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WATER BULLETIN NUMBER 45

Flow of the Rio Grande and Related Data

From Elephant Butte Dam, New Mexico to the Gulf of Mexico

1975

STORAGE IN MAJOR RESERVOIRS
SOURCES OF RIVER FLOW
DIVERSIONS
SUSPENDED SILT
CHEMICAL ANALYSES
SANITARY ASPECTS OF WATER QUALITY
CLIMATOLOGICAL DATA
DRAINAGE BASIN AND IRRIGATED AREAS

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FOREWORD

This bulletin presents the forty-fifth compilation of the stream discharges and related data concerning the international portion of the Rio Grande, prepared jointly by the United States and Mexican Sections of the International Boundary and Water Commission. The stream flow data and kindred subjects pertain to the Rio Grande and its important tributaries near their confluence with the main stream from Elephant Butte, New Mexico to the Gulf of Mexico. The first publication in the series was Water Bulletin No. 1 for the year 1931. The present volume contains the information for the year 1975.

International stream gaging on the Rio Grande was initiated in 1889, when the station at El Paso, Texas was established. Several stations on the Rio Grande and its tributaries downstream from El Paso were established in 1900 and operated until 1914. Between 1914 and 1923, except for a few months in 1919 and 1920, all stream-gaging work on the international reach of the river was suspended. In 1923, the work was resumed and carried on independently by the two countries until 1931 when the present joint program of stream measurements was adopted.

During 1975 the United States Section of the Commission operated the stream-gaging stations on the Rio Grande at El Paso, American Dam, Island, County Line, Fort Quitman, Above Rio Conchos, Below Rio Conchos, Johnson Ranch, Foster Ranch, Del Rio, San Antonio Crossing, Fort Ringgold, San Benito, and Brownsville. The Mexican Section operated the stream-gaging stations on the Rio Grande at Below Amistad Dam, Below Maverick Dam, Eagle Pass, Palafox, Laredo, Below Anzalduas Dam, and Progreso. The station at Falcon Dam was operated jointly by the two Sections. Each Section operated the gaging stations on tributary streams, floodways, and diversions within its own country.

The total drainage area within the outer rim of the Rio Grande Basin is 335,500 square miles. However, about half of this area yields no runoff to the river, the estimated productive area of the watershed being 176,333 square miles. Reservoirs in the basin have a total storage capacity of approximately 11,487,100 acre-feet, in addition to the International Amistad and Falcon Reservoirs, which have a combined conservation capacity of 6,165,000 acre-feet. In the Rio Grande Basin, a rounded total of 2,324,000 acres is irrigated below Elephant Butte Dam on the Rio Grande and below Girvin on the Pecos River. The flow of the Rio Grande to the Gulf of Mexico below Brownsville prior to construction of Falcon Dam averaged 2,600,000 acre-feet per year for the period 1934-1952. For the period 1954-1975, this flow has averaged 766,800 acre-feet per year.

Acknowledgments

Other agencies which have contributed to some part of the data published herein include: The Agricultural Research Service and the Soil Conservation Service of the U. S. Department of Agriculture; the Bureau of Reclamation and the Geological Survey of the U.S. Department of the Interior; the National Weather Service of the U.S. Department of Commerce; the Texas Board of Health; the Texas Water Development Board; the Sanchez Ditch and Reservoir Company; the Middle Rio Grande Conservancy District; the Red Bluff Water Power Control District; State of Colorado, Division of Water Resources; the New Mexico State Engineer Office; the Rio Grande Compact Commission; the Willacy County Water Control and Improvement District No. 1, the Del Rio City Water Department; the Eagle Pass City Water Department; the Laredo City Water Department; the Del Mar Conservation District; Central Power and Light Company; the El Paso Department of Water and Sewerage; the Maverick County Water Control and Improvement District No. 1; the Ministry of Hydraulic Resources of Mexico; the Ministry of Agriculture and Livestock of Mexico; the Meteorological Service of Mexico; Meteorological Service of the State of Chihuahua, Mexico; Federal Power Commission of Mexico; Potable Water Board of Piedras Negras, Coahuila; the Federal Board of Public Improvement Works of Nuevo Laredo, Tamaulipas; and the Water and Drainage Board of Cd. Acuna, Coahuila.

Additional contributions have been made by individuals and corporations and specific notation is made for such, as well as for those of the above-named agencies, where the data appear. The courtesy and cooperation of those who made these contributions are acknowledged with appreciation.

Period Averages

In Water Bulletins Nos. 1 through 29, normal or average discharge volumes shown for the various gaging stations were based on a period beginning in 1924, or thereafter when records became available.

Beginning with Water Bulletin No. 30, the periods have been revised to include only the years following completion of major projects below which the flow of the Rio Grande or a major tributary was modified, or later when records became available. The revised periods are based on the completion of Caballo Dam in 1938, irrigation projects on the Rio Conchos and its tributaries in 1947, International Falcon Dam in 1953, and Amistad Dam and Luis L. Leon Dam in 1968.

For purposes of comparison with the average flows in the Rio Grande below Caballo Dam, records of average discharge in the Rio Grande below Elephant Butte Dam have also been revised to include the same period.

The period of record used to determine the average diversions from the Rio Grande to the United States below Falcon Dam published herein was restricted to begin in 1957, the first complete year of record after United States' waters in Falcon Reservoir were placed under the jurisdiction of the 93rd District Court of Texas.

FOREWORD

Units of Measure

Data collected by the Mexican Section are computed and published in a Spanish version of the water bulletin in metric units. The Mexican data are converted and reported in this bulletin in English units. Conversion factors conform generally to those in the National Bureau of Standards Miscellaneous Publication 286 "Units of Weight and Measure (United States Customary and Metric) - Definitions and Tables of Equivalents". However, for convenience some of the factors have been shortened and modified to facilitate conversion, reconversion to the original units when necessary, and checking of data. Conversion of the mean daily discharges, the monthly average discharge and the monthly volumes from metric to English units is direct. For this reason the monthly average discharge in cubic feet per second and monthly volumes in acre-feet shown for gaging stations operated by the Mexican Section cannot necessarily be obtained in the usual manner from the total monthly flow in second-foot days. For the same reason, evaporation and rainfall data, when totaled, may not be equivalent to the direct conversion from metric to English units. The following factors have been used for data in this bulletin:

METRIC UNITS		ENGLISH UNITS
	LENGTHS	
1 Centimeter		0.393701 Inches
1 Meter		3.28084 Feet
1 Kilometer		0.621371 Miles
	AREAS	
1 Square Meter		10.76391 Square Feet
1 Hectare		2.471054 Acres
1 Square Kilometer		0.386102 Square Miles
	VOLUMES	
1 Cubic Meter		61023.74 Cubic Inches
1 Cubic Meter		35.31467 Cubic Feet
1 Cubic Meter		1.30795 Cubic Yards
1000 Cubic Meters		0.81071 Acre-Foot
1 Liter		0.264172 U. S. Gallon
	WEIGHTS	
1 Kilogram		2.204623 Pounds
1 Metric Ton		2204.623 Pounds
1 Metric Ton		1.102311 Short Tons (2,000 lbs.)

GENERAL HYDROLOGIC CONDITIONS FOR 1975

Along and Adjacent to the International Portion of the Rio Grande

During the year 1975, temperatures were about normal on the watershed of the Rio Grande below El Paso, Texas. Evaporation averaged 97% of normal. Precipitation was 80% of normal from El Paso to Amistad Dam, 101% of normal from Amistad Dam to Falcon Dam, 117% of normal from Falcon Dam to Rio Grande City, and 99% of normal in the Lower Rio Grande Valley on the United States side.

The yearly volume of flow of the Rio Grande was below normal from El Paso to the confluence of the Rio Conchos with the Rio Grande, above normal from the confluence of the Rio Conchos to Falcon Reservoir, and above normal from Falcon Dam to the Gulf of Mexico. In the reach between El Paso and the confluence of the Rio Conchos the flow averaged 71% of normal, ranging from 97% of normal at El Paso to 17% at County Line; in the reach between the confluence of the Rio Conchos and Amistad Reservoir, where flows were partly regulated by releases from Luis L. Leon Reservoir (El Granero) on the Rio Conchos, the flow averaged 89% of normal; and in the reach between Amistad Dam and Falcon Reservoir, where flows were partly regulated by releases from Amistad Reservoir, the flow averaged 148% of normal. Flows passing Rio Grande stations below Falcon Dam were partly regulated by releases from Falcon Reservoir. Such releases in 1975 amounted to 3,120,165 acre-feet, or 138% of the average for the twenty-two years of operation, 1954 to 1975. The volume of flow wasted to the Gulf of Mexico was 1,762,984 acre-feet, or 230% of the average for this twenty-two year period.

The total annual flow of all measured tributaries below Fort Quitman was 120% of normal. The total flow of these tributaries in the United States was 630,944 acre-feet, or 90% of normal. For Mexico, the measured tributary flow excluding Rio Alamo and Rio San Juan was 1,634,795 acre-feet, or 136% of normal. The flow of the Rio Alamo and Rio San Juan was 138% and 117% of their respective normals.

Return flow to the Rio Grande at Maverick Power Plant near Eagle Pass was 673,061 acre-feet, or 121% of the twenty-seven year average. Return flow to the Rio Grande through various drains in the Maverick County irrigation district excluding storm inflow amounted to 155,030 acre-feet, or 80% of the seventeen-year average.

There were no floods of consequence on the Rio Grande during 1975. However, the maximum flood of record since 1968, the year Amistad Reservoir operations began, occurred at Eagle Pass where a peak discharge of 149,000 second-feet was recorded. This is near the previous high recorded for the Rio Grande downstream from Amistad Dam since that time. The Rio San Rodrigo recorded a peak whose discharge was estimated to be 140,000 second-feet, the highest since records began in 1922.

For all reservoirs in the Rio Grande basin having capacity greater than 15,000 acre-feet, excepting Amistad and Falcon International Reservoirs, the average amount of water in storage in 1975 was 5,091,700 acre-feet, or 119% of the normal 4,270,100 acre-feet. In the United States, stored water in these reservoirs averaged 95% of normal, while in Mexico the average was 130% of normal. In International Amistad Reservoir there was a net decrease in storage during the year of 322,800 acre-feet. Storage ranged from a low of 3,639,500 acre-feet on November 23 to a high of 4,037,100 acre-feet on April 8 and 10 and averaged 3,855,200 acre-feet during the year, or 155% of the average for the period of operation, June 1968 through 1975. In international Falcon Reservoir there was a net decrease in storage during the year of 283,200 acre-feet. The storage varied from a low of 2,258,400 acre-feet on May 27 to a high of 2,882,000 acre-feet on January 1 and averaged 2,508,600 acre-feet during the year, or 133% of the average for the twenty-two years of operation, 1954 through 1975.

Diversions from the Rio Grande in the United States were, on the average, 112% of normal. Diversions into the American Canal were 107% of normal; into the Maverick Canal 112% of normal; and in the United States below Falcon Dam 113% of the average for the nineteen years, 1957-1975. In Mexico, diversions averaged 142% of normal. Diversions into the Acequia Madre were 126% of normal, while diversions through the Anzalduas Canal for irrigation in Mexico were 143% of the twenty-two year average.

In 1975, the total reported irrigated acreage from the Rio Grande and its tributaries below El Paso, Texas showed an increase of 1% from the previous year. On the United States side, there was a decrease of less than 1% above and practically no change below Falcon Dam. On the Mexican side, there was an increase of 5% above and less than 1% below Falcon Dam for an overall average increase of 2%.

The 1975 investigation of the quality of Rio Grande water extended from El Paso to Brownsville. The annual tonnage of salts carried by the river above Falcon Dam was 103% of the 1935-75 normal. The volume of suspended silt transported by the Rio Grande in 1975 was 19% of average for sampling stations above Amistad Dam, 9% of average for sampling stations in the reach Amistad Dam to Falcon Reservoir, and average for sampling stations below Falcon Dam.

RIO GRANDE BELOW ELEPHANT BUTTE DAM, NEW MEXICO

DESCRIPTION: Concrete wall control, bubbler gage, and water-stage recorder located on the left bank 100 feet upstream from the cableway at latitude 33°08'45", longitude 107°12'20", and river mile 1,383.9; 0.7 river mile downstream from Elephant Butte Dam, 1.5 river miles upstream from Cuchillo Negro River, and 135.1 river miles upstream from the American Dam at El Paso, Texas. The zero of the gage is 4,242.09 feet above mean sea level, U.S.C. & G.S. datum.

RECORDS: Based on 29 discharge measurements during the year and a continuous record of gage heights. Records were furnished by the United States Geological Survey. Records available: 1915 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. Beginning December 1940, hydroelectric power generation facilities for 27,000 kva were placed in operation at Elephant Butte Dam.

EXTREME FLOWS FROM RECORDS:

	Average Flow in Second-Feet					
Daily:	Max. 8,220	May 22, 1942		Min. 0		Occasionally
Monthly:	Max. 7,600	May	1942	Min. 1.2		Nov. 1971
Yearly:	Max. 2,510		1942	Min. 253		1964

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.0	5.5	13.0	2,170	‡ 1,740	1,890	1,830	1,660	1,140	‡ 12.0	11.0	‡ 13.0
2	9.9	5.5	13.0	2,160	1,650	1,900	‡ 1,850	1,660	1,180	11.0	9.7	13.0
3	‡ 9.8	5.9	13.0	‡ 2,160	1,680	1,850	1,780	1,590	1,330	10.0	9.5	13.0
4	9.9	6.8	13.0	2,160	1,690	‡ 1,780	1,640	1,680	1,280	7.9	9.0	13.0
5	9.9	7.6	13.0	1,890	1,720	1,800	1,640	1,680	‡ 1,260	8.1	‡ 67.0	13.0
6	8.6	7.6	1,220	1,870	1,740	1,830	1,650	1,670	1,250	7.8	11.0	321
7	6.6	7.6	1,330‡	1,880	1,760	1,830	1,660	‡ 1,680	1,200	7.8	11.0	245
8	6.3	8.1	1,330	1,870	1,800	1,830	1,650	1,390	1,150	8.0	11.0	17.0
9	6.0	8.1	1,340	1,860	1,830	1,830	1,650	1,450	1,120	7.8	11.0	707
10	6.0	8.5	1,330	1,860	1,860	1,800	1,630	1,110	985	8.0	9.5	654
11	6.0	17.0	1,350	1,840	1,890	1,810	1,660	1,350	664	7.8	8.1	104
12	6.0	139	1,340	1,840	1,900	1,800	1,650	1,360	233	7.8	7.8	17.0
13	6.0	‡ 12.0	1,340	1,850	1,920	1,780	1,650	1,360	15.0	8.2	58.0	16.0
14	6.0	11.0	1,340‡	1,860	1,930	1,780	1,650	‡ 1,420	16.0	7.9	9.5	18.0
15	5.6	10.0	1,330	1,870	1,950	1,770	1,650	1,330	15.0	‡ 8.0	10.0	‡315
16	5.5	11.0	1,330	1,870	‡ 2,000	1,780	1,660	1,340	‡ 12.0	8.2	9.7	13.0
17	5.5	12.0	1,350	‡ 1,870	1,950	1,880	‡ 1,630	1,350	11.0	200	10.0	12.0
18	5.5	10.0	1,330	1,850	1,950	1,800	1,650	1,370	11.0	9.0	‡ 9.7	12.0
19	5.1	8.7	1,330	1,820	1,970	‡ 1,790	1,640	1,370	11.0	9.0	9.5	12.0
20	5.0	83.0	1,720	1,810	1,970	1,820	1,590	1,370	10.0	8.6	9.8	12.0
21	4.8	15.0	2,140	1,770	1,950	1,800	1,630	1,370	8.8	8.6	9.4	12.0
22	3.7	14.0	2,160	1,750	1,950	1,790	1,640	1,380	8.1	8.6	9.5	169
23	‡ 164	12.0	2,160	1,730	1,970	1,790	1,640	1,390	344	‡ 8.6	9.5	12.0
24	‡ 656	12.0	2,160	1,710	2,020	1,780	1,640	1,390	‡ 439	8.0	98.0	10.0
25	660	15.0	2,160	1,700	1,900	1,790	1,640	1,400	303	7.4	737	10.0
26	666	19.0	2,150	1,700	1,900	1,830	1,640	1,430	24.0	7.4	34.0	10.0
27	670	16.0	2,160	1,650	1,930	1,830	1,640	1,430	16.0	7.0	15.0	11.0
28	27.0	‡ 14.0	2,170	1,910	1,960	1,840	1,640	1,020	16.0	7.0	15.0	10.0
29	6.2		2,170	1,880	1,920	1,860	‡ 1,640	1,020	15.0	7.6	15.0	12.0
30	‡ 5.6		2,170	1,850	1,900	1,870	1,610	1,050	14.0	18.0	14.0	16.0
31	5.0		2,170		1,880		1,650	1,100		11.0		15.0
Sum	501.9		56,010		54,530		43,170		452.1		2,327.0	
	3,004.3		44,145.0		58,180		51,420		14,080.9		1,258.2	

Month	Current Year 1975							Period 1938-1975		
	Extreme Gage Feet		∅ Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
	High	Low	High		Low				Average	Maximum	Minimum
			Day		Day						
Jan.			27	670	22	3.7	96.9	5,959	25,050	86,500	200
Feb.			12	139	† 1	5.5	17.9	996	39,585	88,861	188
Mar.			†28	2,170	† 1	13.0	1,420	87,500	72,323	128,025	1,520
Apr.			1	2,170	27	1,650	1,870	111,094	76,350	162,000	24,000
May			24	2,020	2	1,650	1,880	115,398	79,711	407,000	512
June			2	1,900	15	1,770	1,820	108,159	90,094	303,000	16,913
July			2	1,850	20	1,590	1,660	101,990	92,648	211,000	41,352
Aug.			† 4	1,680	23	1,020	1,390	85,626	75,489	134,000	9,530
Sept.			3	1,330	22	8.1	469	27,929	33,774	129,000	103
Oct.			17	200	†27	7.0	14.9	917	17,911	72,100	166
Nov.			25	737	12	7.8	41.9	2,496	17,725	158,000	74.2
Dec.			9	707	†24	10.0	91.2	5,607	18,525	87,300	170
Yearly				2,170		3.7	903	653,731	641,102	1,818,800	183,415

‡ Discharge measurement made on this day ∅ Mean daily † And other days

RIO GRANDE BELOW CABALLO DAM, NEW MEXICO

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the left bank at latitude 32°53'05", longitude 107°17'30", and river mile 1,355.6; 0.8 river mile downstream from Caballo Dam, about 3 miles northeast of Arrey, New Mexico, 5 miles south of Caballo, New Mexico, and 106.8 river miles upstream from the American Dam at El Paso, Texas. The zero of the gage is 4,140.90 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 8 discharge measurements during the year and a continuous record of gage heights. Records were furnished by the El Paso office of the United States Bureau of Reclamation. Records available: 1938 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. In addition to the outflow from Caballo Dam listed below, 619 acre-feet of water were diverted in 1975 into Bonita Lateral, a small irrigation canal just below Caballo Dam. Prior to 1938, discharge records were kept at Percha Dam, a low diversion dam about 1.5 miles downstream from this station. Small accretions to the river take place between the station and Percha Dam.

EXTREME FLOWS FROM RECORDS:

	Average Flow in Second-Feet					
Daily:	Max. 7,650	May 20, 1942		Min. 0.1	Several days 1954, 1955 and 1972
Monthly:	Max. 6,710	May	1942	Min. 0.1	Nov. & Dec. 1955
Yearly:	Max. 2,480		1942	Min. 284	1964

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1.4	203	‡ 653	1,310	1,030	1,390	1,890	1,640	1,560	4.0	3.1	3.0
2	1.4	87.0	654	1,500	1,080	1,310	1,910	1,750	1,640	3.5	3.0	3.0
3	1.4	3.3	655	1,620	1,100	1,500	1,780	1,770	1,730	‡ 3.5	3.0	3.0
4	1.4	1.6	726	1,400	1,050	‡ 1,740	1,640	1,580	1,400	3.5	3.0	3.0
5	1.4	1.5	880	1,160	865	1,780	1,680	1,540	1,420	3.5	‡ 3.0	3.0
6	1.5	1.4	791	1,240	937	1,680	1,750	1,660	1,300	3.4	3.0	3.0
7	1.7	1.4	666	1,200	1,060	1,630	1,630	1,740	1,110	3.4	3.0	3.0
8	1.5	1.4	702	992	1,110	1,560	1,580	1,700	1,070	3.4	3.0	3.0
9	1.6	1.4	712	1,080	1,220	1,500	1,480	1,630	927	3.4	3.0	3.0
10	1.5	1.4	773	943	1,280	1,640	1,480	1,640	925	3.4	3.0	3.0
11	1.5	1.4	921	1,000	1,100	1,720	1,500	1,630	801	3.4	3.0	3.0
12	1.4	1.4	1,020	1,030	1,050	1,590	1,440	1,790	61.0	3.4	3.0	3.0
13	1.4	1.4	1,130	1,030	1,350	1,560	1,340	1,960	5.8	3.3	3.0	3.0
14	1.5	1.4	‡ 968	1,110	1,380	1,560	1,350	‡ 2,130	2.4	3.3	3.0	3.0
15	1.4	1.4	987	1,020	1,350	1,550	1,470	2,220	2.1	3.3	3.0	3.0
16	1.7	1.4	1,110	928	1,540	1,530	1,480	2,160	2.1	3.3	3.0	3.0
17	1.8	1.4	1,150	1,050	1,470	1,760	1,410	2,040	1.9	3.3	3.0	3.0
18	1.5	1.3	1,470	1,270	1,370	1,950	1,390	2,020	1.8	3.3	3.0	3.0
19	1.4	1.3	1,660	1,290	1,340	1,930	1,370	2,040	485	3.3	3.0	3.0
20	1.4	1.3	1,670	1,190	1,370	1,820	1,340	2,010	982	3.2	3.0	3.0
21	1.5	1.3	1,660	1,020	1,450	1,750	1,350	1,900	865	3.2	3.0	3.0
22	1.6	1.3	1,860	1,230	1,480	1,720	1,480	1,710	713	3.2	3.0	3.0
23	1.5	1.2	1,810	1,310	1,520	1,700	1,570	1,450	809	3.2	3.0	3.0
24	133	1.3	1,550	1,310	1,590	1,790	1,530	1,420	866	3.2	3.0	3.0
25	464	1.4	1,560	1,320	1,530	‡ 1,880	1,590	1,270	848	3.2	3.0	3.0
26	500	1.4	1,790	1,320	1,440	1,860	1,500	1,430	1,020	3.2	3.0	3.0
27	‡518	1.4	1,670	1,310	1,690	1,800	1,400	1,460	1,120	3.1	3.0	3.0
28	473	276	1,590	1,260	1,760	1,670	1,400	1,630	1,100	3.1	3.0	3.0
29	419		1,530	1,170	1,820	1,700	1,380	1,670	874	3.1	3.0	3.0
30	337		1,230	1,110	1,650	1,700	1,360	1,700	190	3.1	3.0	3.0
31	203		1,140		1,370		1,470	1,690		3.1		3.0
Sum	3,081.4	602.4	36,688	35,723	41,352	50,270	46,940	53,980	23,832.1	102.8	90.1	93.0

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	∅ Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1938-1975: Acre-Feet Average	Maximum	Minimum
Jan.			27	518	† 1	1.4	99.4	6,112	621	6,112	19.2
Feb.			28	276	23	1.2	21.5	1,195	7,248	64,300	11.7
Mar.			22	1,860	1	653	1,180	72,770	84,779	135,000	24,900
Apr.			3	1,620	16	928	1,190	70,856	80,399	212,000	25,470
May			29	1,820	5	865	1,330	82,020	74,740	412,000	75.2
June			18	1,950	2	1,310	1,680	99,709	104,217	354,000	25,289
July			2	1,910	†13	1,340	1,510	93,104	110,906	234,000	28,200
Aug.			15	2,220	25	1,270	1,740	107,068	106,588	179,000	20,500
Sept.			3	1,730	18	1.8	794	47,270	48,748	181,000	6,757
Oct.			1	4.0	†27	3.1	3.3	204	4,424	35,400	15.5
Nov.			1	3.1	† 2	3.0	3.0	179	2,369	14,400	7.0
Dec.			† 1	3.0	† 1	3.0	3.0	184	2,456	19,100	6.0
Yearly				2,220		1.2	802	580,671	627,495	1,795,670	206,084.6

‡ Discharge measurement made on this day ∅ Mean daily † And other days

RIO GRANDE AT EL PASO, TEXAS

DESCRIPTION: Gravity well and water-stage recorder located on the downstream side of the first pier from the left abutment of the Courchesne Bridge at latitude 31°48'10", longitude 106°32'25", and river mile 1,250.5; 5.6 river miles upstream from the Santa Fe Street-Juarez Avenue bridge between El Paso, Texas and Cd. Juarez, Chihuahua and 1.7 miles upstream from the American Dam at El Paso, Texas. The zero of the gage is 3,722.30 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Mean daily discharges in 1975 were computed by adding the flows in the American Canal and the flows at the river station below the American Dam. Because the mean daily discharges are rounded, the monthly sum for this station may not equal the sum of the monthly sums of the other two stations. Extreme discharges are those passing the El Paso station, where measurements are made only during high flows. Records available: 1889 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 24,000 second-feet on June 12, 1905. Min. occasionally no flow. Since Elephant Butte Dam was closed in 1915, the largest peak flow to pass this station was 13,500 second-feet on September 3, 1925.

Average Flow in Second-Feet

Daily:	Max. 23,680	June 12, 1905	Min. 0	Occasionally
Monthly:	Max. 14,300	June 1905	Min. 0	Occasionally
Yearly:	Max. 2,780	1905	Min. 70.1	1902

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	120	393	56.7	729	634	906	888	544	933	462	158	141
2	117	355	56.0	620	671	859	780	610	988	504	170	145
3	113	271	54.5	632	604	860	765	707	797	378	160	144
4	113	259	391	599	529	746	797	963	718	284	157	149
5	113	227	419	597	615	750	800	1,030	929	274	159	149
6	112	172	428	582	548	886	776	862	846	287	152	152
7	112	136	410	523	493	880	946	667	960	280	151	143
8	113	109	390	636	419	843	1,030	658	1,220	246	145	144
9	114	108	294	617	482	849	902	712	937	236	147	145
10	113	106	355	477	488	845	773	746	850	215	146	144
11	110	93.7	351	503	657	692	669	781	833	208	151	144
12	106	84.3	343	474	784	728	768	940	2,770	209	139	143
13	103	86.1	378	585	736	866	866	891	1,820	202	134	141
14	104	81.8	415	661	562	765	933	820	1,020	190	156	143
15	93.7	77.3	447	680	610	796	781	835	736	184	156	137
16	93.5	74.6	433	645	624	877	725	998	647	177	156	138
17	97.7	69.9	468	556	538	938	693	1,200	466	168	157	137
18	99.5	67.1	576	473	692	837	775	1,300	401	163	149	138
19	99.4	67.0	558	614	795	794	708	1,260	378	155	156	137
20	98.4	65.0	698	631	762	801	760	1,060	371	150	155	137
21	104	66.9	891	772	680	828	839	1,000	362	145	160	146
22	103	60.1	595	745	629	890	777	1,050	461	150	152	160
23	104	60.1	728	682	686	982	747	1,250	773	161	152	170
24	104	60.0	977	632	741	964	782	1,290	597	191	152	169
25	104	58.7	867	735	778	867	750	1,080	428	177	152	169
26	104	56.7	646	786	980	768	745	931	483	172	154	169
27	96.8	56.7	600	790	862	768	960	852	518	171	154	169
28	379	57.3	708	829	740	820	823	720	499	172	147	154
29	443		680	776	830	893	803	632	483	158	150	140
30	455		893	780	835	828	714	707	492	156	134	140
31	431		1,100		900		702	878		154		140
Sum	4,573.0	3,379.3	16,206.2	19,361	20,904	25,126	24,777	28,024	23,716	6,779	4,561	4,577

Month	Current Year 1975						Average Second-Feet	Total Acre-Feet	Period 1938-1975		
	Extreme Gage Feet		Extreme Second-Feet						Acre-Feet		
			High		Low						
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.	3.85	2.70	30	∅ 455	16	∅ 93.5	148	9,070	6,145	15,100	220
Feb.	3.70	2.60	1	∅ 393	†26	∅ 56.7	121	6,703	7,215	52,200	136
Mar.	5.17	2.53	31	∅ 1,100	3	∅ 54.5	523	32,145	34,349	62,500	1,790
Apr.	4.56	3.66	28	∅ 829	18	∅473	645	38,402	42,064	139,000	6,820
May	5.08	3.62	26	∅ 980	8	∅419	674	41,462	44,956	357,000	522
June	4.95	4.15	1	1,060	11	669	837	49,837	52,910	304,000	6,020
July	4.95	3.89	27	1,050	31	574	799	49,144	59,019	198,000	9,652
Aug.	5.73	3.73	18	1,520	1	515	904	55,585	57,061	158,000	4,870
Sept.	6.74	3.32	12	5,880	21	∅362	790	47,040	39,506	171,000	2,430
Oct.	4.06		2	∅ 504	21	∅145	219	13,446	14,188	57,900	151
Nov.	4.15		2	∅ 170	†13	∅134	152	9,047	8,411	21,300	229
Dec.	2.47	2.32	23	∅ 170	†15	∅137	148	9,078	8,015	25,600	206
Yearly	6.74			5,880		∅ 54.5	499	360,959	373,839	1,559,200	57,481

∅ Mean daily † And other days

DIVERSIONS FROM THE RIO GRANDE AMERICAN CANAL AT EL PASO, TEXAS

DESCRIPTION: Concrete control consisting of two triangular-shaped wingwalls extending toward the center of the canal about one-fourth of the canal width and downstream at a 30° angle with the canal side walls, bubbler gage, water-stage recorders (graphic and digital), and binary decimal transmitter located on the right bank of the concrete-lined canal at El Paso, Texas, latitude 31°46'40", longitude 106°31'25", and about 2,400 feet downstream from the headgates of the American Dam which are located at river mile 1,248.8. The zero of the gage is 3,712.09 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 4 discharge measurements during the year, a stable rating curve at medium and high flows, and a continuous record of gage heights. Records available: June 2, 1938 through 1975.

REMARKS: This canal diverts water from the Rio Grande at the American Dam at El Paso, Texas, 2.1 river miles upstream from the International Dam at Juarez, Chihuahua. Water from this canal discharges into the Franklin Canal from which water is frequently returned to the Rio Grande at spillways 2.2, 2.7, and 3.6 river miles downstream from the American Dam. The transmitter relays gage height data upon interrogation by telephone via commercial circuits.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 1,340 second-feet on March 27, 1944. Min. frequently no flow.

Average Flow in Second-Feet

Daily:	Max. 1,510	Aug. 13, 1945	Min. 0	Frequently
Monthly:	Max. 1,210	Aug. 1943	Min. 0	Frequently since 1952
Yearly:	Max. 748	1943	Min. 65.6	1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	117	366	53.9	563	483	746	682	338	758	460	158	141
2	114	328	53.2	421	559	686	579	395	824	502	142	145
3	110	244	53.7	426	490	672	563	495	630	376	44.5	144
4	110	233	382	406	414	557	593	751	543	282	83.0	149
5	110	201	412	409	493	552	595	820	734	272	152	149
6	109	146	413	390	414	685	567	656	660	285	146	152
7	109	110	398	336	349	684	733	457	767	278	145	143
8	110	83.2	377	436	279	649	827	448	1,030	245	140	144
9	111	82.2	283	416	343	‡ 653	704	501	753	235	142	145
10	110	81.2	338	279	345	645	581	535	665	214	142	144
11	107	68.5	335	299	512	500	472	567	645	207	147	144
12	103	59.1	330	276	646	532	571	729	1,060	208	136	143
13	99.7	‡ 63.5	365	376	599	661	676	683	1,110	201	132	141
14	101	62.0	403	445	429	565	749	609	832	189	154	143
15	90.7	59.9	436	477	479	596	599	621	678	184	154	137
16	90.5	59.9	422	459	493	678	544	782	634	177	155	138
17	94.7	57.9	451 ‡	372	409	731	510	913	457	168	156	137
18	96.5	59.9	555	288	560	634	593	1,050	395	163	148	138
19	96.1	59.9	541	414	663	594	530	1,050	372	155	155	137
20	‡ 95.4	57.9	679	414	632	601	577	850	366	150	154	137
21	101	59.9	814	567	547	624	654	787	358	145	160	146
22	100	53.2	590	549	492	686	596	845	458	150	152	160
23	101	53.2	724	490	543	778	571	1,000	770	161	152	170
24	101	53.2	971	440	593	763	610	1,050	577	191	152	169
25	101	53.9	863	539	634	666	579	874	426	177	152	169
26	101	51.9	642	590	830	564	569	770	481	172	154	169
27	93.8	53.9	596	590	718	564	783	642	516	171	154	169
28	361	54.5	704	640	600	615	656	512	497	172	147	154
29	415		676	579	638	688	625	428	481	158	150	140
30	427		889	579	694	626	523	499	400	156	134	140
31	403		924		757		518	672		154		140
Sum	4,389.4	2,916.8	15,673.8	13,465	16,692	19,195	18,929	21,329	18,967	6,758	4,292.5	4,577

Month	Current Year 1975								Period 1939-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
			High		Low						
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.	6.51	3.80	30	427	18	90.5	142	8,706	1,770	8,706	0
Feb.			1	∅ 366	28	∅ 51.9	104	5,785	4,579	19,500	0
Mar.			24	∅ 971	2	∅ 53.2	506	31,089	30,671	50,100	1,700
Apr.			28	∅ 640	12	∅276	449	26,707	31,214	70,900	4,560
May			26	∅ 830	8	∅279	538	33,108	27,202	69,000	392
June	8.42	6.59	1	884	†11	477	640	38,073	36,229	65,700	5,990
July	8.40	6.05	27	879	31	384	611	37,545	43,437	70,700	8,673
Aug.	9.50	5.55	18	1,200	1	309	688	42,305	42,743	74,600	4,340
Sept.	9.53	5.82	12	1,210	22	349	632	37,620	28,402	63,100	2,230
Oct.			2	∅ 502	21	∅145	218	13,404	11,829	39,000	0
Nov.			21	∅ 160	3	∅ 44.5	143	8,514	6,900	21,000	0
Dec.			23	∅ 170	†15	137	148	9,078	8,879	25,500	0
Yearly	9.53			1,210		∅ 44.5	403	291,934	271,855	541,610	47,397.4

‡ Discharge measurement made on this day † And other days ∅ Mean daily

RIO GRANDE BELOW AMERICAN DAM AT EL PASO, TEXAS

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the retaining wall of the Smelter Pump on the left bank of the river at latitude 31°46'35", longitude 106°31'20", and river mile 1,248.2; 1.5 river miles upstream from the International Dam, 3.3 river miles upstream from the Santa Fe Street-Juarez Avenue Bridge between El Paso, Texas, and Cd. Juarez, Chihuahua, and 0.6 river mile downstream from the American Dam. The zero of the gage is 3,712.30 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 68 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: June 1938 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. The operation of the American Dam began June 2, 1938. At this dam, part of the flow passing the El Paso Gaging Station is diverted into the American Canal and the remainder, including excess flood flows, passes this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 11,300 second-feet on September 14, 1958 with a gage height of 14.50 feet. Min. occasionally no flow.

Average Flow in Second-Feet

Daily:	Max. 8,040	May 20, 1942	Min. 0	Occasionally
Monthly:	Max. 4,880	May 1942	Min. 0	Occasionally
Yearly:	Max. 1,510	1942	Min. 13.8	1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.0	27.4	2.8	‡ 166	‡ 151	160	206	‡ 206	175	1.8	0.1	‡ 0.4
2	3.0	27.2	2.8	‡ 199	‡ 112	‡ 173	201	215	‡ 164	1.7	27.6	.4
3	3.0	27.0	.8	206	114	188	202	212	167	1.7	‡116	.4
4	3.0	26.7	8.8	193	115	‡ 189	204	‡ 212	175	1.7	74.2	.4
5	3.0	26.4	‡ 6.8	188	‡ 122	‡ 198	205	212	‡ 195	1.7	7.0	.4
6	3.0	26.2	15.0	192	134	201	209	206	186	‡ 1.7	6.4	.4
7	3.0	26.0	11.6	187	‡ 144	196	‡ 213	210	193	1.6	5.9	.4
8	3.0	25.7	13.0	200	140	194	204	210	‡ 189	1.4	5.4	.4
9	3.0	25.4	10.5	201	139	‡ 196	198	211	184	1.2	4.9	.4
10	3.0	‡ 25.2	‡ 16.6	198	143	200	192	211	185	1.1	‡ 4.4	.4
11	3.0	25.2	15.9	‡ 204	145	192	197	‡ 214	‡ 188	1.0	3.9	.4
12	3.0	25.2	13.1	198	‡ 138	196	197	211	‡1,710	.8	3.3	.4
13	3.0	22.6	12.5	209	137	‡ 205	190	208	705	.6	2.8	.4
14	3.0	19.8	11.9	‡ 216	‡ 133	200	‡ 184	211	190	.5	2.2	.4
15	3.0	17.4	11.3	‡ 203	‡ 131	200	182	214	57.8	.4	1.7	‡ .4
16	3.0	14.7	10.7	‡ 186	131	‡ 199	181	216	‡ 13.4	‡ .2	1.2	.4
17	3.0	12.0	‡ 16.8	184	129	207	183	288	9.5	.2	‡ .6	.4
18	3.0	‡ 7.2	21.3	185	132	203	182	‡ 247	6.1	.2	.6	.4
19	3.0	7.1	16.8	200	‡ 132	‡ 200	178	208	5.5	.1	.6	.3
20	3.0	7.1	19.0	217	130	200	183	209	4.8	‡ .1	.6	.3
21	3.0	7.0	77.2	205	133	204	‡ 185	216	3.9	.1	.5	.3
22	3.0	6.9	5.0	‡ 196	‡ 137	204	181	207	‡ 3.3	.1	.5	‡ .2
23	‡ 3.0	6.9	4.5	192	143	204	176	247	3.0	.1	.5	.2
24	3.0	‡ 6.8	6.0	192	143	201	172	236	2.3	.1	.5	.2
25	3.0	4.8	4.2	196	144	‡ 201	171	‡ 209	1.9	.1	.5	.2
26	3.0	4.8	4.2	196	150	204	176	211	1.8	.1	.5	.2
27	3.0	2.8	3.7	200	‡ 144	204	177	210	1.6	.1	.4	.2
28	17.9	2.8	3.7	‡ 189	140	205	‡ 167	208	1.6	.1	.4	.2
29	‡28.2		4.0	197	142	205	178	204	‡ 1.6	‡ .1	.4	‡ .2
30	25.0		3.7	201	141	‡ 202	‡ 191	208	1.6	.1	.4	.2
31	22.0		‡172		143		‡ 184	206		.1		.2
Sum	174.1	464.3	526.2	5,896	4,212	5,931	5,849	6,693	4,725.7	20.8	274.0	10.1

Month	Current Year 1975								Period 1939-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
			High		Low						
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.	5.03	4.41	6	28.2	†26	3.0	5.6	345	4,251	12,000	0
Feb.	4.65	4.41	1	∅ 27.4	†27	∅ 2.8	16.6	921	2,348	32,800	0
Mar.	7.45	4.15	21	1,010	3	∅ .8	17.0	1,044	3,420	22,801	81.9
Apr.	5.40	5.12	23	233	7	154	197	11,695	10,200	74,500	2,230
May	5.30	4.94	12	211	2	107	136	8,354	17,044	300,000	25.2
June	5.52	5.20	28	256	1	160	198	11,764	15,981	250,000	0
July	5.61	5.26	27	257	28	167	189	11,601	15,055	155,000	967
Aug.	6.57	5.29	17	706	24	138	216	13,275	13,989	114,000	37.5
Sept.	10.46	3.68	12	4,670	28	1.4	156	9,373	10,541	124,000	53.8
Oct.	3.73		1	2.3	31	0	.7	41.3	2,004	19,000	18.0
Nov.	5.10	3.50	3	145	† 1	.1	9.1	543	1,285	8,700	11.9
Dec.	3.89	3.73	† 1	∅ .4	†22	∅ .2	.3	20.0	933	7,760	0
Yearly	10.46			4,670		0	95.3	68,976.3	97,051	1,093,553	10,001.1

‡ Discharge measurement made on this day † And other days ∅ Mean daily

DIVERSIONS FROM THE RIO GRANDE
ACEQUIA MADRE AT JUAREZ, CHIHUAHUA

DESCRIPTION: Bridge for making discharge measurements, gravity well, and water-stage recorder located on the right bank of the canal at Juarez, Chihuahua, latitude 31°45'40", longitude 106°30'30", about 260 feet downstream from the canal intake at the International Dam at Juarez, Chihuahua, which is located at river mile 1,246.7 and 2.1 river miles downstream from the American Dam at El Paso, Texas.

RECORDS: Based on 62 discharge measurements during the year, 38 by the Mexican Section and 24 by the United States Section of the Commission, and a continuous record of gage heights. Computations by shifting control methods. Records available: 1938 through 1975. These records, showing the water actually diverted by Mexico, do not necessarily reflect the quantities of water made available to Mexico in the bed of the river by the United States under terms of the Convention of 1906. Such quantities of water are included in the record of "Rio Grande below American Dam at El Paso, Texas." See page 11 in this Water Bulletin.

REMARKS: In 1975 all of the 60,052 acre-feet tabulated below were distributed to land irrigated in the first unit under the canal.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 480 second-feet on July 21, 1944 with a gage height of 6.00 feet. Min. no flow during several months throughout the year.

		Average Flow in Second-Feet					
Daily:	Max.	339	May 10, 1942	Min.	0	Several months each year	
Monthly:	Max.	283	May 1938	Min.	0	Several months each year	
Yearly:	Max.	116	1942	Min.	9.2		1964

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0	0	0	‡ 175	156	171	200	192	169	0	0	0
2	0	0	0	‡ 184	‡ 127	‡ 180	198	197	‡ 156	0	0	0
3	0	0	0	188	129	‡ 184	196	197	‡ 153	0	0	0
4	0	0	0	‡ 185	128	190	196	‡ 200	155	0	0	0
5	0	0	0	185	‡ 130	191	196	‡ 209	171	0	0	0
6	0	0	0	188	‡ 137	195	197	192	171	0	0	0
7	0	0	0	‡ 195	‡ 146	192	‡ 192	191	175	0	0	0
8	0	0	0	202	147	192	185	192	‡ 174	0	0	0
9	0	0	0	‡ 202	‡ 149	‡ 194	‡ 185	192	‡ 164	0	0	0
10	0	0	0	204	150	‡ 196	183	192	172	0	0	0
11	0	0	0	‡ 208	147	191	183	‡ 200	176	0	0	0
12	0	0	0	198	‡ 143	192	186	‡ 208	177	0	0	0
13	0	0	0	202	141	195	182	210	177	0	0	0
14	0	0	0	‡ 207	135	191	‡ 183	212	177	0	0	0
15	0	0	0	204	‡ 132	192	‡ 180	213	0	0	0	0
16	0	0	0	‡ 196	130	‡ 192	178	204	0	0	0	0
17	0	0	0	195	130	‡ 195	‡ 180	‡ 207	0	0	0	0
18	0	0	0	‡ 196	134	193	‡ 182	201	0	0	0	0
19	0	0	0	200	‡ 134	192	179	‡ 202	0	0	0	0
20	0	0	0	208	‡ 134	196	180	194	0	0	0	0
21	0	0	0	‡ 204	136	198	‡ 183	192	0	0	0	0
22	0	0	0	‡ 196	142	201	‡ 180	‡ 191	0	0	0	0
23	0	0	0	‡ 192	‡ 147	‡ 203	177	188	0	0	0	0
24	0	0	0	190	147	204	172	182	0	0	0	0
25	0	0	0	‡ 195	149	203	170	‡ 193	0	0	0	0
26	0	0	0	196	‡ 153	‡ 204	168	‡ 196	0	0	0	0
27	0	0	0	197	151	205	172	195	0	0	0	0
28	0	0	0	‡ 196	151	207	‡ 162	196	0	0	0	0
29	0		0	195	153	205	‡ 165	198	0	0	0	0
30	0		0	‡ 190	153	‡ 203	178	197	0	0	0	0
31	0		‡ 10.6		153		193	196		0		0
Sum	0	0	10.6	5,873	4,394	5,847	5,661	6,129	2,367.0	0	0	0

Month	Current Year 1975: Average Rainfall Inches** 1938-1975	1975	Extreme Second-Feet: High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1938-1975: Acre-Feet Average	Maximum	Minimum
Jan.	0.39	0.54		0		0	0	0	0	0	0
Feb.	.36	.77		0		0	0	0	0	0	0
Mar.	.27	.17	31	192	† 1	0	.4	21.1	1,245	6,482	0
Apr.	.17	0	20	214	1	167	196	11,646	7,745	12,383	2,020
May	.31	.04	1	192	†18	126	142	8,721	9,241	17,380	0
June	.68	0	28	209	1	162	195	11,597	8,326	15,700	0
July	1.62	.73	† 1	202	†28	162	183	11,225	8,435	15,170	0
Aug.	1.33	.72	16	222	16	159	198	12,152	8,115	12,620	0
Sept.	1.20	2.50	8	195	†15	0	78.8	4,690	4,606	12,380	0
Oct.	.72	.06		0		0	0	0	40.5	323	0
Nov.	.32	0		0		0	0	0	0	0	0
Dec.	.47	.52		0		0	0	0	0	0	0
Yearly	7.84	6.05		222		0	83.0	60,052.1	47,753.5	83,930	6,653

‡ Discharge measurement made on this day † And other days

** Average for valley floor in United States and Mexico from El Paso to Island Station

RIO GRANDE – ISLAND STATION NEAR CLINT, TEXAS

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the left bank of the rectified channel of the Rio Grande at latitude 31°32'00", longitude 106°14'35", and river mile 1,221.1; 0.6 river mile downstream from the Riverside Canal Wasteway No. 2, about 4 miles south southwest of Clint, Texas, and 27.7 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 3,608.99 feet above mean sea level, U. S. C. & G. S. datum.
RECORDS: Based on 16 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: August 17, 1938 through 1975.
REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station.
EXTREME FLOWS FROM RECORDS: Momentary: Max. 7,050 second-feet on September 14, 1958 with a gage height of 15.80 feet. Min. frequently no flow.

		Average Flow in Second-Feet			
Daily:	Max. 6,140	May 19, 1942	Min. 0	Frequently
Monthly:	Max. 4,880	May 1942	Min. 0	Frequently
Yearly:	Max. 1,490	1942	Min. 0.3	1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1.0	0	9.0	59.9	0	4.7	0	0	0	34.9	1.6	1.8
2	1.0	7.4	8.4	37.1	0	7.0	0	0	0	31.8	1.3	1.6
3	1.0	34.9	8.4	33.4	0	3.0	0	0	0	28.8	1.0	1.4
4	1.0	34.2	7.8	30.0	0	0	0	0	0	25.7	.8	1.3
5	0	23.6	7.8	27.8	0	0	0	0	0	22.6	.5	1.1
6	0	‡ 9.0	7.3	26.9	0	‡ 0	0	0	0	19.6	.3	.9
7	0	9.0	7.3	26.5	0	0	45.1	0	0	16.5	‡ 0	.7
8	‡ 0	9.0	6.7	26.3	0	0	47.2	0	103	13.5	.4	.5
9	0	9.0	6.7	23.4	0	0	108	0	71.8	10.4	.8	.4
10	0	‡ 9.0	6.1	20.5	0	0	62.0	0	30.4	‡ 7.3	1.1	.2
11	0	9.0	6.1	17.6	0	0	22.0	0	22.2	7.0	1.5	‡ 0
12	0	9.0	5.5	14.7	0	0	4.7	0	1,130	6.7	1.9	0
13	0	9.0	5.5	11.8	0	0	0	0	‡2,560	6.5	2.3	0
14	0	9.0	4.9	8.9	0	0	57.1	‡ 0	961	6.2	2.6	0
15	0	9.0	4.9	6.0	0	0	75.0	0	646	6.0	3.0	0
16	0	9.0	4.4	3.1	‡ 0	0	19.8	0	487	5.7	3.4	0
17	0	9.0	4.4	‡ 0	0	0	2.0	0	207	5.4	3.8	0
18	0	9.0	3.8	0	0	0	1.6	263	56.3	5.2	‡ 4.1	0
19	0	9.0	‡ 3.8	0	0	0	1.2	56.0	25.8	4.9	4.0	0
20	0	9.0	3.8	0	0	0	.8	40.8	3.6	4.7	3.8	0
21	0	‡ 9.0	26.1	0	0	0	.4	30.4	0	4.4	3.6	0
22	0	9.0	55.9	0	0	0	.2	57.1	0	4.2	3.4	0
23	0	9.0	35.9	0	0	0	‡ 0	103	57.5	3.9	3.2	‡ 0
24	0	9.0	37.8	0	0	0	0	573	56.3	3.6	3.1	0
25	0	9.0	45.7	0	0	0	0	267	53.2	3.4	2.9	0
26	0	9.0	38.8	0	0	0	0	92.0	50.2	3.1	2.7	0
27	0	9.0	34.4	0	0	0	3.9	35.6	47.1	2.8	2.5	0
28	0	9.0	31.8	0	0	0	77.4	20.9	44.1	2.6	2.3	0
29	0		32.2	0	0	0	23.4	7.6	41.0	2.3	2.2	0
30	0		43.2		0	0	5.2	4.0	37.9	2.1	2.0	0
31	0		177		0		0	0		1.8		0
Sum	4.0	307.1	681.4	373.9	0	14.7	557.0	1,550.4	6,691.4	303.6	66.1	9.9

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1939-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	9.30		† 1	1.0	† 5	0	0.1	7.9	4,169	11,900	0
Feb.	9.99		3	35.6	† 1	0	11.0	609	2,742	37,000	0
Mar.	11.97	9.05	21	394	†18	∅ 3.8	22.0	1,352	2,096	21,000	0
Apr.	10.83		1	106	†17	0	12.5	742	3,270	70,500	0
May				0		0	0	0	9,273	299,800	0
June	9.74		1	18.0	† 1	0	.5	29.2	8,083	241,000	0
July	11.23		9	121	† 1	0	18.0	1,105	8,248	118,500	0
Aug.	14.16		24	763	† 1	0	50.0	3,075	7,428	99,400	0
Sept.	17.88		13	3,300	† 1	0	223	13,272	8,217	119,200	0
Oct.			1	∅ 34.9	31	∅ 1.8	9.8	602	3,943	42,800	0
Nov.			18	∅ 4.1	7	0	2.2	131	1,123	7,270	0
Dec.			1	∅ 1.8	†11	0	.3	19.6	1,963	12,900	0
Yearly	17.88			3,300		0	28.9	20,944.7	60,555	1,079,340	238.1

‡ Discharge measurement made on this day † And other days ∅ Mean daily

RIO GRANDE – COUNTY LINE STATION NEAR ACALA, TEXAS

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the left bank of the rectified channel of the Rio Grande at latitude 31°22'50", longitude 105°59'10", and river mile 1,200.9; 0.8 river mile downstream from the El Paso-Hudspeth County Line, 5.5 miles northwest of Acala, Texas, about 8 miles southeast of Tornillo, Texas, and 47.9 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 3,547.59 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 16 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: 1938 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 6,340 second-feet on May 19, 1942 with a gage height of 8.66 feet. Min. frequently no flow.

		Average Flow in Second-Feet			
Daily:	Max. 6,180	May 18, 1942	Min. 0	Frequently
Monthly:	Max. 4,920	May 1942	Min. 0	Frequently
Yearly:	Max. 1,720	1942	Min. 0	1956 & 1964

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2.0	12.0	2.0	0	0	0	0	0	0	88.0	0.2	18.6
2	2.0	22.0	1.9	0	0	0	0	0	0	78.4	.2	18.7
3	2.0	32.0	1.8	0	0	0	0	0	0	68.7	.2	18.9
4	2.0	42.0	1.7	0	0	0	0	0	0	59.1	.1	19.0
5	2.0	52.0	1.6	0	0	0	0	0	0	49.4	.1	19.2
6	2.0	‡61.8	1.5	0	0	‡ 0	0	0	0	39.7	0	19.3
7	2.0	57.9	1.4	0	0	0	0	0	0	30.1	‡ 0	19.4
8	‡ 2.0	53.9	1.3	0	0	0	0	0	0	20.4	1.5	19.6
9	2.0	50.0	1.2	0	0	0	0	0	0	10.8	3.0	19.7
10	2.0	46.0	1.1	0	0	0	0	0	0	‡ 1.1	4.6	19.9
11	2.0	42.1	1.0	0	0	0	0	0	0	1.1	6.1	‡20.0
12	2.0	38.1	.9	0	0	0	0	0	763	1.0	7.6	20.4
13	2.0	34.2	.8	0	0	0	0	0	‡2,010	1.0	9.2	20.8
14	2.0	30.2	.7	0	0	0	0	‡ 0	779	.9	10.7	21.2
15	2.0	26.3	.6	0	0	0	0	0	286	.9	12.2	21.6
16	2.0	22.3	.5	0	‡ 0	0	0	0	195	.9	13.7	22.0
17	2.0	18.4	.4	‡ 0	0	0	0	0	159	.8	15.3	22.4
18	2.0	14.4	.2	0	0	0	0	0	155	.8	‡16.8	22.7
19	2.0	10.5	‡ 0	0	0	0	0	0	153	.7	16.9	23.1
20	2.0	6.5	0	0	0	0	0	0	150	.7	17.1	23.5
21	2.0	‡ 2.6	0	0	0	0	0	0	149	.7	17.2	23.9
22	2.0	2.6	0	0	0	0	0	0	147	.6	17.4	24.3
23	2.0	2.5	0	0	0	0	‡ 0	0	147	.6	17.5	‡24.7
24	2.0	2.5	0	0	0	0	0	20.6	146	.5	17.6	24.9
25	2.0	2.4	0	0	0	0	0	9.5	146	.5	17.8	25.2
26	2.0	2.4	0	0	0	0	0	0	136	.5	17.9	25.4
27	2.0	2.3	0	0	0	0	0	0	127	.4	18.1	25.6
28	2.0	2.3	0	0	0	0	0	0	117	.4	18.2	25.9
29	2.0		0	0	‡ 0	0	0	0	107	.4	18.3	26.1
30	2.0		.1	0	0	0	0	0	97.7	.3	18.5	26.3
31	2.0		4.0		0		0	0		.3		26.6
Sum	62.0	692.2	24.7	0	0	0	0	30.1	5,969.7	459.7	314.0	688.9

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1938–1975: Acre-Feet Average	Maximum	Minimum
Jan.			† 1	∅ 2.0	† 1	∅ 2.0	2.0	123	5,422	20,000	0
Feb.			6	∅ 61.8	†27	∅ 2.3	24.7	1,373	4,580	47,900	0
Mar.			31	∅ 4.0	†19	0	.8	49.0	3,994	38,900	0
Apr.				0		0	0	0	6,051	84,200	0
May				0		0	0	0	11,525	303,000	0
June				0		0	0	0	10,342	239,000	0
July				0		0	0	0	10,934	140,000	0
Aug.			24	∅ 20.6	† 1	0	1.0	59.7	10,087	123,000	0
Sept.	8.04		13	2,350	† 1	0	199	11,841	12,955	140,000	0
Oct.			1	∅ 88.0	†30	∅ .3	14.8	912	7,932	61,400	0
Nov.			30	∅ 18.5	† 6	0	10.5	623	4,923	20,400	0
Dec.			31	∅ 26.6	1	∅ 18.6	22.2	1,366	5,506	29,700	0
Yearly	8.04			2,350		0	22.6	16,346.7	94,251	1,247,500	0

‡ Discharge measurement made on this day † And other days ∅ Mean daily

RIO GRANDE AT FORT QUITMAN, TEXAS

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the left bank of the rectified channel of the Rio Grande at latitude 31°05'05", longitude 105°36'25", and river mile 1,167.1; 1.5 river miles downstream from Old Fort Quitman, 9 miles southeast of Esperanza, Texas, 17.5 miles southeast of McNary, Texas, and 81.7 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 3,450.57 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 16 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: 1889 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station.

EXTREME FLOWS FROM RECORDS**: Momentary: Max. 10,600 second-feet October 5, 1945 with a gage height of 10.00 feet. Min. frequently no flow.

Average Flow in Second-Feet**

Daily:	Max. 5,890	May 19, 1942	Min. 0	Frequently
Monthly:	Max. 5,030	May 1942	Min. 0	Several months since 1951
Yearly:	Max. 1,750	1942	Min. 2.3	1965

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	308	314	37.4	368	33.9	24.9	39.0	77.2	223	103	62.4	325
2	308	322	40.0	219	33.0	25.0	38.0	73.6	181	70.0	66.3	240
3	258	422	37.8	122	33.0	25.0	36.9	68.1	162	266	70.0	305
4	223	402	34.8	69.8	41.8	24.4	36.0	63.2	146	256	31.7	331
5	264	286	35.8	51.6	47.4	23.8	36.6	60.4	143	253	92.6	328
6	271	‡224	34.6	57.5	46.8	‡ 23.7	38.4	57.8	136	251	154	334
7	184	243	34.5	54.2	33.9	23.9	38.9	53.5	133	248	‡132	371
8	‡ 95.1	178	32.5	50.6	34.9	22.3	38.7	50.8	127	231	113	340
9	121	96.8	34.8	48.0	36.0	23.8	37.6	48.8	190	228	99.7	319
10	121	119	34.8	51.1	30.3	28.1	37.5	45.6	541	‡ 141	75.8	168
11	174	103	34.9	60.1	37.0	30.8	42.3	43.5	564	103	48.3	‡107
12	255	63.1	‡ 33.0	50.4	42.0	31.6	44.4	40.4	663	127	113	102
13	255	45.4	34.9	41.0	36.3	33.4	48.7	39.6	‡ 1,300	158	190	106
14	238	42.9	35.5	51.9	40.7	35.3	56.9	‡ 39.0	2,120	151	117	110
15	238	41.7	34.3	36.1	37.8	36.4	61.0	38.2	1,270	68.5	85.0	105
16	165	32.2	33.0	30.3	‡ 30.0	38.3	67.5	38.2	905	86.2	114	100
17	183	39.2	33.6	‡ 34.7	29.4	40.0	71.1	41.8	724	90.9	207	95.5
18	174	37.0	31.1	39.8	30.7	40.3	74.6	41.8	547	64.8	162	96.6
19	165	35.4	31.1	42.0	31.8	41.3	76.4	39.4	416	51.2	158	85.8
20	124	33.1	31.1	46.5	33.1	42.6	78.1	38.2	392	52.0	136	79.7
21	86.1	‡ 33.5	31.1	45.4	31.7	44.9	77.9	40.7	371	153	106	83.1
22	75.9	32.2	31.1	32.2	31.2	45.1	77.8	46.2	356	186	114	98.0
23	66.4	37.0	32.4	31.3	29.8	‡ 47.6	‡ 81.3	48.5	344	93.9	125	‡131
24	64.0	46.3	35.5	33.0	29.4	47.4	80.7	49.6	350	68.5	158	232
25	49.9	40.8	33.0	33.9	28.8	47.3	93.6	594	356	69.5	181	308
26	49.9	33.6	37.4	37.3	27.6	45.9	93.8	403	140	72.9	190	300
27	46.1	37.8	42.5	35.8	26.0	44.6	91.6	402	114	81.0	167	245
28	46.1	40.4	36.1	42.0	25.5	42.3	89.3	404	143	82.0	181	215
29	46.1		35.5	38.1	25.2	41.0	84.7	409	145	73.4	348	208
30	48.0		39.1	32.2	25.0	40.0	80.6	366	110	64.8	318	195
31	316		397		25.2		78.9	288		56.7		189
Sum	5,018.6	3,381.4	1,440.2	1,885.6	1,025.7	1,061.0	1,934.8	4,137.1	13,374	4,021.9	4,109.8	6,311.7

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1938-1975: Acre-Feet Average	Maximum	Minimum
Jan.	6.12	5.33	31	346	27	46.1	162	9,954	6,206	20,900	0
Feb.	6.73	4.97	3	594	†16	32.2	121	6,707	5,236	50,100	0
Mar.	6.60	4.89	31	557	†18	30.6	46.5	2,857	4,116	38,900	0
Apr.	6.28	4.97	1	443	16	29.7	62.9	3,740	5,164	77,000	0
May	5.25	4.94	5	56.8	31	24.6	33.1	2,034	11,916	309,000	0
June	5.15	4.85	†23	47.6	8	22.3	35.4	2,104	10,867	240,000	0
July	5.45	5.05	26	93.8	5	35.8	62.4	3,838	12,420	140,000	3.8
Aug.	6.91	5.05	25	681	19	36.4	133	8,206	11,932	127,000	15.7
Sept.	9.27	5.50	24	2,440	27	69.4	446	26,527	16,441	147,000	0
Oct.	6.00	5.27	† 3	294	19	51.2	130	7,977	12,079	66,500	0
Nov.	6.23	5.19	29	389	4	20.4	137	8,152	7,480	24,500	0
Dec.	6.23	5.45	7	390	20	75.0	204	12,519	7,740	31,000	0
Yearly	9.27	4.85		2,440		20.4	131	94,615	112,637	1,270,400	1,062.3

** Period 1924-1975 ‡ Discharge measurement made on this day † And other days

RIO GRANDE ABOVE RIO CONCHOS NEAR PRESIDIO, TEXAS

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the left bank at latitude 29°37'15", longitude 104°28'50", and river mile 962.5; 6.5 miles northwest of the international highway bridge between Presidio, Texas and Ojinaga, Chihuahua, 7.8 river miles upstream from the Rio Conchos, and 286.3 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 2,576.66 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 60 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: 1889 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 14,000 second-feet on June 14, 1905. Highest flow recorded since 1924 was 5,160 second-feet, with a gage height of 10.57 feet, on May 26, 1942. Min. frequently no flow.

Average Flow in Second-Feet**

Daily:	Max. 13,700	June 13 & 14, 1905	Min.	0	Frequently
Monthly:	Max. 10,150	June 1905	Min.	0	Frequently
Yearly:	Max. 1,970	1907	Min.	1.3	1964

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	146	93.0	57.9	21.5	‡ 2.2	0	‡ 0	‡ 33.2	‡ 19.1	150	21.8	‡ 48.4
2	‡ 142	91.6	56.1	19.3	1.4	‡ 0	0	33.0	32.8	‡ 115	30.0	48.9
3	143	‡ 93.6	‡ 54.1	21.2	2.2	0	0	26.9	‡ 42.0	99.2	‡ 31.9	48.8
4	144	93.3	54.2	20.5	1.1	0	0	‡ 12.0	42.6	90.9	33.5	48.7
5	147	89.6	52.4	18.6	‡ .4	0	0	2.3	41.9	77.7	35.0	46.3
6	‡ 150	91.0	51.6	20.2	.1	0	0	1.9	45.3	‡ 68.7	36.2	48.4
7	152	87.5	50.8	‡ 24.7	0	0	‡ 0	.9	50.9	55.6	37.9	51.1
8	153	93.8	48.3	31.9	0	0	0	.6	‡ 57.2	55.9	39.2	‡ 51.6
9	153	100	47.5	31.5	0	‡ 0	0	.5	71.3	54.5	39.4	53.5
10	148	‡102	‡ 44.2	38.0	0	0	0	0	67.2	51.9	‡ 38.8	54.3
11	142	125	41.6	38.3	0	0	0	0	48.2	45.4	38.5	55.1
12	137	141	39.0	38.5	‡ 0	0	7.9	0	45.2	45.8	38.0	56.4
13	‡ 133	160	37.2	35.2	15.0	0	0	0	56.7	45.6	38.2	58.4
14	131	166	35.5	‡ 28.3	3.0	0	‡ 0	75.3	46.5	‡ 45.9	37.2	58.6
15	130	171	34.0	22.9	.3	0	.9	153	‡ 41.1	44.6	39.2	‡ 58.8
16	131	165	36.7	23.1	.1	‡ 0	2.6	215	53.8	45.0	42.1	58.8
17	126	156	‡ 34.2	19.8	.9	0	1.2	138	127	44.4	‡ 43.8	57.5
18	120	‡148	33.7	20.8	.1	0	‡ 16.8	‡ 39.3	181	43.7	44.2	57.5
19	116	130	31.8	17.9	‡ 0	0	22.6	9.8	206	42.4	42.4	57.4
20	‡ 113	117	31.2	15.4	0	0	8.7	0	233	‡ 42.8	41.1	56.8
21	113	105	30.5	‡ 13.1	0	0	‡ 2.9	0	259	42.6	32.6	55.5
22	117	88.6	29.9	8.6	0	0	17.7	0	‡ 249	42.3	35.0	‡ 54.3
23	122	77.8	32.7	8.4	0	‡ 15.1	6.5	0	209	42.6	39.8	54.1
24	122	‡ 69.3	‡ 31.5	7.1	0	1.3	1.5	0	152	41.0	‡ 42.3	54.5
25	122	65.6	30.1	6.3	0	0	21.2	0	138	42.8	43.1	54.9
26	122	63.2	27.6	4.9	0	0	10.7	10.2	155	39.5	43.7	56.4
27	‡ 123	58.8	23.9	3.7	‡ 0	0	6.1	3.9	171	36.2	44.5	56.8
28	117	‡ 57.8	22.6	‡ 3.5	0	0	‡ 19.8	‡ .4	189	‡ 35.6	45.2	56.6
29	112		22.1	5.4	0	0	5.6	.2	‡ 200	32.0	46.5	‡ 57.6
30	107		22.1	3.3	0	‡ 0	26.7	5.4	186	26.3	47.2	53.4
31	97.6		‡ 21.0		0		37.1	4.8		‡ 29.0		51.2
Sum	4,031.6	3,000.5	1,166.0	571.9	26.8	16.4	216.5	766.6	3,416.8	1,674.9	1,168.3	1,680.6

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1938-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	11.97	11.67	7	154	31	92.6	130	7,997	5,545	24,400	0
Feb.	12.02	11.36	15	171	28	57.8	107	5,951	4,562	40,800	0
Mar.	11.36	10.86	1	57.9	29	20.4	37.6	2,313	3,321	39,100	0
Apr.	11.15	10.20	10	40.4	30	2.2	19.1	1,134	2,445	41,600	0
May	11.05		13	32.8	† 7	0	.9	53.2	8,592	240,000	0
June	12.32		23	234	† 1	0	.5	32.5	9,180	216,000	0
July	11.63		30	84.0	† 1	0	7.0	429	12,074	156,000	0
Aug.	12.63		16	334	†10	0	24.7	1,521	11,841	133,000	0
Sept.	12.47	10.42	21	262	1	6.4	114	6,777	16,630	151,000	0
Oct.	12.16	10.65	1	170	31	21.2	54.0	3,322	14,248	105,000	0
Nov.	11.25	10.62	†29	48.2	1	20.3	38.9	2,317	5,799	34,500	0
Dec.	11.38	11.13	14	59.7	30	44.7	54.2	3,333	5,801	30,900	0
Yearly	12.63			334		0	48.6	35,179.7	100,038	1,176,700	951.8

** Period June 1900-March 1914; September 1919-March 1920; and 1924-1975

‡ Discharge measurement made on this day † And other days

RIO CONCHOS NEAR OJINAGA, CHIHUAHUA

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the right bank at latitude 29°34' 00", longitude 104°27' 10", 1.5 river miles from the confluence with the Rio Grande, 1.9 miles west of Ojinaga, Chihuahua, and 3.7 miles west of Presidio, Texas. This stream enters the Rio Grande at river mile 954.7, 13.8 river miles upstream from the "Rio Grande below Rio Conchos" Gaging Station, and 294.1 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 2,568.04 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 155 discharge measurements during the year, a continuous record of gage heights, and a rating curve which, above 15,000 second-feet, was defined previously by related gage heights and records of discharge at the "Rio Grande below Rio Conchos" Gaging Station. Computations by shifting control methods. Records available: 1896 through 1975. Records of stage and measured discharge at this station began April 4, 1954. Prior to this date, flow records were determined from records of the Rio Grande at stations located upstream and downstream from the Rio Conchos confluence.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. La Boquilla Reservoir, La Colina Reservoir, La Rosetilla Reservoir, and Luis L. Leon Reservoir are located 250, 242, 186, and 112 river miles, respectively, upstream from this station. Francisco I. Madero Reservoir is located on the Rio San Pedro, a tributary which enters the Rio Conchos 174 river miles upstream from this station. Power generation facilities: La Boquilla 14,647 kw., La Colina 3,620 kw., La Rosetilla 5,150 kw, Francisco I. Madero and Luis L. Leon, none.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 162,000 second-feet on September 11, 1904.

