	51.8	37,500	6,720	0	56.1	40,600
1926	628-37	2,330	0	55.9	40,500	2,330	0	53.0	38,400
1927	648-27	-	0	35.7	25,800	-	0	37.9	27,400
1928	668-26	-	0	61.8	44,800	-	0	71.1	51,600
1929	688-25	4,560	0	93.6	67,800	4,560	0	80.9	58,600
1930	703-25	9,780	0	43.2	31,200	9,780	0	56.8	41,100
1931	718-29	1,580	0	59.3	42,900	1,580	0	45.3	32,800
1932	733-27	7,420	0	188	137,000	7,420	0	197	143,000
1933	748-26	1,730	0	86.8	62,800	1,730	0	78.7	57,000
1934	763-26	532	0	16.2	11,700	532	0	16.1	11,630
1935	788-27	12,900	0	138	99,960	12,900	0	144	104,000
1936	808-28	7,760	0	55.0	39,960	7,760	0	69.0	50,090
1937	828-24	1,140	0	56.7	41,030	875	0	50.5	36,570
1938	858-25	6,650	0	181	131,300	6,650	0	168	121,400
1939	878-47	1,210	0	18.2	13,200	-	-	-	-

Elm Fork of Trinity River near Carrollton, Tex.
(Drainage area, 2,612 square miles)

*1924	788-28	-	-	-	-	12,200	0	459	332,000
*1925	608-56	11,100	0	163	118,000	11,100	0	210	152,000
*1926	628-44	8,660	0	771	559,000	8,660	0	814	590,000
*1927	648-30	10,400	0	939	680,000	10,400	0	996	721,000
*1928	668-28	4,610	-	400	290,000	8,940	-	318	231,000
*1929	688-27	17,600	-	664	481,000	17,600	8.0	708	512,000
*1930	703-27	8,100	-	400	290,000	8,100	-	493	357,000
*1931	718-31	6,730	17	597	432,000	5,760	17	446	323,000
*1932	733-29	27,200	19	1,360	986,000	27,200	19	1,390	1,010,000
*1933	748-28	9,610	85	657	475,000	9,610	79	621	449,000
*1934	763-27	5,800	64	268	194,000	5,800	64	246	177,900
*1935	788-28	71,400	50	1,307	946,700	71,400	50	1,515	1,097,000
*1936	808-29	14,800	67	519	377,000	14,800	84	581	421,600
*1937	828-25	9,970	93	653	472,900	3,920	64	422	305,700
1938	858-26	49,400	64	1,258	911,100	-	-	-	-

*Records collected at site 9.3 miles upstream, at Carrollton Dam; drainage area of 2,535 sq. mi.

Elm Fork of Trinity River near Dallas, Tex.
(Drainage area, 2,655 square miles)

1907	850-75	-	-	-	-	10,400	0	697	504,000
1908	850-75	-	0	2,300	1,670,000	-	5.0	2,240	1,630,000
1909	850-75	10,500	0	163	119,000	2,090	0	44.8	32,900
1910	850-75	4,880	0	71.8	52,000	-	0	54.0	39,100
1911	850-75	5,310	0	69.8	50,500	5,310	0	87.5	63,300
1912	850-75	9,600	0	312	227,000	9,600	0	296	215,000
1913	850-75	3,270	0	61.4	44,400	-	0	506	366,000
1914	850-75	-	0	1,200	872,000	-	0	844	611,000
1915	850-75	-	0	1,220	886,000	-	0	1,240	897,000
1916	850-75	-	0	1,160	842,000	-	0	1,060	771,000
1917	850-75	6,460	0	186	135,000	6,460	0	183	133,000
1918	850-75	8,570	0	221	161,000	-	0	704	510,000
1919	850-75	-	0	1,380	997,000	-	5.0	1,480	1,070,000
1920	850-75	-	18	2,130	1,540,000	-	18	1,800	1,300,000
1921	528-16	15,800	0	998	723,000	15,800	0	738	536,000
1922	548-18	-	0	859	622,000	-	0	869	629,000
1925	608-57	-	0	165	119,000	-	0	206	149,000
1926	628-45	9,530	0	750	543,000	9,530	0	800	579,000
1927	648-31	10,500	0	961	695,000	10,500	0	1,010	734,000
1928	668-29	-	0	419	304,000	-	0	392	285,000

East Fork of Trinity River near Rockwall, Tex.
(Drainage area, 831 square miles)

1924	588-54	7,050	0	341	250,000	6,090	0	253	183,000
1925	608-60	2,640	0	60.7	43,900	2,640	0	63.2	45,700
1926	628-49	16,600	0	539	390,000	16,600	0	639	463,000
1927	648-33	12,800	.2	702	509,000	12,800	.2	655	474,000
1928	668-31	13,200	0	399	290,000	13,200	0	448	326,000
1929	688-28	12,400	0	612	443,000	12,400	0	512	370,000
1930	703-28	5,530	0	192	139,000	5,530	0	210	152,000
1931	718-32	3,050	0	154	112,000	3,050	0	137	99,100
1932	733-30	33,500	0	715	518,000	33,500	1.1	774	562,000
1933	748-29	8,480	0	405	293,000	8,480	0	345	250,000
1934	763-28	6,850	0	218	158,000	6,850	0	214	155,100
1935	788-29	52,000	0	623	450,800	52,000	0	720	521,600
1936	808-30	5,460	0	153	110,800	3,710	0	137	99,720
1937	828-26	7,090	0	304	220,100	7,090	0	287	207,900
1938	858-27	45,700	0	817	591,500	45,700	0	749	542,300
1939	878-48	16,300	0	223	161,500	-	-	-	-

Summary of yearly discharge, in second-feet, at stations in SAN JACINTO RIVER BASIN

West Fork of San Jacinto River near Humble, Tex.
(Published as San Jacinto River near Humble, Tex., 1929-37)
(Drainage area, 1,811 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1929	688-29	-	-	-	-	94,900	42	2,010	1,460,000
1930	703-29	10,700	25	794	576,000	10,700	25	839	608,000
1931	718-33	8,720	14	956	692,000	8,720	14	856	620,000
1932	733-31	17,400	18	956	695,000	17,400	33	882	640,000
1933	748-30	8,240	30	357	259,000	8,240	30	346	251,000
1934	763-29	23,000	21	960	695,000	23,000	21	1,111	804,600
1935	788-30	62,500	28	1,758	1,273,000	62,500	41	2,250	1,629,000
1936	808-31	44,800	41	1,412	1,025,000	17,800	26	816	592,600
1937	828-27	6,310	23	461	333,400	6,310	23	535	387,100
1938	858-28	9,340	27	680	491,900	9,340	26	571	413,600
1939	878-52	9,340	18	441	319,500	-	-	-	-

BRAZOS RIVER BASIN

Double Mountain Fork of Brazos River near Aspermont, Tex.
(Drainage area, 7,980 square miles of which 6,470 square miles probably noncontributing)

1924	588-57	-	-	-	-	-	0	35.6	25,800
1925	608-65	6,210	0	173	125,000	6,210	0	180	130,000
1926	628-52	10,200	-	201	146,000	24,700	-	435	315,000
1927	648-35	24,700	0	331	239,000	3,380	0	89.3	64,600
1928	668-32	6,920	0	167	121,000	6,920	0	165	120,000
1929	688-30	6,300	0	156	113,000	6,300	0	156	113,000
1930	703-30	22,800	0	210	152,000	22,800	0	243	176,000
1931	718-34	3,400	0	52.6	38,100	2,170	0	57.8	41,900
1932	733-32	-	0	324	235,000	-	0	313	227,000
1933	748-41	4,950	0	109	78,900	4,950	0	84.2	60,900
1934	763-30	4,430	0	64.9	47,000	-	-	-	-

Brazos River at Seymour, Tex.
(Drainage area, 14,490 square miles of which about 9,240 square miles probably noncontributing)

1924	808-34	-	-	-	-	13,200	0	213	154,200
1925	808-34	32,800	0	640	463,400	32,800	0	662	479,000
1926	808-34	37,100	0	721	522,000	62,600	0	1,123	813,200
1927	808-34	62,600	0	574	415,700	6,120	0	143	103,800
1928	808-34	13,600	0	344	249,900	13,600	0	344	249,200
1929	808-34	44,800	0	390	282,300	44,800	0	402	291,000
1930	703-30	41,900	0	616	446,000	41,900	0	865	627,000
1931	718-35	14,300	0	318	230,000	8,540	0	195	141,000
1932	733-33	39,800	0	882	640,000	39,800	0	807	586,000
1933	748-31	12,100	.3	310	225,000	12,100	.3	259	188,000
1934	763-30	4,140	0	84.8	61,400	6,310	0	139	100,800
1935	788-31	32,600	0	814	589,300	32,600	0	783	566,800
1936	808-34	31,200	.3	545	395,400	31,200	-	526	382,200
1937	828-32	27,300	0	227	164,500	27,300	0	217	157,300
1938	858-32	16,800	0	412	298,100	16,800	0	405	293,200
1939	878-57	14,200	0	242	175,200	-	-	-	-

Brazos River near Glen Rose, Tex.
(Drainage area, 24,840 square miles of which about 9,240 square miles is probably noncontributing)

1924	588-62	34,500	0	2,060	1,500,000	14,700	0	877	637,000
1925	608-69	40,200	-	1,360	987,000	40,200	-	1,550	1,120,000
1926	628-57	28,000	10	1,910	1,380,000	32,400	10	2,450	1,770,000
1927	648-38	32,400	41	1,510	1,090,000	15,100	18	904	654,000
1928	668-34	24,700	18	1,620	1,170,000	24,700	.8	1,560	1,130,000
1929	688-33	37,200	.8	1,250	902,000	37,200	.8	1,280	927,000
1930	703-32	63,100	1.5	1,640	1,190,000	63,100	1.5	2,560	1,850,000
1931	718-37	26,300	0	1,480	1,070,000	19,400	0	1,040	750,000
1932	733,35	46,700	0	3,350	2,430,000	46,700	90	3,000	2,180,000
1933	748-34	34,000	25	1,200	867,000	34,000	25	1,020	736,000
1934	763-31	4,170	0	339	245,000	9,780	0	394	285,500
1935	788-34	67,400	.8	2,768	2,004,000	67,400	39	2,778	2,011,000
1936	808-38	58,300	0	1,601	1,162,000	58,300	0	1,949	1,415,000
1937	828-34	24,700	8.0	884	640,300	13,300	8.0	552	399,600
1938	858-34	40,400	26	1,824	1,321,000	40,400	6.0	1,697	1,228,000
1939	878-60	20,400	1.0	759	549,700	-	-	-	-

Brazos River at Waco, Tex.
(Drainage area, 28,500 square miles of which about 9,240 square miles is probably noncontributing)

1899	*75-150	99,500	15	2,160	1,560,000	99,500	15	2,900	2,100,000
1900	*75-150	69,800	28	4,780	3,460,000	69,800	280	4,570	3,310,000
1901	*75-150	22,600	58	1,330	961,000	22,600	58	795	575,000
1902	*84-143	106,000	22	2,420	1,750,000	106,000	22	2,990	2,160,000
1903	*99-325	43,600	76	2,270	1,640,000	43,600	76	2,010	1,460,000
1904	*132-28	22,400	76	1,320	955,000	17,600	76	1,160	842,000
1905	*174-19	85,800	143	3,720	2,690,000	85,800	143	3,780	2,730,000
1906	210-34	40,900	266	2,350	1,700,000	40,900	284	2,350	1,700,000
1907	*288-20	13,500	184	1,440	1,040,000	22,600	184	1,880	1,360,000
1908	*288-20	132,000	120	4,970	3,610,000	132,000	26	4,340	3,150,000
1909	*288-20	23,500	8	665	481,000	29,200	8	866	627,000
1910	*288-20	29,200	8	836	606,000	25,700	3	582	421,000
1911	308-14	35,400	3	1,030	743,000	35,400	4	1,210	876,000
1912	850-81	24,900	0	905	657,000	24,900	0	788	573,000
1913	850-81	19,000	0	960	695,000	126,000	0	3,720	2,690,000

*Revised figures superseding those published in water-supply papers indicated; revised figures of monthly and yearly mean discharge published in Water-Supply Paper 850, p. 81.

Summary of yearly discharge, in second-feet, at stations in Brazos River Basin--Continued

Brazos River at Waco, Tex.--Continued
(Drainage area, 28,500 square miles of which about 9,240 square miles is probably noncontributing)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1914	850-81	126,000	150	7,200	5,220,000	81,100	150	4,890	3,540,000
1915	408-15	93,500	250	5,530	4,000,000	93,500	250	5,330	3,860,000
1916	438-18	97,800	119	2,610	1,890,000	97,800	101	2,430	1,770,000
1917	458-16	13,900	49	572	413,000	4,590	9.6	419	304,000
1918	478-11	16,300	0	1,020	740,000	99,800	0	2,840	2,060,000
1919	508-12	99,800	75	6,150	4,450,000	-	381	6,580	4,760,000
1920	508-12	64,400	475	6,580	4,780,000	45,500	450	4,870	3,530,000
1921	528-18	29,800	91	1,900	1,370,000	29,800	59	1,370	990,000
1922	548-19	117,000	50	4,040	2,930,000	117,000	50	4,050	2,940,000
1923	568-18	66,900	-	1,520	1,100,000	66,900	-	2,670	1,930,000
1924	588-63	41,900	-	2,720	1,970,000	16,400	-	1,580	1,150,000
1925	608-70	47,600	24	1,460	1,060,000	47,600	24	1,750	1,270,000
1926	628-58	39,000	101	2,880	2,080,000	39,000	111	3,190	2,310,000
1927	648-39	60,800	94	2,430	1,760,000	60,800	62	2,000	1,450,000
1928	668-35	24,500	46	2,030	1,480,000	24,500	-	1,890	1,380,000
1929	688-34	45,700	6.1	1,800	1,300,000	45,700	6.1	1,840	1,330,000
1930	703-33	48,300	28	2,170	1,570,000	48,300	28	3,390	2,460,000
1931	718-38	41,800	14	2,580	1,870,000	16,700	12	1,840	1,340,000
1932	733-36	54,600	12	4,640	3,370,000	54,600	249	4,270	3,100,000
1933	748-35	29,200	52	1,730	1,250,000	29,200	52	1,580	1,140,000
1934	763-32	32,200	8.0	962	697,000	32,200	8.0	1,032	747,400
1935	788-35	103,000	12	4,230	3,062,000	103,000	81	4,478	3,242,000
1936	808-39	158,000	36	2,744	1,991,000	158,000	36	3,376	2,451,000
1937	828-35	40,400	54	2,055	1,488,000	13,400	54	1,362	986,000
1938	858-35	75,300	77	3,691	2,672,000	75,300	56	3,357	2,431,000
1939	878-62	24,200	28	1,237	895,400	-	-	-	-

Brazos River near Bryan, Tex.
(Published as Brazos River near College Station, Tex., 1919-25)
(Drainage area, 38,430 square miles of which about 9,240 square miles is probably noncontributing)

*1919	508-15	66,200	272	10,500	7,580,000	70,000	1,270	13,400	9,720,000
*1920	508-15	70,000	1,080	13,100	9,500,000	52,300	1,080	8,830	6,420,000
*1921	528-20	†172,000	215	6,300	*4,560,000	172,000	215	5,400	3,910,000
*1922	548-22	121,000	-	9,810	7,100,000	121,000	340	9,700	7,030,000
*1923	568-20	52,800	112	2,770	2,000,000	69,900	112	4,980	3,610,000
*1924	588-65	69,900	-	6,220	4,520,000	42,900	260	4,000	2,900,000
*1925	608-72	40,000	160	1,670	1,210,000	40,000	160	2,720	1,970,000
1927	648-40	-	328	4,380	3,170,000	-	328	4,240	3,070,000
1928	668-36	36,000	197	3,340	2,420,000	29,000	113	2,820	2,040,000
1929	688-35	-	113	4,230	3,060,000	-	155	4,350	3,150,000
1930	703-34	-	101	4,670	3,380,000	-	101	6,650	4,820,000
1931	718-39	-	145	5,550	4,020,000	31,100	134	3,910	2,830,000
1932	733-37	71,800	134	7,560	5,490,000	71,800	570	7,270	5,270,000
1933	748-36	40,200	346	2,880	2,090,000	40,200	270	2,640	1,910,000
1934	763-34	74,400	89	2,540	1,840,000	74,400	89	2,732	1,978,000
1935	788-36	129,000	113	6,961	5,040,000	129,000	244	8,046	5,826,000
1936	808-40	105,000	336	5,634	4,090,000	128,000	336	7,387	5,363,000
1937	828-36	128,000	400	6,094	4,412,000	29,200	373	3,801	2,752,000
1938	858-36	93,300	373	8,041	5,822,000	93,300	301	7,265	5,260,000
1939	878-64	49,200	170	2,220	1,607,000	-	-	-	-

*Records collected at site 7½ miles downstream from present site; drainage area, 38,500 square miles.
†Not previously published.

Brazos River at Richmond, Tex.
(Published as Brazos River at Rosenberg, Tex., 1923-31)
(Drainage area, 44,050 square miles of which about 9,240 square miles is probably noncontributing)

1903	99-329	-	-	-	-	66,600	945	8,600	6,210,000
1904	132-32	47,600	820	3,710	2,690,000	47,600	820	3,380	2,460,000
1905	174-21	65,600	820	12,200	8,850,000	65,600	1,160	12,500	9,100,000
*1923	568-22	54,800	530	5,150	3,720,000	64,800	530	8,690	6,290,000
*1924	588-66	64,800	605	11,500	8,350,000	53,000	605	7,880	5,720,000
*1925	608-74	24,200	306	1,710	1,240,000	58,400	306	4,530	3,270,000
*1926	628-61	86,200	1,160	12,100	8,760,000	86,200	1,220	10,800	7,840,000
*1927	648-41	42,500	725	7,680	5,560,000	42,500	725	6,960	5,040,000
*1928	668-37	-	-	4,580	3,320,000	-	331	3,950	2,860,000
*1929	688-36	123,000	250	8,290	6,000,000	123,000	250	8,880	6,430,000
*1930	703-35	77,800	707	7,210	5,220,000	77,800	707	9,040	6,540,000
*1931	718-41	50,500	-	7,800	5,640,000	33,000	392	5,650	4,080,000
1932	733-38	80,500	392	11,100	8,040,000	80,500	890	10,800	7,870,000
1933	748-37	35,700	384	3,540	2,560,000	35,700	384	3,270	2,370,000
1934	763-34	71,000	35	4,660	3,370,000	71,000	35	5,046	3,653,000
1935	788-37	90,900	311	10,130	7,334,000	90,900	1,120	12,070	8,739,000
1936	808-41	74,400	835	8,308	6,032,000	76,100	835	9,503	6,898,000
1937	828-37	76,100	483	7,467	5,406,000	28,800	483	4,821	3,490,000
1938	858-37	68,100	510	9,950	7,204,000	68,100	573	9,049	6,552,000
1939	878-67	41,600	375	2,716	1,966,000	-	-	-	-

*Records collected at site 7.6 miles upstream from present site; drainage area, 44,000 square miles.

Note.- Low flow during irrigation seasons, 1932 to 1939, affected by diversion of Brazos Valley Irrigation Co.'s canal near Fulshear and Richmond Irrigation Co.'s canal near Richmond.

Summary of yearly discharge, in second-feet, at stations in Brazos River Basin--Continued

Clear Fork of Brazos River at Nugent, Tex.
(Drainage area, 2,220 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1925	608-76	4,780	0.2	93.1	67,300	4,780	0.2	106	76,400
1926	628-63	8,010	3.8	118	85,400	8,010	3.8	137	99,300
1927	648-42	5,060	.3	109	79,000	5,060	.3	76.9	55,700
1928	668-38	9,890	0	291	211,000	9,890	0	291	212,000
1929	688-37	4,280	0	114	82,800	4,280	0	128	92,900
1930	703-36	4,160	0	139	100,000	4,780	0	201	146,000
1931	718-42	4,780	0	102	73,900	6,780	0	121	87,300
1932	733-39	30,800	0	713	518,000	30,800	1.6	652	474,000
1933	748-38	2,920	8.9	117	84,600	2,920	6.4	96.4	69,800
1934	763-35	945	.2	32.3	23,400	1,990	.2	29.6	21,430
1935	788-38	11,000	1.1	327	236,400	11,000	4.8	321	232,600
1936	808-42	-	.3	146	105,800	-	.3	152	110,700
1937	828-38	-	0	40.7	29,460	1,290	0	34.0	24,600
1938	858-38	10,600	1.4	259	187,300	10,600	4.5	254	183,700
1939	878-69	6,190	1.7	104	75,090	-	-	-	-

Clear Fork of Brazos River at Fort Griffin, Tex.
(Drainage area, 3,974 square miles)

1924	588-71	-	-	-	-	3,860	2.1	139	101,000
1925	608-78	5,820	0.2	191	138,000	5,820	.2	216	156,000
1926	628-64	11,800	.7	258	187,000	11,800	.7	288	208,000
1927	648-43	4,340	0	146	105,000	4,340	0	93.8	67,800
1928	668-39	10,300	0	389	283,000	10,300	0	388	282,000
1929	688-38	5,370	0	206	149,000	5,370	0	219	158,000
1930	703-37	-	0	325	235,000	-	0	442	320,000
1931	718-43	-	0	175	127,000	8,630	0	181	131,000
1932	733-40	30,800	0	979	711,000	30,800	2.2	925	672,000
1933	748-39	6,630	-	220	159,000	6,630	-	152	110,000
1934	763-36	-	0	49.1	35,500	2,300	0	48.5	35,070
1935	788-39	18,200	0	581	421,000	18,200	.2	575	416,300
1936	808-43	12,100	0	228	165,500	12,100	0	253	183,600
1937	828-39	2,050	0	82.1	59,460	1,680	0	57.1	41,330
1938	858-39	13,600	0	410	296,900	13,600	.3	403	291,400
1939	878-70	9,080	0	206	149,100	-	-	-	-

Clear Fork of Brazos River near Crystal Falls, Tex.*

1929	688-40	9,220	0	286	207,000	9,220	0	323	233,000
1930	703-38	15,700	0	472	342,000	17,800	0	755	547,000
1931	718-44	17,800	0	423	306,000	14,800	0	450	326,000
1932	733-41	21,400	0	1,430	1,040,000	21,400	.7	1,170	852,000
1933	748-40	11,700	3.8	362	262,000	11,700	0	282	204,000
1934	763-37	3,770	0	88.1	63,800	3,770	0	81.0	58,630
1935	788-40	15,700	0	804	582,300	15,700	0	803	581,600
1936	808-44	17,200	0	383	278,000	17,200	0	438	317,800
1937	828-40	5,490	0	133	95,960	-	0	110	79,530
1938	858-40	10,500	0	617	446,600	10,500	0	572	413,900
1939	878-71	9,230	0	309	223,900	-	-	-	-

*At two sites in the vicinity of Crystal Falls: Drainage areas, 1929-32, 5,686 square miles; 1933-39, 5,658 square miles.