Average Flow in Second-Feet**

Daily:	Max. 148,900	Sept. 11, 1904	Min. 0	Several days 1953 & 1955
Monthly:	Max. 24,540	Sept. 1904	Min. 4.7	April 1955
Yearly:	Max. 3,710	1906	Min. 155	1953

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	‡ 473	477	3,160	3,340	579	604	484	‡ 756	‡ 530	‡ 600	614	364
2	473	477	3,170	‡ 3,200	‡ 551	‡ 590	‡ 459	735	523	477	385	367
3	‡ 473	‡ 448	‡3,150	3,100	537	593	484	650	‡ 639	281	‡ 211	‡364
4	466	406	3,130	‡ 3,030	530	‡ 477	‡ 452	‡ 417	999	516	466	367
5	466	‡ 406	‡3,100	2,970	‡ 523	302	456	593	‡ 657	516	‡ 466	‡512
6	‡ 459	406	3,070	2,950	540	‡ 265	678	‡ 660	558	‡ 392	445	696
7	463	‡ 406	‡3,060	‡ 3,130	‡ 569	286	‡ 657	459	544	348	‡ 284	611
8	‡ 459	399	2,950	3,030	569	399	537	‡ 438	‡ 554	333	277	‡466
9	459	399	3,010	‡ 2,920	‡ 558	‡ 456	‡ 498	533	604	‡ 327	328	363
10	‡ 459	‡ 392	‡2,990	2,040	551	470	427	448	523	‡ 327	‡ 403	‡ 74.5
11	456	385	2,940	‡ 1,060	551	‡ 477	‡ 463	‡ 431	544	324	509	111
12	452	‡ 378	‡2,930	950	‡ 554	516	784	491	579	325	‡ 463	‡283
13	‡ 427	378	2,970	869	586	‡ 477	696	‡ 579	1,510	‡ 323	406	385
14	374	‡ 374	‡2,910	‡ 802	‡ 583	456	‡ 569	470	823	323	‡ 403	388
15	‡ 374	374	2,810	770	593	452	565	‡ 1,060	671	‡ 325	403	‡396
16	378	1,240	2,750	‡ 745	‡ 590	‡ 445	‡ 646	‡ 2,740	‡ 660	367	403	452
17	‡ 381	‡2,360	‡2,780	710	562	438	848	3,530	‡ 643	‡ 353	‡ 399	‡788
18	385	3,430	2,770	685	512	‡ 427	‡ 989	‡ 908	643	340	396	667
19	385	‡3,260	‡2,760	‡ 614	‡ 512	417	915	692	‡ 614	345	‡ 326	‡544
20	‡ 388	3,060	2,890	618	512	‡ 417	819	‡ 650	586	‡ 360	357	508
21	385	‡2,980	‡3,010	‡ 622	‡ 466	420	‡ 788	622	583	378	‡ 413	463
22	‡ 360	2,890	3,000	618	427	424	946	‡ 925	‡ 572	‡ 357	406	‡216
23	321	2,890	4,310	‡ 622	‡ 406	‡ 699	‡ 876	752	745	357	406	261
24	‡ 364	‡3,020	‡4,800	646	445	629	611	657	‡ 770	‡ 357	‡ 403	‡269
25	459	2,930	4,800	‡ 562	494	‡ 477	‡ 614	‡ 625	735	348	399	271
26	417	‡3,020	‡4,590	484	‡ 498	434	678	569	‡ 569	353	‡ 341	‡301
27	‡ 417	3,050	3,780	593	540	‡ 523	791	‡ 1,330	590	353	261	381
28	417	‡3,090	‡3,570	‡ 579	‡ 565	473	‡ 922	1,230	604	‡ 353	‡ 305	410
29	‡ 417		3,470	593	569	487	971	‡ 657	‡ 618	‡ 335	350	‡384
30	427		3,420	‡ 597	‡ 579	‡ 463	‡ 918	622	607	360	357	360
31	‡ 459		‡3,380		593		971	579		‡ 583		‡406
Sum	13,093	43,325	101,430	43,449	16,644	13,993	21,512	25,808	19,847	11,636	11,585	12,428.5

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1968-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	6.96	6.46	↑ 1	477	23	304	424	25,973	46,399	131,293	19,879
Feb.	10.96	6.66	18	3,490	15	371	1,550	85,904	41,010	124,386	3,336
Mar.	12.24	10.33	↑24	4,840	16	2,730	3,270	201,219	57,985	201,219	4,171
Apr.	10.86	6.46	1	3,390	26	374	1,450	86,212	36,711	86,212	6,922
May	7.32	6.63	7	643	23	399	537	33,012	36,573	123,749	10,932
June	10.47	6.20	23	3,000	↑ 6	261	466	27,748	40,766	91,767	6,008
July	9.74	6.53	12	2,240	10	406	692	42,664	61,566	115,253	23,833
Aug.	15.78	6.23	16	8,370	↑ 4	297	833	51,189	89,635	243,660	31,728
Sept.	9.94	6.63	13	2,430	9	417	660	39,372	185,401	468,680	39,372
Oct.	7.35	5.71	31	689	3	91.8	374	23,078	98,997	226,377	23,078
Nov.	7.32	5.74	1	664	3	74.2	385	22,973	48,342	125,311	7,484
Dec.	7.58	5.61	17	918	↑10	63.6	403	24,656	32,844	51,114	18,408
Yearly	15.78	5.61		8,370		63.6	918	664,000	776,229	1,082,065	403,767

** Period June 1900-March 1914; September 1914-March 1920; and 1924-1975

‡ Discharge measurement made on this day ↑ And other days

ALAMITO CREEK NEAR PRESIDIO, TEXAS

DESCRIPTION: Gravity well and water-stage recorder located on the left bank 300 feet upstream from the highway bridge on Farm-to-Market Road 170 at latitude 29°31'15", longitude 104°17'40", about 2,000 feet from the confluence with the Rio Grande, and about 6 miles southeast of Presidio, Texas. This stream enters the Rio Grande near the lower end of the Presidio Valley at river mile 941.3, 9.7 river miles downstream from the international highway bridge between Presidio, Texas and Ojinaga, Chihuahua, and 307.5 river miles downstream from the American Dam at El Paso, Texas. Measurements of high flows are made from the highway bridge. The zero of the gage is 2,541.61 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 62 discharge measurements during the year at low and medium flows, a high flow rating curve determined by slope-area calculations, and a continuous record of gage heights. Computations by shifting control methods. Records available: 1932 through 1975.

REMARKS: A small irrigation reservoir (San Esteban) 10.5 miles south of Marfa, Texas and irrigation diversions below the reservoir modify the flow of this spring-fed creek. Backwater from the Rio Grande begins to affect the station record when the flow at the station on the Rio Grande below Rio Conchos reaches about 35,000 second-feet.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 56,400 second-feet, determined by slope-area calculations, on September 2, 1962, with a gage height of 13.54 feet. Min. ∅0.1 second-foot on July 25, 1953 and several days in August 1958.

Average Flow in Second-Feet

Daily:	Max. 12,400	Sept. 21, 1974	Min.	0.1	July 25, 1953 & several days in August 1958
Monthly:	Max. 998	Sept. 1974	Min.	0.4	June 1974
Yearly:	Max. 97.1	1974	Min.	4.3	1951

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2.0	2.2	1.4	‡ 1.2	‡ 0.8	0.7	22.6	‡ 2.8	‡ 1.6	1.4	1.7	‡ 1.8
2	‡ 2.0	2.2	1.4	1.2	.8	‡ .7	‡ 2.2	1.9	3.2	‡ 1.4	1.8	1.8
3	2.0	‡ 2.3	‡ 1.4	1.3	.8	.7	.5	2.7	3.0	1.4	‡ 1.8	1.9
4	2.0	2.2	1.4	1.4	.9	.6	.5	‡ .7	37.5	1.4	1.8	1.9
5	1.9	2.2	1.4	1.4	‡ .9	.6	20.6	.7	1.5	1.3	1.7	2.0
6	‡ 1.9	2.1	1.3	1.4	.9	.6	.7	.7	1.1	‡ 1.3	1.7	2.0
7	1.9	2.1	1.3	‡ 1.5	.9	.6	‡ .7	.7	1.2	1.3	1.7	2.1
8	1.9	2.0	1.3	1.5	.9	.5	.6	.6	‡ .8	1.3	1.7	‡ 2.1
9	1.9	2.0	1.2	1.4	.9	‡ .5	.4	.6	1.1	1.3	1.6	2.1
10	1.8	‡ 1.9	‡ 1.2	1.4	.9	.5	.5	.6	1.4	1.4	‡ 1.6	2.1
11	1.8	1.8	1.3	1.3	40.1	.5	.8	‡ .6	1.7	1.4	1.6	2.1
12	1.8	1.8	1.3	1.3	‡ 2.2	.5	2.0	.7	323	1.4	1.6	2.0
13	‡ 1.8	1.8	1.4	1.2	2.0	.5	1.4	27.8	194	1.4	1.6	2.0
14	1.8	1.7	1.5	‡ 1.2	1.8	.5	‡ .8	42.3	10.0	‡ 1.4	1.6	2.0
15	1.8	1.6	1.6	1.2	1.6	.5	.8	72.2	‡ 2.9	1.4	1.6	‡ 2.0
16	1.8	1.6	1.6	1.2	1.5	‡ .5	.8	265	2.7	1.5	1.6	1.9
17	1.7	1.5	‡ 1.7	1.2	1.3	.5	.8	96.5	2.5	1.5	‡ 1.6	1.9
18	1.7	‡ 1.5	1.7	1.2	1.1	.5	‡ .8	‡ 28.4	2.3	1.5	1.6	1.8
19	1.7	1.6	1.6	1.2	‡ .9	.5	.8	11.9	2.2	1.6	1.7	1.8
20	‡ 1.7	1.6	1.6	1.2	.9	.4	.8	1.2	2.0	‡ 1.6	1.7	1.7
21	1.7	1.7	1.6	‡ 1.2	.9	.4	‡ 17.4	1.2	1.8	1.6	1.8	1.7
22	1.8	1.8	1.6	1.2	.9	.4	.8	1.2	‡ 1.6	1.6	1.8	‡ 1.6
23	1.8	1.8	1.5	1.1	.9	‡ .4	.2	1.2	1.6	1.6	1.9	1.6
24	1.8	‡ 1.9	‡ 1.5	1.1	.9	.4	5.6	1.2	1.6	1.6	‡ 1.9	1.6
25	1.8	1.8	1.5	1.0	.9	‡ 28.1	5.0	‡ 1.2	1.6	1.6	1.9	1.6
26	1.9	1.6	1.5	1.0	.9	9.3	1.5	1.2	1.5	1.6	1.9	1.7
27	‡ 1.9	1.5	1.5	.9	‡ .9	6.8	1.6	19.5	1.5	1.6	1.9	1.7
28	2.0	‡ 1.4	1.6	‡ .9	.8	3.5	‡ 1.6	‡ 71.9	1.5	‡ 1.6	1.8	1.7
29	2.0		1.6	.9	.8	1.1	1.6	2.4	‡ 1.5	1.6	1.8	‡ 1.7
30	2.0		1.6	.8	.8	‡ .4	.7	1.0	1.5	1.7	1.8	1.7
31	2.1		‡ 1.6		.7		2.2	1.0		1.7		1.6
Sum	57.7	51.2	45.7	36.0	71.5	61.7	97.3	661.6	611.4	46.0	51.8	57.2

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1932-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.			31	∅ 2.1	†16	∅ 1.7	1.9	114	143	273	46.4
Feb.			3	∅ 2.3	28	∅ 1.4	1.8	102	199	3,120	41.5
Mar.			†17	∅ 1.7	† 9	∅ 1.2	1.5	90.6	166	1,018	46.4
Apr.			† 7	∅ 1.5	30	∅ .8	1.2	71.4	222	1,140	56.1
May	9.18		11	276	31	∅ .7	2.3	142	991	8,520	34.7
June	8.76		25	78.3	†20	∅ .4	2.1	122	1,960	12,653	24.2
July	9.29	8.05	1	378	23	∅ .2	3.1	193	3,348	18,500	46.8
Aug.	9.80		16	2,800	8	∅ .6	21.3	1,312	3,443	16,330	56.9
Sept.	8.71		12	1,550	8	∅ .8	20.4	1,213	5,035	59,380	128
Oct.			†30	∅ 1.7	† 5	∅ 1.3	1.5	91.2	1,903	19,200	36.9
Nov.			†23	∅ 1.9	† 9	∅ 1.6	1.7	103	214	2,554	35.7
Dec.			† 7	∅ 2.1	†22	∅ 1.6	1.8	113	150	408	39.3
Yearly	9.80			2,800		∅ 0.2	5.1	3,667.2	17,774	70,273.8	3,109.2

‡ Discharge measurement made on this day ∅ Mean daily † And other days

RIO GRANDE BELOW RIO CONCHOS NEAR PRESIDIO, TEXAS

DESCRIPTION: Cableway, bubbler gage, concrete control weir, water-stage recorders (graphic and digital), and binary decimal transmitter located on the left bank at latitude 29°31'05", longitude 104°17'35", and river mile 940.9; 0.4 river mile downstream from Alamito Creek, 10.1 river miles downstream from the international highway bridge between Presidio, Texas and Ojinaga, Chihuahua and 307.9 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 2,536.00 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 55 discharge measurements during the year and a continuous record of gage heights. Computations for high flows by shifting control methods. Low and medium flow computations based on a stable control weir rating curve defined by meter measurements. Records available: 1955 through 1975. Records are also available from 1896 through June 13, 1932 for a station located about 12.1 river miles downstream from the Rio Conchos and 1.3 miles upstream from Alamito Creek; and from June 14, 1932 through 1954 for a station about 2.0 river miles downstream from the Rio Conchos and 11.4 river miles upstream from Alamito Creek.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. The elevation of the zero of the gage prior to placing the weir, May 1, 1968, was 2,527.99 feet above mean sea level, U. S. C. & G. S. datum. The transmitter, operated in cooperation with the National Weather Service, relays gage height data upon interrogation by telephone via commercial circuits.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 54,300 second-feet on October 1, 1958 with a gage height of 20.37 feet. Min. 0.2 second-foot several days in July 1955, and on June 30, 1958.

Average Flow in Second-Feet

Daily:	Max. 52,200	Oct. 1, 1958	Min. 0.2	Several days July 1955; and June 30, 1958
Monthly:	Max. 17,100	Oct. 1958	Min. 3.6	May 1955
Yearly:	Max. 2,590	1958	Min. 283	1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	663	610	3,540	3,590	594	596	544	‡ 842	‡ 560	765	686	‡ 402
2	‡ 649	611	3,610	3,390	591	‡ 582	‡ 431	806	561	671	556	390
3	649	‡ 601	‡3,580	3,260	559	554	466	763	563	‡ 348	‡ 245	379
4	647	556	3,500	3,160	530	537	419	488	973	412	441	397
5	649	556	3,490	3,140	523	414	680	498	763	450	479	451
6	‡ 649	539	3,470	2,940	526	287	554	647	616	‡ 474	464	601
7	651	532	3,420	‡ 3,290	536	310	‡ 717	527	607	445	371	608
8	649	533	3,360	3,210	‡ 541	395	479	294	‡ 592	418	319	‡ 515
9	651	530	3,370	3,090	537	‡ 435	479	571	626	404	373	456
10	635	‡ 549	‡3,390	1,870	529	453	403	455	553	400	‡ 407	230
11	633	560	3,320	1,140	613	456	405	‡ 425	580	396	462	153
12	622	563	3,250	983	‡ 571	462	578	420	820	405	467	232
13	‡ 621	579	3,220	935	573	465	820	1,200	1,570	414	464	423
14	554	576	3,280	‡ 858	573	438	‡ 571	738	941	‡ 416	454	444
15	549	596	3,260	822	572	444	536	1,280	755	416	450	‡ 448
16	558	1,020	3,170	771	560	‡ 437	618	3,010	738	416	453	430
17	559	2,370	‡3,210	756	563	418	1,430	4,780	743	417	‡ 450	632
18	557	3,380 ‡	3,090	753	535	412	‡ 1,530	1,130	788	394	433	688
19	554	3,560	3,060	635	‡ 523	411	917	‡ 801	‡ 793	388	396	603
20	‡ 565	3,100	3,080	624	509	407	881	652	802	‡ 411	376	562
21	564	3,320	3,340	‡ 648	495	407	‡ 814	602	813	405	437	535
22	559	3,370	3,430	649	433	401	862	711	‡ 807	412	423	‡ 351
23	527	3,390	4,900	616	415	‡ 425	990	780	889	400	434	312
24	509	3,430 ‡	‡5,040	650	423	853	963	639	927	412	447	321
25	650	3,410	4,920	639	508	500	551	‡ 605	884	407	450	329
26	601	3,370	4,840	409	511	453	759	554	730	407	428	338
27	‡ 604	3,320	4,210	599	523	462	811	970	791	408	324	391
28	597	3,350 ‡	3,960	‡ 615	576	426	‡ 1,020	‡ 1,520	823	402	322	436
29	585		3,900	587	578	763	1,020	723	801	398	383	‡ 458
30	575		3,800	597	570	‡ 437	975	659	794	399	398	371
31	619		‡3,800		607		979	599		‡ 519		418
Sum	18,654	48,881	112,810	45,226	16,697	14,040	23,202	28,689	23,203	13,429	12,792	13,304

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1968-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	2.67	2.40	† 1	685	†23	502	602	37,000	46,090	116,947	20,968
Feb.	4.39	2.44	19	3,670	† 6	528	1,750	96,954	40,590	110,937	4,745
Mar.	4.85	4.16	†23	5,100	†18	3,060	3,640	223,755	57,876	223,755	4,583
Apr.	4.42	2.03	1	3,760	26	292	1,510	89,704	35,987	89,704	7,244
May	2.74	2.23	11	730	†23	400	539	33,118	36,697	124,046	12,147
June	3.85	1.90	29	2,350	6	231	468	27,848	39,346	89,211	5,927
July	4.64	2.00	17	4,450	25	320	748	46,021	66,303	124,713	24,764
Aug.	5.41	1.82	17	7,220	8	195	925	56,904	94,829	270,367	30,365
Sept.	3.76	2.37	13	2,170	10	490	773	46,022	202,949	469,832	46,022
Oct.	2.85	2.04	1	826	3	306	433	26,636	118,385	335,405	24,823
Nov.	2.69	1.81	1	707	3	197	426	25,373	51,845	113,407	8,741
Dec.	2.75	1.66	†17	752	†11	140	429	26,338	34,966	52,176	19,890
Yearly	5.41	1.66		7,220		140	1,020	735,673	825,863	1,238,356	495,643

‡ Discharge measurement made on this day † And other days

TERLINGUA CREEK NEAR TERLINGUA, TEXAS

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the left bank at latitude 29°12'00", longitude 103°36'15", 2.6 creek miles from the confluence with the Rio Grande, and about 8.5 miles south of Terlingua, Brewster County, Texas. This creek enters the Rio Grande at river mile 876.6, the lower end of Santa Helena Canyon, and 372.2 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 2,200.64 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 60 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: 1932 through 1975.

REMARKS: Irrigation diversions modify the flow of this spring-fed creek at this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 34,900 second-feet on May 24, 1935 with a gage height of 17.59 feet on a gage 0.3 mile downstream. Min. 0.1 several days in June and July 1950.

Average Flow in Second-Feet

Daily:	Max. 17,200	June 1, 1937	Min. 0.1	Several days in June & July 1950
Monthly:	Max. 1,150	Sept. 1974	Min. .8	October 1934
Yearly:	Max. 146	1937	Min. 5.5	1943

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.9	3.3	3.1	2.9	2.1	2.6	‡ 436	143	‡ 4.0	3.0	3.2	‡ 2.9
2	3.7	3.2	3.2	2.9	2.1	2.6	28.2	61.4	20.5	‡ 3.0	3.4	2.9
3	‡ 3.6	‡ 3.2	‡ 3.2	‡ 3.0	2.2	‡ 2.6	17.2	21.0	27.8	2.9	‡ 3.5	3.0
4	3.4	3.2	3.2	3.0	2.2	6.2	242	‡ 9.4	31.2	2.9	3.4	3.0
5	3.2	3.1	3.1	3.0	2.2	5.8	176	5.2	10.2	2.8	3.3	3.0
6	3.1	3.1	3.1	2.9	‡ 2.2	74.8	34.0	3.9	4.4	2.8	3.2	3.1
7	‡ 2.9	3.0	3.0	‡ 2.9	2.2	8.5	18.3	3.3	3.6	‡ 2.7	3.1	3.1
8	2.9	3.0	3.0	2.9	2.2	10.1	‡ 9.1	3.3	‡ 3.7	2.7	3.0	3.2
9	2.9	2.9	2.9	2.9	2.2	25.3	11.4	3.4	3.7	2.7	2.9	‡ 3.2
10	2.9	‡ 2.9	‡ 2.9	2.9	2.2	‡ 12.6	12.7	3.4	3.7	2.7	2.8	3.2
11	3.0	2.9	2.9	2.8	2.2	6.8	10.4	36.4	3.7	2.8	‡ 2.7	3.2
12	3.0	2.8	2.8	2.8	2.2	5.9	30.2	‡ 14.9	61.0	2.8	2.7	3.2
13	3.0	2.8	2.8	2.8	2.2	5.0	162	287	64.5	2.8	2.7	3.1
14	‡ 3.0	2.8	2.8	2.8	2.2	4.1	29.0	‡ 42.5	50.2	‡ 2.8	2.7	3.1
15	3.1	2.8	2.8	‡ 2.8	2.2	3.2	‡ 36.4	374	‡ 38.0	2.8	2.6	3.1
16	3.1	2.8	2.7	2.7	2.2	2.3	336	168	18.8	2.7	2.6	‡ 3.1
17	3.2	2.7	‡ 2.7	2.5	2.2	‡ 1.4	170	‡ 297	9.8	2.6	2.6	3.1
18	3.3	‡ 2.7	2.7	2.4	139	2.0	40.8	‡ 153	5.9	2.6	‡ 2.6	3.2
19	3.3	2.7	2.7	2.3	7.6	2.2	25.0	41.7	4.4	2.6	2.6	3.2
20	‡ 3.4	2.8	2.7	2.2	‡ 3.0	2.8	61.1	17.2	3.9	‡ 2.5	2.6	3.2
21	3.4	2.8	2.8	2.0	3.0	16.4	‡ 261	10.8	3.4	2.5	2.6	3.3
22	3.4	2.8	2.8	‡ 1.9	2.9	5.0	70.0	7.0	‡ 3.0	2.5	2.6	‡ 3.3
23	3.4	2.8	2.8	1.9	2.9	3.8	14.2	4.7	3.0	2.5	2.6	3.3
24	3.4	‡ 2.9	‡ 2.8	2.0	2.9	26.5	900	3.7	3.0	2.6	‡ 2.6	3.2
25	3.4	2.9	2.8	2.0	2.8	104	‡ 392	‡ 93.8	3.0	2.6	2.6	3.2
26	3.4	3.0	2.8	2.0	10.1	18.4	94.7	740	2.9	2.6	2.7	3.2
27	‡ 3.4	3.0	2.8	2.0	27.1	6.8	32.1	13.4	2.9	2.6	2.7	3.2
28	3.4	3.0	2.8	2.1	15.7	5.7	‡ 12.8	345	2.9	‡ 2.6	2.8	3.1
29	3.3		2.8	‡ 2.1	99.0	116	7.2	‡ 44.3	‡ 2.9	2.8	2.8	‡ 3.1
30	3.3		2.8	2.1	33.9	44.2	4.3	19.6	2.9	2.9	2.9	3.1
31	3.3		‡ 2.8		3.4		‡ 3.7	8.2		3.0		3.1
Sum	101.0	81.9	89.1	75.5	390.5	533.6	3,678.7	2,979.5	402.9	84.4	85.1	97.2

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1932-1975: Acre-Feet Average	Maximum	Minimum
Jan.			1	∅ 3.9	† 7	∅ 2.9	3.3	200	193	875	82.7
Feb.			1	∅ 3.3	†17	∅ 2.7	2.9	162	244	4,400	73.4
Mar.			† 2	∅ 3.2	†16	∅ 2.7	2.9	177	275	2,410	72.4
Apr.			† 3	∅ 3.0	†22	∅ 1.9	2.5	150	954	15,500	55.1
May	2.59		18	625	† 1	∅ 2.1	12.6	775	3,548	26,000	81.3
June	2.96		6	1,220	17	∅ 1.4	17.8	1,058	6,436	54,800	59.5
July	6.43	1.64	24	9,200	31	3.1	119	7,297	8,432	28,700	518
Aug.	6.18	2.40	26	8,470	25	2.7	96.1	5,910	6,295	33,617	123
Sept.	3.55		12	587	†26	∅ 2.9	13.4	799	8,647	68,375	123
Oct.			† 1	∅ 3.0	†20	∅ 2.5	2.7	167	3,288	27,900	50.8
Nov.			3	∅ 3.5	†15	∅ 2.6	2.8	169	355	2,980	64.9
Dec.			†21	∅ 3.3	† 1	∅ 2.9	3.1	193	280	3,080	90.0
Yearly	6.43			9,200		∅ 1.4	23.6	17,057	38,947	105,807	3,958

‡ Discharge measurement made on this day ∅ Mean daily † And other days

RIO GRANDE AT JOHNSON RANCH NEAR CASTOLON, TEXAS

DESCRIPTION: Cableway, gravity well, and digital water-stage recorder located on the left bank at latitude 29°02'05", longitude 103°23'30", and river mile 855.3; two miles west-northwest of old Johnson Ranch headquarters, 5.5 river miles downstream from Smoky Creek, 13.0 river miles upstream from Chisos Crossing and the Chihuahua-Coahuila state line, 14.0 river miles downstream from Castolon, Brewster County, Texas and Santa Helena Ranch, Chihuahua, and 393.5 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 2,045.30 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 60 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: April 1936 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 61,900 second-feet on September 27, 1958 with a gage height of 24.70 feet. A flow estimated at 97,000 second-feet with a stage of 24.6 feet occurred at this station site on October 3, 1932. Min. no flow several days in 1953, 1955, 1957 and 1958.

		Average Flow in Second-Feet			
Daily:	Max. 56,900	Sept. 10, 1942		Min. 0	Several days 1953 1955, 1957 & 1958
Monthly:	Max. 23,600	Sept.	1942	Min. 0	May 1953
Yearly:	Max. 4,780		1942	Min. 167	1953

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	735	649	3,100	3,490	636	585	‡ 745	1,170	‡ 618	729	409	‡ 415
2	737	671	3,250	3,340	625	597	803	1,020	573	‡ 717	549	430
3	‡ 739	‡ 676	‡3,330	‡ 3,160	608	‡ 593	559	825	568	687	‡ 561	437
4	730	662	3,320	3,100	575	568	540	‡ 792	788	553	457	434
5	721	625	3,300	3,070	563	554	1,430	651	852	513	356	431
6	717	599	3,300	3,070	‡ 556	548	654	473	817	618	470	452
7	‡ 712	584	3,270	‡ 3,100	541	422	715	596	631	‡ 573	485	528
8	705	575	3,240	3,210	535	331	‡ 666	592	‡ 599	511	436	594
9	703	565	3,200	3,060	547	334	579	439	582	476	351	‡ 562
10	695	‡ 555	‡3,210	2,970	552	431	503	400	577	448	336	520
11	685	575	3,150	2,080	595	‡ 457	454	474	579	436	‡ 391	455
12	679	582	3,110	1,500	583	460	419	‡ 485	549	429	436	337
13	671	585	3,050	1,250	636	455	744	1,240	746	422	‡ 486	271
14	‡ 669	599	3,030	1,110	634	463	924	1,270	1,750	‡ 419	466	320
15	636	617	3,050	‡ 1,010	594	442	‡ 642	1,890	‡ 1,050	408	440	426
16	604	617	3,020	934	587	438	594	1,790	794	390	434	‡ 431
17	603	780	‡2,990	880	584	‡ 435	1,020	‡ 4,890	726	389	436	426
18	598	‡2,120	3,020	847	700	419	1,350	‡ 3,790	708	397	‡ 437	470
19	590	2,850	2,990	811	615	398	1,470	1,660	726	385	424	618
20	‡ 580	2,990	3,060	779	‡ 557	392	1,020	1,100	753	‡ 382	418	595
21	584	2,840	3,120	717	528	442	‡1,540	840	744	393	386	554
22	587	2,980	3,330	‡ 718	524	396	1,060	731	‡ 775	395	408	‡ 542
23	601	3,040	3,580	711	489	427	1,020	684	781	389	434	505
24	584	‡3,110	‡4,660	685	456	426	3,390	874	792	387	‡ 437	376
25	553	3,120	4,720	690	447	778	‡2,290	‡ 676	874	402	451	366
26	614	3,080	4,720	705	494	582	1,490	1,650	832	397	449	373
27	‡ 635	3,040	4,470	597	545	506	977	624	691	404	446	378
28	632	‡3,010	3,960	580	547	440	‡ 833	2,000	668	‡ 416	417	392
29	629		3,820	‡ 658	607	725	1,120	‡ 1,610	‡ 683	416	366	‡ 444
30	628		3,740	630	619	939	1,020	809	717	410	380	463
31	621		‡3,610		572		‡1,070	651		400		‡ 431
Sum	20,177	42,696	106,720	49,462	17,651	14,983	31,641	36,696	22,543	14,291	13,002	13,976

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1968-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	3.17	2.89	3	747	25	545	651	40,020	47,016	118,276	23,830
Feb.	5.44	2.89	†24	3,160	10	553	1,520	84,686	40,660	111,869	7,743
Mar.	6.54	5.11	25	4,820	19	2,960	3,440	211,676	56,645	211,676	6,067
Apr.	5.61	2.53	1	3,590	†27	477	1,650	98,106	35,477	98,106	5,912
May	3.36	2.50	18	951	24	435	569	35,010	37,933	116,801	14,454
June	3.59	2.09	30	1,210	9	313	499	29,718	42,831	96,474	5,839
July	7.61	2.38	24	6,240	12	412	1,020	62,759	75,417	132,962	29,430
Aug.	7.70	2.23	18	6,420	10	327	1,180	72,785	106,374	242,539	30,689
Sept.	4.46	2.64	14	2,070	11	521	751	44,713	216,597	472,093	44,713
Oct.	3.04	2.35	1	737	31	378	461	28,346	135,422	372,000	28,013
Nov.	2.79	2.16	† 3	590	5	316	433	25,789	54,994	121,232	13,267
Dec.	2.90	1.94	19	646	14	243	451	27,721	36,693	54,054	20,509
Yearly	7.70	1.94		6,420		243	1,050	761,329	886,059	1,382,082	615,314

‡ Discharge measurement made on this day † And other days

RIO GRANDE AT FOSTER RANCH NEAR LANGTRY, TEXAS
(ABOVE MAIN STEM HEAD OF AMISTAD RESERVOIR)

DESCRIPTION: Cableway, bubbler gage, concrete control weir, and water-stage recorders (graphic and digital) located on the left bank at latitude 29°46'50", longitude 101°45'20", and river mile 651.0; 500 feet downstream from the Terrell-Val Verde County Line, 16.9 river miles upstream from Langtry, Texas, and 597.8 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 1,157.17 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 22 discharge measurements during the year, 20 by the United States Section and 2 by the Mexican Section of the Commission, and a continuous record of gage heights. Computations for high flows by shifting control methods. Low and medium flow computations based on a stable control weir rating curve defined by meter measurements. Records available: September 1961 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. The concrete control weir was placed in operation on February 21, 1967.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 137,000 second-feet on September 20, 1974 with a gage height of 36.64 feet. Min. 188 second-feet on August 19, 1965.

Average Flow in Second-Feet

Daily:	Max. 81,600	Sept. 20, 1974	Min. 217	July 1, 1968
Monthly:	Max. 10,700	Sept. 1966	Min. 322	March 1968
Yearly:	Max. 2,480	1974	Min. 981	1963

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1,020	965	3,160	3,990	844	825	710	1,220	1,490	940	663	‡ 715
2	1,020	941	3,180	3,930	900	‡ 868	1,220	1,180	‡ 1,130	945	749	655
3	1,020	944	‡3,240	3,850	1,010	836	1,250	1,470	984	963	‡ 706	631
4	1,010	948	3,360	3,740	900	830	1,030	1,290	919	957	658	652
5	1,000	950	3,520	3,570	‡ 880	836	987	1,110	875	944	749	675
6	‡ 998	934	3,520	3,500	859	831	846	1,030	849	‡ 921	805	682
7	991	918	3,480	‡ 3,410	829	815	1,430	988	995	823	761	675
8	991	885	3,450	3,380	818	1,280	1,190	893	1,070	755	644	673
9	988	865	3,490	3,410	804	1,810	929	767	1,020	843	695	663
10	975	852	3,490	3,550	801	884	909	824	907	818	733	718
11	963	845	3,470	3,420	983	1,660	888	834	879	755	730	835
12	963	842	3,510	3,300	1,680	652	1,080	2,460	8,460	725	680	815
13	961	834	3,430	2,480	1,310	618	755	1,340	5,250	699	630	761
14	950	854	3,430	1,850	1,040	663	‡ 1,820	964	1,070	685	622	725
15	950	849	3,370	1,600	1,060	652	1,240	1,210	‡ 859	682	659	637
16	950	841	3,350	1,460	938	‡ 656	1,080	2,050	1,450	768	729	573
17	936	845	‡3,380	1,360	904	657	1,090	4,780	1,460	701	‡ 740	525
18	921	‡ 860	3,380	1,270	1,450	649	909	‡ 4,470	1,190	683	728	609
19	897	871	3,370	1,190	‡ 947	728	1,000	5,640	1,060	672	717	663
20	‡ 890	1,310	3,340	1,140	1,290	639	1,210	3,310	991	663	716	681
21	879	2,660	3,250	‡ 1,110	1,020	653	2,570	1,960	977	668	698	707
22	871	3,180	3,230	1,090	902	834	1,500	1,510	991	675	700	‡ 851
23	860	2,790	3,250	1,050	829	768	1,590	1,240	991	689	675	867
24	856	3,180	3,380	1,020	792	717	1,510	1,100	987	691	670	836
25	864	3,180	3,980	1,000	774	722	1,550	1,020	984	699	678	825
26	871	3,200	5,120	987	752	898	4,860	999	985	681	703	818
27	870	3,230	5,150	971	738	1,160	3,080	2,860	1,030	669	710	690
28	847	3,190	5,110	966	972	1,040	2,090	2,790	1,070	675	‡ 711	630
29	889		4,710	962	1,150	853	1,360	1,390	1,050	675	728	625
30	921		4,170	883	‡ 972	792	1,190	1,980	975	656	733	636
31	912		4,050		805		1,110	2,010		659		641
Sum	29,034	42,763	113,320	65,439	29,953	25,826	43,983	56,689	42,948	23,379	21,120	21,689

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1968-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	2.37	2.23	1	1,030	†23	845	937	57,588	60,616	122,084	40,143
Feb.	3.32	2.22	26	3,270	†12	832	1,530	84,819	52,942	115,301	22,435
Mar.	3.89	3.27	27	5,190	† 1	3,130	3,660	224,767	73,898	224,767	19,789
Apr.	3.54	2.21	1	4,040	30	820	2,180	129,796	58,347	129,796	20,200
May	3.29	2.11	18	3,190	27	698	966	59,411	54,842	120,734	28,616
June	4.66	2.04	8	6,590	†13	618	861	51,225	64,534	101,462	22,463
July	4.59	2.08	26	6,460	1	663	1,420	87,239	93,637	140,961	51,780
Aug.	5.99	2.11	12	9,010	13	698	1,830	112,441	129,780	212,846	45,474
Sept.	14.31	2.22	12	24,300	6	832	1,430	85,186	250,582	590,037	76,940
Oct.	2.32	2.07	† 3	963	†30	652	754	46,372	163,069	390,655	46,372
Nov.	2.34	2.03	2	991	† 8	607	704	41,891	71,442	129,741	37,160
Dec.	2.25	1.94	†22	871	†17	512	700	43,020	52,307	71,001	36,914
Yearly	14.31	1.94		24,300		512	1,410	1,023,755	1,125,996	1,796,884	903,650

‡ Discharge measurement made on this day † And other days

PECOS RIVER NEAR LANGTRY, TEXAS

DESCRIPTION: Concrete control weir, bubbler gage, and water-stage recorders (graphic and digital) located on the right bank at latitude 29°48'10", longitude 101°26'45", about 7.5 miles east of Langtry, Texas, 9.5 river miles upstream from the Pecos High Bridge, and 15.0 river miles from the confluence with the Rio Grande. This stream enters the Rio Grande at river mile 610.0; 24.1 river miles downstream from Langtry, Texas, and 638.8 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 1,133.08 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 22 discharge measurements during the year, 19 by the United States Section and 3 by the Mexican Section of the Commission, and a continuous record of gage heights. Computations for high flows by shifting control methods. Low and medium flow computations based on stable control weir rating curves defined by meter measurements. Records available: July 1967 through 1975. Records are also available for Pecos River near Comstock, 9.5 river miles downstream, from March 17 through December 3, 1898 and May 1900 through October 7, 1954; for Pecos River near Shumla, 3.5 river miles upstream, from October 8, 1954 through June 1967; and for Pecos River at Mouth near Comstock, from March 1961 through July 2, 1968.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. The flood of June 1954, which had a discharge of 948,000 second-feet at the gaging station near the railroad bridge 9.5 river miles downstream, exceeded a gage height of 100 feet at this station. This station was placed in operation June 30, 1967.

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	540	651	386	332	303	276	233	273	246	253	234	‡ 270
2	532	575	383	326	301	‡ 265	283	271	‡ 256	252	246	267
3	530	‡ 538	‡ 381	330	306	262	246	695	262	249	1,010	270
4	519	580	372	317	348	258	231	426	254	249	654	271
5	523	539	377	326	‡ 304	258	232	288	250	248	449	275
6	‡ 519	511	378	338	293	260	224	277	248	‡ 246	395	274
7	514	496	‡ 383	‡ 357	290	258	‡ 221	271	252	241	372	271
8	513	488	370	346	287	256	220	265	249	241	363	271
9	503	487	378	338	294	261	220	259	243	241	356	271
10	492	487	379	336	295	280	217	260	239	238	349	271
11	478	468	376	337	310	269	316	267	236	241	333	268
12	472	456	374	325	297	271	368	269	239	239	324	271
13	474	444	367	334	284	259	280	300	327	236	316	271
14	483	443	356	343	283	251	258	270	315	235	313	271
15	479	440	355	324	278	247	243	265	‡ 305	238	309	272
16	478	432	358	324	273	243	237	269	303	254	305	268
17	‡ 473	424	‡ 355	331	269	238	3,510	275	297	251	‡ 310	263
18	469	‡ 412	349	321	281	229	657	‡ 273	289	269	301	259
19	463	403	350	316	‡ 279	233	436	353	302	258	296	256
20	‡ 456	403	349	308	282	230	396	342	283	‡ 249	293	260
21	451	403	354	‡ 304	275	234	366	306	270	243	288	260
22	442	403	358	310	272	235	338	290	285	245	284	256
23	444	388	351	313	277	233	311	281	277	249	282	256
24	449	382	351	318	274	231	315	271	277	256	280	263
25	444	399	342	310	271	229	607	264	272	269	278	263
26	438	392	330	311	270	225	311	261	267	269	278	260
27	435	386	342	313	495	225	301	255	262	251	276	260
28	429	383	335	336	300	225	295	253	258	249	275	256
29	427		336	390	287	227	287	251	256	247	281	255
30	434		343	324	316	231	278	250	252	244	277	253
31	439		336		296		275	249		‡ 237		253
Sum	14,742	12,813	11,154	9,840	9,190	7,399	12,712	9,099	8,071	7,687	10,327	8,205

Month	Current Year 1975								Period July 1967-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
			High		Low						
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.	2.60	2.45	1	552	28	419	476	29,240	12,280	29,240	7,559
Feb.	2.04	2.40	1	944	†24	380	458	25,414	10,906	25,414	7,012
Mar.	2.42	2.30	† 1	395	†26	309	360	22,124	10,959	22,124	6,929
Apr.	2.55	2.27	29	505	18	297	328	19,517	13,929	26,406	8,156
May	3.03	2.18	27	1,070	†21	264	296	18,228	13,951	28,767	7,207
June	2.27	2.04	10	297	20	214	247	14,676	9,061	14,676	5,458
July	7.65	2.04	17	9,790	†10	214	410	25,214	13,943	27,884	4,289
Aug.	3.78	2.13	3	2,580	31	246	294	18,048	27,367	162,055	4,178
Sept.	2.40	2.09	13	427	12	232	269	16,006	104,293	804,466	7,674
Oct.	2.21	2.09	†18	275	14	232	248	15,247	23,870	113,911	7,123
Nov.	3.54	2.08	3	2,000	1	228	344	20,483	16,533	59,734	6,589
Dec.	2.21	2.15	† 1	275	†28	253	269	16,274	13,670	37,859	7,662
Yearly	7.65	2.04		9,790		214	332	240,473	270,662	1,087,822	94,683

‡ Discharge measurement made on this day † And other days

DEAD MANS CANYON NEAR COMSTOCK, TEXAS

In order to determine storm runoff formerly included with measured flows at a gaging station on the Pecos River before its relocation upstream incident to the completion of Amistad Dam, a gaging station was established during 1968 on Dead Mans Canyon.

DESCRIPTION: Cableway, control weir, bubbler gage, and digital recorder located on the left bank of the canyon at latitude 29°47'05", longitude 101°19'25", 2.3 miles upstream from its confluence with the Pecos River which is 9.5 miles upstream from the Pecos River confluence with the Rio Grande. The zero of the gage is 1,178.00 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on current meter measurements, a continuous record of gage heights, and the weir discharge rating. Records available: March 1968 through 1975.

REMARKS: This stream is normally dry, its flow being confined to periods of storm runoff from its 88 square miles of watershed area. Only the days of flow are shown below.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 37,800 second-feet on September 17, 1974 with a gage height of 12.78 feet. Maximum volumes: Monthly, 29,164 acre-feet in September 1974; yearly, 30,527 acre-feet in 1974.

Mean Daily Discharge in Second-Feet 1975

Month and Day												
July 11	173	July 17	178	July 25	20.4							
12	7.2	24	76.3									

Annual Summary

Month	Maximum Gage and Discharge			Total Acre-Feet
	Day	Feet	Second-Feet	
July	11	3.72	3,000	902
Yearly		3.72	3,000	902

DOLAN SPRINGS NEAR LOMA ALTA, TEXAS

DESCRIPTION: Concrete wall control, bubbler gage, and water-stage recorder located on the left bank of Snake Creek near its mouth, latitude 29°53'40", longitude 100°59'00", and about 12 miles west of Loma Alta, Val Verde County, Texas. Snake Creek enters Dolan Creek from the left side, 0.9 creek mile from the confluence with Devils River. Dolan Creek enters Devils River from the left side, 16.8 river miles upstream from Pafford Crossing, and 42.3 river miles from the confluence with the Rio Grande. The elevation of the zero of the gage has not been determined.

RECORDS: Based on 12 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: 1966 through 1975.

REMARKS: The flow of these springs is very uniform during periods of dry weather and is not modified by diversions or storage. All storm flow passing this station is deducted and is not included in the tabulation below. This station was established for purposes of correlating the flow of these springs with precipitation data and the flow of other springs in the area. The previous 90° V-notch weir was destroyed by a flood in 1971.

Average Flow in Second-Feet

Daily:	Max. 23.0	May 11 & 12, 1975	Min. 1.0	Several days in May 1971
Monthly:	Max. 20.2	November 1974	Min. 1.1	March, April & May 1971
Yearly:	Max. 15.7	1975	Min. 1.7	1968

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.1	16.8	16.4	15.2	12.9	18.7	17.5	18.0	14.4	14.8	14.0	‡ 12.2
2	17.0	16.8	16.4	15.3	12.8	‡ 18.7	17.4	17.9	‡ 14.3	14.9	13.9	12.7
3	16.9	‡ 16.8	‡ 16.4	15.3	12.4	19.4	17.3	17.4	14.4	14.7	‡ 14.1	12.6
4	16.8	16.8	16.4	15.3	12.4	19.5	17.2	‡ 17.9	14.5	14.8	14.6	12.3
5	16.5	16.8	16.5	15.1	‡ 12.3	19.5	17.2	17.8	14.6	14.6	14.6	12.2
6	‡ 16.4	16.8	16.2	15.2	12.6	19.4	17.1	17.8	14.3	‡ 15.0	14.9	12.2
7	16.4	16.9	16.2	‡ 15.2	12.6	19.3	‡ 17.0	17.4	14.9	15.5	15.0	12.1
8	16.8	16.6	16.2	15.6	12.6	19.2	16.9	17.3	15.6	15.2	15.0	12.1
9	16.8	16.6	16.3	15.6	12.6	19.2	16.7	17.3	15.4	15.3	15.0	12.1
10	16.8	16.6	16.0	15.2	12.6	22.1	16.6	17.2	15.5	15.1	14.7	11.8
11	16.8	16.6	16.0	15.1	23.0	22.8	16.4	17.1	15.6	15.1	14.7	11.6
12	16.8	16.6	16.1	15.1	23.0	21.0	16.3	16.8	15.4	14.9	14.5	11.5
13	16.9	16.6	16.1	15.0	22.4	20.0	16.1	16.7	15.4	14.6	14.5	11.3
14	16.6	16.7	15.8	15.0	21.3	19.3	16.0	16.6	15.3	14.6	14.6	11.2
15	16.6	16.7	15.8	14.7	21.3	19.2	16.3	16.6	15.4	14.4	14.3	11.0
16	16.7	16.7	15.9	14.6	21.0	19.1	16.2	16.5	15.5	14.4	14.1	11.0
17	16.7	16.7	15.9	14.6	20.5	19.0	16.6	16.1	15.3	14.5	13.8	10.9
18	16.7	16.4	15.9	14.5	20.2	18.5	18.7	16.1	15.1	14.5	13.4	10.7
19	16.7	16.4	15.7	14.1	20.0	18.4	18.5	16.0	14.9	14.2	13.1	10.6
20	16.7	16.4	15.7	14.1	20.0	18.3	18.4	16.0	14.9	14.3	13.1	10.2
21	16.8	16.5	15.7	14.0	20.0	18.2	18.2	15.6	15.0	14.3	13.2	9.9
22	16.8	16.5	15.7	13.9	19.7	18.2	18.1	15.5	14.8	14.1	13.2	9.9
23	16.8	16.5	15.5	13.9	19.7	18.1	18.0	15.5	14.9	14.1	13.2	9.9
24	16.9	16.5	15.5	13.5	19.7	18.0	17.8	15.4	15.0	14.1	13.0	9.8
25	16.9	16.5	15.5	13.4	19.7	17.9	18.2	15.3	14.8	14.2	12.8	9.8
26	16.9	16.5	15.6	13.4	19.5	17.8	18.6	15.0	14.8	13.9	12.8	9.5
27	16.9	16.3	15.6	13.3	19.2	17.8	18.5	14.9	14.7	13.9	12.8	9.5
28	16.6	16.4	15.4	13.3	19.2	17.7	18.3	14.8	14.8	14.0	12.7	9.2
29	16.7		15.4	13.0	19.2	17.6	18.5	14.8	14.9	14.0	12.4	9.2
30	16.7		15.5	12.9	19.0	17.5	18.3	14.7	14.7	14.0	12.2	9.2
31	16.7		15.5		19.0		18.2	14.4		14.0		9.1
Sum	519.4	465.0	492.8	434.4	552.4	569.4	541.1	506.4	449.1	450.0	414.2	337.3

Month	Current Year 1975: Extreme Gage Feet ** High	Low	Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1966-1975: Acre-Feet Average	Maximum	Minimum
Jan.	2.20	2.17	1	17.1	† 6	16.4	16.8	1,030	400	1,030	77.2
Feb.	2.17	2.14	7	16.9	27	16.3	16.6	922	312	922	66.8
Mar.	2.14	2.08	5	16.5	†26	15.4	15.9	977	290	977	70.4
Apr.	2.08	2.03	† 8	15.6	30	12.9	14.5	862	245	862	65.5
May	2.14	1.99	†11	23.0	5	12.3	17.8	1,096	302	1,096	66.2
June	5.50	1.93	11	∅ 22.8	30	17.5	19.0	1,129	297	1,129	87.9
July	2.19	2.02	13	18.7	14	16.0	17.5	1,073	284	1,073	80.9
Aug.	2.20	2.14	1	18.0	31	14.4	16.3	1,004	388	1,004	93.8
Sept.	2.17	2.07	† 8	15.6	† 2	14.3	15.0	891	425	1,042	85.5
Oct.	2.07	2.00	7	15.5	†26	13.9	14.5	893	516	1,134	87.9
Nov.	2.03	1.90	† 7	15.0	†29	12.2	13.8	822	548	1,203	84.5
Dec.	1.92	1.81	2	12.7	31	9.1	10.9	669	519	1,177	83.9
Yearly	5.50	1.81		23.0		9.1	15.7	11,368	4,526	11,368	1,257.2

‡ Discharge measurement made on this day ∅ Mean daily † And other days

** Includes storm flow

DEVILS RIVER AT PAFFORD CROSSING NEAR COMSTOCK, TEXAS
(ABOVE HEAD OF DEVILS BRANCH, AMISTAD RESERVOIR)

DESCRIPTION: Concrete control wall with rectangular notch opening of 900 second-foot capacity, cableway, bubbler gage, water-stage recorders (graphic & digital), and binary decimal transmitter located on the left bank at latitude 29°40'35", longitude 101°00'00", about 11.5 miles east of Comstock, Val Verde County, Texas, and 25.5 river miles from the confluence with the Rio Grande. The confluence is located at river mile 568.1, 0.6 river mile upstream from Amistad Dam, and 680.7 river miles downstream from American Dam at El Paso, Texas. The zero of the gage is 1,131.88 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 12 discharge measurements during the year, 11 by the United States Section and 1 by the Mexican Section of the Commission, a stable rating curve based on meter measurements, and a continuous record of gage heights. Records available: 1960 through 1975. Records are also available from May 1900 through March 1914 for a station 23.8 river miles downstream; from December 1923 through September 1932 for a station 22.8 river miles downstream; from September 2, 1932 through August 1957 for a station 21.0 river miles downstream; from August 7, 1954 through January 1958 for a station 5.4 river miles upstream; and from August 1954 through May 31, 1968 for a station at the mouth 24.7 river miles downstream. A graph of Devils River flow from 1871 through 1939 may be found in Water Bulletin No. 9.

REMARKS: At this station the flow of this spring-fed stream is very uniform during periods of dry weather and is not modified by diversions or storage. The transmitter relays gage height data upon interrogation from the Amistad Dam hydrographic office of the United States Section of the Commission and is also programmed to relay similar data to this same office at predetermined time intervals. Transmission is via radio.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 250,000 second-feet on September 18, 1974 with a gage height of 19.82 feet. Min. 48.6 second-feet on August 20, 1969.

Average Flow in Second-Feet

Daily:	Max. 123,000	Sept. 18, 1974	Min. 53.7	Aug. 20, 1969
Monthly:	Max. 8,460	Sept. 1974	Min. 64.3	August 1964
Yearly:	Max. 977	1974	Min. 99.9	1968

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	408	557	378	362	326	353	368	443	373	345	331	314
2	407	481	373	358	331	345	371	433	388	350	356	316
3	407	477	375	356	335	345	353	463	391	345	361	319
4	406	472	368	355	331	346	343	464	388	345	354	322
5	401	466	367	361	330	352	336	441	378	345	350	324
6	405	452	374	380	330	353	331	432	381	345	345	318
7	408	441	377	415	327	351	332	427	381	344	345	314
8	409	437	371	388	328	350	333	420	379	340	345	314
9	402	432	371	372	330	345	326	422	372	340	345	314
10	398	431	377	363	347	554	324	414	382	340	338	312
11	396	433	373	361	812	364	332	404	365	338	335	309
12	398	428	368	353	409	355	342	408	358	335	330	314
13	390	425	356	362	377	347	330	417	365	331	324	309
14	390	420	355	359	362	337	327	411	374	330	324	309
15	390	423	359	351	351	337	324	407	378	334	324	‡ 320
16	390	415	366	346	345	‡ 337	337	405	377	347	324	322
17	390	406	‡ 369	348	340	332	895	401	373	352	‡ 324	314
18	390	‡ 405	369	341	342	324	595	‡ 399	359	340	323	308
19	387	401	362	330	353	327	583	396	355	335	327	304
20	‡ 378	394	366	332	374	339	503	393	363	‡ 335	323	307
21	378	393	367	‡ 336	342	339	470	393	371	334	322	305
22	379	391	367	341	334	338	456	390	363	342	319	306
23	390	378	365	345	356	333	441	388	359	344	319	309
24	390	378	‡ 360	345	350	328	435	384	356	340	319	312
25	387	384	359	330	343	324	847	384	356	345	319	305
26	381	384	360	319	340	319	1,340	379	‡ 351	348	319	304
27	378	384	372	330	399	317	638	385	351	344	318	311
28	378	379	362	346	376	327	525	378	351	339	323	306
29	378		354	339	356	344	491	378	‡ 349	337	326	300
30	381		362	342	372	343	468	378	348	333	319	299
31	388		367		374		453	375		329		304
Sum	12,158	11,867	11,369	10,566	11,322	10,405	14,549	12,612	11,035	10,551	9,931	9,644

Month	Current Year 1975								Period 1960-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
			High		Low						
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.	2.02	1.92	31	428	22	373	392	24,115	12,355	24,115	4,647
Feb.	2.73	1.91	1	970	†22	367	424	23,538	10,481	23,538	3,999
Mar.	1.93	1.86	† 1	378	12	340	367	22,550	10,190	22,550	4,186
Apr.	2.14	1.82	6	481	†26	319	352	20,957	11,053	38,777	4,520
May	3.68	1.82	11	3,550	1	319	365	22,457	11,360	32,716	4,517
June	2.87	1.81	10	1,210	†19	314	347	20,638	16,379	54,328	4,259
July	3.34	1.82	25	2,330	†15	319	469	28,858	11,958	28,858	4,034
Aug.	2.17	1.92	† 3	495	†30	373	407	25,016	54,432	408,908	3,955
Sept.	2.04	1.86	4	437	23	340	368	21,888	59,795	503,506	5,000
Oct.	1.90	1.82	†16	362	31	319	340	20,928	19,612	50,845	5,004
Nov.	1.91	1.78	2	367	19	299	331	19,698	14,240	29,689	4,532
Dec.	1.83	1.77	† 4	324	†28	294	311	19,129	13,289	26,311	4,697
Yearly	3.68	1.77		3,550		294	373	269,772	245,144	707,092	72,494

‡ Discharge measurement made on this day † And other days

BIG SATAN CREEK NEAR COMSTOCK, TEXAS

In order to determine storm runoff formerly included with measured flows at a gaging station on the Devils River before its relocation upstream incident to the completion of Amistad Dam, a gaging station was established during 1968 on Big Satan Creek.

DESCRIPTION: Cableway, control weir, bubbler gage, and digital recorder located on the right bank of the creek at latitude 29°39'50", longitude 100°57'50", 1.1 miles upstream from its confluence with the Devils River, which is 21.2 river miles upstream from the Devils River confluence with the Rio Grande. The zero of the gage is 1,134.00 feet above mean sea level, U. S. C. & G. S. datum.
RECORDS: Based on current meter measurements, a continuous record of gage heights, and the weir discharge rating. Records available: May 1968 through 1975.
REMARKS: This creek is normally dry, its flow being confined to periods of storm runoff from its 42 square miles of watershed area. Only the days of flow are shown below.
EXTREME FLOWS FROM RECORDS: Momentary: Max. 56,100 second-feet on August 15, 1971 with a gage height of 12.31 feet. Maximum volumes: Monthly 12,204 acre-feet in August 1971; yearly, 12,525 acre-feet in 1971.

Mean Daily Discharge in Second-Feet 1975

Month and Day						
No flow during 1975						

Annual Summary

Month	Maximum Gage and Discharge			Total Acre-Feet
	Day	Feet	Second-Feet	

ROUGH CANYON NEAR DEL RIO, TEXAS

In order to determine storm runoff formerly included with measured flows at a gaging station on the Devils River before its relocation upstream incident to the completion of Amistad Dam, a gaging station was established during 1968 on Rough Canyon.

DESCRIPTION: Cableway, control weir, bubbler gage, and digital recorder located on the right bank at latitude 29°34'40", longitude 100°56'00", 3.9 miles upstream from its confluence with the Devils River which is 11.1 river miles upstream from the Devils River confluence with the Rio Grande. The zero of the gage is 1,129.00 feet above mean sea level, U. S. C. & G. S. datum.
RECORDS: Based on current meter measurements, a continuous record of gage heights, and the weir discharge rating. Records available: January 1968 through 1975.
REMARKS: This stream is normally dry, its flow being confined to periods of storm runoff from its 24 square miles of watershed area. Only the days of flow are shown below.
EXTREME FLOWS FROM RECORDS: Momentary: Max. 7,040 second-feet on August 12, 1972 with a gage height of 6.80 feet. Maximum volumes: Monthly, 8,230 acre-feet in August 1971; yearly, 8,232.2 acre-feet in 1971.

Mean Daily Discharge in Second-Feet 1975

Month and Day						
July 17	312	July 19	11.7			
18	257					

Annual Summary

Month	Maximum Gage and Discharge			Total Acre-Feet
	Day	Feet	Second-Feet	
July	17	3.21	1,590	1,152
Yearly		3.21	1,590	1,152

NORTH FORK SAN PEDRO CREEK NEAR DEL RIO, TEXAS

In order to determine storm runoff formerly included with measured flows at a gaging station on the Devils River before its relocation upstream incident to the completion of Amistad Dam, a gaging station was established during 1968 on the north fork of San Pedro Creek.

DESCRIPTION: Cableway, control weir, bubbler gage, and digital recorder located on the left bank of the creek at latitude 29°31'20", longitude 100°53'00", 3 miles upstream from its confluence with the Middle Fork Branch, which is 6.3 miles upstream from its confluence with Devils River, which itself is 4.5 river miles above the Devils River confluence with the Rio Grande. The zero of the gage is 1,126.92 feet above mean sea level, U. S. C. & G. S. datum.
RECORDS: Based on current meter measurements, a continuous record of gage heights, and the weir discharge rating. Records available: January 1968 through 1975.
REMARKS: This creek is normally dry, its flow being confined to periods of storm runoff from its 17 square miles of watershed area. Only the days of flow are shown below.
EXTREME FLOWS FROM RECORDS: Momentary: Max. 5,070 second-feet on August 12, 1972 with a gage height of 8.44 feet. Maximum volumes: Monthly, 3,403 acre-feet in October 1969; yearly, 4,061.7 acre-feet in 1969.

Mean Daily Discharge in Second-Feet 1975

Month and Day												
July 17	323	July 19	4.6									
18	401	20	.4									

Annual Summary

Month	Maximum Gage and Discharge			Total Acre-Feet
	Day	Feet	Second-Feet	
July	17	8.31	4,960	2,437
Yearly		8.31	4,960	2,437

MIDDLE FORK SAN PEDRO CREEK NEAR DEL RIO, TEXAS

In order to determine storm runoff formerly included with measured flows at a gaging station on the Devils River before its relocation upstream incident to the completion of Amistad Dam, a gaging station was established during 1968 on the middle fork of San Pedro Creek.

DESCRIPTION: Cableway, control weir, bubbler gage, and digital recorder located on the right bank of the creek at latitude 29°29'30", longitude 100°52'50", 3.2 miles upstream from its confluence with the North Fork Branch which is 6.3 miles above the confluence with Devils River which itself is 4.5 river miles above the Devils River confluence with the Rio Grande. The zero of the gage is 1,132.02 feet above mean sea level, U. S. C. & G. S. datum.
RECORDS: Based on current meter measurements, a continuous record of gage heights, and the weir discharge rating. Records available: December 1967 through 1975.
REMARKS: This creek is normally dry, its flow being confined to periods of storm runoff from its 12 square miles of watershed area. Only the days of flow are shown below.
EXTREME FLOWS FROM RECORDS: Momentary: Max. 10,200 second-feet on July 17, 1975 with a gage height of 5.84 feet. Maximum volumes: Monthly, 3,726 acre-feet in July 1975; yearly, 3,726 acre-feet in 1975.

Mean Daily Discharge in Second-Feet 1975

Month and Day												
July 17	1,390	July 19	20.7									
18	468											

Annual Summary

Month	Maximum Gage and Discharge			Total Acre-Feet
	Day	Feet	Second-Feet	
July	17	5.84	10,200	3,726
Yearly		5.84	10,200	3,726

EVANS CREEK NEAR COMSTOCK, TEXAS

In order to determine storm runoff formerly included with measured flows at a gaging station on the Devils River before its relocation upstream incident to the completion of Amistad Dam, a gaging station was established during 1968 on Evans Creek.

DESCRIPTION: Cableway, control weir, bubbler gage, and digital recorder located on the left bank of the creek at latitude 29°32'15", longitude 101°06'10", 11.0 miles upstream from its confluence with Devils River which is 3.2 miles upstream from the Devils River confluence with the Rio Grande. The zero of the gage is 1,162.54 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on current meter measurements, a continuous record of gage heights, and the weir discharge rating. Records available: December 1967 through 1975.

REMARKS: This creek is normally dry, its flow being confined to periods of storm runoff from its 74 square miles of watershed area. Only the days of flow are shown below.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 17,400 second-feet on June 12, 1971 with a gage height of 5.99 feet. Maximum volumes: Monthly, 9,281 acre-feet in August 1971; yearly, 14,404 acre-feet in 1971.

Mean Daily Discharge in Second-Feet 1975

Month and Day			
July 17 192	July 18 39.5		

Annual Summary

Month	Maximum Gage and Discharge			Total
	Day	Feet	Second-Feet	Acre-Feet
July	17	1.96	939	459
Yearly		1.96	939	459

CARMINA SPRINGS AT AMISTAD DAM NEAR CD. ACUNA, COAHUILA

DESCRIPTION: Cipolletti weir of 70.6 second-foot capacity and staff gage located on a creek that runs almost parallel to Amistad Dam, about 130 feet from the confluence with the Rio Grande, at latitude 29°26'50", longitude 101°03'35", and about 11.0 miles northwest of Cd. Acuna, Coahuila. This creek enters the Rio Grande from the Mexican side at river mile 567.3, 0.2 river mile downstream from Amistad Dam, 12.6 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 681.5 river miles downstream from American Dam at El Paso, Texas. The elevation of the zero of the gage has not been determined.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: 1969 through 1975.

REMARKS: At least six separate springs have emerged on the watershed of this small creek since operation of Amistad Dam began in May 1968. Prior to this time, flow in this creek was exclusively from storm runoff. All storm water from surface runoff passing this station is deducted and is not included in the tabulation below. On September 24, 1971, a flood destroyed part of the weir.