North Bosque River near Clifton, Tex.
(Drainage area, 974 square miles)

1924	788-41 850-87	7,540	1.2	165	120,100	7,540	1.2	135	97,990
1925	850-87	3,290	0	30.6	22,170	4,210	0	52.0	37,640
1926	850-87	6,360	.6	118	85,780	6,360	.9	97.2	70,570
1927	850-87	7,680	.2	64.3	46,520	7,680	.2	77.0	55,780
1928	850-87	6,020	.1	125	90,400	6,020	0	113	81,720
1929	850-87	20,200	0	146	105,600	20,200	0	143	103,500
1930	850-87	11,300	0	58.7	42,630	15,600	0	145	105,300
1931	850-87	15,600	2.7	255	184,700	4,800	1.7	181	130,900
1932	850-87	11,100	1.7	370	268,900	11,100	4.4	365	264,800
1933	850-87	11,300	2.6	147	106,100	11,300	2.3	157	113,500
1934	763-38	5,880	0	129	93,700	5,880	0	114	82,760
1935	788-41	26,500	0	272	197,100	26,500	1.0	342	247,900
1936	808-45	26,700	.4	301	218,200	26,700	.4	326	236,900
1937	828-41	7,320	3.7	240	173,700	5,210	3.1	227	164,100
1938	858-41	23,000	3.1	450	325,600	23,000	7.6	367	265,800
1939	878-73	7,330	.2	84.6	61,230	-	-	-	-

Leon River near Belton, Tex.
(Drainage area, 3,547 square miles)

1924	588-80	4,070	4.2	488	354,000	4,070	4.2	355	258,000
1925	608-92	3,790	0	66.3	48,000	12,900	0	174	126,000
1926	628-73	12,900	4.6	704	510,000	11,900	11	609	441,000
1927	648-48	9,930	11	396	286,000	15,600	11	482	349,000
1928	668-45	15,600	7.2	319	232,000	3,280	1.0	226	164,000
1929	688-44	7,200	0	288	209,000	7,200	0	285	206,000
1930	703-43	7,370	.5	216	156,000	15,200	.5	466	337,000
1931	718-47	15,200	4.3	712	516,000	4,730	2.0	507	368,000
1932	733-43	13,300	2.0	925	672,000	13,300	18	889	645,000
1933	748-42	7,080	6.0	293	212,000	7,080	5.2	285	206,000
1934	763-40	11.200	0	267	194,000	11,200	0	289	209,500

Summary of yearly discharge, in second-feet, at stations in Brazos River Basin--Continued

Leon River near Belton, Tex.--Continued
(Drainage area, 3,547 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1935	788-46	16,700	0	813	588,400	16,700	4.6	1,020	738,500
1936	808-47	39,300	24	1,008	731,900	39,300	24	1,329	964,800
1937	828-42	8,970	29	1,114	806,400	4,570	24	679	491,800
1938	858-42	14,500	24	1,361	985,500	14,500	50	1,254	908,000
1939	878-74	7,660	7.0	289	209,100	-	-	-	-

Little River at Cameron, Tex.
(Drainage area, 7,034 square miles)

1917	458-21	-	-	-	-	5,190	7.0	162	117,000
1918	718-48	15,900	4.2	366	265,000	15,900	4.2	923	669,000
1919	718-48	15,200	24	2,960	2,140,000	23,100	444	3,780	2,740,000
1920	718-48	23,600	472	3,700	2,680,000	23,600	472	2,660	1,930,000
1921	718-48	-	112	2,940	2,120,000	-	112	2,710	1,960,000
1922	718-48	88,000	122	3,100	2,240,000	88,000	110	3,030	2,190,000
1923	568-25	21,500	29	797	557,000	26,300	29	1,340	967,000
1924	588-84	26,300	120	2,010	1,460,000	15,500	97	1,460	1,060,000
1925	608-95	3,730	11	178	129,000	18,400	11	619	448,000
1926	628-77	54,400	77	2,560	1,850,000	54,400	115	2,190	1,580,000
1927	648-50	13,100	83	1,380	997,000	16,200	83	1,590	1,150,000
1928	668-47	16,200	46	804	584,000	10,900	32	514	373,000
1929	688-46	122,000	32	1,440	1,040,000	122,000	78	1,480	1,070,000
1930	703-44	47,900	71	1,120	809,000	47,900	71	1,570	1,140,000
1931	718-48	16,600	52	1,790	1,290,000	11,500	48	1,330	964,000
1932	733-44	17,800	48	1,770	1,280,000	17,800	118	1,760	1,280,000
1933	748-43	8,540	55	652	472,000	8,540	36	622	451,000
1934	763-41	30,700	15	915	662,000	30,700	13	1,004	726,700
1935	788-47	70,800	13	2,361	1,709,000	70,800	65	2,823	2,043,000
1936	808-48	80,000	163	2,871	2,084,000	80,000	163	3,527	2,560,000
1937	828-43	25,800	107	2,639	1,910,000	10,100	91	1,774	1,284,000
1938	858-43	40,200	91	3,228	2,337,000	40,200	152	2,911	2,107,000
1939	878-75	11,800	34	487	352,400	-	-	-	-

Lampasas River at Youngsport, Tex.
(Drainage area, 1,242 square miles)

1925	608-98	1,400	0	28.5	20,600	13,000	0	112	81,200
1926	788-48	13,000	4.8	379	274,000	10,800	4.8	314	227,000
1927	648-51	4,790	6.2	209	152,000	13,500	6.2	248	180,000
1928	788-48	13,500	4.0	110	79,900	1,810	4.0	54.5	39,600
1929	688-47	7,410	.7	99.8	72,300	7,410	.7	97.8	70,900
1930	703-45	7,840	.4	78.9	57,100	11,400	.4	154	112,000
1931	788-48	11,400	4.6	338	245,000	2,490	6.1	265	192,000
1932	733-45	-	6.1	259	188,000	-	13	260	188,000
1933	748-44	7,600	9.2	96.2	69,600	7,600	6.8	95.0	68,700
1934	763-42	6,690	0	74.7	54,200	6,690	0	77.3	55,980
1935	788-48	20,800	.9	368	266,600	20,800	5.0	421	304,500
1936	808-49	25,600	25	594	431,400	25,600	25	759	550,900
1937	828-44	-	16	517	374,600	-	15	360	260,800
1938	858-44	18,400	15	747	541,000	18,400	30	690	499,500
1939	878-76	-	3.8	73.8	53,430	-	-	-	-

San Gabriel River at Circleville, Tex.
(Drainage area, 602 square miles)

1925	608-102	1,550	1.1	36.0	26,100	4,090	1.1	85.5	62,000
1926	668-49	8,150	4.0	312	226,000	8,150	14	274	198,000
1927	668-49	3,820	2.4	179	130,000	14,600	2.4	230	167,000
1928	668-49	14,600	2.4	115	83,200	1,440	2.4	50.3	36,500
1929	688-48	24,600	4.4	157	114,000	24,600	8.0	160	116,000
1930	703-46	19,100	4.4	163	118,000	19,100	4.4	202	146,000
1931	718-52	5,690	6.0	199	144,000	4,640	5.5	157	114,000
1932	733-46	3,240	4.4	87.4	63,400	3,240	4.4	88.6	64,300
1933	748-45	2,470	1.9	44.9	32,500	2,470	1.9	42.7	31,000
1934	763-43	3,230	.7	66.6	48,200	-	-	-	-

Yegua Creek near Somerville, Tex.
(Drainage area, 990 square miles)

1925	608-105	30	0	0.46	332	16,300	0	358	259,000
1926	628-83	21,900	.2	855	618,000	21,900	.2	591	427,000
1927	648-53	8,700	-	282	205,000	8,700	.2	190	138,000
1928	668-51	2,310	0	33.5	24,000	2,310	0	63.1	45,800
1929	688-49	29,500	0	418	302,000	29,500	0	431	311,000
1930	703-47	6,050	0	200	145,000	6,050	0	239	173,000
1931	718-53	6,450	0	378	273,000	6,450	0	301	218,000
1932	733-47	14,700	0	561	406,000	14,700	0	561	406,000
1933	748-46	4,400	0	158	114,000	4,400	0	151	110,000
1934	763-46	10,600	0	355	257,000	10,600	0	395	286,000
1935	788-55	7,930	0	381	275,800	7,930	0	383	277,200
1936	808-54	22,600	2.0	478	347,100	22,600	2.0	451	327,200
1937	828-46	1,090	0	68.8	49,810	2,610	0	124	89,430
1938	858-46	13,000	0	390	282,500	13,000	0	322	232,800
1939	878-78	1,250	0	48.3	34,990	-	-	-	-

Summary of yearly discharge, in second-feet, at stations in Brazos River Basin--Continued

Navasota River near Easterly, Tex.
(Drainage area, 949 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1925	608-106	2,540	0	24.3	17,600	9,240	0	166	120,000
1926	628-84	9,240	2.0	545	395,000	7,340	2.0	478	346,000
1927	648-54	9,060	.7	427	309,000	9,740	.7	457	331,000
1928	668-51	9,740	2.0	291	211,000	5,930	2.0	261	190,000
1929	688-50	21,300	.3	587	425,000	21,300	.3	548	397,000
1930	703-48	13,800	.1	378	273,000	13,800	.1	453	328,000
1931	718-54	4,000	.3	394	285,000	4,000	.3	291	210,000
1932	733-47	-	.3	841	611,000	-	-	839	609,000
1933	748-47	4,070	1.4	180	130,000	4,070	1.4	170	123,000
1934	763-47	13,600	.2	281	203,000	13,600	.2	308	223,300
1935	788-56	14,900	.4	625	452,200	33,600	1.2	942	682,000
1936	808-55	33,600	2.0	588	427,000	20,800	2.0	342	248,400
1937	828-47	7,050	.3	368	266,700	7,050	.3	309	223,900
1938	858-47	12,200	.7	314	227,500	12,200	.7	275	199,000
1939	878-79	1,620	.2	75.1	54,350	-	-	-	-

Brazos Valley Irrigation Co.'s canal near Fulshear, Tex.

1932	733-48	278	0	58.8	42,600	278	0	58.8	42,600
1933	748-48	249	0	32.0	23,200	249	0	32.0	23,200
1934	763-48	245	0	43.1	31,200	245	0	43.1	31,200
1935	788-57	168	0	23.0	16,680	168	0	23.0	16,680
1936	808-56	272	0	30.4	22,090	272	0	30.4	22,090
1937	828-48	208	0	50.3	36,380	208	0	50.3	36,380
1938	858-48	259	0	69.6	50,380	259	0	69.6	50,380
1939	878-80	339	0	87.9	63,660	-	-	-	-

Note.- Canal diverts from left bank of Brazos River 18 miles above Richmond and 10.4 miles above Rosenberg. Diversion began in 1931.

Richmond Irrigation Co.'s canal near Richmond, Tex.

1931	718-41	-	*0	-	25,700	-	0	-	26,200
1932	733-49	226	0	51.7	37,600	226	0	51.1	37,100
1933	748-49	202	0	38.1	27,600	202	0	38.1	27,600
1934	763-49	119	0	25.0	18,100	119	0	25.0	18,100
1935	788-58	-	0	25.2	18,270	119	0	25.2	18,270
1936	808-57	0	0	0	0	0	0	0	0
1937	828-49	198	0	32.1	23,260	198	0	32.1	23,260
1938	858-49	234	0	38.7	28,010	234	0	38.7	28,010
1939	878-81	210	0	34.5	24,940	-	-	-	-

*Not previously published.

Note.- Canal diverts from right bank of Brazos River 6 miles above Richmond and 1.6 miles below Rosenberg.

COLORADO RIVER BASIN

Colorado River at Ballinger, Tex.
(Drainage area, 16,840 square miles of which about 11,500 square miles is probably noncontributing)

1908	850-95	23,400	0	492	357,000	23,400	0	317	230,000
1909	850-95	4,860	0	96.7	69,900	14,900	0	189	131,000
1910	850-95	14,900	1.0	195	135,000	5,700	1	126	91,000
1911	850-95	18,300	0	401	290,000	23,100	0	456	330,000
1912	850-95	23,100	5.5	271	197,000	13,500	5.5	257	187,000
1913	850-95	23,700	1.0	651	471,000	26,300	1	1,158	839,000
1914	850-95	26,300	1.0	1,090	791,000	24,700	1	582	420,000
1915	850-95	13,500	16	429	310,000	13,500	9.6	385	278,000
*1916	438-25	7,620	0	75.4	54,800	7,620	0	80.0	58,200
*1917	458-25	5,110	0	93.6	67,800	5,110	0	68.2	49,400
1918	478-22	6,300	0	115	83,300	14,900	0	347	251,000
1919	508-25	23,400	0	1,060	769,000	23,400	1.9	1,020	737,000
1920	508-25	18,300	0	639	503,000	16,900	0	534	388,000
1921	528-24	9,720	0	128	92,700	9,720	0	99.8	72,300
1922	548-27	24,900	0	716	518,000	24,900	0	723	524,000
1923	568-27	16,600	.5	352	255,000	16,600	.5	441	319,000
1924	588-97	7,810	.5	272	197,000	7,810	.5	211	154,000
1925	608-111	15,000	.9	466	338,000	15,000	.9	458	332,000
1926	628-88	18,600	1.2	535	387,000	18,600	1.2	612	443,000
1927	648-57	7,170	2.8	256	185,000	7,170	2.6	169	122,000
1928	668-52	26,700	1.0	606	441,000	26,700	1.0	597	434,000
1929	688-51	21,100	.9	262	190,000	21,100	.8	299	216,000
1930	703-49	26,600	.4	419	303,000	26,600	.4	375	368,000
1931	718-55	-	1.0	172	124,000	-	1.0	191	138,000
1932	733-50	22,900	1.0	969	704,000	22,900	4.0	860	625,000
1933	748-50	2,540	1.3	132	95,700	2,540	1.3	118	85,600
1934	763-50	2,520	0	80.4	58,300	1,920	0	70.4	50,940
1935	788-59	33,400	0	1,084	784,500	33,400	.4	1,080	783,700
1936	808-57	54,300	.5	636	461,500	54,300	.5	661	480,100
1937	828-50	6,440	3.4	167	121,100	6,440	3.4	128	92,870
1938	858-50	16,900	3.4	378	274,000	16,900	2.7	377	272,800
1939	878-82	19,500	2.0	432	312,500	-	-	-	-

*Revised figures superseding those published in water-supply papers indicated; revised figures of monthly and yearly mean discharge published in Water-Supply Paper 850, p. 95.

Summary of yearly discharge, in second-feet, at stations in Colorado River Basin--Continued

Colorado River near Milburn, Tex.
(Drainage area, 24,580 square miles of which about 11,800 square miles is probably noncontributing)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1924	608-113	-	-	-	-	12,400	0.8	491	356,000
1925	608-113	27,000	8.0	933	676,000	27,000	8.0	928	672,000
1926	628-89	29,800	16	901	653,000	29,800	16	1,070	775,000
1927	648-58	14,500	13	561	406,000	24,700	13	498	360,000
1928	668-53	29,900	7.8	1,060	768,000	29,900	7.8	914	663,000
1929	688-52	27,500	0	521	377,000	27,500	0	601	435,000
1930	703-50	29,100	2.2	813	589,000	67,000	2.2	1,640	1,190,000
1931	718-56	67,000	2.6	1.100	799,000	16,200	1.3	390	282,000
1932	733-51	38,300	1.3	1,810	1,320,000	38,300	13	1,700	1,230,000
1933	748-51	16,300	.8	338	245,000	16,300	.8	270	196,000
1934	763-51	24,300	0	266	192,800	-	-	-	-

Colorado River near San Saba, Tex.
(Published as Colorado River near Chadwick, Tex., 1916-22)
(Drainage area, 30,600 square miles of which about 11,800 square miles is probably noncontributing)

*1916	458-27	-	-	-	-	11,700	30	426	309,000
*1917	458-27	15,300	18	434	314,000	15,300	18	347	251,000
*1918	478-24	22,400	1.5	478	346,000	74,100	1.5	1,590	1,150,000
*1919	508-28	74,100	29	3,850	2,790,000	-	-	-	-
*1921	528-25	18,000	39	. 502	363,000	18,000	39	400	289,000
*1922	548-28	88,400	45	3,510	2,540,000	-	-	-	-
1931	718-57	71,900	59	1,900	1,370,000	18,500	46	821	593,000
1932	733-52	35,500	46	3,070	2,220,000	35,500	131	2,870	2,080,000
1933	748-52	25,000	51	657	475,000	25,000	51	535	387,000
1934	763-52	36,500	27	697	504,000	36,500	27	705	510,400
1935	788-60	75,700	33	3,542	2,564,000	75,700	63	3,705	2,683,000
1936	808-58	202,000	40	3,136	2,276,000	202,000	40	3,881	2,817,000
1937	828-51	100,000	109	1,654	1,197,000	16,800	109	830	601,000
1938	858-51	191,000	168	3,880	2,809,000	191,000	178	3,817	2,764,000
1939	878-84	19,800	93	1,132	819,400	-	-	-	-

*Records collected at site 1.6 miles upstream from present site.

Colorado River near Tow, Tex.
(Drainage area, 31,120 square miles of which 11,800 square miles is probably noncontributing)

1924	588-100	16,400	46	1,290	936,000	16,400	46	926	672,000
1925	608-115	22,600	27	1,100	798,000	22,600	27	1,290	936,000
1926	628-91	24,300	86	1,520	1,100,000	24,300	86	1,510	1,090,000
1927	648-59	14,300	120	954	691,000	26,600	118	990	717,000
1928	668-54	26,600	30	1,460	1,060,000	23,800	30	1,240	896,000
1929	688-53	32,300	35	968	701,000	32,300	35	1,050	762,000
1930	703-52	30,800	22	1,150	831,000	66,300	22	2,430	1,760,000
1931	718-58	66,300	67	1,970	1,430,000	18,500	57	903	654,000
1932	733-53	34,800	57	3,200	2,320,000	34,800	175	3,010	2,190,000
1933	748-53	21,900	62	721	522,000	21,900	62	593	429,000
1934	763-53	37,700	28	723	524,000	-	-	-	-

Colorado River at Austin, Tex.
(Drainage area, 38,150 square miles of which about 11,800 square miles is probably noncontributing)

1899	548-32	91,800	178	1,910	1,380,000	91,800	178	2,290	1,660,000
1900	548-32	145,000	195	5,600	4,050,000	145,000	525	6,180	4,470,000
1901	548-32	28,700	200	2,170	1,570,000	28,700	200	1,290	931,000
1902	548-32	35,900	180	1,800	1,310,000	35,900	180	2,340	1,690,000
1903	548-32	33,700	262	2,370	1,710,000	33,700	275	2,120	1,540,000
1904	548-32	31,500	225	1,950	1,420,000	31,500	225	1,700	1,240,000
1905	548-32	52,900	180	2,020	1,460,000	52,900	180	1,920	1,390,000
1906	548-32	78,500	140	2,820	2,040,000	78,500	140	2,830	2,050,000
1907	548-32	28,100	50	1,150	833,000	28,100	50	1,740	1,260,000
1908	548-32	100,000	183	3,400	2,470,000	100,000	183	2,880	2,090,000
1909	548-32	29,700	123	1,400	1,020,000	29,700	123	1,690	1,220,000
1910	548-32	27,400	40	1,250	905,000	27,400	40	865	626,000
1911	548-32	27,400	61	1,790	1,290,000	27,400	110	1,910	1,380,000
1912	548-32	17,400	110	877	636,000	11,500	110	877	636,000
1913	548-32	40,300	30	1,520	1,100,000	141,000	30	4,710	3,410,000
1914	548-32	141,000	-	7,530	5,450,000	61,500	-	4,650	3,370,000
1915	408-16	84,000	(*)	3,010	2,180,000	84,000	(*)	2,760	2,000,000
1916	438-29	28,200	80	1,200	874,000	28,200	80	1,070	778,000
1917	458-31	9,750	52	590	427,000	7,840	52	496	359,000
1918	478-28	38,400	22	865	627,000	64,700	22	2,710	1,960,000
1919	508-33	64,700	123	6,950	5,030,000	64,200	939	7,150	5,180,000
1920	508-33	44,600	405	4,820	3,500,000	28,100	405	3,510	2,180,000
1921	528-29	50,200	64	1,420	1,030,000	50,200	64	1,240	897,000
1922	548-32	103,000	160	4,840	3,500,000	103,000	150	4,960	3,590,000
1923	568-31	47,500	102	2,200	1,590,000	48,000	102	3,450	2,500,000
1924	588-103	48,000	197	3,260	2,370,000	16,800	197	1,970	1,430,000
1925	608-118	27,100	91	1,500	1,090,000	29,800	91	2,090	1,520,000
1926	628-94	29,800	161	2,900	2,100,000	29,400	154	2,560	1,850,000
1927	648-60	36,600	125	1,850	1,340,000	36,600	125	2,100	1,520,000
1928	668-55	36,100	80	2,230	1,620,000	28,400	80	1,700	1,240,000
1929	688-54	96,400	-	1,860	1,350,000	96,400	-	1,940	1,400,000
1930	703-53	30,700	45	1,640	1,190,000	79,500	45	3,430	2,480,000
1931	718-59	79,500	110	3,400	2,460,000	18,100	105	1,840	1,340,000
1932	733-54	61,800	105	4,430	3,220,000	61,800	394	4,300	3,120,000
1933	748-54	33,200	96	1,230	890,000	33,200	96	999	722,000
1934	763-55	42,300	43	1,080	782,000	42,300	32	1,084	784,700
1935	788-61	323,000	32	6,752	4,888,000	323,000	120	7,170	5,192,000
1936	808-59	166,000	154	5,521	4,008,000	166,000	154	6,909	5,016,000
1937	828-52	96,600	191	3,000	2,172,000	16,100	191	1,430	1,036,000
1938	858-52	254,000	212	4,985	3,610,000	254,000	432	4,799	3,474,000
1939	878-85	13,000	428	1.363	986,600	-	-	-	-

*Not determined. Figure previously published probably too low.

Summary of yearly discharge, in second-feet, at stations in Colorado River Basin--Continued

Colorado River at Columbus, Tex.
(Drainage area, 40,840 square miles of which about 11,800 square miles is probably noncontributing)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1904	132-40	-	-	-	-	28,900	390	2,230	1,620,000
1905	174-27	37,900	680	3,450	2,500,000	37,900	680	3,400	2,460,000
1906	210-39	38,600	880	2,730	1,980,000	38,600	880	2,730	1,980,000
1907	288-32	41,500	305	2,200	1,590,000	41,500	305	3,110	2,250,000
1908	288-32	43,100	400	4,390	3,190,000	43,100	600	3,390	2,460,000
1909	288-32	15,300	450	1,460	1,050,000	15,300	450	1,690	1,220,000
1910	288-32	15,300	*80	1,540	1,110,000	15,300	*80	1,200	872,000
1911	308-18	17,400	(†)	2,080	1,510,000	17,400	(†)	2,210	1,600,000
1917	458-35	4,060	104	653	472,000	4,060	104	562	406,000
1918	478-31	26,200	93	1,040	756,000	54,300	93	3,000	2,170,000
1919	508-38	54,300	185	9,200	6,660,000	54,000	1,090	9,890	7,160,000
1920	508-38	54,000	639	6,250	4,540,000	43,100	639	3,940	2,860,000
1921	528-33	50,900	257	2,870	2,080,000	50,900	257	2,650	1,920,000
1922	548-42	78,800	364	5,590	4,040,000	78,800	260	5,630	4,070,000
1923	568-34	43,600	260	2,640	1,910,000	43,600	285	4,410	3,190,000
1924	588-106	38,800	302	5,000	3,630,000	28,300	302	3,250	2,360,000
1925	608-121	19,600	132	1,440	1,040,000	54,400	132	2,690	1,950,000
1926	628-97	69,100	570	5,050	3,660,000	69,100	490	4,210	3,050,000
1927	648-61	27,400	212	2,520	1,820,000	27,400	212	2,510	1,820,000
1928	668-67	26,900	295	2,080	1,520,000	18,000	295	1,680	1,220,000
1929	688-56	101,000	346	2,960	2,140,000	101,000	368	3,180	2,300,000
1930	703-56	26,300	211	1,970	1,430,000	-	-	-	-

*Revised figure, not previously published.
†Not determined. Figure previously published probably too low.