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	60.0	62.2	60.0	59.3	58.3	56.5	56.5	54.0	54.7	56.5	55.8	‡54.7
2	60.0	62.2	60.0	59.3	58.3	‡ 56.5	56.5	54.0	‡ 54.7	56.5	55.8	54.7
3	60.0	‡ 62.2	‡ 60.0	59.3	58.3	56.5	56.5	54.0	54.7	56.5	‡ 55.8	54.7
4	60.0	62.2	60.0	59.3	58.3	56.5	56.5	‡ 54.7	54.7	56.5	55.8	54.7
5	60.0	61.1	60.0	59.3	58.3	56.5	56.5	54.7	54.7	56.5	55.8	54.7
6	‡ 60.0	61.1	60.0	59.3	‡ 56.5	56.5	56.5	54.7	54.0	‡ 56.5	55.8	54.7
7	60.0	61.1	59.0	‡ 59.3	56.5	56.5	‡ 56.5	54.7	54.0	56.5	55.8	54.7
8	60.4	61.1	59.0	58.3	56.5	56.5	56.5	54.7	54.0	56.5	55.4	54.7
9	60.7	61.1	58.3	58.3	56.5	56.5	56.5	54.7	53.0	56.5	55.4	54.7
10	60.7	61.1	58.3	58.3	56.5	56.5	56.5	54.7	53.0	56.5	55.4	54.7
11	61.1	61.1	58.3	58.3	56.5	56.5	56.5	54.7	53.0	56.5	54.7	54.7
12	61.1	61.8	58.3	58.3	56.5	56.5	57.6	54.7	54.7	56.5	54.7	54.7
13	61.1	61.8	58.3	58.3	56.5	56.5	56.5	54.7	54.7	56.5	54.7	54.7
14	61.1	62.2	58.3	58.3	56.5	56.5	57.6	54.7	54.7	56.5	54.7	54.7
15	60.7	62.2	58.3	58.3	56.5	56.5	57.6	54.7	56.5	56.5	54.7	54.7
16	60.7	62.2	58.3	58.3	56.5	56.5	58.3	54.7	56.5	56.5	54.7	54.7
17	60.7	62.2	58.3	58.3	56.5	56.5	59.3	54.7	56.5	56.5	54.7	54.7
18	60.0	62.2	58.3	58.3	56.5	56.5	59.3	54.7	56.5	56.5	54.7	54.7
19	60.0	62.2	58.3	58.3	56.5	56.5	55.8	54.7	56.5	56.5	54.7	54.7
20	60.0	62.2	58.3	58.3	56.5	56.5	53.0	54.7	56.5	56.5	54.7	54.7
21	60.0	61.1	58.3	59.3	56.5	56.5	53.0	54.7	56.5	56.5	54.7	54.7
22	60.0	61.1	58.3	59.3	56.5	56.5	53.0	54.7	56.5	56.5	54.7	54.7
23	60.0	60.0	58.3	59.3	56.5	57.6	53.0	54.7	56.5	56.5	54.7	54.7
24	60.0	59.3	58.3	59.3	56.5	57.6	53.0	54.7	56.5	56.5	54.7	54.7
25	60.0	60.0	59.3	59.3	56.5	57.6	53.0	54.7	56.5	56.5	54.7	54.7
26	60.0	60.0	59.3	59.3	56.5	57.6	53.0	54.7	56.5	56.5	54.7	54.7
27	60.0	60.0	59.3	59.3	56.5	57.6	53.0	54.7	56.5	56.5	54.7	54.7
28	60.0	60.0	59.3	58.3	56.5	58.3	53.0	54.7	56.5	56.5	54.7	54.7
29	60.0		59.3	58.3	56.5	58.3	53.0	54.7	56.5	56.2	54.7	54.7
30	60.0		59.3	58.3	56.5	58.3	53.0	54.7	56.5	56.2	54.7	54.7
31	60.0		59.3		56.5		54.0	54.7		55.8		54.7
Sum	1,717.0		1,783.0		1,705.9		1,693.6		1,750.2		1,695.7	
	1,868.3	1,825.9		1,760.5		1,720.5		1,662.0		1,650.8		

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	ø Extreme Second-Feet Day	High	Day	Low	Average Second-Feet	Total Acre-Feet	Period 1969-1975: Acre-Feet Average	Maximum	Minimum
Jan.			†11	61.1	† 1	60.0	60.4	3,707	2,147	3,707	364
Feb.			† 1	62.2	24	59.3	61.4	3,405	1,988	3,405	373
Mar.			† 1	60.0	† 9	58.3	59.0	3,621	2,105	3,621	525
Apr.			† 1	59.3	† 8	58.3	58.6	3,497	2,031	3,497	620
May			† 1	58.3	† 6	56.5	56.9	3,492	2,051	3,492	709
June			†28	58.3	† 1	56.5	56.9	3,383	1,974	3,383	593
July			†17	59.3	†20	53.0	55.4	3,412	2,000	3,412	533
Aug.			† 4	54.7	† 1	54.0	54.7	3,361	2,150	3,361	540
Sept.			†15	56.5	† 9	53.0	55.4	3,299	2,247	3,377	593
Oct.			† 1	56.5	31	55.8	56.5	3,471	2,478	3,810	830
Nov.			† 1	55.8	†11	54.7	55.1	3,276	2,432	3,685	964
Dec.			† 1	54.7	† 1	54.7	54.7	3,366	2,533	3,788	1,077
Yearly				62.2		53.0	57.2	41,290	26,136	41,290	9,030

‡ Discharge measurement made on this day ø Mean daily † And other days

LOURDES, HILDA, ERNESTINA, AND ROSITA SPRINGS NEAR CD. ACUNA, COAHUILA

LOURDES SPRING

DESCRIPTION: Rectangular sharp-crested weir of 28.8 second-foot capacity and staff gage located at latitude 29°26'35", longitude 101°03'30", at the base of the high bank of the Rio Grande, and about 11.1 miles northwest of Cd. Acuna, Coahuila. This creek enters the Rio Grande from the Mexican side at river mile 566.9, 12.2 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 681.9 river miles downstream from American Dam at El Paso, Texas. The zero of the gage is 926.28 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: 1969 through 1975.

REMARKS: This spring emerged since operation of Amistad Dam began in May 1968. All storm water from surface runoff passing this station is deducted. The daily flow throughout the year ranged from 1.4 to 2.1 second-feet and averaged 1.8 second-feet. The volume for the year amounted to 1,288.6 second-feet.

HILDA SPRING

DESCRIPTION: Rectangular sharp-crested weir of 53.0 second-foot capacity and staff gage located at latitude 29°26'20", longitude 101°03'35", about 328 feet from the confluence with the Rio Grande, and about 11.0 miles northwest of Cd. Acuna, Coahuila. This creek enters the Rio Grande from the Mexican side at river mile 566.7, 11.8 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 682.1 river miles downstream from American Dam at El Paso, Texas. The zero of the gage is 903.14 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: 1969 through 1975.

REMARKS: This spring emerged since operation of Amistad Dam began in May 1968. All storm water from surface runoff passing this station is deducted. The daily flow throughout the year ranged from 2.8 to 4.2 second-feet and averaged 3.9 second-feet. The volume for the year amounted to 2,711 acre-feet.

ERNESTINA SPRING

DESCRIPTION: A 90° V-notch weir of 1.4 second-foot capacity and staff gage located at the spring on the right bank of Arroyo del Buey about 100 feet from the right bank of the Rio Grande at latitude 29°24'20", longitude 101°02'15", and about 8.5 miles northwest of Cd. Acuna, Coahuila. This spring enters the Rio Grande at river mile 564.0, 9.3 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, 3.5 river miles downstream from Amistad Dam, and 684.8 river miles downstream from the American Dam at El Paso, Texas. The elevation of the zero of the gage has not been determined.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: November 7, 1961 through 1975.

REMARKS: The flow of this spring is small and very uniform except during periods of very heavy rainfall, at which time the capacity of the weir may be exceeded. The daily flow and the monthly average throughout the year ranged from 0.071 to 0.141 second-foot, or 32 to 63 gallons per minute. The volume for the year amounted to 62.8 acre-feet. Waters from this spring have a high sulphur content.

ROSITA SPRING

DESCRIPTION: Cipolletti weir of 3.5 second-foot capacity and staff gage located at the spring about 65 feet from the right bank of the Rio Grande at latitude 29°21'55", longitude 101°00'25", and about 5.5 miles northwest of Cd. Acuna, Coahuila. This spring, located in Mexico, enters the Rio Grande at river mile 560.4, 5.7 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, 7.1 river miles downstream from Amistad Dam, and 688.4 river miles downstream from the American Dam at El Paso, Texas. The elevation of the zero of the gage has not been determined.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: November 17, 1961 through 1975.

REMARKS: The flow of this spring is very uniform during periods of dry weather and is not modified by diversions or storage. The daily flow and the monthly average throughout the year ranged from 0.035 to 0.212 second-foot, or 16 to 95 gallons per minute. The volume for the year amounted to 91.7 acre-feet.

RIO GRANDE BELOW AMISTAD DAM, NEAR DEL RIO, TEXAS

DESCRIPTION: Cableway, gravity well, concrete control weir, and water-stage recorders (graphic and digital), and binary decimal transmitter located on the left bank at latitude 29°25'30", longitude 101°02'20", and river mile 569.3, 2.2 river miles downstream from Amistad Dam, 10.6 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 563.5 river miles downstream from American Dam at El Paso, Texas. The zero of the gage is 898.94 feet above mean sea level, U.S.C. & G.S. datum.

RECORDS: Based on 23 discharge measurements during the year, 12 by the Mexican Section and 11 by the United States Section of the Commission, and a continuous record of gage heights. Computations for high flows by shifting control methods. Low and medium flow computations based on a stable control weir rating curve defined by meter measurements. Records available: September 1954 through 1975. Records are also available from May 1900 through April 1915 for a station 1.9 miles upstream; from December 1919 through March 1920 for a station 1.7 miles downstream near McKee's Switch; from July 2, 1941 through August 1954, and October 1960 through 1967 for a station at the international highway bridge; and from December 1923 through July 2, 1941, and 1968 through 1975 for a station approximately 10.4 miles downstream.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. On May 31, 1969, Amistad Dam started impounding water. After this day, flow at this station is controlled largely by releases from Amistad Reservoir, 2.3 river miles upstream. The transmitter relays gage height data upon interrogation by telephone via private line to the Amistad office.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 1,158,000 second-feet on June 23, 1954, determined by slope-area computation, with a gage height of 55.72 feet at the old station site 500 feet downstream. This is the greatest rate of discharge recorded at any point on the Rio Grande. Max. since Amistad Dam, 62,200 second-feet on Sept. 21, 1974. Min. 48.0 second-feet on Dec. 21, 1963 with a gage height of 1.20 feet.

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2,180	2,530	2,930	3,990	7,350	1,800	780	4,100	1,950	766	5,300	246
2	2,180	2,540	2,950	2,370	7,350	1,800	766	4,100	1,950	766	5,300	246
3	2,170	2,550	2,980	2,400	7,350	1,800	872	4,100	1,950	766	5,260	246
4	2,170	2,550	3,440	2,330	7,310	1,370	1,060	4,060	1,980	766	5,260	246
5	2,160	2,540	4,030	4,030	7,310	1,010	1,060	4,060	1,970	766	5,260	246
6	1,830	2,530	4,030	4,030	4,380	1,040	1,060	4,060	1,950	766	5,260	246
7	1,330	2,550	4,030	4,030	1,920	1,040	1,060	4,060	1,950	766	5,260	246
8	1,360	2,550	4,030	4,030	1,920	1,050	1,060	4,060	1,950	766	5,190	246
9	1,360	2,550	4,030	4,030	1,920	1,060	1,050	4,060	1,950	766	5,190	246
10	1,370	2,980	4,030	4,030	1,920	1,050	1,060	4,060	1,950	766	5,190	246
11	1,380	3,530	4,030	4,030	1,920	1,050	1,060	4,060	‡ 1,530	766	5,190	246
12	1,380	3,530	4,030	4,030	2,000	1,050	1,070	4,060	1,210	749	3,710	246
13	1,380	3,530	4,030	4,030	1,320	1,050	1,070	2,910	2,720	2,070	1,260	246
14	1,470	3,570	4,030	6,070	1,320	1,050	1,450	1,990	4,060	3,030	1,310	246
15	1,700	3,570	4,030	7,030	‡ 1,320	1,050	1,770	1,990	4,060	3,040	1,230	246
16	‡ 1,700	3,510	4,030	7,450	1,320	1,050	1,880	1,990	2,840	3,040	1,230	246
17	1,690	3,510	4,030	7,450	1,320	1,040	2,330	1,990	1,950	3,040	1,230	246
18	1,700	3,520	3,990	‡ 7,450	1,320	1,040	3,050	‡ 2,930	1,950	3,040	1,230	‡ 246
19	1,700	3,100	4,030	7,450	1,320	‡ 1,030	3,030	4,060	1,950	3,040	1,230	246
20	1,640	‡ 2,600	‡4,030	7,450	1,320	1,050	3,030	4,060	1,940	3,040	‡1,230	246
21	1,780	2,680	4,030	7,400	1,310	1,050	3,530	4,060	1,940	3,040	1,230	246
22	1,910	2,930	4,030	7,450	‡ 1,800	1,050	3,900	3,670	1,940	3,040	1,230	246
23	1,910	2,970	3,990	7,450	1,770	1,050	3,990	3,080	1,550	3,040	1,260	246
24	1,910	2,980	3,900	7,450	1,770	1,050	3,990	3,080	1,040	3,040	830	246
25	1,910	2,900	3,900	7,450	1,770	1,050	‡ 2,900	3,030	‡ 1,040	5,330	261	246
26	1,910	1,830	3,990	7,380	1,770	893	4,100	2,450	1,040	5,300	261	‡ 246
27	1,910	3,270	3,990	7,380	1,800	766	4,100	1,950	1,040	5,300	‡ 252	246
28	2,070	3,920	3,900	7,380	1,800	766	4,100	‡ 1,950	1,040	5,300	246	246
29	2,520		3,900	7,380	1,800	766	4,100	1,950	1,040	5,300	246	459
30	2,510		3,990	7,380	1,800	766	4,100	1,950	766	‡5,300	246	1,150
31	2,520		3,990		1,800		‡ 4,100	1,950		5,300		1,150
Sum	56,730	83,380	120,590	172,500	82,400	32,687	72,533	99,080	56,196	82,405	77,382	9,647

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1968-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	1.80	1.26	29	2,520	† 6	1,330	1,830	112,570	57,607	112,570	5,318
Feb.	2.70	.30	28	6,140	25	102	2,980	165,391	129,065	467,202	12,467
Mar.	2.26	1.94	† 4	4,030	1	2,930	3,880	239,030	84,618	239,030	7,271
Apr.	3.15	.30	14	7,700	2	102	5,760	342,129	94,945	342,129	27,570
May	3.08	1.25	† 1	7,350	†13	1,290	2,660	163,507	137,137	237,405	24,137
June	1.51	.95	† 1	1,800	†25	766	1,090	64,855	105,916	260,436	16,418
July	2.30	.36	†25	4,100	25	138	2,340	143,887	83,237	143,887	23,182
Aug.	2.30	1.57	3	4,130	†26	1,950	3,220	198,061	90,250	198,061	15,589
Sept.	2.26	.95	†13	4,060	†29	766	1,870	111,442	243,792	1,280,079	17,606
Oct.	2.62	.95	25	5,370	†11	749	2,660	163,423	160,292	312,596	3,734
Nov.	2.59	.46	† 1	5,300	30	227	2,580	153,548	110,797	502,295	4,539
Dec.	1.18	.46	†29	1,150	5	229	311	19,153	57,074	216,286	4,859
Yearly	3.15	0.30		7,700		102	2,590	1,876,990	1,374,640	3,566,066	416,783

‡ Discharge measurement made on this day † And other days

SPRING M-15 AND SPRING M-5 NEAR CD. ACUNA, COAHUILA

SPRING M-15

DESCRIPTION: Rectangular sharp-crested weir of 8.1 second-foot capacity and staff gage located at latitude 29°25'10", longitude 101°02'45", about 1300 feet from the confluence with the Rio Grande, and about 9.4 miles northwest of Cd. Acuna, Coahuila. This creek enters the Rio Grande from the Mexican side at river mile 565.0, 10.3 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 683.8 river miles downstream from American Dam at El Paso, Texas. The zero of the gage is 925.13 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: 1969 through 1975.

REMARKS: This spring emerged since operation of Amistad Dam began in May 1968. All storm water from surface runoff passing this station is deducted and is not included in the tabulation below.

Current Year 1975									Period 1969-1975		
Month	Extreme Gage Feet		ø Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
				High		Low					
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.			† 1	1.8	† 1	1.8	1.8	109	76.2	131	21.1
Feb.			† 1	1.8	†16	1.4	1.8	89.2	69.7	123	19.5
Mar.			† 1	1.4	† 1	1.4	1.4	86.7	68.9	122	21.9
Apr.			† 1	1.4	† 1	1.4	1.4	84.3	67.3	105	21.1
May			† 1	1.4	†20	1.1	1.4	78.6	73.0	109	21.9
June			† 1	1.1	† 1	1.1	1.1	63.2	55.9	96.5	21.1
July			†30	1.4	† 1	1.1	1.1	66.5	57.6	99.7	21.1
Aug.			† 1	1.4	† 1	1.4	1.4	86.7	66.5	122	0
Sept.			† 1	1.4	† 1	1.4	1.4	84.3	66.5	105	0
Oct.			† 1	1.4	† 1	1.4	1.4	86.7	71.3	117	0
Nov.			† 1	1.4	† 1	1.4	1.4	84.3	76.2	124	21.1
Dec.			†19	1.8	† 1	1.4	1.4	95.7	81.9	131	21.9
Yearly				1.8		1.1	1.4	1,015.2	831.0	1,362.2	257.2

SPRING M-5

DESCRIPTION: Rectangular sharp-crested weir of 17.7 second-foot capacity and staff gage located at latitude 29°25'05", longitude 101°02'35", at the base of the high bank of the Rio Grande, and about 9.2 miles northwest of Cd. Acuna, Coahuila. This creek enters the Rio Grande from the Mexican side at river mile 564.8, 10.1 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 684.0 river miles downstream from American Dam at El Paso, Texas. The zero of the gage is 932.38 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: 1969 through 1975.

REMARKS: This spring emerged since operation of Amistad Dam began in May 1968. All storm water from surface runoff passing this station is deducted and is not included in the tabulation below.

Current Year 1975									Period 1969-1975		
Month	Extreme Gage Feet		ø Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
				High		Low					
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.			† 1	2.8	† 1	2.8	2.8	173	139	173	86.7
Feb.			† 1	2.8	† 1	2.8	2.8	157	124	157	78.6
Mar.			† 1	2.8	† 1	2.8	2.8	173	131	173	64.9
Apr.			† 1	2.8	† 1	2.8	2.8	168	127	168	63.2
May			† 1	2.8	† 1	2.8	2.8	173	133	173	64.9
June			† 1	2.8	† 1	2.8	2.8	168	122	168	63.2
July			† 1	2.8	† 1	2.8	2.8	173	120	173	43.8
Aug.			† 1	2.8	† 1	2.8	2.8	173	129	173	43.8
Sept.			† 1	2.8	† 1	2.8	2.8	168	128	168	42.2
Oct.			† 1	2.8	† 1	2.8	2.8	173	135	173	43.8
Nov.			† 1	2.8	† 1	2.8	2.8	168	132	168	63.2
Dec.			† 1	2.8	† 1	2.8	2.8	173	136	173	64.9
Yearly				2.8		2.8	2.8	2,040	1,556	2,040	723.2

ø Mean daily † And other days

ARROYO JABONCILLOS NEAR CD. ACUNA, COAHUILA

DESCRIPTION: Cipolletti weir of 70.6 second-foot capacity and staff gage located at latitude 29°24'25", longitude 101°02'25", about 660 feet from the confluence with the Rio Grande, and about 8.6 miles northwest of Cd. Acuna, Coahuila. This creek enters the Rio Grande from the Mexican side at river mile 564.5, 9.8 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 684.3 river miles downstream from American Dam at El Paso, Texas. The elevation of the zero of the gage has not been determined.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: 1969 through 1975.

REMARKS: At least 9 separate springs have emerged along this creek since operation of Amistad Dam began in May 1968. Prior to this time, flow in this creek was exclusively from storm runoff. All storm water from surface runoff passing this station is deducted and is not included in the tabulation below.

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	77.0	79.5	74.5	72.4	71.3	70.3	69.6	70.3	68.9	68.9	70.3	‡70.2
2	77.0	80.2	74.5	71.7	71.3	‡ 70.3	69.9	68.9	‡ 68.9	68.9	69.9	68.9
3	76.6	‡ 80.2	‡ 74.5	71.3	71.3	70.3	68.9	68.9	68.9	69.2	‡ 70.3	68.9
4	75.9	79.5	74.5	72.0	71.3	70.3	67.4	71.3	68.9	69.2	69.6	68.9
5	75.9	77.7	74.5	72.0	69.6	70.3	67.1	71.3	68.9	69.6	69.6	68.9
6	‡ 75.9	77.3	74.9	72.0	‡ 68.9	70.3	67.1	70.3	68.9	‡ 69.6	69.6	70.2
7	75.9	77.0	74.9	‡ 73.4	69.2	70.3	‡ 65.7	68.9	68.9	69.6	69.6	70.2
8	75.9	76.6	75.2	73.4	70.3	70.3	67.1	68.9	68.9	69.9	68.9	70.2
9	75.9	75.9	75.2	72.7	70.3	68.9	67.1	68.9	68.9	69.9	68.9	70.2
10	77.0	75.9	75.2	73.4	72.0	68.9	67.1	68.9	68.9	69.9	69.6	70.2
11	77.3	75.2	75.2	72.7	71.3	68.9	67.1	70.3	68.9	70.3	69.6	70.2
12	77.7	74.5	75.2	72.7	70.3	68.9	68.9	70.3	68.9	70.3	69.6	70.2
13	78.4	75.2	74.9	73.4	69.6	68.9	68.9	70.3	68.9	70.3	69.6	70.2
14	78.4	75.2	74.9	74.5	68.9	68.9	69.6	70.3	68.9	70.3	69.6	70.2
15	78.0	75.2	74.5	74.5	68.2	68.5	68.9	70.3	68.9	70.3	69.6	70.2
16	77.7	74.5	74.5	74.5	67.1	68.2	71.3	70.3	68.9	70.3	69.6	71.3
17	77.7	75.2	74.5	74.5	67.1	68.2	73.4	70.3	68.9	70.3	70.3	69.6
18	77.3	74.5	74.5	73.4	67.1	67.1	75.9	68.9	68.9	70.3	70.3	68.9
19	77.3	74.5	74.5	72.4	67.1	67.1	77.0	68.9	68.9	70.3	70.3	69.6
20	77.3	74.5	74.5	72.0	67.1	67.1	77.0	68.9	68.9	70.3	68.9	69.6
21	77.3	74.5	74.5	73.4	68.9	67.1	75.2	68.9	68.9	70.6	68.9	69.6
22	77.0	73.5	73.5	73.4	69.6	67.1	77.0	68.9	68.9	72.7	68.9	69.6
23	77.0	72.0	73.1	73.4	69.6	67.1	75.2	68.9	68.9	71.0	68.9	71.3
24	77.0	74.5	71.7	73.4	69.6	67.1	74.5	68.9	68.9	69.6	68.9	71.3
25	77.0	74.5	74.5	73.4	69.6	67.1	74.5	68.9	68.9	73.5	68.9	71.3
26	75.9	74.5	74.2	72.7	69.6	67.1	72.0	68.9	68.9	73.5	68.9	70.3
27	75.6	74.5	74.2	72.7	69.6	67.1	72.0	68.9	68.9	72.7	69.6	70.3
28	75.6	74.5	73.8	72.7	69.6	67.1	72.7	68.9	68.9	72.4	70.3	70.3
29	75.6		73.8	72.7	69.6	67.1	70.2	68.9	68.9	71.3	69.6	70.3
30	76.3		73.8	72.4	69.6	67.1	72.0	68.9	68.9	70.3	68.2	71.3
31	74.9		73.8		70.3		71.3	68.9		70.3		71.3
Sum	2,379.3	2,120.8	2,306.0	2,189.1	2,154.9	2,053.0	2,201.6	2,153.3	2,067.0	2,185.6	2,084.8	2,173.7

Month	Current Year 1975								Period 1969-1975		
	Extreme Gage Feet		∅ Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
	High	Low	High Day	High	Low Day	Low			Average	Maximum	Minimum
Jan.			‡13	78.4	31	74.9	76.6	4,720	2,794	4,720	349
Feb.			† 2	80.2	23	72.0	75.6	4,207	2,531	4,207	381
Mar.			† 8	75.2	24	71.7	74.5	4,574	2,755	4,574	526
Apr.			†14	74.5	3	71.3	73.1	4,345	2,627	4,345	636
May			10	72.0	†16	67.1	69.6	4,273	2,621	4,356	721
June			† 1	70.3	†18	67.1	68.5	4,071	2,469	4,071	678
July			†19	77.0	7	65.7	71.0	4,367	2,576	4,367	769
Aug.			† 4	71.3	† 2	68.9	69.6	4,269	2,735	4,269	782
Sept.			† 1	68.9	† 1	68.9	68.9	4,097	2,907	* 4,417	782
Oct.			†25	73.5	† 1	68.9	70.6	4,334	3,304	" 5,211	1,097
Nov.			† 1	70.3	30	68.2	69.6	4,133	3,240	4,847	1,282
Dec.			†16	71.3	† 2	68.9	70.3	4,313	3,344	4,709	1,398
Yearly				80.2		65.7	71.3	51,703	33,903	51,839	9,850

‡ Discharge measurement made on this day ∅ Mean daily † And other days
* Partly estimated " Estimated

ARROYO DEL BUEY AND ARROYO DE LA TREINTA Y UNA NEAR CD. ACUNA, COAHUILA

ARROYO DEL BUEY

DESCRIPTION: Cipolletti weir of 35.3 second-foot capacity, located at latitude 29°24'20", longitude 101°02'25", 0.2 creek mile from the confluence with the Rio Grande, and about 8.5 miles northwest of Cd. Acuna, Coahuila. This stream enters the Rio Grande from the Mexican side at river mile 564.0, 3.5 river miles downstream from Amistad Dam, 9.3 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 684.8 river miles downstream from the American Dam at El Paso, Texas. The elevation of the zero of the gage has not been determined.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: November 1961 through 1975.

REMARKS: The flow of this stream is not modified by diversions or storage. Prior to 1969 discharges were based on a continuous record of gage heights and the weir discharge table. Storm flow is deducted and not included in the tabulation below. This station was established for investigational purposes in connection with Amistad Dam to determine what effect storage in Amistad Reservoir will have on the flow of this stream. At approximately 0.3 creek mile upstream from the weir four springs have emerged since Amistad Reservoir storage began. Backwater from the Rio Grande will affect the flow of this stream when the flow in the river is approximately 20,000 second-feet.

Current Year 1975									Period # Nov. 1961-1975		
Month	Extreme Gage Feet		∅ Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
	High	Low	High		Low				** Average	Maximum	Minimum
			Day		Day						
Jan.			† 6	7.1	† 1	6.7	7.1	430	237	528	6.8
Feb.			† 1	7.1	†18	6.7	7.1	384	213	477	5.4
Mar.			†29	7.1	† 1	6.7	6.7	414	229	520	9.3
Apr.			† 1	7.1	† 1	7.1	7.1	420	270	540	6.3
May			† 1	7.1	†20	6.4	6.7	406	282	544	10.9
June			† 1	6.4	† 1	6.4	6.4	379	246	492	6.3
July			†28	7.1	† 1	6.4	6.7	405	225	503	6.5
Aug.			† 1	7.1	31	6.4	6.7	416	253	517	6.7
Sept.			† 1	6.4	† 1	6.4	6.4	379	272	493	6.6
Oct.			† 1	6.4	† 1	6.4	6.4	391	298	544	6.5
Nov.			† 1	6.4	† 1	6.4	6.4	379	253	515	6.3
Dec.			† 1	6.4	† 1	6.4	6.4	391	251	538	6.5
Yearly				7.1		6.4	6.7	4,794	3,029	6,031	216.8

ARROYO DE LA TREINTA Y UNA

DESCRIPTION: Cipolletti weir of 35.3 second-foot capacity, located at latitude 29°22'40", longitude 101°01'10", 0.6 creek mile from the confluence with the Rio Grande, and about 6.5 miles northwest of Cd. Acuna, Coahuila. This stream enters the Rio Grande from the Mexican side at river mile 561.2, 6.3 river miles downstream from Amistad Dam, 6.5 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 687.6 river miles downstream from the American Dam at El Paso, Texas. The elevation of the zero of the gage has not been determined.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: May 1961 through 1975.

REMARKS: The flow of this stream is very uniform during periods of dry weather and is not modified by diversions or storage. Prior to 1969 discharges were based on a continuous record of gage heights and the weir discharge table. Storm flow is deducted and not included in tabulation below. This station was established for investigational purposes in connection with Amistad Dam to determine what effect storage in Amistad Reservoir will have on the flow of this stream. It is estimated that backwater from the Rio Grande will affect the flow at this station only during times of extremely high releases.

Current Year 1975									Period # May 1961-1975		
Month	Extreme Gage Feet		∅ Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
	High	Low	High		Low				** Average	Maximum	Minimum
			Day		Day						
Jan.			† 1	4.2	†23	3.9	4.2	255	131	232	15.2
Feb.			† 1	3.9	† 1	3.9	3.9	216	120	257	13.9
Mar.			†30	4.2	† 1	3.5	3.9	233	133	327	14.2
Apr.			† 1	4.2	†23	3.9	4.2	246	150	302	10.5
May			† 1	3.9	† 1	3.9	3.9	239	139	261	5.9
June			† 1	3.9	†11	3.5	3.5	217	124	254	4.2
July			†29	4.2	† 1	3.5	3.9	233	119	250	0
Aug.			† 1	4.2	† 1	4.2	4.2	260	128	276	0
Sept.			† 1	4.2	† 1	4.2	4.2	252	153	257	13.1
Oct.			† 1	3.9	† 1	3.9	3.9	239	162	282	12.1
Nov.			†13	4.2	† 1	3.9	3.9	240	143	273	14.2
Dec.			† 1	4.2	†17	3.9	4.2	250	144	282	15.2
Yearly				4.2		3.5	3.9	2,880	1,656	3,264	250.4

∅ Mean daily † And other days # Some months missing ** See explanation in REMARKS above

MARIS SPRING NEAR CD. ACUNA, COAHUILA

DESCRIPTION: Cipolletti weir of 100 second-foot capacity and staff gage located at the spring about 100 feet from the right bank of the Rio Grande at latitude 29°24'00", longitude 101°01'55", and about 8 miles northwest of Cd. Acuna, Coahuila. This spring enters the Rio Grande at river mile 563.5, 8.8 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, 4.0 river miles downstream from Amistad Dam, and 685.3 river miles downstream from the American Dam at El Paso, Texas. The elevation of the zero of the gage has not been determined.

RECORDS: Based on periodic staff gage readings and the weir discharge table. Mean daily discharges determined by prorating between readings. Records available: November 14, 1961 through 1975.

REMARKS: The flow of this spring is very uniform during periods of dry weather and is not modified by diversions or storage. This station was established for investigational purposes in connection with Amistad Dam to determine what effect storage in Amistad Reservoir will have on the flow of this spring. All storm water from surface runoff passing this station is deducted and is not included in the tabulation below. Prior to May 1969 the weir had an 11.1 second-foot capacity.

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.2	14.1	13.4	12.0	11.3	10.9	10.6	18.7	12.7	9.9	9.5	‡ 8.5
2	15.2	14.1	13.1	12.0	11.3	‡ 10.9	10.6	18.7	‡ 12.7	9.9	9.5	8.5
3	24.8	‡ 14.1	‡ 13.1	12.0	11.3	10.9	10.6	18.7	12.7	9.9	‡ 9.5	8.5
4	14.8	14.1	13.1	12.0	11.3	10.9	10.6	‡ 10.8	12.0	9.5	9.5	8.5
5	14.8	14.1	13.1	12.0	11.3	10.9	10.6	10.8	12.0	9.5	9.5	8.5
6	‡ 14.8	14.1	13.1	12.0	‡ 11.3	10.9	10.6	18.7	12.0	‡ 9.5	9.5	8.1
7	14.5	14.1	13.1	‡ 12.0	11.3	10.6	‡ 10.6	18.0	12.0	9.5	9.9	8.1
8	14.5	14.1	13.1	12.0	11.3	10.6	10.6	18.0	11.7	9.5	9.9	8.1
9	14.5	14.1	13.1	12.0	11.3	10.6	10.6	17.7	11.7	9.5	9.9	8.1
10	14.5	14.1	13.1	12.0	11.3	10.6	10.6	17.7	11.7	9.9	9.9	8.1
11	14.5	14.1	13.1	12.0	11.3	10.6	10.6	16.6	11.3	9.9	9.5	8.1
12	14.5	14.1	12.7	12.0	11.3	10.6	10.6	16.6	11.3	9.9	9.2	8.1
13	14.5	13.8	12.7	12.0	11.3	10.6	10.6	16.6	10.9	9.9	9.2	7.8
14	14.5	13.8	12.7	12.0	11.3	10.9	10.6	16.6	10.9	9.9	9.2	7.8
15	14.5	13.8	12.7	12.0	11.3	10.9	9.9	15.9	10.9	9.9	8.5	7.8
16	14.5	13.8	12.7	12.0	11.3	10.9	9.9	15.2	10.9	9.9	8.8	7.4
17	14.5	13.8	12.7	12.0	11.3	10.9	9.9	15.2	10.9	9.9	8.8	7.4
18	14.5	13.8	12.7	12.0	11.3	10.9	9.9	14.8	10.9	9.5	8.8	7.4
19	14.5	13.8	12.7	11.7	11.3	10.9	9.9	14.8	10.6	9.5	8.5	7.4
20	14.1	13.8	12.7	11.7	11.3	10.9	9.9	14.8	10.6	9.5	8.5	7.4
21	14.1	13.8	12.7	11.3	11.3	10.9	21.2	14.8	10.6	9.5	8.5	7.1
22	14.1	13.8	12.7	11.3	11.3	10.9	20.8	14.5	10.6	9.5	8.5	7.1
23	14.1	13.8	12.7	11.3	10.9	10.6	20.8	13.8	10.6	9.5	8.5	6.7
24	14.1	13.8	12.0	11.3	10.9	10.6	19.8	13.8	10.6	9.5	8.5	6.7
25	13.8	13.8	12.0	11.3	10.9	10.6	19.8	13.8	10.6	9.5	8.5	6.7
26	13.8	13.8	12.0	11.3	10.9	10.6	19.8	13.8	10.6	9.5	8.5	6.7
27	13.8	13.8	12.0	11.3	10.9	10.6	19.8	13.8	10.6	9.5	8.5	6.7
28	13.8	13.8	12.0	11.3	10.9	10.6	19.8	13.8	9.9	9.5	8.5	6.7
29	13.8		12.0	11.3	10.9	10.6	19.8	13.8	9.9	9.5	8.5	6.7
30	13.8		12.0	11.3	10.9	10.6	19.8	13.8	9.9	9.5	8.5	6.7
31	14.1		12.0		10.9		19.1	13.8		9.5		6.7
Sum	445.5	399.0	392.8	352.4	346.7	322.5	428.3	496.4	334.3	298.9	270.9	234.1

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	∅ Extreme Second-Feet High Day	High	∅ Extreme Second-Feet Low Day	Low	Average Second-Feet	Total Acre-Feet	Period # Dec. 1961-1975 Acre-Feet ** Average	Maximum	Minimum
Jan.			† 1	15.2	†25	13.8	14.5	884	433	934	4.4
Feb.			† 1	14.1	†13	13.8	13.8	773	378	843	4.1
Mar.			1	13.4	†24	12.0	12.7	779	309	823	4.9
Apr.			† 1	12.0	†21	11.3	11.7	699	303	878	4.2
May			† 1	11.3	†23	10.9	11.3	688	484	972	8.7
June			† 1	10.9	† 7	10.6	10.9	641	430	917	6.0
July			21	21.2	†15	9.9	13.8	849	428	977	7.9
Aug.			† 4	19.8	†23	13.8	15.9	984	456	1,064	6.2
Sept.			1	12.7	28	9.9	11.3	663	565	1,111	5.4
Oct.			† 1	9.9	† 4	9.5	9.5	584	582	1,320	4.6
Nov.			† 8	9.9	†19	8.5	9.2	537	567	1,333	4.2
Dec.			† 1	8.5	†23	6.7	7.4	465	480	1,187	4.4
Yearly				21.2		6.7	11.7	8,556	5,475	11,421	146.2

∅ Mean daily † And other days # Some months missing ** See explanation in REMARKS above
‡ Discharge measurement made on this day

EIGHT MILE CREEK NEAR DEL RIO, TEXAS

DESCRIPTION: Concrete wall with 90° V-notch weir of 6.9 second-foot capacity, bubbler gage, and water-stage recorder located on the left bank at latitude 29°24'05", longitude 101°00'55", 0.8 creek mile from the confluence with the Rio Grande, and about 8 miles northwest of Del Rio, Texas. This stream enters the Rio Grande from the United States side at river mile 562.9, 4.6 river miles downstream from Amistad Dam, 8.2 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 685.9 river miles downstream from the American Dam at El Paso, Texas. The elevation of the zero of the gage has not been determined.

RECORDS: Based on a continuous record of gage heights and the weir discharge table. Records available: March 1961 through 1975.

REMARKS: The source of flow of this stream is from surface runoff during rainy periods and the subsequent flow from underground seepage as a result of such rains. All storm water from surface runoff passing this station is deducted and is not included in the tabulation below. This station was established for investigational purposes in connection with Amistad Dam to determine what effect storage in Amistad Reservoir may have have on the flow of this stream.

EXTREME FLOWS FROM RECORDS:

			Average Flow in Second-Feet			
Daily:	Max.	13.6	July 18, 1975	Min.	0	Occasionally
Monthly:	Max.	5.4	Oct. & Nov. 1974	Min.	0	Occasionally
Yearly:	Max.	4.0	1974 & 1975	Min.	0	Several years

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.7	5.4	4.6	4.2	3.6	3.3	2.9	4.3	3.6	3.4	3.7	3.5
2	4.9	5.7	4.6	4.0	3.7	3.3	3.5	4.3	3.7	3.3	3.6	3.5
3	4.7	5.6	4.6	4.0	3.7	3.2	3.5	4.4	3.6	3.5	3.6	3.6
4	4.7	5.4	4.4	4.0	3.7	3.2	3.3	4.3	3.7	3.6	3.6	3.6
5	4.9	5.3	4.5	4.2	3.7	3.3	3.2	4.1	4.0	3.6	3.6	3.6
6	4.9	4.9	4.6	4.4	3.6	3.3	3.1	4.1	3.7	3.6	3.6	3.6
7	5.0	4.9	4.6	4.6	3.6	3.4	3.0	4.1	3.9	3.6	3.6	3.6
8	5.0	5.0	4.4	4.5	3.6	3.3	3.0	4.0	3.8	3.6	3.5	3.6
9	5.2	4.7	4.6	4.3	3.6	3.3	3.0	3.9	3.7	3.7	3.5	3.6
10	4.9	5.0	4.6	4.3	3.7	3.3	3.0	4.0	3.8	3.6	3.5	3.6
11	4.8	5.1	4.6	4.1	3.7	3.2	3.0	4.0	3.7	3.5	3.4	3.6
12	4.6	5.0	4.6	4.2	3.6	3.2	4.0	3.9	3.7	3.6	3.4	3.6
13	4.7	5.0	4.5	4.2	3.6	3.3	3.8	3.8	3.7	3.4	3.4	3.6
14	4.8	5.1	4.5	4.2	3.4	3.3	3.5	3.7	3.7	3.5	3.4	3.6
15	4.7	5.1	4.5	4.0	3.3	3.3	3.6	3.6	3.7	3.6	3.4	3.6
16	5.0	4.8	4.4	4.2	3.4	3.3	4.0	3.6	3.7	3.6	3.4	3.6
17	4.9	4.8	4.4	4.3	3.4	3.2	6.3	3.6	3.7	3.6	3.4	3.6
18	4.9	4.7	4.4	4.0	3.6	3.3	13.6	3.6	3.6	3.6	3.4	3.6
19	4.8	4.7	4.4	3.9	3.7	3.2	10.9	3.6	3.7	3.6	3.4	3.6
20	4.7	4.6	4.4	3.9	3.9	3.1	7.1	3.6	3.8	3.6	3.5	3.6
21	4.7	4.6	4.4	4.0	3.9	3.2	6.6	3.6	3.9	3.6	3.5	3.6
22	4.6	4.6	4.4	4.2	3.8	3.1	6.0	3.6	3.6	3.7	3.5	3.6
23	4.7	4.6	4.3	4.1	3.8	3.0	5.6	3.6	3.6	3.8	3.5	3.6
24	4.7	4.6	4.3	4.0	3.6	3.0	5.4	3.6	3.6	3.6	3.5	3.6
25	4.7	4.6	4.3	4.0	3.6	3.0	5.1	3.6	3.6	3.6	3.5	3.5
26	4.7	4.6	4.3	3.9	3.6	2.9	5.0	3.6	3.6	3.9	3.5	3.5
27	4.7	4.6	4.4	3.9	3.6	2.8	4.8	3.7	3.6	3.7	3.5	3.6
28	4.6	4.6	4.0	3.8	3.6	2.8	4.7	3.8	3.6	3.7	3.5	3.6
29	4.6		3.8	3.8	3.5	2.8	4.6	3.8	3.6	3.7	3.5	3.6
30	4.8		3.9	3.8	3.4	2.9	4.5	3.6	3.5	3.7	3.5	3.6
31	4.6		4.1		3.3		4.4	3.6		3.7		3.6
Sum	148.2	137.6	136.4	123.0	111.8	94.8	148.0	118.6	110.7	112.0	104.9	111.2

Month	Current Year 1975: Extreme Gage Feet ** High	Low	Ø Extreme Second-Feet High: Day	High	Low: Day	Low	Average Second-Feet	Total Acre-Feet	Period # Mar. 1961-1975 Acre-Feet: Average	Maximum	Minimum
Jan.	1.38	1.24	9	5.2	†12	4.6	4.8	294	60.2	294	0
Feb.	1.39	1.27	2	5.7	†20	4.6	4.9	273	55.7	273	0
Mar.	1.28	1.16	† 1	4.5	28	3.5	4.4	271	56.6	271	0
Apr.	1.45	1.15	7	4.6	†28	3.8	4.1	244	62.5	244	0
May	1.90	1.09	†20	3.9	†15	3.3	3.6	222	59.0	224	0
June	1.61	1.00	7	3.4	†27	2.8	3.2	188	51.4	214	0
July	4.22	1.04	18	13.6	1	2.9	4.8	294	57.2	204	0
Aug.	1.25	1.15	3	4.4	†16	3.6	3.8	235	65.1	235	0
Sept.	1.87	1.14	5	4.0	30	3.5	3.7	220	60.8	240	0
Oct.	1.18	1.11	26	3.9	2	3.3	3.6	222	80.8	334	0
Nov.	1.17	1.13	1	3.7	†11	3.4	3.5	208	68.6	321	0
Dec.	1.15	1.14	† 3	3.6	† 1	3.5	3.6	221	70.1	283	0
Yearly	4.22	1.00		13.6		2.8	4.0	2,892	748.0	2,892	3.4

Some months missing Ø Mean daily † And other days ** Includes storm flow

MCKEE SPRING NEAR DEL RIO, TEXAS

DESCRIPTION: Cipolletti weir of 21.5 second-foot capacity, gravity well, and water-stage recorder located on the source pool of this spring which is located on the left flood plain of the Rio Grande at latitude 29°23' 35", longitude 101°01' 15", about 150 feet from the edge of the low-flow channel and about 8 miles northwest of Del Rio, Texas. Water from this spring enters the Rio Grande at river mile 562.7, 4.8 river miles downstream from Amistad Dam, and 686.1 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 894.59 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on a continuous record of gage heights and the weir discharge table. Records available: November 1961 through 1975.

REMARKS: The flow of this spring is uniform during periods of dry weather and is not modified by diversions or storage. It is estimated that backwater from the Rio Grande will reach the emergence of this spring when the river flow is approximately 14,000 second-feet. This station was established for investigational purposes in connection with Amistad Dam to determine what effect storage in Amistad Reservoir may have on the flow of this spring.

EXTREME FLOWS FROM RECORDS:

		Average Flow in Second-Feet				
Daily:	Max. 9.1	Aug. 15, 1972		Min. 0	Occasionally	
Monthly:	Max. 8.1	Sept. 1972		Min. 0	Occasionally	
Yearly:	Max. 7.5	1974		Min. 0	1963	

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.5	7.8	7.6	7.3	7.3	7.2	7.0	8.0	6.8	6.8	7.2	6.8
2	7.5	7.8	7.6	7.2	7.3	7.2	7.0	8.0	6.8	7.0	7.2	6.8
3	7.5	8.0	7.6	7.2	7.3	7.2	7.0	8.0	6.7	7.0	7.2	6.8
4	7.5	8.0	7.6	7.2	7.3	7.2	7.0	8.0	7.0	7.0	7.2	6.8
5	7.5	8.0	7.8	7.2	7.3	7.0	7.0	8.0	7.2	7.0	7.2	6.8
6	7.5	7.8	7.8	7.2	7.2	7.0	6.8	7.8	7.2	7.0	7.2	6.8
7	7.5	7.8	7.6	7.2	7.2	7.0	6.8	7.8	7.2	7.0	7.2	6.8
8	7.5	7.6	7.6	7.2	7.2	7.0	7.0	7.6	7.0	7.0	7.2	6.8
9	7.6	7.6	7.6	7.3	7.2	7.0	7.0	7.5	7.0	7.0	7.2	6.8
10	7.6	7.6	7.6	7.3	7.2	7.0	7.0	7.5	6.8	7.0	7.2	6.8
11	7.6	7.6	7.6	7.3	7.2	7.0	7.3	7.3	6.8	7.0	7.2	6.8
12	7.6	7.6	7.5	7.3	7.2	7.0	7.5	7.2	6.8	7.0	7.0	6.8
13	7.6	7.8	7.3	7.3	7.2	7.0	7.3	7.2	6.8	7.0	6.8	6.8
14	7.6	7.8	7.3	7.3	7.2	7.0	7.3	7.2	7.0	7.0	6.8	6.8
15	7.6	7.8	7.3	7.5	7.2	7.0	7.5	7.2	7.0	7.0	6.8	6.8
16	7.6	7.8	7.3	7.5	7.2	7.0	7.3	7.0	6.8	7.0	6.8	6.8
17	7.6	7.8	7.3	7.5	7.2	7.0	8.5	7.0	7.0	7.0	6.8	6.8
18	7.6	7.8	7.3	7.5	7.2	7.0	9.0	7.3	7.0	7.2	6.8	6.8
19	7.6	7.8	7.3	7.5	7.2	7.0	8.9	7.3	6.8	7.2	6.8	6.8
20	7.6	7.6	7.3	7.5	7.2	7.0	8.9	7.2	7.0	7.2	6.8	6.8
21	7.6	7.8	7.3	7.5	7.2	7.0	8.7	7.2	7.0	7.3	6.8	6.8
22	7.6	7.8	7.3	7.5	7.2	7.0	8.5	7.2	7.0	7.3	6.8	6.8
23	7.6	7.8	7.3	7.5	7.2	7.0	8.3	7.2	6.8	7.3	6.8	6.8
24	7.6	7.6	7.3	7.5	7.2	7.0	8.2	7.2	7.0	7.5	6.8	6.8
25	7.6	7.6	7.3	7.5	7.2	7.0	8.2	7.2	7.2	7.5	6.8	6.8
26	7.6	7.5	7.3	7.3	7.2	7.0	8.0	7.2	7.0	7.5	6.8	6.8
27	7.6	7.8	7.3	7.3	7.2	7.0	8.0	7.2	7.0	7.5	6.8	6.8
28	7.6	7.6	7.3	7.3	7.2	7.0	8.0	7.2	7.0	7.3	6.8	6.8
29	7.6		7.3	7.3	7.2	7.0	8.0	7.0	7.0	7.3	6.8	6.8
30	7.6		7.3	7.3	7.2	7.0	8.0	7.0	6.8	7.3	6.8	6.8
31	7.6		7.3		7.2		8.0	6.8		7.2		6.8
Sum	234.8	216.9	230.2	220.5	223.7	210.8	239.0	228.5	208.5	221.4	208.6	210.8

Month	Current Year 1975: Extreme Gage Feet High	Low	∅ Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period Nov. 1961-1975: Acre-Feet Average	Maximum	Minimum
Jan.	0.71	0.69	† 9	7.6	† 1	7.5	7.6	466	216	466	0
Feb.	.72	.68	† 3	8.0	26	7.3	7.7	430	197	430	0
Mar.	.71	.67	† 5	7.8	†12	7.2	7.4	457	218	457	0
Apr.	.68	.63	†15	7.5	† 2	7.2	7.4	437	226	442	0
May	.68	.67	† 1	7.3	† 6	7.2	7.2	444	251	480	.7
June	.67	.66	† 1	7.2	† 5	7.0	7.0	418	215	436	0
July	.80	.65	13	9.0	† 6	6.8	7.7	474	216	474	0
Aug.	.72	.65	† 1	8.0	31	6.8	7.4	453	219	453	0
Sept.	.67	.58	† 5	7.2	† 3	6.7	7.0	414	226	479	0
Oct.	.69	.58	†24	7.5	1	6.8	7.1	439	241	484	0
Nov.	.67	.65	† 1	7.2	†13	6.8	7.0	414	228	475	0
Dec.	.65	.65	† 1	6.8	† 1	6.8	6.8	418	232	475	0
Yearly	0.80	0.58		9.0		6.3	7.3	5,284	2,685	5,305	0.7

∅ Mean daily † And other days

CANTU SPRING ON CIENEGAS CREEK NEAR DEL RIO, TEXAS

DESCRIPTION: Gravity well and water-stage recorder located at the spring source in the channel of a small tributary to Cienegas Creek at latitude 29°23'15", longitude 100°56'00", about 2.5 miles northwest of Del Rio, Texas, and 3.5 creek miles from the confluence with the Rio Grande. The spring is isolated from surface runoff by the concrete enclosure but creek backwater may influence the recorded gage heights. Cienegas Creek enters the Rio Grande at river mile 556.6, 1.9 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 692.2 river miles downstream from the American Dam at El Paso, Texas. The elevation of the zero of the gage has not been determined.

RECORDS: Based on 52 discharge measurements during the year and a continuous record of gage heights. Records available: March 1961 through 1975.

REMARKS: The flow of this spring is very uniform and is not modified by diversions or storage. A weir was installed on May 24, 1961 and removed November 21, 1962. This station was established for investigational purposes in connection with Amistad Dam to determine what effect storage in Amistad Reservoir may have on the flow of this spring.

EXTREME FLOWS FROM RECORDS:

		Average Flow in Second-Feet				
Daily:	Max. 9.6	Sept. 7-10, 1972		Min. 0	Occasionally
Monthly:	Max. 8.7	Sept. 1972		Min. 0	Occasionally
Yearly:	Max. 7.7	1972		Min. 0	1963

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.6	7.4	7.1	‡ 6.5	6.8	5.8	5.0	7.5	6.8	‡ 6.9	6.7	7.5
2	‡ 7.7	7.5	7.2	6.6	6.6	5.6	4.9	7.5	6.9	6.9	6.8	7.6
3	7.8	7.6	7.2	6.7	6.5	5.4	‡ 4.8	7.5	6.9	6.9	6.9	7.8
4	7.8	7.8	7.2	6.8	6.4	5.3	4.9	7.5	‡ 7.0	6.9	7.0	‡ 7.9
5	7.8	‡ 7.9	‡ 7.2	6.9	6.2	‡ 5.1	5.0	7.4	7.0	7.0	‡ 7.1	7.8
6	7.9	7.9	7.2	7.0	6.1	5.2	5.2	‡ 7.4	7.1	7.0	7.1	7.7
7	8.0	7.9	7.3	7.1	6.0	5.2	5.3	7.4	7.1	7.0	7.2	7.6
8	‡ 8.0	7.9	7.3	7.2	5.8	5.3	5.4	7.5	7.1	‡ 7.0	7.2	7.5
9	7.9	7.8	7.3	‡ 7.3	‡ 5.7	5.4	‡ 5.5	7.5	7.2	7.0	7.2	7.4
10	7.8	7.8	7.3	7.1	5.8	5.4	5.7	7.6	7.2	7.1	7.2	‡ 7.3
11	7.7	7.8	7.4	6.8	5.9	‡ 5.5	5.9	7.6	7.3	7.1	7.3	7.2
12	7.5	‡ 7.8	‡ 7.4	6.6	5.9	5.5	6.1	7.6	7.3	7.1	‡ 7.3	7.2
13	7.4	7.8	7.4	6.3	6.0	5.6	6.3	7.7	7.4	7.1	7.3	7.1
14	7.3	7.7	7.4	6.1	‡ 6.1	5.6	6.5	‡ 7.7	7.5	7.2	7.3	7.1
15	‡ 7.2	7.7	7.4	5.8	6.1	5.6	6.7	7.6	‡ 7.6	‡ 7.2	7.3	7.0
16	7.3	7.7	7.5	‡ 5.6	6.2	5.7	7.0	7.4	7.6	7.2	7.2	7.0
17	7.3	7.7	7.5	5.7	6.2	5.7	7.2	7.2	‡ 7.7	7.2	7.2	‡ 6.9
18	7.4	7.6	7.5	5.9	6.3	5.8	7.4	7.1	7.6	7.2	7.2	6.9
19	7.5	‡ 7.6	‡ 7.5	6.0	6.3	‡ 5.8	7.6	7.0	7.6	7.1	‡ 7.2	6.8
20	7.6	7.5	7.4	6.2	6.4	5.8	7.8	‡ 6.8	7.5	7.1	7.1	6.8
21	7.6	7.5	7.3	6.3	‡ 6.4	5.7	8.0	6.8	7.5	7.1	7.1	6.7
22	‡ 7.7	7.4	7.2	6.5	6.4	5.7	8.2	6.7	7.4	‡ 7.1	7.0	6.7
23	7.6	7.3	7.1	‡ 6.6	6.4	5.7	‡ 8.4	6.7	7.4	7.0	7.0	6.6
24	7.5	7.2	7.0	6.6	6.4	5.6	8.3	6.6	‡ 7.3	7.0	6.9	‡ 6.6
25	7.4	7.2	6.9	6.7	6.4	‡ 5.6	8.2	6.6	7.2	6.9	6.9	6.6
26	7.3	‡ 7.1	‡ 6.8	6.7	6.3	5.5	8.1	6.5	7.2	6.8	‡ 6.8	6.5
27	7.2	7.1	6.8	6.8	6.3	5.4	7.9	‡ 6.5	7.1	6.7	6.9	6.5
28	7.1	7.1	6.7	6.8	6.3	5.3	7.8	6.6	7.1	6.6	7.1	6.5
29	‡ 7.0		6.6	6.9	‡ 6.3	5.2	7.7	6.6	7.0	6.6	7.2	6.4
30	7.1		6.6	‡ 6.9	6.1	5.1	‡ 7.6	6.7	7.0	‡ 6.5	7.4	‡ 6.4
31	7.3		6.6		6.0		7.6	6.8		6.6		6.4
Sum	233.3	212.3	222.3	197.0	192.6	165.1	208.0	221.6	217.6	216.1	213.1	218.0

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	ø Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period Mar. 1961-1975: Acre-Feet Average	Maximum	Minimum
Jan.			† 7	8.0	29	7.0	7.5	463	223	509	0
Feb.	3.34	2.71	† 5	7.9	†26	7.1	7.6	421	194	455	0
Mar.	3.18	2.82	†16	7.5	†29	6.6	7.2	441	208	518	0
Apr.	3.10	2.88	9	7.3	16	5.6	6.6	391	202	480	0
May	3.09	2.92	1	6.8	9	5.7	6.2	382	194	476	0
June	3.10	2.73	† 1	5.8	† 5	5.1	5.5	327	179	476	0
July	4.10	2.72	23	8.4	3	4.8	6.7	413	183	505	0
Aug.	2.87	2.29	†13	7.7	†26	6.5	7.1	440	199	494	0
Sept.	2.80	2.33	17	7.7	1	6.8	7.3	432	206	520	0
Oct.	2.51	2.41	†14	7.2	30	6.5	7.0	429	226	477	0
Nov.	2.82	2.50	30	7.4	1	6.7	7.1	423	223	489	0
Dec.	2.68	2.63	4	7.9	†29	6.4	7.0	432	236	518	0
Yearly	4.10	2.29		8.4		4.8	6.9	4,994	2,473	5,619	0

‡ Discharge measurement made on this day ø Mean daily † And other days

CIENEGAS CREEK NEAR DEL RIO, TEXAS

DESCRIPTION: Gravity wells and water-stage recorders located, one each, on the left bank of the Cienegas Creek at latitude 29°21'00", longitude 100°56'40", 0.3 creek mile from the confluence with the Rio Grande; and, for the Briggs Farm Ditch, on the right bank of a concrete flume at latitude 29°21'40", longitude 100°56'30", 2,000 feet from the ditch intake which branches off the right bank of Cienegas Creek immediately upstream from a small diversion dam across the creek, and about 2.5 miles west of Del Rio, Texas. The point of diversion is 1.6 creek miles from the confluence with the Rio Grande. Cienegas Creek enters the Rio Grande at river mile 556.6, 1.9 river miles upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 692.2 river miles downstream from the American Dam at El Paso, Texas. The elevation of the zero of the gages has not been determined.

RECORDS: Based on 52 and 52 discharge measurements at Cienegas Creek and Briggs Farm Ditch, respectively, during the year and a continuous record of gage heights. Mean daily discharge computations determined by combining the two records for the total yield of the springs. Records available: March 1965 through 1975. Discharge measurement data available since November 1962. Records are also available from September 1931 through June 1935 for a station 0.1 creek mile downstream.

REMARKS: Low flow of this stream is from springs, one of which is Cantu Spring whose discharge is shown on page 39. The flow of this stream is modified by irrigation diversions through the Briggs Farm ditch. During 1975 there were no appreciable diversions from the creek, other than through the Briggs Farm ditch whose net amount of diversion is included in the tabulation below. All storm flow passing this station is deducted and is not included in the tabulation. These stations were established for investigational purposes in connection with Amistad Dam to determine what effect storage in Amistad Reservoir may have on the flow of these springs.

EXTREME FLOWS FROM RECORDS:

		Average Flow in Second-Feet				
Daily:	Max.	42.7	August 12, 1972	Min.	0.5	April 21, 1966
Monthly:	Max.	20.5	Feb. 1975	Min.	0.8	Aug. 1967
Yearly:	Max.	17.1	1973	Min.	2.2	1968

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.3	22.0	18.2	12.1	13.2	12.2	12.0	17.7	12.7	11.3	16.7	14.7
2	16.7	22.0	18.0	13.0	13.5	12.4	12.8	16.0	13.4	11.2	16.5	14.8
3	16.4	21.6	17.5	13.8	13.7	12.7	11.9	17.1	13.0	10.9	16.4	15.0
4	15.6	21.0	17.4	14.6	13.9	12.6	12.0	16.8	14.5	10.8	16.2	15.0
5	15.3	21.6	16.9	15.2	14.4	12.3	13.0	16.0	15.0	10.6	16.0	14.9
6	15.0	21.2	17.1	15.6	13.9	13.1	12.6	15.7	14.2	10.5	15.9	13.7
7	15.8	20.6	17.9	17.4	14.2	13.1	12.3	15.6	14.0	10.7	15.7	12.9
8	15.4	20.6	18.1	17.4	15.3	13.1	12.5	15.8	14.4	11.0	15.6	13.6
9	15.4	20.2	18.2	17.1	15.6	13.1	12.1	15.9	14.3	11.2	16.3	14.4
10	15.5	20.0	18.4	16.5	15.2	13.1	12.0	16.0	14.2	11.2	15.4	14.3
11	15.4	20.0	18.7	16.4	15.3	13.1	12.3	15.8	14.0	11.0	15.2	14.6
12	16.0	19.8	18.4	15.9	15.5	13.2	13.3	16.1	13.8	11.3	15.1	14.8
13	15.9	20.4	17.9	16.2	15.8	12.5	12.6	15.9	13.5	12.0	15.0	15.2
14	16.1	20.8	17.8	16.0	15.6	12.6	12.2	15.6	15.3	12.3	15.7	15.4
15	16.2	20.9	17.7	15.6	14.6	12.7	12.4	15.7	15.0	12.5	14.7	14.8
16	16.2	20.9	17.2	15.1	14.7	12.8	12.2	15.5	14.1	15.4	15.5	15.7
17	15.7	21.0	17.1	15.4	14.2	13.0	19.5	15.3	13.8	13.8	15.4	15.9
18	15.9	21.0	16.9	15.9	13.9	13.0	32.1	15.3	13.5	13.9	15.3	15.8
19	15.8	20.6	16.7	16.0	13.3	13.1	30.4	14.9	13.1	13.5	15.2	15.5
20	15.4	19.8	17.3	16.0	14.4	13.0	26.8	14.6	13.5	13.6	14.1	15.5
21	15.6	19.8	17.2	15.8	13.2	13.0	25.4	14.3	14.3	13.7	14.7	15.5
22	15.0	20.0	17.2	16.7	13.1	12.8	24.5	14.3	14.4	13.7	14.3	15.5
23	15.1	19.2	16.9	16.9	13.0	12.7	23.5	14.2	13.4	14.0	14.0	15.9
24	15.3	19.0	16.9	16.3	12.9	12.7	22.9	13.4	13.3	14.4	13.8	16.0
25	15.2	19.5	16.8	15.3	12.9	12.6	21.7	13.4	13.1	17.0	14.5	16.0
26	14.7	19.3	16.8	15.1	12.7	12.0	21.4	13.6	12.9	17.4	14.1	15.0
27	15.1	18.9	16.3	14.9	13.1	12.0	20.5	13.7	12.6	16.9	14.3	15.0
28	15.1	18.0	15.6	14.3	12.9	11.9	20.1	14.8	11.8	17.2	14.5	15.7
29	15.0		14.9	14.2	12.7	11.8	19.1	14.2	11.7	16.8	15.3	14.7
30	16.2		14.2	13.9	12.4	11.9	18.7	14.1	11.6	17.1	15.3	15.6
31	16.2		13.8		12.5		18.0	13.5		17.0		15.6
Sum	487.5	572.7	530.0	464.9	431.6	380.1	543.7	471.7	409.1	413.9	456.7	467.0

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period Mar. 1965-1975: Acre-Feet Average	Maximum	Minimum
Jan.			1	17.3	26	14.7	15.7	967	638	1,083	134
Feb.			2	22.0	28	18.6	20.5	1,138	599	1,136	93.0
Mar.			11	18.7	31	13.8	17.1	1,051	620	1,103	102
Apr.			† 7	17.4	1	12.1	15.5	922	561	1,060	100
May			13	15.8	30	12.4	13.9	856	559	1,019	109
June			12	13.2	20	11.8	12.7	754	436	1,070	36.3
July			13	32.1	3	11.9	17.5	1,078	518	1,078	35.5
Aug.			1	17.7	†24	13.4	15.2	936	567	1,241	48.4
Sept.			14	15.3	30	11.6	13.6	811	553	1,043	84.1
Oct.			26	17.4	6	10.5	13.4	821	669	1,135	150
Nov.			1	16.7	24	13.8	15.2	906	638	1,027	152
Dec.			†24	16.0	7	12.0	15.1	926	664	1,035	133
Yearly				32.1		10.5	15.4	11,104	7,056	12,392	1,530.9

ø Mean daily † And other days

RIO GRANDE AT DEL RIO, TEXAS

DESCRIPTION: Cableway, gravity well, concrete control weir, water-stage recorders (graphic and digital), and binary decimal transmitter located on the right bank 1,200 feet upstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila at latitude 29°19'35", longitude 100°55'50", and river mile 554.9; 12.6 river miles downstream from Amistad Dam, and 693.9 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 869.20 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 23 discharge measurements during the year, 13 by the United States Section and 10 by the Mexican Section of the Commission, and a continuous record of gage heights. Computations for high flow by shifting control methods. Low and medium flow computations based on a stable control weir rating curve defined by meter measurements. Records available: December 1923 through July 2, 1941 and January 1968 through 1975. Records are available from May 1900 through April 1915 for a station 12.2 miles upstream; from December 1919 through March 1920 for a station 8.7 miles upstream near McKee's Switch; from July 2, 1941 through 1954 and October 1960 through 1967 for a station 1,200 feet downstream at the international highway bridge; and from September 1954 through 1975 for a station, Rio Grande below Amistad Dam, 10.4 miles upstream.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. Except for tributary inflows and small intervening diversions below Amistad Dam, flow at this station, after May 31, 1968 is controlled largely by releases from Amistad Reservoir. The concrete control weir was placed in operation on February 8 and the cable on June 7, 1968. The transmitter, operated in cooperation with the National Weather Service, relays gage height data upon interrogation by telephone via commercial circuits.

EXTREME FLOWS FROM RECORDS: The greatest recorded flow of 1,140,000 second-feet occurred on June 28, 1954, with a gage height of 38.25 feet at a station 1,200 feet downstream. This peak flow was deduced by subtracting 18,000 second-feet from the peak discharge which occurred below Amistad Dam Site, 10.5 miles upstream. This subtraction was for estimated flattening of the flood wave in traveling between these points. The lowest recorded flow was 142 second-feet which occurred August 14, 1971, with a gage height of 1.27 feet.

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2,290	2,670	3,310	4,210	7,380	2,030	920	4,300	2,280	901	5,450	352
2	‡ 2,290	2,650	3,310	2,610	7,230	2,030	911	4,280	2,280	‡ 915	5,420	352
3	2,290	2,650	3,310	2,610	7,230	2,030	963	4,310	2,280	906	5,420	348
4	2,290	2,640	3,580	2,600	7,210	1,690	1,220	4,290	‡ 2,330	910	5,410	‡ 346
5	2,290	2,630	‡4,230	4,220	7,130	‡ 1,210	1,210	4,300	2,320	906	5,410	346
6	2,090	2,610	‡4,230	4,260	4,850	1,210	1,210	4,270	2,280	906	‡5,380	341
7	1,490	2,610	4,230	4,300	2,270	1,210	1,210	‡ 4,260	2,280	906	5,370	346
8	1,470	2,610	4,230	‡ 4,270	2,240	1,210	1,220	4,220	2,290	908	5,350	346
9	1,480	2,620	4,230	4,270	2,210	1,210	1,210	4,230	2,280	928	5,350	346
10	1,500	2,890	4,230	4,270	2,190	1,210	‡ 1,210	4,220	2,280	928	5,340	346
11	1,500	3,550	4,230	4,270	2,200	1,210	1,240	4,210	1,920	928	5,340	346
12	1,500	3,550	4,230	4,270	1,910	1,210	1,250	4,200	1,430	928	4,240	345
13	1,500	‡3,550	4,230	4,290	1,490	1,190	1,250	3,350	2,640	1,960	1,480	342
14	1,540	3,560	4,230	5,960	1,480	1,200	1,550	2,300	4,190	3,370	1,460	342
15	1,820	3,570	4,230	7,880	‡ 1,490	1,200	2,010	2,280	4,180	3,390	1,440	340
16	‡ 1,840	3,570	4,230	7,780	1,480	1,200	2,160	2,280	3,320	3,410	1,420	353
17	1,820	3,550	4,230	7,850	1,480	1,200	3,780	2,280	2,270	3,390	1,420	346
18	1,820	3,530	4,230	7,860	1,520	1,200	4,290	3,060	2,260	3,390	1,420	346
19	1,800	3,300	4,230	7,810	1,500	1,200	3,590	4,210	2,270	3,390	1,420	346
20	1,820	2,640	4,230	7,760	1,540	1,200	3,480	4,220	2,280	3,390	1,420	355
21	1,850	2,760	4,230	7,740	1,730	1,220	3,820	4,220	2,280	3,390	1,430	346
22	2,010	3,040	4,230	7,590	2,050	1,230	4,230	3,910	2,270	3,420	1,440	346
23	2,020	3,060	4,230	7,520	2,070	1,230	4,230	3,380	2,030	3,420	1,430	347
24	2,020	3,050	4,230	7,580	2,060	1,230	4,230	3,370	1,250	3,620	1,180	351
25	2,020	3,040	4,230	‡ 7,580	2,060	1,230	3,130	3,370	1,230	5,490	382	340
26	2,020	2,020	4,230	7,510	2,050	1,100	4,290	2,940	1,220	5,490	355	345
27	2,020	2,990	4,230	7,510	2,050	892	4,320	2,300	1,220	5,490	‡ 359	347
28	2,120	4,410	4,230	7,450	2,020	896	4,310	‡ 2,290	1,210	5,490	359	348
29	2,610		4,230	7,430	2,030	925	4,300	2,280	1,110	5,480	349	418
30	2,610		4,230	‡ 7,420	2,050	905	4,300	2,270	906	‡ 5,470	346	1,340
31	2,610		4,230		2,040		‡ 4,310	2,280		5,450		1,360
Sum	60,350	85,320	127,720	178,680	88,240	37,908	81,354	107,680	64,386	88,870	82,590	12,818

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period # 1968-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	2.50	2.11	†29	2,620	† 7	1,470	1,950	119,702	61,910	119,702	14,497
Feb.	3.28	1.55	28	6,170	26	385	3,050	169,230	129,222	448,205	18,633
Mar.	2.91	2.63	22	4,450	† 1	3,310	4,120	253,329	91,227	253,329	17,298
Apr.	3.58	1.53	15	7,950	† 3	358	5,960	354,407	101,227	354,407	33,846
May	3.50	2.07	1	7,450	13	1,450	2,850	175,021	142,432	245,048	30,928
June	2.27	1.83	† 1	2,050	†27	863	1,260	75,189	110,449	250,318	23,143
July		1.64	27	∅ 4,320	25	514	2,620	161,363	89,541	161,363	31,474
Aug.	2.91	2.32	1	4,450	30	2,210	3,470	213,580	99,179	213,580	28,826
Sept.	2.87	1.85	14	4,270	†29	906	2,150	127,708	258,940	1,327,497	38,850
Oct.	3.15	1.84	29	5,540	1	884	2,870	176,271	190,375	815,207	11,578
Nov.	3.14	1.52	1	5,490	†26	346	2,750	163,315	119,619	527,524	13,644
Dec.	2.04	1.51	†30	1,360	† 0	333	413	25,424	63,889	228,774	13,918
Yearly	3.58	1.51		7,950		333	2,780	2,014,539	1,458,010	3,743,795	508,583

‡ Discharge measurement made on this day
† And other days
∅ Mean daily
Values for January 1968 are Rio Grande near Del Rio discharge less Arroyo Las Vacas flow

ARROYO LAS VACAS AT CD. ACUNA, COAHUILA

DESCRIPTION: Concrete wall with a 90° V-notch weir of 353 second-foot capacity, gravity well, and water-stage recorder located on the left bank at Cd. Acuna, Coahuila, latitude 29°19'45", longitude 100°57'20", and 1.8 creek miles from the confluence with the Rio Grande. This stream enters the Rio Grande at river mile 554.7, on the upstream side of the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, 12.8 river miles downstream from Amistad Dam, and 694.1 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 885.82 feet above mean sea level, U.S.C. & G. S. datum.

RECORDS: Based on 1 discharge measurement during the year, a stable rating curve up to 353 second-feet, which is the capacity of the weir, and a continuous record of gage heights. Computations by shifting control methods for flows exceeding the capacity of the weir. During 1975, the capacity of the weir was exceeded on January 31, May 7, and July 17 and 18. Records available: Occasional estimates from June 1935 to March 19, 1938 and a continuous record from March 20, 1938 through 1975.

REMARKS: Low flow of this stream is from springs and is modified by irrigation diversions upstream. On June 17, 1961, a flood destroyed the station leaving the control wall under several feet of silt. The station was reconstructed in September and a V-notch weir with a capacity of 353 second-feet, constructed at this station, started operating December 14, 1961. On June 28, 1954, backwater from the Rio Grande reached an elevation of 902.49 feet at this station. Records prior to 1965 were published under the title "Arroyo Las Vacas near Cd. Acuna, Coahuila."

EXTREME FLOWS FROM RECORDS: Momentary: Max. 63,570 second-feet with a gage height of 25.26 feet on June 17, 1961. Min. no flow several occasions in 1956, 1957, 1960, 1961, and September 1, 1967.

	Average Flow in Second-Feet**					
Daily:	Max. 23,940	June 17, 1961	Min. 0	Several days Dec. 1956, Jan. 1957, & Sept. 1, 1967
Monthly:	Max. 1,050	June 1961	Min. 0.4	Several months 1952, 1953, & 1954
Yearly:	Max. 96.7	1961	Min. 2.8	1952

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.3	77.3	6.0	7.1	3.5	4.2	3.2	13.1	7.1	7.4	8.5	8.5
2	11.3	16.2	6.0	6.7	3.5	4.2	2.8	11.7	8.1	6.4	10.2	8.5
3	11.7	13.1	6.0	6.0	3.5	3.5	2.8	22.2	8.8	6.0	9.2	8.5
4	11.7	11.3	7.1	6.0	3.5	3.5	2.8	17.0	8.5	6.0	7.1	10.2
5	11.7	11.3	7.1	9.2	3.5	3.5	2.8	15.2	8.5	6.0	10.2	9.9
6	11.7	11.3	7.1	11.7	3.5	3.5	2.1	15.2	7.4	6.7	8.5	8.5
7	11.7	13.1	7.1	14.5	71.0	3.5	2.1	15.2	7.8	7.1	8.5	9.5
8	11.7	8.5	7.1	9.5	6.7	3.5	2.1	15.2	8.5	7.1	7.1	8.5
9	11.3	8.5	7.1	7.1	4.6	3.5	2.1	15.2	8.5	8.5	7.1	9.5
10	9.9	9.5	7.1	6.0	4.2	3.5	2.1	15.2	8.5	8.5	7.1	8.5
11	10.2	13.1	7.1	6.0	4.2	3.5	97.8	11.7	8.5	8.5	7.1	8.5
12	9.2	12.0	6.7	6.0	4.2	3.5	3.5	11.3	8.5	11.6	6.7	8.5
13	9.9	10.9	6.4	6.0	4.2	3.5	3.5	10.6	8.5	8.5	6.0	8.5
14	11.3	10.2	6.0	6.4	4.2	3.5	3.5	9.9	9.9	6.7	7.1	7.1
15	11.3	7.1	6.0	6.0	5.3	3.5	3.5	8.5	9.9	6.0	7.8	7.1
16	11.3	7.1	6.0	6.4	5.3	3.5	4.2	8.5	9.9	6.0	7.1	8.5
17	11.3	7.1	6.0	6.0	5.3	3.5	3,920	7.1	8.5	6.0	7.1	9.5
18	11.3	7.1	6.0	5.3	6.0	2.8	2,400 ‡	7.1	8.5	7.1	7.8	9.5
19	10.6	8.5	6.0	5.3	6.0	2.8	263	6.7	9.2	7.8	7.8	8.5
20	10.6	8.5	6.0	5.3	6.0	2.8	87.9	6.0	9.2	7.8	7.1	8.5
21	9.5	8.5	7.1	5.3	4.9	2.8	56.5	6.0	8.5	7.1	7.1	8.5
22	6.0	9.2	7.1	5.3	5.3	2.8	46.6	6.0	7.8	6.0	7.1	9.2
23	8.1	10.9	7.1	6.4	5.3	2.8	36.7	6.0	7.1	5.6	7.1	9.5
24	9.9	6.0	7.1	4.9	5.3	2.8	32.1	6.0	7.1	5.3	7.1	11.7
25	6.0	6.0	7.1	4.6	5.3	2.8	30.4	6.0	6.7	6.0	8.5	11.7
26	5.7	6.0	7.1	4.9	5.3	2.8	28.6	6.0	6.7	6.0	9.2	11.7
27	6.0	6.0	7.1	4.6	6.0	2.8	19.8	7.4	7.4	7.1	8.1	11.7
28	5.7	6.0	7.1	3.5	6.0	2.8	19.1	12.0	8.5	8.5	7.1	11.7
29	6.0		7.1	3.5	5.3	9.5	19.1	8.1	7.1	8.8	7.4	11.7
30	6.0		7.1	3.2	4.6	4.2	15.2	7.1	7.8	8.5	8.5	11.7
31	89.3		7.1		4.6		13.1	7.1		8.5		11.7
Sum	379.2	330.3	208.0	188.7	216.1	105.4	7,129.0	320.3	247.0	223.1	232.3	295.1

Month	Current Year 1975								Period 1938-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
				High		Low					
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.	2.89	0.43	31	823	26	5.3	12.4	752	364	910	31.5
Feb.	2.13	.46	1	360	†24	6.0	11.7	655	507	5,950	33.3
Mar.	.49	.46	† 4	7.1	† 1	6.0	6.7	411	558	2,600	59.2
Apr.	.69	.33	7	17.0	30	2.8	6.4	374	1,428	16,610	75.4
May	2.85	.36	7	802	† 1	3.5	7.1	430	1,348	9,080	90.0
June	1.02	.33	29	45.9	†18	2.8	3.5	211	2,631	62,520	43.8
July	11.25	.30	17	15,100	† 6	2.1	230	14,150	1,220	14,150	26.8
Aug.	1.44	.46	3	124	†20	6.0	10.2	635	1,138	13,661	42.2
Sept.	.72	.30	4	19.1	7	2.1	8.1	489	3,048	49,566	37.3
Oct.	.59	.43	12	11.7	24	5.3	7.1	442	1,669	20,444	22.6
Nov.	.59	.46	8	10.6	13	6.0	7.8	460	370	1,670	21.0
Dec.	.59	.46	24	11.7	†14	7.1	9.5	585	337	780	22.0
Yearly	11.25	0.30		15,100		2.1	27.2	19,594	14,618	70,026.3	2,066.7

** Period 1938-1975 ‡ Discharge measurement made on this day † And other days

SAN FELIPE SPRINGS AT DEL RIO, TEXAS

DESCRIPTION: Two large and at least two smaller springs rise near the northeast city limits of Del Rio, Texas in or near the channel of San Felipe Creek at latitude 29°22'20" and longitude 100°53'00". The total yield of these springs consists of waters measured in the Val Verde Canal at Del Rio, Texas and in San Felipe Creek at Moore Park, Del Rio, Texas, and diversions by the city of Del Rio. Diversions by the San Felipe Irrigation Company through the Val Verde Canal are measured at a gaging station consisting of a paved measuring section and gravity well and water-stage recorder located on the left side of the canal under the U. S. Highway 277 Bridge across San Felipe Creek at latitude 29°21'55" and longitude 100°53'10". The bridge is located about 0.6 creek mile downstream from the source of the springs and 2.9 creek miles from the confluence of the creek with the Rio Grande. The gaging station on San Felipe Creek at Moore Park consists of gravity well and water-stage recorder located on the left bank about 300 feet downstream from the U. S. Highway 277 Bridge at latitude 29°21'50" and longitude 100°53'10". This stream enters the Rio Grande at river mile 553.1, 1.6 river miles downstream from the international highway bridge between Del Rio, Texas, and Cd. Acuna, Coahuila, and 695.7 river miles downstream from the American Dam at El Paso, Texas. The zeros of the gages for the two stations are, respectively, 942.58 feet and 930.77 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Records for the Val Verde Canal and San Felipe Creek at Moore Park are based on 52 and 52 discharge measurements, respectively, by wading during the year, and continuous records of gage heights. Computations by shifting control methods. Records for the Del Rio Pumping Plant are furnished by the City of Del Rio Water Department. Records available: Total yield of the springs, Feb. 1961 through 1975.

REMARKS: The flows tabulated below represent only the total yield of the springs. All storm runoff has been eliminated from the tabulations.

Average Flow in Second-Feet

Daily:	Max. 166	July 18, 1975	Min. 29.2	July 29, 1964
Monthly:	Max. 145	Dec. 1972	Min. 34.4	August 1964
Yearly:	Max. 139	1973	Min. 50.5	1963

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	125	132	119	127	122	122	120	133	137	129	136	128
2	124	134	116	123	124	121	118	131	137	128	137	127
3	126	131	119	125	124	123	120	132	138	130	138	127
4	126	126	121	123	124	124	119	133	136	132	136	130
5	127	122	123	119	127	123	117	134	135	132	138	132
6	127	123	123	118	125	124	118	134	135	132	138	133
7	132	119	125	121	125	124	120	134	135	133	136	133
8	129	118	124	117	129	127	119	133	135	133	135	135
9	130	115	127	118	132	121	122	134	134	131	135	135
10	132	118	124	116	132	119	120	135	132	132	132	136
11	133	116	124	116	132	118	120	134	135	131	132	136
12	134	117	124	121	125	122	125	130	134	132	131	135
13	132	120	126	122	121	122	123	133	134	134	133	135
14	133	124	126	123	126	123	120	134	135	131	133	136
15	133	124	122	122	118	123	121	132	133	133	133	134
16	132	124	120	119	116	121	126	134	134	134	133	135
17	132	128	120	121	117	124	125	136	134	134	136	134
18	132	126	121	123	117	122	166	136	133	129	137	134
19	134	128	123	120	118	124	152	136	133	133	138	134
20	131	126	118	122	123	122	135	136	134	131	137	134
21	134	124	122	125	124	122	134	137	135	132	138	133
22	136	120	121	122	126	124	133	138	136	134	136	133
23	137	122	123	115	126	123	130	138	134	133	136	133
24	133	119	116	117	126	124	133	139	133	134	138	137
25	134	120	119	118	128	122	134	139	132	137	133	135
26	134	118	122	120	128	122	132	139	132	137	135	136
27	132	114	125	122	130	121	135	139	131	136	135	137
28	136	118	126	121	125	122	132	138	131	135	134	137
29	134		129	119	121	127	134	137	129	136	131	137
30	136		130	129	119	122	135	138	130	135	131	135
31	132		132		120		135	138		135		136
Sum	4,082	3,426	3,810	3,624	3,850	3,678	3,973	4,194	4,016	4,118	4,051	4,152

Month	Current Year 1975: Extreme Gage Feet High	Low	∅ Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period Feb. 1961-1975: Acre-Feet Average	Maximum	Minimum
Jan.			23	137	2	124	132	8,097	5,981	8,860	2,274
Feb.			2	134	27	114	122	6,795	5,333	7,771	2,119
Mar.			31	132	† 2	116	123	7,557	5,778	8,521	2,365
Apr.			30	129	23	115	121	7,188	5,521	8,340	2,291
May			† 9	132	16	116	124	7,636	5,823	8,620	2,842
June			† 8	127	11	118	123	7,295	5,642	8,346	2,481
July			18	166	5	117	128	7,880	5,787	8,670	2,214
Aug.			†24	139	12	130	135	8,319	5,759	8,337	2,114
Sept.			3	135	29	129	134	7,966	5,686	8,329	2,555
Oct.			†25	137	2	128	133	8,168	6,150	8,374	2,508
Nov.			† 3	138	†12	131	135	8,035	5,944	8,521	2,384
Dec.			†24	137	† 2	127	134	8,235	6,226	8,926	2,390
Yearly				166		114	129	93,171	69,630	100,706	38,580

∅ Mean daily † And other days

SAN FELIPE CREEK NEAR DEL RIO, TEXAS

DESCRIPTION: Cableway, bubbler gage, and water-stage recorders (graphic and digital) located on the right bank at latitude 29°19'55", longitude 100°53'20", immediately upstream from the Silos Farm road bridge, 1.1 creek miles from the confluence with the Rio Grande, and about 2 miles south-southeast of Del Rio, Texas. This stream enters the Rio Grande at river mile 553.1, 1.6 river miles downstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 695.7 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 877.43 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 53 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: September 1931 through 1975.

REMARKS: Municipal diversions at Del Rio and irrigation diversions greatly modify the flow of this spring-fed creek at this station. Backwater from the Rio Grande reaches this station when the Rio Grande near Del Rio reaches a stage of 15 feet or a flow of about 60,000 second-feet. On June 28, 1954 combined creek flow and backwater from the Rio Grande reached a stage of 24.51 feet, the highest of record, at this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 45,000 second-feet on June 14, 1935 with a gage height of 23.20 feet. Min. 0.4 second-foot on July 20, 1953.

	Average Flow in Second-Feet					
Daily:	Max. 16,200	June 14, 1935		Min. 1.5	July 21, 1953
Monthly:	Max. 805	June 1935		Min. 4.6	July 1953
Yearly:	Max. 130	1935		Min. 25.1	1953

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	131	152	101	‡ 96.0	87.7	103	‡ 115	117	98.6	108	111	91.8
2	130	133	101	93.3	87.6	98.4	114	113	98.6	108	112	‡ 89.2
3	128	126	101	97.4	86.0	‡ 96.0	114	124	‡ 97.0	101	107	91.9
4	127	‡ 125	‡103	100	86.7	94.4	109	123	93.9	105	‡108	93.5
5	128	125	102	98.7	87.5	93.6	106	‡ 121	104	109	106	97.0
6	127	125	100	103	‡ 83.7	88.6	104	118	104	109	107	103
7	‡ 128	125	98.0	114	105	90.5	93.6	118	102	‡ 110	109	105
8	127	124	96.7	‡ 108	134	92.4	94.9	111	104	110	108	107
9	125	124	98.3	107	118	91.8	93.0	106	105	110	109	‡109
10	127	124	94.7	107	119	‡ 106	‡ 94.0	112	‡ 104	111	107	110
11	127	‡ 123	‡ 93.3	104	121	96.2	92.9	113	104	111	‡107	109
12	127	120	91.6	105	115	95.0	104	‡ 113	103	111	108	109
13	127	121	95.2	105	‡ 113	91.5	104	113	106	111	109	109
14	‡ 127	121	95.7	103	114	90.3	102	110	109	110	109	108
15	127	121	96.0	‡ 99.5	105	88.5	‡ 106	106	108	‡ 109	106	106
16	127	121	91.9	97.4	103	85.4	115	107	‡ 107	110	106	‡107
17	126	120	86.0	98.0	104	‡ 85.9	3,970	107	103	114	109	108
18	124	120	‡ 86.9	98.7	105	85.8	‡3,570	106	100	109	‡114	106
19	126	‡ 118	85.2	97.4	107	91.2	192	‡ 106	101	104	105	106
20	125	118	87.6	98.6	‡ 115	94.2	168	103	104	111	106	106
21	‡ 123	114	88.1	102	113	96.0	169	103	103	‡ 109	106	109
22	125	112	89.2	‡ 104	111	96.0	‡ 173	104	102	112	105	108
23	127	113	90.6	100	111	96.0	165	104	‡ 104	111	105	‡110
24	127	111	89.8	97.4	110	‡ 96.6	158	104	107	108	105	115
25	129	‡ 111	‡ 92.6	91.8	110	95.8	146	103	106	113	‡ 99.2	119
26	130	111	94.3	91.6	107	94.5	140	‡ 102	105	110	94.1	120
27	129	106	94.6	92.0	135	93.9	135	102	106	108	86.0	122
28	‡ 126	103	100	90.3	‡ 113	97.8	124	104	107	109	97.7	122
29	124		107	‡ 88.2	104	109	‡ 117	101	107	108	95.4	122
30	125		106	92.4	105	114	117	98.6	‡ 107	‡ 111	93.1	‡119
31	123		102		104		118	98.7		111		119
Sum	3,929	3,367	2,959.3	2,980.7	3,320.2	2,848.3	11,130.4	3,376.3	3,115.1	3,397	3,151.5	3,356.4

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1932-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	1.55	1.27	19	143	‡28	118	127	7,793	4,586	8,906	934
Feb.	3.55	1.09	1	441	27	98.3	120	6,678	3,985	8,630	487
Mar.	1.22	.50	28	112	17	39.5	95.5	5,870	3,462	7,837	689
Apr.	1.56	.97	7	150	30	81.7	99.4	5,912	3,951	10,407	566
May	3.17	.93	8	364	7	72.2	107	6,586	4,748	17,600	739
June	1.53	.99	10	144	18	80.0	94.9	5,650	5,099	47,900	301
July	18.13	.44	17	20,200	11	30.0	359	22,077	3,988	22,077	285
Aug.	1.50	.75	‡ 4	128	8	46.3	109	6,697	3,565	7,584	350
Sept.	1.45	.78	26	116	17	41.8	104	6,179	5,032	28,678	872
Oct.	1.55	1.09	25	130	3	77.3	110	6,738	4,868	14,229	1,000
Nov.	1.77	.82	18	159	19	50.7	105	6,251	4,030	7,597	526
Dec.	1.52	1.29	31	124	2	86.5	108	6,657	4,140	8,329	496
Yearly	18.13	0.44		20,200		30.0	129	93,088	51,204	98,137	18,201

‡ Discharge measurement made on this day † And other days

DIVERSIONS FROM THE RIO GRANDE

MAVERICK CANAL AT MILE 13 NEAR QUEMADO, TEXAS

DESCRIPTION: Light-weight cableway for making current meter measurements from the bank, bubbler gage, and water-stage recorders (graphic and digital), located on the left bank of a gunnite-lined section of the canal at latitude 29°03'00", longitude 100°39'40", 0.5 canal mile downstream from the Tequesquite Creek Siphon, 3.5 canal miles upstream from the Las Moras Creek Siphon, about 7.5 miles north-northwest of Quemado, Maverick County, Texas, and 12.8 canal miles from the canal intake. The canal intake is at river mile 537.4, 17.3 river miles downstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 711.4 river miles downstream from the American Dam at El Paso, Texas. The elevation of the zero of the gage has not been determined.

RECORDS: Based on 30 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Gage heights at this station are affected by gate operation at Las Moras Siphon. Records available: June 21, 1949 through 1975.

REMARKS: Water from the Rio Grande is diverted into the Maverick Canal by Maverick County Water Control and Improvement District No. 1 for power generation and irrigation use. At canal mile 31.8 a portion of the diverted water returns to the river through the Maverick Power Plant, and the remainder enters the Maverick Canal Extension. In 1975, 10,051 acres of land were irrigated between canal mile 31.8 and the power plant, and 27,031 acres were irrigated from the extension, making a total of 37,082 acres. A total of 828,091 acre-feet returned to the Rio Grande at the power plant and through the irrigation system (see pages 50, 52, and 55).

EXTREME FLOWS FROM RECORDS: Momentary: Max. 1,750 second-feet on August 30, 1973. Min. no flow several days in June, July, and November 1954.

Average Flow in Second-Feet

Daily:	Max.	1,730	August 29, 1973	Min.	0	June 28 through July 11 & Nov. 2, 1954	
Monthly:	Max.	1,580	August 1973	Min.	319	July 1954	
Yearly:	Max.	1,420	1961	Min.	632	1972	

Mean Daily Discharge in Second-Feet 1975 —— Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1,570	138	1,280	1,520	1,480	1,540	1,070	1,530	1,530	1,050	1,520	518
2	1,570	121	1,290	1,490	‡ 1,490	1,530	1,100	1,530	‡ 1,510	1,040	1,550	‡ 513
3	1,560	‡ 414	1,320	‡ 1,320	1,490	1,500	1,070	1,520	1,510	‡ 1,040	1,520	487
4	1,560	1,100	‡1,450	1,330	1,500	1,520	1,200	1,540	1,510	1,040	1,530	478
5	1,560	1,340	1,420	1,290	1,490	1,380	1,340	‡ 1,550	1,520	1,050	1,510	488
6	1,560	1,500	1,440	1,520	1,490	1,310	1,330	1,540	1,510	1,050	1,480	478
7	‡ 1,500	1,530	1,490	1,480	1,360	1,300	1,310	1,550	1,500	1,050	1,490	471
8	1,480	1,520	1,560	1,510	1,430	1,300	‡ 1,280	1,550	1,500	1,050	1,530	478
9	1,480	1,530	1,550	1,510	1,440	1,310	1,250	1,560	1,520	1,060	1,510	‡ 436
10	1,480	1,530	1,540	1,480	1,510	‡ 1,390	1,230	1,560	1,500	1,060	1,510	505
11	1,490	1,520	1,510	1,510	1,490	1,400	1,220	1,560	1,510	1,070	‡1,510	509
12	1,490	1,510‡	1,510	1,500	1,520	1,370	1,340	1,550	1,430	1,070	1,500	510
13	1,500	1,480	1,500	1,510	‡ 1,430	1,350	1,290	1,550	1,420	1,080	1,460	513
14	1,500	1,510	1,510	1,490	1,430	1,340	1,260	1,520	1,540	1,450	1,410	513
15	1,530	1,530	1,500	1,490	1,430	1,350	1,430	1,520	1,520	1,500	1,400	511
16	1,550	1,530	1,540	1,490	1,420	1,350	1,510	1,500	‡ 1,490	‡ 1,520	1,430	509
17	1,560	1,520	1,510	‡ 1,520	1,420	1,340	1,490	1,520	1,500	1,540	1,420	500
18	1,550	1,500	‡1,500	1,520	1,450	1,340	1,370	1,500	1,510	1,520	‡1,410	509
19	1,540	1,540	1,540	1,510	1,450	1,340	1,340	1,500	1,530	1,500	1,410	517
20	1,540	1,350‡	1,520	1,530	1,490	1,340	1,390	1,510	1,540	1,520	1,400	522
21	‡ 1,530	23.5	1,520	1,540	1,470	1,360	1,460	‡ 1,490	1,540	1,530	1,400	525
22	1,550	14.8	1,500	1,540	1,560	1,360	‡ 1,510	1,480	1,530	1,520	1,410	519
23	1,590	12.4	1,530	1,520	1,570	1,350	1,510	1,480	1,540	1,530	1,410	‡ 516
24	1,600	‡ 371	1,510	1,500	1,560	‡ 1,340	1,500	1,510	1,440	1,540	1,420	498
25	1,600	1,160	1,490	1,510	1,570	1,350	1,510	1,490	1,340	1,510	‡ 912	535
26	1,590	1,110	1,510	1,520	1,560	1,340	1,500	1,530	1,320	1,520	526	546
27	1,580	1,250	1,480	1,510	1,440	1,130	1,530	1,510	1,320	1,510	535	546
28	1,580	1,240	1,460	1,490	1,540	1,020	1,520	1,510	1,320	1,560	536	557
29	1,530		1,500	1,490	‡ 1,550	1,040	1,520	1,510	1,290	1,550	532	546
30	1,590		1,540	1,470	1,540	1,110	1,510	1,510	1,110	‡ 1,540	529	712
31	693		1,540		1,540		1,520	1,510		1,530		1,260
Sum	30,894.7	47,003	46,060	44,620	46,110	40,000	42,410	47,190	43,850	41,100	38,710	16,775

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1950-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	9.27	2.03	↑24	1,610	31	146	1,520	93,229	70,486	93,229	25,603
Feb.	9.08	.38	19	1,550	24	11.3	1,100	61,279	64,344	86,817	27,287
Mar.	9.09	8.14	↑ 8	1,570	2	1,270	1,490	91,359	63,404	91,359	27,679
Apr.	9.16	7.65	1	1,570	4	1,140	1,490	88,483	66,322	88,483	40,721
May	9.24	8.32	26	1,590	27	1,290	1,490	91,458	72,210	91,458	39,400
June	9.05	7.02	↑ 1	1,540	23	1,010	1,330	79,339	73,518	93,547	31,210
July	9.06	7.20	↑16	1,550	↑ 3	1,050	1,370	84,110	73,397	93,900	19,600
Aug.	9.10	8.62	↑ 8	1,560	22	1,410	1,520	93,600	76,428	97,111	36,708
Sept.	9.16	7.14	20	1,560	30	1,040	1,460	86,975	74,539	89,851	32,963
Oct.	9.22	7.00	28	1,560	8	1,020	1,330	81,520	75,861	94,076	22,235
Nov.	9.21	4.84	2	1,570	26	483	1,290	76,780	70,287	92,509	22,487
Dec.	8.32	4.69	31	1,290	7	470	541	33,273	69,343	93,402	23,516
Yearly	9.27	0.38		1,610		11.3	1,330	961,414	855,639	1,027,400	453,031

‡ Discharge measurement made on this day ↑ And other days

PINTO CREEK NEAR DEL RIO, TEXAS

DESCRIPTION: Cableway, solid ledge rock and concrete control, bubbler gage, and digital water-stage recorder located on the right bank at latitude 29°08'45", longitude 100°43'05", 1.6 creek miles from the confluence with the Rio Grande, and about 19 miles southeast of Del Rio, Texas. This stream enters the Rio Grande at river mile 530.1, 6.1 river miles downstream from the Maverick County Water Control and Improvement District No. 1 diversion dam, and 718.7 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 813.68 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 12 discharge measurements during the year and a continuous record of gage heights. Records available: September 1955 through 1975 at this station, and November 22, 1928 through August 1955 at a site 3.9 miles upstream.

REMARKS: Small irrigation diversions modify the flow of this spring-fed creek at this station. When the flow in the Rio Grande at the confluence of this creek exceeds about 80,000 second-feet, backwater may reach this station. Backwater from the Rio Grande flood of June 1954 reached a gage height of 28.8 feet, or an elevation of 842.50 feet above mean sea level, at this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 186,000 second-feet on June 24, 1948 with a gage height of 32.0 feet. Min. frequently no flow.

Average Flow in Second-Feet

Daily:	Max. 28,200	June 24, 1948	Min. 0	Frequently
Monthly:	Max. 953	June 1948	Min. 0	Frequently
Yearly:	Max. 105	1932	Min. 1.8	1945

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.3	47.6	7.8	‡ 4.2	14.3	3.2	‡ 22.7	‡ 5.4	2.2	3.7	4.3	‡ 4.9
2	8.5	25.0	7.9	3.9	‡ 8.3	‡ 2.7	11.3	5.0	2.2	3.8	4.4	4.6
3	8.3	18.1	‡ 7.6	3.6	6.8	2.5	6.0	4.9	2.0	‡ 3.7	‡ 4.5	4.9
4	8.0	‡ 12.1	7.2	3.7	6.3	2.3	5.5	6.2	2.0	3.7	4.7	5.2
5	8.1	8.9	6.8	3.9	6.0	2.2	5.1	5.6	‡ 2.1	3.6	4.4	5.5
6	‡ 7.9	7.5	6.8	5.2	5.4	2.3	4.9	4.8	2.3	3.7	4.4	5.6
7	7.7	7.4	7.1	36.4	5.1	2.8	4.5	4.6	2.1	3.6	4.5	5.6
8	7.7	7.6	6.3	14.6	25.0	3.2	4.1	4.6	1.9	3.6	4.5	5.5
9	7.4	7.5	6.6	7.7	10.4	3.2	4.0	4.5	1.9	3.5	4.5	5.5
10	7.1	7.0	7.0	6.2	6.4	19.6	3.8	4.3	2.4	3.6	4.7	5.5
11	6.9	7.4	6.5	6.0	5.7	11.3	3.6	4.1	3.0	3.5	4.6	5.5
12	6.7	7.3	6.3	6.3	5.3	5.2	3.7	4.1	2.4	3.4	4.5	5.8
13	6.3	7.2	5.6	6.6	4.8	4.6	4.5	4.2	2.3	3.4	4.5	6.0
14	6.3	7.0	5.3	6.7	4.4	4.4	4.2	4.2	2.3	3.3	4.6	6.0
15	6.3	7.1	5.5	6.1	3.9	4.1	4.1	4.0	3.5	3.2	4.8	6.1
16	6.3	7.4	5.6	6.0	4.0	3.9	4.2	3.6	3.7	3.5	4.9	6.2
17	6.2	7.0	5.6	5.9	3.6	3.8	9.2	3.2	3.3	3.4	5.1	6.3
18	6.2	7.0	5.5	5.8	3.6	3.8	933	3.0	3.0	3.5	5.3	6.1
19	6.1	6.9	5.1	4.9	3.4	3.5	301	2.9	2.8	3.4	5.3	7.0
20	5.7	6.9	5.1	5.0	7.2	3.6	59.7	2.7	17.2	3.3	5.1	7.5
21	5.7	7.0	5.2	5.1	8.9	4.1	24.9	2.6	17.0	3.2	5.0	7.9
22	5.6	7.3	5.1	5.7	4.1	4.9	15.4	2.6	5.9	3.2	4.8	8.0
23	5.5	6.4	5.1	5.9	4.2	4.7	12.6	2.4	4.3	3.2	4.8	8.1
24	7.2	6.7	4.7	5.7	4.3	4.5	11.3	2.2	3.9	3.3	4.9	9.0
25	6.5	7.4	4.3	5.5	4.1	4.2	10.1	2.3	3.6	12.3	5.0	9.6
26	5.7	7.4	4.2	5.3	6.0	4.0	9.3	2.1	3.6	11.2	5.0	8.7
27	5.5	7.6	4.3	5.3	63.7	3.9	8.3	2.0	3.6	6.1	5.2	8.3
28	5.4	8.0	3.9	5.4	12.0	3.9	7.6	2.8	3.7	4.9	5.3	8.2
29	5.3		3.5	5.3	6.1	4.6	7.0	3.0	3.7	4.7	5.7	8.1
30	5.4		3.8	9.5	4.0	8.8	6.1	2.7	3.7	4.5	5.8	7.8
31	5.2		4.2		3.5		5.7	2.2		4.5		7.8
Sum	205.0	277.7	175.5	207.4	260.8	139.8	1,517.4	112.8	117.6	131.5	145.1	206.8

Month	Current Year 1975								Period 1929-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
	High	Low	Day	High	Day	Low			Average	Maximum	Minimum
Jan.	0.98	0.88	2	8.7	31	5.0	6.6	407	522	2,270	0
Feb.	2.15	.88	1	112	†23	6.0	9.9	551	580	5,760	0
Mar.	.94	.80	2	8.1	†29	3.4	5.7	348	511	2,500	0
Apr.	2.07	.79	7	95.2	3	3.6	6.9	411	1,379	27,100	0
May	2.53	.76	27	227	19	3.1	8.4	517	2,180	29,400	0
June	1.74	.64	10	44.0	† 5	2.1	4.7	277	3,903	56,700	0
July	6.45	.72	18	3,150	†11	3.6	48.9	3,010	1,595	30,000	0
Aug.	.96	.70	4	7.0	26	1.4	3.6	224	1,527	48,700	0
Sept.	2.39	.70	20	181	9	1.8	3.9	233	2,469	48,965	0
Oct.	1.60	.71	25	31.4	†14	3.0	4.2	261	1,065	8,940	0
Nov.	.92	.81	29	6.1	26	4.0	4.8	288	470	2,590	0
Dec.	1.02	.85	†24	9.9	1	4.4	6.7	410	543	2,470	0
Yearly	6.45	0.64		3,150		1.4	9.6	6,937	17,049	76,259.3	1,325.3

‡ Discharge measurement made on this day † And other days

RIO SAN DIEGO AT JIMENEZ, COAHUILA

DESCRIPTION: Cableway, masonry and concrete Cipolletti weir of 777 second-foot capacity, gravity well, and water-stage recorder located on the left bank of Rio San Diego, and gravity well and water-stage recorder on Acequia de Dolores, an irrigation canal that runs along the left bank of the river under the cable, located at latitude 29°04'20", longitude 100°43'50", about 3.5 miles west of Jimenez, Coahuila, and 4.1 river miles from the confluence with the Rio Grande. Part of the canal flow measured here returns to the river downstream. This stream enters the Rio Grande at river mile 525.2, 11.0 river miles downstream from Maverick Dam, 29.4 river miles downstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 723.8 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 831.72 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: For the river, based on the weir discharge table and a continuous record of gage heights; and for the canal, on a continuous record of gage heights. The flows tabulated below include the flow of the canal, and prior to 1964, records do not include this flow. In 1975, the capacity of the weir was exceeded from July 17 through August 11, and September 20. Records available: 1922 through 1975. The records from 1922 through September 1932 are considered doubtful.

REMARKS: Reservoirs and irrigation diversions upstream from these stations modify the flow of this spring-fed stream. On December 24, 1955, the zero of the gage was raised 2.82 feet; in November 1961 an additional 0.20 foot, and the capacity of weir was increased from 706 to 777 second-feet.

EXTREME FLOWS FROM RECORDS**: Momentary: Max. 81,930 second-feet on June 17, 1961 with a gage height of 20.70 feet. Min. no flow occurred on several occasions during April, May, and June 1939, May and August 1952, and July and August 1953.

Average Flow in Second-Feet**

Daily:	Max. 38,700	July 18, 1975	Min. 0	Occasionally
Monthly:	Max. 2,380	Oct. 1932	Min. 8.0	July 1956
Yearly:	Max. 527	1935	Min. 24.0	1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	249	230	127	98.9	96.8	182	194	1,070	621	477	399	268
2	249	213	127	98.9	96.8	182	194	1,030	643	477	399	279
3	249	213	127	98.9	96.8	171	169	1,070	636	477	388	‡ 280
4	288	204	127	98.9	96.8	173	169	1,090	607	477	388	280
5	288	196	127	98.9	96.8	173	177	996	607	477	388	280
6	288	196	127	371	96.8	166	177	‡ 978	593	477	388	280
7	268	196	127	650	93.2	162	177	943	593	477	388	269
8	213	196	127	218	83.7	141	177	911	593	477	388	269
9	213	196	127	154	128	126	177	897	593	452	388	269
10	213	196	127	138	160	162	177	862	593	441	374	‡ 259
11	213	196	127	138	128	143	177	862	593	431	364	‡ 259
12	213	196	113	131	114	125	194	763	576	427	374	259
13	213	196	113	131	107	118	194	763	519	427	388	259
14	213	196	113	128	99.6	110	194	763	516	417	388	259
15	196	196	113	124	99.6	110	194	759	516	406	388	259
16	187	196	113	121	99.6	103	212	731	516	484	388	259
17	179	187	113	116	99.6	103	3,960	717	516	523	388	259
18	179	170	113	116	99.6	103	36,700	699	516	523	351	259
19	179	162	113	108	99.6	101	‡ 6,890	699	526	498	351	259
20	162	162	113	108	113	106	2,440	731	1,100	498	351	259
21	162	166	113	108	106	99.6	1,860	731	565	498	351	259
22	154	166	113	115	99.6	99.6	1,620	699	558	519	351	259
23	162	166	113	117	99.6	99.6	‡ 1,490	664	543	519	351	259
24	170	158	114	117	162	99.6	1,410	632	530	519	339	259
25	162	158	114	103	224	99.2	1,350	636	516	452	339	259
26	162	150	114	96.8	367	92.2	1,270	636	502	424	328	259
27	146	142	114	96.8	473	85.8	1,230	636	502	424	317	248
28	179	142	114	96.8	246	92.2	1,190	636	498	424	317	237
29	179		107	96.8	210	99.6	1,150	636	484	424	317	225
30	179		99.2	96.8	191	100	1,100	622	484	424	305	222
31	179		99.2		191		1,090	622		424		218
Sum	6,286	5,141	3,628.4	4,290.5	4,474.5	3,727.4	67,703	24,484	17,155	14,394	10,934	8,027

Month	Current Year 1975								Period 1933-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
			High		Low						
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.	0.72	0.46	† 3	288	27	146	203	12,465	7,270	36,430	1,860
Feb.	.85	.39	1	371	28	135	184	10,191	5,795	25,760	1,060
Mar.	.39	.33	† 1	127	†30	99.2	117	7,200	5,081	27,040	1,340
Apr.	2.85	.33	6	2,830	†26	96.8	143	8,508	6,015	40,270	1,110
May	2.69	.30	26	2,570	8	83.7	144	8,876	10,962	120,200	861
June	.56	.30	10	261	27	85.8	124	7,394	10,377	103,300	543
July	17.85	.30	18	63,200	1	110	2,190	134,307	10,877	134,307	490
Aug.	1.84	1.15	3	1,350	31	614	791	48,570	9,142	53,789	738
Sept.	4.33	.98	20	5,830	†29	484	572	34,028	16,390	94,867	1,183
Oct.	1.05	.92	†17	526	†14	406	463	28,543	17,533	71,830	1,698
Nov.	.92	.79	† 1	399	30	305	364	21,702	11,457	54,060	803
Dec.	.79	.72	† 3	280	31	218	259	15,917	7,925	45,320	1,130
Yearly	17.85	0.30		63,200		83.7	466	337,701	128,324	381,720	17,430

** Period October 1932-1975 ‡ Discharge measurement made on this day † And other days

RIO GRANDE BELOW MAVERICK DAM NEAR QUEMADO, TEXAS

DESCRIPTION: Cableway, bubbler gage, control weir of 1,270 second-foot capacity, gravity well, and water-stage recorder located on the right bank at latitude 29°03'00", longitude 100°40'00", and river mile 523.4; 1.5 miles south-southeast of Jimenez, Coahuila, 1.9 river miles downstream from Rio San Diego, about 7.5 miles north-northwest of Quemado, Maverick County, Texas, 12.8 river miles downstream from the Maverick County Water Control and Improvement District No. 1 diversion dam, 31.3 river miles downstream from the international highway bridge between Del Rio, Texas and Cd. Acuna, Coahuila, and 725.5 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 769.00 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 10 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods prior to completion of the weir and for flows exceeding the capacity of the weir thereafter. Computations for flows within the capacity of the weir were based on a stable control weir rating curve defined by meter measurements. Records available: 1965 through 1975. Records, excluding some high flow periods, are also available from 1956 through May 1965 for a station 8.1 river miles upstream.

REMARKS: This station was placed in operation January 1, 1965 and replaces the station "Rio Grande below Maverick Dam near Del Rio, Texas" which stopped operating June 1, 1965. Irrigation diversions 14.0 river miles upstream largely control the flow at this station. A bubbler gage replaced the gravity well on May 1, 1966. The weir was placed in operation June 1, 1967 at which time a bubbler gage and gravity well were installed and the zero of the gage was set 3.28 feet higher.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 79,800 second-feet on July 18, 1975 with a gage height of 25.20 feet. Min. 3.5 second-feet on March 9, 1969 with a gage height of 0.16 feet.

Average Flow in Second-Feet

Daily:	Max. 87,100	July 18, 1975	Min. 7.1	July 16, 17, and 18, 1969
Monthly:	Max. 21,300	Sept. 1974	Min. 28.3	June 1969
Yearly:	Max. 4,330	1974	Min. 256	1968

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1,340	3,310	2,240	3,120	6,530	749	337	4,130	1,310	487	4,380	296
2	1,370	3,570	2,200	2,800	6,530	735	327	4,100	1,330	501	4,380	296
3	1,340	3,050	2,280	1,520	6,530	735	215	4,100	1,340	501	4,380	296
4	1,340	2,130	2,050	1,450	6,500	‡ 795	202	4,170	1,330	501	4,340	296
5	1,340	1,800	3,070	1,730	6,460	417	218	4,030	1,450	487	4,340	296
6	1,340	1,700	3,170	3,280	5,720	171	208	3,960	1,360	487	4,340	287
7	756	1,700	3,150	4,340	1,200	154	196	3,960	1,360	487	4,340	272
8	501	1,700	3,020	3,410	1,310	142	188	3,960	1,350	473	4,310	272
9	473	1,700	3,050	3,340	1,040	133	‡ 188	3,880	1,350	459	4,310	272
10	501	1,700	3,070	3,260	1,020	572	188	3,850	1,300	434	4,310	268
11	501	2,700	3,040	3,200	982	219	179	3,810	1,360	434	4,240	261
12	501	2,780	3,000	3,180	900	151	200	3,710	826	420	4,130	261
13	473	2,790	3,000	3,240	463	125	220	3,460	660	420	1,110	261
14	480	2,740	3,090	3,160	‡ 291	117	198	1,660	3,350	1,740	445	250
15	620	2,690	3,100	6,820	268	117	480	1,540	3,490	2,100	445	250
16	756	2,740	3,030	6,820	242	117	699	1,510	3,300	2,280	438	250
17	749	2,710	3,000	6,750	220	117	7,880	1,480	1,410	2,280	420	250
18	742	2,690	3,020	6,750	222	117	67,100	1,570	1,260	2,240	396	229
19	819	‡ 2,650	‡2,970	6,670	248	117	21,300	3,510	1,240	2,270	‡ 396	229
20	745	1,650	3,010	6,640	303	116	7,270	3,570	2,240	2,200	367	239
21	731	3,420	3,010	6,640	273	127	5,090	3,500	1,310	2,200	367	239
22	826	3,780	3,050	6,640	565	117	5,260	3,520	1,260	2,200	367	239
23	915	3,710	3,040	6,640	717	117	4,910	2,570	1,240	‡2,240	367	239
24	952	3,250	3,030	6,640	745	109	4,630	2,490	759	2,200	367	242
25	961	2,350	3,050	6,640	516	109	4,200	2,520	‡ 530	4,030	367	239
26	961	2,310	3,110	6,640	358	86.5	3,570	2,410	516	4,410	318	229
27	948	1,020	3,030	6,640	1,840	86.5	4,340	1,450	501	4,380	318	229
28	961	3,740	3,120	6,530	897	86.5	4,270	1,360	501	4,340	318	224
29	1,460		3,030	6,530	526	103	4,240	1,360	501	4,380	318	205
30	1,630		3,100	‡ 6,530	784	125	4,240	1,340	404	4,380	296	‡ 339
31	2,800		3,000		766		4,230	1,310		4,380		309
Sum	20,800	72,840	91,460	148,800	50,071	6,982.5	157,173	89,890	40,288	80,341	59,220	8,067

Month	Current Year 1975								Period 1966-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
	High	Low	Day	High	Day	Low			Average	Maximum	Minimum
Jan.	2.62	0.92	31	3,570	13	473	964	59,230	23,528	59,230	5,236
Feb.	3.25	.96	26	5,440	27	284	2,600	144,426	94,183	401,339	5,788
Mar.	2.62	2.07	21	3,600	3	2,010	2,950	181,473	45,259	181,473	5,874
Apr.	3.77	.59	17	7,060	4	239	4,940	293,837	49,666	293,837	5,030
May	3.61	.56	5	6,570	17	208	1,810	111,251	85,776	200,487	6,574
June	1.51	.33	10	1,070	25	80.9	232	13,800	50,767	164,298	1,671
July	25.20	.43	18	79,800	1	133	5,090	311,761	59,052	311,761	2,322
Aug.	2.92	1.07	4	4,410	31	1,290	2,900	178,300	75,326	178,300	11,355
Sept.	3.07	.65	20	7,630	30	487	1,340	79,808	223,334	1,204,108	13,678
Oct.	2.95	.85	25	4,430	14	410	1,950	119,750	185,498	831,296	13,399
Nov.	2.95	.69	† –	4,520	30	296	1,970	117,267	92,017	499,143	13,343
Dec.	1.28	.56	30	320	29	208	260	16,002	35,542	181,109	7,486
Yearly	25.20	0.33		79,800		90.9	2,250	1,627,932	1,022,938	3,169,805	207,998

‡ Discharge measurement made on this day † And other days

RIO SAN RODRIGO NEAR MOUTH AT EL MORAL, COAHUILA

DESCRIPTION: Cableway, gravity well, concrete control weir of 4,600 second-foot capacity, and water-stage recorder located on the left bank at El Moral, Coahuila, latitude 28°53'45", longitude 100°38'05", 0.6 river mile from the confluence with the Rio Grande, and about 15.5 miles northwest of Piedras Negras, Coahuila. The stream enters the Rio Grande at river mile 512.0, 19.5 river miles downstream from the Maverick County Water Control and Improvement District No. 1 diversion dam, 20.7 river miles upstream from the international highway bridge between Eagle Pass, Texas and Piedras Negras, Coahuila, and 736.8 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 751.61 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 14 discharge measurements made at low and medium flows during the year and a continuous record of gage heights. Records available: 1962 through 1975.

REMARKS: This station, located 10.6 river miles downstream from the permanent station which was in operation from 1922 through May 1966, was originally installed on a provisional basis; however, it became the permanent station on June 1, 1966 when operation of the upstream station was discontinued. The rating curve for this station is affected by backwater from the Rio Grande when its flow is approximately 10,000 second-feet. The flow of this spring-fed stream is modified by diversions above this station. On November 25, 1969, a concrete control weir was finished and placed in operation. Prior to this date, the zero of the gage was 746.82 feet above mean sea level, U. S. C. & G. S. datum.

EXTREME FLOWS FROM RECORDS**: Momentary: Max. 140,000 second-feet on July 18, 1975 with a gage height of 18.44 feet. Min. frequently no flow.

Average Flow in Second-Feet

Daily:	Max. 44,500	July 18, 1975	Min. 0	Frequently
Monthly:	Max. 3,440	July 1975	Min. 0	Frequently
Yearly:	Max. 410	1975	Min. 5.3	1963

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	111	74.2	47.0	25.1	22.6	49.1	71.0	727	223	177	147	113
2	111	79.8	44.8	22.6	22.6	45.2	‡ 87.9	667	240	177	147	113
3	108	79.8	44.8	22.6	22.6	39.6	69.2	639	251	172	143	113
4	105	79.8	41.3	22.6	22.6	39.6	57.2	639	‡ 241	172	143	113
5	105	79.8	41.3	22.6	22.6	36.4	49.8	576	247	172	143	113
6	105	77.0	39.6	217	22.6	36.4	45.6	523	234	168	139	113
7	105	74.2	39.6	1,450	22.6	35.0	47.7	484	228	168	139	109
8	105	74.2	39.6	1,310	353	35.0	61.8	445	223	168	135	109
9	101	74.2	39.6	73.8	438	35.0	66.4	413	236	168	135	109
10	101	71.7	39.6	56.5	82.3	52.3	65.3	388	235	164	131	109
11	98.2	68.9	37.9	48.4	45.2	46.6	61.4	367	223	164	131	105
12	98.2	68.9	37.9	43.1	37.1	41.3	61.4	357	217	165	‡ 128	105
13	98.2	66.4	37.9	41.3	33.2	37.8	63.6	332	212	168	124	105
14	95.0	63.9	36.4	39.6	32.8	36.4	60.7	‡ 312	217	168	124	105
15	95.0	63.9	36.4	37.8	31.4	35.0	59.3	297	217	‡ 163	124	105
16	95.0	63.9	36.4	36.4	29.0	32.5	67.1	283	217	175	128	105
17	91.5	61.8	36.4	34.3	26.1	30.4	11,300	274	212	178	128	‡101
18	88.3	‡ 59.3	36.4	32.8	25.4	29.0	44,500	262	207	168	128	97.5
19	85.5	59.3	36.4	30.4	24.4	29.0	21,200‡	256	204	163	124	97.5
20	82.6	59.3	36.4	29.0	32.5	30.4	8,300	245	207	159	124	97.5
21	79.8	59.3	36.4	27.5	‡ 29.7	43.4	4,980	239	207	159	124	97.5
22	79.8	57.2	35.0	‡ 27.5	25.1	36.7	3,320	235	207	159	120	97.5
23	79.8	57.2	33.2	27.5	25.8	32.1	2,390	228	202	159	117	97.5
24	82.6	55.1	31.8	27.5	37.1	30.0	‡1,780	228	197	159	117	97.5
25	82.6	55.1	‡ 30.7	26.1	50.9	‡ 27.5	1,430	223	‡ 192	163	117	97.5
26	79.8	55.1	29.0	25.1	48.0	27.2	1,300	223	187	168	117	94.6
27	77.0	50.9	27.5	25.1	251	26.1	1,290	224	187	168	113	92.2
28	74.2	49.1	27.5	25.1	141	25.1	1,170	239	182	168	113	92.2
29	74.2		26.1	23.7	130	26.8	1,030	239	177	163	117	89.7
30	74.2		26.1	22.6	75.9	31.1	901	228	177	159	113	89.7
31	74.2		26.1		57.9		809	223		155		87.2
Sum	2,842.7	1,839.3	1,115.1	3,853.6	2,221.0	1,058.0	106,695.4	11,015	6,406	5,157	3,833	3,170.6

Month	Current Year 1975: Extreme Gage Feet High	Low	Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1962-1975: Acre-Feet Average	Maximum	Minimum
Jan.	1.35	1.15	† 1	111	†28	74.2	91.8	5,639	2,777	9,976	0
Feb.	1.18	.95	† 2	79.8	28	47.0	65.7	3,648	1,826	6,669	0
Mar.	.95	.72	1	47.0	31	25.1	36.0	2,208	1,489	3,880	0
Apr.	5.17	.69	7	5,790	† 2	22.6	129	7,654	3,317	21,692	122
May	4.56	.69	8	2,630	† 1	22.6	71.7	4,405	2,331	6,431	17.0
June	1.21	.72	10	85.5	28	25.1	35.3	2,093	1,327	4,705	0
July	18.44	.82	18	140,000 E	1	31.8	3,440	211,578	18,906	211,578	0
Aug.	2.82	1.74	1	756	27	217	357	21,856	11,444	89,017	0
Sept.	1.90	1.01	9	274	†29	177	214	12,705	15,673	48,065	0
Oct.	1.84	1.51	16	187	31	155	166	10,221	13,778	53,088	0
Nov.	1.51	1.38	† 1	147	†27	113	127	7,594	5,581	19,270	0
Dec.	1.35	1.25	† 1	113	31	87.2	102	6,281	4,242	15,058	0
Yearly	18.44	0.69		140,000 E		22.6	410	295,887	82,691	295,887	3,850.7

** Period 1961-1973 ‡ Discharge measurement made on this day † And other days
E Estimated

RETURN FLOW TO THE RIO GRANDE AT MAVERICK POWER PLANT NEAR EAGLE PASS, TEXAS

DESCRIPTION: A part of the water diverted from the river into the Maverick Canal is returned to the Rio Grande through the hydroelectric power plant located on the left bank of the Rio Grande at latitude 28°49'50", longitude 100°33'10", about 9 miles north-northwest of Eagle Pass, Texas, and about 32.2 canal miles downstream from the point of diversion. The return enters the Rio Grande at river mile 501.5 and 747.3 river miles downstream from the American Dam at El Paso, Texas.

RECORDS: Based on records furnished by the Maverick County Water Control and Improvement District No. 1, showing hourly discharge in cubic feet per second based on hourly manometer readings, through each turbine at the Central Power and Light Company hydroelectric power plant. The mean daily discharges computed from the manometer readings have been multiplied by a factor to make them agree with periodic current meter measurements of flows made under stable flow conditions by hydrographers of the Commission. There were 52 discharge measurements made during the year. Records available: 1949 through 1975.

REMARKS: This power plant began operating April 16, 1932 with hydroelectric power generating facilities for 12,000 kw. Because the September 1932 flood washed out the upper end of the Maverick Canal, this plant did not operate from September 2, 1932 until March 17, 1937. Since then it has operated continuously except for 44 days in 1953 when shortage of water prevented operation and from June 30 through July 19, during flood of 1954, and while the canal was being repaired. The plant's operation is now governed by the amount of water released from Amistad Reservoir which began operations on May 31, 1968.

Average Flow in Second-Feet

Daily:	Max. 1,460	Aug. 29, 1969 & Oct. 23, 1973	Min. 0	Occasionally
Monthly:	Max. 1,340	Nov. 1974	Min. 14.1	June 1953
Yearly:	Max. 1,020	1950 & 1961	Min. 232	1972

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1,400	225	788	‡ 956	906	1,230	745	1,000	975	485	1,360	‡ 202
2	1,410	10.0	812	916	917	‡ 1,230	759	960	980	‡ 500	1,300	179
3	1,410	10.0	‡ 834	797	942	1,140	743	989	1,000	496	‡1,250	160
4	1,410	‡765	895	795	1,060	1,090	781	‡ 1,010	‡ 966	531	1,190	135
5	1,410	1,080	868	835	‡ 1,010	946	922	1,010	1,000	572	1,210	131
6	1,370	1,260	897	997	992	808	920	1,000	1,060	‡ 579	1,200	157
7	‡ 1,290	1,310	944	1,300	898	761	‡ 814	984	1,370	552	1,180	143
8	1,280	1,300	1,000	‡ 1,390	732	811	672	984	‡1,380	578	1,180	‡ 137
9	1,280	1,300	1,030	1,390	1,030	‡ 747	598	977	1,410	600	1,160	137
10	1,280	1,300‡	‡1,030	1,330	1,120	1,040	590	1,020	1,350	590	‡1,130	137
11	1,260	1,290	965	1,310	1,140	1,180	592	‡ 967	1,200	597	1,090	137
12	1,280	1,270	970	1,290	‡ 1,140	1,090	680	944	1,210	643	1,070	155
13	‡ 1,260	1,240	995	1,290	1,080	1,010	771	918	1,200	627	1,020	171
14	1,270	1,240	984	‡ 1,280	1,050	970	‡ 714	879	1,270	‡ 894	985	180
15	1,260	1,230	982	1,210	987	1,150	803	864	‡1,300	1,010	1,050	‡ 196
16	1,260	1,230	1,040	1,170	992	‡ 708	1,110	860	1,290	1,140	1,070	204
17	1,240	1,210	‡ 990	1,170	975	755	1,410	932	1,290	1,110	‡1,060	206
18	1,230	1,140‡	959	1,120	1,020	659	1,340	853	1,240	1,100	1,030	208
19	1,250	1,140	982	1,000	‡ 988	619	1,200	‡ 795	1,180	1,110	1,040	209
20	‡ 1,220	1,100	976	991	1,030	807	1,230	768	1,210	‡ 1,100	1,040	175
21	1,230	63.6	950	‡ 991	1,000	1,150	1,240	776	1,250	1,080	1,050	167
22	1,240	10.2	965	972	1,030	1,210	1,060	810	‡1,220	1,090	1,040	‡ 164
23	1,280	10.2	985	915	1,150	‡ 1,180	973	794	1,210	1,110	1,050	204
24	1,310	‡ 10.2	‡ 967	913	1,200	998	‡ 1,010	849	1,160	1,160	‡1,030	185
25	1,300	504	917	953	1,240	843	1,000	‡ 843	1,060	1,160	671	227
26	1,310	654	910	945	1,200	819	979	856	961	1,340	177	245
27	‡ 1,320	784	921	988	‡ 1,150	728	1,040	874	942	1,390	192	220
28	1,330	785	898	‡ 960	1,210	577	‡ 1,050	906	992	‡ 1,410	168	225
29	1,280		935	956	1,220	668	1,050	894	529	1,420	170	‡ 203
30	1,310		992	1,090	1,240	‡ 764	1,030	918	36.0	1,420	203	298
31	960		970		1,200		1,030	958		1,400		862
Sum	39,940	23,471.2	29,349	32,220	32,859	27,688	28,856	28,192	33,241.0	28,794	28,366	6,359

Month	Current Year 1975: Extreme Gage Feet High	Low	∅ Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1949-1975: Acre-Feet Average	Maximum	Minimum
Jan.			† 2	1,410	31	960	1,290	79,220	49,056	79,220	4,952
Feb.			7	1,310	† 2	10.0	838	46,554	44,882	68,500	9,373
Mar.			16	1,040	1	786	947	58,213	41,478	65,400	5,713
Apr.			† 3	1,390	4	795	1,070	63,907	37,750	63,907	4,301
May			†25	1,240	8	732	1,060	65,175	46,535	69,188	2,280
June			† 1	1,230	28	577	923	54,918	42,394	68,900	841
July			17	1,410	10	590	931	57,235	40,426	64,161	2,880
Aug.			10	1,020	20	768	909	55,918	47,309	69,000	18,457
Sept.			9	1,410	30	36.0	1,110	65,933	53,075	75,591	13,741
Oct.			†29	1,420	1	485	929	57,112	54,251	79,674	11,147
Nov.			1	1,360	28	168	946	56,263	48,635	79,478	3,203
Dec.			31	862	5	131	205	12,613	48,600	75,490	2,608
Yearly				1,420		10.0	930	673,061	554,391	740,000	168,354

‡ Discharge measurement made on this day ∅ Mean daily † And other days

DIVERSIONS FROM THE RIO GRANDE
MAVERICK CANAL EXTENSION BELOW THE POWER PLANT
NEAR EAGLE PASS, TEXAS

DESCRIPTION: Gage well and digital water-stage recorder located on the downstream side of a wooden pile bridge at latitude 28°49'50", longitude 100°32'40", about 1 mile downstream from the heading of this canal extension, about 9 miles north-northwest of Eagle Pass, Texas, and about 32.8 canal miles downstream from the point of diversion from the Rio Grande, which is located at river mile 537.4. The elevation of the zero of the gage has not been determined.

RECORDS: Based on 52 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: 1939 through 1975.

REMARKS: The main Maverick Canal divides into two branches at a point about 9 miles north-northwest of Eagle Pass, Texas, and about 31.8 canal miles downstream from the point at which water from the Rio Grande is diverted. One branch leads to the Maverick Power Plant and back to the Rio Grande while the other branch forms this Maverick Canal Extension, which is used to transmit irrigation water. Irrigation from this canal extension began in June 1938. In 1975, 27,031 acres of land north and south of Eagle Pass were irrigated. A total of 113,176 acre-feet of water from this canal extension returned to the river through the irrigation system which extends approximately 67 canal miles downstream.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 580 second-feet on July 25, 1964. Min. occasionally no flow.

Average Flow in Second-Feet

Daily:	Max. 559	July 14, 1964	Min. 0	Occasionally
Monthly:	Max. 525	July 1964	Min. 18.7	March 1939
Yearly:	Max. 345	1964	Min. 62.1	1939

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	77.2	26.2	364	‡ 379	393	254	266	338	397	306	53.3	‡ 234
2	76.4	25.9	376	374	393	‡ 254	269	376	344	‡ 308	123	233
3	75.8	26.4	‡ 375	370	384	256	274	379	333	306	‡186	229
4	75.1	‡124	380	368	359	259	279	‡ 377	‡ 367	304	214	226
5	74.4	134	421	367	‡ 358	304	299	380	330	302	189	227
6	102	134	418	373	357	325	311	392	286	‡ 302	159	231
7	‡ 127	135	415	169	355	341	‡ 346	421	36.1	301	191	228
8	117	135	417	‡ 85.4	367	354	415	415	‡ 28.6	300	212	‡ 233
9	117	135	416	89.1	344	‡ 361	431	413	29.5	282	273	232
10	116	‡135	‡ 366	105	326	244	429	417	86.4	273	‡272	228
11	124	135	354	122	325	193	426	‡ 418	219	272	286	237
12	130	137	360	140	‡ 321	236	425	403	183	271	292	246
13	‡ 130	139	339	159	320	275	425	386	150	271	290	253
14	131	152	344	‡ 183	318	271	‡ 407	384	152	‡ 273	284	256
15	132	181	346	200	318	269	393	383	‡ 140	272	266	‡ 256
16	140	193	349	227	319	‡ 306	278	382	136	246	260	236
17	164	195	‡ 354	263	319	350	43.7	383	123	270	‡242	223
18	176	‡194	368	294	320	390	40.3	389	185	269	232	216
19	177	225	375	344	‡ 319	409	38.6	‡ 408	237	270	232	212
20	‡ 178	260	373	361	323	329	38.1	421	226	‡ 269	231	235
21	178	190	372	‡ 362	343	31.2	99.5	421	206	268	234	259
22	176	21.8	372	363	364	28.5	332	407	‡ 233	267	250	‡ 241
23	176	0	370	362	298	‡ 27.2	407	399	244	251	266	225
24	175	‡ 3.3	‡ 367	362	262	137	‡ 396	399	223	228	‡248	214
25	174	319	399	338	260	274	395	‡ 398	222	226	236	200
26	163	348	424	321	259	290	393	397	222	116	233	211
27	‡ 145	310	424	333	‡ 256	269	393	396	222	44.4	234	213
28	142	335	402	‡ 364	256	258	‡ 370	396	239	‡ 43.2	232	224
29	142		386	352	255	260	341	396	145	41.3	232	‡ 228
30	144		387	201	254	‡ 262	338	397	51.1	39.7	233	226
31	95.4		383		255		336	398		44.9		226
Sum	4,348.6		8,330.5		7,816.9		12,269		7,236.5		7,138	
	4,150.3		11,796		9,900		9,634.2		5,997.7		6,885.3	

Month	Average Rainfall Inches**		Current Year 1975						Period 1939-1975		
			Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
	1939-1975	1975	Day	High	Day	Low			Average	Maximum	Minimum
Jan.	0.78	0.30	20	179	31	26.8	134	8,232	12,629	19,800	2,140
Feb.	.95	.57	26	375	†22	0	155	8,625	11,663	18,200	2,120
Mar.	.70	.04	†26	427	10	333	381	23,397	15,241	23,397	1,150
Apr.	1.65	2.25	6	396	7	23.6	278	16,523	15,920	25,900	3,430
May	2.97	4.07	2	396	30	252	319	19,636	14,039	28,191	2,840
June	2.09	6.05	20	430	23	26.8	261	15,505	16,762	30,173	3,750
July	1.40	2.61	9	434	†19	37.8	311	19,109	18,217	32,276	4,510
Aug.	2.23	.20	8	425	1	331	396	24,335	16,218	29,812	3,480
Sept.	3.11	3.99	3	403	30	16.2	200	11,896	12,222	22,640	4,600
Oct.	2.19	1.66	1	310	30	39.1	233	14,353	12,879	21,800	4,702
Nov.	.66	T	9	325	1	42.1	230	13,657	12,948	20,117	4,170
Dec.	.64	.17	15	265	†24	195	230	14,150	13,102	20,200	4,233
Yearly	19.37	21.91		434		0	262	189,418	171,840	250,801	44,950

‡ Discharge measurement made on this day
† And other days

** On the United States side from Maverick Power Plant to Cuervo Creek

RETURN FLOW TO THE RIO GRANDE FROM MAVERICK CANAL
MAVERICK DAM TO EAGLE PASS, TEXAS

DESCRIPTION: Part of the water diverted from the Rio Grande into the Maverick Canal is returned to the river through various drains and spillways of the irrigation system located between Maverick Diversion Dam and Eagle Pass, Texas. These return flows are measured at gaging stations consisting of sharp-crested Cipolletti weirs or control structures equipped with continuous water-stage recorders located at Lateral 2 Spill, Canon Grande, Quemado Creek, Lateral 15 Spill, Hardt Spill, Houchin Spill, Lateral 12 Spill, Lateral 8-B Spill, Elm Creek, and Seco Creek; and a Parshall flume at the Lateral 2 Sand Trap Spill into Las Moras Creek immediately below the canal siphon.