Concho River near San Angelo, Tex.
(Drainage area, 4,492 square miles of which about 275 square miles is noncontributing)

1916	568-43	1,990	2.3	64.5	46,900	1,990	2.3	51.6	37,400
1917	568-43	1,360	1.3	33.0	23,900	1,360	1.3	24.5	17,700
1918	568-43	4,640	.4	46.6	33,700	6,820	.4	116	83,900
1919	568-43	-	.6	306	221,000	-	2.7	335	242,000
1920	568-43	10,000	2.0	150	109,000	1,830	2.0	63.9	46,400
1921	568-43	810	1.8	34.2	24,700	810	0	22.1	16,000
1922	568-43	-	0	497	360,000	-	-	499	362,000
1923	568-43	-	-	56.7	43,000	2,830	1.0	97.9	70,900
1924	588-115	11,800	1.0	162	117,000	11,800	1.0	136	98,800
1925	608-133	33,200	2.0	288	209,000	33,200	2.0	289	210,000
1926	628-99	21,800	2.0	191	138,000	21,800	2.0	197	142,000
1927	648-63	1,010	-	61.6	44,600	9,000	-	83.6	60,600
1928	668-58	9,000	1.6	115	84,000	5,450	1.6	82.5	60,000
1929	688-57	-	-	58.0	42,000	3,120	-	76.9	55,600
1930	703-58	9,270	1.3	96.8	70,000	30,400	1.4	218	158,000
1931	718-65	30,400	.5	189	137,000	-	.5	43.7	31,700
1932	733-61	29,300	2.2	347	253,000	29,300	3.6	37.9	275,000
1933	748-61	265	.4	71.8	52,000	179	.4	37.0	26,800
1934	763-62	3,370	.6	39.4	28,600	3,370	-	48.3	34,950
1935	788-68	20,200	-	277	200,600	20,200	1.2	285	206,200
1936	808-67	131,000	.3	1,197	869,200	131,000	.3	1,229	892,000
1937	828-59	-	1.9	150	108,900	-	1.9	117	84,770
1938	858-59	31,300	2.1	302	218,900	31,300	5.3	296	214,500
1939	878-95	4,060	1.8	66.0	47,770	-	-	-	-

Concho River near Paint Rock, Tex.
(Drainage area, 5,532 square miles of which about 275 square miles is probably noncontributing)

1916	458-43	2,820	0	67.2	48,700	2,820	0	51.3	37,200
1917	458-42	7,150	0	57.3	41,500	7,150	0	48.0	34,700
1918	478-40	6,320	0	56.5	40,900	7,550	0	176	128,000
1919	568-49	19,800	0	516	373,000	19,800	.1	547	396,000
1920	568-49	15,800	.8	210	152,000	2,240	.8	72.8	52,800
1921	568-49	1,180	.7	40.2	29,100	1,180	0	27.4	19,800
1922	568-49	-	0	521	378,000	-	0	527	382,000
1923	568-49	1,560	0	65.2	47,200	1,560	0	97.7	70,700
1924	588-116	7,510	0	164	119,000	7,510	0	151	110,000
1925	608-134	29,800	0	370	268,000	29,800	0	361	261,000
1926	628-101	17,100	0	221	160,000	17,100	0	233	168,000
1927	648-64	1,820	0	79.3	57,300	13,000	0	116	83,900
1928	668-59	13,000	0	187	136,000	7,650	0	134	97,000
1929	688-58	2,110	0	81.2	58,800	-	0	101	73,100
1930	703-59	11,300	0	154	111,000	-	0	466	338,000
1931	718-66	-	0	393	284,000	1,120	0	54.4	39,400
1932	733-62	26,700	0	419	304,000	26,700	1.4	451	327,000
1933	748-62	1,510	0	81.6	59,200	1,510	0	45.4	32,900
1934	763-63	6,350	0	64.3	46,500	6,350	0	77.2	55,860
1935	788-69	19,400	0	438	316,800	19,400	-	442	320,300
1936	808-68	134,000	0	1,470	1,067,000	134,000	0	1,530	1,109,000
1937	828-60	6,170	8.3	210	152,200	6,170	8.3	152	110,400
1938	858-60	42,600	7.5	433	313,300	42,600	7.5	428	309,600
1939	878-96	4,450	.3	88.9	64,370	-	-	-	-

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Summary of yearly discharge, in second-feet, at stations in Colorado River Basin--Continued

North Concho River near Carlsbad, Tex.
(Drainage area, 1,529 square miles of which about 123 square miles is noncontributing)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1925	608-129	20,600	0	150	108,000	206,600	0	151	109,000
1926	628-102	33,400	.1	46.2	33,400	6,230	.1	46.2	33,500
1927	648-65	1,670	0	18.0	13,100	1,670	0	15.9	11,500
1928	668-60	4,480	0	36.6	26,600	4,480	0	36.9	26,800
1929	688-59	728	0	15.9	11,500	2,440	0	25.6	18,600
1930	703-51	5,600	0	41.6	30,200	5,600	0	33.8	24,500
1931	718-70	344	0	7.10	5,150	-	0	8.34	6,030
1932	733-66	-	0	83.9	60,900	-	2.8	82.9	60,200
1933	748-65	72	0	8.17	5,900	50	0	4.88	3,530
1934	763-66	3,300	0	15.8	11,400	3,300	0	21.2	15,340
1935	788-72	13,700	0	103	74,310	13,700	.2	99.0	71,250
1936	808-71	62,900	0	336	243,600	62,900	0	341	247,800
1937	828-63	4,630	0	34.6	25,060	4,630	0	28.1	20,340
1938	858-63	5,270	0	38.2	27,620	5,270	.9	38.9	28,180
1939	878-99	-	0	6.71	4,860	-	-	-	-

North Concho River at San Angelo, Tex.
(Drainage area, 1,798 square miles of which about 123 square miles is probably noncontributing)

1916	568-37	-	-	-	-	790	0	8.90	6,460
1917	568-37	2,260	0	13.3	9,640	2,260	0	12.4	8,970
1918	568-37	2,190	0	13.0	9,440	5,170	0	63.8	46,200
1919	568-37	5,170	0	146	105,000	5,860	0	154	112,000
1920	568-37	5,860	0	68.7	49,900	850	0	11.7	8,530
1921	568-37	188	0	5.82	4,220	188	0	3.82	2,770
1922	568-37	13,900	0	130	94,100	13,900	0	130	94,100
1923	568-37	-	0	3.94	2,850	-	0	7.15	5,190
1924	588-113	4,410	0	24.0	17,400	4,410	0	25.3	18,300
1925	608-131	21,000	0	143	103,000	21,000	0	140	101,000
1926	628-104	-	-	69.3	50,300	-	-	71.4	51,700
1927	648-66	-	0	21.1	15,300	-	0	32.1	23,200
1930	703-62	9,790	0	68.7	49,800	9,790	0	62.5	45,300
1931	718-71	-	0	11.8	8,570	-	-	-	-

Pecan Bayou at Brownwood, Tex.
(Drainage area, 1,614 square miles)

1924	588-118	-	-	-	-	6,920	0	113	81,900
1925	608-140	6,190	0	77.6	56,200	6,190	0	98.7	71,500
1926	628-106	6,630	0	142	103,000	6,630	0	133	96,500
1927	648-67	9,850	0	92.2	66,600	9,850	0	115	83,300
1928	668-62	15,800	0	234	170,000	-	-	-	-
1930	703-63	16,000	0	205	149,000	40,000	0	522	378,000
1931	718-72	40,000	0	393	285,000	265,000	0	239	173,000
1932	733-67	26,500	0	775	563,000	14,800	0	626	454,000
1933	748-66	-	.2	57.7	41,800	1,570	.2	35.0	25,300
1934	763-67	3,340	.2	104	75,700	3,340	0	103	74,570
1935	788-73	10,900	0	205	148,700	10,900	.2	269	194,700
1936	808-72	15,900	.1	311	226,100	15,900	.1	343	249,200
1937	828-64	2,500	.1	122	88,340	837	0	29.2	21,160
1938	858-64	4,410	0	103	74,290	4,410	0	101	73,250
1939	878-100	7,710	0	191	138,000	-	-	-	-

San Saba River at Menard, Tex.
(Drainage area, 1,151 square miles)

1916	438-39	113	7.1	37.9	27,500	113	3.8	29.9	21,700
1917	458-46	345	.7	22.1	16,000	345	.7	20.7	15,000
1918	718-73	2,540	0	39.3	28,400	7,900	0	68.7	49,700
1919	718-73	7,900	4.8	94.3	68,200	3,480	23	73.7	53,300
1920	508-53	956	18	45.7	33,200	956	18	44.0	31,900
1921	528-43	198	-	24.9	18,000	241	2.2	19.0	13,800
1922	718-73	6,980	1.6	80.0	58,000	6,980	1.6	83.0	60,100
1923	568-53	2,960	.2	60.4	43,700	4,760	.2	87.5	63,400
1924	588-120	4,760	20	77.9	56,500	1,070	19	51.1	37,100
1925	608-141	2,040	3.1	38.1	27,600	2,040	3.1	40.9	29,600
1926	628-107	481	2.8	36.6	26,500	481	2.8	31.0	22,400
1927	648-68	1,050	1.4	31.3	22,600	1,050	1.4	37.0	26,800
1928	668-63	931	0	26.9	19,600	362	0	23.1	16,800
1929	688-62	482	0	20.1	14,600	3,510	0	29.0	21,000
1930	703-64	2,510	0	35.5	25,700	6,540	0	60.2	43,500
1931	718-73	6,540	1.3	66.2	48,000	1,300	6.4	31.5	22,800
1932	733-68	5,510	6.4	80.4	58,200	5,510	8.4	85.5	61,900
1933	748-67	89	4.4	29.3	21,200	71	3.9	21.4	15,500
1934	763-68	5,130	0	40.0	29,000	5,130	0	40.1	29,000
1935	788-74	6,540	1.6	138	100,200	6,540	4.0	148	107,100
1936	808-73	28,300	.4	267	194,100	28,300	.4	279	202,600
1937	828-65	300	3.2	47.8	34,590	1,030	3.2	35.6	25,800
1938	858-65	53,300	5.1	485	350,900	-	-	-	-

Summary of yearly discharge, in second-feet, at stations in Colorado River Basin--Continued

San Saba River at (near) San Saba, Tex.
(Drainage area, 3,046 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1916	458-48	2,400	22	114	82,400	2,400	22	89.6	65,000
*1917	458-48	4,100	6.8	79.2	57,400	4,100	6.8	74.7	54,100
*1918	478-49	4,430	0	95.7	69,300	11,300	0	221	160,000
*1919	508-55	11,300	15	521	377,000	9,160	52	535	387,000
*1920	508-55	3,700	70	327	237,000	2,310	70	210	152,000
*1921	528-45	530	18	86.6	62,700	398	18	68.4	49,500
*1922	718-75	50,300	30	697	505,000	50,300	30	705	511,000
*1923	568-55	8,740	18	212	153,000	8,740	18	310	224,000
*1924	588-122	6,100	43	313	227,000	3,740	43	220	160,000
*1925	608-143	2,820	1.9	126	91,100	5,320	1.9	175	127,000
*1926	628-109	5,320	31	172	124,000	675	31	124	89,500
*1927	648-69	4,820	32	159	115,000	5,230	32	180	130,000
*1928	668-64	5,230	-	146	106,000	2,940	-	120	87,300
*1929	688-63	4,690	18	136	98,600	4,990	18	146	106,000
*1930	703-65	4,990	0	91.9	66,700	24,800	0	265	192,000
1931	718-75	24,800	24	320	231,000	1,340	34	135	97,500
1932	733-69	15,000	36	421	306,000	15,000	75	435	316,000
1933	748-68	3,060	21	120	86,700	3,060	21	98.5	71,400
1934	763-69	17,400	8.5	199	144,000	17,400	8.5	199	144,000
1935	788-75	25,700	24	530	383,600	25,700	24	555	401,800
1936	808-74	33,900	25	461	334,300	33,900	25	541	392,400
1937	828-66	3,010	46	244	176,300	3,810	39	178	128,700
1938	858-66	117,000	39	1,318	954,400	117,000	49	1,319	954,700
1939	878-101	-	51	178	129,100	-	-	-	-

*Records collected at site 4½ miles upstream from present site; drainage area, 3,038 square miles.

Noyes canal at Menard, Tex.

1925	608-145	50	0	19.5	14,100	50	0	17.2	12,500
1926	628-111	33	0	15.5	11,300	29	0	17.6	12,700
1927	648-70	40	0	19.6	14,200	40	0	17.8	12,900
1928	668-65	43	0	14.9	10,800	43	0	14.6	10,600
1929	688-64	30	0	12.9	9,330	37	0	12.8	9,250
1930	703-67	37	0	15.5	11,200	33	0	15.3	11,000
1931	718-77	34	0	15.4	11,100	34	0	15.8	11,400
1932	733-70	30	0	13.8	10,000	30	0	13.1	9,510
1933	748-70	20	0	11.1	8,070	24	0	13.7	9,960
1934	763-70	30	0	13.8	10,000	30	0	13.0	9,380
1935	788-76	31	0	14.4	10,420	31	0	12.0	8,710
1936	808-75	-	0	10.3	7,470	-	0	8.65	6,280
1937	828-67	38	0	12.3	8,890	38	0	16.8	12,170
1938	858-67	-	0	-	-	-	-	-	-
1939	878-102	36	0	22.3	16,160	-	-	-	-

North Llano River near Junction, Tex.
(Drainage area, 914 square miles)

1916	568-57	117	1.2	25.4	18,400	103	1.2	16.0	11,600
1917	568-57	392	0	10.3	7,430	392	0	8.40	6,080
1918	568-57	13,800	0	51.1	37,000	13,800	0	61.6	45,000
1919	568-57	5,420	.3	113	82,000	5,420	17	134	96,800
1920	568-57	1,200	12	70.7	51,200	1,200	12	47.5	34,500
1921	568-57	68	0	18.9	13,700	59	0	13.1	9,470
1922	568-57	3,520	.4	56.9	41,200	3,520	.4	57.1	41,400
1923	568-57	7,450	.4	69.1	50,000	7,450	.4	158	114,000
1924	588-124	5,910	11	150	109,000	2,370	11	65.5	47,500
1925	608-146	21,900	11	99.1	71,900	21,900	11	107	77,600
1926	628-112	1,910	.8	30.2	21,900	378	.5	19.9	14,400
1927	648-71	181	0	10.3	7,490	5,390	0	35.2	25,500
1928	668-66	7,720	3.2	76.3	55,400	7,720	3.2	52.1	37,800
1929	688-65	314	.1	12.8	9,260	314	.1	10.1	7,310
1930	703-68	574	0	10.3	7,460	12,700	0	59.7	43,200
1931	718-78	12,700	0	74.4	53,900	725	.5	24.6	17,800
1932	733-71	21,900	.5	183	134,000	21,900	.6	194	141,000
1933	748-71	7,020	3.0	65.7	47,600	7,020	3.0	55.6	40,200
1934	763-71	470	0	14.0	10,100	470	0	12.1	8,750
1935	788-77	22,300	0	220	159,000	22,300	3.6	237	171,800
1936	858-68	31,400	2.7	215	156,000	31,400	2.7	216	156,500
1937	858-68	622	2.5	42.7	30,920	2,150	2.5	36.4	26,390
1938	858-68	31,000	2.7	298	216,100	31,000	2.7	294	213,100
1939	878-103	11,100	4.4	74.0	53,610	-	-	-	-

Llano River near Junction, Tex.
(Drainage area, 1,762 square miles)

1916	568-61	2,770	46	129	93,600	2,770	46	103	74,500
1917	568-61	132	17	53.0	38,400	132	17	46.4	33,600
1918	568-61	-	13	135	98,000	-	13	158	114,000
1919	568-61	27,800	35	464	336,000	27,800	39	506	366,000
1920	568-61	13,700	109	238	173,000	13,700	109	200	145,000
1921	568-61	880	48	120	86,600	880	48	97.4	70,500
1922	568-61	16,100	52	189	137,000	16,100	55	191	138,000
1923	568-61	35,700	52	275	199,000	47,400	52	647	469,000
1924	588-126	47,400	63	544	395,000	4,310	63	183	133,000
1925	608-148	47,400	74	307	222,000	47,400	74	321	232,000
1926	628-114	1,320	50	121	87,700	684	50	104	75,300
1927	648-72	213	42	76.0	55,000	5,770	42	119	86,200
1928	668-67	-	50	174	126,000	-	50	127	91,900
1929	688-66	364	33	64.8	46,900	364	33	61.2	44,300
1930	703-69	388	31	59.5	43,000	23,900	31	152	110,000

Summary of yearly discharge, in second-feet, at stations in Colorado River Basin--Continued

Llano River near Junction, Tex.--Continued
(Drainage area, 1,762 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1931	718-79	23,900	37	198	143,000	3,650	37	102	74,000
1932	733-72	-	39	476	345,000	-	42	508	369,000
1933	748-72	5,970	46	175	127,000	5,970	46	144	105,000
1934	763-72	404	27	57.6	41,700	404	27	53.1	38,420
1935	788-78	124,000	28	708	512,700	124,000	44	741	536,600
1936	808-76	59,700	48	403	292,300	59,700	48	429	311,100
1937	828-68	-	48	141	101,700	13,700	48	144	104,200
1938	858-71	46,800	48	543	393,300	46,800	64	498	360,500
1939	878-104	24,400	53	193	139,900	-	-	-	-

Llano River near Castell, Tex.
(Drainage area, 3,514 square miles)

1924	588-128	-	-	-	-	3,640	70	267	194,000
1925	608-150	23,200	45	247	179,000	23,200	45	382	276,000
1926	628-116	11,300	41	373	270,000	3,190	41	254	184,000
1927	648-73	6,540	39	200	145,000	19,100	39	286	207,000
1928	668-68	19,100	39	275	200,000	11,600	39	165	120,000
1929	688-67	10,800	16	146	105,000	10,800	16	142	103,000
1930	703-70	12,600	17	127	92,100	51,700	17	353	255,000
1931	718-80	51,700	33	428	310,000	3,480	32	203	147,000
1932	733-73	-	31	677	491,000	-	31	721	523,000
1933	748-73	10,100	42	260	188,000	10,100	-	215	155,000
1934	763-73	6,160	6.4	107	77,300	6,160	6.4	99.8	72,270
1935	788-79	216,000	16	1,438	1,041,000	216,000	50	1,488	1,078,000
1936	808-77	93,000	42	856	621,200	93,000	42	939	682,000
1937	828-69	2,080	33	249	180,400	17,200	33	220	159,300
1938	858-72	63,100	44	771	558,300	63,100	60	690	499,500
1939	878-105	24,300	34	229	165,500	-	-	-	-

Pedernales River at Stonewall, Tex.
(Drainage area, 647 square miles)

1925	608-153	1,170	1.8	21.4	15,500	1,170	1.8	55.3	40,000
1926	628-117	5,760	4.0	73.1	52,900	2,200	4.0	48.4	35,100
1927	648-74	5,760	4.0	86.3	62,500	5,760	4.0	86.7	62,800
1928	668-69	2,070	3.8	28.2	20,500	884	3.1	18.0	13,000
1929	733-74	15,400	3.1	88.8	64,300	15,400	2.9	88.8	64,300
1930	733-74	7,540	2.2	45.8	33,200	7,540	2.2	70.8	51,300
1931	733-74	3,650	3.5	88.3	64,100	2,650	4.1	72.5	52,600
1932	733-74	8,810	4.3	103	74,800	8,810	6.1	103	74,700
1933	748-74	1,770	2.8	45.6	33,000	1,770	2.7	36.2	26,200
1934	763-74	1,390	1.2	21.5	15,600	-	-	-	-

Pedernales River near Spicewood, Tex.
(Drainage area, 1,294 square miles)

1924	588-130	-	-	-	-	6,770	6.0	234	170,000
1925	608-155	841	0	23.1	16,700	11,300	0	104	75,100
1926	628-119	15,100	2.8	289	209,000	15,100	2.4	225	163,000
1927	648-75	6,190	1.8	183	133,000	6,190	1.8	189	137,000
1928	668-70	2,470	0	53.6	38,900	706	0	30.2	21,900
1929	688-69	80,000	1.1	377	272,000	80,000	1.1	378	273,000
1930	703-72	13,400	0	113	81,900	13,400	0	148	107,000
1931	718-82	4,390	1.4	224	162,000	3,690	1.4	197	142,000
1932	733-76	8,420	1.4	157	114,000	8,420	7.5	157	114,000
1933	748-75	1,010	0	56.4	40,900	1,010	0	44.3	32,100
1934	763-75	3,770	0	73.8	53,500	3,770	0	78.9	57,140
1935	788-80	68,700	0	500	362,200	68,700	1.8	540	391,200
1936	808-78	39,100	31	685	497,100	39,100	31	750	544,400
1937	828-70	3,300	12	286	207,000	6,540	12	236	171,000
1938	858-73	8,010	12	301	218,100	8,010	8.6	244	176,700

GUADALUPE RIVER BASIN

Guadalupe River near Comfort, Tex.
(Drainage area, 916 square miles)

*1918	478-59	-	0.6	-	-	-	0.6	-	-
1923	568-65	-	6.2	74.1	53,700	-	6.2	136	98,500
1924	588-134	4,140	34	223	162,000	4,140	44	167	121,000
1925	608-160	610	3.6	51.1	37,000	3,340	3.6	70.1	50,800
1926	628-123	3,340	30	116	83,800	1,720	30	101	72,700
1927	648-76	2,050	21	106	76,800	2,050	21	101	73,200
1928	668-72	935	-	55.4	40,200	935	-	50.7	36,800
1929	688-71	-	17	110	79,300	-	17	108	78,200
1930	703-74	8,920	9.2	66.1	47,800	-	9.2	139	100,000
1931	718-83	-	18	213	154,000	4,660	28	147	107,000
1932	733-77	37,500	33	377	273,000	-	-	-	-

*Year incomplete.

Guadalupe River near Spring Branch, Tex.
(Drainage area, 1,432 square miles)

1923	568-67	9,710	5.4	148	107,000	9,710	5.4	262	190,000
1924	588-136	3,940	59	437	317,000	3,100	62	331	240,000

Summary of yearly discharge, in second-feet, at stations in Guadalupe River Basin--Continued

Guadalupe River near Spring Branch, Tex.--Continued
(Drainage area, 1,432 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1925	608-162	669	-	63.3	45,800	3,900	-	89.0	64,500
1926	628-125	11,000	31	214	155,000	11,000	32	192	139,000
1927	648-78	3,180	30	189	137,000	3,180	30	183	132,000
1928	668-73	927	11	72.3	52,400	927	11	62.7	45,400
1929	688-72	17,600	24	195	141,000	17,600	22	198	143,000
1930	703-75	3,340	14	108	78,200	15,000	14	196	142,000
1931	718-84	15,000	21	405	293,000	8,400	51	325	235,000
1932	733-78	62,800	51	511	371,000	62,800	67	545	395,000
1933	748-76	1,610	37	181	131,000	1,610	37	140	102,000
1934	763-76	980	7.0	81.4	59,000	980	7.0	75.2	54,490
1935	788-81	66,100	15	565	408,900	66,100	32	635	459,800
1936	808-79	32,000	103	736	534,100	32,000	103	853	619,300
1937	828-71	3,980	56	411	297,800	3,980	54	250	181,200
1938	858-74	3,240	38	216	156,100	3,240	38	194	140,800
1939	878-112	2,070	2.4	66.2	47,930	-	-	-	-

Guadalupe River above Comal River, at New Braunfels, Tex.
(Drainage area, 1,666 square miles)

1928	668-74	-	-	-	-	1,920	15	89.2	64,800
1929	688-73	15,200	25	282	204,000	15,200	38	288	208,000
1930	703-76	4,520	20	146	106,000	9,440	20	235	170,000
1931	718-85	9,780	22	544	394,000	9,780	71	464	336,000
1932	733-79	67,200	71	553	402,000	67,200	76	586	425,000
1933	748-77	1,590	48	201	146,000	1,590	48	157	114,000
1934	763-77	1,370	13	126	90,900	1,370	13	121	87,680
1935	788-82	52,300	16	730	528,500	52,300	45	816	590,900
1936	808-80	32,100	117	837	607,400	32,100	117	953	691,900
1937	828-72	3,460	77	483	352,100	3,460	74	322	233,400
1938	858-75	3,820	70	351	254,300	3,820	62	321	232,400
1939	878-113	1,930	9.6	80.6	58,360	-	-	-	-

Guadalupe River at New Braunfels, Tex. (one mile below Comal River)
(Drainage area, 1,774 square miles)

1916	438-48	21,400	370	719	522,000	21,400	370	686	498,000
1917	458-56	1,560	305	390	282,000	1,560	287	366	265,000
1918	478-61	3,250	270	344	249,000	5,600	270	411	298,000
1919	508-67	29,200	274	1,300	937,000	-	407	1,940	1,400,000
1920	508-67	-	538	1,570	1,140,000	5,470	525	919	668,000
1921	528-53	25,600	-	769	558,000	25,600	-	760	551,000
1922	548-64	4,750	352	616	446,000	4,750	352	592	429,000
1923	568-69	8,780	-	536	388,000	8,780	-	690	500,000
1924	588-138	4,140	516	1,060	773,000	4,140	0	933	678,000
1925	608-164	695	300	436	316,000	3,980	300	441	320,000
1926	628-127	21,800	331	714	517,000	21,800	378	699	506,000
1927	648-79	1,820	-	563	408,000	1,820	-	546	395,000

Guadalupe River below Cuero, Tex.
(Drainage area, 5,073 square miles)

1917	458-60	6,460	212	606	439,000	6,460	165	547	396,000
1918	478-65	9,800	165	722	523,000	9,970	190	1,030	744,000
1921	528-57	12,100	-	1,410	1,020,000	12,100	372	1,410	1,020,000
1922	548-69	27,400	-	1,620	1,170,000	27,400	-	1,560	1,130,000
1923	568-71	9,600	339	1,000	725,000	12,800	339	1,640	1,190,000
1924	588-139	13,200	557	2,560	1,860,000	13,200	504	1,940	1,410,000
1925	608-166	1,340	328	604	437,000	11,600	328	813	588,000
1926	628-128	61,200	-	2,080	1,500,000	61,200	-	1,980	1,430,000
1927	648-81	22,200	280	1,200	868,000	22,209	280	1,070	776,000
1928	668-75	7,240	187	728	529,000	7,240	187	744	540,000
1929	688-74	-	356	2,210	1,600,000	-	322	2,220	1,610,000
1930	703-77	8,240	-	883	638,000	8,240	-	960	695,000
1931	718-86	8,160	-	1,520	1,100,000	8,160	344	1,400	1,010,000
1932	733-80	16,900	344	1,480	1,070,000	16,900	378	1,540	1,120,000
1933	748-78	9,000	334	897	650,000	9,000	334	809	586,000
1934	763-78	10,400	242	886	641,000	11,100	242	1,027	743,800
1935	788-83	52,500	316	2,791	2,021,000	-	-	-	-

San Marcos River at Ottine, Tex.
(Drainage area, 1,249 square miles)

1916	588-143	3,810	55	218	158,000	3,810	55	200	145,000
1917	588-143	5,660	40	160	116,000	5,660	40	152	110,000
1918	588-143	7,830	59	205	148,000	7,830	59	255	185,000
1919	588-143	15,900	62	823	596,000	15,900	62	1,050	762,000
1920	588-143	34,400	212	981	714,000	34,400	195	741	539,000
1921	588-143	21,100	114	547	396,000	21,100	114	552	399,000
1922	588-143	14,300	132	582	422,000	14,300	94	554	402,000
1923	588-143	16,600	42	322	233,000	16,600	42	522	378,000
1924	588-143	8,440	98	742	539,000	8,440	110	550	399,000
1925	608-169	1,070	67	152	110,000	8,780	67	235	170,000
1926	628-131	32,300	96	582	421,000	32,300	121	509	368,000
1927	648-82	2,830	75	244	177,000	2,830	75	239	173,000
1928	668-79	-	-	242	176,000	-	-	226	164,000
1929	688-78	118,000	72	854	619,000	118,000	118	867	628,000
1930	703-80	6,390	104	254	184,000	6,390	104	261	189,000
1931	718-88	5,290	115	491	356,000	5,290	110	476	345,000

Summary of yearly discharge, in second-feet, at stations in Guadalupe River Basin--Continued

San Marcos River at Ottine, Tex.--Continued
(Drainage area, 1,249 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1932	733-82	6,610	99	308	223,000	6,610	99	303	220,000
1933	748-80	4,690	-	180	130,000	4,690	86	178	129,000
1934	763-80	2,910	86	239	173,000	2,910	-	255	184,800
1935	788-87	9,870	-	567	410,300	9,870	107	592	428,400
1936	808-83	81,200	83	727	527,400	81,200	83	737	535,300
1937	828-75	11,100	99	396	287,000	11,100	99	372	269,700
1938	858-78	12,600	114	578	418,700	12,600	100	558	403,800
1939	878-117	1,430	-	152	110,100	-	-	-	-

Blanco River at Wimberly, Tex.
(Drainage area, 378 square miles)

1925	608-167	34	5.8	16.7	12,100	-	-	30.3	21,900
1926	628-132	10,600	-	147	106,000	-	-	-	-
1929	688-77	29,200	7.4	188	136,000	29,200	8.2	191	138,000
1930	703-79	2,310	9.8	50.9	36,900	2,310	9.8	60.9	44,100
1931	718-89	3,270	11	178	129,000	3,270	20	169	122,000
1932	733-83	732	1.7	51.7	37,600	732	15	50.0	36,400
1933	748-81	153	9.2	24.9	18,000	153	9.2	23.3	16,900
1934	763-81	2,080	3.5	57.9	42,000	2,080	3.5	60.2	43,550
1935	788-88	7,210	5.8	131	95,080	7,210	13	139	100,600
1936	808-84	6,640	22	165	119,500	6,640	22	181	131,600
1937	828-76	662	19	106	76,640	1,960	14	94.7	68,580
1938	858-79	4,640	14	172	124,700	4,640	12	158	114,700
1939	878-118	-	5.2	19.6	14,210	-	-	-	-

San Antonio River at San Antonio, Tex.

1916	438-58	850	72	95.7	69,500	850	72	90.0	65,400
1917	458-66	147	23	53.8	39,000	147	23	39.2	28,400
1918	478-71	1,860	11	29.0	21,000	1,860	7.0	26.6	19,200
1919	508-82	1,820	7.0	58.8	42,700	1,820	9.5	117	84,900
1920	508-82	1,040	119	194	141,000	478	107	161	117,000
1921	528-63	3,190	64	119	86,400	3,190	64	114	82,600
1922	548-73	-	-	86.4	62,600	-	-	79.5	57,600
1923	568-75	136	25	61.2	44,300	216	25	66.5	48,100
1924	588-147	328	48	140	101,000	328	-	142	103,000
1925	608-172	158	18	63.2	45,700	158	18	45.9	33,200
1926	628-136	543	-	57.0	41,300	543	24	58.4	42,200
1927	648-84	324	17	34.6	25,000	324	17	31.3	22,600
1928	668-81	215	13	21.9	15,900	215	8.0	20.3	14,700
1929	688-80	132	7.0	19.1	13,900	-	-	-	-

San Antonio River near Falls City, Tex.
(Drainage area, 2,067 square miles)

1926	628-137	7,950	65	304	220,000	7,950	74	300	218,000
1927	648-85	2,170	-	153	111,000	2,170	-	152	110,000
1928	668-82	2,960	36	151	110,000	2,960	36	162	117,000
1929	688-81	8,480	54	258	187,000	8,480	54	250	181,000
1930	703-86	1,160	43	130	93,900	1,160	43	120	87,200
1931	718-94	2,060	47	175	126,000	2,060	47	181	131,000
1932	733-88	1,350	64	167	121,000	1,350	64	182	132,000
1933	748-87	2,540	78	177	128,000	2,540	78	159	115,000
1934	763-85	2,020	68	173	125,000	2,780	68	202	146,500
1935	788-90	13,800	81	667	482,800	13,800	95	707	512,100
1936	808-86	15,400	185	687	498,900	15,400	185	798	579,100
1937	828-78	11,900	149	547	395,600	11,900	141	419	303,500
1938	858-81	4,020	113	333	241,000	4,020	106	287	208,100
1939	878-120	790	69	139	100,800	-	-	-	-

San Pedro Creek at San Antonio, Tex.

1917	458-68	24	2.2	6.54	4,740	18	2.2	5.21	3,770
1918	478-75	19	2.2	3.74	2,710	34	.6	3.82	2,760
1919	508-87	144	.6	9.13	6,610	144	2.7	12.9	9,350
1920	508-87	79	8.2	13.7	9,950	33	8.2	11.8	8,550
1922	548-77	47	5.6	9.25	6,700	47	5.6	9.15	6,620
1923	568-79	29	3.4	7.48	5,420	29	3.4	7.50	5,430
1924	588-152	98	4.0	12.7	9,200	98	4.0	12.6	9,140
1925	608-179	62	1.0	7.62	5,520	54	4.0	7.42	5,370
1926	628-141	163	4.0	9.54	6,910	163	4.0	9.57	6,930
1927	648-86	68	2.5	7.18	5,200	68	2.5	6.75	4,890
1928	668-84	72	1.1	5.61	4,070	72	1.1	5.23	3,790
1929	688-82	-	1.1	4.88	3,530	-	-	-	-

Medina River near Pipe Creek, Tex.
(Drainage area, 412 square miles)

1923	568-81	-	-	-	-	2,940	5.4	109	78,900
1924	588-154	1,520	13	174	127,000	1,520	14	116	84,100
1925	608-181	747	2.7	20.7	15,000	1,840	2.7	36.6	26,500
1926	628-143	6,010	6.8	95.3	69,000	6,010	5.8	88.8	64,200
1927	648-88	1,710	2.2	102	72,700	1,710	2.2	91.2	66,200
1928	668-85	793	2.7	28.0	20,400	793	2.7	28.2	20,500
1929	688-84	3,250	2.7	62.2	45,000	3,250	5.8	62.4	45,200
1930	703-87	1,510	3.2	45.9	33,300	4,410	3.2	86.8	62,900
1931	718-95	8,140	8.0	242	175,000	8,140	17	203	147,000
1932	733-89	16,000	17	241	175,000	16,000	24	271	197,000
1933	748-88	-	8.5	102	74,000	-	8.5	68.1	49,300
1934	763-88	-	.8	21.7	15,700	-	-	-	-

Summary of yearly discharge, in second-feet, at stations in Guadalupe River Basin--Continued

Medina River near Riomedina, Tex.
Flow over dam (does not include seepage through dam)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1923	568-83	0	0	0	0	23	0	0.68	489
1924	588-156	261	0	8.58	6,230	261	0	7.91	5,750
1925	608-183	0	0	0	0	0	0	0	0
1926	628-144	1,270	0	7.33	5,300	1,270	0	7.33	5,330
1927	648-89	0	0	0	0	0	0	0	0
1928	668-86	0	0	0	0	0	0	0	0
1929	688-85	0	0	0	0	0	0	0	0
1930	703-88	0	0	0	0	0	0	0	0
1931	718-96	0	0	0	0	0	0	0	0
1932	733-90	0	0	0	0	40	0	.33	242
1933	748-89	40	0	.33	242	0	0	0	0
1934	763-87	0	0	0	0	0	0	0	0
Seepage through dam (does not include flow over dam)									
1923	568-83	-	-	23.8	17,200	-	-	24.7	17,900
1924	588-156	-	-	27.0	19,600	-	-	26.6	19,300
1925	608-183	-	-	23.3	16,900	-	-	23.3	16,800
1926	628-144	-	-	24.1	17,500	-	-	24.1	17,500
1927	648-89	-	-	24.5	17,700	-	-	24.6	17,800
1928	668-86	-	-	24.3	17,600	-	-	24.1	17,500
1929	688-85	-	-	23.3	16,900	-	-	22.3	16,100
1930	703-88	26	-	21.4	15,500	28	17	21.3	15,400
1931	718-96	-	-	23.0	16,700	-	-	24.4	17,700
1932	733-90	-	-	24.7	17,900	-	-	25.5	18,500
1933	748-89	-	-	28.3	20,500	-	-	29.2	21,100
1934	763-87	-	-	31.0	22,400	-	-	-	-
Medina canal near Riomedina, Tex.									
1923	568-84	122	0	33.4	24,200	122	0	31.0	22,400
1924	588-157	94	0	18.4	13,300	94	0	22.2	16,100
1925	608-186	128	0	47.9	34,600	128	0	45.1	32,600
1926	628-146	52	0	14.8	10,700	52	0	16.2	11,700
1927	648-89	-	0	22.6	16,300	-	0	24.2	17,500
1928	668-87	-	0	22.9	16,600	-	0	21.7	15,700
1929	688-86	-	0	25.5	18,500	108	0	27.6	20,000
1930	703-94	-	0	32.9	23,900	-	0	28.9	21,000
1931	718-97	92	0	23.2	16,800	92	0	29.8	21,600
1932	733-91	92	0	33.6	24,400	92	0	29.7	21,600
1933	748-90	92	0	36.5	26,400	92	0	44.6	32,300

NUECES RIVER BASIN

Nueces River at Laguna, Tex.
(Drainage area, 764 square miles)

1924	588-160	2,090	8.9	154	112,000	218	8.9	68.5	49,700
1925	608-189	7,850	12	104	75,300	7,850	22	141	102,000
1926	628-149	9,570	30	138	99,800	9,570	26	106	77,000
1927	648-92	424	12	70.3	50,900	2,980	12	88.6	64,100
1928	668-89	2,980	-	71.2	51,600	1,370	-	53.6	38,900
1929	688-88	3,570	16	70.4	50,900	3,570	15	65.2	47,200
1930	703-95	14,200	-	95.5	69,200	14,200	0	159	115,000
1931	718-99	9,960	17	216	157,000	1,670	46	163	118,000
1932	733-94	20,700	33	290	210,000	20,700	35	335	243,000
1933	748-92	555	13	111	80,000	140	13	55.8	40,400
1934	763-89	-	8.9	29.0	21,000	-	7.8	24.8	17,920
1935	788-92	107,000	7.8	611	442,200	107,000	12	642	465,000
1936	808-88	26,400	47	284	205,900	26,400	47	322	233,400
1937	828-80	711	19	129	93,420	4,390	17	85.6	61,990
1938	858-83	4,390	17	117	84,950	1,050	41	100	72,460
1939	878-123	41,300	20	193	139,400	-	-	-	-

Nueces River near Uvalde, Tex.
(Drainage area, 1,930 square miles)

1928	668-90	-	-	-	-	686	-	6.90	5,010
1929	688-89	4,750	-	21.9	15,900	4,750	.2	22.7	16,500
1930	703-96	19,500	.3	85.5	61,900	19,500	.3	148	107,000
1931	718-100	9,800	1.0	145	105,000	2,340	0	84.0	60,800
1932	733-95	77,100	5.3	701	509,000	77,100	5.3	758	550,000
1933	748-93	616	13	86.8	62,800	111	7.2	29.9	21,700
1934	763-90	15	4.9	8.50	6,160	14	3.8	6.56	4,750
1935	788-93	147,000	2.6	897	649,400	147,000	2.6	916	662,200
1937	828-81	710	15	89.3	64,610	6,720	10	63.2	45,770
1938	858-84	6,720	10	89.5	64,810	4,670	12	58.0	41,980

Summary of yearly discharge, in second-feet, at stations in Nueces River Basin--Continued

Nueces River near Cinonia, Tex.
(Drainage area, 2,151 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1916	438-62	734	3.8	33.9	24,600	734	3.8	30.4	22,000
1917	458-70	64	0	9.13	6,610	64	0	6.18	4,480
1918	478-77	920	0	6.77	4,900	1,960	0	16.2	11,700
*1919	508-89	38,600	0	330	239,000	38,600	3.2	473	343,000
1920	508-89	3,600	11	200	145,000	194	11	50.4	36,600
1921	528-69	256	1.9	16.1	11,600	256	1.9	13.6	9,870
1922	548-82	3,200	2.6	91.5	66,200	3,200	5.0	94.2	68,300
*1923	568-87	13,900	.3	106	76,900	13,900	.3	171	124,000
1924	588-162	2,300	7.4	96.5	70,000	288	6.0	29.7	21,600
*1925	608-190	46,500	2.2	243	175,000	-	-	-	-

*Yearly figures not previously published.

Nueces River at Cotulla, Tex.
(Drainage area, 5,260 square miles)

1924	588-164	3,760	0	212	153,000	3,760	0	110	80,100
1925	608-192	41,900	0	478	345,000	41,900	0	482	349,000
1926	628-151	9,380	0	192	139,000	9,380	0	201	146,000
1927	648-93	1,360	0	41.9	30,400	9,320	0	134	97,300
1928	668-91	9,320	0	236	171,000	4,920	0	131	95,000
1929	688-90	15,300	0	384	279,000	15,300	0	400	291,000
1930	703-97	6,940	0	221	160,000	6,940	0	249	180,000
1931	718-101	2,750	0	210	152,000	2,400	0	161	117,000
1932	733-96	38,100	0	869	631,000	38,100	0	980	712,000
1933	748-94	4,520	0	147	107,000	308	0	37.1	26,900
1934	763-91	1,960	0	55.4	40,100	1,960	0	82.3	59,590
1935	788-94	79,000	0	1,430	1,035,000	79,000	0	1,426	1,032,000
1936	808-90	13,300	0	525	381,400	13,300	0	611	443,700
1937	828-82	4,120	0	142	102,800	1,680	0	34.2	24,780
1938	858-85	9,420	0	218	157,700	9,420	0	215	155,900
1939	878-125	8,520	0	223	161,500	-	-	-	-

Nueces River near Three Rivers, Tex.
(Drainage area, 15,600 square miles)

1916	438-66	14,000	0	722	525,000	14,000	0	704	512,000
1917	458-74	2,760	0	74.9	54,200	1,030	0	22.4	16,200
1918	478-80	14,000	0	378	275,000	14,000	0	846	614,000
*1919	508-92	†78,000	-	-	-	†78,000	-	-	-
1921	548-84	9,800	0	403	292,000	9,800	0	397	288,000
1922	548-84	13,200	.9	1,020	736,000	13,200	2.2	1,120	811,000
1923	568-88	16,400	.1	1,230	889,000	16,400	.1	1,400	1,010,000
1924	588-165	10,200	0	512	372,000	6,080	0	263	191,000
1925	608-194	16,400	0	431	313,000	16,400	0	487	353,000
1926	628-152	6,600	0	541	392,000	6,600	0	522	378,000
1927	648-94	11,400	0	298	216,000	11,400	0	394	285,000
1928	668-92	6,400	0	439	319,000	6,400	0	338	245,000
1929	688-91	28,100	0	1,020	741,000	28,100	0	1,060	770,000
1930	703-98	8,510	0	823	597,000	8,510	0	790	572,000
1931	718-102	5,970	0	630	456,000	5,970	0	564	408,000
1932	733-97	49,500	0	1,390	1,010,000	49,500	0	1,630	1,180,000
1933	748-95	5,440	0	396	287,000	2,980	0	158	115,000
1934	763-92	5,340	0	350	254,000	5,910	0	535	387,200
1935	788-95	63,400	.6	3,519	2,547,000	63,400	6.0	3,444	2,493,000
1936	808-91	26,500	39	1,058	767,900	26,500	39	1,261	915,700
1937	828-83	8,580	4.1	439	318,000	13,800	1.7	245	177,100
1938	858-86	13,800	.2	663	479,700	8,650	.2	556	402,300
1939	878-126	6,260	0	423	306,600	-	-	-	-

*Year incomplete.
†Not previously published.

Frio River at Concan, Tex.
(Drainage area, 485 square miles)

1924	588-170	-	-	-	-	263	21	76.7	55,600
1925	608-197	610	12	33.4	24,200	610	12	41.1	29,800
1926	628-155	8,290	27	90.4	65,500	8,290	28	88.0	63,700
1927	648-96	427	25	73.3	53,100	427	22	70.0	50,700
1928	668-94	-	-	32.4	23,500	223	-	30.6	22,200
1929	688-93	943	13	32.4	23,400	-	-	-	-
1931	718-106	7,330	19	205	149,000	5,570	52	178	129,000
1932	735-100	41,200	52	341	248,000	41,200	54	375	273,000
1933	748-98	577	29	111	80,300	154	29	63.0	45,600
1934	763-94	378	9.7	35.0	25,300	378	8.9	30.0	21,690
1935	788-97	22,700	8.9	306	221,500	22,700	22	338	244,400
1936	808-93	13,100	43	174	126,600	13,100	43	209	151,700
1937	828-85	707	26	129	93,550	553	23	74.6	53,990
1938	858-88	553	23	77.0	55,780	-	-	-	-

Frio River near Derby, Tex.
(Drainage area, 3,493 square miles, a part of which is noncontributing at low stages)

1916	568-91	9,690	0	111	80,600	9,690	0	115	83,800
1917	458-77	1,300	0	10.2	7,390	605	0	4.32	3,130
1918	568-91	3,190	0	31.1	22,500	4,700	0	95.5	69,200
1919	568-91	26,200	0	730	529,000	26,200	0	883	639,000

Summary of yearly discharge, in second-feet, at stations in Nueces River Basin--Continued

Frio River near Derby, Tex.--Continued
(Drainage area, 3,493 square miles, a part of which is noncontributing at low stages)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1920	568-91	7,600	0	247	179,000	1,650	0	30.2	22,000
1921	568-91	2,000	0	32.4	23,400	2,000	0	30.9	22,400
1922	568-91	9,460	0	174	126,000	9,460	0	178	129,000
1923	568-91	3,490	0	51.0	36,900	3,490	0	61.0	44,100
1924	588-173	3,390	0	51.9	37,700	3,390	0	39.1	28,400
1925	608-199	694	0	6.00	4,340	694	0	5.00	3,620
1926	628-158	15,400	0	117	84,800	15,400	0	118	85,400
1927	648-98	794	0	12.3	8,900	794	0	11.2	8,130
1928	668-94	978	0	20.8	15,100	978	0	20.8	15,100
1929	688-94	5,450	0	78.9	57,200	5,450	0	80.3	58,200
1930	703-101	3,860	0	40.5	29,300	4,190	0	66.3	48,100
1931	718-107	6,000	0	131	109,000	6,000	0	124	89,900
1932	733-101	135,000	0	917	665,000	135,000	0	953	691,000
1933	748-99	905	1.7	53.2	38,500	119	1.7	19.1	13,800
1934	763-95	572	0	12.8	9,300	572	0	15.0	10,850
1935	788-98	55,400	0	1,087	787,100	55,400	0	1,097	794,200
1936	808-94	11,500	10	191	138,900	11,500	10	230	167,200
1937	828-86	2,270	9.8	81.9	59,280	-	9.8	38.1	27,580
1938	858-89	-	1.8	36.4	26,360	-	1.8	28.8	20,840
1939	878-129	10,000	0	63.4	45,870	-	-	-	-

RIO GRANDE BASIN

Rio Grande at Thirtymile Bridge, near Creede, Colo.
(Drainage area, 163 square miles)

*1911	358-37	1,950	-	284	206,000	1,950	-	355	257,000
*1912	358-37	2,860	-	360	261,000	2,860	-	285	207,000
*1913	358-37	1,210	-	173	125,000	1,210	-	191	138,000
*1914	(†)	2,100	-	262	190,000	2,100	-	251	182,000
*1915	(†)	1,680	2	229	166,000	1,680	2	238	172,000
1916	(†)	918	2	222	161,000	918	2	274	199,000
1917	(†)	3,000	4	360	261,000	3,000	4	305	221,000
1918	(†)	1,080	1	169	122,000	1,080	1	156	113,000
*1919	(†)	1,640	1	210	152,000	1,640	2	211	153,000
1920	(†)	1,860	4	270	196,000	1,860	4	274	199,000
1921	(†)	3,470	8	308	223,000	3,470	8	320	232,000
*1922	(†)	1,900	-	282	204,000	1,900	-	267	193,000
1923	(†)	1,210	-	215	156,000	-	-	-	-
1927	(†)	5,720	-	262	190,000	5,720	-	294	213,000
1928	(†)	1,140	-	262	190,000	1,140	-	240	174,000
1929	(†)	1,540	-	243	176,000	1,540	-	267	193,000
1930	(†)	1,430	4	225	163,000	1,430	4	199	144,000
1931	(†)	880	3	107	77,300	880	3	106	77,000
1932	(†)	1,660	-	225	163,000	1,660	-	229	166,000
1933	(†)	1,320	-	178	129,000	1,320	-	175	127,000
1934	763-99	826	-	113	81,600	826	-	109	79,220
1935	788-102	1,610	-	173	125,000	1,610	-	172	124,600
1936	808-97	1,100	2	191	138,800	1,100	2	187	135,400
1937	828-89	964	2	169	122,100	964	.6	176	127,200
1938	858-92	2,640	.6	244	176,400	2,640	.6	242	175,100
1939	878-133	1,130	7.2	205	148,200	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing records estimated.
†From reports of State engineer.

Rio Grande at Wason, below Creede, Colo.
(Drainage area, 705 square miles)

*1908	358-45	3,420	-	605	439,000	3,420	-	580	421,000
*1909	358-45	6,250	-	863	625,000	6,250	-	902	653,000
*1910	358-45	4,430	-	653	473,000	4,430	-	620	449,000
1911	358-46	4,310	-	772	573,000	5,170	-	906	656,000
1912	358-46	5,290	-	910	661,000	5,290	-	904	656,000
*1913	358-46	2,370	-	467	338,000	2,370	-	496	359,000
*1914	(†)	4,660	-	790	572,000	4,660	-	797	577,000
1915	(†)	3,320	80	565	409,000	3,320	80	638	462,000
*1916	(†)	2,580	-	683	496,000	2,580	-	788	572,000
*1917	(†)	5,610	-	917	664,000	5,610	-	800	579,000
*1918	(†)	2,220	-	464	336,000	2,220	-	456	330,000
*1919	(†)	3,520	-	666	482,000	3,520	90	667	483,000
*1920	(†)	4,630	-	858	623,000	4,630	-	873	634,000
1921	(†)	8,340	120	989	716,000	8,340	120	1,010	731,000
*1922	(†)	4,350	-	823	596,000	4,350	-	786	569,000
1923	(†)	2,980	-	560	478,000	2,980	-	699	506,000
1924	(†)	4,220	-	731	531,000	4,220	-	691	502,000
1925	(†)	2,280	-	565	409,000	2,280	-	591	428,000
1926	(†)	3,150	-	619	448,000	3,150	-	591	428,000
1927	(†)	8,620	-	753	545,000	8,620	-	794	589,000
1928	(†)	2,420	-	638	463,000	2,420	-	573	416,000
1929	(†)	3,420	-	690	500,000	3,420	-	725	525,000
1930	(†)	2,550	-	558	404,000	2,550	-	522	378,000
1931	(†)	1,810	-	340	246,000	1,810	-	343	248,000
1932	(†)	3,110	-	697	506,000	3,110	-	689	500,000
1933	(†)	2,410	-	441	319,000	2,410	-	443	321,000
1934	763-101	1,810	-	312	226,100	1,810	58	299	216,600
1935	788-103	3,100	55	517	374,400	3,100	55	522	377,800
1936	808-98	2,600	-	431	313,000	2,600	62	424	307,800
1937	828-90	1,810	62	459	332,600	1,810	60	465	336,300
1938	858-92	4,840	56	670	485,300	4,840	56	705	510,600
1939	878-134	2,250	-	523	379,000	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Rio Grande near Del Norte, Colo.
(Drainage area, 1,320 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1890	(*)	5,930	-	1,110	807,000	5,930	-	1,140	823,000
1891	(*)	5,650	-	1,150	834,000	5,650	-	1,190	860,000
1892	(*)	4,710	-	806	585,000	4,710	-	733	532,000
1893	(*)	3,320	-	541	392,000	3,320	-	541	392,000
1894	(*)	3,570	-	570	413,000	3,570	-	586	424,000
1895	(*)	3,690	-	881	638,000	3,690	-	898	650,000
1896	(*)	3,510	-	678	492,000	3,510	-	671	487,000
1897	(*)	5,230	-	1,010	729,000	5,230	-	1,140	823,000
1898	(*)	5,270	-	1,260	912,000	5,270	-	1,100	798,000
1899	(*)	2,320	-	508	368,000	2,320	-	543	393,000
1900	(*)	5,450	-	724	524,000	5,450	-	699	506,000
1901	(*)	4,480	-	680	492,000	4,480	-	673	487,000
1902	(*)	1,790	69	352	255,000	1,790	69	348	252,000
†1903	(*)	6,020	-	1,140	824,000	6,020	-	1,080	784,000
†1904	(*)	2,040	-	467	339,000	2,040	-	591	429,000
†1905	(*)	10,000	-	1,280	928,000	10,000	-	1,170	847,000
1906	(*)	7,670	-	1,240	900,000	7,670	-	1,310	949,000
†1907	(*)	7,400	-	1,640	1,190,000	7,400	-	1,590	1,150,000
†1908	(*)	4,130	-	799	580,000	4,130	-	762	553,000
†1909	(*)	6,870	-	1,200	870,000	6,870	-	1,270	918,000
1910	(*)	5,260	-	954	691,000	5,260	-	905	655,000
1911	(*)	6,450	180	1,270	922,000	14,000	200	1,490	1,080,000
†1912	(*)	14,000	215	1,340	970,000	6,940	180	1,120	812,000
†1913	(*)	3,800	-	732	530,000	3,800	-	768	556,000
†1914	(*)	5,820	-	876	634,000	5,820	-	1,100	795,000
1915	(*)	4,500	130	949	687,000	4,500	130	924	669,000
1916	(*)	4,690	170	1,140	825,000	4,690	200	1,280	932,000
†1917	(*)	8,250	-	1,380	1,000,000	8,250	132	1,180	852,000
†1918	(*)	3,720	132	728	527,000	3,720	175	722	523,000
1919	(*)	5,770	175	1,060	764,000	5,770	200	1,070	773,000
1920	(*)	7,710	220	1,370	995,000	7,710	220	1,380	1,000,000
1921	(*)	9,630	215	1,410	1,020,000	9,630	210	1,440	1,040,000
1922	(*)	8,000	240	1,360	984,000	8,000	209	1,310	951,000
1923	(*)	5,210	209	1,070	778,000	5,210	-	1,150	835,000
1924	(*)	5,720	-	1,150	834,000	5,720	-	1,070	770,000
1925	(*)	3,400	-	902	653,000	3,400	-	971	703,000
1926	(*)	5,450	-	982	711,000	5,450	-	924	669,000
1927	(*)	12,600	-	1,240	898,000	12,600	-	1,330	966,000
1928	(*)	4,520	-	1,020	740,000	4,520	-	933	677,000
1929	(*)	5,360	-	1,180	857,000	5,360	-	1,240	898,000
1930	(*)	3,700	-	826	598,000	3,700	-	762	552,000
1931	(*)	2,430	-	494	358,000	2,430	-	499	361,000
1932	(*)	5,200	-	1,230	891,000	5,200	-	1,200	885,000
1933	(*)	4,030	-	691	500,000	4,030	-	698	505,000
1934	763-101	2,610	-	467	338,200	2,610	-	443	320,400
1935	788-104	5,810	90	938	679,000	5,810	95	947	685,500
1936	808-99	3,350	95	655	475,500	3,350	126	651	472,300
1937	828-91	3,630	126	791	572,800	3,630	135	798	577,800
1938	858-94	6,130	-	1,094	791,900	6,130	-	1,146	829,600
1939	878-135	3,270	185	776	561,700	-	-	-	-

*From reports of State engineer.
†Yearly figures not previously published; discharge for periods of missing records estimated.