RECORDS: Based on the weir discharge table and a continuous record of gage heights. All storm flow occurring at these stations is deducted from the records and is not shown below. Records available: April 1959 through 1975.

REMARKS: In addition to the flows listed below, water from the Maverick Canal is returned to the Rio Grande in this reach at the Maverick Power Plant (see page 50).

EXTREME FLOWS FROM RECORDS:

	Average Flow in Second-Feet				
Daily:	Max. 929	Sept. 29, 1975	Min. 18.3	March 9, 1969
Monthly:	Max. 218	Jan. 1965	Min. 32.8	Jan. 1973
Yearly:	Max. 145	1965	Min. 51.4	1973

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	35.7	168	74.5	64.5	78.4	43.4	39.9	90.0	73.8	56.4	63.8	57.7
2	36.0	152	69.5	66.6	96.9	36.6	35.8	88.4	83.0	69.2	68.5	60.1
3	34.2	92.2	65.7	66.7	87.3	44.9	33.2	104	78.5	70.4	49.8	51.6
4	34.1	35.9	62.7	66.5	72.8	56.4	34.1	85.9	68.4	73.8	59.8	58.0
5	34.0	36.8	73.1	75.0	67.5	58.5	37.4	77.2	80.2	69.4	52.0	63.7
6	31.7	39.6	71.6	62.8	67.6	65.5	46.5	73.1	98.8	64.3	65.9	64.2
7	43.6	38.9	57.0	71.8	66.8	60.0	54.2	69.9	75.0	70.4	64.3	59.8
8	50.2	40.2	53.5	67.5	80.1	65.0	55.0	80.5	65.0	68.6	61.9	54.3
9	45.7	38.3	57.7	59.9	77.8	67.2	55.7	74.9	50.2	66.7	54.1	62.7
10	37.7	40.9	67.4	51.0	61.9	69.4	60.4	64.0	51.8	72.7	49.1	69.4
11	37.9	38.3	73.4	48.0	55.3	62.0	60.1	77.0	50.6	65.0	60.3	75.3
12	34.8	36.0	73.3	46.5	47.4	53.1	67.3	76.8	49.3	60.0	67.9	72.9
13	29.6	44.3	74.3	45.1	48.0	51.7	60.5	76.2	51.6	68.4	66.7	65.9
14	39.9	46.2	65.6	46.4	54.3	50.1	60.1	77.1	68.3	63.6	68.7	60.0
15	43.5	49.7	68.6	54.6	64.5	56.6	71.0	89.9	70.5	87.0	61.7	52.8
16	50.0	46.1	48.3	57.0	58.8	49.2	96.4	98.1	66.0	65.4	61.3	51.8
17	52.0	41.5	62.9	57.9	67.9	55.7	84.5	97.5	65.2	71.1	66.6	51.2
18	56.9	53.8	68.4	56.3	71.0	72.2	93.2	94.1	55.0	89.5	82.5	47.8
19	55.0	64.6	72.5	64.8	77.3	73.9	114	96.3	59.0	71.4	64.6	56.8
20	42.5	55.9	74.4	66.9	72.5	84.4	106	122	66.7	80.7	57.5	59.9
21	45.4	52.2	82.9	65.9	66.8	77.1	100	114	68.7	81.4	62.1	54.8
22	43.8	39.4	92.6	72.2	65.9	64.9	91.7	101	58.6	72.7	58.3	60.4
23	47.6	30.5	116	83.5	59.4	77.9	89.8	104	51.0	74.1	56.9	62.9
24	45.2	27.1	109	85.6	57.0	82.2	94.1	98.5	56.2	76.5	62.2	70.1
25	46.1	32.2	93.6	90.3	45.3	72.2	92.5	97.1	75.2	70.6	70.4	61.3
26	51.3	51.4	107	104	42.0	71.5	96.9	95.0	75.9	55.2	66.6	60.2
27	47.9	58.0	91.2	97.9	50.8	66.0	84.8	100	71.7	47.7	66.8	60.6
28	45.6	66.9	101	86.1	46.9	61.8	76.3	95.4	74.5	46.7	70.0	54.4
29	43.5		85.9	109	43.6	73.7	84.3	85.1	929	47.5	93.9	54.5
30	45.6		66.9	99.2	41.6	55.5	83.0	96.7	620	43.9	74.7	60.7
31	600		73.3		42.8		77.9	84.4		47.1		67.7
Sum	1,887.0	1,516.9	2,353.8	2,091.5	1,930.2	1,878.6	2,236.6	2,784.1	3,404.7	2,076.4	1,928.9	1,883.5

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Ø Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period April 1959-1975: Acre-Feet Average	Maximum	Minimum
Jan.			31	600	13	29.6	60.9	3,742	6,181	13,430	2,014
Feb.			1	168	24	27.1	54.2	3,009	5,226	7,652	2,242
Mar.			23	116	16	48.3	75.9	4,669	6,133	8,952	3,061
Apr.			29	109	13	45.1	69.7	4,148	6,204	7,795	3,715
May			2	98.9	30	41.6	62.5	3,840	5,949	8,777	3,697
June			24	84.4	2	36.6	62.6	3,726	6,488	9,219	2,912
July			19	114	3	33.2	72.1	4,436	6,793	9,958	2,811
Aug.			20	122	10	64.0	89.3	5,522	6,653	9,666	2,931
Sept.			29	929	12	49.3	113	6,753	5,800	9,477	2,835
Oct.			18	89.5	30	43.9	67.0	4,118	5,705	8,583	2,811
Nov.			29	93.9	10	49.1	64.3	3,826	5,751	8,696	2,717
Dec.			11	75.3	18	47.8	60.8	3,736	5,676	8,821	2,438
Yearly				929		27.1	71.2	51,525	72,599	104,997	37,237

Ø Mean daily

RIO GRANDE AT EAGLE PASS, TEXAS

DESCRIPTION: Cableway, gravity well, water-stage recorder, and resistance-type transmitter located on the left bank at latitude 28°42'50", longitude 100°30'25", and river mile 491.8; 0.5 river mile upstream from the international highway bridge between Eagle Pass, Texas and Piedras Negras, Coahuila, 73.4 river miles downstream from Amistad Dam, and 757.0 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 682.91 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 68 discharge measurements during the year, 51 by the Mexican Section and 17 by the United States Section of the Commission, and a continuous record of gage heights. Computations by shifting control methods. Records available: May 1900 through Mar. 1914; Aug. 1914 through Apr. 1916; Sept. 1916; Sept. and Oct. 1917; Oct. 1918; Sept. and Oct. 1919; Aug. and Sept. 1920; June 1922; Sept., Nov., and Dec. 1923; and 1924 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. The transmitter is coupled, via leased telephone circuits, to a receiver located in the office of the Eagle Pass and Piedras Negras Bridge Company from where the Wheatstone bridge circuit can be balanced to indicate the existing gage height. This system is operated in cooperation with the National Weather Service.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 964,100 second-feet, determined by slope-area calculations, on June 29, 1954 with a gage height of 53.51 feet. Well-authenticated information indicates the occurrence of a flood in June 1865 with an estimated discharge of 1,236,000 second-feet and a gage height of 56.00 feet on the present gage and also that these were the only floods since 1745 with flows greater than 825,000 second-feet. Min. 24.4 second-feet on June 22, 1953 with a gage height of 0.07 foot.

Average Flow in Second-Feet**

Daily:	Max. 572,100	June 28, 1954	Min. 30.7	June 22, 1953
Monthly:	Max. 48,000	Sept. 1932	Min. 248	April 1953
Yearly:	Max. 9,180	1932	Min. 670	1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2,970	3,640	3,710	3,990	7,060	2,130	‡ 1,110	6,000	3,070	1,640	6,070	717
2	2,970	3,530	3,020	‡ 3,920	7,060	2,060	1,370	5,830	3,070	1,630	5,690	‡ 713
3	2,970	3,390	3,020	2,570	7,130	‡ 2,020	1,250	5,830	‡ 3,160	1,620	5,540	699
4	2,970	‡ 2,910	‡3,020	2,500	7,170	1,980	1,200	5,970	3,070	1,650	‡ 5,510	682
5	2,970	3,020	3,470	2,460	7,060	1,790	1,290	‡ 5,760	3,170	1,660	5,510	682
6	2,940	3,020	3,990	4,270	6,820	‡ 1,350	1,320	5,650	3,230	1,660	5,510	682
7	‡ 2,720	3,050	4,030	‡ 9,890	‡ 3,990	1,220	1,230	5,540	3,530	‡ 1,610	5,440	671
8	2,220	3,050	3,920	‡ 5,160	‡ 2,440	1,250	‡ 1,110	5,510	3,440	1,600	5,440	‡ 650
9	2,140	3,050	3,990	4,660	3,260	1,190	1,050	5,400	‡ 3,520	1,620	5,400	‡ 650
10	2,120	3,050	3,990	4,450	2,490	‡ 2,720	1,050	5,370	3,450	1,610	5,330	650
11	2,100	‡ 3,450	3,960	4,340	2,400	2,300	1,050	5,300	3,240	1,620	‡ 5,300	650
12	2,110	3,920	‡3,960	4,310	2,310	1,570	1,110	‡ 5,260	3,050	1,620	5,260	674
13	2,080	3,920	4,030	4,310	‡ 2,070	1,420	1,260	5,120	2,680	1,620	4,270	699
14	‡ 2,020	3,920	3,990	4,310	1,620	1,350	1,190	3,990	3,880	2,230	2,230	699
15	2,020	3,880	3,990	‡ 6,990	1,530	1,320	‡ 1,200	3,290	5,120	3,530	2,140	713
16	2,220	3,880	4,030	7,560	1,470	1,280	1,890	3,200	5,090	3,740	2,140	‡ 674
17	2,240	3,920	3,990	7,550	1,430	‡ 1,120	2,480	3,190	‡ 3,990	3,780	2,110	650
18	2,220	3,810	‡3,920	7,490	1,470	1,010	52,600	3,150	3,210	3,780	2,080	650
19	2,240	‡ 3,780	3,880	7,350	1,470	1,010	101,400	‡ 4,030	3,090	3,650	1,950	629
20	2,200	3,370	‡3,880	7,060	1,550	2,250	20,900	4,730	3,330	3,810	‡ 1,960	597
21	‡ 2,190	3,270	3,920	7,310	‡ 1,550	2,210	‡ 11,800	4,770	3,780	3,670	1,900	597
22	2,210	3,410	3,960	‡ 7,310	‡ 1,640	1,550	9,500	4,770	3,180	3,670	1,830	597
23	‡ 2,360	‡ 3,530	4,030	7,240	2,330	1,450	8,400	4,200	3,020	‡ 3,650	1,800	‡ 650
24	2,480	3,500	3,990	‡ 7,170	2,110	1,320	7,630	3,880	‡ 2,890	3,880	1,830	650
25	2,490	‡ 2,800	‡3,880	7,200	2,150	‡ 1,140	‡ 7,130	3,880	‡ 2,320	4,730	‡ 1,550	650
26	2,470	3,030	3,850	7,200	2,180	‡ 1,110	5,970	‡ 3,880	2,180	6,070	819	650
27	2,470	‡ 2,370	3,880	7,200	‡ 3,530	1,050	6,820	3,480	2,130	6,110	720	650
28	2,490	3,450	3,960	7,170	2,540	886	6,670	‡ 3,030	2,160	‡ 6,110	‡ 724	650
29	‡ 2,590		3,880	‡ 7,130	2,360	1,030	‡ 6,460	3,070	2,200	6,110	700	643
30	2,980		3,990	7,310	2,220	1,230	6,290	3,070	‡ 2,300	6,040	734	‡ 614
31	3,170		4,060		2,150		6,140	3,070		‡ 6,040		2,370
Sum	76,340	95,020	119,190	177,390	96,610	45,336	279,870	139,220	95,530	102,160	97,523	21,152

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet Day	Extreme Second-Feet High	Extreme Second-Feet Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1938-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	4.72	3.38	31	4,100	†14	2,020	2,460	151,427	72,302	151,417	28,191
Feb.	5.54	3.12	28	5,720	27	1,800	3,390	183,485	134,260	448,150	35,604
Mar.	5.51	4.07	1	5,650	† 2	3,020	3,850	236,403	88,673	236,403	20,309
Apr.	9.32	3.08	7	15,500	4	1,590	5,900	351,859	94,535	351,859	24,030
May	6.23	2.89	4	7,200	17	1,370	3,110	191,623	136,121	230,246	35,193
June	5.12	2.30	20	4,870	28	823	1,510	89,896	102,932	246,770	19,254
July	32.48	2.46	19	149,000	11	957	9,040	555,096	133,396	555,096	26,100
Aug.	5.74	4.04	4	6,110	28	2,970	4,480	276,161	142,560	276,161	56,356
Sept.	5.71	3.22	21	6,000	29	1,720	3,190	189,521	286,897	1,300,338	80,690
Oct.	5.77	3.05	26	6,140	7	1,550	3,290	202,690	258,275	691,747	80,699
Nov.	5.71	2.53	1	6,070	29	671	3,250	193,465	144,547	570,870	48,790
Dec.	3.25	2.40	31	1,440	†20	597	682	41,950	82,334	288,589	26,197
Yearly	32.48	2.30		149,000		597	3,670	2,668,566	1,676,888	3,753,089	705,670

** Period 1924-1975 ‡ Discharge measurement made on this day † And other days

RIO ESCONDIDO AT VILLA DE FUENTE, COAHUILA

DESCRIPTION: Cableway, gravity well, concrete control weir of 1,750 second-foot capacity, and water-stage recorder located on the downstream side of the left abutment of the highway bridge over Rio Escondido on the outskirts of Villa de Fuente, Coahuila, 1.2 river miles downstream from the cableway, at latitude 28°40'10", longitude 100°32'50", about 3 miles southwest of Piedras Negras, Coahuila, 3.7 river miles from the confluence with the Rio Grande, and 6.8 river miles downstream from the confluence of Rio San Antonio with Rio Escondido. Rio Escondido enters the Rio Grande at river mile 488.2, 3.1 river miles downstream from the international highway bridge between Eagle Pass, Texas and Piedras Negras, Coahuila, and 760.6 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 718.37 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 12 discharge measurements during the year and a continuous record of gage heights. Records available: 1922 through 1975. Records from 1922 through September 1932 are considered doubtful.

REMARKS: Diversions and drainage returns modify the flow of this spring-fed stream at this station. Backwater from the Rio Grande reached an elevation of 729.92 feet during the flood of June 1954. Prior to November 1954, the gage well was located at the present cableway site. The weir was destroyed by a flood on September 24, 1964. On November 25, 1969, the concrete control weir was finished and placed in operation.

EXTREME FLOWS FROM RECORDS**: Momentary: Max. 24,000 second-feet on June 29, 1936 with a gage height of 19.13 feet. Min. frequently no flow.

Average Flow in Second-Feet**

Daily:	Max. 13,100	Sept. 24, 1964	Min.	0	Several days 1956-1958 & 1965
Monthly:	Max. 827	Sept. 1964	Min.	0.3	September 1965
Yearly:	Max. 144	1971	Min.	2.4	1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	41.7	45.6	35.0	33.2	18.7	57.9	58.3	33.9	124	131	114	102
2	41.7	47.3	35.0	26.1	18.7	53.3	51.2	41.3	156	131	114	98.9
3	41.7	47.3	35.0	26.1	65.0	49.4	37.4	50.8	149	131	114	98.9
4	41.7	51.2	‡ 35.0	26.1	50.5	49.4	35.0	59.3	150	138	118	98.9
5	41.7	49.4	35.0	35.0	33.5	45.6	35.0	87.9	142	145	118	98.9
6	41.7	49.4	35.3	36.0	29.0	45.6	35.0	78.8	131	145	118	98.9
7	45.6	49.4	35.3	51.6	25.4	45.6	32.1	87.6	138	‡ 145	114	98.9
8	45.6	49.4	38.1	32.1	24.4	41.7	32.1	99.9	138	145	111	98.9
9	45.6	49.4	38.1	29.0	28.3	38.8	35.0	102	144	145	111	98.9
10	45.6	49.4	35.3	29.0	35.0	‡ 96.1	32.1	105	152	145	111	98.9
11	45.6	‡ 51.6	35.3	29.0	35.0	48.4	32.1	111	145	131	111	98.9
12	45.6	49.4	35.0	29.0	35.0	41.7	35.0	‡ 114	139	131	108	98.9
13	45.6	47.7	35.0	29.0	‡ 35.0	41.7	35.0	118	145	124	105	98.9
14	45.6	47.7	35.0	29.0	35.0	38.5	35.0	118	145	118	108	98.9
15	49.4	43.1	35.0	29.0	35.0	35.0	‡ 35.0	121	148	118	111	98.9
16	49.4	36.7	35.0	‡ 26.1	33.9	32.1	43.1	121	147	136	111	98.9
17	49.4	35.0	35.0	26.1	26.8	29.0	49.4	121	‡ 141	124	111	‡ 92.9
18	48.0	35.0	32.8	26.1	18.0	27.9	45.6	121	138	124	111	81.9
19	45.6	35.0	29.0	23.7	16.6	25.1	39.6	121	138	124	111	81.9
20	44.5	35.0	29.7	23.7	24.7	20.5	38.8	121	142	124	108	87.6
21	45.6	35.0	29.0	23.7	22.2	23.7	35.0	121	145	124	105	87.6
22	45.6	35.0	29.0	23.7	35.3	23.7	35.0	121	145	118	105	87.6
23	49.4	35.0	29.0	22.2	480	23.7	35.0	121	145	118	105	87.6
24	49.4	35.0	30.7	21.2	262	21.2	35.7	121	145	118	108	90.1
25	49.4	35.0	29.0	18.7	177	21.2	37.8	121	145	118	‡ 108	92.9
26	49.4	35.0	29.0	18.7	101	21.2	33.5	121	145	124	108	92.9
27	49.4	35.0	30.4	18.7	68.9	21.2	30.7	131	145	124	105	92.9
28	‡ 49.4	35.0	30.4	18.7	174	22.6	29.0	148	141	124	105	92.9
29	45.6		29.0	17.7	84.8	58.3	28.3	134	138	124	105	92.9
30	45.6		32.1	17.7	71.3	147	26.8	131	131	118	102	92.9
31	45.6		32.1		57.9		27.9	127		114		92.9
Sum	1,184.0		795.9		1,247.1		3,330.5		3,979		2,933.0	
	1,425.7	1,023.6		2,157.9		1,126.5		4,277		3,204		

Month	Current Year 1975								Period 1933-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
				High		Low					
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.	1.12	1.05	†15	49.4	† 1	41.7	45.9	2,827	2,232	15,990	43.8
Feb.	1.12	.98	† 4	51.6	†17	35.0	42.4	2,348	1,640	9,990	38.9
Mar.	1.02	.92	† 8	38.1	†19	29.0	32.8	2,029	1,398	6,910	92.4
Apr.	1.61	.79	7	131	29	17.7	26.5	1,578	1,869	21,950	81.1
May	3.74	.72	23	985	18	14.8	69.6	4,282	3,561	25,470	154
June	3.25	.79	30	717	20	20.1	41.7	2,473	2,246	19,730	60.3
July	1.31	.89	1	74.5	30	26.1	36.4	2,234	1,583	9,740	57.6
Aug.	1.90	.92	27	201	1	29.0	107	6,600	2,861	20,830	34.9
Sept.	1.87	1.57	2	193	† 1	124	143	8,480	4,409	49,182	17.8
Oct.	2.03	1.51	10	237	31	114	128	7,879	3,468	28,327	43.8
Nov.	1.54	1.44	1	118	30	102	110	6,538	2,287	25,730	43.8
Dec.	1.44	1.35	1	102	†18	81.9	94.6	5,816	1,993	13,406	67.3
Yearly	3.74	0.72		985		14.8	73.5	53,084	29,547	104,204	1,755.3

** Period 1932-1975 ‡ Discharge measurement made on this day † And other days

RETURN FLOW TO THE RIO GRANDE FROM MAVERICK CANAL
EAGLE PASS TO SAN ANTONIO CROSSING

DESCRIPTION: Part of the water diverted from the Rio Grande into the Maverick Canal is returned to the river through various drains and spillways of the irrigation system located between Eagle Pass, Texas and the San Antonio Crossing Gaging Station. These return flows are measured at gaging stations consisting of sharp-crested Cipolletti weirs or control structures equipped with continuous water-stage recorders located at Lateral 40 Spill, Lateral 40D Spill, Canon Diablo, Lateral 50 Lowline No. 1, Lateral 50 Spill, Lateral 50 Lowline No. 2, Rosita Creek, Lateral 60K Spill, Sauz Creek, Lateral 70 Spill No. 1, Lateral 70 Spill No. 2, Indio Creek, Gravel Spill, Lateral 71 Spill, and Cuervo Creek.

RECORDS: Based on the weir discharge table, stable station control rating tables, and a continuous record of gage heights. All storm flow occurring at these stations is deducted from the records and is not shown below. Records available: April 1959 through 1975.

EXTREME FLOWS FROM RECORDS:

	Average Flow in Second-Feet			
Daily:	Max. 350	July 5, 1968	Min. 15.7	March 10, 1969
Monthly:	Max. 248	July 1967	Min. 54.6	December 1969
Yearly:	Max. 206	1963	Min. 132	1970

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	47.5	79.9	112	226	150	192	160	157	212	76.1	29.3	123
2	47.4	77.4	148	191	137	184	162	156	240	60.1	34.2	129
3	43.5	62.2	155	161	228	156	141	173	256	114	27.7	136
4	42.7	44.8	173	172	222	118	145	188	180	132	50.8	144
5	44.7	38.3	174	200	205	122	126	177	219	144	124	138
6	45.5	43.7	196	199	177	128	132	173	255	130	120	111
7	43.8	60.6	183	199	166	151	152	164	313	150	106	126
8	64.8	73.8	197	146	178	182	158	166	155	151	75.9	108
9	70.2	78.6	238	104	186	166	162	190	77.1	139	67.4	122
10	70.0	79.2	243	58.9	167	167	176	186	53.6	130	76.0	104
11	62.1	85.4	254	72.1	183	169	211	196	37.1	134	111	109
12	60.7	82.6	228	129	181	156	194	228	51.9	144	104	104
13	76.0	84.3	194	157	189	117	213	200	160	133	79.0	104
14	76.9	92.4	195	151	152	147	243	169	158	119	92.0	136
15	95.3	98.0	178	126	157	171	237	191	146	122	110	128
16	90.0	101	172	127	156	170	308	184	116	160	122	134
17	82.0	104	172	123	137	138	326	193	100	170	137	138
18	69.1	103	149	138	135	128	195	195	97.7	134	141	131
19	67.3	85.9	162	136	147	141	101	169	104	149	114	116
20	80.4	74.6	169	166	140	209	59.3	156	203	180	98.8	124
21	102	87.5	181	198	117	257	44.9	150	227	172	95.1	122
22	107	88.0	192	229	125	188	47.2	160	140	156	115	134
23	116	67.9	213	219	168	92.5	97.8	187	120	169	120	156
24	119	44.7	189	194	150	49.3	237	188	142	169	133	158
25	114	28.2	183	183	154	46.9	259	165	148	184	138	146
26	121	43.0	162	181	140	80.8	257	146	123	185	145	123
27	128	177	187	177	139	195	267	197	120	157	127	121
28	127	131	205	184	186	217	271	220	109	106	136	112
29	98.0		217	178	149	279	226	210	129	61.8	154	121
30	87.4		230	172	152	177	182	215	110	44.4	128	127
31	83.2		226		197		165	213		31.7		124
Sum	2,482.5	2,217.0	5,877	4,897.0	5,070	4,694.5	5,655.2	5,662	4,502.4	4,107.1	3,111.2	3,909

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Ø Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period Apr. 1959-1975: Acre-Feet Average	Maximum	Minimum
Jan.			27	128	4	42.7	80.1	4,924	9,801	12,728	4,924
Feb.			27	177	25	28.2	79.1	4,397	8,985	13,117	4,397
Mar.			11	254	1	112	190	11,657	10,712	13,498	6,118
Apr.			22	229	10	58.9	163	9,713	11,183	14,646	9,380
May			3	228	21	117	164	10,056	10,510	14,327	6,205
June			29	279	25	46.9	156	9,311	11,433	14,430	7,798
July			17	326	21	44.9	182	11,217	11,671	15,219	5,223
Aug.			12	228	26	146	183	11,230	10,934	14,299	8,378
Sept.			7	323	11	37.1	150	8,930	8,982	13,974	4,541
Oct.			26	185	31	31.7	132	8,146	9,026	12,248	4,983
Nov.			29	154	3	27.7	104	6,171	9,138	11,843	5,067
Dec.			24	158	†10	104	126	7,753	9,518	12,797	3,354
Yearly				326		27.7	143	103,505	121,893	149,031	95,204

Ø Mean daily † And other days

RIO GRANDE AT SAN ANTONIO CROSSING NEAR EL INDIO, TEXAS

DESCRIPTION: Cableway, bubbler gage, concrete control weir, and water-stage recorders (graphic and digital) located on the left bank at latitude 28°20'40", longitude 100°18'35", and river mile 455.3; 0.5 river mile downstream from Cuervo Creek, which marks the lower end of the Maverick County Water Control and Improvement District No. 1, 1.9 river miles upstream from Tovar Creek, 5 miles northeast of Villa Guerrero, Coahuila, about 11.5 miles south of El Indio, Texas, 35.5 river miles downstream from the International highway bridge between Eagle Pass, Texas and Piedras Negras, Coahuila, and 703.0 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 580.00 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 32 discharge measurements during the year, 26 by the United States Section and 6 by the Mexican Section of the Commission, and a continuous record of gage heights. Computations for high flows by shifting control methods. Low and medium flow computations based on a stable control weir rating curve defined by meter measurements. Records available: Mar., Apr., May, Oct., Nov., and Dec. 1952 with some days missing; Jan. through Aug. 20, 1953; Sept. 23, 1953 through June 14, 1954; and May 27, 1955 through 1975 with several days missing prior to Sept. 1955.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 922,000 second-feet in June 1954, determined by slope-area computation, with an elevation of 524.31 feet. Min. 54.4 second-feet on June 24, 1953 with an elevation of 581.96 feet at a station 1,700 feet upstream from the present site.

Average Flow in Second-Feet**

Daily:	Max. 185,000	Sept. 25, 1954	Min. 299	July 20 & Aug. 2-4, 1956
Monthly:	Max. 31,700	Sept. 1964	Min. 445	July 1956
Yearly:	Max. 6,130	1958	Min. 1,040	1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3,060	3,050	4,270	4,260	‡ 7,350	2,400	1,350	6,300	3,100	‡ 1,960	5,850	1,020
2	3,030	3,820	3,150	‡ 4,200	7,360	2,350	1,270	6,140	3,240	1,820	5,830	1,050
3	3,030	3,630	3,160	3,870	7,550	2,290	1,550	6,040	‡ 3,710	1,650	5,740	1,050
4	2,980	3,100	3,120	2,570	7,640	2,120	1,300	6,260	3,190	1,700	5,700	1,040
5	2,930	‡ 3,260	‡3,150	2,550	7,630	2,120	1,330	6,120	3,230	1,740	5,710	1,050
6	2,980	3,330	4,030	3,050	7,580	1,710	1,440	‡ 5,980	3,460	1,760	5,740	1,010
7	2,900	3,330	4,150	10,700	6,070	1,420	1,460	5,830	3,770	1,720	5,710	990
8	‡ 2,380	3,350	4,130	5,970	2,770	1,440	1,320	5,730	3,530	1,700	5,600	976
9	2,130	3,330	4,180	4,810	3,520	1,440	‡ 1,250	5,740	3,390	1,710	5,620	958
10	2,120	3,310	4,240	4,680	3,010	3,180	1,240	5,630	3,450	1,710	5,580	‡ 951
11	2,100	3,410	4,260	4,630	2,760	‡ 3,680	1,250	5,610	3,200	1,680	5,570	946
12	2,060	4,250	4,250	4,660	2,630	2,180	1,250	5,590	3,100	1,670	‡5,670	951
13	2,100	4,250	4,180	4,530	2,400	1,710	1,390	5,410	2,880	1,680	5,170	943
14	2,110	4,210	4,190	4,440	‡ 1,970	1,560	1,520	4,870	3,000	1,650	2,700	938
15	2,130	4,270	4,140	5,410	1,730	1,510	1,650	3,530	5,180	‡ 3,200	2,210	997
16	2,280	4,190	4,180	‡ 7,900	1,650	1,490	1,990	3,390	5,150	3,980	2,200	1,010
17	2,430	4,220	4,230	7,900	1,640	1,350	3,230	3,330	‡ 4,720	3,910	2,160	1,030
18	2,380	4,180	4,180	7,680	1,630	1,200	22,600	3,350	3,380	3,890	2,140	1,000
19	2,420	‡ 4,090	‡4,120	7,550	1,690	1,140	96,400	3,460	3,160	3,880	2,060	971
20	2,430	3,940	4,130	7,490	1,700	1,040	43,300	‡ 4,730	3,450	3,900	2,010	961
21	2,440	3,200	4,140	7,300	1,640	6,260	15,000	4,760	4,130	3,860	1,970	933
22	‡ 2,410	3,390	4,100	7,380	1,590	2,300	10,300	4,780	3,270	3,820	2,000	937
23	2,420	3,730	4,200	7,370	4,200	1,710	‡ 8,950	4,630	3,120	3,910	1,980	956
24	2,410	3,790	4,240	7,330	2,850	1,540	8,070	4,050	3,100	3,960	1,990	‡ 993
25	2,400	3,240	4,140	7,300	2,450	‡ 1,280	7,540	4,030	2,610	4,120	1,990	990
26	2,550	2,970	4,020	7,300	2,460	1,170	6,400	3,960	2,250	5,800	‡1,490	1,010
27	2,570	3,010	4,090	7,270	3,410	1,270	6,820	3,910	2,160	5,990	1,110	984
28	2,530	2,130	4,060	7,400	‡ 3,590	1,230	7,050	3,200	2,110	5,950	1,090	947
29	2,520		4,050	7,310	2,660	1,220	6,830	3,140	2,100	‡ 5,970	1,070	930
30	2,920		4,210	7,610	2,760	1,540	6,620	3,100	2,330	5,950	1,070	907
31	3,060		4,300		2,480		6,450	3,100		5,870		1,040
Sum	75,350	100,670	125,070	182,290	110,400	57,750	273,120	145,720	98,590	101,910	104,730	30,519

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1963-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	7.23	6.75	1	3,060	†10	2,000	2,530	155,405	84,350	155,405	47,170
Feb.	7.65	6.01	14	4,410	28	1,750	3,600	199,676	143,019	444,879	51,336
Mar.	7.91	6.91	1	5,180	1	2,300	4,030	248,073	103,477	248,073	37,442
Apr.	9.25	6.00	7	15,800	4	1,650	6,080	361,567	107,076	361,567	37,380
May	8.38	6.50	5	7,540	17	1,540	3,560	218,975	152,080	237,835	50,723
June	8.76	6.18	21	10,900	28	1,020	1,920	114,545	126,062	353,792	29,808
July	23.20	6.29	19	131,000	10	1,190	8,970	551,643	144,097	551,643	37,228
Aug.	8.17	7.24	4	6,460	30	3,060	4,700	289,031	158,638	294,704	66,822
Sept.	7.97	6.71	21	5,360	30	1,960	3,290	195,550	295,130	1,296,059	83,327
Oct.	8.10	6.51	29	6,110	2	1,590	3,290	202,136	269,283	803,003	92,140
Nov.	8.00	6.19	† 1	5,880	†27	1,070	3,490	207,729	154,960	552,383	58,569
Dec.	6.59	6.05	31	1,760	30	877	984	60,534	96,038	276,020	49,819
Yearly	23.20	6.05		131,000		877	3,470	2,604,384	1,834,202	3,835,752	896,415

** Period 1956-1975 ‡ Discharge measurement made on this day † And other days

RIO GRANDE AT PALAFOX NEAR LAREDO, TEXAS

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the right bank on the outskirts of Palafox, Webb County, Texas and Villa Hidalgo, Coahuila at latitude 27°47'55", longitude 99°52'40", and river mile 403.0; 1.9 river miles downstream from Arroyo Agua Verde in Mexico, 13.1 river miles upstream from Santo Tomas Creek in United States, 44.7 river miles upstream from the international highway bridge between Laredo, Texas and Nuevo Laredo, Tamaulipas, and 845.8 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 436.02 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 25 discharge measurements during the year, 23 by the Mexican Section and 2 by the United States Section of the Commission, and a continuous record of gage heights. Computations by shifting control methods. High flows prior to early 1962 were computed from a rating curve developed after the cableway was installed. Records available: August 1959 through 1975.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. The recorder was installed on August 5, 1959 and the cableway in early 1962.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 214,000 second-feet on September 25, 1964 with a gage height of 42.00 feet. Min. 314 second-feet on June 30, and July 1, 1972 with a gage height of -0.66 foot.

Average Flow in Second-Feet**

Daily:	Max. 163,000	Sept. 26, 1964		Min. 314	July 1, 1972
Monthly:	Max. 30,400	Sept. 1964		Min. 434	June 1969
Yearly:	Max. 5,470	1974		Min. 1,270	1972

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3,640	3,500	3,250	‡ 4,270	7,380	2,880	1,520	6,390	3,120	1,890	5,720	1,150
2	3,570	3,960	3,740	4,170	7,170	2,640	‡ 1,490	6,180	3,210	1,770	5,650	1,130
3	3,410	3,850	3,300	4,060	7,420	‡ 2,430	1,510	6,780	3,500	1,710	5,650	1,120
4	3,300	3,500	3,280	3,020	7,380	2,250	1,630	6,780	3,350	1,730	‡5,650	1,110
5	3,200	3,140	‡3,250	2,620	7,420	2,150	1,480	6,290	‡ 3,140	1,800	5,650	1,110
6	‡ 3,150	3,180	3,600	2,570	7,270	2,050	1,500	‡ 6,000	3,350	1,840	5,690	1,090
7	3,080	‡ 3,210	4,170	5,300	‡ 7,100	1,720	1,550	5,860	3,740	1,820	5,690	1,080
8	2,920	3,280	4,200	10,300	4,030	1,600	1,540	5,760	3,670	1,820	5,620	1,060
9	2,380	3,300	4,170	5,400	2,620	1,590	‡ 1,460	5,720	3,420	‡ 1,800	5,580	1,050
10	2,190	3,300	4,270	4,800	3,460	3,030	1,380	5,680	3,530	1,800	5,540	1,030
11	2,130	3,280	4,310	4,520	2,990	5,650	1,370	5,680	3,320	1,780	5,510	1,040
12	2,150	‡ 3,640	4,240	4,410	3,200	3,270	1,400	5,580	3,160	1,770	5,510	1,030
13	2,190	4,130	4,170	4,520	2,570	2,050	1,540	5,470	3,060	1,750	5,400	1,030
14	2,170	4,130	4,170	4,520	2,380	1,760	1,550	5,330	2,860	1,750	5,440	1,030
15	2,170	4,100	4,170	‡ 4,480	1,870	1,650	1,630	4,240	3,880	1,970	2,550	1,020
16	2,260	4,060	4,170	7,060	1,730	1,600	2,000	3,500	5,050	3,600	2,330	1,030
17	2,350	4,030	4,170	7,630	1,680	1,580	2,890	3,420	4,980	3,900	2,310	1,020
18	2,470	‡ 4,030	4,130	7,630	1,620	1,470	4,480	3,420	3,990	3,850	2,310	1,010
19	2,420	3,960	4,030	7,520	1,610	1,360	48,400	‡ 3,250	3,210	3,810	‡2,240	1,020
20	2,440	3,370	4,030	7,420	‡ 1,660	1,430	74,200	4,020	3,120	3,810	2,170	1,010
21	2,470	3,430	4,030	7,450	1,680	7,660	‡ 18,300	4,770	3,810	3,780	2,080	1,000
22	2,470	3,390	4,060	7,450	1,710	3,340	12,300	4,770	3,810	3,780	2,050	1,000
23	2,470	3,470	4,060	7,520	3,670	1,690	10,300	4,770	3,210	3,740	2,050	1,020
24	2,470	‡ 3,570	‡4,170	7,380	6,220	1,460	9,290	4,270	3,100	3,740	2,050	1,060
25	2,560	3,570	4,130	7,380	2,840	1,360	8,090	3,960	3,030	3,810	2,050	1,120
26	2,590	3,030	4,030	7,310	2,430	1,220	8,090	3,920	2,510	4,520	2,050	1,140
27	2,650	3,180	4,030	7,310	3,530	1,310	6,990	3,880	2,240	5,930	1,630	1,130
28	2,670	2,770	4,030	7,380	10,800	1,270	7,800	3,640	2,080	5,930	1,260	1,110
29	2,680		3,990	7,310	4,590	1,410	‡ 7,450	3,160	1,980	5,930	1,170	1,090
30	2,750		4,060	7,240	3,570	1,660	7,100	3,090	1,940	5,860	1,170	1,080
31	3,140		4,240		3,150		6,390	3,090		5,860		1,070
Sum	82,530	99,360	123,850	179,050	126,740	66,540	256,720	148,670	98,370	98,910	109,770	32,990

Month	Current Year 1975								Period 1968-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
				High		Low					
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.	3.48	2.40	1	3,640	11	2,130	2,660	163,752	85,934	163,752	50,489
Feb.	3.77	2.30	‡13	4,130	26	1,930	3,530	197,003	142,990	455,925	48,884
Mar.	4.49	2.20	1	5,470	1	1,860	3,990	245,194	106,764	245,194	38,574
Apr.	8.83	2.20	8	14,500	6	1,810	6,000	356,909	100,366	356,909	36,522
May	8.50	1.71	28	14,200	19	1,550	4,100	251,336	100,821	251,336	60,344
June	7.15	.82	21	11,200	26	1,290	2,220	131,072	150,145	750,690	25,768
July	34.78	1.21	20	106,000	11	1,340	8,260	509,055	145,267	509,055	30,729
Aug.	5.84	3.15	3	8,090	30	3,020	4,800	294,947	173,307	390,775	70,515
Sept.	4.43	2.00	‡10	5,050	30	1,910	3,280	195,230	298,724	1,250,870	95,812
Oct.	4.02	1.87	‡27	5,930	15	1,660	3,190	196,218	305,723	922,217	100,018
Nov.	4.79	.95	1	5,720	30	1,150	3,670	217,694	165,565	601,059	56,954
Dec.	.05	.09	† 1	1,150	‡21	992	1,070	65,485	104,479	317,123	52,077
Yearly	34.78	0.09		106,000		992	3,880	2,824,795	1,076,105	3,963,082	920,935

** Period August 1959-1975 ‡ Discharge measurement made on this day † And other days

RIO GRANDE AT LAREDO, TEXAS

DESCRIPTION: Cableway, bubbler gage, and water-stage recorder located on the right bank at Laredo, Texas at latitude 27°29'45", longitude 99°29'30", and river mile 357.2; immediately downstream from the Laredo, Texas sewage plant, 1.1 river mile downstream from the international highway bridge between Laredo, Texas and Nuevo Laredo, Tamaulipas, and 891.6 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 345.28 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 71 discharge measurements during the year, 69 by the Mexican Section and 2 by the United States Section of the Commission, and a continuous record of gage heights. Computations by shifting control methods. Records available: May 1900 through 1913; May, June, and Oct. 1914; Sept. 1916; Sept. and Oct. 1917; Oct. 1918; Sept. and Oct. 1919; Aug. and Sept. 1920; June, Nov., and Dec. 1922; and 1923 through 1975. Gage height records are available for Jan., Feb., and Mar. 1914.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. This station was established in Jan. 1955 to replace the station 1.7 miles upstream which was destroyed by the June-July 1954 flood. Prior to July 11, 1968 the recorder was located 0.2 river mile upstream, where the cableway is still located, and the zero of the gage was 347.90 feet above mean sea level, U. S. C. & G. S. datum.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 710,900 second-feet on June 30, 1954, determined by slope-area calculations, with a gage height of 61.35 feet. Much well-authenticated information establishes the occurrence of a greater flood in June 1865 with a gage height of 62.5 feet on the same gage and discharge of approximately 950,000 second-feet, and also that these were the only floods since 1745 with flows greater than 600,000 second-feet. Min. no flow several days in June and July 1953 and on July 24, 1956.

Average Flow in Second-Feet**

Daily:	Max. 576,000	June 30, 1954		Min. 0	Several days June, July 1953
Monthly:	Max. 49,500	Sept. 1932		Min. 5.5	June 1953
Yearly:	Max. 9,670	1932		Min. 1,080	1956

Mean Daily Discharge in Second-Feet 1975 —— Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3,530	3,570	2,540	4,520	7,350	3,090	1,520	6,570	‡ 3,470	2,430	6,220	‡1,230
2	‡ 3,490	3,810	4,340	4,410	7,240	‡ 2,720	2,000	6,500	4,240	2,430	6,140	1,200
3	3,450	‡4,030	‡3,570	4,380	7,270	2,600	1,560	6,570	3,640	1,980	‡6,250	1,180
4	3,410	3,850	3,510	4,130	7,380	2,540	1,660	‡ 7,200	3,960	1,940	6,140	1,170
5	3,330	3,570	3,490	2,660	7,420	‡ 2,370	1,680	6,570	3,600	1,990	6,110	1,150
6	3,330	3,520	3,460	2,630	‡ 7,350	2,300	1,510	6,320	3,510	‡ 1,990	‡6,070	1,150
7	‡ 3,330	3,570	4,170	‡ 2,880	7,170	2,180	‡ 1,530	6,180	4,170	1,960	6,110	1,130
8	3,290	3,530	4,410	‡10,800	5,900	1,940	1,610	6,140	‡ 4,130	1,960	6,110	‡1,100
9	2,960	3,570	4,410	6,570	3,050	‡ 1,690	1,580	5,930	3,960	1,950	6,000	1,100
10	2,510	‡ 3,600	‡4,410	5,300	3,210	2,460	1,460	5,900	3,850	1,960	‡6,000	1,090
11	2,440	3,570	4,450	5,010	3,280	6,000	1,330	‡ 5,900	3,920	1,960	5,970	1,080
12	2,370	3,600	4,480	4,840	‡ 3,490	4,480	1,530	5,900	3,640	1,960	5,930	1,080
13	‡ 2,370	4,170	4,480	4,840	2,800	2,750	1,880	5,760	3,470	‡ 1,940	5,900	1,070
14	2,300	4,310	4,380	‡ 4,910	2,630	2,130	1,940	5,620	3,270	1,900	5,540	1,070
15	2,300	4,310	4,410	4,870	2,360	1,850	‡ 2,390	5,230	‡ 3,080	1,890	3,380	1,050
16	2,300	4,310	4,410	5,690	‡ 2,020	‡ 1,740	2,930	3,960	5,160	2,870	2,520	‡1,060
17	2,320	‡4,310	‡4,410	7,490	1,910	1,680	3,710	3,710	5,370	‡ 4,170	‡2,430	1,070
18	2,510	4,310	4,380	7,520	1,810	1,630	3,810	‡ 3,640	5,090	4,240	2,430	1,050
19	2,550	4,270	4,310	7,490	‡ 1,660	1,500	‡ 22,500	3,670	3,810	4,200	2,390	1,050
20	‡ 2,510	4,170	4,170	7,420	1,660	1,450	‡ 65,700	3,670	3,570	‡ 4,200	2,320	1,050
21	2,480	4,200	4,240	‡ 7,450	1,710	4,450	‡ 59,700	4,940	3,780	4,200	2,250	1,040
22	2,510	3,570	4,240	7,450	1,710	6,320	‡ 14,200	5,080	‡ 4,520	4,170	2,180	‡1,020
23	2,550	3,670	4,240	7,450	2,100	2,980	‡ 10,800	5,050	3,710	4,100	2,180	1,010
24	2,580	‡ 3,780	‡4,340	7,380	6,750	‡ 2,100	9,390	5,050	3,470	4,100	‡2,180	999
25	2,720	3,810	4,410	7,270	4,060	1,850	‡ 8,550	‡ 4,380	3,410	4,450	2,180	1,030
26	2,830	3,530	4,340	7,200	‡ 2,720	1,720	7,950	4,340	3,090	4,630	2,180	1,080
27	‡ 2,870	3,250	4,310	7,270	2,670	1,440	6,820	4,340	2,610	‡ 6,140	2,010	1,080
28	2,910	3,400	4,310	‡ 7,310	‡21,100	1,390	‡ 7,060	4,270	2,440	6,640	‡1,450	1,060
29	2,910		4,310	7,350	‡ 8,890	1,490	7,060	3,670	‡ 2,330	6,640	1,250	‡1,050
30	2,910		4,310	7,240	3,850	‡ 1,550	6,750	3,490	2,330	6,430	1,220	1,030
31	3,100		‡4,410		3,640		6,500	3,390		6,290		999
Sum	88,970	107,100	129,650	181,730	146,050	74,390	268,610	158,940	110,600	107,710	119,040	33,528

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1968-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	4.36	3.28	1	3,530	†14	2,300	2,800	172,529	87,708	172,529	49,774
Feb.	4.99	3.97	†14	4,310	26	3,060	3,810	212,532	144,602	450,602	39,225
Mar.	5.08	4.89	2	5,300	1	2,540	4,170	257,213	107,845	257,213	37,096
Apr.	10.56	3.35	3	14,300	6	2,100	6,070	360,566	107,215	360,566	35,107
May	16.60	2.46	28	31,000	†19	1,600	4,700	289,574	166,102	289,574	89,917
June	8.56	2.10	22	10,000	28	1,310	2,480	147,572	176,712	695,494	29,685
July	32.05	2.13	21	84,400	11	1,290	8,650	532,646	154,075	532,646	32,270
Aug.	7.38	4.23	4	7,770	31	3,390	5,120	315,197	180,236	426,780	65,681
Sept.	5.81	3.31	17	5,400	29	2,300	3,670	219,354	305,315	1,216,757	94,988
Oct.	6.63	2.76	29	6,750	16	1,860	3,470	213,631	340,920	956,960	105,334
Nov.	6.27	2.20	3	6,250	30	1,220	3,960	236,158	166,777	586,280	58,095
Dec.	2.20	1.87	1	1,240	†24	989	1,080	66,480	106,059	307,569	51,316
Yearly	32.05	1.87		84,400		989	4,170	3,023,452	2,043,566	3,891,074	980,740

** Period 1924-1975 ‡ Discharge measurement made on this day † And other days

RIO SALADO AT LAS TORTILLAS, TAMAULIPAS

DESCRIPTION: Cableway, control weir with notch opening of 2,500 second-foot capacity, gravity well, and water-stage recorder located on the right bank at latitude 26°50'10", longitude 99°33'50", 2.0 river miles downstream from the confluence of Rio Sabinas with Rio Salado, 6 miles southeast of the town of Las Tortillas, Tamaulipas, and 24.8 river miles from the confluence with the Rio Grande. This stream enters the Rio Grande at river mile 298.4, 24.6 river miles upstream from Falcon Dam, and 950.4 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 325.72 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 11 discharge measurements during the year, a stable rating curve up to 2,500 second-feet, and a continuous record of gage heights. Computations by shifting control methods for flows greater than 2,500 second-feet. Records available: September 9, 1953 through 1975. Records are also available for a station at old Cd. Guerrero, 18.6 miles downstream, from 1900 through 1913 and 1923 through September 8, 1953.

REMARKS: Reservoirs and irrigation diversions modify the flow at this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 65,000 second-feet on September 16, 1971 with a gage height of 40.39 feet. Min. frequently no flow. The maximum discharge was measured at the highway bridge 13.0 river miles downstream from the station. Extreme flow data for the Rio Salado at Cd. Guerrero prior to September 8, 1953 may be found in previous bulletins.

Average Flow in Second-Feet**

Daily:	Max.	62,900	Sept. 16, 1971	Min.	0	Frequently
Monthly:	Max.	13,600	Sept. 1971	Min.	0	Frequently
Yearly:	Max.	3,310	1971	Min.	56.8	1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	79.5	74.9	56.5	48.0	22.6	74.9	‡ 61.1	224	102	657	406	217
2	79.5	79.5	56.5	‡ 48.0	165	65.7	144	209	315	699	364	209
3	‡ 93.2	79.5	58.6	48.0	102	65.7	102	224	1,050	618	364	209
4	93.2	74.9	58.6	48.0	56.5	65.7	84.0	392	5,260	724	364	194
5	97.8	74.9	65.7	48.0	56.5	65.7	56.5	‡ 224	3,040	565	‡ 364	194
6	102	‡ 70.3	‡ 65.7	43.8	52.3	65.7	56.5	224	1,680	512	353	209
7	102	61.1	61.1	45.9	48.0	65.7	52.3	269	1,420	491	353	209
8	102	56.5	61.1	45.9	‡ 37.4	‡ 203	52.3	554	1,340	‡ 470	343	209
9	102	56.5	206	75.2	37.4	352	48.0	332	1,210	437	332	209
10	102	56.5	164	107	152	957	48.0	224	1,480	417	321	217
11	93.2	56.5	112	130	237	1,410	43.8	190	1,180	396	321	209
12	88.6	54.4	102	148	131	438	43.8	245	1,130	374	311	202
13	84.0	54.4	84.0	121	341	270	388	345	1,050	374	300	202
14	84.0	50.1	65.7	93.2	275	164	1,820	427	989	343	293	209
15	84.0	50.1	56.5	56.5	130	130	4,340	342	989	332	293	215
16	84.0	48.0	56.5	52.3	84.0	112	5,580	285	953	321	293	194
17	84.0	52.3	56.5	43.8	65.7	97.8	4,100	255	‡ 893	300	293	194
18	84.0	52.3	56.5	39.6	65.7	93.2	7,660	217	795	367	285	182
19	84.0	48.0	54.4	39.6	70.3	84.0	10,600	194	752	448	283	182
20	79.5	45.9	56.5	35.3	56.5	84.0	2,690	171	724	321	262	186
21	74.9	48.0	56.5	35.3	56.5	84.0	1,300	148	685	285	239	179
22	70.3	50.1	54.4	35.3	201	74.9	865	139	713	285	224	186
23	74.9	50.1	56.5	35.3	164	74.9	646	125	738	270	217	194
24	84.0	56.5	79.5	39.3	93.2	74.9	512	112	699	270	209	194
25	93.2	54.4	61.1	33.2	79.5	70.3	417	112	893	262	209	171
26	93.2	54.4	56.5	31.1	313	61.1	385	102	812	270	217	164
27	93.2	54.4	52.3	14.1	255	56.5	364	102	865	300	217	156
28	93.2	54.4	52.3	11.3	1,610	61.4	321	112	795	292	217	148
29	84.0		48.0	14.1	1,610	82.5	285	144	752	364	217	164
30	74.9		45.9	22.6	683	65.7	222	125	699	650	217	171
31	70.3		48.0		188		247	102		593		176
Sum	2,708.6	1,618.9	2,185.4	1,584.7	7,639.1	5,550.3	43,574.3	6,870	34,003	13,007	8,681	5,954

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1954-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	0.82	0.69	† 6	102	31	65.7	87.6	5,377	7,990	57,070	0
Feb.	.75	.56	2	84.0	20	43.8	57.9	3,211	6,671	66,880	0
Mar.	1.48	.56	9	406	30	43.8	69.9	4,293	4,452	29,690	0
Apr.	1.08	.23	12	194	27	9.9	53.0	3,144	5,710	21,994	0
May	3.44	.39	28	2,900	1	22.6	246	15,138	19,317	100,919	0
June	2.72	.56	11	1,680	29	43.8	185	11,013	23,962	172,970	0
July	11.68	.56	19	12,900	†11	43.8	1,410	86,426	29,829	441,541	0
Aug.	1.94	.82	8	752	†26	102	222	13,631	15,066	92,579	0
Sept.	5.22	.82	4	5,620	1	102	1,130	67,483	106,451	807,616	2,860
Oct.	2.00	1.21	4	812	25	255	420	25,802	66,371	550,739	110
Nov.	1.57	1.12	1	470	†24	209	289	17,216	31,507	338,000	0
Dec.	1.15	.93	15	224	†23	148	192	11,795	16,303	176,100	0
Yearly	11.68	0.23		12,900		9.9	364	264,529	334,131	2,400,553.5	41,238.2

** Period September 1953-1975 ‡ Discharge measurement made on this day † And other days

RIO GRANDE BELOW FALCON DAM, TEXAS

DESCRIPTION: The discharges reported below represent water measured as it leaves Falcon Reservoir through turbine penstocks, bypass valves, spillway gates, and leakage. Falcon Dam, astride the Rio Grande, is located at latitude 26°33'25", longitude 99°10'05", and river mile 273.3; about 7 miles southwest of Falcon, Texas, 84.5 river miles downstream from the international highway bridge between Laredo, Texas and Nuevo Laredo, Tamaulipas, and 975.0 river miles downstream from the American Dam at El Paso, Texas. A gravity well and water-stage recorder located 2.5 river miles downstream and a cableway located one mile farther downstream are used to measure the flow of this station at times when spillway gates are in operation.

RECORDS: Based on daily Simplex meter records of releases through the six turbines, established rating curves for the four hollow-jet bypass valves, estimates of gate leakage, and measurements of flow at the cable during spillgate operations. During 1975 there were 58 discharge measurements, 35 by the United States Section and 23 by the Mexican Section of the Commission. Records available: 1958 through 1975. Records are also available from December 17, 1952 through 1957 for a station at Chapeno, 2.5 miles downstream, where discharges included arroyo inflow below Falcon Dam, which inflow is eliminated from the records reported below.

REMARKS: Computation of flow was made jointly by the United States and Mexican Sections of the Commission from a consolidation of the basic data gathered by each Section incident to the international operation of Falcon Reservoir.

EXTREME FLOWS FROM RECORDS**: Momentary: Max. 82,600 second-feet on September 18, 1971. Min. 1.5 second-feet on March 24 and 25, 1957 (at Chapeno gaging station).

Average Flow in Second-Feet**

Daily:	Max. 76,400	Sept. 18, 1971	Min. 1.5	March 24 & 25, 1957
Monthly:	Max. 32,500	Oct. 1958	Min. 23.5	Nov. 1973
Yearly:	Max. 6,930	1958	Min. 1,580	1970

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3,000	6,790	2,600	3,410	‡10,600	1,700	1,300	‡ 14,800	3,390	2,540	18.0	1,040
2	3,030	6,980	2,590	3,580	‡10,300	1,950	1,010	‡ 14,800	18.0	3,250	18.0	1,100
3	3,030	6,370	2,970	4,330	9,720	1,900	710	14,700	18.0	2,990	1,000	531
4	3,030	5,600	3,640	5,120	9,530	1,740	725	‡ 14,700	18.0	2,400	518	539
5	3,040	5,120	2,790	6,060	9,410	1,740	1,010	‡ 14,400	1,770	2,510	515	546
6	2,520	4,790	2,780	6,460	‡ 8,080	1,730	1,000	13,900	3,510	1,750	525	542
7	2,020	4,750	2,970	6,760	9,320	1,740	1,540	‡ 14,900	3,510	392	533	1,010
8	2,640	4,380	2,840	6,590	10,400	1,730	2,000	‡ 15,000	4,540	18.0	528	884
9	3,000	4,380	3,060	6,570	9,960	1,800	3,580	14,000	6,400	18.0	530	865
10	2,860	4,410	3,080	7,070	9,400	1,790	3,590	12,900	7,800	18.0	535	905
11	3,150	4,410	2,410	7,680	9,020	1,180	2,050	13,900	7,380	506	530	955
12	3,460	4,150	2,250	7,990	8,480	18.0	2,770	‡ 14,600	9,740	509	518	1,020
13	3,760	3,600	2,400	7,660	6,800	18.0	1,710	13,800	6,970	772	521	992
14	4,020	4,210	3,230	7,520	5,360	819	430	‡ 14,300	7,040	1,040	527	989
15	3,940	4,550	3,410	7,090	5,370	824	18.0	‡ 15,600	7,040	1,150	1,340	1,000
16	4,690	4,500	3,640	7,400	5,340	847	18.0	15,600	7,080	2,230	1,340	1,000
17	5,980	3,660	3,620	8,030	5,690	867	18.0	15,600	6,980	2,900	1,330	1,400
18	6,080	2,770	3,420	9,730	6,050	725	18.0	‡ 15,600	7,020	2,720	1,020	502
19	6,100	2,240	3,430	9,800	6,110	1,370	18.0	15,600	7,080	2,550	1,020	18.0
20	5,790	2,200	3,820	10,200	6,060	1,950	18.0	15,600	6,980	2,390	1,020	518
21	7,290	2,370	5,050	11,100	6,870	2,000	1,820	‡ 15,600	7,180	1,900	1,210	1,130
22	5,750	2,940	4,850	11,900	7,200	1,980	3,610	13,800	4,090	1,030	1,270	1,400
23	3,540	2,920	5,240	12,300	7,080	1,970	3,930	11,200	7,100	1,460	1,200	531
24	2,840	2,730	4,820	11,400	7,190	1,520	‡7,000	9,940	6,100	1,560	1,010	520
25	3,620	1,650	4,420	12,100	5,640	1,540	‡7,020	‡ 7,860	3,060	1,750	821	526
26	4,320	1,640	4,570	12,000	3,650	1,820	‡7,120	‡ 6,400	1,000	1,070	514	510
27	4,990	1,640	3,920	12,000	4,100	1,800	‡8,410	‡ 6,210	1,010	724	528	823
28	5,680	2,050	3,980	11,400	2,580	1,800	10,100‡	‡ 4,560	1,020	504	528	818
29	5,260		4,420	11,000	1,380	910	11,100‡	‡ 3,730	1,010	270	1,050	827
30	5,490		4,350	10,800	826	18.0	12,100‡	3,380	1,500	18.0	1,030	1,010
31	6,230		3,920		1,830		13,500‡	3,410		18.0		1,360
Sum	108,300		253,940		41,825.0		380,390		43,567.0		25,861.0	
	129,950	110,300		211,156		110,232.0		134,614.0		22,047.0		

Month	Current Year 1975: Extreme Gage Feet High	Low	∅ Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period #1954-1975: Acre-Feet Average	Maximum	Minimum
Jan.			21	7,290	7	2,020	4,190	257,752	207,779	414,129	16,245
Feb.			2	6,980	†26	1,640	3,870	214,810	165,474	367,384	15,600
Mar.			23	5,240	12	2,250	3,560	218,777	129,521	347,000	2,390
Apr.			23	12,300	1	3,410	8,460	503,683	249,194	503,683	19,530
May			1	10,600	30	826	6,810	418,822	306,573	526,000	21,574
June			21	2,000	†12	18.0	1,390	82,959	244,354	551,000	22,387
July			31	13,500	†15	18.0	3,560	218,642	108,418	229,328	12,339
Aug.			†15	15,600	30	3,380	12,300	754,403	163,251	754,403	25,900
Sept.			10	7,380	† 2	18.0	4,490	267,003	104,640	1,080,872	1,428
Oct.			2	3,250	† 8	18.0	1,410	86,414	262,887	1,097,000	27,100
Nov.			†15	1,340	† 1	18.0	765	45,515	123,062	1,128,000	1,400
Dec.			†17	1,100	10	18.0	834	51,295	100,359	405,000	3,761
Yearly				15,600		18.0	4,310	3,120,145	2,265,028	5,010,300	1,143,300

** Period 1954-1975 ‡ Discharge measurement made on this day # Values prior to 1953 are Chapeno discharge less arroyo inflow
∅ Mean daily † And other days

RIO ALAMO AT CD. MIER, TAMAULIPAS

DESCRIPTION: Cableway, reinforced concrete weir of 177 second-foot capacity, gravity well, and water-stage recorder located on the right bank at a point called "El Paso del Cantaro", latitude 26°27'10", longitude 99°09'20", about 0.5 mile north of Cd. Mier, Tamaulipas, and 5.0 river miles from the confluence with the Rio Grande. This stream enters the Rio Grande at river mile 261.4, 12.0 river miles downstream from Falcon Dam, and 987.4 river miles downstream from the American Dam at El Paso, Texas. The weir is located about 300 feet downstream from the recorder. The zero of the gage is at mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 5 discharge measurements made at high flows during the year, the weir discharge table at low flows, and a continuous record of gage heights. High flow computations by shifting control methods. Records available: July 1923 through 1975.

REMARKS: Small reservoirs and irrigation diversions modify the flow of this spring-fed stream at this station. On June 11, 1952, the zero of the gage was raised 1.31 feet to make it coincide with the weir crest elevation. Prior to January 1, 1969, the zero of the gage was 188.35 feet above mean sea level, U. S. C. & G. S. datum.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 144,800 second-feet on September 11, 1948 with a gage height of 33.56 feet. Min. periods of no flow have occurred at times during all years of record except 1934, 1935, 1968 and 1972, and 1974.

Average Flow in Second-Feet**

Daily:	Max. 87,230	Sept. 11, 1948	Min. 0	Frequently
Monthly:	Max. 7,310	Sept. 1967	Min. 0	Frequently
Yearly:	Max. 837	1967	Min. 16.4	1929

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	43.8	18.7	0.4	1.1	0	20.1	64.3	59.0	1,470	322	219	120
2	43.8	18.7	0	1.1	0	15.9	31.1	59.0	3,460	304	219	131
3	43.8	17.3	0	1.1	0	10.6	23.3	54.7	9,710	287	193	131
4	43.8	18.7	0	1.8	0	12.0	20.1	96.1	4,910	270	194	131
5	42.4	18.7	0	2.5	4.2	15.9	18.7	470	2,080	253	178	132
6	40.6	18.7	0	1.8	2.5	10.6	15.9	925	1,380	253	178	120
7	38.8	18.7	0	1.1	1.1	7.1	15.9	115	2,470	253	175	126
8	37.1	17.3	0	1.1	0	14.8	15.9	339	2,120	253	175	115
9	37.1	17.3	0	.7	0	26.8	14.5	90.4	1,060	236	175	115
10	35.3	18.7	1.1	0	0	120	13.1	103	915	236	168	115
11	35.3	17.3	1.1	2.5	0	35.7	13.1	111	802	219	165	120
12	26.1	15.9	1.1	32.1	0	35.7	49.4	77.0	576	219	165	120
13	24.7	13.1	0	14.5	1,030‡	572	1,450	65.0	491	201	162	120
14	24.7	12.0	.4	12.0	392	120	‡4,660	90.0	388	201	154	120
15	33.9	12.0	1.1	13.1	68.9	32.1	6,460	92.5	345	201	148	115
16	33.9	12.0	1.1	12.0	33.5	26.1	‡4,870	69.6	344	201	154	112
17	33.9	13.1	2.5	10.6	23.3	21.5	‡2,400	58.3	360	201	154	112
18	33.9	10.6	1.1	12.0	24.7	18.7	‡1,960	50.9	322	184	160	112
19	31.1	10.6	1.1	12.0	27.9	18.7	646	47.3	274	178	148	115
20	26.1	6.0	1.1	10.6	131	18.7	204	43.8	238	178	142	129
21	26.1	3.5	1.1	7.1	141	18.7	130	40.6	208	178	137	129
22	23.3	2.5	1.1	7.1	45.2	18.7	94.6	37.1	1,040	178	134	126
23	23.3	1.1	1.1	7.1	21.9	20.1	74.9	37.1	1,470	178	134	120
24	24.7	1.8	.4	8.1	17.3	18.7	71.3	33.9	784	178	137	120
25	31.1	1.8	1.1	7.1	749	13.1	60.2	27.9	650	172	137	115
26	27.9	1.1	2.5	6.0	618	10.6	70.3	34.2	526	178	137	112
27	24.7	1.1	4.2	4.2	96.4	10.6	71.3	44.8	466	201	137	112
28	21.5	1.1	4.2	2.5	59.0	625	78.8	131	413	184	137	107
29	20.1		2.5	1.8	38.3	1,920	77.3	95.3	360	232	137	104
30	20.1		1.8	1.1	27.9	614	66.0	59.4	322	333	134	104
31	20.1		1.1		21.5		61.1	165		253		109
Sum	973.0	319.4	33.2	195.8	3,575.1	4,422.5	23,810.1	3,718.9	39,054	6,915	4,777	3,980

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1924–1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	188.88	188.65	† 1	43.8	†29	20.1	31.4	1,930	3,317	34,920	0
Feb.	188.65	188.39	† 1	18.7	†23	1.0	11.3	633	2,454	25,550	0
Mar.	188.45	188.35	†27	4.3	† 1	0	1.0	64.0	2,503	19,830	0
Apr.	188.85	188.35	12	40.6	10	0	6.4	383	5,928	35,210	0
May	191.63	188.35	13	2,010	† 1	0	115	7,087	12,309	137,000	0
June	192.62	188.48	†28	3,570	† 7	6.0	148	8,783	13,220	83,240	0
July	195.70	188.58	15	8,620	†10	13.1	770	47,247	7,234	47,247	0
Aug.	191.73	188.75	6	2,150	†25	27.9	120	7,377	16,422	205,700	0
Sept.	199.31	189.63	3	15,300	22	178	1,330	79,245	41,592	434,387	135
Oct.	190.12	189.60	30	452	25	172	223	13,720	19,621	193,700	0
Nov.	189.73	189.40	† 1	219	†22	134	159	9,474	4,332	25,165	0
Dec.	189.40	189.27	† 2	131	†29	104	119	7,311	3,518	15,082	0
Yearly	199.31	188.35		15,300		0	253	183,250	132,456	805,678.4	11,993.7

** Period 1924–1975 ‡ Discharge measurement made on this day † And other days

CONTRIBUTIONS FROM RIO SAN JUAN
FALCON DAM TO FORT RINGGOLD

DESCRIPTION: The Lower Rio San Juan Irrigation District in Mexico lies along the Rio Grande between Co. Miguel Aleman and Rio Bravo, Tamaulipas and is irrigated with water impounded by Marte R. Gomez Dam situated on the Rio San Juan 12.4 river miles upstream from the confluence with the Rio Grande. The Rio San Juan enters the Rio Grande at river mile 237.8 and 1,011.0 river miles downstream from the American Dam at El Paso, Texas. Drain water from this irrigation district enters the Rio Grande between Falcon Dam and the Fort Ringgold Gaging Station through the Rio San Juan Channel, Rancherias Drain, and Los Fresnos Drain; and between this station and Anzalduas Dam through Puertecitos, Los Indios, Huizache, and Morillo Drains. Only the portion of water reaching the Rio Grande via channels located upstream from the Fort Ringgold Gaging Station is shown below. The portion of drain water from this irrigation district reaching the Rio Grande via channels located downstream from the Fort Ringgold Gaging Station is shown on page 66 in this bulletin.