Rio Grande near Monte Vista, Colo.
(Drainage area, 1,740 square miles)

1926	(*)	May 1 to Nov. 30				2,610	5	-	165,000
1927	(*)	Apr. 1 to Nov. 30				12,500	4	-	451,000
1928	(*)	Apr. 1 to Nov. 30				2,580	8	-	153,000
1929	(*)	Apr. 1 to Nov. 30				2,680	60	-	361,000
1930	(*)	Apr. 1 to Nov. 30				1,200	7	-	126,000
1931	(*)	Mar. 19 to Nov. 30				791	8	-	79,300
1932	(*)	Mar. 1 to Nov. 30				3,260	8	-	269,000
1933	(*)	Mar. 22 to Nov. 30				1,340	16	-	108,000
1934	763-102	Feb. 1 to Dec. 31				834	22	-	96,100
1935	788-105	3,120	5	294	212,700	3,120	5	306	221,800
1936	808-100	1,350	7	200	145,000	1,350	7.0	205	148,500
1937	828-92	1,370	8.8	233	168,400	1,370	5.5	222	160,500
1938	858-95	3,930	5.5	443	320,500	3,930	10	509	368,500
1939	878-136	985	15	300	217,500	-	-	-	-

*From reports of State engineers.

Rio Grande at Alamosa, Colo.
(Drainage area, 1,840 square miles)

1918	(*)	880	7	163	118,000	880	7	153	111,000
1919	(*)	3,360	24	428	310,000	3,360	24	439	318,000
1920	(*)	5,660	29	752	546,000	5,660	58	771	560,000
1921	(*)	10,000	112	873	632,000	10,000	112	878	636,000
1922	(*)	3,930	9	530	384,000	3,930	9	490	355,000
1923	(*)	1,660	14	345	250,000	1,660	14	467	338,000
1924	(*)	3,070	17	547	397,000	3,070	16	419	304,000
1925	(*)	554	16	166	120,000	554	20	215	156,000
1926	(*)	1,380	7	272	197,000	1,380	7	225	163,000
1927	(*)	10,600	8	450	326,000	10,600	8	562	407,000
1928	(*)	1,950	18	329	239,000	1,950	18	211	153,000
1929	(*)	2,330	18	337	244,000	2,330	18	430	311,000
1930	(*)	1,340	10	225	163,000	1,340	10	125	90,800

*From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Rio Grande at Alamosa, Colo.---Continued
(Drainage area, 1,840 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1931	(*)	-	16	93.1	67,400	-	7	90.6	65,600
1932	(*)	2,980	7	244	177,000	2,980	10	262	190,000
1933	(*)	380	4	106	76,600	380	4	92.1	66,700
1934	763-103	270	2	79.7	57,700	270	3	67.4	48,790
1935	788-106	2,200	3	122	88,430	2,200	10	137	98,840
1936	808-101	341	15	88.3	64,100	341	10	94.6	68,710
1937	828-93	828	10	129	93,080	828	5.2	116	84,280
1938	858-96	2,350	5.2	273	197,500	2,350	20	343	248,600
1939	878-137	896	13	201	145,500	-	-	-	-

*From reports of State engineer.

Rio Grande near Lobatos (Cenicero), Colo.
(Drainage area, 7,700 square miles*)

1900	358-95	4,700	8	443	320,000	4,700	8	420	304,000
1901	358-95	3,620	12	400	291,000	3,620	12	394	285,000
1902	358-95	565	6	150	109,000	565	6	136	98,700
1903	358-95	12,800	8	848	611,000	12,800	8	866	627,000
1904	358-96	751	14	101	73,100	3,200	14	259	188,000
1905	358-96	13,100	45	1,500	1,090,000	13,100	45	1,360	986,000
1906	358-96	8,280	45	1,030	745,000	8,280	45	1,160	842,000
1907	358-96	8,800	-	2,060	1,480,000	8,800	-	1,990	1,440,000
†1908	358-96	2,150	-	554	402,000	2,150	-	501	364,000
1909	358-96	7,460	-	1,200	867,000	7,460	-	1,290	933,000
1910	358-97	5,360	20	869	632,000	5,360	20	768	556,000
1911	358-97	5,750	30	1,110	804,000	5,750	65	1,440	1,040,000
1912	358-97	8,680	110	1,460	1,060,000	8,680	110	-	849,000
1913	358-97	1,810	-	399	289,000	1,810	-	413	299,000
1914	(‡)	4,580	-	791	573,000	4,580	-	819	593,000
1915	(‡)	3,790	165	711	515,000	3,790	165	651	471,000
1916	(‡)	5,910	175	864	627,000	5,910	160	1,070	774,000
1917	(‡)	7,750	120	1,310	948,000	7,750	120	1,110	803,000
1918	(‡)	1,570	30	373	270,000	1,570	30	363	263,000
1919	(‡)	3,520	90	829	600,000	3,520	90	845	612,000
1920	(‡)	4,630	-	1,390	1,010,000	4,630	-	1,430	1,040,000
1921	(‡)	12,200	124	1,200	871,000	12,200	225	1,190	863,000
1922	(‡)	7,220	75	979	709,000	7,220	75	931	674,000
1923	(‡)	3,970	91	782	566,000	3,970	91	961	696,000
1924	(‡)	7,380	46	1,220	888,000	7,380	46	1,040	753,000
1925	(‡)	922	76	366	265,000	922	76	446	323,000
1926	(‡)	3,240	30	669	484,000	3,240	30	588	426,000
1927	(‡)	9,580	73	847	613,000	9,580	136	1,000	724,000
1928	(‡)	3,960	22	601	436,000	3,960	22	448	325,000
1929	(‡)	3,490	44	707	512,000	3,490	44	826	598,000
1930	(‡)	1,730	41	490	355,000	1,530	41	373	270,000
1931	(‡)	900	13	196	142,000	900	13	174	126,000
1932	(‡)	5,670	70	789	573,000	5,670	93	821	596,000
1933	(‡)	2,130	22	345	250,000	2,130	22	327	237,000
1934	763-104	582	6	165	119,400	582	6	137	98,880
1935	788-107	4,420	17	458	331,800	4,420	17	498	360,400
1936	808-103	2,300	8	367	266,700	2,300	8	387	281,000
1937	828-95	4,220	22	689	498,800	4,220	22	643	465,800
1938	858-98	3,830	51	687	497,600	3,830	51	788	570,700
1939	878-139	1,590	8	402	291,300	-	-	-	-

*Includes 2,940 square miles in closed basin in San Luis Valley.
†Yearly figures not previously published; discharge for periods of missing record estimated.
‡From reports of State engineer.

Rio Grande below Taos Junction Bridge, near Taos, N. Mex.
(Drainage area, 9,730 square miles*)

1926	(†)	4,530	215	1,008	730,000	4,530	215	924	668,700
1927	(†)	11,000	259	1,179	853,800	11,000	347	1,359	981,700
1928	(†)	-	-	844	612,700	-	-	648	470,200
1929	(†)	3,720	-	909	657,900	3,720	-	1,034	748,300
1930	(†)	1,840	204	715	517,800	1,770	204	613	443,900
1931	733-104	950	140	408	295,500	950	140	398	288,600
1932	733-105	6,650	250	1,150	836,500	6,650	300	1,168	847,800
1933	748-103	2,460	-	558	404,000	2,460	-	529	393,300
1934	763-105	710	178	368	266,300	710	178	338	244,900
1935	788-108	4,990	220	750	543,100	4,990	220	794	575,000
1936	808-104	3,020	179	628	456,300	3,020	179	651	472,900
1937	828-96	5,860	242	1,151	833,100	5,860	242	1,101	797,100
1938	858-99	4,650	265	1,047	758,200	4,650	270	1,139	824,400
1939	878-140	2,270	188	659	476,800	-	-	-	-

*Includes 2,940 square miles in closed basin in San Luis Valley, Colo.
†From reports of State engineer.

Rio Grande at Embudo, N. Mex.
(Drainage area, 10,400 square miles*)

1889	358-116	-	-	-	-	5,660	181	1,033	747,800
1890	358-116	6,070	239	1,417	1,026,000	6,070	260	1,470	1,064,000
1891	358-117	8,550	320	1,763	1,276,000	8,550	195	1,862	1,348,000
1892	358-117	6,660	140	1,425	1,032,000	6,660	140	1,239	899,500
1893	358-117	5,100	115	827	598,900	5,100	115	842	609,300
1895	358-117	4,980	261	1,197	866,300	4,980	420	1,223	885,500

*Includes 2,940 square miles in closed basin in San Luis Valley, Colo.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Rio Grande at Embudo, N. Mex.--Continued
(Drainage area, 10,400 square miles*)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1896	358-118	2,980	210	685	497,200	2,980	210	645	468,100
1897	358-118	8,740	210	1,357	982,500	8,740	285	1,531	1,108,000
1898	358-118	4,700	310	1,346	974,600	4,700	265	1,157	837,800
1899	358-118	1,550	65	486	351,500	1,550	65	518	375,200
1900	358-118	5,410	150	743	539,500	5,410	150	707	513,000
1901	358-119	5,410	220	749	542,200	5,410	220	764	553,300
1902	358-119	1,360	130	422	305,720	1,360	130	390	282,100
1903	358-119	15,900	170	1,405	1,017,000	15,900	35	1,431	1,036,000
1913	358-119	2,040	241	662	478,600	2,040	241	690	499,500
1914	388-16	7,000	309	1,316	952,700	7,000	401	1,362	985,700
1915	408-37	7,330	378	1,329	962,400	7,330	370	1,255	908,500
1916	438-76	9,410	370	1,385	1,005,000	9,410	-	-	-
1917	(†)	-	-	-	-	7,050	330	1,362	985,800
1918	(†)	2,230	175	676	489,600	2,230	175	674	487,800
1919	(†)	5,950	265	1,287	932,000	5,950	265	1,329	962,500
1920	(†)	15,000	370	2,183	1,584,000	15,000	405	2,174	1,578,000
1921	(†)	14,900	339	1,673	1,211,000	14,900	339	1,673	1,211,000
1922	(†)	8,620	262	1,333	965,300	8,620	262	1,276	923,900
1923	(†)	4,640	278	1,061	767,800	4,640	300	1,260	912,200
1924	(†)	8,770	300	1,663	1,207,000	8,770	310	1,484	1,077,000
1925	(†)	1,160	281	608	439,900	1,160	281	676	489,200
1926	(†)	6,960	244	1,303	943,500	6,960	244	1,225	887,200
1927	(†)	11,000	265	1,250	905,000	11,000	413	1,405	1,017,000
1928	(†)	5,640	233	934	678,400	5,640	233	760	551,400
1929	(†)	4,270	-	999	723,600	4,270	-	1,144	828,300
1930	(†)	2,210	253	807	584,200	2,210	253	683	494,400
1931	733-107	1,150	174	502	363,700	1,150	174	498	360,700
1932	733-107	8,020	261	1,241	901,100	8,020	306	1,249	906,800
1933	748-104	2,580	223	612	442,800	2,580	223	594	430,100
1934	763-106	784	182	390	282,100	784	182	360	260,300
1935	788-109	5,750	226	889	643,300	5,750	254	943	683,000
1936	808-105	3,240	196	720	522,900	3,240	196	744	540,500
1937	828-97	6,370	223	1,234	893,500	6,370	223	1,180	854,300
1938	858-100	5,140	276	1,092	790,400	5,140	276	1,182	856,100
1939	878-141	2,190	190	715	517,600	-	-	-	-

*Includes 2,940 square miles in closed basin in San Luis Valley, Colo.
†From reports of State engineer.

Rio Grande at Otowi Bridge, near San Ildefonso, N. Mex.
(Drainage area, 14,300 square miles*)

1896	358-138	5,250	-	1,034	750,900	5,250	210	969	703,300
1897	358-138	15,300	200	2,409	1,744,000	15,300	200	2,619	1,896,000
1898	358-138	8,020	215	1,700	1,231,000	8,020	230	1,501	1,087,000
1899	358-139	8,260	95	924	669,100	8,260	95	942	682,200
1900	358-139	7,500	110	1,018	739,200	7,500	110	977	707,500
1901	358-139	8,000	200	1,171	848,100	8,000	200	1,183	856,200
1902	358-139	6,460	60	630	455,800	6,460	60	586	424,400
1903	358-140	19,300	200	2,281	1,652,000	19,300	300	2,303	1,668,000
1904	358-140	9,790	62	637	460,600	17,700	62	1,003	727,800
1905	358-140	19,500	40	3,154	2,284,000	19,500	40	2,828	2,048,000
1913	358-141	4,440	139	1,030	746,000	4,440	139	1,066	771,400
1914	388-19	8,410	480	2,004	1,451,000	8,410	428	2,066	1,496,000
1916	(†)	15,900	472	2,514	1,825,000	-	-	-	-
1917	(†)	-	-	-	-	9,960	390	1,985	1,437,000
1919	(†)	-	-	-	-	12,100	340	2,301	1,666,000
1920	(†)	28,800	470	3,252	2,361,000	28,800	545	3,248	2,358,000
1921	(†)	17,400	560	2,417	1,750,000	17,400	595	2,408	1,743,000
1922	(†)	10,000	200	1,828	1,324,000	10,000	200	1,749	1,266,000
1923	(†)	8,320	230	1,730	1,252,000	8,316	498	2,024	1,465,000
1924	(†)	16,900	120	2,530	1,837,000	16,910	120	2,274	1,651,000
1925	(†)	-	-	1,077	779,700	-	-	1,168	845,700
1926	(†)	-	-	1,941	1,405,000	-	-	1,819	1,317,000
1927	(†)	10,500	354	2,033	1,472,000	10,500	513	2,253	1,631,000
1928	(†)	7,740	203	1,472	1,069,000	7,740	-	1,231	893,700
1929	(†)	8,130	-	1,703	1,233,000	8,130	-	1,904	1,378,000
1930	(†)	6,040	219	1,423	1,030,000	6,040	219	1,279	925,200
1931	733-109	4,600	171	836	605,000	4,600	171	869	629,300
1932	733-109	13,500	355	2,416	1,754,000	13,500	355	2,380	1,728,000
1933	748-105	5,570	161	1,105	800,100	5,570	161	1,079	781,000
1934	763-107	1,880	128	572	414,000	1,880	128	525	380,400
1935	788-110	7,490	278	1,407	1,019,000	7,490	350	1,520	1,101,000
1936	808-106	8,560	495	1,463	1,062,000	8,560	495	1,476	1,072,000
1937	828-98	10,600	545	2,352	1,703,000	10,600	413	2,286	1,654,000
1938	858-101	7,520	413	1,745	1,264,000	7,520	492	1,837	1,330,000
1939	878-144	4,860	280	1,227	888,700	-	-	-	-

*Includes 2,940 square miles in closed basin in San Luis Valley, Colo.
†From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Rio Grande at Cochiti, N. Mex.
(Drainage area, 14,600 square miles*)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1926	(†)	-	-	2,113	1,530,000	-	-	1,983	1,435,000
1927	(†)	13,800	307	2,072	1,500,000	13,800	579	2,318	1,678,000
1928	(†)	6,920	159	1,419	1,030,000	6,920	-	1,177	854,400
1929	(†)	10,200	-	1,666	1,206,000	10,200	430	1,887	1,366,000
1930	(†)	6,250	180	1,420	1,028,000	6,250	180	1,207	874,400
1931	733-111	5,000	130	773	559,900	5,000	130	818	593,000
1932	733-111	12,700	278	2,281	1,656,000	12,700	278	2,266	1,645,000
1933	748-106	4,400	267	1,032	746,800	4,400	267	976	706,300
1934	763-108	1,650	1	455	329,400	1,650	1	419	303,300
1935	788-111	7,560	104	1,308	947,100	7,560	215	1,411	1,022,000
1936	808-107	8,210	335	1,348	978,700	8,210	335	1,355	983,600
1937	828-99	11,000	486	2,306	1,669,000	11,000	252	2,262	1,637,000
1938	858-102	7,130	252	1,607	1,163,000	7,130	404	1,699	1,230,000
1939	878-145	4,790	138	1,171	847,800	-	-	-	-

*Includes 2,940 square miles in closed basin in San Luis Valley, Colo.
†From reports of State engineer.

Rio Grande at San Felipe, N. Mex.
(Drainage area, 16,000 square miles*)

1926	(†)	-	-	-	-	11,000	81	2,120	1,535,000
1927	(†)	10,400	316	2,667	1,931,000	10,400	609	2,537	1,837,000
1928	(†)	9,310	131	1,643	1,193,000	9,310	131	1,381	1,002,000
1929	(†)	17,000	-	1,730	1,252,000	17,000	246	1,977	1,431,000
1930	(†)	5,310	140	1,499	1,085,000	5,310	140	1,277	924,600
1931	733-113	6,250	178	832	602,800	6,250	178	857	620,700
1932	733-113	15,900	317	2,387	1,733,000	15,900	317	2,386	1,732,000
1933	748-107	5,780	270	1,172	847,000	5,780	270	1,172	848,200
1934	763-109	1,680	34	602	435,800	1,680	34	524	379,000
1935	788-112	9,250	224	1,523	1,103,000	9,250	310	1,640	1,187,000
1936	808-108	9,780	449	1,539	1,117,000	9,780	486	1,539	1,117,000
1937	828-100	12,000	534	2,546	1,844,000	12,000	428	2,493	1,804,000
1938	858-103	7,300	428	1,649	1,194,000	7,300	440	1,737	1,258,000
1939	878-146	4,620	255	1,223	885,700	-	-	-	-

*Includes 2,940 square miles in closed basin in San Luis Valley, Colo.
†From reports of State engineer.

Rio Grande at (near) San Marcial, N. Mex.
(Drainage area, 27,700 square miles*)

1897	358-166	21,800	0	2,350	1,701,000	21,800	5	3,060	2,215,000
1898	358-166	16,800	0	2,124	1,538,000	16,800	0	1,326	960,000
1899	358-166	4,660	0	333	241,400	4,660	0	3,312	239,800
1900	358-167	8,500	0	671	485,900	8,500	0	643	466,500
1901	358-167	6,600	0	846	612,600	6,600	0	907	656,300
1902	358-167	10,500	0	332	240,300	10,500	0	277	200,700
1903	358-167	18,900	0	1,746	1,264,000	18,900	0	1,757	1,272,000
1904	358-167	7,550	0	245	178,000	33,000	0	978	709,800
1905	358-167	33,000	0	3,999	2,895,000	29,100	0	3,345	2,422,000
1906	358-167	10,800	0	1,952	1,413,000	10,800	0	2,160	1,564,000
1907	358-167	11,700	685	3,076	2,227,000	11,700	545	2,981	2,158,000
1908	358-167	4,070	0	1,197	868,700	4,070	0	1,066	774,100
1909	358-168	9,490	0	.1,671	1,210,000	9,490	20	1,768	1,280,000
1910	358-168	8,420	0	1,328	961,100	8,420	0	1,178	852,700
1911	358-168	11,000	0	1,859	1,346,000	11,800	0	2,486	1,800,000
1912	358-168	15,300	0	2,650	1,924,000	15,300	0	2,066	1,500,000
1913	358-168	6,230	0	685	493,800	6,230	0	726	525,400
1914	388-22	7,920	50	1,535	1,111,000	7,920	230	1,627	1,178,000
1915	408-40	12,600	5	1,998	1,444,000	12,600	5	1,870	1,354,000
1916	438-78	15,100	125	1,957	1,421,000	15,100	135	2,272	1,649,000
1917	458-83	11,400	0	1,811	1,311,000	9,080	0	1,459	1,056,000
1918	478-89	3,320	0	524	379,000	3,320	0	568	411,200
1919	508-104	12,700	0	2,109	1,527,000	12,700	0	2,181	1,579,000
1920	508-104	22,500	0	3,099	2,250,000	22,500	0	3,061	2,222,000
1921	528-77	19,400	90	2,220	1,607,000	19,400	150	2,245	1,625,000
1922	628-166	10,400	0	1,477	1,069,000	10,400	0	1,330	963,000
1923	628-166	9,450	0	1,332	964,500	9,450	0	1,691	1,224,000
1924	628-166	12,400	0	2,329	1,691,000	12,400	0	1,981	1,438,000
1925	628-166	3,300	0	443	320,800	3,300	0	578	418,800
1926	628-166	10,900	0	1,548	1,121,000	10,900	0	1,448	1,048,000
1927	668-97	10,100	13	1,627	1,178,000	10,100	62	1,863	1,349,000
1928	668-97	7,500	0	1,064	772,700	7,500	0	8,501	617,100
1929	688-95	-	0	1,711	1,239,000	-	-	1,988	1,439,000
1930	703-102	5,140	0	1,285	930,200	5,140	0	1,010	731,100
1931	733-115	5,930	0	577	418,000	5,930	0	677	489,800
1932	733-115	12,400	0	1,989	1,444,000	12,400	0	1,929	1,400,000
1933	748-108	16,200	1.6	990	716,800	16,200	1.6	989	716,100
1934	763-110	7,210	0	412	298,300	7,210	0	338	244,400
1935	788-113	11,500	.9	1,267	917,600	11,500	.9	1,420	1,028,000
1936	808-109	8,710	0	1,202	872,900	8,710	0	1,194	866,900
1937	828-107	25,100	44	2,206	1,597,000	25,100	44	2,152	1,558,000
1938	858-107	6,910	54	1,386	1,004,000	6,790	53	1,456	1,054,000
1939	878-149	4,690	.8	850	615,700	-	-	-	-

*Includes areas of closed basins.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Rio Grande below Elephant Butte Dam, N. Mex.

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1917	458-84	3,200	0	1,894	1,371,000	3,200	0	1,801	1,304,000
1918	478-91	2,020	0	1.180	854,400	2,020	0	960	695,200
1919	508-106	2,320	0	961	695,700	2,320	2	932	674,400
1920	508-106	2,170	2	1 107	804,000	2,170	1	1,238	898,400
1921	528-78	2,400	1	1,294	937,100	2,400	2	1,354	980,000
1922	548-92	3,000	2	1,441	1,043,000	3,000	3	1,379	998,600
1923	568-99	2,440	3	1,244	900,300	2,440	0	1,167	845,100
1924	588-177	3,270	0	1,371	995,600	3,270	0	1,382	1,003,000
1925	608-207	2,750	0	1,194	864,300	2,750	0	1,130	818,000
1926	628-168	2,580	0	1,040	752,900	2,580	0	1,052	761,700
1927	648-100	2,660	5	1,187	859,300	2,660	0	1,218	882,100
1928	668-98	2,420	0	1,181	857,100	2,420	3	1,150	835,000
1929	688-96	2,310	3	1,002	725,200	2,310	3	968	701,000
1930	703-103	2,620	3	1,067	772,700	2,620	3	1,096	793,600
1931	733-117	2,520	3	1,032	747,500	2,520	3	1,037	750,600
1932	733-117	2,520	2.4	1,142	828,900	2,520	2	1,146	831,800
1933	748-109	2,550	2	1,131	819,100	2,550	2	1,142	826,700
1934	763-111	2,550	2.4	1,170	847,200	2,550	2.4	1,110	803,800
1935	788-114	2,330	2.6	862	624,000	2,330	3.8	879	636,400
1936	808-110	2,580	3.8	1,034	750,800	2,580	10	1,029	747,100
1937	828-108	2,670	9.2	1,035	749,400	2,670	9.2	1,048	758,500
1938	858-108	2,690	8.4	1,057	764,900	2,960	8.4	1,216	880,500
1939	878-150	2,960	11	1,265	915,600	-	-	-	-

Clear Creek below Continental Reservoir, Colo.
(Drainage area, 49 square miles)

1930	(*)	185	10	36.2	26,200	185	10	34.3	24,800
1931	(*)	95	-	18.6	13,500	95	-	18.2	13,200
1932	(*)	213	-	35.0	25,400	213	-	34.4	25,000
1933	(*)	236	-	28.2	20,400	236	-	27.9	20,200
1934	763-112	154	5	18.0	13,030	154	5	18.0	13,030
1935	788-115	216	0	23.3	16,890	216	0	23.9	17,270
1936	808-111	190	-	28.6	20,740	190	-	28.7	20,800
1937	828-109	278	-	25.6	18,560	278	-	26.3	19,040
1938	858-109	211	8.5	36.7	26,600	211	3.6	38.2	27,670
1939	878-154	228	3.6	40.4	29,220	-	-	-	-

*From records of State engineer.

South Fork of Rio Grande at South Fork, Colo.
(Drainage area, 216 square miles)

1911	358-341	2,030	-	296	215,000	2,030	-	354	256,000
1912	358-341	-	-	273	219,000	1,720	-	251	182,000
1913	358-341	920	-	168	122,000	920	30	167	121,000
*1914	(†)	1,200	-	210	152,000	1,200	-	220	159,000
1915	(†)	1,340	20	213	154,000	1,340	20	199	144,000
1916	(†)	1,920	28	298	216,000	1,920	45	332	241,000
*1917	(†)	2,270	-	343	248,000	2,270	-	308	223,000
1918	(†)	1,050	27	169	122,000	1,050	-	169	122,000
*1919	(†)	1,350	-	213	154,000	1,350	-	215	156,000
*1920	(†)	2,150	-	344	250,000	2,150	-	343	249,000
1921	(†)	2,060	38	250	181,000	2,060	-	247	179,000
*1922	(†)	2,540	-	298	216,000	-	-	-	-
1937	828-110	1,670	-	230	166,700	1,670	-	227	164,600
1938	858-110	1,720	-	262	189,800	1,720	-	275	199,900
1939	878-155	778	-	155	112,200	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer.

Saguache Creek near Saguache, Colo.
(Drainage area, 595 square miles)

*1911	358-355	329	-	88.0	63,700	-	-	95.0	68,800
*1912	358-355	425	-	98.1	71,200	425	-	-	-
*1915	(†)	372	-	80.8	58,500	372	19	81.8	59,200
1916	(†)	275	19	83.2	60,400	275	-	86.4	62,700
*1917	(†)	516	-	96.3	69,700	516	-	92.5	67,000
1918	(†)	201	20	65.7	47,600	201	20	67.7	49,000
*1919	(†)	572	-	107	77,600	572	-	107	77,400
*1920	(†)	580	-	96.4	70,000	580	-	97.4	70,700
*1921	(†)	674	-	110	79,500	674	-	110	79,400
*1922	(†)	386	-	77.9	56,400	386	-	74.6	54,000
*1923	(†)	271	-	84.3	61,000	271	-	90.6	65,600
*1924	(†)	602	-	122	88,700	602	-	116	84,000
*1925	(†)	168	-	67.5	48,900	168	-	71.0	51,400
1926	(†)	407	-	84.3	61,000	407	-	85.1	61,600
*1927	(†)	310	-	80.9	58,600	310	-	84.9	61,500
*1928	(†)	664	-	106	77,200	664	-	99.7	72,400
*1929	(†)	289	-	95.6	69,200	289	-	101	72,800
*1930	(†)	187	-	65.3	47,300	187	-	60.5	43,800
*1931	(†)	166	-	45.0	32,600	166	-	42.0	30,400
*1932	(†)	576	-	76.6	55,600	576	-	78.4	56,900
*1933	(†)	256	-	51.1	37,000	256	-	49.9	36,100
*1934	763-113	73	-	33.6	24,330	73	-	31.7	22,920
*1935	788-117	389	-	59.4	42,990	389	-	61.9	44,790
*1936	808-120	123	-	47.1	34,160	123	-	47.9	34,750
1937	828-115	Apr. 7 to Dec. 10				282	30	-	35,210
1938	858-115	Apr. 1 to Nov. 13				442	32	-	54,310

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Carnero Creek near La Garita, Colo.
(Drainage area, 117 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Run-off in acre-feet
1919, Apr. 1 to Oct. 31	(*)	251	6	17,600
1920, Mar. 1 to Oct. 31	(*)	146	6	11,100
1921, Apr. 1 to Oct. 31	(*)	124	7	14,300
1922, Apr. 24 to Oct. 31	(*)	58	4.0	8,650
1923, Apr. 1 to Oct. 31	(*)	60	6	12,200
1924, Apr. 1 to Nov. 30	(*)	500	4	24,400
1925, Mar. 1 to Dec. 31	(*)	38	-	7,950
1926, Jan. 1 to Nov. 30	(*)	70	2	10,700
1927, Mar. 1 to Oct. 31	(*)	23	6	4,870
1928, Apr. 1 to Oct. 31	(*)	218	3	14,800
1929, May 1 to Oct. 31	(*)	168	5	10,100
1930, Apr. 1 to Oct. 31	(*)	79	3	6,880
1931, Apr. 15 to Oct. 31	(*)	24	2	3,140
1932, Apr. 11 to Oct. 31	(*)	40	2	4,350
1933, Apr. 1 to Oct. 31	(*)	53	2	3,810
1934, Apr. 1 to Oct. 31	763-114	15	1	2,140
1935, Mar. 25 to Oct. 31	788-118	76	1	7,920
1936, May 1 to Oct. 31	808-127	58	1.9	4,900
1937, Apr. 1 to Oct. 31	828-117	64	2.5	7,430
1938, Apr. 1 to Oct. 31	858-117	122	3.6	12,760

*From reports of State engineer.

La Garita Creek near La Garita, Colo.
(Drainage area, 61 square miles)

1919, Apr. 1 to Oct. 31	(*)	252	4.5	20,600
1920, Mar. 1 to Oct. 31	(*)	173	3	12,900
1921, Mar. 15 to Oct. 31	(*)	272	4	20,600
1922, Apr. 1 to Sept. 30	(*)	129	4.6	9,580
1923, May 1 to Oct. 31	(*)	113	16	16,300
1924, Apr. 1 to Nov. 30	(*)	316	4	27,000
1925, Apr. 1 to Dec. 31	(*)	296	-	10,800
1926, Jan. 1 to Nov. 20	(*)	174	2	16,200
1927, Apr. 1 to Sept. 30	(*)	36	2	4,910
1928, Apr. 1 to Nov. 30	(*)	69	6	8,550
1929, Apr. 22 to Sept. 30	(*)	175	8	9,880
1930, Apr. 1 to Oct. 31	(*)	62	6	7,490
1931, Apr. 1 to Oct. 31	(*)	30	3	3,630
1932, Apr. 1 to Oct. 31	(*)	44	4	6,600
1933, Apr. 1 to Oct. 31	(*)	32	4	4,690
1934, Apr. 1 to Oct. 31	763-115	22	2	2,440
1935, Apr. 1 to Nov. 30	788-119	66	3	8,360
1936, Apr. 11 to Nov. 30	808-128	55	3.3	6,560
1937, Apr. 1 to Oct. 31	828-117	87	3.0	6,470
1938, Apr. 1 to Oct. 31	858-117	131	3.2	13,040

*From reports of State engineer.

Alamosa Creek above Terrace Reservoir, Colo.
(Drainage area, 107 square miles)

1915, Apr. 1 to Oct. 31	(*)	853	16	82,400
1916, Apr. 1 to Nov. 12	(*)	850	24	110,000
†1917, Feb. 1 to Nov. 30	(*)	1,450	12	126,000
1918, Mar. 1 to Aug. 31	(*)	585	30	62,800
1919, Apr. 1 to Oct. 31	(*)	873	12	87,300
1924, Jan. 1 to Sept. 30	(*)	925	18	91,300
1925, Apr. 1 to Oct. 30	(*)	604	30	79,200
1926, Apr. 1 to Sept. 30	(*)	760	18	69,300
1927, Apr. 1 to Nov. 30	(*)	1,290	38	98,800
1935, Apr. 1 to Nov. 30	788-120	1,550	20	105,400
1936, Apr. 1 to Nov. 30	808-134	840	20	74,220
1937, Apr. 1 to Nov. 11	828-119	1,000	14	89,440
1938, Apr. 1 to Nov. 7	858-119	1,130	20	106,000

*From reports of State engineer.
†Yearly figures not previously published; discharge for periods of missing record estimated.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Alamosa Creek below Terrace Reservoir (near La Jara), Colo.
(Drainage area, 116 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1909	(*)	Apr. 18 to July 31				978	82	-	64,000
1910	(*)	Mar. 8 to Oct. 20				645	25	-	81,400
1911	(*)	Apr. 1 to Oct. 31				1,090	0	-	131,000
1912	(*)	Feb. 1 to Nov. 30				1,100	35	-	119,000
1915	(*)	Apr. 1 to Oct. 31				935	15	-	85,500
1916	(*)	Mar. 1 to Dec. 31				978	7	-	129,000
1917	(*)	Feb. 1 to Dec. 3				1,450	2	-	119,000
1918	(*)	Mar. 1 to Aug. 22				592	30	-	62,600
1919	(*)	Apr. 22 to Oct. 31				696	12	-	76,900
1920	(*)	May 1 to Oct. 31				1,290	36	-	128,000
1922	(*)	Apr. 1 to Dec. 31				798	-	-	99,100
1923	(*)	-				664	-	149	108,000
1924	(*)	-				938	16	147	107,000
1925	(*)	Jan. 1 to Nov. 30				534	-	-	80,000
1926	(*)	Apr. 1 to Dec. 31				675	-	-	70,400
1927	(*)	Jan. 1 to Nov. 30				654	-	-	99,400
1928	(*)	Apr. 1 to Dec. 31				480	-	-	63,100
1929	(*)	696	-	137	99,000	696	-	130	94,000
1930	(*)	502	-	108	79,500	502	-	101	73,000
1931	(*)	418	-	65.5	47,400	418	-	68.6	49,700
1932	(*)	660	-	163	120,000	660	-	164	119,000
1933	(*)	834	-	101	73,400	834	-	97.7	70,700
1934	763-116	488	4	51.2	37,000	488	-	49.8	36,020
1935	788-121	1,180	6	132	95,500	1,180	7	138	100,000
1936	808-135	498	31	111	80,530	498	-	109	79,480
1937	828-120	1,030	22	139	100,450	1,030	3.0	136	98,220
1938	858-120	989	3	137	99,390	989	3.0	139	100,700
1939	878-165	570	10	87.8	63,540	-	-	-	-

*From reports of State engineer.

Trinchera Creek above Turners ranch, near Fort Garland, Colo.
(Drainage area, 45 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Run-off in acre-feet
1923, Apr. 1 to Nov. 30	(*)	77	8	13,500
1924, May 1 to Nov. 30	(*)	179	6	20,600
1925, Apr. 1 to Oct. 31	(*)	46	8	8,450
1926, May 1 to Nov. 30	(*)	310	9	24,800
1927, Apr. 1 to Dec. 31	(*)	90	-	13,700
1928, Jan. 1 to Nov. 30	(*)	261	-	19,200
1929, Apr. 1 to Nov. 30	(*)	96	7	12,600
1930, Apr. 1 to Nov. 30	(*)	85	6	15,400
1931, Mar. 1 to Nov. 30	(*)	71	-	11,200
1932, Apr. 1 to Nov. 15	(*)	238	7	18,300
1933, Apr. 1 to Nov. 30	(*)	160	7	17,200
1934, Apr. 1 to Oct. 31	763-118	47	7	7,580
1935, Mar. 1 to Oct. 31	788-123	174	7	17,000
1936, Apr. 1 to Nov. 30	808-140	81	9	13,100
1937, Apr. 1 to Oct. 31	828-122	216	10	21,370
1938, Apr. 1 to Oct. 31	858-122	200	9	20,780

*From reports of State engineer.

Trinchera Creek above Mountain Home Reservoir, near Fort Garland, Colo.
(Drainage area, 61 square miles)

1923, May 1 to Nov. 30	(*)	56	4	7,870
1924, Apr. 19 to Nov. 30	(*)	164	4	14,300
1925, Apr. 1 to Nov. 30	(*)	24	1	3,900
1926, Apr. 1 to Nov. 30	(*)	347	3	22,200
1927, Apr. 1 to Nov. 30	(*)	73	4	9,550
1928, Apr. 1 to Nov. 30	(*)	262	2	14,400
1929, Apr. 1 to Nov. 30	(*)	63	4	10,500
1930, Apr. 1 to Nov. 30	(*)	87	6	13,000
1931, Apr. 1 to Nov. 30	(*)	56	-	8,520
1932, Mar. 1 to Nov. 15	(*)	155	8	15,000
1933, Apr. 1 to Nov. 30	(*)	155	6	16,000
1934, Apr. 1 to Oct. 31	763-119	43	4	5,890
1935, Mar. 27 to Nov. 6	788-124	125	1	12,700
1936, Apr. 1 to Nov. 30	808-141	63	5.1	9,900
1937, Apr. 1 to Oct. 31	828-123	189	8.5	19,830
1938, Apr. 1 to Oct. 31	858-123	158	9.6	16,610

*From reports of State engineer.

Trinchera Creek below Smith Reservoir, near Blanca, Colo.
(Drainage area, 396 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1929	(*)	Apr. 1 to Oct. 31				69	1	-	4,510
1930	(*)	Apr. 1 to Dec. 31				74	1	-	3,990
1931	(*)	Jan. 1 to Nov. 30				92	1	-	7,220
1932	(*)	Mar. 1 to Nov. 30				170	1	-	18,800
1933	(*)	Apr. 1 to Dec. 31				130	1	-	8,290
1934	763-120	77	1	7.5	5,460	77	1	7.5	5,460
1935	788-125	62	.5	5.0	3,600	62	.5	5.19	3,760
1936	808-142	Jan. 1 to Nov. 30				61	.8	-	7,780
1937	828-124	Apr. 1 to Dec. 31				575	.1	-	36,920
1938	858-124	Jan. 1 to Oct. 31				324	.1	-	22,470

*From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Sangre de Cristo Creek near Fort Garland, Colo.
(Drainage area, 187 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Run-off in acre-feet
1923, May 1 to Nov. 30	(*)	74	1	10,500
1924, Apr. 1 to Nov. 30	(*)	375	2	36,400
1925, Apr. 1 to Nov. 30	(*)	53	0	5,160
1926, Apr. 1 to Oct. 31	(*)	281	3	26,500
1927, Apr. 1 to Oct. 31	(*)	91	2	10,100
1928, Apr. 1 to Nov. 30	(*)	241	1	20,200
1929, Apr. 1 to Oct. 31	(*)	130	5	11,100
1930, Apr. 1 to Sept. 30	(*)	86	-	8,600
1932, Apr. 1 to Nov. 30	(*)	184	1	21,000
1933, Apr. 1 to Nov. 30	(*)	214	1	15,800
1934, Apr. 1 to Oct. 31	763-121	68	0	4,610
1935, Apr. 1 to Oct. 31	788-126	172	0	10,800
1936, May 1 to Nov. 30	808-144	139	0	7,820
1937, Apr. 1 to Oct. 31	828-125	543	3.1	33,330
1938, Apr. 1 to Oct. 31	858-125	354	.9	25,620

*From reports of State engineer.

Ute Creek near Fort Garland, Colo.
(Drainage area, 32 square miles)

1923, May 1 to Nov. 30	(*)	68	9	14,800
1924, Apr. 1 to Nov. 30	(*)	157	3.6	19,600
1925, Apr. 1 to Nov. 30	(*)	45	8	8,340
1926, Apr. 1 to Nov. 30	(*)	137	5	9,000
1927, Apr. 1 to Nov. 30	(*)	98	10	16,300
1928, Apr. 1 to Nov. 30	(*)	132	4	13,700
1929, Apr. 1 to Nov. 30	(*)	222	12	20,700
1930, Apr. 1 to Nov. 30	(*)	279	2	12,900
1931, Apr. 1 to Nov. 30	(*)	118	7	15,800
1932, Mar. 1 to Oct. 31	(*)	171	9	23,300
1933, Apr. 1 to Nov. 30	(*)	106	4	12,300
1934, Apr. 1 to Oct. 31	763-123	67	4	7,120
1935, Mar. 27 to Nov. 6	788-127	217	7	15,750
1936, Apr. 1 to Nov. 30	808-147	288	1.6	17,210
1937, Apr. 1 to Nov. 9	828-126	220	4.1	23,290
1938, Apr. 1 to Oct. 31	858-126	154	4.7	21,390

*From reports of State engineer.

Conejos River near Mogote, Colo.
(Drainage area, 282 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1903	358-373	3,380	-	448	324,000	3,380	-	439	318,000
*1904	358-373	1,900	10	174	126,000	1,900	10	212	154,000
*1905	358-374	3,880	-	481	348,000	3,880	-	436	316,000
*1906	358-374	3,290	-	450	326,000	3,290	-	470	340,000
*1907	358-374	2,770	-	499	361,000	2,770	-	488	353,000
*1908	358-374	1,810	-	269	195,000	1,810	-	269	195,000
*1909	358-374	3,120	-	442	320,000	3,120	-	446	323,000
1910	358-374	1,926	40	289	210,000	1,926	40	279	202,000
1911	358-374	3,040	31	496	360,000	6,000	31	577	418,000
*1912	358-375	6,000	-	503	365,000	4,290	45	426	309,000
1913	358-375	1,840	25	215	156,000	1,840	22	215	156,000
*1914	(†)	2,340	-	343	248,000	2,340	-	351	254,000
1915	(†)	2,430	32	341	247,000	2,430	32	329	238,000
*1916	(†)	2,960	35	479	348,000	2,960	35	508	369,000
*1917	(†)	2,920	-	482	349,000	2,920	20	448	324,000
1918	(†)	2,180	20	309	224,000	2,180	20	314	227,000
*1919	(†)	2,370	-	338	245,000	2,370	-	341	247,000
*1920	(†)	3,940	-	592	430,000	3,940	-	592	430,000
1921	(†)	2,870	42	363	263,000	2,870	34	359	260,000
*1922	(†)	3,310	-	424	307,000	3,310	-	424	307,000
1923	(†)	3,240	-	518	375,000	3,240	-	544	394,000
1924	(†)	2,360	38	417	303,000	2,360	38	391	284,000
1925	(†)	1,570	-	307	222,000	1,570	-	322	233,000
1926	(†)	2,320	-	360	261,000	2,320	-	344	249,000
1927	(†)	3,130	-	452	327,000	3,130	-	475	344,000
1928	(†)	2,200	-	289	210,000	2,200	-	264	192,000
1929	(†)	2,460	-	459	332,000	2,460	-	470	340,000
1930	(†)	1,860	-	296	214,000	1,860	-	283	205,000
1931	(†)	1,280	-	189	137,000	1,280	-	209	151,000
1932	(†)	2,800	-	508	369,000	2,800	-	492	357,000
1933	(†)	2,290	-	296	214,000	2,290	-	300	217,000
1934	763-124	1,080	-	152	109,800	1,080	-	144	104,100
1935	788-128	3,170	-	408	295,500	3,170	23	414	299,500
1936	808-148	2,120	27	306	222,100	2,120	30	319	231,400
1937	828-128	2,990	45	443	320,800	2,990	35	429	310,900
1938	858-128	2,940	-	434	314,300	2,940	-	443	320,900
1939	878-173	1,450	35	238	172,000	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing records estimated.
†From reports of State engineer.

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Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Conejos River near La Sauses, Colo.
(Drainage area, 887 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1922	(†)	3,280	3	344	249,000	3,280	3	338	245,000
1923	(†)	2,980	17	374	271,000	2,980	-	409	296,000
1924	(†)	3,580	5	448	325,000	3,580	5	419	304,000
1925	(†)	668	1	115	83,200	668	1	126	91,300
1926	(†)	2,400	13	272	197,000	2,400	13	151	109,000
1927	(†)	2,610	19	320	232,000	2,610	19	348	252,000
1928	(†)	2,150	1	176	128,000	2,150	1	152	110,000
1929	(†)	2,360	13	285	206,000	2,360	13	293	212,000
1930	(†)	1,390	3	171	124,000	1,390	3	166	120,000
1931	(†)	150	1	47.2	34,200	150	1	47.2	34,200
1932	(†)	3,610	6	420	305,000	3,610	6	424	308,000
1933	(†)	1,800	4	156	113,000	1,800	4	153	111,000
1934	763-125	91	0	33.9	24,530	90	0	28.7	20,740
1935	788-129	2,700	3	273	197,700	2,700	6	280	203,000
1936	808-149	2,120	.5	211	153,200	2,120	.5	221	160,100
1937	828-129	3,410	6.1	437	316,600	3,410	6.1	425	307,300
1938	858-129	2,560	.2	309	223,800	2,560	.2	316	228,500
1939	878-174	958	.6	118	85,520	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing records estimated.
†From reports of State engineer.

San Antonio River at Ortiz, Colo.
(Drainage area, 110 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Run-off in acre-feet
1915, Feb. 16 to Oct. 31	(*)	150	0	13,000
1919, Apr. 1 to Oct. 31	(*)	375	.1	18,400
1920, Mar. 1 to Oct. 31	(*)	1,200	6	55,600
1925, Mar. 25 to Nov. 30	(*)	182	1	9,200
1926, Apr. 1 to Nov. 30	(*)	538	1	24,200
1927, Apr. 1 to Oct. 31	(*)	477	1	25,400
1928, Apr. 1 to Nov. 30	(*)	318	0	14,300
1929, Apr. 1 to Oct. 31	(*)	394	0	25,100
1930, Apr. 21 to Oct. 31	(*)	464	0	15,600
1931, May 1 to Sept. 30	(*)	288	0	5,170
1932, Apr. 1 to Nov. 10	(*)	440	1	23,500
1933, Apr. 1 to Nov. 30	(*)	369	0	17,100
1934, Apr. 1 to Oct. 31	763-126	64	0	2,560
1935, Apr. 1 to Nov. 30	788-130	349	0	21,110
1936, Mar. 24 to Nov. 30	808-150	491	.1	22,660
1937, Apr. 1 to Nov. 6	828-130	1,080	0	45,030
1938, Apr. 1 to Oct. 31	858-130	574	.1	24,700

*From reports of State engineer.