RECORDS: Water entering the Rio Grande through the Rio San Juan Channel, included in the tabulation below and composed of spills and leakage from Marte R. Gomez Dam, and storm inflow and drainage below the dam, was measured at the Rio San Juan Gaging Station at Camargo, Tamaulipas 3.1 river miles upstream from the confluence with the Rio Grande. (See next page for station description and separate tabulation of discharge for this station.) The discharge through Rancherias Drain was determined by prorating between 38 current meter measurements made during the year. There was no drainage flow through Los Fresnos Drain in 1975. All storm water measured at these two drains was deducted and is not included in the tabulation below. Records available: 1953 through 1975.

REMARKS: In 1975 there were 164,816 irrigable acres in the Lower Rio San Juan Irrigation District.

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.9	13.4	19.1	9.5	26.1	25.8	30.7	20.8	788	4,480	749	396
2	11.3	14.5	18.4	9.9	26.5	25.8	55.1	21.2	3,080	3,920	590	378
3	10.9	15.5	17.6	9.9	27.2	26.8	30.4	21.2	4,520	3,600	431	290
4	10.6	17.0	17.3	10.2	27.5	28.3	10.9	21.2	6,220	3,500	307	237
5	10.6	17.7	16.6	10.2	27.9	29.7	10.9	21.2	6,000	3,270	147	149
6	10.6	18.7	15.9	10.2	28.3	30.7	11.3	21.5	5,650	3,040	24.7	143
7	10.2	19.1	15.2	10.2	29.0	32.1	11.3	21.5	5,190	2,850	27.2	137
8	9.9	19.8	14.1	10.6	29.7	33.2	11.7	21.5	5,260	2,660	30.0	131
9	9.5	20.5	13.8	10.6	30.0	34.6	11.7	21.5	5,050	2,480	32.8	125
10	9.2	21.2	12.7	10.9	30.4	36.0	11.7	21.9	5,510	2,270	35.3	119
11	8.8	21.5	12.4	11.7	30.7	37.1	11.7	21.9	6,000	2,110	38.1	113
12	8.5	20.5	11.3	12.0	31.4	34.3	11.3	42.0	6,220	1,950	40.6	107
13	8.1	20.1	11.7	12.4	31.8	30.7	569	148	6,140	1,770	40.6	101
14	7.8	19.1	12.4	12.7	31.1	27.9	296	184	6,390	1,490	40.6	94.6
15	7.4	18.4	12.7	13.4	30.4	24.4	34.6	254	6,750	713	41.0	89.0
16	8.1	17.3	12.7	13.8	29.7	21.5	32.8	325	6,960	95.4	41.0	83.0
17	8.5	16.2	13.1	15.9	29.0	18.0	30.4	378	6,990	85.8	41.0	77.0
18	9.2	15.9	13.8	17.7	27.9	15.2	28.6	466	6,570	75.9	41.3	71.0
19	10.2	14.8	14.1	19.8	27.2	15.2	26.8	466	5,930	66.4	41.3	68.2
20	10.9	15.5	13.1	21.9	26.5	15.2	25.1	448	5,330	56.5	41.3	65.3
21	11.3	15.9	12.4	24.0	25.8	15.2	22.6	431	4,910	46.6	41.3	63.2
22	12.0	16.6	11.3	25.8	25.8	15.9	20.8	431	4,590	36.7	41.7	60.4
23	11.7	17.7	10.2	27.9	25.8	15.9	20.8	434	5,160	27.2	41.7	57.6
24	11.7	18.4	9.2	27.5	25.8	15.9	20.8	413	7,520	113	41.7	71.3
25	11.3	19.1	8.5	27.5	25.8	15.9	20.8	396	7,880	519	95.0	85.5
26	10.9	19.4	7.4	27.2	25.8	15.5	20.8	396	7,200	770	343	99.2
27	10.6	20.1	7.8	26.5	25.8	15.2	20.8	364	6,600	770	543	113
28	10.6	19.4	8.1	26.1	25.8	14.8	20.8	360	6,290	773	713	127
29	10.2		8.5	26.1	25.8	14.5	20.8	360	5,650	773	607	141
30	11.3		8.8	25.8	25.8	14.1	20.8	344	4,910	773	448	155
31	12.0		9.2		25.8		20.8	364		773		143
Sum	314.8	503.3	389.4	517.9	862.1	695.4	1,492.6	7,239.4	171,258	45,857.5	5,796.2	4,090.3

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	ø Extreme Second-Feet High Day	ø High	ø Low Day	ø Low	Average Second-Feet	Total Acre-Feet	Period 1954-1975: Acre-Feet Average	Maximum	Minimum
Jan.			†22	12.0	15	7.4	10.2	625	9,778	77,184	126
Feb.			11	21.5	1	13.4	18.0	998	4,238	40,778	246
Mar.			1	19.1	26	7.4	12.7	772	3,220	24,706	250
Apr.			23	27.9	1	9.5	17.3	1,027	3,636	38,208	196
May			13	31.8	†21	25.8	27.9	1,709	4,465	29,121	555
June			11	37.1	30	24.1	23.3	1,379	24,043	335,390	476
July			13	569	† 4	10.9	48.0	2,960	30,890	341,927	312
Aug.			†16	466	1	20.8	233	14,359	27,814	274,070	202
Sept.			25	7,880	1	788	5,720	339,602	140,597	1,873,782	298
Oct.			1	4,480	23	27.2	1,480	90,931	108,492	901,800	229
Nov.			1	749	6	24.7	193	11,497	31,218	230,600	154
Dec.			1	396	23	57.6	132	8,113	15,322	93,974	200
Yearly				7,880		7.4	653	474,112	403,716	2,396,004	11,025

ø Mean daily † And other days

RIO SAN JUAN AT CAMARGO, TAMAULIPAS

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the left bank opposite Camargo, Tamaulipas at latitude 26°18'50", longitude 98°50'20", 3.1 river miles from the confluence with the Rio Grande, and 9.3 river miles downstream from Marte R. Gomez Dam. This stream enters the Rio Grande at river mile 237.8, 3.9 river miles upstream from the Rio Grande gaging station at Fort Ringgold, 36.0 river miles downstream from Falcon Dam, and 1,011.0 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is at mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 54 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Discharge prorated between measurements during times of extremely low flow. Records available: January 1954 through 1975.

REMARKS: Except for storm inflow, diversion, and drainage returns below Marte R. Gomez Dam, the flow at this station is controlled by spills from Marte R. Gomez Reservoir and leakage through the dam. Backwater from the Rio Grande frequently reaches this station. Flow passing this station, combined with drain water entering the Rio Grande through Rancherias and Los Fresnos drains, is also published under heading "Contributions from Rio San Juan - Falcon Dam to Fort Ringgold" (see previous page). Prior to July 1, 1968 the zero of the gage was 130.45 feet above mean sea level, U. S. C. & G. S. datum.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 115,000 second-feet on September 25, 1967 with a gage height of 42.03 feet. Min. 0.7 second-foot several days in April 1960.

Average Flow in Second-Feet

Daily:	Max. 115,000	Sept. 25, 1967	Min. 0.7	April 23, 24 & 25, 1960
Monthly:	Max. 31,600	Sept. 1967	Min. 2.1	November 1964
Yearly:	Max. 3,990	1967	Min. 14.6	1953

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.5	8.1	12.0	5.3	7.4	8.5	24.7	15.2	777	4,480	742	388
2	‡ 8.8	8.1	11.3	‡ 5.7	7.8	8.8	‡ 49.4	15.2	‡ 3,070	3,920	583	371
3	8.5	8.1	10.6	5.7	8.1	10.6	24.7	15.2	‡ 4,520	3,600‡	424	283
4	8.1	8.5	10.2	6.0	8.5	12.7	4.9	15.2	‡ 6,220	3,500	300	230
5	8.1	8.5	9.5	6.0	8.8	14.5	4.9	15.2	‡ 6,000	3,270	141	‡141
6	7.8	‡ 8.5	9.2	6.0	9.2	16.2	4.9	15.2	5,620	3,040	‡ 19.4	135
7	7.4	8.1	8.5	6.0	9.9	18.4	4.9	15.2	5,190	2,840	21.9	129
8	‡ 7.1	8.1	7.8	6.4	10.2	20.1	4.9	15.2	‡ 5,260	2,650	24.7	123
9	6.7	7.8	7.4	‡ 6.4	10.6	21.9	‡ 4.9	15.2	‡ 5,050	2,470	27.2	117
10	6.4	7.8	6.7	6.7	10.9	24.0	4.9	15.2	‡ 5,470	2,260‡	29.7	111
11	6.0	‡ 7.4	6.4	7.1	11.3	25.8	4.9	15.2	‡ 6,000	2,100	32.5	105
12	6.0	7.4	‡ 5.8	7.4	11.7	23.3	4.9	35.3	‡ 6,220	1,940	‡ 35.0	98.9
13	5.7	7.8	6.0	7.8	‡ 12.0	20.5	562	‡ 141	6,140	1,770‡	35.0	92.9
14	5.3	7.8	6.7	8.1	11.3	18.0	290	177	6,360	1,480	35.0	86.5
15	‡ 4.9	7.8	7.1	8.5	10.6	15.2	28.3	247	‡ 6,750	706	35.0	80.5
16	5.7	7.8	7.4	‡ 8.8	9.9	12.7	26.5	318	6,920	88.3	35.0	74.5
17	6.0	7.8	7.8	8.5	9.2	9.9	24.4	371	‡ 6,990	78.8	35.0	68.5
18	6.7	8.1	8.5	8.1	8.5	7.4	22.6	‡ 459	6,570	68.9	35.0	‡ 62.5
19	7.4	‡ 8.1	‡ 8.8	7.8	7.8	7.4	20.8	459	5,930	59.3	35.0	60.7
20	8.1	8.8	8.1	7.4	7.1	7.4	19.1	441	5,330	49.4	35.0	59.0
21	8.5	9.2	7.4	7.1	‡ 6.4	7.4	17.0	424	4,870	39.9	35.0	57.6
22	‡ 9.2	9.9	6.7	6.7	6.7	7.8	‡ 15.2	424	‡ 4,590	30.0	35.0	55.8
23	8.8	10.6	6.0	‡ 6.4	6.7	7.8	15.2	424	5,160	‡ 20.5	35.0	‡ 54.0
24	8.8	11.3	5.3	6.4	7.1	7.8	15.2	406	‡ 7,520	106	35.0	67.8
25	8.5	12.0	4.6	6.7	7.1	7.8	15.2	388	7,880	512	88.3	81.6
26	8.5	12.4	‡ 3.9	6.7	7.4	7.8	15.2	388	‡ 7,170	763	335	95.3
27	8.1	‡ 13.1	4.2	6.7	7.4	7.8	15.2	353	6,600	763	636	109
28	8.1	12.4	4.2	6.7	7.8	7.8	15.2	353	6,290	763	706	123
29	‡ 7.8		4.6	7.1	8.1	7.8	15.2	353	‡ 5,650	763	600	137
30	7.8		4.9	‡ 7.1	8.1	7.8	15.2	335	4,870	763	441	‡150
31	7.8		5.3		8.5		15.2	353		‡ 763		138
Sum	231.1	251.3	222.7	207.3	272.1	380.9	1,305.6	7,016.5	170,987	45,657.1	5,606.7	3,886.1

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1954-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.			22	9.2	15	4.9	7.4	458	9,646	76,938	83.4
Feb.			27	13.1	†11	7.4	8.8	498	4,005	40,536	203
Mar.			1	12.0	26	3.9	7.1	442	3,025	24,513	212
Apr.			16	8.8	1	5.3	7.1	410	3,390	35,876	177
May			13	12.0	21	6.4	8.8	539	3,975	28,709	245
June			11	25.8	†18	7.4	12.7	755	23,619	334,608	274
July	133.83		13	1,270	† 4	4.9	42.0	2,538	30,661	341,429	182
Aug.			†18	459	† 1	15.2	226	13,920	27,642	273,904	161
Sept.			25	7,880	1	777	5,690	339,160	140,424	1,373,406	226
Oct.			1	4,480	23	20.5	1,470	90,563	108,303	901,500	193
Nov.			1	742	6	19.4	187	11,121	31,046	230,100	126
Dec.			1	388	23	54.0	125	7,707	15,275	98,547	163
Yearly				7,880		3.9	646	468,161	400,915	2,891,093	10,534

‡ Discharge measurement made on this day † And other days

DIVERSIONS FROM THE RIO GRANDE
UNITED STATES SIDE - FALCON DAM TO FORT RINGGOLD

Beginning June 1971, the Texas Water Rights Commission assumed control of the United States portion of the water in Falcon Reservoir and in the Rio Grande below Falcon Dam, the disposition of such waters being made by its Rio Grande Watermaster. Previous to that, since June 1956, such waters had been under the jurisdiction of the 93rd District Court of Texas administered by its Special Water Master.

During 1975, 5,526 irrigable acres and several towns and rural homes were allotted Rio Grande water in the river reach between Falcon Dam and the Fort Ringgold gaging station. Such irrigable area was 0.7% of the total irrigable acres below Falcon Dam allotted Rio Grande water.

The total diversion during 1975 in this river reach was 10,167 acre-feet, or 1.0% of the total water diverted from the Rio Grande below Falcon Dam. All records of diversions in this river reach, which were determined by means of flow meters, were furnished by the Rio Grande Watermaster. More than one crop per year is often grown on parts of this land.

EXTREME FLOWS FROM RECORDS:

		Average Flow in Second-Feet			
Daily:	Max. 77.0	May 1, 1962	Min. 0	Occasionally
Monthly:	Max. 43.8	June 1960	Min. 2.2	March 1957
Yearly:	Max. 20.3	1960	Min. 6.9	1968

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.3	7.5	29.3	15.8	29.9	6.2	12.7	2.7	2.5	7.8	1.0	4.7
2	8.1	7.5	28.1	19.5	30.8	6.2	12.7	3.1	1.5	5.5	1.0	4.7
3	13.3	25.5	18.0	22.1	32.9	14.3	18.7	5.2	1.5	9.9	3.3	4.4
4	13.8	25.5	18.8	21.4	20.9	14.0	21.2	4.7	1.5	10.3	4.0	4.6
5	14.2	26.8	18.8	23.0	22.5	14.6	20.8	5.3	1.5	12.6	3.8	4.6
6	19.2	30.8	21.2	17.2	31.2	12.8	16.5	5.7	1.5	14.7	2.6	4.6
7	21.5	31.2	29.9	24.5	32.0	14.7	31.8	7.5	.3	15.0	3.5	1.7
8	21.5	31.2	26.0	28.9	35.4	13.7	31.0	8.6	.3	17.0	8.7	1.3
9	25.7	30.0	25.2	29.4	34.5	13.7	32.4	10.3	.3	13.4	5.2	1.9
10	20.5	17.5	25.2	30.6	30.4	13.7	30.7	6.2	.3	11.7	12.2	11.9
11	19.2	16.3	14.8	27.0	17.1	13.7	29.5	5.2	1.1	11.7	14.3	18.0
12	15.7	15.5	18.4	22.2	18.5	8.8	28.4	4.0	1.1	6.6	13.4	15.5
13	14.1	15.2	18.3	19.2	16.1	12.7	5.4	6.7	1.4	9.9	13.7	3.9
14	9.9	22.6	13.6	20.5	8.4	18.0	1.9	16.9	2.2	9.8	13.2	7.5
15	8.9	22.5	10.8	19.8	8.1	16.0	1.9	17.9	9.9	10.1	13.8	7.5
16	9.0	22.6	9.3	24.4	6.7	11.5	1.9	31.9	10.3	9.3	7.6	9.8
17	7.1	28.0	14.6	24.6	6.7	11.4	1.9	26.2	10.2	11.1	7.0	9.8
18	8.0	20.3	20.5	24.5	2.2	14.5	1.9	29.3	9.5	23.5	7.6	9.8
19	5.3	20.3	22.5	20.8	16.5	12.3	1.9	19.0	9.5	19.9	6.6	9.8
20	5.3	20.3	19.4	24.2	16.5	15.0	0	14.5	11.8	23.9	7.3	2.9
21	8.3	35.1	21.8	23.5	16.5	13.9	1.5	14.5	13.6	24.8	7.3	2.2
22	8.3	23.8	27.3	23.4	20.2	8.5	8.0	14.5	15.7	24.9	9.1	2.2
23	10.5	28.8	26.3	24.3	19.5	11.7	6.5	18.3	15.6	27.4	7.3	2.2
24	10.6	32.0	30.3	20.4	19.4	11.2	10.7	11.6	20.3	23.0	8.9	2.2
25	22.7	29.4	22.4	25.7	19.0	9.4	12.2	14.8	20.9	25.3	7.4	2.2
26	7.5	29.4	25.4	37.4	18.2	15.2	9.4	6.3	11.7	4.1	7.2	6.1
27	7.5	29.4	20.8	30.7	6.9	16.8	14.7	4.8	11.5	4.9	7.2	6.2
28	12.5	30.1	18.8	31.5	9.8	16.9	14.8	7.2	7.3	4.1	5.8	5.1
29	8.9		13.0	30.1	9.8	6.8	13.9	8.7	7.3	4.5	5.3	2.8
30	12.5		6.7	29.1	6.1	12.8	3.2	1.5	4.6	4.1	2.9	2.8
31	7.5		14.8		5.3		3.3	4.3		4.1		2.8
Sum	383.0	680.3	629.3	742.6	567.1	379.0	401.2	337.4	206.7	405.4	218.2	175.7

Month	Current Year 1975: Average Rainfall Inches** 1957-1975	1975	∅ Extreme Second-Feet High: Day	High	Low: Day	Low	Average Second-Feet	Total Acre-Feet	Period 1957-1975 Acre-Feet: Average	Maximum	Minimum
Jan.	1.04	0.39	9	25.7	† 1	5.3	12.4	760	601	1,291	159
Feb.	1.19	.37	21	35.1	† 1	7.5	24.3	1,349	740	1,480	223
Mar.	.59	.27	24	30.3	30	6.7	20.3	1,248	964	1,345	158
Apr.	1.40	.40	26	37.4	1	15.8	24.8	1,473	1,024	1,890	357
May	2.39	1.88	8	35.4	18	2.2	18.3	1,125	1,048	2,624	211
June	2.73	2.10	23	16.9	† 1	6.2	12.6	752	1,105	2,610	209
July	1.20	5.54	9	32.4	20	0	12.9	796	743	1,620	278
Aug.	2.33	3.31	16	31.9	30	1.5	10.9	669	667	999	278
Sept.	5.35	5.69	25	20.9	† 7	.3	6.9	410	521	1,230	178
Oct.	2.22	1.25	23	27.4	†26	4.1	13.1	804	677	1,220	131
Nov.	1.09	T	11	14.3	† 1	1.0	7.3	433	514	1,170	216
Dec.	.68	.58	11	18.0	8	1.3	5.7	348	580	1,590	145
Yearly	22.27	21.84		37.4		0	14.0	10,167	9,184	14,754	4,989

∅ Mean daily ** United States side - average of several stations in the reach † And other days

RIO GRANDE AT FORT RINGGOLD, RIO GRANDE CITY, TEXAS

DESCRIPTION: Cableway, bubbler gage, gravity well, water-stage recorders (graphic and digital), and impulse-type transmitter located on the left bank at Fort Ringgold, latitude 26°22'05", longitude 98°48'20", and river mile 233.9; about 1 mile downstream from Rio Grande City, Texas, 3.9 river miles downstream from Rio San Juan, and 1,014.9 river miles downstream from American Dam at El Paso, Texas. The zero of the gage is 100.00 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 17 discharge measurements during the year, and a continuous record of gage heights. Computations by shifting control methods. Records available: January 1955 through 1975. Records composed of the addition of discharges of the Rio Grande at Roma, Texas, and the Rio San Juan at Santa Rosalia, Tamaulipas are available for May, June, and October 1914; September 1916; September and October 1917; October 1918; September and October 1919; August and September 1920; June 1922; September 1923; and 1924 through 1931. Records are also available for the station "Rio Grande near Rio Grande City", 3.0 miles downstream, for 1932 through 1954.

REMARKS: Reservoirs, diversions, and drainage returns modify the river flow at this station. Except for tributary inflows and intervening diversions below Falcon Dam, flow at this station is controlled largely by releases from Falcon Reservoir, 30.9 river miles upstream. The transmitter relays gage height data to the Anzalduas Dam office of the United States Section of the Commission and to the Anzalduas Dam control room via leased telephone circuits. The data is recorded automatically at both locations.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 220,000 second-feet on September 22 and 23, 1967 with a gage height of 61.40 feet. Min. no flow occurred several days in June and July 1953.

Average Flow in Second-Feet**

Daily:	Max. 207,000	Sept. 23, 1967	Min. 14.6	April 13, 1957
Monthly:	Max. 49,600	Oct. 1958	Min. 235	March 1957
Yearly:	Max. 9,140	1958	Min. 1,750	1970

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3,630	6,940	2,500	4,100	‡10,900	1,720	524	13,500	5,040	5,440	947	1,440
2	3,170	6,930	3,070	3,260	10,200	1,640	1,150	14,300	11,200	6,000	630	1,400
3	3,410	7,060	3,070	3,550	9,310	1,830	2,070	14,400	10,200	6,300	433	1,320
4	3,410	6,100	3,530	4,800	8,910	1,800	760	14,400	‡ 15,500	5,890	992	799
5	3,540	5,340	4,070	5,680	9,410	1,620	652	14,600	8,740	5,360	645	716
6	3,300	5,290	3,360	6,760	8,950	1,870	921	14,500	8,310	5,100	607	632
7	2,910	4,810	‡3,300	6,820	8,910	1,830	927	15,300	9,890	4,340	601	575
8	2,380	4,960	3,500	6,940	9,810	1,840	1,490	15,300	10,900	3,010	636	973
9	3,120	4,870	3,570	6,490	10,400	2,400	1,970	15,800	12,600	2,600	607	971
10	3,260	4,600	3,470	6,980	9,950	2,710	3,450	13,500	13,100	2,320	598	907
11	3,180	4,730	3,560	8,030	9,530	3,450	‡ 3,550	13,100	‡ 14,300	2,170	606	966
12	3,510	4,680	2,910	8,250	7,950	1,710	2,110	14,800	‡ 13,300	2,310	621	1,060
13	3,680	4,280	2,580	8,150	8,750	449	4,630	14,600	13,400	2,320	599	1,100
14	4,190	3,880	2,800	7,630	6,050	472	5,070	‡ 14,200	14,000	2,320	640	1,120
15	4,360	4,740	3,590	7,380	5,590	647	10,200	15,300	13,900	1,940	622	1,060
16	4,090	5,030	4,030	7,240	5,900	798	8,580	15,600	14,100	1,460	1,300	1,170
17	5,300	4,560	3,910	8,030	5,900	844	4,570	15,700	13,900	‡ 2,250	1,370	1,130
18	6,240	3,760	3,910	8,650	5,940	790	‡ 2,130	15,800	13,400	2,810	1,370	1,440
19	6,430	3,180	3,790	10,100	5,790	673	1,820	15,800	12,600	2,790	1,170	752
20	5,770	2,660	3,800	10,200	6,070	1,730	498	15,900	11,900	2,420	1,060	397
21	6,240	2,570	4,370	10,700	6,220	1,620	245	15,900	11,700	2,280	1,080	518
22	7,950	2,740	5,480	11,500	7,330	2,010	1,460	‡ 15,900	9,530	1,930	1,210	1,280
23	3,810	3,540	5,410	13,000	7,110	2,020	3,300	12,800	11,400	1,600	1,200	1,480
24	3,770	3,380	5,370	13,300	6,730	2,020	5,560	10,800	14,900	1,520	1,220	740
25	3,220	3,200	4,590	10,300	7,330	1,570	‡ 7,360	9,220	12,800	1,610	1,100	745
26	4,310	2,100	4,780	11,300	4,910	1,580	7,360	‡ 7,130	9,720	2,520	979	753
27	4,520	2,050	5,080	13,300	4,450	1,850	7,600	6,430	7,220	1,880	1,050	698
28	5,870	2,070	4,440	12,300	6,050	1,850	‡ 9,980	5,530	6,580	1,590	1,010	1,150
29	5,810		4,290	11,000	4,670	3,840	‡ 10,300	4,000	5,980	1,390	1,030	1,140
30	5,170		4,830	11,100	2,130	1,980	‡ 11,800	3,070	5,480	1,280	1,440	1,120
31	5,900		4,620		900		12,300	3,860		1,150		1,200
Sum	135,450	120,050	121,580	257,340	222,050	51,163	134,337	391,040	335,590	87,900	27,373	30,752

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period # 1954-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	31.05	26.35	22	8,690	† 8	972	4,370	268,661	216,745	416,906	33,043
Feb.	30.50	26.22	1	7,650	27	832	4,290	238,116	177,051	376,607	25,500
Mar.	30.19	26.10	22	7,090	13	714	3,920	241,150	135,215	378,000	14,400
Apr.	33.05	26.60	†23	13,800	† 1	1,280	8,580	510,426	255,476	510,426	75,100
May	32.14	25.80	1	11,800	31	468	7,160	440,430	324,363	521,000	36,702
June	29.41	25.41	29	6,050	15	240	1,710	101,480	286,779	623,778	98,620
July	32.55	25.31	31	12,900	†21	196	4,330	266,454	149,939	401,712	22,300
Aug.	34.78	27.09	9	16,100	30	1,850	12,600	775,616	199,707	775,616	25,000
Sept.	34.95	28.32	4	18,500	1	3,600	11,200	665,633	396,644	2,712,754	42,423
Oct.	30.88	25.91	3	8,410	23	551	2,840	174,347	395,604	3,047,000	30,000
Nov.	27.45	25.66	†16	2,300	4	375	912	54,204	163,091	1,442,000	29,274
Dec.	27.53	25.46	18	2,410	21	264	992	60,996	126,139	540,000	36,100
Yearly	34.95	25.31		18,500		196	5,250	3,797,603	2,826,753	6,619,700	1,269,259

** Period 1955-1975 ‡ Discharge measurement made on this day # 1954 values are Rio Grande City less arroyo inflow
† And other days

CONTRIBUTIONS FROM RIO SAN JUAN
FORT RINGGOLD TO ANZALDUAS DAM

DESCRIPTION: The Lower Rio San Juan Irrigation District in Mexico lies along the Rio Grande between Cd. Miguel Aleman and Rio Bravo, Tamaulipas and is irrigated with water impounded by Marte R. Gomez Dam situated on the Rio San Juan 12.4 river miles upstream from the confluence with the Rio Grande. The Rio San Juan enters the Rio Grande at river mile 237.8 and 1,011.0 river miles downstream from the American Dam at El Paso, Texas. Drain water from this irrigation district enters the Rio Grande between Falcon Dam and the Fort Ringgold Gaging Station through the Rio San Juan Channel, Rancherias Drain, and Los Fresnos Drain; and between this station and Anzalduas Dam through Puertecitos, Los Indios, Huizache, and Morillo Drains. Only the portion of drain water from this irrigation district reaching the Rio Grande via drains located downstream from the Fort Ringgold Gaging Station is shown below. The portion of water reaching the Rio Grande via channels located upstream from the Fort Ringgold Gaging Station is shown on page 62 in this bulletin.

RECORDS: Drain water reaching the Rio Grande through Puertecitos, Los Indios, Huizache, and Morillo Drains was determined by prorating between frequent current meter measurements. In 1975, 36, 35, 15 and 7 meter measurements were made at Puertecitos, Los Indios, Huizache, and Morillo Drains, respectively. All storm water measured at these drains was deducted and is not included in the tabulation below. In 1975, 49 per cent of the drain water from this irrigation district reaching the Rio Grande between Fort Ringgold Gaging Station and Anzalduas Dam was contributed by Morillo Drain. Records available: 1953 through 1975.

REMARKS: In 1975 there were 164,816 irrigable acres in the Lower Rio San Juan Irrigation District. Since July 9, 1969 some water has been diverted from Morillo Drain directly to the gulf via the Morillo Drain Diversion Canal to reduce the salinity of Rio Grande waters. In 1975, 32,688 acre-feet were diverted.

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	14.8	27.2	33.2	21.9	201	66.7	34.3	90.4	113	120	35.3	26.1
2	14.8	27.5	33.2	21.9	204	55.8	33.5	91.5	114	120	35.3	25.8
3	14.8	28.3	32.5	21.5	208	56.9	32.5	92.2	115	119	35.3	25.4
4	14.1	29.3	32.1	21.5	213	57.6	31.4	93.2	115	118	35.0	25.1
5	13.8	30.0	31.8	21.2	217	58.3	30.4	93.6	116	118	34.3	24.7
6	13.8	30.7	31.8	20.5	221	59.0	29.3	94.3	117	118	34.3	24.4
7	13.4	31.1	32.1	20.1	226	60.0	28.3	95.0	118	117	34.3	24.0
8	13.1	31.4	32.1	20.1	230	61.1	27.2	96.1	118	116	34.3	23.0
9	13.1	32.1	32.1	19.8	234	61.4	26.1	96.4	119	118	33.9	22.6
10	13.8	32.5	32.1	21.2	238	115	26.8	97.5	120	119	33.9	22.2
11	13.8	32.8	32.5	22.6	243	169	27.5	97.8	121	121	33.5	21.9
12	13.8	33.9	32.5	24.0	247	115	28.3	98.9	121	123	33.2	20.8
13	13.8	35.3	30.7	26.1	251	62.2	47.0	99.6	122	124	32.8	20.1
14	14.5	36.4	29.3	27.5	256	60.7	54.4	100	123	125	32.5	19.8
15	14.5	37.4	27.5	29.0	250	59.3	61.4	101	123	127	32.1	19.4
16	15.9	38.1	26.1	30.4	244	58.3	68.9	101	124	129	31.8	18.4
17	17.3	39.2	24.4	31.4	238	56.9	76.3	102	125	130	31.4	18.0
18	18.7	40.6	23.0	32.8	232	55.8	83.7	103	126	132	31.1	17.7
19	20.1	41.7	21.2	33.9	227	53.7	90.8	104	126	133	30.7	17.7
20	21.2	40.6	21.2	35.7	221	51.6	98.5	105	125	135	30.4	17.7
21	22.6	39.9	21.2	36.7	215	49.4	76.3	105	126	137	30.0	18.0
22	24.0	38.8	21.2	38.1	210	47.3	36.4	106	126	138	29.7	17.7
23	24.0	37.4	21.5	39.2	212	45.2	37.1	107	125	139	29.0	17.7
24	24.4	36.7	21.5	39.9	213	43.1	37.1	107	124	47.7	28.6	17.7
25	24.4	35.7	21.5	124	214	41.0	37.1	108	124	38.1	28.3	18.0
26	24.4	35.0	21.5	199	215	40.3	37.1	109	123	38.1	27.9	17.7
27	24.4	33.9	21.5	200	216	38.5	37.1	110	123	37.4	27.5	17.7
28	24.7	33.5	21.5	200	217	37.8	37.1	111	122	36.4	27.2	17.3
29	24.7		21.5	201	219	36.7	37.1	111	122	35.7	26.8	17.7
30	25.4		21.9	201	211	36.0	44.5	112	122	35.7	26.5	17.7
31	26.1		21.9		158		90.1	113		35.7		17.7
Sum	572.2	967.0	828.1	1,782.0	6,901	1,809.6	1,443.6	3,151.5	3,638	3,180.8	946.9	629.7

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	∅ Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1954-1975: Acre-Feet Average	Maximum	Minimum
Jan.			31	26.1	† 8	13.1	18.4	1,135	1,955	4,745	466
Feb.			19	41.7	† 1	27.2	34.6	1,918	3,116	7,059	509
Mar.			† 1	33.2	†19	21.2	26.8	1,643	2,512	5,291	582
Apr.			30	201	9	19.8	59.3	3,536	3,045	6,111	899
May			14	256	31	158	222	13,685	7,196	30,179	1,557
June			11	169	30	36.0	60.4	3,589	8,926	85,952	2,027
July			20	98.5	9	26.1	46.6	2,863	5,128	48,732	1,037
Aug.			31	113	1	90.4	102	6,249	2,732	13,292	661
Sept.			22	126	1	113	121	7,214	2,585	11,273	665
Oct.			23	139	†29	35.7	103	6,306	3,090	9,831	623
Nov.			† 1	35.3	30	26.5	31.4	1,878	2,320	10,461	520
Dec.			1	26.1	28	17.3	20.1	1,248	3,200	34,043	512
Yearly				256		13.1	71.0	51,256	45,805	179,482	13,462

∅ Mean daily † And other days

DIVERSIONS FROM THE RIO GRANDE
UNITED STATES SIDE - FORT RINGGOLD TO ANZALDUAS DAM

Beginning June 1971, the Texas Water Rights Commission assumed control of the United States portion of the water in Falcon Reservoir and in the Rio Grande below Falcon Dam, the disposition of such waters being made by its Rio Grande Watermaster. Previous to that, since June 1956, such waters had been under the jurisdiction of the 93rd District Court of Texas administered by its Special Water Master.

During 1975, 178,407 irrigable acres and several towns and rural homes were allotted Rio Grande water in the river reach between the gaging station at Fort Ringgold and Anzalduas Dam. Such irrigable area was 23.9% of the total irrigable acres below Falcon Dam allotted Rio Grande water.

The total diversion during 1975 in this river reach was 209,539 acre-feet, or 20.2% of the total water diverted from the Rio Grande below Falcon Dam. About 83% of the water diverted in this river reach was determined by the International Boundary and Water Commission through records of discharge obtained by means of flow meters, and by deflection meters developed by the Commission. The records for the rest of these diversions were furnished by the Rio Grande Watermaster and were determined from records of discharge obtained by means of flow meters. More than one crop per year is often grown on parts of this land.

EXTREME FLOWS FROM RECORDS:

		Average Flow in Second-Feet			
Daily:	Max. 1,220	June 21, 1960	Min. 0	Occasionally
Monthly	Max. 1,010	June 1960	Min. 10.3	March 1957
Yearly:	Max. 417	1961	Min. 188	1966

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	80.4	99.4	154	665	808	67.0	402	213	1.6	289	38.4	367
2	151	65.9	214	701	791	111	444	105	.9	268	37.5	371
3	163	112	484	663	624	162	343	67.8	.9	341	158	392
4	104	85.8	456	598	557	167	184	207	53.9	224	187	415
5	76.5	173	420	439	836	172	208	144	34.4	168	171	387
6	227	120	451	355	868	202	188	57.8	34.9	330	183	171
7	336	94.6	459	689	873	160	417	61.6	0	298	204	134
8	350	42.8	310	741	859	160	379	80.2	34.8	355	91.3	451
9	328	16.6	242	688	836	120	368	31.1	60.8	339	99.5	507
10	293	109	555	731	663	132	344	9.6	8.7	310	310	450
11	221	154	564	718	475	30.1	337	44.7	32.5	192	327	442
12	232	116	590	524	702	94.5	268	40.9	83.2	112	318	376
13	324	197	552	414	734	60.2	60.7	48.1	17.9	322	362	169
14	398	159	578	752	779	0	34.8	63.3	0	377	285	151
15	434	72.6	370	803	714	0	25.5	79.8	19.5	345	168	442
16	403	34.4	300	803	691	0	7.9	27.2	37.7	250	157	461
17	384	181	664	833	527	0	7.9	9.7	58.8	223	360	476
18	248	269	663	833	393	0	7.8	76.6	99.8	118	352	430
19	198	251	682	599	733	5.6	7.8	160	67.2	103	338	265
20	414	291	643	494	787	7.9	8.9	194	56.3	363	376	91.9
21	382	296	663	838	710	7.9	8.9	196	18.0	335	349	15.5
22	189	210	475	919	655	169	13.3	183	92.8	353	182	236
23	43.1	178	393	942	556	314	36.8	115	201	417	136	223
24	53.0	401	709	894	347	222	56.7	148	224	384	379	126
25	55.6	397	712	823	273	226	82.7	251	187	250	410	3.1
26	10.0	403	751	690	565	293	86.8	270	234	95.0	394	13.8
27	65.8	398	724	531	575	228	43.0	204	189	70.5	162	45.2
28	86.6	344	624	800	236	145	132	215	150	111	242	62.5
29	162		383	838	142	128	169	105	279	137	207	338
30	137		254	866	116	282	207	48.4	286	97.6	190	398
31	117		544		81.2		214	4.8		111		364
Sum	6,671.0	5,271.1	15,583	21,189	18,506.2	3,666.2	5,093.5	3,461.6	2,564.6	7,718.1	7,143.7	8,774.0

Month	Current Year 1975: Average Rainfall Inches** 1957-1975	1975	ø Extreme Second-Feet: High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1957-1975 Acre-Feet: Average	Maximum	Minimum
Jan.	1.30	1.01	15	434	26	10.0	215	13,232	11,670	28,747	2,010
Feb.	1.24	.56	26	403	9	16.6	188	10,455	12,255	38,599	1,640
Mar.	.69	.06	26	751	1	154	503	30,908	17,648	41,200	637
Apr.	1.31	.06	23	942	6	359	706	42,028	24,389	42,028	5,750
May	2.32	3.16	7	873	31	81.2	597	36,707	23,235	48,400	3,277
June	2.78	2.15	23	314	†14	0	122	7,272	24,442	59,000	5,011
July	1.38	8.45	2	444	†18	7.8	164	10,103	19,953	45,400	6,753
Aug.	1.92	6.36	26	270	31	4.8	112	6,866	20,205	35,877	6,866
Sept.	4.30	3.08	30	286	† 7	0	85.5	5,087	14,365	35,000	4,136
Oct.	2.59	1.98	23	417	27	70.5	249	15,309	14,580	30,400	2,830
Nov.	.96	.12	25	410	2	37.5	238	14,169	13,073	21,932	2,930
Dec.	.88	.72	9	507	25	3.1	283	17,403	11,399	18,782	2,506
Yearly	21.57	27.71		942		0	289	209,539	207,214	302,180	136,460

ø Mean daily ** United States side - average of several stations in the reach † And other days

DIVERSIONS FROM THE RIO GRANDE
ANZALDUAS CANAL NEAR REYNOSA, TAMAULIPAS

DESCRIPTION: Cableway, gravity well, and water-stage recorder located on the left bank at latitude 26°08'05", longitude 98°20'10", 0.5 canal mile from the canal intake, and about 5 miles northwest of Reynosa, Tamaulipas. The canal intake is immediately upstream from Anzalduas Dam at river mile 171.6, 102.2 river miles downstream from Falcon Dam, and 1,077.2 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is 86.32 feet above mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 71 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: 1952 through 1975.

REMARKS: Diversions by this canal are for irrigation and domestic use in Mexico and for conveying water for storage in Culebron, Villa Cardenas, and Palito Blanco Reservoirs about 23 canal miles downstream from this station. During 1975, 490,100 acres were irrigated with water delivered through this canal. More than one crop per year was grown on parts of this land. Flow at this canal station is affected by backwater from the operation of canal gates 4.5 miles, 11.3 miles, and 22.5 miles below this station. During 1975, there was no water returned to the Rio Grande through Poniente Drain.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 10,950 second-feet on June 2, 1957 with a gage height of 16.01 feet. Min. no flow occurs frequently.

Average Flow in Second-Feet

Daily:	Max. 9,350	May 29, 1957	Min. 0	Frequently
Monthly:	Max. 5,090	April 1972	Min. 0	Several months
Yearly:	Max. 1,980	1959	Min. 150	1952

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	544	5,010	957	1,590	6,460	901	374	720	780	477	1.4	1.4
2	533	5,330	1,210	1,590	‡ 6,180	777	357	713	530	607	1.4	1.4
3	530	‡ 6,110	‡1,310	1,070	6,180	618	348	727	533	710	1.4	1.4
4	756	‡ 6,110	1,240	1,850	6,180	473	413	706	530	706	1.4	1.4
5	999	5,650	1,320	2,030	5,510	480	505	848	537	607	1.4	1.4
6	1,050	‡ 4,590	‡1,470	2,200	‡ 5,440	484	537	992	537	540	1.4	1.4
7	1,060	4,410	‡1,620	2,580	‡ 5,300	480	533	992	530	639	1.4	1.4
8	‡ 1,130	4,310	1,620	‡ 2,860	‡ 5,370	477	540	‡ 953	523	893	1.4	1.4
9	1,170	4,060	1,310	3,090	5,580	1.4	530	1,060	533	‡ 975	1.4	607
10	1,210	‡ 3,990	‡1,080	‡ 3,370	5,830	1.4	‡ 484	925	537	971	1.4	290
11	1,360	4,060	1,080	‡ 3,500	5,860	230	505	‡ 989	533	971	1.4	1.4
12	1,510	‡ 3,960	1,080	3,530	‡ 5,580	512	505	1,400	540	971	1.4	1.4
13	‡ 1,750	3,880	989	3,710	5,400	265	523	1,430	537	975	1.4	512
14	1,910	‡ 3,810	‡ 936	‡ 3,880	5,010	1.4	925	1,560	650	1,050	1.4	710
15	2,160	3,600	996	3,960	3,780	1.4	1,460	2,130	710	1,060	1.4	261
16	‡ 2,480	3,440	1,280	‡ 4,240	‡ 3,270	0	‡ 4,800	2,550	‡ 706	1,170‡	1.4	1.4
17	2,770	‡ 3,370	‡1,470	4,410	3,050	0	4,940	2,630	710	1,240	1.4	1.4
18	2,900	3,370	1,530	‡ 4,930	3,280	0	3,710	‡ 2,650	‡ 710	1,240	1.4	1.4
19	3,210	2,230	‡1,590	5,760	‡ 3,450	0	1,380	2,480	710	1,150	258	1.4
20	3,640	‡ 1,690	1,590	6,110	‡ 3,600	0	724	2,150	706	1,060‡	480	1.4
21	‡ 3,850	‡ 1,500	1,590	‡ 6,290	3,990	0	720	1,410	710	1,060	1.4	1.4
22	4,060	1,420	1,600	6,530	‡ 4,480	0	713	1,420	706	1,060	1.4	1.4
23	4,340	1,400	1,590	‡ 6,920	‡ 4,800	1.4	‡ 710	1,410	441	1,060	1.4	1.4
24	‡ 4,200	‡ 1,310	1,720	7,350	5,120	1.4	703	1,420	1.4	1,060	1.4	1.4
25	3,740	1,240	1,850	‡ 7,420	5,160	206	710	1,420	1.4	925	1.4	1.4
26	3,150	1,150	1,750	7,420	‡ 5,050	353	713	1,420	1.4	893	1.4	247
27	‡ 2,860	‡ 862	1,500	7,420	3,230	367	706	‡ 1,450	1.4	‡ 893	1.4	360
28	2,860	‡ 798	1,420	‡ 7,420	‡ 2,370	328	‡ 720	1,450	1.4	800	512	364
29	3,470		1,410	7,350	‡ 2,330	1.4	713	1,450	1.4	388	226	353
30	‡ 4,480		1,520	6,820	‡ 1,840	209	713	1,450	346	1.4	1.4	378
31	‡ 4,800		‡1,660		1,240		710	1,320		1.4		‡350
Sum	74,482	92,660	43,288	137,850	139,970	7,169.8	31,924	44,225	14,293.4	26,243.8	1,512.4	4,460.0

Month	Current Year 1975: Average Rainfall Inches** 1954-1975	1975	∅ Extreme Second-Feet: High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1954-1975: Acre-Feet Average	Maximum	Minimum
Jan.	1.24	1.02	31	4,800	3	530	2,400	147,803	102,761	259,799	1,520
Feb.	1.42	.55	† 3	6,110	28	798	3,310	183,792	103,175	251,519	1,086
Mar.	.72	0	25	1,850	14	936	1,390	85,827	42,074	147,900	1,128
Apr.	1.60	0	†25	7,420	† 1	1,590	4,590	273,338	129,943	303,212	23,381
May	2.43	2.50	1	6,460	31	1,240	4,520	277,639	196,733	285,477	29,169
June	3.01	1.26	1	901	†16	0	239	14,221	116,145	270,700	14,221
July	1.68	7.05	17	4,940	3	348	1,030	63,338	44,431	162,400	5,730
Aug.	2.42	8.54	18	2,650	4	706	1,430	87,739	79,079	236,942	6,709
Sept.	4.93	3.46	1	780	†24	1.4	477	28,351	69,302	165,800	8,708
Oct.	2.76	1.77	17	1,240	†30	1.4	848	52,070	52,926	209,590	0
Nov.	1.25	0	28	512	† 1	1.4	50.5	3,000	14,477	83,690	0
Dec.	1.02	1.38	14	710	† 1	1.4	144	8,846	28,620	166,700	651
Yearly	24.48	27.63		7,420		0	1,700	1,225,964	979,666	1,434,920	551,946

‡ Discharge measurement made on this day ∅ Mean daily ** Average of several stations
† And other days

RIO GRANDE BELOW ANZALDUAS DAM, TEXAS

DESCRIPTION: Cableway, gravity well, water-stage recorder, and selsyn-type transmitter, located on the right bank at latitude 26°08'00", longitude 98°20'05", and river mile 171.1; 0.5 river mile downstream from Anzalduas Dam, about 4.5 miles northwest of Reynosa, Tamaulipas, 12.2 river miles upstream from the international highway bridge between Hidalgo, Texas and Reynosa, Tamaulipas, and 1,077.7 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is at mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 80 discharge measurements during the year, 79 by the Mexican Section and 1 by the United States Section of the Commission, and a continuous record of gage heights. Computations by shifting control methods. Records available: 1952 through 1975.

REMARKS: Except during local storms, flow at this station is controlled largely by releases from Falcon Reservoir and by diversions into Anzalduas Canal. Excessive upstream flood flows are partly diverted into the United States floodway system inlet at Anzalduas Dam before reaching this station. Prior to January 1, 1968 the zero of the gage was 82.61 feet above mean sea level, U. S. C. & G. S. datum. The transmitter relays gage height data to the Anzalduas Dam control room.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 131,000 second-feet on September 24, 1967 with a gage height of 30.51 feet. Min. periods of no flow have occurred on several occasions in 1953, 1954, 1956, and 1957.

Average Flow in Second-Feet

Daily:	Max. 121,000	Sept. 25, 1967	Min. 0	Occasionally	
Monthly:	Max. 37,830	Oct. 1958	Min. 5.5	March 1957	
Yearly:	Max. 6,410	1958	Min. 158	1957	

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2,590	597	625	2,300	4,130	1,060	1,440	12,200	5,160	‡ 5,930	1,400	1,260
2	2,630	1,250	985	‡ 2,070	‡ 4,060	‡ 1,600	1,190	13,800	8,160	6,000	1,320	1,290
3	‡ 2,310	1,100	1,150	1,880	4,590	1,730	‡ 780	14,400	‡ 10,800	6,320	823	‡1,350
4	2,010	1,240	‡1,260	1,800	4,340	‡ 1,710	639	‡ 14,400	12,600	6,320	‡ 802	1,180
5	1,790	1,090	1,270	1,830	4,170	1,820	639	14,400	‡ 13,100	5,860	971	968
6	1,760	‡ 795	1,200	2,990	‡ 4,130	1,720	830	14,500	9,680	‡ 5,440	982	735
7	1,910	403	982	‡ 3,230	‡ 4,030	1,480	999	‡ 14,400	9,500	4,730	922	795
8	1,660	604	1,040	3,150	3,710	1,700	1,000	‡ 14,700	‡ 11,200	3,450	791	‡ 918
9	1,110	883	1,260	3,090	3,600	‡ 1,830	1,200	14,900	‡ 12,000	‡ 3,030	791	915
10	957	‡ 862	1,500	‡ 2,950	3,880	1,800	1,410	15,000	‡ 13,800	1,990	883	929
11	1,190	727	1,550	2,740	4,480	3,310	‡ 1,330	13,600	14,900	1,680	939	893
12	1,320	685	‡1,540	2,860	‡ 4,240	4,340	1,130	‡ 13,000	‡ 15,100	1,690	‡ 865	‡ 667
13	1,090	‡ 632	1,270	4,310	3,420	2,760	1,850	13,600	14,300	‡ 1,550	749	427
14	‡ 1,100	569	‡1,120	‡ 3,780	3,230	2,000	5,370	13,200	14,700	1,450	735	770
15	1,300	484	1,060	3,130	‡ 2,770	1,670	7,310	12,100	14,900	1,230	586	‡ 890
16	1,500	629	1,590	‡ 2,900	2,230	‡ 1,550	7,910	12,300	15,000	‡ 773	600	897
17	1,570	1,140	‡1,750	2,810	1,900	1,600	5,540	13,200	14,900	‡ 890	‡1,200	932
18	1,620	1,450	1,770	2,710	2,550	1,510	‡ 1,770	13,400	‡ 14,700	904	1,180	819
19	2,470	‡ 1,440	1,790	2,780	2,270	1,080	1,380	13,600	‡ 14,000	968	1,120	480
20	‡ 2,680	1,060	‡1,770	3,110	‡ 2,070	‡ 682	1,320	13,800	13,100	1,630	1,100	470
21	2,640	784	1,590	3,470	2,030	671	‡ 296	‡ 14,800	12,500	1,430	1,010	819
22	2,300	491	1,540	3,740	2,060	879	742	14,900	12,400	1,300	727	1,170
23	2,480	996	2,550	3,810	2,070	1,420	2,640	14,200	10,500	1,070	727	1,100
24	636	1,120	2,780	‡ 4,170	2,080	1,590	3,420	11,400	13,600	‡ 1,020	879	‡ 505
25	530	1,130	‡2,820	4,450	2,580	‡ 1,740	5,580	‡ 9,960	‡ 15,000	823	964	540
26	925	1,070	2,730	3,710	2,440	1,910	‡ 6,670	8,330	13,700	964	918	639
27	1,120	918	2,670	3,920	2,380	‡ 1,970	‡ 7,200	6,500	11,300	1,250	1,030	569
28	1,230	727	2,150	4,770	1,960	1,720	‡ 7,560	‡ 5,510	9,110	1,290	‡ 975	869
29	‡ 1,520		2,000	‡ 4,410	3,400	1,740	‡ 9,250	4,840	7,560	1,390	551	971
30	1,160		2,530	4,170	2,960	‡ 1,700	‡ 10,200	3,810	6,070	‡ 1,810	1,030	1,030
31	840		2,440		1,390		‡ 11,600	3,530		1,550		‡ 908
Sum	49,948	24,876	52,282	97,040	95,200	52,292	110,195	372,280	363,340	75,732	27,570	26,705

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1954-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	84.35	80.31	1	2,970	†24	494	1,610	99,079	93,639	220,916	1,090
Feb.	82.15	79.72	† 9	1,570	14	300	890	49,340	69,088	241,900	830
Mar.	84.22	80.51	25	3,130	† 1	622	1,680	103,660	74,357	235,500	339
Apr.	86.15	82.45	†24	5,160	4	1,780	3,230	192,519	97,646	192,519	3,160
May	86.94	81.30	6	5,830	31	1,040	3,070	188,814	117,766	202,400	35,360
June	86.35	80.18	12	5,580	19	512	1,740	103,751	157,965	368,852	7,850
July	93.44	79.53	31	11,900	†21	254	3,570	218,512	101,309	449,747	2,000
Aug.	96.06	85.47	21	15,300	31	3,210	12,000	738,558	106,885	738,558	943
Sept.	95.87	86.58	†12	15,300	1	4,480	12,100	720,486	275,979	1,862,856	3,920
Oct.	89.30	82.74	† 3	6,820	16	607	2,440	150,268	321,905	2,326,000	1,730
Nov.	83.92	82.19	1	1,610	28	441	918	54,699	148,015	1,438,000	1,430
Dec.	83.92	81.76	2	1,610	24	312	862	52,947	91,168	540,100	1,500
Yearly	96.06	79.53		15,300		254	3,710	2,672,633	1,655,722	4,640,968	114,749

‡ Discharge measurement made on this day † And other days

RIO GRANDE FLOODWAY DISCHARGES
LOWER RIO GRANDE VALLEY

On the United States Side

Part of the excess water from floods entering the Lower Rio Grande Valley is diverted from the river through the United States floodway system, with the inlet located south of Mission, Texas approximately six miles upstream from the Anzalduas Dam.

Floodwater entering the system is measured first at the Mission Floodway Station on State Highway No. 336 bridge south of McAllen and again 18.5 miles downstream at the Main Floodway Station on Farm Road No. 88 bridge south of Weslaco. At a point 3 miles southwest of Mercedes the floodway divides, one channel going northeastward through the Arroyo Colorado Floodway to the Gulf of Mexico, and the other going to the gulf via the North Floodway, traveling first northward and then eastward to the gulf. At the point of division, a divisor dike which runs longitudinally in the Main Floodway, divides and controls the flows into the Arroyo Colorado Floodway and the North Floodway. The flow of the Arroyo Colorado is measured at El Fuste Siphon south of Mercedes and farther downstream at the bridge on U. S. Highway No. 83 south of Harlingen. The North Floodway flow is measured at the bridge on old U. S. Highway No. 83 west of Mercedes and farther downstream at the bridge on U. S. Highway No. 77 near Sebastian.

In 1975, no flood flow was diverted through this floodway system.

On the Mexican Side

Part of the excess water from floods entering the Lower Rio Grande Valley is diverted from the river through the Mexican floodway system, with inlets located approximately 38 miles (Retamal Heading), 51 miles (San Rafael), and 107 miles (Floodway No. 2), respectively, downstream from Anzalduas Dam. Floodway No. 3, 1.2 miles upstream from the Brownsville-Matamoros Bridge, is greatly obstructed and is considered to be inoperative.

Floodwater diverted through Retamal Heading is measured at a cableway station 0.9 mile downstream from the headgate. It flows through Retamal Canal into Culebron and Villa Cardenas Lakes from which it discharges through floodgates into Floodway No. 1 and flows southeastward into the Gulf of Mexico. Floodwater diverted at San Rafael is measured near the intake and flows through San Rafael Drain into Culebron and Villa Cardenas Lakes from which it discharges into Floodway No. 1. Floodwater entering Floodway No. 2 is measured at the Matamoros-Reynosa highway crossing and flows south and east into the Gulf of Mexico.

In 1975, no flood flows were diverted into this floodway system. There were no diversions for irrigation purposes through Retamal Canal in 1975.

DIVERSIONS FROM THE RIO GRANDE
UNITED STATES SIDE - ANZALDUAS DAM TO PROGRESO

Beginning June 1971, the Texas Water Rights Commission assumed control of the United States portion of the water in Falcon Reservoir and in the Rio Grande below Falcon Dam, the disposition of such waters being made by its Rio Grande Watermaster. Previous to that, since June 1956, such waters had been under the jurisdiction of the 93rd District Court of Texas administered by its Special Water Master.

During 1975, 140,402 irrigable acres and several towns and rural homes were allotted Rio Grande water in the river reach between Anzalduas Dam and the Progreso International Bridge. Such irrigable area was 18.8% of the total irrigable acres below Falcon Dam allotted Rio Grande water.

The total diversion during 1975 in this river reach was 217,131 acre-feet, or 20.9% of the total water diverted from the Rio Grande below Falcon Dam. About 93% of the water diverted in this river reach was determined by the International Boundary and Water Commission through records of discharge obtained by means of flow meters, and by deflection meters developed by the Commission. The records for the rest of these diversions were furnished by the Rio Grande Watermaster and were determined from records of discharge obtained by means of flow meters. More than one crop per year is often grown on parts of this land.

EXTREME FLOWS FROM RECORDS:

		Average Flow in Second-Feet			
Daily:	Max. 1,120	June 16 & 17, 1965		Min. 0	Occasionally
Monthly:	Max. 749	June	1969	Min. 13.3	May 1972
Yearly:	Max. 333		1961	Min. 167	1970

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	28.1	78.2	334	591	951	17.5	458	158	8.3	349	33.0	328
2	179	96.4	316	645	974	145	471	65.5	14.9	378	30.2	361
3	195	266	447	677	903	166	285	38.2	14.9	376	54.3	358
4	69.9	263	522	644	806	50.2	139	227	12.8	265	168	348
5	60.5	62.9	547	487	881	170	136	76.7	13.5	250	227	345
6	247	22.1	544	396	854	271	133	154	1.1	451	251	201
7	303	89.0	552	542	905	160	346	74.7	1.1	370	225	112
8	301	14.1	383	773	893	120	418	91.3	35.7	368	77.7	272
9	283	9.1	350	773	862	295	436	13.1	29.3	414	78.2	399
10	309	95.7	496	804	738	366	517	6.6	16.0	376	228	410
11	293	168	522	733	607	242	522	26.1	107	184	280	293
12	294	174	553	537	633	223	355	71.4	92.9	182	284	310
13	216	70.3	529	350	692	276	202	30.5	0	305	278	209
14	282	162	469	606	687	135	353	44.7	0	344	282	161
15	447	26.9	263	630	686	68.9	147	30.5	13.6	350	101	390
16	470	16.7	234	613	684	198	37.2	37.2	13.8	283	90.8	397
17	444	147	370	622	280	240	27.4	34.9	15.5	304	263	423
18	249	251	499	615	343	257	25.0	233	115	183	317	397
19	266	298	509	600	717	270	3.7	267	188	91.2	354	300
20	493	301	507	271	770	327	0	307	5.6	252	339	70.9
21	557	251	506	611	745	263	12.5	235	5.6	338	329	2.7
22	334	123	374	752	835	212	13.0	253	153	356	108	219
23	137	104	354	733	823	407	22.8	153	119	361	162	197
24	36.5	284	482	743	676	484	23.1	149	135	356	330	85.4
25	12.5	355	656	820	492	478	137	334	203	301	329	1.9
26	4.9	398	529	807	630	534	7.9	274	174	72.6	325	72.5
27	182	439	577	812	696	572	7.9	284	16.3	297	110	90.4
28	252	430	504	877	386	530	36.8	193	20.6	94.3	293	91.3
29	252		226	857	220	335	42.3	170	239	70.3	257	340
30	172		176	881	120	381	97.8	80.2	253	52.7	162	319
31	199		562		16.9		113	1.0		262		288
Sum	7,618.7	4,995.4	13,892	19,802	20,510.9	8,213.6	5,525.4	4,105.6	2,023.0	8,626.1	6,366.2	7,792.1

Month	Current Year 1975: Average Rainfall Inches** 1957-1975	1975	∅ Extreme Second-Feet High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1957-1975 Acre-Feet Average	Maximum	Minimum
Jan.	1.43	1.05	21	557	26	4.9	248	15,111	11,632	34,959	723
Feb.	1.31	.76	27	439	8	9.1	178	9,908	9,839	28,535	1,140
Mar.	.78	.06	25	659	30	176	448	27,554	14,304	36,100	1,050
Apr.	1.41	.06	30	881	20	271	660	39,277	18,956	39,277	3,630
May	2.65	2.69	2	974	31	16.9	662	40,683	21,089	40,683	817
June	2.98	2.30	27	572	1	17.5	274	16,291	27,044	44,541	5,336
July	1.50	8.07	11	522	20	0	178	10,959	21,200	41,100	6,597
Aug.	2.06	6.36	25	334	31	1.0	132	8,143	15,279	27,542	7,452
Sept.	4.59	4.29	30	253	†23	0	67.4	4,013	12,255	28,000	3,214
Oct.	2.85	1.68	6	451	30	52.7	278	17,110	13,613	29,215	2,059
Nov.	1.19	.22	19	354	2	30.2	212	12,627	10,512	22,818	1,015
Dec.	1.05	1.04	17	423	25	1.9	251	15,455	9,977	17,500	1,978
Yearly	23.83	23.80		974		0	300	217,131	185,702	241,270	121,003

∅ Mean daily ** United States side - average of several stations in the reach † And other days

RIO GRANDE NEAR PROGRESO, TEXAS

DESCRIPTION: Gravity well, water-stage recorder, and digital transmitter located on the downstream side of the center pier of the Progreso International Bridge at latitude 26°03'45", longitude 97°57'00", and river mile 123.3; 0.8 river mile downstream from the Progreso pumping plant, 2 miles south of Progreso, Texas, 47.3 river miles downstream from Anzalduas Dam, and 1,125.0 river miles downstream from the American Dam at El Paso, Texas. Meter measurements are made from the bridge. An auxiliary gage well and water-stage recorder located about 300 feet upstream from the bridge are used when the low-flow channel shifts to the left bank. The zero of the gage at both recorders is at mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 68 discharge measurements during the year, 58 by the Mexican Section and 10 by the United States Section of the Commission, and a continuous record of gage heights. Computations by shifting control methods. Records available: December 1952 through August 24, 1953; and December 1953 through 1975.

REMARKS: Except for diversions, tributary inflows, and drainage returns below Falcon Dam, flow at this station after August 25, 1953 was controlled largely by releases from Falcon Reservoir, 150 miles upstream. Excessive upstream flood flows are partly diverted into the United States floodway system inlet at Anzalduas Dam and through Retamal Heading of the Mexican floodway system before reaching this station. The transmitter relays gage height data upon interrogation by telephone via commercial circuits. Prior to January 1, 1969, the zero of the gage was 52.56 feet above mean sea level, U. S. C. & G. S. datum.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 60,700 second-feet on September 26, 1967 with a gage height of 24.84 feet. Min. no flow several days in June, July, and August 1953.

Average Flow in Second-Feet

Daily:	Max. 48,400	Sept. 26, 1967	Min. 0	Frequently 1953
Monthly:	Max. 22,400	Oct. 1971	Min. 5.1	June 1953
Yearly:	Max. 4,560	1971	Min. 666	1957

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2,620	855	565	‡ 1,880	3,210	1,750	‡ 1,350	‡ 11,100	4,030	6,220	1,690	830
2	2,740	727	551	1,690	3,090	1,380	1,130	12,000	5,790	5,830	1,560	‡1,010
3	2,610	1,070	616	1,480	3,450	1,460	984	12,800	9,250	‡ 5,900	1,380	1,090
4	2,400	1,080	643	1,330	3,500	‡ 1,550	812	‡ 13,200	10,600	6,220	1,110	1,090
5	2,220	1,050	‡ 759	1,270	‡ 3,440	1,560	738	13,200	‡ 12,500	6,360	‡ 802	971
6	2,000	1,100	816	1,590	3,260	1,580	762	‡ 13,400	11,900	5,900	893	798
7	‡ 1,770	1,020	742	2,450	‡ 3,310	1,460	‡ 816	13,500	10,400	‡ 5,230	848	689
8	1,790	685	618	‡ 2,550	3,090	1,420	795	13,600	10,500	4,130	883	773
9	‡ 1,670	675	763	2,390	2,850	1,520	749	13,800	‡ 11,400	3,310	911	‡ 727
10	1,230	876	915	2,330	2,820	‡ 1,490	745	14,000	12,000	2,610	‡ 886	607
11	929	‡ 939	‡ 996	2,170	3,320	1,530	883	‡ 13,800	13,000	1,860	‡ 805	614
12	1,110	745	996	2,060	3,850	3,440	872	13,000	13,700	1,770	791	‡ 717
13	1,380	685	999	2,770	‡ 3,350	3,870	1,080	‡ 12,900	13,800	1,710	756	622
14	1,220	‡ 703	883	3,670	2,670	2,640	2,940	13,000	13,800	‡ 1,450	653	420
15	1,000	671	770	‡ 3,170	2,440	2,000	‡ 5,470	12,800	‡ 14,100	1,350	636	‡ 466
16	971	607	851	2,600	2,110	1,700	‡ 7,980	12,200	14,200	1,170	657	618
17	1,120	635	1,200	2,360	1,710	‡ 1,480	‡ 7,700	12,600	14,200	798	667	597
18	1,240	‡ 876	‡1,240	2,180	1,710	1,450	5,090	12,900	14,100	816	876	604
19	1,500	1,120	1,210	2,100	2,060	1,380	2,710	13,000	13,900	961	904	‡ 710
20	2,060	1,020	1,190	2,500	‡ 1,580	1,090	2,140	‡ 13,000	13,400	1,150	837	516
21	‡ 2,090	830	1,150	2,850	1,450	717	1,890	13,300	12,900	‡ 1,510	‡ 848	470
22	2,000	689	1,080	‡ 2,840	‡ 1,520	710	‡ 1,090	‡ 13,700	12,500	1,410	848	756
23	2,030	607	1,230	2,920	1,520	770	1,050	13,800	‡ 11,700	1,240	791	‡ 915
24	2,300	756	‡1,910	2,990	1,460	‡ 1,020	2,850	12,800	11,200	‡ 996	752	1,010
25	1,320	‡ 851	2,010	3,310	1,630	1,140	3,710	11,400	15,100	953	‡ 667	802
26	848	802	2,050	3,250	2,110	1,210	5,190	9,610	‡ 13,700	988	706	579
27	953	717	2,010	2,950	‡ 1,840	1,280	6,290	7,730	12,900	1,120	742	706
28	‡ 1,050	611	1,950	3,140	1,890	1,550	‡ 6,920	6,000	11,200	‡ 1,200	865	692
29	1,040		1,700	3,570	1,900	1,300	‡ 7,700	‡ 5,090	9,320	1,360	946	756
30	1,280		1,940	‡ 3,410	3,290	‡ 1,300	8,970	4,240	7,590	1,400	607	‡ 727
31	1,250		2,280		2,850		‡ 9,990	3,440		1,760		865
Sum	49,781	23,052	36,635	75,770	77,970	46,667	101,376	360,910	352,880	78,742	26,317	22,747

Month	Current Year 1975: Extreme Gage Feet High	Extreme Gage Feet Low	Extreme Second-Feet High Day	Extreme Second-Feet High	Extreme Second-Feet Low Day	Extreme Second-Feet Low	Average Second-Feet	Total Acre-Feet	Period 1954-1975: Acre-Feet Average	Acre-Feet Maximum	Acre-Feet Minimum
Jan.	58.98	55.58	† 1	2,770	†26	777	1,610	98,750	92,701	241,800	17,340
Feb.	56.33	54.76	† 3	1,220	28	579	823	45,739	69,231	371,900	12,620
Mar.	58.04	54.53	31	2,320	† 1	551	1,180	72,637	67,231	379,400	4,990
Apr.	59.74	56.27	14	3,740	5	1,240	2,520	150,255	86,445	157,497	32,060
May	59.91	56.59	12	3,950	21	1,410	2,510	154,632	104,484	154,632	33,164
June	60.27	55.02	†12	4,590	†21	692	1,560	92,586	120,877	279,383	50,884
July	67.75	55.12	31	10,600	5	724	3,270	201,059	96,951	465,549	16,970
Aug.	71.98	59.78	10	14,100	31	3,230	11,700	715,744	99,103	715,744	10,400
Sept.	72.08	59.78	†19	14,300	1	3,230	11,800	699,543	211,590	837,532	21,650
Oct.	63.65	55.64	1	6,710	17	742	2,540	156,152	247,372	1,377,161	14,030
Nov.	57.58	54.92	1	1,370	30	551	876	52,184	111,193	735,000	15,000
Dec.	56.07	54.36	4	1,130	14	388	735	45,116	85,007	487,200	7,370
Yearly	72.08	54.36		14,300		388	3,430	2,484,397	1,401,193	3,291,271	482,410

‡ Discharge measurement made on this day † And other days

DIVERSIONS FROM THE RIO GRANDE
UNITED STATES SIDE - PROGRESO TO SAN BENITO

Beginning June 1971, the Texas Water Rights Commission assumed control of the United States portion of the water in Falcon Reservoir and in the Rio Grande below Falcon Dam, the disposition of such waters being made by its Rio Grande Watermaster. Previous to that, since June 1956, such waters had been under the jurisdiction of the 93rd District Court of Texas administered by its Special Water Master.

During 1975, 316,322 irrigable acres and several towns and rural homes were allotted Rio Grande water in the river reach between the gaging stations at Progreso and near San Benito. Such irrigable area was 42.5% of the total irrigable acres below Falcon Dam allotted Rio Grande water.

The total diversion during 1975 in this river reach was 463,762 acre-feet, or 44.7% of the total water diverted from the Rio Grande below Falcon Dam. About 99% of the water diverted in this river reach was determined by the International Boundary and Water Commission through records of discharge obtained by means of flow meters, by open channel rating stations, and by deflection meters developed by the Commission. The records for the rest of these diversions were furnished by the Rio Grande Watermaster and were determined from records of discharge obtained by means of flow meters. More than one crop per year is often grown on parts of this land.

EXTREME FLOWS FROM RECORDS:

	Average Flow in Second-Feet				
Daily:	Max. 2,750	June 15, 1965	Min. 0	Occasionally
Monthly:	Max. 2,080	June 1960	Min. 53.5	March 1957
Yearly:	Max. 726	1965	Min. 367	1968

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	160	344	192	952	2,300	534	746	483	3.2	459	232	274
2	185	177	38.8	968	2,270	656	700	428	10.5	653	184	685
3	213	391	377	1,050	2,100	948	514	431	112	553	264	707
4	214	472	487	1,040	1,700	1,070	342	526	142	561	475	728
5	133	436	460	844	2,110	1,170	171	496	172	253	447	745
6	372	460	511	738	2,110	1,170	110	320	221	219	438	637
7	605	316	566	1,480	2,200	1,140	320	255	134	423	447	415
8	623	68.4	317	1,320	2,140	950	465	268	217	482	342	439
9	622	57.0	260	1,750	2,220	1,030	472	279	378	564	305	428
10	575	159	486	1,720	1,820	1,030	634	281	471	760	329	400
11	495	181	687	1,750	1,370	916	707	411	345	613	411	407
12	225	321	675	1,600	1,690	828	614	520	265	107	419	408
13	475	395	752	1,360	1,660	826	367	436	263	351	469	340
14	727	288	712	1,960	1,640	646	492	245	220	352	408	128
15	738	152	283	1,930	1,300	492	599	243	132	438	313	378
16	781	143	349	1,970	1,320	524	442	245	160	458	92.4	535
17	762	197	878	1,760	1,050	379	141	236	160	346	171	544
18	727	465	1,030	1,820	806	446	39.6	245	161	289	548	514
19	714	796	1,010	1,610	654	455	4.1	297	161	342	713	484
20	1,350	859	1,080	1,460	790	423	5.6	310	157	440	677	477
21	1,550	339	1,100	1,900	930	159	110	324	153	475	657	402
22	1,510	263	741	1,980	948	142	177	324	300	483	625	630
23	1,050	81.7	673	2,050	921	346	256	257	444	483	399	861
24	658	264	1,270	2,010	794	455	264	249	458	472	399	619
25	451	399	1,530	2,080	535	613	402	452	295	411	413	100
26	159	420	1,410	1,970	851	895	187	561	204	285	432	171
27	368	446	1,420	1,830	1,160	1,150	16.8	449	148	307	397	270
28	545	427	1,510	1,870	916	1,080	120	387	140	381	443	271
29	588		1,010	2,210	813	946	134	373	234	290	337	432
30	627		589	2,340	850	928	464	191	204	266	142	498
31	642		901		539		608	29.0		266		555
Sum	9,317.1	16,364	49,672	23,354.8	22,450	42,767	10,551.0	10,629.1	12,782	8,514.7	14,482	11,928.4

Month	Current Year 1975: Average Rainfall Inches** 1957-1975	1975	∅ Extreme Second-Feet: High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1957-1975: Acre-Feet Average	Maximum	Minimum
Jan.	1.53	1.14	21	1,550	5	133	607	37,416	37,877	97,130	4,872
Feb.	1.04	.59	20	359	9	57.0	351	19,472	20,645	49,359	4,807
Mar.	.94	.05	25	1,530	2	88.8	753	46,324	23,419	54,200	3,280
Apr.	1.37	.01	30	2,340	6	738	1,660	98,523	45,068	98,523	12,900
May	2.99	1.70	1	2,300	25	535	1,330	84,827	51,343	84,327	9,277
June	3.34	2.25	† 5	1,170	22	142	748	44,529	69,825	123,000	14,674
July	1.81	0.73	1	748	10	4.1	343	21,083	37,563	77,132	11,307
Aug.	2.74	7.03	26	501	31	29.0	340	20,928	28,924	64,223	12,730
Sept.	5.48	5.33	10	471	1	3.2	217	12,922	23,523	59,400	4,303
Oct.	3.11	1.70	10	760	12	107	412	25,353	22,037	58,164	5,146
Nov.	1.50	.17	19	713	16	92.4	393	23,660	19,633	44,359	4,353
Dec.	1.24	1.75	23	661	14	100	467	28,725	21,663	37,500	6,663
Yearly	27.04	20.50		2,340		3.2	641	463,762	400,025	525,771	266,880

∅ Mean daily ** United States side - Average of several stations in the reach † And other days

RIO GRANDE NEAR SAN BENITO, TEXAS

DESCRIPTION: Cableway, concrete control weir, bubbler gage, water-stage recorders (graphic and digital), located on the left bank at latitude 26°02'00", longitude 97°43'40", and river mile 96.5; 5.6 river miles downstream from San Benito pumping plant, about 9.5 miles southwest of San Benito, Texas, and 1,152.3 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is at mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 20 discharge measurements during the year and a continuous record of gage heights. Computations for high flows by shifting control methods. Low and medium flow computations based on a stable control weir rating curve defined by meter measurements. Records available: November 26, 1952 through August 25, 1953, and December 1953 through 1975.

REMARKS: Except for diversions, tributary inflows, and drainage returns below Falcon Dam, flow at this station after August 25, 1953 was controlled largely by releases from Falcon Reservoir, 177.3 river miles upstream. Excessive upstream flood flows are partly diverted through the United States and Mexican floodway systems before reaching this station. The concrete control weir was constructed in December 1965 and the gage was moved to its present location just above the weir on January 4, 1967.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 25,000 second-feet on September 29, 1967 with a gage height of 61.05 feet. Min. no flow occurs frequently.

Average Flow in Second-Feet**

Daily:	Max. 24,800	Sept. 29, 1967	Min. 0	Frequently
Monthly:	Max. 14,300	Oct. 1971	Min. 39.5	December 1956
Yearly:	Max. 3,430	1973	Min. 200	1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2,160	410	183	866	613	1,410	469	9,200	4,160	6,310	1,310	441
2	2,340	448	287	666	534	767	454	10,200	4,830	5,080	1,210	419
3	2,260	507	‡ 241	‡ 435	527	528	‡ 343	11,200	7,340	4,860	‡1,180	342
4	2,050	623	199	219	1,140	453	444	‡ 11,800	‡ 9,320	5,090	721	370 ‡
5	1,920	551	185	194	1,010	394	383	12,100	10,700	5,410	424	291
6	‡1,670	657	250	391	736	‡ 358	460	12,400	11,400	5,460	387	209
7	1,160	678	184	705	756	336	445	12,600	10,300	4,910	409	207
8	949	653	148	578	‡ 694	331	296	12,700	9,570	4,170	395	260
9	1,000	507	231	453	475	421	225	12,900	10,100	3,290	526	304
10	639	‡ 594	256	460	422	372	167	13,100	10,700	2,490	531	241
11	373	708	248	349	1,150	446	130	13,200	11,500	1,660	457	196
12	576	566	250	310	1,710	1,300	217	12,600	12,200	1,290	393	201
13	785	319	303	646	1,690	2,510	492	12,000	12,600	1,190	312	250
14	589	282	205	1,370	1,010	1,900	1,100	12,200	12,600	1,240	300	247
15	306	402	192	1,000	1,030	1,520	3,010	12,100	12,800	1,090	318	231 ‡
16	‡ 210	428	280	‡ 518	1,000	1,080	4,670	11,700	12,800	969	434	151
17	231	390	‡ 314	313	1,000	837	5,550	11,600	12,900	694	483	136
18	307	431	273	310	950	811	5,080	11,900	12,900	569	455	125
19	557	343	202	170	1,020	780	3,400	12,100	‡ 12,700	608	286	166
20	862	274	200	541	842	‡ 654	2,080	12,200	12,400	613	‡ 234	192
21	656	177	126	704	417	461	1,770	‡ 12,300	11,900	895	240	118
22	580	124	128	548	‡ 248	327	1,130	12,700	11,500	942	232	107
23	816	453	338	511	239	357	618	12,900	11,000	768	343	94.5
24	1,440	438	534	589	343	287	1,530	12,700	10,100	550	390	122
25	1,110	430	463	667	801	479	2,740	11,500	11,000	501	331	549
26	690	394	428	890	1,120	314	3,760	9,850	12,300	600	298	479
27	527	315	487	857	851	140	4,770	8,160	12,200	685	311	312
28	478	236	446	799	661	145	5,180	6,500	11,000	702	346	356
29	421		513	951	1,150	227	5,490	5,310	9,410	977	475	342
30	374		824	738	1,510	311	6,450	4,720	7,810	1,000	503	215
31	580		1,210		2,370		7,440	4,260		1,360		235
Sum	28,616	12,338	10,128	17,748	28,019	20,256	70,293	340,700	322,040	65,973	14,234	7,908.5

Month	Current Year 1975								Period 1954-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
			High		Low						
	High	Low	Day		Day				Average	Maximum	Minimum
Jan.	39.63	34.64	2	2,420	16	182	923	56,759	45,774	227,000	2,920
Feb.	35.64	34.41	11	763	22	78.4	441	24,472	43,124	363,000	3,380
Mar.	36.43	34.46	31	1,310	22	105	327	20,089	38,818	360,000	2,560
Apr.	38.90	34.57	14	1,500	19	140	592	35,203	37,838	118,000	11,500
May	39.85	34.69	31	2,590	†22	202	904	55,575	45,591	128,576	16,873
June	40.10	34.45	13	2,660	28	97.4	675	40,177	54,159	159,560	16,100
July	50.91	34.49	31	8,110	†10	122	2,270	139,424	59,783	440,229	4,690
Aug.	56.46	43.35	11	13,300	31	4,120	11,000	675,769	69,625	675,769	3,100
Sept.	56.58	43.30	18	13,000	1	4,070	10,700	638,757	159,471	638,757	7,710
Oct.	49.27	35.22	1	7,170	25	429	2,130	130,856	194,385	880,859	3,840
Nov.	37.26	34.71	1	1,360	20	214	474	28,232	87,464	662,000	5,640
Dec.	35.52	34.37	25	658	23	91.3	255	15,686	61,963	479,000	2,430
Yearly	56.58	34.37		13,300		78.4	2,570	1,860,999	897,995	2,518,840	145,520

** Period 1954-1975 ‡ Discharge measurement made on this day † And other days

DIVERSIONS FROM THE RIO GRANDE
UNITED STATES SIDE - SAN BENITO TO BROWNSVILLE

Beginning June 1971, the Texas Water Rights Commission assumed control of the United States portion of the water in Falcon Reservoir and in the Rio Grande below Falcon Dam, the disposition of such waters being made by its Rio Grande Watermaster. Previous to that, since June 1956, such waters had been under the jurisdiction of the 93rd District Court of Texas administered by its Special Water Master.

During 1975, 100,420 irrigable acres and several towns and rural homes were allotted Rio Grande water in the river reach between the gaging stations near San Benito and Brownsville. Such irrigable area was 13.5% of the total irrigable acres below Falcon Dam allotted Rio Grande water.

The total diversion during 1975 in this river reach was 133,847 acre-feet, or 12.9% of the total water diverted from the Rio Grande below Falcon Dam. About 85% of the water diverted in this river reach was determined by the International Boundary and Water Commission through records of discharge obtained by means of flow meters, by open channel rating stations, and by deflection meters developed by the Commission. The records for the rest of these diversions were furnished by the Rio Grande Watermaster and were determined from records of discharge obtained by means of flow meters. More than one crop per year is often grown on parts of this land.

EXTREME FLOWS FROM RECORDS:

		Average Flow in Second-Feet			
Daily:	Max. 782	June 14, 1963		Min. 0	Occasionally
Monthly:	Max. 542	June 1965		Min. 18.5	February 1966
Yearly:	Max. 223	1965		Min. 102	1968

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	96.0	195	176	584	583	174	55.7	68.9	10.1	35.8	49.1	131
2	100	84.2	130	533	561	337	203	124	11.4	36.0	37.2	130
3	116	283	208	485	522	459	179	174	30.5	39.2	151	160
4	122	325	217	406	591	455	108	232	32.6	43.4	133	132
5	113	289	215	217	597	422	102	241	28.3	36.6	147	122
6	124	247	187	212	571	396	80.5	171	0	31.7	152	49.2
7	279	81.5	149	423	553	286	200	70.4	22.2	87.0	94.1	56.5
8	345	63.0	110	540	559	80.5	181	74.3	7.9	242	41.6	130
9	177	102	109	518	526	236	180	65.2	35.6	119	45.8	95.1
10	146	218	144	511	476	290	145	54.1	35.7	209	154	99.2
11	127	282	299	433	266	280	138	82.2	41.3	87.5	101	78.7
12	113	271	240	204	244	117	65.5	72.0	19.3	42.9	138	184
13	132	281	208	208	349	81.5	40.5	70.4	53.6	267	125	58.6
14	250	197	210	464	453	68.7	37.2	79.2	62.3	87.0	42.7	46.4
15	323	173	123	585	422	59.3	19.0	70.2	82.2	89.5	47.7	132
16	317	100	100	576	462	240	33.1	70.6	17.0	112	49.7	140
17	319	224	184	470	389	191	31.1	70.7	38.9	113	126	136
18	287	285	243	380	168	60.9	32.7	71.6	38.8	76.4	152	93.1
19	132	288	215	255	304	76.5	31.3	72.1	29.1	50.5	168	83.2
20	359	285	208	245	446	164	29.7	73.5	17.0	65.6	115	51.3
21	373	281	153	526	441	168	35.0	94.3	17.0	152	89.9	52.6
22	336	167	111	582	448	65.3	37.1	85.5	24.4	168	28.4	74.1
23	113	96.2	193	562	342	104	33.3	72.7	38.2	194	24.3	74.9
24	88.1	203	396	586	214	66.7	40.4	71.8	35.6	237	175	90.9
25	91.6	322	460	561	161	60.5	38.6	140	41.0	155	112	23.2
26	109	165	432	557	354	62.1	32.1	150	35.5	39.3	97.6	23.4
27	272	196	441	582	549	74.2	31.8	46.9	31.5	171	25.4	20.0
28	359	186	352	584	512	72.9	50.4	40.2	31.5	181	123	20.0
29	268		165	595	447	73.4	45.6	34.0	31.5	252	34.5	117
30	223		177	608	429	69.4	34.1	33.1	31.5	220	31.1	106
31	214		493		400		87.0	28.1		205		79.9
Sum	6,389.7	5,894.9	7,048	13,992	13,339	5,250.9	2,337.7	2,804.0	929.5	3,885.4	2,809.1	2,790.3

Month	Current Year 1975: Average Rainfall Inches** 1957-1975	1975	ø Extreme Second-Feet: High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1957-1975: Acre-Feet Average	Maximum	Minimum
Jan.	1.77	1.29	21	373	24	88.1	206	12,674	11,136	24,568	1,290
Feb.	1.89	.10	4	325	8	68.0	211	11,692	7,074	15,677	1,028
Mar.	.67	.02	31	493	16	100	227	13,980	6,535	15,200	705
Apr.	1.35	T	30	608	12	204	466	27,753	12,102	27,753	2,180
May	2.80	2.10	5	597	25	161	430	26,458	15,360	27,670	2,561
June	3.42	3.11	3	459	15	59.3	175	10,415	13,143	32,279	6,690
July	1.67	5.56	2	203	15	19.0	75.4	4,637	10,916	23,145	3,687
Aug.	2.92	8.20	5	241	31	28.1	90.5	5,562	7,931	14,556	4,061
Sept.	5.77	4.14	15	82.2	6	0	31.0	1,844	5,845	12,600	876
Oct.	3.04	1.10	13	257	1	35.8	126	7,726	5,671	11,300	1,591
Nov.	1.43	.77	24	175	23	24.3	93.6	5,572	4,767	9,021	2,320
Dec.	1.44	1.97	12	184	†27	20.0	90.0	5,534	6,156	11,200	2,103
Yearly	28.17	28.36		608		0	185	133,847	111,641	141,503	73,788

ø Mean daily
† And other days
** United States side - average of several stations in the reach

RIO GRANDE NEAR BROWNSVILLE, TEXAS

DESCRIPTION: Cableway, bubbler gage, and water-stage recorders (graphic and digital) located on the left bank at latitude 25°52'35", longitude 97°27'15", and river mile 48.8; 1,000 feet downstream from El Jardin pumping plant, 6.8 river miles downstream from the international highway bridge (Gateway) between Brownsville, Texas and Matamoros, Tamaulipas, and 1,200.0 river miles downstream from the American Dam at El Paso, Texas. The zero of the gage is at mean sea level, U. S. C. & G. S. datum.

RECORDS: Based on 22 discharge measurements during the year and a continuous record of gage heights. Computations by shifting control methods. Records available: 1934 through 1975.

REMARKS: Except for diversions, tributary inflows, and drainage returns below Falcon Dam, flow at this station after August 25, 1953 was controlled largely by releases from Falcon Reservoir, 225 river miles upstream. Excessive upstream flood flows are partly diverted into the United States and Mexican floodway systems before reaching this station.

EXTREME FLOWS FROM RECORDS: Momentary: Max. 31,700 second-feet on October 8, 1945 with a gage height of 31.48 feet. Min. no flow occurs frequently.

		Average Flow in Second-Feet			
Daily:	Max. 30,800	Sept. 14,1942; Oct. 8, 1945	Min. 0	Frequently	
Monthly:	Max. 23,200	Oct. 1941	Min. 0	June, July	1953
Yearly:	Max. 9,010	1941	Min. 42.1		1956

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2,060	347	163	540	195	1,580	335	7,770	4,360	7,870	1,270	445
2	2,050	352	133	342	85.8	940	388	8,730	4,410	6,600	1,320	342
3	2,120	343	‡174	‡ 256	36.6	378	‡ 321	9,680	5,340	5,580	‡1,220	311
4	2,020	268	163	158	33.6	187	293	‡ 10,500	‡ 7,700	5,310	1,100	‡ 274
5	1,870	314	105	93.3	421	130	363	11,000	9,390	5,440	770	295
6	‡1,760	334	78.6	95.2	402	‡ 131	347	11,400	11,000	5,670	512	290
7	1,450	468	111	178	220	117	367	11,600	11,200	5,580	452	268
8	970	561	133	225	194	190	311	11,800	10,300	5,050	506	234
9	909	571	115	154	‡ 143	260	238	12,000	9,850	4,290	516	220
10	933	‡462	137	95.5	65.3	268	193	12,100	10,500	3,370	539	250
11	691	362	196	65.4	105	228	172	12,300	11,100	2,630	508	226
12	498	434	94.0	55.5	950	325	148	12,300	11,800	2,080	480	194
13	563	352	92.6	96.2	1,160	1,380	300	11,900	11,900	1,870	409	164
14	666	226	‡119	342	869	2,060	470	11,600	12,000	1,700	‡ 383	237
15	418	197	102	568	537	1,690	1,170	11,700	12,600	1,520	350	‡ 246
16	‡ 238	294	159	351	470	1,320	2,950	11,600	12,700	1,470	379	209
17	158	348	289	128	409	884	4,700	11,300	12,800	1,370	441	159
18	131	236	214	58.4	345	833	5,840	11,300	12,900	1,280	457	139
19	195	222	132	42.0	384	600	4,800	11,500	‡ 12,900	1,130	388	135
20	384	177	100	46.1	501	‡ 725	2,910	‡ 11,700	12,800	1,060	‡ 300	140
21	394	134	78.4	‡ 193	360	588	1,710	11,800	12,400	987	284	176
22	313	95.6	85.8	170	124	487	1,370	11,000	12,000	1,100	280	152
23	447	108	89.5	107	‡ 27.9	407	934	12,300	11,600	1,190	302	‡ 116
24	707	247	110	53.1	8.2	398	658	12,500	11,000	961	325	112
25	1,140	197	129	35.8	139	339	1,600	12,000	10,600	768	300	126
26	893	207	118	57.4	457	463	2,470	10,900	11,500	773	320	334
27	585	267	90.4	211	511	381	3,680	9,550	12,100	814	280	400
28	336	207	114	238	296	278	4,810	8,040	11,800	775	303	289
29	266		217	210	255	234	5,470	6,490	10,700	795	302	290
30	268		325	259	502	245	6,050	5,400	9,260	803	450	234
31	258		538		1,150		6,870	4,780		968		182
Sum	25,691	8,330.6	4,705.3	5,384.3	11,326.4	18,314	62,038	329,340	320,510	80,563	15,446	7,189

Month	Current Year 1975								Period 1954-1975		
	Extreme Gage Feet		Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
	High	Low	Day	High	Day	Low			Average	Maximum	Minimum
Jan.	12.21	3.69	1	2,170	18	127	829	50,957	34,330	224,000	283
Feb.	6.43	3.15	9	604	22	86.8	298	16,524	37,438	362,000	1,060
Mar.	6.47	3.07	31	608	†12	70.7	152	9,333	33,034	361,000	2,050
Apr.	6.43	2.27	15	601	25	34.6	179	10,680	25,322	127,000	875
May	10.55	2.28	31	1,660	24	3.6	365	22,466	23,746	127,595	4,140
June	11.92	3.57	14	2,180	7	104	610	36,325	33,976	143,517	2,430
July	21.91	3.21	31	7,250	12	127	2,000	123,051	51,604	437,546	1,120
Aug.	27.81	17.20	24	12,600	31	4,570	10,600	653,236	60,241	653,236	218
Sept.	28.19	16.55	19	13,100	1	4,290	10,700	635,722	141,408	635,722	950
Oct.	23.15	7.08	1	8,530	30	706	2,600	159,794	170,924	887,207	756
Nov.	9.97	5.51	2	1,370	29	259	515	30,637	82,012	528,000	1,290
Dec.	6.78	4.56	1	487	24	98.3	232	14,259	58,766	480,000	524
Yearly	28.19	2.27		13,100		3.6	2,440	1,762,984	766,303	2,423,002	30,596

‡ Discharge measurement made on this day † And other days

DIVERSIONS FROM THE RIO GRANDE
UNITED STATES SIDE – BROWNSVILLE TO THE GULF

Beginning June 1971, the Texas Water Rights Commission assumed control of the United States portion of the water in Falcon Reservoir and in the Rio Grande below Falcon Dam, the disposition of such waters being made by its Rio Grande Watermaster. Previous to that, since June 1956, such waters had been under the jurisdiction of the 93rd District Court of Texas administered by its Special Water Master.

During 1975, 4,211 irrigable acres were allotted Rio Grande water in the river reach between the gaging station near Brownsville and the mouth of the Rio Grande. Such irrigable area was 0.6% of the total irrigable acres below Falcon Dam allotted Rio Grande water.

The total diversion during 1975 in this river reach was 3,690.5 acre-feet, or 0.3% of the total water diverted from the Rio Grande below Falcon Dam. All records of diversions in this river reach, which were determined by means of flow meters, were furnished by the Rio Grande Watermaster. More than one crop per year is often grown on parts of this land.

EXTREME FLOWS FROM RECORDS:

		Average Flow in Second-Feet			
Daily:	Max. 40.4	June 17, 1965	Min. 0		Frequently
Monthly:	Max. 23.4	June 1965	Min. 0		Occasionally
Yearly:	Max. 7.0	1965	Min. 0.9		1972

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.4	20.1	5.8	2.0	21.2	2.9	0	0	0	0	2.7	0
2	7.8	18.0	5.7	2.0	21.2	0	0	0	0	0	0	0
3	13.1	21.8	5.8	13.4	18.5	0	2.2	0	0	2.7	0	0
4	13.1	17.7	5.7	18.1	17.5	0	2.2	1.2	0	2.7	0	0
5	13.1	17.7	9.5	16.0	26.4	1.9	2.2	1.2	0	2.7	0	3.0
6	13.1	8.4	9.5	16.0	19.5	2.3	2.2	1.2	0	0	0	3.0
7	13.1	8.4	9.5	13.0	19.4	2.3	2.2	1.2	0	0	0	0
8	10.7	8.4	6.5	10.5	22.0	0	2.2	0	0	0	0	0
9	13.7	8.4	3.7	16.7	22.1	0	0	0	0	0	0	0
10	13.7	13.7	7.4	16.7	22.1	0	0	0	0	0	2.3	0
11	16.3	8.0	7.4	16.7	15.6	0	2.6	0	0	0	2.3	0
12	10.3	12.2	9.3	13.7	15.6	0	2.6	0	0	0	2.3	0
13	19.4	12.2	9.2	9.8	22.0	0	0	0	0	3.0	2.4	0
14	11.8	10.0	5.6	9.8	25.0	0	0	0	0	3.0	2.4	0
15	11.9	9.9	5.6	9.8	15.3	0	0	0	0	3.0	2.4	0
16	11.6	7.6	3.7	16.2	13.3	1.3	0	0	0	0	2.4	0
17	11.8	7.6	5.9	16.2	13.4	1.3	0	0	0	0	2.4	2.6
18	11.9	7.6	2.2	24.1	5.4	1.3	.5	4.9	0	0	0	2.6
19	8.9	7.6	3.0	20.4	5.4	0	0	4.9	0	0	0	0
20	16.2	13.2	8.8	20.3	8.6	2.9	0	4.9	0	0	0	0
21	12.8	9.9	8.8	25.5	3.2	2.9	0	4.9	0	0	0	0
22	12.4	2.9	8.8	21.2	3.6	2.9	0	4.9	0	2.0	0	0
23	8.9	3.0	7.0	21.2	3.6	0	0	3.5	0	4.8	0	0
24	8.9	3.0	5.8	21.2	.5	0	0	3.5	0	4.8	3.5	0
25	8.4	2.9	5.7	21.2	.5	0	3.0	0	0	0	3.5	0
26	8.4	5.6	5.7	14.3	.5	0	3.0	0	0	0	1.4	0
27	10.7	5.6	5.7	14.3	.5	0	3.0	0	0	0	1.4	0
28	9.7	5.7	5.7	19.4	.5	0	3.0	0	0	0	1.4	0
29	9.7		5.7	19.4	.5	0	0	0	0	0	0	0
30	19.0		5.7	21.2	3.4	0	0	0	0	0	0	0
31	19.0		2.0		2.9		0	0		2.7		0
Sum	372.8	277.1	196.4	480.3	369.2	22.0	30.9	36.3	0	31.4	32.8	11.2

Month	Current Year 1975: Average Rainfall Inches** 1957-1975	1975	Ø Extreme Second-Feet: High Day	High	Low Day	Low	Average Second-Feet	Total Acre-Feet	Period 1957-1975: Acre-Feet Average	Maximum	Minimum
Jan.	1.82	1.07	13	19.4	1	3.4	12.0	739	456	1,275	0
Feb.	1.97	.06	3	21.8	22	2.9	9.9	550	246	668	0
Mar.	.65	T	† 5	9.5	31	2.0	6.3	390	154	634	0
Apr.	1.38	T	21	25.5	† 1	2.0	16.0	953	251	953	0
May	2.66	1.80	5	26.4	†24	.5	11.9	732	395	1,356	0
June	3.20	2.34	† 1	2.9	† 2	0	.7	43.6	454	1,393	0.7
July	1.48	5.27	†25	3.0	† 1	0	1.0	61.3	195	773	0
Aug.	2.75	8.56	18	4.9	† 1	0	1.2	72.0	130	317	13.7
Sept.	5.74	2.71		0		0	0	0	58.8	190	0
Oct.	2.91	.61	†23	4.8	† 1	0	1.0	62.3	60.4	218	0
Nov.	1.46	1.29	†24	3.5	† 2	0	1.1	65.1	73.8	252	0
Dec.	1.49	1.95	† 5	3.0	† 1	0	.4	22.2	87.4	335	0
Yearly	27.51	25.66		26.4		0	5.1	3,690.5	2,561.4	5,036.3	665.0

Ø Mean daily ** United States side - average of several stations in the reach † And other days
T Trace

DIVERSIONS FROM THE RIO GRANDE
UNITED STATES SIDE BELOW FALCON DAM

Beginning June 1971, the Texas Water Rights Commission assumed control of the United States portion of the water in Falcon Reservoir and in the Rio Grande below Falcon Dam, the disposition of such waters being made by its Rio Grande Watermaster. Previous to that, since June 1956, such waters had been under the jurisdiction of the 93rd District Court of Texas administered by its Special Water Master.

In 1975, 745,288 irrigable acres, several towns, and many rural homes were allotted Rio Grande water between Falcon Dam and the Gulf of Mexico. The total diversion from the river was 1,038,096 acre-feet. About 93% of the water diverted was determined through records of discharge obtained by means of flow meters, by open channel rating stations, and by deflection meters developed by the Commission. The records for the balance of the diversions were furnished by the Rio Grande Watermaster and were determined from records of discharge obtained by means of flow meters. Drainage from more than 90% of this area does not return to the Rio Grande but some of it is re-used within the area. More than one crop per year is often grown on parts of this land.

Diversion data pertaining to "Diversions from the Rio Grande-United States Side below Rio Grande City" for the period 1922 through 1957, may be found in previous issues of these Water Bulletins. The area irrigated below Rio Grande City is about 99% of the total acreage irrigated in the United States side below Falcon Dam.

A breakdown by river reaches of the total diversion below Falcon Dam shown in the tabulation below may be found in appropriate downstream order in preceding pages of this Water Bulletin. Because the mean daily discharges are rounded, the total acre-feet shown in the summary below may not equal the sum of the acre-feet of the individual reaches.

EXTREME FLOWS FROM RECORDS:

	Average Flow in Second-Feet				
Daily:	Max. 5,380	June 20 & 21, 1960	Min. 7.2	Sept. 29, 1967
Monthly:	Max. 4,350	June 1960	Min. 102	March 1957
Yearly:	Max. 1,590	1965	Min. 880	1970

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	373	744	891	2,790	4,690	802	1,680	918	25.7	1,140	356	1,100
2	631	449	783	2,870	4,650	1,260	1,830	726	39.2	1,340	290	1,550
3	713	1,100	1,540	2,910	4,200	1,750	1,340	716	160	1,320	631	1,620
4	537	1,190	1,710	2,730	3,690	1,760	796	1,200	243	1,110	967	1,630
5	411	1,010	1,670	2,030	4,470	1,950	640	964	250	723	996	1,610
6	1,000	888	1,720	1,730	4,450	2,050	530	710	258	1,100	1,030	1,070
7	1,560	621	1,770	3,170	4,580	1,780	1,320	470	158	1,190	974	719
8	1,650	233	1,150	3,910	4,510	1,320	1,480	522	296	1,460	561	1,290
9	1,450	223	990	3,780	4,500	1,740	1,490	399	504	1,450	534	1,430
10	1,360	613	1,710	3,810	3,750	1,880	1,670	358	532	1,670	1,040	1,370
11	1,170	809	2,090	3,680	2,750	1,480	1,740	569	527	1,090	1,140	1,240
12	890	910	2,090	2,900	3,300	1,270	1,330	708	462	450	1,170	1,290
13	1,180	971	2,070	2,360	3,470	1,260	676	592	336	1,260	1,250	780
14	1,680	839	1,990	3,810	3,590	866	919	449	284	1,170	1,030	494
15	1,960	457	1,060	4,030	3,150	636	792	441	312	1,240	646	1,350
16	1,990	324	996	4,000	3,180	975	522	412	239	1,110	400	1,540
17	1,920	785	2,120	3,730	2,270	783	209	378	283	997	929	1,590
18	1,530	1,300	2,460	3,700	1,780	780	108	660	424	690	1,380	1,450
19	1,320	1,660	2,440	3,110	2,630	819	48.8	820	455	597	1,580	1,140
20	2,640	1,770	2,470	2,510	2,820	940	44.2	904	248	1,140	1,510	694
21	2,880	1,710	2,450	3,920	2,850	615	168	869	207	1,320	1,430	475
22	2,410	795	1,740	4,280	2,910	600	248	865	586	1,420	950	1,160
23	1,360	492	1,650	4,330	2,670	1,180	355	620	816	1,430	729	1,360
24	860	1,190	2,890	4,270	2,050	1,240	395	633	873	1,480	1,300	924
25	642	1,510	3,390	4,340	1,480	1,390	676	1,190	747	1,140	1,270	130
26	299	1,420	3,150	4,080	2,420	1,800	326	1,260	659	496	1,230	287
27	926	1,510	3,190	3,600	2,990	2,040	117	989	397	850	703	432
28	1,260	1,420	3,010	4,180	2,060	1,840	357	842	349	771	1,110	450
29	1,290		1,800	4,550	1,630	1,490	405	691	791	754	841	1,230
30	1,190		1,210	4,750	1,520	1,670	806	354	779	640	528	1,320
31	1,200		2,520		1,050		1,010	67.2		851		1,290
Sum	40,282	26,943	60,720	105,860	96,060	39,966	24,028.0	21,296.2	12,239.9	33,459	28,505	34,015

Month	Current Year 1975: Average Rainfall Inches** 1957-1975	1975	Extreme Second-Feet (Mean daily) High: Day	High	Low: Day	Low	Average Second-Feet	Total Acre-Feet	Period 1957-1975 Acre-Feet: Average	Maximum	Minimum
Jan.	1.43	1.01	21	2,880	26	299	1,300	79,898	73,370	182,403	9,717
Feb.	1.42	.49	20	1,770	9	223	962	53,441	50,797	126,230	11,785
Mar.	.71	.08	25	3,390	2	783	1,960	120,436	83,035	149,000	6,280
Apr.	1.36	.08	30	4,750	6	1,730	3,530	209,970	101,788	209,970	25,100
May	2.57	2.54	1	4,690	31	1,050	3,100	190,532	113,000	190,532	15,071
June	3.06	2.49	6	2,050	22	600	1,330	79,271	141,072	259,000	31,931
July	1.50	7.22	2	1,830	20	44.2	775	47,659	90,583	178,000	31,502
Aug.	2.36	6.59	26	1,260	31	67.2	687	42,240	71,129	143,286	36,208
Sept.	4.98	4.09	24	873	1	25.7	408	24,277	56,534	136,000	12,709
Oct.	2.80	1.64	10	1,670	12	450	1,080	66,365	56,652	124,598	12,991
Nov.	1.20	.22	19	1,580	2	290	950	56,539	48,565	97,060	12,674
Dec.	1.06	1.14	4	1,630	25	130	1,100	67,468	49,874	84,500	14,034
Yearly	24.45	27.59		4,750		25.7	1,430	1,038,096	916,390	1,153,049	636,835

** United States side - average of several stations in the reach ∅ Mean daily

OUTFALLS FROM SEWERS INTO THE RIO GRANDE

In Acre-Feet

EL PASO SEWAGE OUTFALL

This sewage enters the Rio Grande through the outfalls of the El Paso, Ascarate, and Ysleta Sewage Plants, located 7.1, 8.7, and 15.6 river miles, respectively, downstream from the American Dam. The outfall from the El Paso Plant consists of flows measured by a Parshall meter and estimates of amounts which bypass the meter. The effluent from the Socorro Plant, located 17.6 miles below American Dam, is discharged into ponds at the approximate rate of 10 c.f.s. When the ponds overflow, the effluent may enter either the Rio Grande or Riverside Canal. No record has been kept of the amount of this effluent entering the Rio Grande and it is not included in the table below. All of the plants are operated by the El Paso Water Utilities of the Public Service Board of the City of El Paso, Texas and the records are furnished by that agency.

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly
1975	1,747	1,861	1,932	1,935	1,954	2,021	2,176	2,177	2,032	2,092	2,028	2,054	24,009
* Average	1,744	1,633	1,793	1,766	1,866	1,840	1,984	2,006	1,900	1,871	1,736	1,772	21,911

EAGLE PASS SEWAGE OUTFALL

This sewage outfall enters the Rio Grande 758.1 river miles downstream from the American Dam at El Paso, Texas and about 600 feet upstream from the Eagle Pass-Piedras Negras International Railroad Bridge. The records are based on weekly current meter measurements or gage height observations made by personnel of the International Boundary and Water Commission.

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly
1975	212	153	182	217	254	203	220	255	263	225	202	209	2,595
* Average	77.6	70.4	75.4	72.5	77.7	70.7	75.7	89.0	96.2	105	103	105	1,018.2

LAREDO SEWAGE OUTFALL

This sewage outfall enters the Rio Grande 891.4 river miles downstream from the American Dam at El Paso, Texas and immediately upstream from the Laredo Gaging Station. The record is furnished by the Laredo Waterworks System.

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly
1975	564	464	543	536	590	593	649	644	600	592	596	576	6,907
* Average	477	455	540	540	590	538	546	514	449	447	528	505	6,129

BROWNSVILLE SEWAGE OUTFALL

This sewage outfall enters the Rio Grande 3.4 river miles downstream from the Gateway Bridge between Brownsville, Texas and Matamoros, Tamaulipas; 3.4 river miles upstream from the Brownsville Gaging Station; and 52.2 river miles from the Gulf of Mexico. Records are furnished by the City of Brownsville.

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly
1975	613	555	632	615	641	610	605	681	509	533	604	680	7,581
* Average	458	438	470	444	477	403	513	518	487	515	458	448	5,719

* Period averages are for past 10 years

MUNICIPAL AND INDUSTRIAL WATER USES

In Acre-Feet

Tabulated below are monthly and yearly amounts of water pumped from the Rio Grande directly into the municipal distribution systems of cities along the border, except for the city of Del Rio whose total supply is derived from San Felipe Springs. The city of El Paso derives its municipal supply mainly from the Franklin Canal and from wells some of which, near Canutillo, Texas, pump water into the Rio Grande to be conveyed 17 miles downstream to the point of diversion at the El Paso Water Plant. In 1975 this water amounted to 4,763 acre-feet and is included in the tabulation below. Ciudad Acuna, Coahuila, whose municipal diversion from the Rio Grande started in 1971 may, at times, use an alternate source from Arroyo Las Vacas which was its previous source of supply. Such use would be reflected in the tabulations below.

All Rio Grande water used by U. S. municipalities below Falcon Dam is also included in the figures shown under "Diversions from the Rio Grande - United States Side...." (by river reaches and total below Falcon Dam) on pages 64, 67, 71, 73, 75, 77, and 78 herein. Population data for all cities are estimates based on the 1970 official census except for Falcon Village (estimated by the International Boundary and Water Commission), and Del Mar and San Ignacio which are based on utilities connections.

In United States

Month	EL PASO (Pop. 377,000)				DEL RIO ∅ (Pop. 26,000)			
	1975	Period 1966-1975			1975	Period 1966-1975		
		Average	Maximum	Minimum		Average	Maximum	Minimum
Jan.	0	0	0	0	410.0	366.7	424.6	279.1
Feb.	0	0	0	0	364.6	374.7	524.9	231.9
Mar.	0	426.9	831	0	638.6	538.6	714.9	350.1
Apr.	332	1,416.0	2,164	844	633.5	572.0	679.0	482.5
May	3,066	2,405.3	3,360	1,365	557.4	643.7	838.6	407.1
June	4,084	2,704.6	4,084	1,596	867.3	751.3	932.9	581.2
July	3,728	2,398.6	3,728	1,304	705.9	870.4	1,093.2	643.2
Aug.	3,850	2,529.4	3,850	1,668	858.6	798.4	967.8	500.8
Sept.	2,709	1,848.5	2,709	906	587.8	558.9	697.6	431.0
Oct.	540	485.0	1,016	0	591.4	474.5	650.6	376.8
Nov.	0	145.9	397	0	441.1	339.6	453.2	306.2
Dec.	0	40.2	131	0	444.3	372.8	444.3	301.6
Yearly	18,309	14,400.4	18,309	9,368	7,100.5	6,681.6	7,271.2	5,343.5

Month	EAGLE PASS (Pop. 13,200)				DEL MAR (Pop. 2,600)			
	1975	Period 1966-1975			1975	Period 1966-1975		
		Average	Maximum	Minimum		Average	Maximum	Minimum
Jan.	305.1	197.5	305.1	122.2	26.5	18.6	27.0	6.8
Feb.	228.1	173.6	229.8	120.7	26.3	20.1	30.6	7.6
Mar.	306.7	220.0	306.7	163.3	37.2	25.0	52.2	7.6
Apr.	292.7	234.5	306.8	161.0	50.9	37.1	55.1	17.5
May	236.2	265.8	400.1	160.6	53.4	37.2	63.8	11.2
June	204.3	290.2	386.6	214.8	57.0	41.4	71.4	17.7
July	307.6	331.7	410.2	278.5	37.3	37.4	70.3	16.5
Aug.	412.3	314.6	412.3	229.8	33.2	44.2	69.5	27.2
Sept.	305.5	231.9	305.5	164.8	32.5	34.0	51.2	13.9
Oct.	344.0	231.2	344.0	177.5	37.3	25.5	37.4	13.5
Nov.	273.6	204.1	273.6	161.9	36.1	28.5	36.1	18.2
Dec.	279.4	201.4	279.4	163.1	37.9	23.3	37.9	12.2
Yearly	3,630.5	2,901.5	3,630.5	2,156.4	465.6	370.3	563.1	224.7

∅ Includes Laughlin Air Force Base

MUNICIPAL AND INDUSTRIAL WATER USES

In Acre-Feet

In United States

Month	LAREDO (Pop. 68,900)				LAREDO POWER STATION			
	1975	Period 1966-1975			1975	Period 1966-1975		
		Average	Maximum	Minimum		Average	Maximum	Minimum
Jan.	1,103.3	874.4	1,109.1	587.8	40.1	49.8	72.3	29.6
Feb.	1,063.8	838.3	1,063.8	612.1	47.8	44.5	67.6	22.1
Mar.	1,274.7	1,075.6	1,402.4	786.4	63.4	49.8	70.1	21.1
Apr.	1,347.4	1,205.9	1,552.9	952.0	63.5	59.9	76.4	36.4
May	1,564.2	1,347.5	1,857.8	822.6	72.2	70.7	106.9	45.8
June	1,607.2	1,389.0	1,684.6	1,016.5	84.2	76.6	102.0	52.4
July	1,623.9	1,595.6	1,858.2	1,176.2	73.7	89.1	106.2	63.4
Aug.	1,625.0	1,500.6	1,708.1	1,228.8	115.0	91.1	115.0	73.4
Sept.	1,292.8	1,151.6	1,482.1	742.1	77.6	70.5	87.8	49.8
Oct.	1,456.7	1,130.0	1,456.7	815.5	96.3	60.3	96.3	45.0
Nov.	1,202.0	999.6	1,202.0	756.6	80.4	62.2	80.4	21.8
Dec.	1,190.0	930.1	1,190.0	702.8	106.7	60.8	106.7	40.3
Yearly	16,351.0	14,038.2	16,351.0	11,407.7	920.9	785.3	920.9	605.1

Month	SAN YGNACIO (Pop. 1,020)				NEW ZAPATA (Pop. 2,450)			
	1975	Period 1966-1975			1975	Period 1966-1975		
		Average	Maximum	Minimum		Average	Maximum	Minimum
Jan.	3.5	2.1	3.5	0.8	42.1	29.8	43.0	20.2
Feb.	3.9	2.5	3.9	1.1	41.0	30.4	41.0	18.6
Mar.	4.6	3.3	5.2	2.1	54.0	36.6	54.0	25.0
Apr.	6.2	4.0	6.2	2.4	55.6	38.9	55.6	27.0
May	5.8	3.5	5.8	1.5	55.5	39.6	55.7	18.3
June	5.3	3.4	5.3	1.4	45.7	40.0	50.5	27.7
July	3.9	3.5	4.8	.8	50.9	46.9	65.2	34.4
Aug.	5.8	4.0	5.8	1.4	54.0	45.1	67.7	31.5
Sept.	5.3	3.1	5.8	1.5	33.1	30.2	43.0	21.1
Oct.	4.6	2.6	4.6	1.5	45.5	30.7	45.5	20.0
Nov.	4.0	2.6	4.0	1.4	41.5	28.2	41.5	18.9
Dec.	3.9	2.4	3.9	1.2	42.0	28.0	42.0	20.1
Yearly	57.3	37.0	57.3	21.3	560.9	424.4	560.9	334.9

Month	FALCON VILLAGE (Pop. 220)				ROMA * (Pop. 2,780)			
	1975	Period 1966-1975			1975	Period 1966-1975		
		Average	Maximum	Minimum		Average	Maximum	Minimum
Jan.	9.9	7.3	9.9	4.7	42.5	30.0	42.6	14.4
Feb.	9.6	7.2	9.6	4.4	43.7	28.7	43.7	14.4
Mar.	11.4	9.2	12.9	5.9	44.1	35.9	45.3	18.2
Apr.	12.2	10.1	13.0	6.5	59.6	39.5	59.6	17.0
May	11.6	9.8	11.6	6.5	63.8	42.1	63.8	19.9
June	10.3	10.5	14.3	7.8	61.6	42.2	61.6	21.1
July	11.2	11.9	14.7	9.2	52.5	44.0	57.4	21.9
Aug.	10.1	11.2	12.9	9.7	38.2	42.0	65.6	25.7
Sept.	8.5	8.4	10.8	5.8	38.2	35.4	53.3	18.6
Oct.	10.5	8.3	10.5	6.2	22.3	32.9	50.7	19.5
Nov.	10.1	7.8	10.1	5.1	49.3	32.6	49.3	15.7
Dec.	10.3	7.8	10.3	5.4	47.1	31.4	47.1	15.4
Yearly	125.7	109.5	128.1	88.1	563.0	436.7	592.9	228.2

Month	RIO GRANDE CITY (Pop. 5,720)				BROWNSVILLE (Pop. 64,000)			
	1975	Period 1966-1975			1975	Period 1966-1975		
		Average	Maximum	Minimum		Average	Maximum	Minimum
Jan.	100.8	72.5	100.8	52.8	1,012.0	820.3	1,012.0	620.4
Feb.	95.0	67.8	95.0	51.6	1,049.5	800.5	1,049.5	572.5
Mar.	118.4	77.2	118.4	59.8	1,325.4	946.2	1,325.4	641.6
Apr.	96.0	81.6	118.3	61.4	1,413.9	984.7	1,413.9	663.1
May	70.2	82.0	116.6	61.4	1,454.9	1,000.2	1,454.9	644.2
June	60.2	90.6	124.0	59.2	1,327.3	1,009.2	1,348.2	734.2
July	149.5	105.6	149.5	59.2	1,275.6	1,120.5	1,422.0	860.4
Aug.	125.6	108.5	156.2	83.9	1,232.8	1,092.5	1,628.1	883.8
Sept.	119.7	92.2	119.7	62.9	1,076.2	927.1	1,240.6	665.4
Oct.	122.8	90.3	122.8	58.3	1,281.1	952.2	1,281.1	693.7
Nov.	117.3	83.6	117.3	59.8	1,149.1	913.8	1,149.1	705.4
Dec.	109.1	80.7	109.1	57.4	1,075.2	883.8	1,075.2	694.2
Yearly	1,284.6	1,032.6	1,284.6	768.2	14,673.0	11,451.2	14,714.6	8,907.7

* Includes Los Saenz and Escobares, Texas

MUNICIPAL AND INDUSTRIAL WATER USES

In Acre-Feet

In Mexico

Month	CD. ACUNA, COAHUILA (Pop. 41,459)				PIEDRAS NEGRAS, COAHUILA (Pop. 75,250)			
	1975	Period 1971-1975			1975	Period 1966-1975		
		Average	Maximum	Minimum		Average	Maximum	Minimum
Jan.	58.4	38.5	79.2	0	355.3	242.7	355.3	163.8
Feb.	79.0	73.9	102.7	38.0	288.4	212.4	288.4	160.3
Mar.	96.9	112.7	150.4	76.8	350.5	255.9	350.5	184.6
Apr.	88.3	113.4	166.8	67.9	348.3	274.2	384.7	194.2
May	94.4	110.8	156.6	77.6	371.8	302.6	402.4	198.5
June	92.7	107.7	153.5	83.7	394.3	324.0	414.4	241.8
July	116.3	129.0	205.1	80.1	389.4	350.9	458.7	301.2
Aug.	144.1	146.6	222.4	83.7	446.4	346.2	446.4	278.7
Sept.	132.9	109.7	139.7	81.9	369.9	292.1	369.9	222.1
Oct.	150.1	106.4	150.1	68.3	366.7	288.8	403.0	218.7
Nov.	117.0	76.0	117.0	55.7	395.4	253.0	395.4	189.4
Dec.	103.8	60.0	103.8	0	350.3	246.9	350.3	185.2
Yearly	1,273.9	1,184.7	1,424.3	828.8	4,426.7	3,389.7	4,426.7	2,599.5

Month	NUEVO LAREDO, TAMPS. (Pop. 179,919)				NUEVA CD. GUERRERO, TAMPS. (Pop. 3,417)			
	1975	Period 1966-1975			1975	Period 1966-1975		
		Average	Maximum	Minimum		Average	Maximum	Minimum
Jan.	1,879.9	1,282.1	1,879.9	780.4	48.7	28.8	48.7	19.8
Feb.	1,565.5	1,195.2	1,565.3	821.1	50.2	27.4	50.2	19.1
Mar.	1,960.3	1,406.1	1,960.3	972.3	54.3	32.3	54.3	25.4
Apr.	1,895.8	1,494.1	1,895.8	1,100.0	61.0	32.5	61.0	19.9
May	2,209.3	1,606.6	2,209.3	1,057.6	60.3	36.9	60.3	28.0
June	1,782.2	1,663.6	2,129.4	1,087.6	60.0	33.1	60.1	21.2
July	1,964.0	1,796.1	2,329.5	1,281.5	46.2	31.8	46.2	25.1
Aug.	2,070.2	1,785.3	2,232.4	1,163.9	49.5	31.0	49.5	19.3
Sept.	1,856.0	1,605.4	2,047.3	1,029.0	41.3	29.0	41.3	15.7
Oct.	1,775.0	1,584.2	2,012.7	1,053.5	46.9	30.6	46.9	20.5
Nov.	1,754.5	1,472.0	2,111.0	890.5	37.8	28.5	37.8	20.9
Dec.	1,484.5	1,416.6	1,908.7	916.3	30.8	27.0	30.8	20.5
Yearly	22,197.2	18,307.3	22,809.6	12,453.3	587.1	368.9	587.1	282.8

Month	CD. MIER, TAMPS. (Pop. 8,137)				CD. MIGUEL ALEMAN, TAMPS. (Pop. 15,233)			
	1975	Period 1966-1975			1975	Period Aug. 1967-1975		
		Average	Maximum	Minimum		Average	Maximum	Minimum
Jan.	69.1	30.5	69.1	11.8	53.3	34.9	53.3	25.3
Feb.	24.2	23.5	33.1	10.5	49.1	34.7	49.1	25.9
Mar.	31.2	29.5	36.9	9.9	58.0	41.6	58.0	32.4
Apr.	37.6	28.8	37.6	9.1	62.8	43.2	62.8	31.0
May	42.9	31.2	42.9	9.1	63.9	44.3	63.9	36.5
June	40.6	32.9	40.6	24.8	66.7	47.3	66.7	37.4
July	38.3	33.9	39.4	28.6	65.6	51.9	65.6	40.6
Aug.	36.9	32.3	39.6	13.1	68.1	47.1	68.1	9.7
Sept.	37.4	28.9	37.4	15.2	57.4	42.3	59.2	26.0
Oct.	38.3	30.0	45.6	14.5	61.4	40.4	61.4	19.9
Nov.	72.2	32.6	72.2	13.3	58.7	41.6	58.7	29.3
Dec.	60.6	32.3	60.6	12.6	56.9	39.8	56.9	27.8
Yearly	529.3	366.4	529.3	191.3	721.9	509.1	721.9	420.6

STORED WATER IN LARGE RESERVOIRS OF THE RIO GRANDE BASIN

In Thousands of Acre-Feet

Data are presented below for all storage reservoirs in the Rio Grande Basin in the United States and Mexico that exceed 15,000 acre-feet in capacity, except San Esteban Reservoir on Alamito Creek which according to the Texas Water Development Board originally had a capacity of 18,800 acre-feet. There are no monthly storage data available for this reservoir. Also presented on pages 86 and 87 are data for International Amistad and Falcon Reservoirs on the Rio Grande. The monthly figures represent the water in storage on the last day of each month, in thousands of acre-feet. The capacities indicated are at spillway level. Storage figures greater than the capacity indicate that the water surface was above spillway level.

The reservoirs and the agencies providing the data are: Rio Grande, Continental, Santa Maria, Terrace, Mountain Home, and Platoro from the State of Colorado, Division of Water Resources; Sanchez from the Sanchez Ditch and Reservoir Company; Abiquiu and Cochiti from the United States Corps of Engineers; Costilla, Bluewater, Lake Sumner, McMillan, and Avalon from the United States Geological Survey; Storrie from the State Engineer Office of New Mexico; Heron, El Vado, Elephant Butte, and Caballo from the United States Bureau of Reclamation; Red Bluff from the Red Bluff Water Power Control District; Lake Casa Blanca from the Webb County Office; Willacy from the Willacy County Water Control and Improvement District No. 1; La Boquilla, La Colina, and Rosetilla from the Federal Power Commission of Mexico; Francisco I. Madero, Chihuahua, Luis L. Leon, Centenario, San Miguel, Venustiano Carranza, Laguna de Salinillas, La Boca, Marte R. Gomez, Culebron, Villa Cardenas, and Palito Blanco from the Ministry of Hydraulic Resources of Mexico; Amistad Reservoir (International) and Falcon Reservoir (International) from the International Boundary and Water Commission.

In United States

Month	RIO GRANDE (Capacity 51.1)		CONTINENTAL (Capacity 22.7)		SANTA MARIA (Capacity 45.1)		TERRACE (Capacity 17.2)		MOUNTAIN HOME (Capacity 18.6)	
	1975	#Average 1927-1975	1975	#Average 1928-1975	1975	#Average 1928-1975	1975	#Average 1925-1975	1975	#Average 1924-1975
Jan.	6.3	13.9	2.2	4.7	3.7	6.5	4.4	3.6	2.0	3.6
Feb.	7.5	15.0	2.7	5.1	4.0	7.0	5.1	3.9	2.2	3.9
Mar.	9.2	16.4	3.2	5.5	4.4	7.8	5.9	4.3	2.3	4.3
Apr.	10.2	16.8	3.7	6.1	4.9	9.0	10.1	5.3	2.5	4.8
May	8.6	21.5	4.3	7.8	4.9	12.5	5.0	7.0	2.9	6.5
June	39.6	22.5	6.6	8.1	11.9	14.0	10.7	8.3	4.0	6.6
July	36.2	13.4	3.5	5.5	15.9	9.5	11.6	5.7	3.1	4.9
Aug.	19.9	7.1	2.4	3.6	12.2	5.2	11.3	3.6	1.8	3.0
Sept.	18.2	7.2	2.4	3.5	11.9	4.9	5.9	3.1	1.8	2.7
Oct.	15.3	8.4	2.4	3.4	10.1	5.1	6.2	3.2	1.9	2.7
Nov.	12.8	11.0	3.1	3.9	8.8	5.7	6.9	3.2	1.9	2.9
Dec.	14.5	12.6	3.7	4.3	9.0	6.2	7.9	3.5	2.2	3.3
Avg.	16.5	13.8	3.4	5.1	8.5	7.8	7.6	4.6	2.4	4.1
Max.	39.6	52.1	6.6	26.7	15.9	42.1	11.6	17.7	4.0	16.4
Min.	6.3	0	2.2	0	3.7	0	4.4	0	1.8	0

Month	SANCHEZ (Capacity 103.2)		PLATORO (Capacity 60.0)		COSTILLA (Capacity 15.7)		HERON (Capacity 401.3)		EL VADO (Capacity 196.5)	
	1975	#Average 1927-1975	1975	Average 1952-1975	1975	#Average 1922-1975	1975	Average 1971-1975	1975	Average 1935-1975
Jan.	5.1	11.0	18.5	7.6	1.8	4.3	150.2	81.1	87.3	33.0
Feb.	5.5	11.1	18.5	7.6	2.1	4.7	150.7	81.6	88.7	30.5
Mar.	6.0	11.7	18.5	7.8	2.5	5.3	152.7	83.5	96.9	30.7
Apr.	6.5	13.1	18.5	8.6	3.5	6.4	125.8	85.2	131.6	68.5
May	7.5	16.5	18.8	10.4	5.8	8.3	166.9	111.0	142.8	112.3
June	8.2	15.8	35.5	16.2	6.1	7.7	218.8	136.4	177.5	103.3
July	6.8	11.5	35.6	14.5	3.2	5.0	249.4	145.7	177.5	84.6
Aug.	3.5	9.1	35.6	13.7	.4	3.4	252.1	146.3	165.4	63.6
Sept.	3.9	9.4	35.6	13.9	.8	2.9	251.7	145.6	163.8	52.7
Oct.	4.6	10.0	36.6	13.7	1.2	3.2	249.6	148.8	155.5	48.8
Nov.	5.2	10.2	14.2	8.2	1.6	3.6	248.9	149.0	134.2	38.3
Dec.	5.4	10.6	14.2	8.2	1.9	3.9	180.4	116.5	126.3	34.8
Avg.	5.7	11.7	25.0	10.9	2.6	4.9	199.7	119.2	137.3	58.4
Max.	8.2	62.4	36.6	54.0	6.1	15.1	252.1	252.1	177.5	203.5
Min.	3.5	0	14.2	0	0.4	0	150.2	0.6	87.3	0

Some months missing

STORED WATER IN LARGE RESERVOIRS OF THE RIO GRANDE BASIN

In Thousands of Acre-Feet

In United States

Month	ABIQUIU (Capacity 1,216.0)		COCHITI (Capacity 498.1)		BLUEWATER (Capacity 43.5)		ELEPHANT BUTTE (Capacity 2,109.4)		CABALLO (Capacity 344.0)	
	1975	Average 1965-1975	1975	#Average 1973-1975	1975	#Average 1927-1975	1975	Average 1915-1975	1975	#Average 1938-1975
Jan.	18.3	3.2	3.6	4.2	13.0	5.4	427.8	745.3	40.4	96.4
Feb.	18.3	3.0	3.8	3.9	13.1	7.1	463.7	747.8	44.0	121.7
Mar.	18.3	4.0	4.0	4.8	17.8	10.4	425.8	725.3	48.0	105.5
Apr.	18.1	5.5	11.6	8.2	24.4	13.6	371.3	719.7	78.8	100.5
May	107.9	40.5	12.1	8.2	24.2	12.1	434.8	811.7	94.7	101.8
June	55.2	32.1	37.9	20.8	21.2	10.0	468.8	841.0	87.4	84.3
July	15.5	21.6	38.4	21.5	19.8	8.7	479.7	784.6	91.4	65.5
Aug.	15.5	22.0	38.3	21.4	17.6	7.8	411.9	728.8	60.0	38.4
Sept.	14.8	22.6	38.1	20.8	17.0	7.4	482.1	703.5	68.6	28.9
Oct.	4.0	21.5	46.7	25.6	16.4	7.0	463.7	703.5	70.8	44.0
Nov.	4.1	13.5	46.7	18.9	16.0	6.8	528.5	719.6	73.7	58.7
Dec.	4.1	7.2	56.2	22.1	15.8	6.7	617.2	739.9	80.1	74.1
Avg.	24.5	16.4	28.1	15.0	18.0	8.7	462.9	747.6	69.8	76.6
Max.	107.9	104.0	56.2	56.2	24.4	47.1	∅ 617.2	∅ 2,302.8	∅ 96.1	∅ 346.6
Min.	4.0	0	3.6	3.6	13.0	0	∅ 305.6	∅ 3.3	∅ 35.6	∅ 0.1

Month	STORRIE (Capacity 23.3)		LAKE SUMNER * (Capacity 110.7)		McMILLAN & AVALON (Capacity 38.0)		RED BLUFF (Capacity 310.0)		LAKE CASA BLANCA (Capacity 22.1)	
	1975	#Average 1939-1975	1975	#Average 1937-1975	1975	#Average 1908-1975	1975	#Average 1936-1975	1975	Average 1962-1975
Jan.	0.4	7.7	41.4	67.8	37.3	26.6	171.5	96.6	14.9	12.9
Feb.	.4	7.6	46.2	71.7	37.3	26.7	176.5	98.2	14.4	12.6
Mar.	.6	8.3	48.2	61.1	31.0	26.1	178.0	95.2	14.0	12.2
Apr.	3.7	8.6	53.5	54.0	16.1	17.4	168.5	81.7	13.6	12.3
May	4.8	9.1	61.5	56.0	7.4	19.6	153.6	85.0	15.8	12.9
June	.9	7.6	13.4	48.8	24.4	19.1	146.2	86.1	18.0	13.5
July	1.2	7.8	14.4	47.3	32.4	18.2	141.3	76.8	17.6	13.0
Aug.	.4	8.7	14.6	51.1	16.8	17.1	133.1	72.8	17.2	13.1
Sept.	.4	8.1	21.8	53.2	9.2	18.4	117.0	75.7	16.4	15.2
Oct.	.4	7.7	20.5	56.8	7.0	20.4	112.5	86.0	19.3	14.4
Nov.	.4	7.9	26.2	58.7	4.1	21.8	102.3	88.6	18.6	14.1
Dec.	.4	7.2	32.2	63.4	6.6	24.8	115.5	93.1	18.0	13.8
Avg.	1.2	8.0	32.8	57.5	19.0	21.4	142.8	86.3	14.5	13.3
Max.	4.8	26.3	61.5	156.3	37.3	85.5	176.5	327.5	19.3	28.2
Min.	0.4	0	13.4	0.4	4.1	0	102.3	10.0	13.6	3.5

Month	WILLACY (Capacity 25.0)							TOTAL IN U. S. RESERVOIRS (Capacity 5,671.5)	
	1975	#Average 1939-1975						1975	Estimated ‡ Average
Jan.	18.8	15.1						1,068.9	1,251.5
Feb.	18.6	14.4						1,123.3	1,285.1
Mar.	19.1	13.6						1,104.4	1,243.8
Apr.	15.5	13.6						1,092.4	1,258.9
May	16.3	14.4						1,300.8	1,435.1
June	16.2	14.7						1,408.5	1,517.0
July	16.5	14.4						1,411.0	1,380.0
Aug.	17.0	13.3						1,247.8	1,253.1
Sept.	16.5	14.9						1,277.9	1,214.9
Oct.	17.1	15.1						1,261.8	1,249.3
Nov.	16.7	15.0						1,274.9	1,259.8
Dec.	16.9	14.7						1,328.5	1,270.9
Avg.	17.1	14.4						1,241.6	1,305.8
Max.	19.1	22.6						1,411.0	
Min.	15.5	0						1,068.9	

Some months missing ∅ Daily extremes * Formerly Alamogordo ‡ Totals of period averages in all reservoirs

STORED WATER IN LARGE RESERVOIRS OF THE RIO GRANDE BASIN

In Thousands of Acre-Feet

In Mexico

Month	LA BOQUILLA (Capacity 2,417.5)		LA COLINA (Capacity 19.5)		ROSETILLA (Capacity 15.4)		FRANCISCO I. MADERO (Capacity 344.6)		CHIHUAHUA (Capacity 25.9)	
	1975	#Average 1914-1975	1975	Average 1940-1975	1975	Average 1940-1975	1975	#Average 1948-1975	1975	Average 1961-1975
Jan.	1,627.3	1,435.2	19.0	17.9	11.0	12.4	339.0	219.6	24.3	7.2
Feb.	1,561.8	1,401.5	18.6	18.2	11.0	12.7	330.8	217.5	23.1	7.0
Mar.	1,470.9	1,346.6	18.4	18.3	11.2	12.0	293.2	206.2	20.7	6.7
Apr.	1,366.1	1,273.2	19.9	18.8	9.2	11.6	231.6	174.6	19.2	6.2
May	1,260.8	1,210.7	18.3	18.5	10.1	11.5	175.4	148.0	18.0	5.8
June	1,159.5	1,129.7	19.8	18.6	7.5	11.8	131.3	129.9	16.7	5.3
July	1,319.8	1,166.4	18.8	18.7	14.0	11.7	208.2	144.2	16.4	5.5
Aug.	1,541.8	1,337.7	18.7	18.2	11.4	12.7	252.8	175.3	16.0	6.9
Sept.	1,667.5	1,502.5	19.7	18.0	13.4	13.0	285.0	214.3	15.9	8.7
Oct.	1,601.3	1,508.8	18.2	17.8	14.7	12.9	283.3	222.9	15.0	9.7
Nov.	1,568.6	1,473.2	11.8	16.2	11.0	12.2	284.7	223.0	14.2	8.6
Dec.	1,553.3	1,456.8	18.3	18.0	11.5	12.8	288.1	223.6	13.6	8.2
Avg.	1,474.9	1,353.5	18.3	18.1	11.3	12.3	258.6	191.8	17.8	7.1
Max.	1,667.5	2,544.7	19.9	20.5	14.7	19.4	339.0	366.6	24.3	26.5
Min.	1,159.5	16.9	11.8	11.6	7.5	0	131.3	1.4	13.6	0.2

Month	LUIS L. LEON (Capacity 689.1)		CENTENARIO and SAN MIGUEL (Capacity 19.9)		VENUSTIANO CARRANZA (Capacity 1,122.8)		LAGUNA DE SALINILLAS (Capacity 15.4)		LA BOCA (Capacity 33.2)	
	1975	Average 1968-1975	1975	Average 1934-1975	1975	Average 1930-1975	1975	Average 1931-1975	1975	Average 1963-1975
Jan.	602.4	356.7	18.1	13.4	934.0	403.7	6.5	7.1	32.8	26.3
Feb.	538.3	350.0	19.5	13.3	898.8	383.8	6.7	9.1	32.2	26.3
Mar.	368.9	322.6	14.3	9.9	848.2	362.5	7.6	7.0	30.4	25.8
Apr.	321.8	294.3	13.0	8.4	833.6	351.2	6.9	8.5	28.5	24.9
May	318.6	279.1	14.2	9.0	779.4	335.0	8.5	8.6	26.5	24.4
June	317.0	290.9	9.7	7.6	712.0	319.4	13.5	7.7	24.7	24.4
July	342.1	317.6	11.7	7.3	870.5	329.8	13.1	7.3	32.7	25.3
Aug.	355.9	326.8	9.8	7.9	934.4	336.5	10.9	7.6	32.8	26.0
Sept.	370.5	407.9	11.0	10.0	1,005.0	389.4	5.9	8.4	33.0	27.6
Oct.	392.4	417.6	12.5	12.3	1,036.1	422.6	5.9	7.3	32.8	28.1
Nov.	411.0	418.1	12.2	12.9	1,037.6	428.9	5.2	7.0	32.9	28.3
Dec.	419.9	420.8	11.2	13.0	1,014.4	427.6	7.9	6.7	32.9	28.3
Avg.	396.6	350.2	13.1	10.4	908.7	374.2	8.2	7.7	31.0	26.3
Max.	ø 608.0	ø 675.3	19.5	20.7	ø1,042.3	ø1,167.8	13.5	15.8	33.0	33.6
Min.	ø 317.0	ø 3.8	9.7	0	ø 705.0	* 1.0	5.2	0	24.7	0

Month	MARTE R. GOMEZ (Capacity 898.3)		CULEBRON and VILLA CARDENAS (Capacity 90.0)		PALITO BLANCO (Capacity 124.0)				TOTAL IN MEXICAN RESERVOIRS (Capacity 5,815.6)	
	1975	#Average 1943-1975	1975	#Average 1939-1975	1975	Average 1942-1975			1975	Estimated ‡Average
Jan.	678.6	599.1	0	35.1	16.0	36.8			4,309.0	3,170.5
Feb.	617.6	549.9	0	32.4	15.6	31.9			4,074.0	3,053.6
Mar.	599.6	519.3	0	30.6	13.9	32.0			3,697.3	2,899.5
Apr.	467.9	483.1	0	32.1	12.6	29.3			3,330.3	2,716.2
May	431.9	448.9	0	34.1	12.6	29.7			3,074.3	2,583.3
June	422.3	445.4	0	35.8	11.4	32.3			2,845.4	2,458.8
July	741.6	429.4	0	31.5	23.3	31.1			3,612.2	2,525.8
Aug.	819.5	489.7	0	31.8	26.5	28.4			4,030.5	2,805.5
Sept.	910.3	601.7	0	40.7	30.6	39.0			4,367.8	3,231.2
Oct.	856.8	650.4	0	42.4	26.9	43.8			4,295.7	3,396.1
Nov.	874.6	650.1	0	36.0	25.9	42.4			4,289.7	3,356.6
Dec.	880.5	647.6	0	39.7	23.3	41.6			4,274.9	3,344.7
Avg.	691.8	542.9	0	35.2	19.9	34.9			3,850.1	2,964.3
Max.	ø934.2	ø1,465.4	0	116.8	30.6	140.1			4,367.8	
Min.	ø419.4	** 17.8	0	0	11.4	0			2,845.4	

\# Some months missing ø Daily extremes * Minimum since full reservoir in 1932
‡ Total of period averages in all reservoirs ** Minimum since full reservoir in 1947

STORED WATER IN LARGE RESERVOIRS OF THE RIO GRANDE BASIN

International Amistad Reservoir

Amistad Dam is the second of the major international storage dams constructed on the Rio Grande as authorized by the Water Treaty of 1944 between the United States and Mexico. It is located at mile 567.5, 12.8 river miles upstream from Del Rio, Texas and Cd. Acuna, Coahuila, and 681.3 river miles downstream from the American Dam at El Paso, Texas.