San Antonio River at mouth, near Manassa, Colo.
(Drainage area, 348 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1924	(*)	1,770	0	194	141,000	1,770	0	185	134,000
†1925	(*)	539	0	57.9	41,900	539	2	62.4	45,200
1926	(*)	1,140	0	123	89,200	1,140	0	118	85,700
1927	(*)	1,150	1	135	97,500	1,150	1	142	103,000
†1928	(*)	1,300	-	75.1	54,500	1,300	0	67.5	49,000
1929	(*)	1,140	0	105	75,900	1,140	-	110	80,000
1930	(*)	859	1	93.9	68,000	859	1	88.8	64,300
1931	(*)	233	0	20.7	15,000	233	0	20.7	15,000
1932	(*)	1,550	0	161	117,000	1,550	-	163	118,000
1933	(*)	1,050	0	64.6	46,800	1,050	0	63.4	46,100
1934	763-127	82	0	8.06	5,830	82	0	7.50	5,430
1935	788-131	1,110	0	107	77,590	1,110	.2	109	78,730
1936	808-151	1,180	.1	84.1	61,030	1,180	.1	87.7	63,640
1937	828-131	1,520	0	194	140,400	1,520	0	189	136,700
1938	858-131	1,450	0	130	94,450	1,450	0	132	95,380
1939	878-176	822	0	60.6	43,890	-	-	-	-

*From reports of State engineer.
†Yearly figures not previously published; discharge for periods of missing records estimated.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Los Pinos Creek near Ortiz, Colo.
(Drainage area, 167 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Run-off in acre-feet
1915, Jan. 1 to Nov. 30	(*)	918	10	88,700
1916, Apr. 11 to Nov. 6	(*)	1,500	18	132,000
1917, May 1 to Nov. 30	(*)	1,300	8	95,000
1918, Mar. 1 to Nov. 30	(*)	714	12	74,200
1919, Apr. 1 to Nov. 30	(*)	1,200	7	108,000
1920, Mar. 1 to Nov. 30	(*)	2,240	5	147,000
1925, Apr. 1 to Nov. 30	(*)	638	16	71,210
1926, Apr. 1 to Nov. 30	(*)	1,110	10	93,600
1927, Apr. 1 to Dec. 31	(*)	1,300	-	118,000
1928, Jan. 1 to Nov. 30	(*)	942	-	71,700
1929, Apr. 1 to Nov. 30	(*)	976	8	104,000
1930, Mar. 1 to Oct. 1	(*)	1,020	10	94,400
1931, Mar. 22 to Nov. 30	(*)	476	9	40,600
1932, Mar. 1 to Oct. 31	(*)	1,500	16	146,000
1933, Apr. 1 to Nov. 30	(*)	1,220	14	74,700
1934, Apr. 1 to Nov. 30	763-128	360	5	27,940
1935, Mar. 23 to Nov. 7	788-132	1,140	14	107,500
1936, Mar. 24 to Nov. 30	808-152	1,300	20	91,030
1937, Apr. 1 to Nov. 6	828-132	1,920	11	141,400
1938, Apr. 1 to Oct. 31	858-132	1,600	14	110,200

*From reports of State engineer.

Culebra Creek at San Luis, Colo.
(Drainage area, 220 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1910	(*)	-	-	74.2	53,700	-	-	66.6	48,200
1911	(*)	-	-	46.1	33,400	-	-	51.4	37,200
1912	(*)	-	-	79.5	57,700	-	-	76.3	55,400
1913	(*)	-	-	68.9	49,900	-	-	67.5	48,900
1914	(*)	-	-	68.9	49,900	-	-	71.3	51,600
1915	(*)	470	32	94.6	68,500	470	32	93.6	67,800
1916	(*)	367	36	87.6	63,600	367	31	86.8	63,000
1917	(*)	440	25	90.1	65,200	440	25	89.5	64,800
1918	(*)	-	-	70.6	51,100	-	-	71.4	51,700
1928	(*)	320	7	61.3	44,500	320	7	60.5	43,900
1929	(*)	314	7	45.2	32,700	314	7	47.4	34,300
1930	(*)	258	-	61.2	44,300	258	-	60.4	43,700
1931	(*)	253	6	50.8	36,800	253	6	50.4	36,500
1932	(*)	192	-	50.3	36,400	192	-	51.0	37,000
1933	(*)	246	-	57.7	41,800	246	-	57.5	41,600
1934	763-129	166	5	45.1	32,630	166	5	43.5	31,500
1935	788-133	222	7	46.7	33,810	222	7	49.4	35,800
1936	808-153	235	6.2	52.2	37,910	235	6.2	50.7	36,840
1937	828-133	288	12	65.3	47,310	288	15	66.0	47,800
1938	858-133	291	12	68.9	49,850	291	12	69.0	49,980
1939	878-178	292	18	68.0	49,230	-	-	-	-

*From reports of State engineer.

La Jara Creek near Capulin, Colo.
(Drainage area, 73 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Run-off in acre-feet
1916, Apr. 1 to Oct. 31	(*)	235	6	20,800
1917, Apr. 1 to Nov. 30	(*)	202	8	18,600
1919, Apr. 1 to Nov. 30	(*)	348	5	24,100
1920, Apr. 1 to Nov. 30	(*)	304	11	25,300
1921, Apr. 8 to Oct. 31	(*)	136	9	11,500
1922, Apr. 27 to Sept. 30	(*)	195	7.5	16,600
1923, Apr. 26 to Nov. 30	(*)	220	8	20,700
1924, May 1 to Nov. 30	(*)	121	10	16,300
1925, Mar. 1 to Nov. 30	(*)	82	-	13,100
1926, May 1 to Oct. 31	(*)	131	6	12,600
1927, Apr. 1 to Oct. 31	(*)	159	10	13,800
1928, Apr. 1 to Nov. 30	(*)	118	-	12,300
1929, Apr. 1 to Oct. 31	(*)	150	6	14,500
1930, July 1 to Sept. 30	(*)	57	8	3,560
1932, Apr. 1 to Oct. 31	(*)	218	2	14,600
1933, Apr. 1 to Nov. 30	(*)	81	2	8,610
1934, Apr. 1 to Dec. 31	763-117	32	1	4,140
1935, Apr. 1 to Sept. 30	788-122	101	2	8,060

*From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Rio Colorado near Questa, N. Mex.
(Drainage area, 112 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1913	358-381	155	-	-	30,300	-	-	-	-
1915	(*)	-	-	-	-	318	-	77.1	55,820
1916	(*)	685	-	105	75,890	685	13	106	76,850
1917	(*)	377	13	68.6	49,830	377	10	64.9	46,980
1918	(*)	280	10	56.8	41,090	280	7.5	56.9	41,160
1919	(*)	495	3.0	73.2	52,960	495	3	75.7	54,750
1920	(*)	580	14	64.7	46,990	580	14	64.1	46,800
1921	(*)	872	20	143	103,500	872	22	143	104,400
1922	(*)	184	22	47.8	34,610	184	18	45.3	32,910
1923	(*)	268	18	62.9	45,520	268	20	68.4	49,550
1924	(*)	476	24	126	91,380	476	16	122	88,740
1925	(*)	96	16	38.5	27,880	96	16	38.3	27,740
1927	(*)	243	1	56.3	40,760	243	1	56.7	41,030
1928	(*)	248	-	50.3	36,520	248	-	48.5	35,190
1929	(*)	222	12	57.4	41,580	222	12	60.4	43,700
1930	(*)	302	-	60.8	44,050	302	16	60.0	43,460
1931	733-120	157	14	39.8	28,810	157	6.3	40.4	29,230
1932	733-120	772	6.3	82.8	60,100	772	12	80.7	58,610
1933	748-111	168	14	40.1	29,050	168	13	39.2	28,380
1934	763-130	78	12	27.4	19,850	78	8.8	26.9	19,450
1935	788-134	745	8.8	61.4	44,430	745	10	62.9	45,520
1936	808-157	179	14	44.6	32,370	179	14	46.0	33,420
1937	828-140	670	14	90.6	65,600	670	13	89.3	64,670
1938	858-140	386	10	71.7	51,880	386	10	73.3	53,060
1939	878-187	185	12	47.0	34,010	-	-	-	-

*From reports of State engineer.

Rio Hondo at Valdez, N. Mex.

1918	(*)	106	1.8	21.9	15,880	106	1.6	22.9	16,550
1919	(*)	100	1.6	24.2	17,550	100	4.2	25.2	18,230
1920	(*)	159	5.0	34.3	24,890	159	2.9	34.4	25,000
1921	(*)	293	2.9	40.4	29,250	293	7.3	39.8	28,820
1922	(*)	77	.1	14.8	10,680	77	.1	12.8	9,240
1923	(*)	130	2.0	22.5	16,320	130	2.0	25.7	18,640
1924	(*)	212	9.6	42.6	30,900	212	9.6	42.1	30,590
1925	(*)	47	2.0	14.6	10,550	47	2.0	13.2	9,560
1926	(*)	290	-	39.6	28,680	290	-	39.6	28,690
1927	(*)	140	2	32.6	23,590	140	2	34.3	24,850
1928	(*)	-	-	23.9	17,360	-	-	21.4	15,500
1929	(*)	240	1	25.8	18,700	240	5	29.7	21,470
1930	(*)	114	3	27.1	19,610	114	3	24.4	17,670
1931	733-122	64	0	11.7	8,440	64	0	14.3	10,370
1932	733-122	296	3	42.7	30,990	296	1	38.9	28,220
1933	748-112	180	1	16.7	12,060	180	0	16.2	11,750
1934	763-131	47	0	8.2	5,930	-	-	-	-

*From reports of State engineer.

Rio Hondo at (near) Arroyo Hondo, N. Mex.

1913	358-389	77	3.0	19.4	14,030	77	4.8	18.2	13,210
1914	388-43	171	6.0	21.8	15,760	171	6.0	22.1	16,020
1915	(*)	363	7.6	54.2	39,230	363	8.0	54.5	39,430
1916	(*)	381	9.0	65.1	47,270	381	24	68.5	49,720
1918	(*)	148	4.6	24.1	17,420	148	5.5	24.0	17,350
1919	(*)	216	7.5	35.0	25,340	216	7.5	38.1	27,590
1920	(*)	315	7.0	56.8	41,200	315	6.8	54.2	39,230
1921	(*)	217	6.8	46.0	33,270	217	7.0	47.1	34,090
1922	(*)	113	4.9	18.8	13,620	113	4.9	16.1	11,650
1923	(*)	202	4.9	31.2	22,580	202	6.0	37.5	27,130
1924	(*)	235	9.0	45.8	33,260	235	9.0	41.0	29,860
1925	(*)	51	5.2	12.6	9,110	51	5.2	13.5	9,760
1926	(*)	-	-	31.4	22,740	-	-	30.0	21,710
1927	(*)	192	5	33.5	24,250	192	6	36.4	26,360
1928	(*)	105	4	23.9	17,350	105	4	20.9	15,180
1933	748-113	-	6	20.8	15,040	-	6	19.9	14,410
1934	763-132	390	4	13.2	9,560	390	4	13.6	9,830
1935	828-144	259	5.9	31.1	22,540	259	5.9	32.5	23,550
1936	828-144	141	5.9	24.8	18,000	141	5.9	25.6	18,590
1937	828-144	495	6.9	61.5	44,540	495	6.9	60.5	43,820
1938	878-189	306	7.8	37.2	26,930	306	7.8	37.7	27,280
1939	878-190	76	6.3	21.2	15,320	-	-	-	-

*From reports of State engineer.

Rio Taos at Los Cordovas, N. Mex.

1911	358-399	345	-	53.0	38,370	495	-	68.1	49,330
1912	358-400	670	-	101	73,470	670	3	90.3	65,570
1913	358-400	176	-	34.8	25,220	176	-	32.9	23,820
1914	388-47	588	11	74.3	53,890	588	11	74.5	53,920
1915	(*)	875	11	113	81,570	875	11	114	82,260
1916	(*)	498	16	77.7	56,220	498	15	80.4	58,400
1917	(*)	214	5.5	45.5	33,000	214	5.5	40.3	29,210
1918	(*)	213	8.0	46.5	33,630	213	9.0	47.0	34,060
1919	(*)	417	14	91.2	66,000	417	14	98.0	70,980
1920	(*)	834	9	97.6	70,820	834	2.0	87.0	63,140
1921	(*)	329	2.0	38.6	27,970	329	2.0	39.8	28,830
1922	(*)	104	.2	8.45	6,120	104	.2	10.7	7,750

*From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Rio Taos at Los Cordovas, N. Mex.--Continued

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1923	(*)	155	1.0	32.4	23,430	155	1.0	37.2	26,920
1924	(*)	457	3.5	74.9	54,340	457	3.5	71.2	51,660
1925	(*)	73	2.0	21.7	15,730	73	2.0	21.2	15,350
1927	(*)	279	6	48.7	35,290	279	6	49.6	35,880
1928	(*)	338	2.3	47.1	34,220	338	2.3	45.2	32,820
1929	(*)	574	2.8	59.2	42,860	574	2.8	65.9	47,680
1930	(*)	232	5.0	50.8	36,750	232	5.0	46.6	33,730
1931	733-125	254	3.8	27.5	19,880	254	3.8	29.4	21,250
1932	733-125	645	12	89.5	65,000	645	12	87.5	63,490
1933	748-114	321	7.4	35.4	25,650	321	7.4	33.4	24,150
1934	763-133	44	1.4	16.5	11,930	44	1.4	15.2	10,990
1935	788-137	505	4.2	53.7	38,890	505	4.2	56.3	40,720
1936	808-161	275	3.0	39.3	28,510	275	3.0	39.4	28,610
1937	828-146	564	11	99.1	71,770	564	11	99.1	71,740
1938	858-143	288	5.6	50.2	36,342	288	5.6	50.5	36,580
1939	878-192	250	2.7	40.9	29,640	-	-	-	-

*From reports of State engineer.

Embudo Creek at Dixon, N. Mex.
(Drainage area, 305 square miles)

1924	(*)	668	1.9	100	72,600	668	1.9	97.7	70,930
1925	(*)	739	16	55.0	39,820	739	15	59.0	42,680
1926	(*)	471	8	74.3	53,800	471	8	69.1	50,010
1927	(*)	471	6	76.3	55,240	441	6	76.4	55,330
1928	(*)	427	-	75.9	55,060	427	-	75.3	54,670
1929	(*)	740	11	95.2	68,930	740	11	104	75,170
1930	(*)	-	10	79.8	57,790	-	10	70.8	51,250
1931	733-127	460	6.2	72.0	52,060	460	6.2	81.7	59,120
1932	733-127	572	1	132	95,700	572	1	125	90,530
1933	748-116	497	8	55.1	39,880	497	8	52.6	38,070
1934	763-136	56	3	22.7	16,470	56	3	20.6	14,910
1935	788-148	692	12	136	98,730	692	18	142	102,900
1936	808-171	440	7	83.9	60,890	440	7	82.0	59,520
1937	828-155	800	15	147	106,300	800	15	147	106,400
1938	858-152	451	8	60.9	44,040	451	5.0	62.2	45,040
1939	878-201	420	5.0	74.6	54,010	-	-	-	-

*From reports of State engineer.

Rio Chama at Park View, N. Mex.
(Drainage area, 405 square miles)

1913	358-412	-	-	-	-	-	-	264	191,400
1914	388-57	3,010	-	395	285,600	3,010	-	411	297,400
1915	408-65	2,910	36	421	304,500	-	-	-	-
1925	(*)	-	-	-	-	-	-	347	251,000
1926	(*)	6,380	-	478	346,100	6,380	-	465	336,400
1927	(*)	4,580	-	569	411,900	4,580	-	597	432,300
1928	(*)	-	-	349	253,300	-	-	312	226,700
1929	(*)	4,120	-	375	271,600	4,120	-	398	287,800
1930	(*)	2,940	-	359	260,000	-	-	343	248,300
1931	733-129	1,350	5.3	155	112,600	1,350	5.3	166	120,500
1932	733-129	5,140	32	644	467,800	5,140	-	632	458,900
1933	748-117	3,550	-	296	214,100	3,550	-	301	217,800
1934	763-137	1,380	3	128	92,490	1,380	3	118	85,200
1935	788-149	3,650	13	461	333,500	3,650	-	470	340,100
1936	808-177	4,290	30	363	263,200	4,290	30	378	274,400
1937	828-161	7,030	30	586	424,000	7,030	25	565	409,400
1938	858-158	5,380	25	459	332,400	5,380	10	462	334,300
1939	878-207	2,310	8	239	173,100	-	-	-	-

*From reports of State engineer.

Rio Chama near Tierra Amarilla (El Vado), N. Mex.

1914	388-59	3,100	-	412	297,900	3,100	-	430	311,300
1915	408-67	3,490	28	510	369,400	-	-	-	-
1921	(*)	2,560	35	387	280,000	2,560	43	386	280,800
1922	(*)	4,740	43	528	382,400	4,740	30	526	383,600
1923	(*)	3,080	30	464	336,000	3,080	70	483	351,300
1924	(*)	3,970	13	593	430,200	3,970	13	567	412,400
1936	828-163	-	-	-	-	3,470	3.7	540	392,300
1937	828-163	4,190	2.6	728	527,000	4,190	1.6	712	515,600
1938	858-160	2,200	1.6	482	348,700	2,200	1.6	480	347,200
1939	878-209	1,450	7.0	364	263,200	-	-	-	-

*From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Rio Chama near (at) Chamita, N. Mex.

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1913	358-415	-	-	-	-	2,540	0	385	279,000
1914	388-61	4,080	42	646	467,500	4,080	40	667	482,700
1915	(*)	5,730	-	953	689,800	5,730	-	919	665,400
1916	(*)	8,710	20	1,176	853,600	8,710	83	1,250	907,300
1917	(*)	4,380	38	740	535,700	4,380	34	662	479,600
1919	(*)	4,550	11	832	602,100	4,550	13	852	618,900
1920	(*)	11,000	60	1,098	797,200	11,000	70	1,083	786,500
1921	(*)	2,430	70	588	425,400	2,430	98	591	429,500
1922	(*)	2,440	1.0	488	353,000	2,440	1.0	472	341,500
1923	(*)	3,240	14	657	476,000	3,240	96	698	505,800
1924	(*)	7,910	7.5	1,062	771,300	7,810	3.5	1,021	743,500
1925	(*)	4,910	3.5	442	319,700	4,910	48	461	333,600
1926	(*)	-	-	780	564,400	-	-	760	549,900
1927	(*)	6,760	21	959	694,500	6,760	21	997	721,900
1928	(*)	6,360	-	485	351,900	6,360	3	437	316,800
1929	(*)	8,770	-	685	496,200	8,770	-	715	517,500
1930	(*)	4,450	-	527	381,600	4,450	0	501	362,600
1931	733-131	2,030	0	270	195,500	2,030	0	333	241,100
1932	733-131	7,000	10	1,130	820,500	7,000	10	1,073	778,600
1933	748-118	4,550	-	453	327,500	4,550	-	455	329,300
1934	763-138	1,540	0	166	120,100	1,540	0	152	109,700
1935	788-151	3,800	4	489	354,100	3,800	4	569	411,700
1936	808-180	5,090	18	723	524,700	5,090	18	690	500,900
1937	828-164	5,370	9	1,063	769,700	5,370	9	1,047	758,100
1938	858-161	2,740	20	617	446,600	2,740	20	615	445,600
1939	878-210	2,670	25	444	321,100	-	-	-	-

*From reports of State engineer.

Rio Santa Cruz at Cundiyo, N. Mex.
(Published as Rio Medio at Cundiyo, 1917-29; and Rio Santa Cruz above Chimayo, 1931.)

1917	(*)	130	7.4	31.7	22,980	130	2.4	28.6	20,720
1918	(*)	109	2.4	25.7	18,640	109	2.0	25.9	18,770
1919	(*)	290	2.0	73.6	53,320	290	11	78.0	56,460
1920	(*)	398	8.0	60.0	43,570	398	8.0	55.8	40,530
1921	(*)	218	8.0	42.3	30,640	218	2.3	43.2	31,250
1922	(*)	58	2.3	17.7	12,840	58	10	17.3	12,550
1923	(*)	95	3.6	25.7	18,620	95	3.6	27.5	19,900
1924	(*)	118	2.1	20.3	14,750	118	2.1	17.6	12,780
1925	(*)	58	7.6	13.2	9,540	58	7.6	17.2	12,440
1926	(*)	180	10	27.4	19,810	180	10	23.9	17,270
1927	(*)	134	10	27.2	19,690	134	10	27.7	20,060
1928	(*)	134	-	26.8	19,420	134	-	25.9	18,770
1929	(*)	-	-	41.1	29,790	-	-	46.1	33,410
1931	(*)	515	7	33.4	24,170	515	-	36.0	26,090
1932	733-135	257	3	51.5	37,370	257	3	48.2	34,970
1933	748-121	156	-	21.3	15,380	156	-	20.5	14,830
1934	763-140	58	3.2	12.1	8,780	58	3.2	11.8	8,550
1935	788-155	295	3.0	43.1	31,200	295	3.0	44.8	32,430
1936	808-188	102	-	26.1	18,980	102	-	25.8	18,710
1937	828-169	178	6.0	38.7	28,040	178	6.5	38.1	27,550
1938	858-168	90	-	21.9	15,820	90	-	23.9	17,270
1939	878-217	115	4.5	30.3	21,970	-	-	-	-

*From reports of State engineer.

Santa Fe Creek near Santa Fe, N. Mex.

1913	358-428	-	-	-	-	64	1.0	7.67	5,550
1914	388-72	44	1.7	12.0	8,680	44	1.7	12.2	8,800
1915	(*)	124	1.4	18.0	13,050	124	1.4	17.4	12,600
1916	(*)	91	1.8	17.5	12,720	91	2.2	18.2	13,210
1917	(*)	24	1.4	4.72	3,420	17	.6	3.56	2,580
1918	(*)	25	.6	6.54	4,740	25	.8	6.80	4,920
1920	(*)	92	1.5	10.9	7,900	92	.2	9.63	6,990
1921	(*)	655	.2	25.1	18,210	655	1.5	25.3	18,320
1922	(*)	24	.6	5.06	3,660	24	.6	4.59	3,320
1923	(*)	36	.7	6.61	4,790	36	1.5	7.22	5,230
1924	(*)	120	1.3	15.8	11,470	120	1.0	15.3	11,090
1925	(*)	7.2	.5	2.46	1,780	10	.5	2.86	2,070
1926	(*)	117	1.0	13.4	9,730	117	1.0	13.3	9,620
1927	(*)	50	.1	6.05	4,380	-	-	-	-
1928	(*)	-	-	-	-	50	-	6.06	4,400
1929	(*)	378	2.7	11.5	8,310	378	2.7	12.2	8,820
1930	(*)	48	1.6	8.61	6,240	48	-	7.79	5,640
1931	733-137	113	-	9.78	7,090	113	-	10.8	7,830
1932	733-137	44	1.1	10.6	7,670	44	1.0	9.31	6,760
1933	748-124	28	1.0	3.83	2,770	28	.6	3.81	2,760
1934	763-143	9.4	.6	2.52	1,820	9.4	.9	2.60	1,880
1935	788-158	62	.8	8.14	5,890	62	.8	8.84	6,400
1936	808-217	84	1.4	8.67	6,300	84	1.4	9.01	6,540
1937	828-220	73	1.7	10.7	7,740	73	1.5	9.81	7,100
1938	858-214	16	1.5	3.83	2,780	16	1.5	4.11	2,970
1939	878-254	29	1.5	7.17	5,180	-	-	-	-

*From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Rio Puerco at Rio Puerco, N. Mex.

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1913	358-441	-	-	-	-	1,160	0	302	21,880
1914	388-76	3,010	0	156	113,200	3,010	0	164	118,800
1915	(*)	14,000	0	335	242,200	14,000	0	317	229,400
1916	(*)	3,380	0	156	113,500	4,120	0	195	141,900
1917	(*)	4,120	0	71.1	51,460	3,780	0	308	22,300
1919	(*)	-	-	-	-	4,020	0	258	185,900
1920	(*)	535	0	77.9	56,530	535	0	57.0	41,360
1922	(*)	358	0	6.82	4,930	358	0	4.53	3,280
1923	(*)	350	0	8.56	6,200	579	0	11.3	8,200
1924	(*)	2,040	0	49.8	36,170	2,040	0	48.0	34,850
1927	(*)	-	0	209	151,300	-	0	207	149,700
1935	788-160	8,200	0	153	110,800	8,200	0	153	111,100
1936	808-223	5,750	0	107	77,950	5,750	0	108	78,130
1937	828-358	2,230	0	53.3	38,600	2,230	0	61.3	44,360
1938	858-286	2,150	0	77.9	56,430	2,150	0	76.3	55,230
1939	878-266	3,050	0	56.8	41,130	-	-	-	-

*From reports of State engineer.

Bluewater Creek near Bluewater, N. Mex.
(Drainage area, 235 square miles)

1913	358-446	339	0	8.33	6,030	339	0	8.69	6,290
1914	388-79	207	0	15.0	10,830	207	0	14.8	10,750
1915	(*)	-	-	38.0	27,480	-	-	39.2	28,380
1917	(*)	-	-	-	-	100	0	4.82	3,490
1918	(*)	270	0	6.56	4,750	270	.1	6.64	4,810
1922	(*)	31	0	2.14	1,550	31	0	2.12	1,540
1923	(*)	162	.1	12.2	8,830	162	.1	14.4	10,380
1924	(*)	341	.2	12.1	8,790	341	.1	9.79	7,110
1925	(*)	58	.1	3.79	2,740	58	.1	4.34	3,140
1926	(*)	-	-	33.2	24,020	-	-	33.8	24,460
1927	(*)	-	0	33.9	24,550	-	0	32.8	23,770
1928	(*)	56	0	3.72	2,700	56	0	3.98	2,890
1929	(*)	33	-	5.36	3,880	33	-	6.06	4,390
1930	(*)	59	-	12.1	8,750	59	.6	11.4	8,250
1931	733-139	37	0	5.74	4,150	37	0	5.30	3,840
1932	733-139	79	-	14.9	10,820	79	-	16.9	12,240
1933	748-126	70	-	17.6	12,770	70	-	16.5	11,960
1934	763-145	66	.3	6.88	4,980	66	.3	6.04	4,370
1935	788-161	92	0	12.9	9,320	92	0	13.5	9,800
1936	808-224	72	.7	15.7	11,390	72	.7	15.7	11,370
1937	828-359	72	1.5	17.7	12,830	72	1.5	18.2	13,180
1938	858-287	78	.5	17.6	12,710	78	.5	17.7	12,800
1939	878-267	66	.6	13.5	9,740	-	-	-	-

*From reports of State engineer.

Pecos River at Irvin ranch, near Pecos, N. Mex.
(Published as Pecos River near Cowles, N. Mex., 1911-25)
(Drainage area, 175 square miles)

1911	358-459	560	-	101	73,400	560	-	117	85,000
1914	388-84	663	21	158	114,100	663	21	154	111,600
1915	(*)	700	18	132	95,440	700	18	128	92,470
1916	(*)	804	21	134	97,260	804	21	142	103,400
1917	(*)	284	21	74.0	53,600	284	15	63.1	45,660
1918	(*)	364	15	78.1	56,550	364	17	80.8	58,480
1919	(*)	918	19	223	161,700	918	22	23.4	169,100
1920	(*)	555	34	129	93,770	555	34	121	87,890
1921	(*)	970	26	165	119,800	970	23	165	119,800
1922	(*)	189	23	60.0	43,420	189	17	55.6	40,260
1923	(*)	530	17	71.2	51,530	530	20	76.5	55,360
1924	(*)	686	12	116	84,380	686	12	112	81,140
1925	(*)	255	12	55.1	39,860	255	16	60.3	43,640
1926	(*)	1,430	-	192	138,700	-	-	187	135,700
1928	(*)	628	-	86.9	63,050	628	-	85.8	62,300
1929	(*)	-	-	124	90,080	-	-	134	97,190
1930	(*)	426	-	97.9	70,860	426	-	91.6	66,320
1931	733-144	1,000	10	117	84,940	1,000	-	128	92,580
1932	733-144	840	-	140	101,800	840	-	128	92,660
1933	748-128	270	-	63.3	45,780	270	10	60.1	43,520
1934	763-154	130	6.1	38.5	27,860	130	6.1	40.1	29,000
1935	788-166	624	16	127	91,860	624	16	131	94,870
1936	808-233	398	20	89.9	65,270	398	20	89.8	65,190
1937	828-398	708	19	130	94,460	708	19	127	92,170
1938	858-320	237	16	67.1	48,620	237	16	71.8	52,030
1939	878-283	384	20	90.2	65,310	-	-	-	-

*From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Pecos River near Anton Chico, N. Mex.

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1912	358-465	-	-	-	-	1,150	2	188	136,400
1913	358-465	3,980	-	103	74,410	3,980	-	109	78,650
1914	388-86	1,060	21	164	118,900	1,060	21	169	122,700
1915	(*)	2,400	23	247	178,700	2,400	14	242	175,500
1917	(*)	450	10	89.9	65,110	450	1.0	62.8	45,490
1918	(*)	432	1.0	87.7	63,510	432	11	92.0	66,580
1919	(*)	2,540	19	45.4	328,600	-	-	-	-
1920	(*)	-	-	-	-	480	8	118	85,750
1921	(*)	2,480	7	212	153,400	2,480	7	215	155,300
1922	(*)	488	1.0	50.6	36,610	488	1.0	44.0	31,890
1923	(*)	573	6.5	91.9	66,560	660	6.5	131	95,040
1924	(*)	695	.8	92.5	67,160	695	.5	51.9	37,670
1925	(*)	1,040	0	65.2	47,190	1,040	0	82.3	59,570
1927	(*)	1,680	0	125	90,600	1,680	1	130	94,330
1928	(*)	-	-	84.7	61,480	-	-	83.6	60,700
1929	(*)	-	-	179	129,600	-	-	199	144,400
1930	(*)	4,080	3	144	104,400	4,080	3	130	94,450
1931	733-146	1,970	5	169	122,500	1,970	5	186	134,700
1932	748-130	1,080	6	181	131,600	1,080	6	162	117,300
1933	748-130	1,820	7	86.8	62,820	1,820	6	79.6	57,600
1934	763-155	1,100	0	27.0	19,570	1,100	0	25.9	18,760
1935	788-167	1,880	2.1	152	110,200	1,880	2.6	158	114,500
1936	808-234	755	4.0	83.7	60,760	755	4.0	85.2	61,840
1937	828-399	10,000	5.1	241	174,200	10,000	3.3	235	170,000
1938	858-321	1,820	1.2	87.0	63,020	1,820	1.2	99.8	72,250
1939	878-284	1,550	2	110	79,250	-	-	-	-

*From reports of State engineer.

Pecos River at Santa Rosa, N. Mex.

1906	358-472	-	-	-	-	2,470	6	182	131,500
1913	358-473	2,930	5.9	91.7	66,360	2,930	5.9	93.3	67,510
1914	388-88	2,540	7.0	138	100,100	2,540	7.0	142	102,700
1916	(*)	-	-	-	-	1,900	9.9	279	202,800
1917	(*)	3,500	10	98.7	71,460	3,500	10	76.5	55,360
1918	(*)	3,260	9.0	96.4	69,810	3,260	7.5	103	74,580
1919	(*)	10,500	7.5	695	502,900	12,000	8.0	733	530,400
1920	(*)	12,000	17	201	146,200	1,640	23	160	115,900
1921	(*)	6,580	18	242	176,100	6,580	15	241	174,700
1922	(*)	800	7.0	51.2	37,090	800	7.0	59.0	42,680
1923	(*)	868	10	85.0	61,570	1,190	8.0	101	73,190
1928	(*)	-	-	-	-	1,870	-	80.3	58,260
1929	(*)	-	1.1	149	107,700	-	1.1	154	111,800
1930	(*)	2,960	-	103	74,400	2,960	15	108	78,070
1931	733-148	2,380	13	167	121,200	2,380	13	175	126,800
1932	733-148	2,110	20	154	112,000	2,110	-	137	99,660
1933	748-131	1,530	12	81.9	59,270	1,530	12	74.8	54,180
1934	763-156	1,350	8	29.4	21,280	1,350	8	27.5	19,900
1935	788-168	6,370	6	136	98,250	6,370	6	137	98,990
1936	808-235	3,000	8.3	67.9	48,290	3,000	8.3	69.4	50,400
1937	828-400	18,600	2.7	310	224,200	18,600	2.7	310	224,100
1938	858-322	9,440	8.4	180	130,400	9,440	8.4	203	147,000
1939	878-285	3,170	12	113	82,090	-	-	-	-

*From reports of State engineer.

Pecos River near Guadalupe, N. Mex.

1913	358-475	-	-	-	-	5,120	57	195	141,300
1914	388-90	26,200	73	412	298,900	26,200	73	418	302,300
1915	(*)	17,800	40	422	305,300	17,800	40	414	300,000
1916	(*)	5,230	71	287	208,100	5,230	71	294	213,500
1919	(*)	5,600	57	612	443,300	12,000	85	647	468,700
1920	(*)	12,000	72	276	199,600	1,760	72	235	170,300
1921	(*)	5,480	80	431	312,300	5,480	78	425	307,600
1922	(*)	1,010	56	123	89,200	1,010	56	121	87,500
1923	(*)	1,280	60	153	111,000	17,000	60	251	181,400
1924	(*)	17,000	62	296	215,200	906	62	201	146,100
1925	(*)	3,000	55	173	125,200	3,000	55	173	125,100
1927	(*)	2,110	2	189	136,500	2,110	2	195	141,000
1928	(*)	1,190	22	147	107,000	2,210	22	160	115,900
1929	(*)	4,200	39	219	158,900	4,200	41	217	157,300
1930	(*)	1,820	60	182	131,900	10,100	60	223	161,200
1931	733-150	10,100	46	290	209,600	2,970	46	263	190,600
1932	733-150	2,500	50	234	170,000	2,500	50	216	156,500
1933	748-132	4,420	-	180	130,300	4,420	-	174	126,000
1934	763-157	2,020	-	112	81,210	2,020	-	110	79,440
1935	788-169	4,060	38	208	150,800	4,060	38	211	152,800
1936	828-402	4,700	-	158	115,000	4,700	-	160	116,000
1937	828-402	13,300	0	432	313,100	13,300	0	416	300,900
1938	858-323	1,630	0	148	106,800	1,630	.1	150	108,400
1939	878-289	5,380	1.0	190	137,500	-	-	-	-

*From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Pecos River near Artesia (Dayton), N. Mex.

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1905	358-499	50,300	-	-	-	50,300	-	-	-
1906	358-499	3,000	77	416	301,500	3,000	77	368	281,100
1907	358-499	3,700	73	365	263,700	3,700	73	373	270,300
1908	358-499	7,300	40	389	283,800	7,300	40	330	239,800
1910	358-500	9,100	32	276	201,400	9,100	32	267	193,500
1911	358-500	11,000	55	334	243,300	11,000	55	379	274,600
1912	358-500	3,000	44	312	225,900	3,000	44	273	198,000
1913	358-500	11,100	47	284	204,200	11,100	47	298	215,600
1914	388-94	20,300	94	495	358,900	20,300	74	516	373,800
1915	408-90	42,000	74	688	498,300	42,000	103	669	484,600
1916	438-91	6,300	25	357	259,200	6,300	25	365	265,200
1917	458-90	2,910	28	225	163,000	2,910	28	188	136,300
1918	478-93	3,860	40	191	138,500	4,420	40	250	180,900
1919	508-116	40,000	65	993	719,000	40,000	77	1,043	754,800
1920	508-116	3,460	60	413	299,600	2,120	58	316	229,500
1921	528-80	25,000	58	628	454,600	25,000	72	621	449,700
1922	548-94	1,980	33	195	141,200	1,980	33	188	136,200
1923	568-117	2,130	20	217	157,000	7,000	20	400	289,500
1924	588-194	7,000	35	449	326,200	2,240	35	282	204,900
1925	608-230	4,900	20	334	242,000	4,900	20	347	250,900
1926	(†)	3,400	38	382	276,900	3,400	38	389	281,400
1927	(†)	1,780	20	260	187,900	1,780	20	220	159,600
1928	(†)	1,800	30	222	161,000	9,500	30	337	243,300
1929	(†)	9,500	25	334	242,000	1,980	25	252	182,400
1930	(†)	1,400	20	222	161,000	7,000	20	361	261,600
1931	(†)	7,000	30	422	305,400	1,630	30	297	215,200
1932	763-158	16,000	25	432	313,300	16,000	25	496	360,000
1933	763-159	12,100	30	342	247,400	4,600	30	243	176,000
1934	763-160	1,090	0	137	99,100	1,090	0	129	93,690
1935	788-170	6,900	10	254	183,900	6,900	10	263	190,500
1936	808-237	5,280	20	258	187,200	5,280	20	279	202,800
1937	828-404	33,400	67	828	599,700	33,400	84	803	581,600
1938	858-325	2,670	8	233	168,700	2,670	8	242	175,400
1939	878-293	4,570	12	283	205,000	-	-	-	-

*Year incomplete.
†From reports of State engineer.

Pecos River at Carlsbad, N. Mex.

1904	358-516	420	0	97.2	70,510	-	-	-	-
1905	358-516	-	-	-	-	47,600	206	1,264	915,100
1906	358-516	4,800	176	523	378,800	4,800	18	482	348,800
1915	408-92	20,600	60	683	493,900	20,600	60	665	481,800
1916	438-94	27,000	95	467	339,000	27,000	105	499	362,500
1917	458-93	5,910	26	217	157,300	1,770	26	148	107,200
1918	478-95	291	30	82.4	59,660	177	30	79.5	57,560
1919	508-119	23,600	39	1,005	727,800	23,600	57	1,135	821,800
1920	508-119	5,910	82	300	216,400	3,520	82	190	137,700
1921	528-82	14,800	76	527	380,800	14,800	76	526	381,000
1922	548-96	332	85	130	94,020	332	73	110	79,600
1923	568-119	208	71	95.6	69,220	5,460	71	263	190,700
1924	588-196	5,460	73	349	253,700	1,320	73	187	135,900
1925	608-232	8,940	71	220	159,300	8,940	71	264	191,400
1926	(*)	5,310	78	334	242,000	5,310	60	362	262,000
1927	(*)	1,430	30	212	153,300	434	30	138	100,300
1928	(*)	2,750	42	126	91,210	2,750	64	196	142,000
1929	788-171	1,280	50	186	134,600	2,670	50	156	113,000
1930	788-172	2,670	63	165	119,100	4,560	63	238	172,600
1931	(*)	4,560	63	297	215,000	1,820	63	207	149,600
1932	763-161	14,300	74	276	200,400	14,500	74	413	300,100
1933	763-162	14,500	76	303	219,200	420	76	165	119,300
1934	763-163	420	24	97.5	70,580	149	24	62.7	45,420
1935	788-173	4,480	24	83.4	60,400	4,480	45	111	80,370
1936	808-238	480	47	105	76,510	480	53	93.3	67,740
1937	828-405	36,000	12	742	537,400	36,000	12	749	542,000
1938	858-326	3,630	10	118	85,330	3,630	10	111	80,240
1939	878-297	338	56	89.6	64,880	-	-	-	-

*From reports of State engineer.

Pecos River near Malaga, N. Mex.

1921	528-84	17,200	91	623	451,000	17,200	91	627	453,600
1922	548-98	725	75	225	163,200	725	75	191	138,500
1923	568-121	1,860	69	180	130,000	6,050	69	356	257,700
1924	588-197	6,050	61	401	291,200	1,250	61	231	167,400
1925	608-234	10,300	32	275	198,900	10,300	32	307	222,100
1926	(*)	5,060	30	358	259,200	5,060	30	375	271,800
1927	(*)	710	42	229	165,800	400	42	194	140,300
1928	(*)	4,500	53	243	176,700	4,500	53	299	216,800
1929	(*)	3,130	30	210	152,200	1,460	30	163	118,000
1930	(*)	1,460	42	177	128,400	5,760	42	268	194,400
1931	(*)	5,760	30	378	273,300	4,000	30	280	202,800
1932	763-164	13,000	3	332	240,900	16,000	3	493	357,600
1933	763-165	16,000	12	356	257,800	645	12	184	133,400
1934	763-166	295	0	110	79,530	208	0	765	55,410
1935	788-174	5,120	13	118	85,550	5,120	13	157	113,500
1936	808-239	519	2	132	95,970	475	28	162	117,800
1937	828-406	34,100	30	729	528,000	34,100	30	757	548,100
1938	858-327	3,320	32	164	119,100	3,320	32	153	111,000
1939	878-296	317	42	130	94,130	-	-	-	-

*From reports of State engineer.

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--*Continued*

Pecos River near Angeles, Tex.

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1915	408-93	27,600	132	870	629,000	27,600	132	840	608,000
1917	458-93	2,300	104	250	181,000	1,000	104	200	145,000
1918	478-95	317	71	151	110,000	317	71	154	112,000
1919	508-121	21,000	101	1,040	750,000	21,000	101	1,150	829,000
1920	508-121	4,540	-	405	294,000	2,310	-	318	231,000
1921	528-85	-	88	665	481,000	-	88	676	489,000
1922	548-98	2,310	105	245	177,000	2,310	105	206	149,000
1923	568-121	4,670	-	165	120,000	8,420	68	337	244,000
1924	588-198	8,420	-	387	281,000	1,140	-	224	163,000
1925	608-234	10,200	45	303	219,000	10,200	45	340	246,000
1926	628-186	5,370	82	378	274,000	5,370	82	400	290,000
1927	648-107	1,110	59	236	171,000	416	59	171	124,000
1928	668-108	5,340	70	208	151,000	5,340	70	290	210,000
1929	688-106	2,240	59	249	180,000	1,690	59	207	150,000
1930	703-113	1,460	63	207	150,000	4,210	63	292	212,000
1931	718-119	4,210	67	399	289,000	3,260	67	302	218,000
1932	733-151	10,500	78	349	253,000	15,300	78	529	384,000
1933	748-133	15,300	-	405	293,000	2,510	-	214	155,000
1934	763-167	449	24	141	102,000	449	24	112	80,850
1935	788-175	7,890	29	170	122,900	7,890	29	204	147,500
1936	808-240	2,030	28	182	132,200	2,030	28	162	117,800
1937	828-407	29,200	61	805	582,500	-	-	-	-

Gallinas River near Montezuma, N. Mex.
(Drainage area, 86 square miles)

1927	(*)	160	-	16.9	12,250	-	-	16.9	12,220
1928	(*)	190	-	18.8	14,700	190	-	19.3	14,040
1929	(*)	408	-	28.8	20,850	408	-	30.9	22,340
1930	(*)	128	-	20.1	14,560	128	-	19.2	13,880
1931	733-153	284	-	33.0	23,890	284	-	34.0	24,590
1932	733-153	194	-	23.1	16,760	194	-	21.8	15,800
1933	748-134	47	-	10.1	7,300	47	-	9.06	6,560
1934	763-168	11	0.8	3.87	2,800	11	0.8	3.23	2,340
1935	788-176	435	1.0	18.8	13,630	435	1.6	19.7	14,270
1936	808-241	47	1.8	7.36	5,340	47	1.8	8.66	6,290
1937	828-409	175	2.5	18.9	13,670	175	.9	17.1	12,380
1938	858-330	220	.8	10.7	7,780	220	.8	12.1	8,760
1939	878-311	96	2.3	17.8	12,860	-	-	-	-

*From reports of State engineer.

Gallinas River at Montezuma (near Las Vegas), N. Mex.
(Drainage area, 89 square miles)

1905	358-572	-	-	-	-	380	2	58.7	42,480
1906	358-572	308	2	33.9	24,610	240	2	36.1	26,120
1907	358-573	240	2	34.0	24,720	135	0	28.2	20,430
1908	358-573	159	0	15.3	11,180	159	0	15.3	11,120
1909	358-573	280	0	13.9	10,100	280	0	14.6	10,540
1910	358-573	55	0	9.91	7,210	55	.3	8.83	6,390
1911	358-573	358	.3	15.3	11,240	358	.3	19.6	14,160
1913	358-574	-	-	-	-	598	.9	11.1	8,050
1914	388-103	523	.9	34.1	24,720	523	1.3	36.0	26,080
1915	(*)	690	1.0	37.9	27,410	690	1.0	35.8	25,930
1916	(*)	835	.5	75.2	54,560	835	.5	77.2	56,070
1917	(*)	132	1.0	10.4	7,540	132	.1	7.49	5,420
1918	(*)	148	.1	4.93	3,570	148	.1	4.99	3,620
1919	(*)	620	.1	71.6	51,820	620	.6	74.9	54,190
1920	(*)	276	1.7	19.7	14,300	276	.2	16.9	12,300
1921	(*)	324	.2	33.7	24,370	324	.1	33.8	24,500
1922	(*)	40	.1	3.72	2,700	40	.2	3.00	2,170
1923	(*)	73	.2	9.79	7,090	230	.3	15.3	11,060
1924	(*)	230	.8	33.8	24,560	206	.5	28.5	20,720
1925	(*)	131	.5	7.74	5,610	131	.5	8.69	6,290
1926	(*)	207	.8	19.4	14,010	207	.8	19.5	14,110
1927	(*)	138	.8	11.9	8,590	138	.8	11.7	8,470
1928	(*)	275	.7	14.7	10,650	275	.7	14.2	10,310
1929	(*)	690	.7	28.6	20,720	690	.7	30.4	21,980
1930	(*)	104	.7	14.1	10,180	104	1.1	13.5	9,750
1931	733-155	345	1.0	29.2	21,120	345	1.0	29.0	20,980
1932	733-155	204	1.2	17.1	12,420	204	.6	16.6	12,040
1933	748-135	44	.6	7.41	5,360	44	.4	6.62	4,790
1934	763-169	12	.1	1.93	1,400	12	0	1.69	1,220
1935	788-177	455	0	18.7	13,550	455	.1	19.1	13,860
1936	808-242	47	.5	4.50	3,260	47	.5	5.87	4,260
1937	828-410	131	.9	15.7	11,370	131	.9	14.1	10,230
1938	858-331	214	.5	9.58	6,940	214	.5	10.8	7,840
1939	878-312	100	.6	15.6	11,300	-	-	-	-

*From reports of State engineer.

Devils River near Juno, Tex.
(Drainage area, 2,733 square miles)

1926	628-198	114	74	86.2	62,400	266	74	85.1	61,600
1927	648-110	10,500	64	124	89,700	10,500	64	144	105,000
1928	668-111	10,500	70	161	117,000	10,500	70	141	103,000
1929	688-110	6,430	69	118	85,700	6,430	69	113	81,600
1930	703-117	176	48	66.1	47,900	45,500	48	314	227,000
1931	718-123	45,500	53	376	271,000	2,630	89	134	97,000

Summary of yearly discharge, in second-feet, at stations in Rio Grande Basin--Continued

Devils River near Juno, Tex.--Continued
(Drainage area, 2,733 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1932	(*)	94,200	72	441	320,000	94,200	72	482	350,000
1933	748-161	-	116	175	127,000	246	104	137	98,800
1934	763-175	2,620	80	109	78,800	2,620	73	101	73,010
1935	788-184	23,900	t.	558	403,900	23,900	66	578	418,200
1936	808-248	20,900	112	363	263,300	20,900	112	359	260,700
1937	828-416	1,170	78	115	83,340	1,170	76	99.5	72,030
1938	858-338	49,500	74	482	349,000	49,500	74	488	353,500
1939	878-333	1,820	79	105	75,740	-	-	-	-

*Yearly figures not previously published. Daily and monthly figures October 1931 to August 1932 published in Water-Supply Paper 733, p. 167; monthly and yearly means, October 1931 to September 1932 published in Water-Supply Paper 850, p. 143.

MIMBRES RIVER BASIN

Mimbres River near Mimbres, N. Mex.
(Drainage area, 183 square miles)

1922	(*)	16	1.5	4.89	3,540	10	1.5	3.92	2,840
1923	(*)	65	1.5	10.1	7,280	65	1.8	10.8	7,850
1924	(*)	188	1.8	22.9	16,600	188	3.6	22.5	16,400
1927	(*)	203	2.0	23.2	16,770	203	2.0	22.2	16,070
1928	(*)	-	-	8.70	6,320	-	-	7.81	5,670
1929	(*)	210	-	8.48	6,140	210	1.6	9.03	6,540
1930	(*)	500	-	17.1	12,400	500	3.0	16.8	12,170
1931	733-169	232	3.2	17.1	12,380	232	3.2	17.1	12,400
1932	733-169	54	3.0	13.6	9,910	54	3.0	13.6	9,880
1933	748-162	130	1.4	10.5	7,570	130	1.4	10.8	7,820
1934	763-176	50	2.1	5.85	4,240	50	2.1	4.55	3,290
1935	788-185	242	2.2	8.57	6,210	242	2.2	8.91	6,450
1936	808-249	30	2.1	6.49	4,710	30	2.1	6.16	4,470
1937	828-417	275	-	19.4	14,040	275	-	20.2	14,630
1938	858-339	360	1.5	6.48	4,689	360	1.5	6.54	4,740
1939	878-334	146	2.4	8.39	6,070	-	-	-	-

*From reports of State engineer.

Mimbres River near Faywood, N. Mex.
(Drainage area, 485 square miles)

1909	358-650	108	.1	14.1	10,180	108	.1	6.4	4,630
1910	358-651	196	0	5.64	4,090	196	0	4.5	3,270
1913	358-651	98	.2	11.5	8,320	98	.2	11.3	8,210
1914	388-112	2,200	.9	46.2	33,440	2,200	.9	67.8	49,070
1915	(*)	1,420	11	124	89,810	664	15	111	80,370
1916	(*)	316	1.2	47.5	34,450	394	1.2	47.1	34,210
1917	(*)	394	2.1	22.3	16,140	233	1.0	12.2	8,820
1919	(*)	-	-	-	-	114	.9	23.4	16,960
1920	(*)	59	.4	13.7	9,910	59	.2	8.2	5,980
1921	(*)	700	.1	14.5	10,500	700	.1	22.1	15,980
1922	(*)	151	0	14.1	10,220	100	0	6.0	4,340
1923	(*)	210	0	11.4	8,250	210	0	17.6	12,760
1924	(*)	82	0	26.1	18,970	82	0	20.0	14,530
1927	(*)	-	-	20.9	15,160	-	-	19.6	14,160
1930	(*)	800	1	31.1	22,520	800	1	28.9	20,910
1931	733-171	1,100	1	24.1	17,450	1,100	1	25.0	18,130
1932	733-171	120	1	11.1	8,030	120	1	9.8	7,100
1933	748-163	276	0	10.8	7,840	276	0	11.4	8,240
1934	763-177	147	0	5.7	4,100	147	0	3.5	2,510
1935	788-186	450	0	8.5	6,160	450	0	10.5	7,590
1936	808-250	49	0	6.8	4,900	49	0	4.7	3,440
1937	828-418	580	0	30.7	22,260	580	0	31.7	22,960
1938	858-340	454	0	5.07	3,670	454	0	4.33	3,140
1939	878-335	2,000	.2	15.6	11,270	-	-	-	-

*From reports of State engineer.

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