Maximum storage for period of record: 4,859,900 acre-feet on September 22, 1974 with an elevation of 1,135.66 feet above mean sea level, U. S. C. & G. S. datum.

Storage Capacities

(1961 Survey)

Elevation	Description	At Indicated Elevation		Between Indicated Elevations	
		Reservoir Capacity Acre-Feet	Reservoir Area Acres	Storage Volume Acre-Feet	Type of Storage
898.0	Original River Bed at Dam Axis	0	0		
				8,029	Silt and Dead
930.0	Lowest Outlet (United States Penstocks)	8,029	712		
				3,497,410	Silt & Conservation
1,117.0	Top of Conservation Storage *	3,505,439	64,860		
				1,744,222	Ordinary Flood
1,140.4	Top of Spillway Gates	5,249,661	84,358		
				407,116	Super Flood
1,145.1	Maximum Water Surface	5,656,777	88,984		

Storage in Thousands of Acre-Feet at 24:00 Hours 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4,029.2	4,031.4	4,009.3	4,022.1	3,847.9	3,805.9	3,814.8	3,862.5	3,810.0	3,810.7	3,718.0	3,647.5
2	4,028.5	4,034.2	4,010.0	4,025.7	3,835.5	3,803.8	3,816.2	3,858.3	3,810.7	3,810.7	3,711.2	3,648.8
3	4,028.5	4,035.0	4,013.6	4,026.4	3,828.6	3,802.4	3,816.9	3,855.5	3,810.0	3,810.7	3,705.8	3,650.8
4	4,026.4	4,035.0	4,012.9	4,028.5	3,818.2	3,801.7	3,817.5	3,852.8	3,811.4	3,811.4	3,699.1	3,654.2
5	4,026.4	4,035.0	4,012.9	4,029.2	3,807.9	3,802.4	3,817.5	3,848.6	3,810.7	3,811.4	3,693.0	3,657.5
6	4,027.1	4,032.1	4,015.7	4,032.8	3,803.8	3,803.8	3,816.9	3,843.8	3,809.3	3,811.4	3,685.6	3,660.2
7	4,030.0	4,028.5	4,015.7	4,035.0	3,803.1	3,805.2	3,816.9	3,838.9	3,809.3	3,811.4	3,680.3	3,661.5
8	4,030.0	4,028.5	4,016.4	4,037.1	3,801.7	3,807.2	3,818.2	3,833.4	3,807.9	3,812.7	3,673.6	3,664.2
9	4,031.4	4,026.4	4,018.6	4,036.4	3,800.4	3,809.3	3,818.2	3,828.6	3,807.2	3,814.1	3,668.2	3,665.5
10	4,032.8	4,024.3	4,017.8	4,037.1	3,800.4	3,812.0	3,818.2	3,822.4	3,806.5	3,814.8	3,660.2	3,667.5
11	4,032.8	4,021.4	4,020.0	4,035.7	3,801.1	3,812.7	3,821.7	3,815.5	3,805.2	3,816.2	3,654.2	3,670.9
12	4,032.1	4,019.3	4,020.0	4,033.5	3,802.4	3,812.7	3,822.4	3,810.7	3,815.5	3,816.2	3,648.2	3,672.9
13	4,032.1	4,015.7	4,017.1	4,032.1	3,804.5	3,812.0	3,823.1	3,814.1	3,825.1	3,814.1	3,646.8	3,674.9
14	4,030.7	4,013.6	4,016.4	4,023.5	3,804.5	3,812.0	3,823.1	3,812.7	3,821.0	3,811.4	3,644.8	3,678.3
15	4,031.4	4,010.7	4,016.4	4,013.6	3,804.5	3,812.0	3,821.7	3,810.7	3,816.2	3,809.3	3,644.2	3,680.9
16	4,032.8	4,007.2	4,015.7	4,004.3	3,805.2	3,812.0	3,823.1	3,812.0	3,815.5	3,806.5	3,643.5	3,681.6
17	4,032.8	4,003.6	4,016.4	3,995.8	3,805.9	3,811.4	3,873.6	3,816.9	3,816.2	3,803.1	3,643.5	3,684.3
18	4,031.4	4,000.1	4,016.4	3,985.2	3,807.9	3,811.4	3,884.0	3,821.0	3,816.2	3,799.0	3,642.8	3,683.6
19	4,031.4	3,996.5	4,015.7	3,972.4	3,810.0	3,808.6	3,882.6	3,823.7	3,816.2	3,794.9	3,642.2	3,683.6
20	4,030.0	3,996.5	4,015.7	3,961.1	3,812.7	3,807.9	3,881.9	3,823.7	3,814.8	3,789.4	3,642.8	3,685.0
21	4,030.7	3,996.5	4,015.7	3,950.5	3,812.7	3,807.2	3,881.2	3,821.0	3,814.8	3,786.0	3,640.8	3,686.3
22	4,030.7	3,997.9	4,015.7	3,942.1	3,812.7	3,806.5	3,879.1	3,818.2	3,810.7	3,782.6	3,640.2	3,689.0
23	4,030.0	3,998.6	4,015.7	3,931.5	3,812.7	3,805.9	3,875.6	3,815.5	3,810.7	3,779.8	3,639.5	3,690.4
24	4,030.0	4,000.1	4,013.6	3,922.4	3,812.0	3,805.9	3,875.6	3,812.0	3,810.0	3,777.1	3,640.2	3,695.7
25	4,030.7	4,002.2	4,013.6	3,910.5	3,812.0	3,804.5	3,879.8	3,809.3	3,810.0	3,770.3	3,640.8	3,696.4
26	4,031.4	4,007.9	4,015.0	3,901.4	3,810.7	3,805.2	3,879.1	3,807.2	3,808.6	3,760.0	3,640.2	3,698.4
27	4,030.7	4,006.5	4,020.0	3,892.4	3,809.3	3,805.2	3,879.1	3,808.6	3,807.9	3,753.9	3,640.2	3,701.1
28	4,030.7	4,007.2	4,021.4	3,880.5	3,809.3	3,807.2	3,877.0	3,809.3	3,807.9	3,746.4	3,642.2	3,703.8
29	4,030.0		4,021.4	3,870.8	3,809.3	3,807.9	3,874.3	3,809.3	3,807.9	3,739.7	3,643.5	3,705.8
30	4,030.0		4,021.4	3,859.7	3,807.9	3,807.9	3,870.8	3,809.3	3,809.3	3,732.2	3,645.5	3,706.5
31	4,030.0		4,022.1		3,807.2		3,867.3	3,810.0		3,724.1		3,707.9

Month	1975							Period June 1968-1975		
	MOMENTARY MAXIMUM			MOMENTARY MINIMUM			Average Storage	Mean Monthly Storage		
	Elevation	Storage	Day	Elevation	Storage	Day		Average	Maximum	Minimum
Jan.	1,124.74	4,032.8	†10	1,124.65	4,026.4	† 4	4,030.4	2,564.7	4,030.4	722.6
Feb.	1,124.77	4,035.0	† 3	1,124.23	3,996.5	†19	4,014.7	2,554.6	4,014.7	737.7
Mar.	1,124.59	4,022.1	31	1,124.38	4,007.2	1	4,016.4	2,534.1	4,016.4	861.7
Apr.	1,124.80	4,037.1	† 8	1,122.28	3,859.7	30	3,981.0	2,548.5	3,981.0	962.8
May	1,122.28	3,859.7	1	1,121.42	3,800.4	† 9	3,810.4	2,510.5	3,829.5	1,038.6
June	1,121.60	3,812.7	†11	1,121.44	3,801.7	4	3,807.7	2,173.2	3,807.8	3.0
July	1,122.63	3,884.0	18	1,121.63	3,814.8	1	3,847.3	2,185.0	3,847.3	83.0
Aug.	1,122.39	3,867.3	1	1,121.52	3,807.2	26	3,823.7	2,330.8	3,823.7	178.2
Sept.	1,121.78	3,825.1	13	1,121.49	3,805.2	11	3,811.7	2,505.8	4,117.2	355.7
Oct.	1,121.65	3,816.2	†11	1,120.30	3,724.1	31	3,701.3	2,676.8	4,471.2	661.0
Nov.	1,120.30	3,724.1	1	1,119.04	3,639.5	23	3,653.7	2,673.4	4,241.4	702.9
Dec.	1,120.06	3,707.9	31	1,119.13	3,645.5	1	3,679.2	2,676.3	4,029.7	706.1
Yearly	1,124.80	4,037.1		1,119.04	3,639.5		3,855.2	2,404.2	3,850.8	1,047.9

* When necessary, the Commission may set temporary conservation levels

† And other days

STORED WATER IN LARGE RESERVOIRS OF THE RIO GRANDE BASIN

International Falcon Reservoir

Falcon Dam is the lowermost of the major international storage dams authorized for construction on the Rio Grande by the Water Treaty of 1944 between the United States and Mexico and was the first dam constructed. It is located 84.5 river miles downstream from Laredo, Texas and Nuevo Laredo, Tamaulipas, 975.0 river miles downstream from the American Dam, and 273.8 river miles upstream from the Gulf of Mexico.

Maximum storage for period of record: 3,490,600 acre-feet on October 19, 1958 with an elevation of 308.11 feet above mean sea level, U. S. C. & G. S. datum.

Storage Capacities

(1971-1972 Survey)

Elevation	Description	At Indicated Elevation: Reservoir Capacity Acre-Feet	At Indicated Elevation: Reservoir Area Acres	Between Indicated Elevations: Storage Volume Acre-Feet	Between Indicated Elevations: Type of Storage
175.0	Original River Bed at Dam Axis	0	0		
				67	Silt and Dead
203.33	Lowest Outlet (Mexican Penstock)	67	89		
				2,667,521	Silt & Conservation
301.2	Top of Conservation Storage *	2,667,588	86,843		
				509,505	Ordinary Flood
306.7	Top of Spillway Gates	3,177,093	98,512		
				801,323	Super Flood
314.2	Maximum Water Surface	3,978,416	115,406		

Storage in Thousands of Acre-Feet at 24:00 Hours 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2,881.1	2,754.6	2,711.3	2,689.4	2,480.0	2,403.5	2,447.1	2,808.3	2,373.9	2,381.9	2,483.2	2,607.3
2	2,880.2	2,748.4	2,712.1	2,688.5	2,472.5	2,402.7	2,446.3	2,792.1	2,390.7	2,380.3	2,500.5	2,606.4
3	2,880.2	2,741.3	2,712.1	2,685.0	2,465.1	2,401.9	2,445.5	2,776.9	2,401.1	2,375.5	2,508.8	2,606.4
4	2,879.3	2,737.7	2,711.3	2,676.3	2,458.6	2,401.1	2,444.7	2,762.6	2,414.7	2,372.3	2,517.1	2,606.4
5	2,879.3	2,734.2	2,712.1	2,666.7	2,455.3	2,400.3	2,443.9	2,750.1	2,425.2	2,369.9	2,523.8	2,607.3
6	2,879.3	2,730.7	2,712.1	2,657.2	2,451.2	2,400.3	2,442.3	2,733.3	2,436.6	2,367.5	2,533.0	2,609.0
7	2,880.2	2,726.2	2,713.9	2,652.0	2,444.7	2,400.3	2,439.8	2,716.5	2,448.8	2,367.5	2,542.2	2,608.2
8	2,879.3	2,721.8	2,714.8	2,655.4	2,435.8	2,401.1	2,436.6	2,699.0	2,448.8	2,370.7	2,550.5	2,608.2
9	2,878.4	2,717.4	2,716.5	2,657.2	2,422.8	2,405.1	2,430.9	2,685.0	2,447.1	2,373.9	2,560.6	2,606.4
10	2,877.4	2,712.1	2,718.3	2,655.4	2,408.3	2,432.5	2,422.8	2,671.9	2,443.1	2,376.3	2,573.3	2,606.4
11	2,876.5	2,709.5	2,720.1	2,649.4	2,395.5	2,443.9	2,418.8	2,652.0	2,435.8	2,377.9	2,583.5	2,605.6
12	2,874.7	2,706.9	2,721.8	2,644.2	2,384.3	2,452.9	2,426.0	2,632.2	2,434.1	2,379.5	2,591.1	2,606.4
13	2,867.4	2,704.2	2,723.6	2,639.0	2,378.7	2,455.3	2,433.3	2,613.3	2,432.5	2,379.5	2,595.4	2,607.3
14	2,860.9	2,703.4	2,722.7	2,627.9	2,374.7	2,457.8	2,462.7	2,597.9	2,430.9	2,381.1	2,598.8	2,606.4
15	2,855.5	2,702.5	2,723.6	2,617.6	2,366.7	2,459.4	2,488.1	2,572.5	2,424.4	2,383.5	2,601.3	2,606.4
16	2,849.1	2,701.6	2,723.6	2,611.6	2,355.7	2,456.9	2,515.4	2,554.8	2,418.8	2,384.3	2,603.9	2,605.6
17	2,841.8	2,701.6	2,724.5	2,603.0	2,344.6	2,453.7	2,532.1	2,529.6	2,413.9	2,384.3	2,605.4	2,605.6
18	2,834.5	2,704.2	2,724.5	2,597.9	2,332.8	2,452.0	2,555.6	2,504.7	2,406.7	2,383.5	2,607.3	2,603.9
19	2,827.3	2,705.1	2,722.7	2,593.7	2,322.6	2,451.2	2,599.6	2,479.9	2,402.7	2,382.7	2,611.6	2,603.9
20	2,815.5	2,706.9	2,720.9	2,588.6	2,313.2	2,451.2	2,681.5	2,454.5	2,399.5	2,381.9	2,614.1	2,603.0
21	2,804.7	2,707.8	2,719.2	2,578.4	2,300.0	2,451.2	2,820.9	2,434.1	2,395.5	2,382.7	2,612.4	2,602.2
22	2,798.4	2,706.9	2,717.4	2,568.2	2,287.6	2,457.8	2,853.6	2,414.7	2,391.5	2,386.7	2,610.7	2,601.3
23	2,795.7	2,705.1	2,715.7	2,552.2	2,278.3	2,459.4	2,863.7	2,402.7	2,384.3	2,390.7	2,609.0	2,600.5
24	2,793.9	2,703.4	2,712.1	2,542.2	2,274.5	2,458.6	2,863.7	2,389.1	2,373.9	2,397.1	2,608.2	2,601.3
25	2,792.1	2,704.2	2,706.9	2,532.1	2,270.6	2,456.1	2,868.3	2,380.3	2,370.7	2,404.3	2,608.2	2,602.2
26	2,790.3	2,707.8	2,702.5	2,521.3	2,266.8	2,452.9	2,873.8	2,375.5	2,372.3	2,409.9	2,609.0	2,601.3
27	2,785.8	2,710.4	2,699.0	2,510.5	2,258.4	2,450.4	2,870.1	2,369.9	2,372.3	2,413.0	2,610.7	2,601.3
28	2,777.8	2,711.3	2,697.2	2,504.7	2,347.0	2,448.8	2,862.8	2,369.9	2,372.3	2,426.9	2,609.9	2,601.3
29	2,771.5		2,695.5	2,495.6	2,386.7	2,447.1	2,852.7	2,371.5	2,377.1	2,449.6	2,609.0	2,600.5
30	2,767.0		2,693.7	2,488.9	2,400.3	2,447.1	2,840.9	2,371.5	2,380.3	2,462.7	2,608.2	2,599.6
31	2,760.8		2,691.1		2,402.7		2,825.5	2,373.1		2,472.5		2,598.8

Month	1975: Momentary Maximum: Elevation	Momentary Maximum: Storage	Momentary Maximum: Day	Momentary Minimum: Elevation	Momentary Minimum: Storage	Momentary Minimum: Day	Average Storage	Period 1954-1975: Mean Monthly Storage: Average	Maximum	Minimum
Jan.	303.60	2,882.0	1	302.26	2,760.8	31	2,836.0	2,112.0	3,070.8	218.7
Feb.	302.26	2,760.8	1	301.59	2,701.6	†16	2,715.3	1,905.4	2,902.5	156.2
Mar.	301.85	2,724.5	†17	301.47	2,691.1	31	2,713.3	1,963.7	2,959.5	226.7
Apr.	301.47	2,691.1	1	299.09	2,488.9	30	2,605.0	1,855.6	2,954.6	325.6
May	299.09	2,488.9	1	296.19	2,258.4	27	2,372.1	1,734.4	2,860.9	400.1
June	298.73	2,459.4	†15	298.00	2,400.3	† 5	2,437.1	1,638.6	2,673.3	273.7
July	303.51	2,873.8	26	298.23	2,418.8	11	2,610.0	1,752.7	2,685.9	209.9
Aug.	302.98	2,825.5	1	297.62	2,369.9	†27	2,556.1	1,742.5	2,707.3	208.0
Sept.	298.60	2,448.8	† 7	297.63	2,370.7	25	2,407.3	1,858.3	2,871.1	256.2
Oct.	298.89	2,472.5	31	297.59	2,367.5	† 6	2,392.1	2,139.3	3,250.2	308.3
Nov.	300.58	2,614.1	20	298.89	2,472.5	1	2,580.1	2,207.4	3,124.5	390.9
Dec.	300.52	2,609.0	6	300.40	2,598.8	31	2,604.4	2,234.1	3,129.7	343.4
Yearly	303.60	2,882.0		296.19	2,258.4		2,568.6	1,936.2	2,764.2	544.3

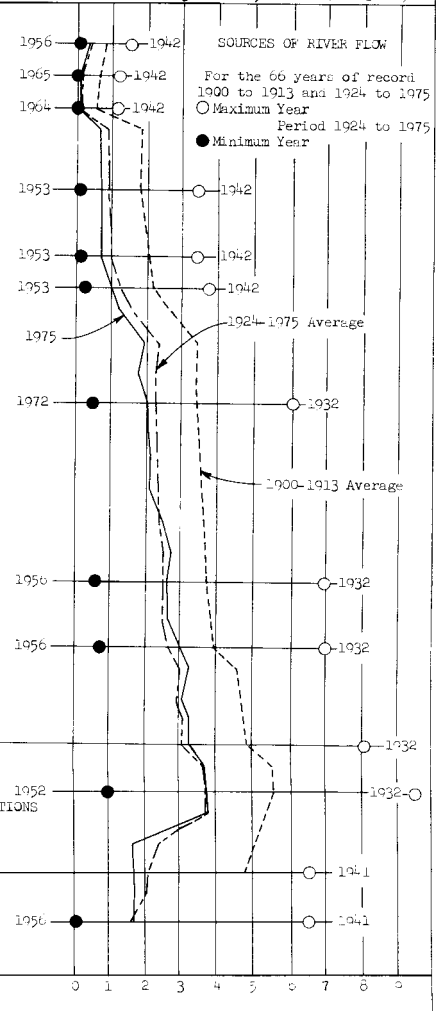
* When necessary the Commission may set temporary conservation levels

† And other days

SOURCES OF RIVER FLOW

The graph and the column of figures on this page represent data on the annual yield of drainage areas tributary to various stream-gaging stations in the Rio Grande watershed. The graphic values are for the entire tributary area, while the column figures are reduced to the yield from one average square mile of the tributary area. There were no reservoirs of consequence on the area from 1900 to 1913; therefore, the figures in the first column correspond to those for that period in the graph. Because about 17,000,000 acre-feet of reservoir capacity have been developed on the watershed since 1913, in which large volumes of unused runoff are stored in some years and released in later years as unused stream flow (thus reducing the unused stream flow in some years and adding thereto in others), it is significant to differentiate between the unused runoff and unused stream flow.

Average Annual Unused Water Acre-Feet per Square Mile			
RUNOFF		STREAM FLOW	
1900-1913	1924-1975	1924-1975	
29.7	14.1	14.6	EL PASO
19.6	4.0	4.4	FORT QUITMAN
16.4	3.3	3.7	ABOVE RIO CONCHOS
42.5	31.6	31.5	RIO CONCHOS
			ALAMITO CREEK
19.8	18.0	18.0	BELOW RIO CONCHOS
			TERLINGUA CREEK
			JOHNSON RANCH
25.9	16.1	16.2	FOSTER RANCH
12.4	9.0	9.0	PECOS RIVER
104.3	105.8	105.8	DEVILS RIVER
26.9	18.9	18.3	AMISTAD RESERVOIR AMISTAD DAM
26.9	18.9	18.4	DEL RIO
			LAS VACAS
			SAN FELIPE CREEK
110.3	53.5	53.5	PINTO CREEK
			RIO SAN DIEGO
			RIO SAN RODRIGO
29.2	20.0	19.5	EAGLE PASS
32.4	39.8	39.8	RIO ESCONDIDO
29.3	20.8	20.3	LAREDO
23.1	15.7	14.9	RIO SALADO FALCON RESERVOIR FALCON DAM ‡ RIO ALAMO
**43.4	**50.0	**48.6	ROMA RIO SAN JUAN
			FORT RINGGOLD ∅ RIO SAN JUAN CONTRIBUTIONS
			DIVERSIONS
			MATAMOROS DIVERSIONS
			LOWER BROWNSVILLE



‡ Values prior to 1953 considered the same as for Zapata Gaging Station. ∅ Values prior to 1953 considered the same as for Rio Grande City Gaging Station. ** Includes contribution of the Rio San Juan between the Rio Grande above and below Rio Grande City.

SUSPENDED SILT IN THE RIO GRANDE AND TRIBUTARIES

The following tables are based on determinations of gravimetric percentages of dry silt in water samples taken at each station by one of the following three methods:

A. By lowering an open small-neck bottle in one or more verticals in the stream cross section, being careful to approach but not strike bottom, thus securing an integrated sample throughout the depth. By taking from each sample an amount of water volumetrically proportional to the river flow represented by that sample, a composite, representative of the monthly river flow, is made and its gravimetric percentage of silt determined.

B. By sampling at the stream surface with a separate bottle at each of three points, spaced 1/6, 1/2, and 5/6 of the stream width. The gravimetric percentage in each sample is determined, a coefficient of 1.10 is applied to the average of the three, and the product applied to the volume of stream flow represented by that set of samples.

C. By sampling at 2-hour intervals, the water pumped directly from the river to the Laredo, Texas Water Treatment Plant. From daily composites of these samples, a monthly composite, representative of the river flow, is made as stated in Method A and its gravimetric percentage of silt determined.

For ease of comparison, the assumption is made that one cubic foot of silt weighs 66.7 pounds, or one acre-foot of silt weighs 1,452 tons.

Month	1975							Period of Record		
	Tons		No. of Samples	Gravimetric Percentages			Acre-Feet at 1,452 Tons Per Acre Foot			
	Water	Silt		Average	Maximum Sample	Minimum Sample		Average	Maximum	Minimum

Rio Grande at El Paso, Texas

Period: Sept. 1947-1975

Jan.	12,327,000	3,180	22	0.02580			2.2	0.27	2.2	0
Feb.	9,110,000	1,760	19	.01928			1.2	.28	2.2	.01
Mar.	43,687,000	40,800	21	.09328			28.1	21.9	55.9	.89
Apr.	52,191,000	17,500	22	.03348			12.1	11.0	45.2	2.2
May	56,350,000	16,300	21	.02892			11.2	8.4	63.3	.03
June	67,732,000	14,800	21	.02188			10.2	20.4	152	.86
July	66,790,000	15,800	19	.02364			10.9	34.9	124	1.1
Aug.	75,544,000	18,100	18	.02400			12.5	36.5	112	2.0
Sept.	63,931,000	30,100	18	.04708			20.7	22.4	123	1.1
Oct.	18,274,000	1,180	19	.006480			.81	5.4	51.0	.01
Nov.	12,296,000	408	18	.003320			.28	.32	1.5	.01
Dec.	12,338,000	306	19	.002480			.21	.29	2.1	.01
Yearly	490,570,000	160,234	237	0.03266			110.40	162.06	436.87	34.37

Samples and analyses by U. S. Section, Method A

Rio Conchos near Ojinaga, Chihuahua

Period: 1956-1975

Jan.	35,299,000	0	14	0			0	0	0	0
Feb.	116,750,000	0	12	0			0	.22	4.5	0
Mar.	273,471,000	0	13	0			0	.33	6.6	0
Apr.	117,168,000	0	13	0			0	.80	10.2	0
May	44,866,000	0	13	0			0	35.2	145	0
June	37,711,000	0	13	0			0	162	688	0
July	57,983,000	21,800	13	.0376	0.1760	0	15.0	268	1,450	0
Aug.	69,569,000	26,000	14	.0374	.2114	0	17.9	481	2,650	8.1
Sept.	53,509,000	0	11	0			0	1,170	9,330	0
Oct.	31,365,000	0	14	0			0	710	12,400	0
Nov.	31,222,000	0	12	0			0	5.6	70.2	0
Dec.	33,509,000	0	14	0			0	1.0	14.0	0
Yearly	902,422,000	47,800	156	0.005297	0.2114	0	32.9	2,834.15	21,903.3	32.9

Samples and analyses by Mexican Section, Method B

Rio Grande below Rio Conchos near Presidio, Texas

Period: 1955-1975

Jan.	50,286,000	2,080	5	0.004143			1.4	3.9	22.2	0.45
Feb.	131,767,000	15,200	5	.01151			10.5	4.2	22.2	.14
Mar.	304,099,000	23,800	5	.007823			16.4	7.4	70.9	.15
Apr.	121,914,000	3,850	7	.003160			2.7	5.6	95.7	.12
May	45,010,000	2,220	6	.004940			1.5	38.6	215	.21
June	37,847,000	2,180	5	.005760			1.5	113	465	.29
July	62,546,000	33,900	6	.05426	0.1958	0.02290	23.3	272	1,420	2.0
Aug.	77,337,000	45,400	9	.05872			31.3	354	1,360	2.9
Sept.	62,547,000	5,980	7	.009562			4.1	555	3,610	4.1
Oct.	36,200,000	1,670	7	.004618			1.2	336	4,770	.76
Nov.	34,484,000	800	4	.002320			.55	8.7	45.2	.26
Dec.	35,795,000	759	5	.002120			.52	3.4	13.7	.42
Yearly	999,832,000	137,839	71	0.01379			94.97	1,701.80	8,793.44	94.97

Samples and analyses by U. S. Section, Method A

SUSPENDED SILT IN THE RIO GRANDE AND TRIBUTARIES

Month	1975							Period of Record		
	Tons		No. of Samples	Gravimetric Percentages			Acre-Feet at 1,452 Tons Per Acre Foot			
	Water	Silt		Average	Maximum Sample	Minimum Sample		Average	Maximum	Minimum

Rio Grande at Johnson Ranch near Castolon, Texas

Period: Oct. 1951-1975

Jan.	54,390,000	1,390	6	0.002560			0.96	3.9	25.5	0.40
Feb.	115,094,000	19,900	5	.01728			13.7	13.6	253	.21
Mar.	287,683,000	81,700	5	.02840			56.3	7.4	60.7	.14
Apr.	133,333,000	11,700	5	.008760			8.1	44.4	692	.01
May	47,581,000	3,100	2	.006520			2.1	124	426	0
June	40,389,000	1,910	3	.004720			1.3	359	1,570	1.3
July	85,294,000	529,000	7	.6198	2.273	0.1344	364	750	4,030	51.6
Aug.	98,920,000	462,000	7	.4675	1.942	.02790	318	883	3,840	2.8
Sept.	60,768,000	76,700	5	.1262	.5218	.02310	52.8	920	8,990 *	52.8
Oct.	38,524,000	3,130	5	.008120			2.2	729	13,500 "	1.5
Nov.	35,049,000	2,140	5	.006120			1.5	13.0	151	.28
Dec.	37,675,000	1,730	6	.004600			1.2	6.0	48.3	.41
Yearly	1,034,700,000	1,194,400	61	0.1154			822.16	3,853.30	23,869.62	803.27

Samples and analyses by U. S. Section, Method A * Partly estimated " Estimated

Rio Grande at Foster Ranch near Langtry, Texas

Period: 1969-1975

Jan.	78,266,000	3,880	30	0.004960			2.7	8.0	34.9	0.61
Feb.	115,275,000	25,900	28	.02248			17.8	5.2	17.8	.57
Mar.	305,474,000	71,400	31	.02336			49.2	13.9	49.2	.72
Apr.	176,402,000	26,200	30	.01488			18.0	8.2	22.1	.22
May	80,744,000	28,500	31	.03528			19.6	47.5	178	.60
June	69,618,000	35,700	30	.05132			24.6	219	657	24.6
July	118,564,000	555,000	31	.4685	2.069	0.1134	382	483	736	51.0
Aug.	152,815,000	673,000	31	.4401	2.065	.02310	463	624	1,320	21.8
Sept.	115,774,000	118,000	30	.1022	.7272	.02220	81.3	872	1,660	81.3
Oct.	63,023,000	5,090	31	.008080			3.5	321	1,070	3.5
Nov.	56,933,000	2,100	30	.003680			1.4	20.2	91.6	.76
Dec.	58,467,000	1,960	30	.003360			1.3	4.1	16.1	.62
Yearly	1,391,355,000	1,546,730	363	0.1112			1,064.4	2,626.10	3,951.48	1,064.4

Samples and analyses by U. S. Section, Method A

Pecos River near Langtry, Texas

Period: Nov. 1954-1975

Jan.	39,739,000	1,650	4	0.004160			1.1	0.29	1.1	0.05
Feb.	34,539,000	1,300	4	.003760			.90	.26	.90	.05
Mar.	30,068,000	674	5	.002240			.46	.28	.79	.05
Apr.	26,525,000	1,310	2	.004920			.90	9.8	167	.06
May	24,773,000	525	3	.002120			.36	19.8	407	.07
June	19,946,000	391	5	.001960			.27	2.4	41.7	.09
July	34,268,000	603	3	.001760			.42	1.8	22.2	.05
Aug.	24,528,000	579	3	.002360			.40	1.6	23.8	.04
Sept.	21,756,000	418	3	.001920			.29	26.5	359	.09
Oct.	20,722,000	539	4	.002600			.37	6.9	59.8	.07
Nov.	27,838,000	924	4	.003320			.64	.42	2.5	.03
Dec.	22,118,000	442	5	.002000			.30	.24	1.1	.05
Yearly	326,820,000	9,355	45	0.002862			6.41	70.29	577.44	1.87

Samples and analyses by U. S. Section, Method A

Rio Grande below Amistad Dam near Del Rio, Texas

Period: July 1968-1975

Jan.	152,991,000	2,200	14	0.001440			1.5	0.60	1.5	0.05
Feb.	224,778,000	4,050	11	.001800			2.8	1.3	2.8	.13
Mar.	324,859,000	7,280	13	.002240			5.0	1.3	5.0	.06
Apr.	464,977,000	2,980	13	.0006400			2.1	1.0	2.1	.20
May	222,217,000	4,440	13	.002000			3.1	2.2	4.5	.25
June	88,183,000	1,450	13	.001640			1.0	.96	2.1	.23
July	195,553,000	2,190	12	.001120			1.5	2.9	16.4	.28
Aug.	269,179,000	3,450	13	.001280			2.4	1.8	4.5	.20
Sept.	151,457,000	1,510	13	.001000			1.0	11.0	79.9	.20
Oct.	222,103,000	3,730	14	.001680			2.6	2.9	13.7	.05
Nov.	208,682,000	2,170	12	.001040			1.5	1.6	7.5	.05
Dec.	26,030,000	312	13	.001200			.21	.82	2.3	.02
Yearly	2,551,009,000	35,762	154	0.001402			24.71	28.38	114.39	5.01

Samples and analyses by U. S. Section, Method A

SUSPENDED SILT IN THE RIO GRANDE AND TRIBUTARIES

Month	1975							Period of Record		
	Tons		No. of Samples	Gravimetric Percentages			Acre-Feet at 1,452 Tons Per Acre Foot			
	Water	Silt		Average	Maximum Sample	Minimum Sample		Average	Maximum	Minimum

Rio Grande at Laredo, Texas

Period: #1953-1975

Jan.	234,479,000	5,910	31	0.002520			4.1	8.5	28.0	0.93
Feb.	288,846,000	10,400	28	.003600			7.2	18.7	109	.88
Mar.	349,570,000	12,000	31	.003440			8.3	10.8	26.8	.78
Apr.	490,034,000	61,200	30	.01248			42.1	153	1,920	.47
May	393,551,000	108,000	31	.02756			74.4	287	3,540	2.3
June	200,561,000	43,800	30	.02184			30.2	849	12,400	.56
July	723,903,000	607,000	31	.08380			418	522	3,440	1.3
Aug.	428,375,000	26,200	31	.006120			18.0	431	1,960	4.2
Sept.	298,117,000	22,800	30	.007640			15.7	959	5,010	9.0
Oct.	290,339,000	14,600	31	.005040			10.1	713	7,520	7.6
Nov.	320,955,000	11,600	30	.003600			8.0	84.1	1,190	1.6
Dec.	90,351,000	1,630	31	.001800			1.1	10.8	67.6	.83
Yearly	4,109,081,000	925,140	365	0.02251			637.2	4,046.90	19,257.72	143.94

Samples by Laredo Water Plant and analyses by U. S. Section, Method C # Some months missing

ø Rio Grande below Falcon Dam, Texas, U. S. Tailrace

Period: July 1955-1975

Jan.	350,303,000	9,670	14	0.002760			6.7	2.0	6.7	0.14
Feb.	291,942,000	2,450	12	.0008400			1.7	1.9	9.1	.06
Mar.	297,333,000	6,180	13	.002080			4.3	1.4	4.3	.15
Apr.	684,540,000	18,300	13	.002680			12.6	3.6	12.6	.25
May	569,208,000	15,300	13	.002680			10.5	4.1	10.5	.19
June	112,747,000	1,580	13	.001400			1.1	3.3	18.7	.21
July	297,150,000	11,300	11	.003800			7.8	1.3	7.8	.12
Aug.	1,025,409,000	27,900	13	.002720			19.2	2.3	19.2	.22
Sept.	362,876,000	5,230	10	.001440			3.6	2.3	12.9	0
Oct.	117,443,000	1,880	14	.001600			1.3	3.8	37.5	.18
Nov.	61,858,000	569	12	.0009200			.39	1.2	5.5	.02
Dec.	69,713,000	920	14	.001320			.63	1.6	14.7	.11
Yearly	4,240,522,000	101,279	152	0.002388			69.82	28.80	92.15	7.24

Samples and analyses by U. S. Section, Method A ø Discharge based on record of total releases from Falcon Reservoir

Río Alamo at Cd. Mier, Tamaulipas

Period: #1934-1975

Jan.	2,623,000	0	0	π 0			0	1.5	21.8	0
Feb.	860,000	0	0	π 0			0	2.6	48.6	0
Mar.	87,000	0	0	π 0			0	5.8	91.2	0
Apr.	527,000	0	0	π 0			0	25.8	229	0
May	9,636,000	0	0	π 0			0	41.4	281	0
June	11,933,000	0	0	π 0			0	65.1	471	0
July	64,212,000	310,000	6	.483	0.5846	0	213	23.5	213	0
Aug.	10,026,000	3,610	6	.036	.2488	.0011	2.5	115	1,610	0
Sept.	107,700,000	375,000	9	.348	.5846	.0044	258	212	2,920	0
Oct.	18,646,000	186	3	.001	.0033	.0011	.13	78.2	753	0
Nov.	12,876,000	129	4	.001	.0011	0	.09	2.2	40.7	0
Dec.	9,936,000	0	0	π 0			0	1.4	33.7	0
Yearly	249,062,000	688,925	28	0.2766	0.5846	0	473.72	574.50	3,156.57	11.12

Samples and analyses by Mexican Section, Method B # Some months missing π Estimated

Rio Grande at Fort Ringgold, Rio Grande City, Texas

Period: May 1959-1975

Jan.	365,129,000	4,820	7	0.001320			3.3	9.7	32.6	0.43
Feb.	323,616,000	8,800	3	.002720			6.1	5.3	13.7	.35
Mar.	327,740,000	10,100	5	.003080			7.0	4.8	26.7	.39
Apr.	693,705,000	18,000	4	.002600			12.4	18.0	51.0	6.0
May	598,575,000	102,000	5	.01700			70.2	48.9	259	4.0
June	137,918,000	25,300	5	.01836			17.4	49.4	94.4	4.7
July	362,130,000	64,300	5	.01776			44.3	24.6	90.9	2.1
Aug.	1,054,116,000	19,400	2	.001840			13.4	55.0	510	1.2
Sept.	904,642,000	254,000	6	.02808			175	148	798	4.8
Oct.	236,950,000	10,000	4	.004240			6.9	68.4	552	2.6
Nov.	73,789,000	1,510	4	.002040			1.0	4.0	11.4	1.0
Dec.	82,898,000	597	2	.0007200			.41	3.3	12.1	.41
Yearly	5,161,208,000	518,827	52	0.01005			357.41	439.40	1,691.1	72.12

Samples and analyses by U. S. Section, Method A

SUSPENDED SILT IN THE RIO GRANDE AND TRIBUTARIES

Month	1975							Period of Record		
	Tons		No. of Samples	Gravimetric Percentages			Acre-Feet at 1,452 Tons Per Acre Foot			
	Water	Silt		Average	Maximum Sample	Minimum Sample		Average	Maximum	Minimum

‡ Rio Grande near Los Ebanos, Texas

Period: May 1956-1975

Jan.	365,129,000	9,890	14	0.002709			6.8	18.1	107	0.50
Feb.	323,616,000	11,900	12	.003665			8.2	7.4	22.5	.68
Mar.	327,740,000	7,050	13	.002151			4.9	7.8	40.2	.65
Apr.	603,705,000	33,000	13	.004760			22.7	55.8	635	3.0
May	598,575,000	85,400	10	.01426			58.8	72.1	289	5.3
June	137,918,000	9,930	12	.007200			6.8	58.2	209	3.2
July	362,130,000	193,000	14	.05336			133	20.9	133	.74
Aug.	1,054,116,000	60,500	12	.005737			41.7	83.5	1,150	2.0
Sept.	904,642,000	228,000	11	.02518			157	113	459	3.5
Oct.	236,950,000	9,160	14	.003865			6.3	47.4	314	3.2
Nov.	73,789,000	1,940	12	.002629			1.3	8.4	75.1	.62
Dec.	82,898,000	1,320	14	.001594			.91	4.3	16.3	.91
Yearly	5,161,208,000	651,090	151	0.01262			448.41	496.90	1,788.7	80.0

Samples and analyses by U. S. Section, Method A

‡ Discharge based on record of flow at Fort Ringgold

Rio Grande below Anzalduas Dam, Texas

Period: May 1956-1975

Jan.	134,655,000	4,580	31	0.003400			3.2	7.8	49.0	0.51
Feb.	67,057,000	2,090	28	.003120			1.4	2.7	11.9	.24
Mar.	140,881,000	3,380	31	.002400			2.3	3.3	27.3	.25
Apr.	261,647,000	14,100	30	.005400			9.7	33.6	279	2.0
May	256,611,000	10,700	31	.004160			7.4	25.8	79.9	1.4
June	141,005,000	6,990	30	.004960			4.8	43.0	414	1.2
July	296,973,000	92,200	31	.03104			63.5	28.4	333	.83
Aug.	1,003,752,000	285,000	31	.02844			196	41.4	502	.73
Sept.	979,191,000	323,000	30	.03300			222	151	1,480	.59
Oct.	204,225,000	8,250	31	.004040			5.7	94.9	676	.34
Nov.	74,340,000	1,070	30	.001440			.74	18.0	274	.51
Dec.	71,959,000	1,180	31	.001640			.81	9.3	135	.41
Yearly	3,632,296,000	752,540	365	0.02072			517.55	459.20	2,541.0	28.37

Samples and analyses by U. S. Section, Method A

Rio Grande near San Benito, Texas

Period: April 1955-1975

Jan.	77,139,000	3,250	4	0.004217			2.2	10.4	121	0.13
Feb.	33,259,000	1,150	3	.003466			.79	7.5	97.8	.15
Mar.	27,302,000	885	3	.003240			.61	4.0	50.6	.11
Apr.	47,843,000	3,220	5	.006720			2.2	5.3	17.9	.11
May	75,530,000	5,990	4	.007928			4.1	22.3	265	2.2
June	54,603,000	3,950	5	.007240			2.7	11.8	39.4	.72
July	189,487,000	3,940	1	.002080			2.7	9.2	91.6	.11
Aug.	918,417,000	198,000	3	.02157			136	13.4	136	.07
Sept.	868,115,000	57,100	4	.006574			39.3	53.2	218	.30
Oct.	177,842,000	2,880	4	.001621			2.0	62.1	636	.25
Nov.	38,369,000	2,090	3	.005440			1.4	18.7	247	.17
Dec.	21,318,000	401	5	.001880			.28	11.5	163	.06
Yearly	2,529,224,000	282,856	44	0.01118			194.28	229.20	894.82	9.54

Samples and analyses by U. S. Section, Method A

Rio Grande near Brownsville, Texas

Period: April 1955-1975

Jan.	69,254,000	4,600	5	0.006640			3.2	5.4	67.4	0.02
Feb.	22,457,000	584	4	.002600			.40	8.9	80.6	.04
Mar.	12,684,000	320	4	.002520			.22	4.7	70.2	.08
Apr.	14,515,000	422	5	.002908			.29	3.2	27.7	.04
May	30,533,000	1,340	4	.004400			.92	7.6	58.5	.28
June	49,368,000	2,400	5	.004859			1.7	9.6	58.4	.21
July	167,235,000	7,300	3	.004400			5.1	24.8	292	.08
Aug.	887,793,000	179,000	2	.02016			123	13.2	123	.01
Sept.	863,991,000	200,000	4	.02317			138	51.3	255	0
Oct.	217,171,000	7,820	3	.003600			5.4	58.3	242	.03
Nov.	41,638,000	883	2	.002120			.61	23.4	283	.12
Dec.	19,379,000	595	5	.003068			.41	11.5	142	.02
Yearly	2,396,018,000	405,324	46	0.01692			279.25	221.90	1,072.26	1.97

Samples and analyses by U. S. Section, Method A

CHEMICAL ANALYSES OF WATER SAMPLES FROM THE RIO GRANDE AND TRIBUTARIES - 1975

The following tables are based on chemical analyses of composites representative of the river flow at Rio Grande and tributary stations. The monthly composites were made by the United States Section of the Commission by taking from each independent water sample an amount of water volumetrically proportional to the river flow represented by that sample. The chemical analyses were made by the U. S. Geological Survey, Water Resources Division, Austin, Texas. All other data were computed by the United States Section of the Commission.

To convert milligram equivalents to parts per million by weight, multiply each ion by its appropriate conversion factor. These factors are: Ca, 20.04; Mg, 12.16; Na, 22.99; (CO_3 plus HCO_3) expressed as CO_3, 30.00; SO_4, 48.03; Cl, 35.45; NO_3, 62.00. To convert tons per acre-foot to parts per million, multiply tons per acre-foot by 735.5. Electrical conductivity, reported in the tables as ECx10^6 at 25°C, is a relative measure of the total salt concentration.

Month	No. of Samples	Dissolved Solids: Tons Per Acre-Foot	Dissolved Solids: Total Tons	ECx10^6 @25°C	Boron p.p.m.	pH	% Na **	% Cl ***	Mean Milligram Equivalents per Liter: Ca	Mg	Na	CO_3 + HCO_3	SO_4	Cl	NO_3

Rio Grande at El Paso, Texas

Sampling by U. S. Section

Jan.	22	1.75	15,900	1,980	0.32	8.1	63	34	4.99	2.30	12.18	3.80	9.37	6.77	0.01
Feb.	19	1.74	11,700	1,930	.30	7.7	62	35	4.99	2.22	11.74	3.87	8.95	7.05	.02
Mar.	21	.99	31,800	1,150	.18	7.6	50	31	4.24	1.40	5.66	3.61	4.58	3.67	.04
Apr.	22	.99	33,000	1,150	.18	7.6	50	24	4.19	1.40	5.66	3.30	5.00	2.74	.01
May	21	1.00	41,500	1,160	.20	7.9	49	24	4.39	1.40	5.66	3.30	5.20	2.82	.01
June	21	1.02	50,300	1,160	.18	8.0	51	24	4.29	1.48	6.09	3.90	5.00	2.76	.01
July	19	1.07	52,600	1,190	.22	8.2	51	24	4.24	1.56	6.09	3.87	5.20	2.82	0
Aug.	18	.99	55,000	1,110	.18	8.2	52	23	4.29	1.40	6.09	3.90	5.00	2.71	0
Sept.	18	1.18	54,600	1,250	.21	8.1	52	28	4.84	1.48	6.96	4.00	5.41	3.67	0
Oct.	19	1.84	24,700	1,940	.31	8.0	58	30	5.99	2.39	11.74	4.62	9.58	6.21	.01
Nov.	18	2.05	18,500	2,230	.41	8.2	60	32	6.49	2.72	13.92	5.11	10.83	7.34	
Dec.	19	2.12	19,200	2,300	.36	8.3	59	31	6.99	2.72	13.92	5.44	11.24	7.34	0
Mean ⊕	∅237	1.15	∅ 414,300	1,290	0.21	8.0	53	27	4.57	1.58	6.93	3.95	5.72	3.50	
Period Avg.		1.10	441,000	1,220			52	29	4.40	1.57	6.57	3.55	5.51	3.84	
Tons of Constituents, 1975									45,000	9,430	78,200	53,200	135,000	60,000	
Avg. Tons, Period 1930-1975									48,000	10,400	82,200	57,000	144,000	70,300	

Rio Grande at Fort Quitman, Texas

Sampling by U. S. Section and U. S. Geological Survey

Jan.	31	4.03	40,100	4,580	0.51	7.8	63	54	12.48	4.69	29.58	5.33	16.24	25.11	0.22
Feb.	28	3.84	26,400	4,440	.47	8.0	63	55	11.48	4.94	27.41	4.98	15.20	25.11	.13
Mar.	31	6.30	18,000	6,930	.80	7.3	66	62	16.47	8.14	47.85	4.79	22.90	45.14	.08
Apr.	30	5.51	20,600	6,160	.62	7.9	65	62	14.47	8.23	41.32	4.13	20.00	39.49	.12
May	31	6.70	13,600	7,610	.77	7.5	66	64	17.96	9.05	52.20	4.20	24.98	50.78	.08
June	30	7.52	15,800	8,240		7.7	66	63	19.46	9.87	56.55	3.74	27.07	53.60	
July	31	5.95	22,800	6,480	.71	7.8	65	62	15.47	7.49	43.50	4.13	20.40	39.49	.04
Aug.	31	4.57	37,500	5,080	.58	8.0	64	58	12.97	5.76	33.93	4.33	17.70	31.03	.07
Sept.	29	3.02	30,100	3,380	.40	8.3	63	54	8.98	3.62	21.32	4.33	11.66	18.90	.13
Oct.	31	4.47	35,700	4,820	.56	7.8	63	54	13.47	5.43	32.19	5.24	18.32	28.21	.12
Nov.	30	3.81	31,100	4,260	.52	7.8	63	53	11.98	4.61	28.28	5.64	15.20	23.70	
Dec.	31	3.64	45,600	3,930	.45	8.2	63	53	10.98	4.61	26.97	5.24	14.57	22.00	.40
Mean ⊕	∅364	4.00	∅ 387,300	4,540		8.0	64	56	11.91	5.11	29.92	4.73	15.82	26.55	
Period Avg.		2.52	320,000	2,850			61	56	7.99	3.26	17.86	3.69	9.33	16.24	
Tons of Constituents, 1975									30,700	8,000	83,500	18,500	97,600	121,000	
Avg. Tons, Period 1930-1975									26,300	6,630	68,700	13,500	75,000	96,300	

⊕ Weighted mean ∅ Total ** Percent of total cations *** Percent of total anions

CHEMICAL ANALYSES OF WATER SAMPLES FROM THE RIO GRANDE AND TRIBUTARIES - 1975

Month	No. of Samples	Dissolved Solids: Tons Per Acre-Foot	Dissolved Solids: Total Tons	ECx10⁶ @25°C	Boron p.p.m.	pH	% Na **	% Cl ***	Mean Milligram Equivalents per Liter: Ca	Mg	Na	CO_3 + HCO_3	SO_4	Cl	NO_3
Rio Grande above Rio Conchos near Presidio, Texas															
Sampling by U. S. Section															
Jan.	5	4.31	34,500	4,780		8.1	65		11.98	4.94	30.88	4.85		26.52	
Feb.	5	4.56	27,100	5,020	0.83	7.7	64		12.48	5.68	31.76	4.52	27.07	31.03	0
Mar.	5	6.79	15,700	7,320		7.9	66	61	17.46	9.05	52.20	3.48		47.96	
Apr.	5	6.17	7,000	6,860		7.8	66		16.47	8.23	47.85	4.39		45.14	
May	2	7.55	402	8,340		7.6	64		20.46	10.69	56.55	3.25		56.42	
June ‡	0	1.15	37.4	1,250		7.8	45		6.14	.92	5.80	2.28		2.81	
July	4	1.12	480	1,220		7.6	45		5.99	.90	5.66	2.23		2.74	
Aug.	4	1.02	1,550	1,090	.38	7.6	46		5.49	.59	5.22	2.49		2.26	
Sept.	6	1.62	11,000	1,770		8.2	59	44	5.99	1.40	10.44	3.15	6.87	7.00	0
Oct.	6	3.74	12,400	4,150		8.2	64		10.98	4.44	26.07	3.48		24.54	
Nov.	4	4.22	9,780	4,770		8.2	65		11.98	5.59	32.19	3.03		27.65	
Dec.	5	4.01	13,400	4,420		7.8	65		10.98	5.10	29.58	4.85		25.67	
Mean ⊕	Ø51	3.79	Ø133,349.4	4,180		8.0	64		10.88	4.54	27.23	4.03		24.20	
Period Avg.		1.88	196,000	2,140			59		# 8.83		12.63	3.11		10.82	
Tons of Constituents, 1975									10,400	2,640	30,000	5,780		41,100	
Avg. Tons, Period 1935-1975											41,100	13,200		54,300	
Rio Conchos near Ojinaga, Chihuahua															
Sampling by Mexican Section															
Jan.	14	1.10	28,600	1,230		7.9	51		4.69	1.15	6.09	3.34		2.51	
Feb.	12	.88	75,600	919		7.9	48		3.94	.82	4.35	3.08		1.19	
Mar.	13	.82	165,000	888	0.22	8.1	46	11	3.89	.82	4.05	3.15	4.58	.96	0.06
Apr.	13	.93	80,200	1,040		8.0	48		4.24	.90	4.78	3.80		1.50	
May	13	1.10	36,300	1,220		8.0	51		4.69	1.15	6.09	3.28		2.14	
June	13	1.16	32,200	1,250		8.0	55		4.04	1.23	6.52	2.95		2.17	
July	13	1.10	46,900	1,170		7.8	48		4.09	1.07	5.66	2.69		1.64	
Aug.	14	1.02	52,200	1,080		7.9	47		4.99	.99	5.22	2.56	7.08	1.47	.05
Sept.	9	1.19	46,900	1,180	.29	8.2	53	16	4.59	1.15	6.52	3.18		1.99	
Oct.	14	1.18	27,200	1,230		7.9	52		4.59	1.32	6.52	2.98		2.29	
Nov.	12	1.12	25,700	1,210		8.1	53		4.49	1.23	6.52	2.98		2.23	
Dec.	14	1.22	30,100	1,280		8.1	54		4.64	1.32	6.96	3.48		2.40	
Mean ⊕	Ø154	0.97	Ø646,900	1,040		8.0	49		4.29	.98	5.09	3.16		1.51	
Period Avg.		0.77	573,000	808			42		# 4.79		3.46	2.72		1.17	
Tons of Constituents, 1975									77,000	10,800	106,000	85,600		48,300	
Avg. Tons, Period 1935-1975											81,000	83,200		42,400	
Rio Grande at Johnson Ranch near Castolon, Texas															
Sampling by U. S. Section															
Jan.	6	1.90	76,000	2,170		7.8	58		6.99	2.22	12.02	3.02		7.90	
Feb.	5	1.22	103,000	1,360		7.9	53		4.74	1.40	6.96	3.15		3.67	
Mar.	5	.93	197,000	990	0.25	7.9	48	17	4.14	.99	4.78	3.28	5.00	1.72	0.08
Apr.	5	1.06	104,000	1,160		7.8	49		4.74	1.15	5.66	3.37		2.09	
May	2	1.26	44,100	1,400		7.8	50		5.49	1.40	6.96	3.12		2.82	
June	3	1.36	40,400	1,450		7.9	55		4.99	1.48	7.83	2.88		2.82	
July	7	1.04	65,300	1,090		7.4	46		4.74	.82	4.78	3.25		1.21	
Aug.	7	1.05	76,400	1,100		8.0	45		5.49	.90	5.22	2.95		1.52	
Sept.	5	1.24	55,400	1,210	.28	7.9	52	18	4.99	1.07	6.52	3.33	7.08	2.23	.04
Oct.	5	1.63	46,200	1,730		7.7	55		5.99	1.31	9.57	3.12		5.08	
Nov.	5	1.50	38,700	1,670		8.0	55		5.99	1.73	9.57	3.21		4.51	
Dec.	6	1.70	47,100	1,810		7.9	57		5.99	1.89	10.44	3.01		5.22	
Mean ⊕	Ø01	1.17	Ø 893,600	1,270		7.8	51		4.96	1.23	6.40	3.28		2.74	
Period Avg.		0.95	679,000	1,000			44		# 5.73		4.53	2.91		1.70	
Tons of Constituents, 1975									103,000	15,900	154,000	102,000		101,000	
Avg. Tons, Period 1943-1975											102,000	4,600		58,500	

⊕ Weighted mean Ø Total ‡ Estimated # Sum of calcium and magnesium
** Percent of total cations *** Percent of total anions

CHEMICAL ANALYSES OF WATER SAMPLES FROM THE RIO GRANDE AND TRIBUTARIES - 1975

Month	No. of Samples	Dissolved Solids: Tons Per Acre-Foot	Dissolved Solids: Total Tons	ECx10⁶ @25°C	Boron p.p.m.	pH	% Na **	% Cl ***	Mean Milligram Equivalents per Liter: Ca	Mg	Na	CO_3 + HCO_3	SO_4	Cl	NO_3

Rio Grande at Foster Ranch near Langtry, Texas

Sampling by U. S. Section and U. S. Geological Survey

Jan.	30	1.46	84,100	1,630	0.28	7.8	54	34	5.49	1.98	8.70	2.62	7.91	5.36	0.06
Feb.	28	1.25	106,000	1,370	.28	8.0	51	28	4.99	1.73	6.96	3.21	6.66	3.95	.09
Mar.	31	.93	209,000	982	.24	7.8	48	16	4.04	1.07	4.78	3.28	4.79	1.61	.12
Apr.	30	.97	126,000	1,040	.24	7.9	48	17	4.34	1.23	5.22	3.41	5.41	1.81	.14
May	31	1.02	80,600	1,110	.23	7.8	48	19	4.34	1.40	5.22	3.02	6.25	2.14	.06
June	30	.94	48,200	1,020	.21	7.9	48	18	3.94	1.32	4.78	2.95	5.20	1.83	.07
July	31	.92	80,300	952	.18	7.6	40	13	4.64	.99	3.83	2.95	5.20	1.24	.10
Aug.	31	.89	100,000	923	.17	7.6	36	10	5.49	.90	3.65	3.48	5.62	1.07	.06
Sept.	30	.98	83,500	966	.21	7.8	43	16	4.59	1.07	4.35	3.18	5.20	1.55	.07
Oct.	31	1.12	51,900	1,210	.30	7.8	53	25	4.24	1.65	6.52	2.82	6.66	3.10	
Nov.	30	1.18	46,100	1,220	.28	7.8	53	25	4.39	1.48	6.52	2.98	6.25	3.10	.05
Dec.	30	1.16	49,900	1,270	.24	8.0	53	26	4.24	1.81	6.96	3.98	6.66	3.39	.05
Mean ●	ø363	1.02	ø1,045,600	1,090	.23	7.8	47	20	4.54	1.28	5.26	3.17	5.69	2.19	
Period Avg.		0.83	990,000	944			42	15	4.53	1.01	4.00	3.18	5.07	1.47	
Tons of Constituents, 1975									127,000	21,700	168,000	132,000	381,000	108,000	
Avg. Tons, Period 1966-1975									139,000	18,800	144,000	146,000	373,000	79,900	

Pecos River near Langtry, Texas

Sampling by U. S. Section

Jan.	4	5.18	151,000	5,400	0.34	7.8	62	65	10.48	9.87	33.50	3.67	15.82	36.67	0.22
Feb.	4	4.65	118,000	4,930	.33	8.0	59	63	11.98	8.23	29.15	3.08	15.20	31.03	.17
Mar.	5	4.45	98,500	5,070	.34	7.8	62	68	9.98	9.05	30.88	3.05	13.12	33.85	.17
Apr.	2	4.35	84,900	4,950	.31	7.8	63	68	9.98	8.23	30.88	3.41	12.70	33.85	.13
May	3	3.51	64,000	4,020	.31	7.7	61	65	8.48	6.91	23.92	3.70	10.20	25.24	.12
June	5	2.72	39,900	3,110	.25	7.7	60	63	6.49	5.18	17.84	3.15	7.50	18.62	.12
July	3	1.90	47,900	2,220	.20	7.9	56	59	5.49	3.95	12.18	3.05	5.41	12.41	.10
Aug.	3	2.07	37,400	2,420	.21	7.5	57	60	5.99	4.03	13.48	2.82	6.46	14.10	.08
Sept.	3	2.80	44,800	3,080	.23	7.8	59	65	6.99	5.26	17.40	3.15	7.70	20.03	.06
Oct.	4	2.60	42,700	3,070	.23	7.8	60	64	6.99	5.18	18.27	2.88	8.33	20.03	.10
Nov.	4	2.46	50,400	2,900	.24	7.6	60	62	5.99	4.94	16.53	3.02	7.29	17.21	.14
Dec.	5	2.94	47,800	3,210	.24	8.0	60	62	6.99	5.59	19.70	3.15	8.74	19.75	.13
Mean ●	ø 45	3.44	ø 827,300	3,820	.27	7.7	60	64	8.22	6.60	22.68	3.20	10.30	24.40	.14
Period Avg.		1.03	454,000	2,250			57	61	5.81	3.73	12.59	2.70	6.06	13.50	
Tons of Constituents, 1975									53,000	26,200	171,000	31,400	182,000	254,000	
Avg. Tons, Period 1955-1975									37,200	14,500	92,500	25,900	93,100	153,000	

Rio Grande below Amistad Dam near Del Rio, Texas

Sampling by U. S. Section

Jan.	14	0.76	65,600	994	0.13	7.9	45	30	3.54	1.15	3.87	2.56	3.54	2.65	0.03
Feb.	14	.81	134,000	913	.13	7.9	46	31	3.59	1.15	4.00	2.62	3.54	2.74	.03
Mar.	13	.83	198,000	903	.14	8.1	45	33	3.54	1.40	4.05	2.62	3.54	3.18	.02
Apr.	13	.92	315,000	1,010	.16	7.5	43	33	3.94	1.32	4.78	2.75	4.16	3.37	.02
May	13	.86	141,000	1,030	.14	7.9	48	33	3.94	1.32	4.78	2.67	4.16	3.37	.03
June	13	.90	58,400	1,050	.17	7.9	50	33	3.94	1.40	5.22	2.75	3.96	3.37	.03
July	12	.89	128,000	1,040	.16	7.6	47	35	3.94	1.48	4.78	2.43	3.70	3.37	.02
Aug.	13	.84	106,000	1,030	.16	7.7	53	37	3.44	1.23	5.22	2.33	3.96	3.67	0
Sept.	13	.91	101,000	1,020	.15	8.1	51	36	3.59	1.40	5.22	2.36	4.16	3.67	0
Oct.	14	.90	147,000	1,040	.17	7.7	51	35	3.54	1.48	5.22	2.33	4.37	3.67	.02
Nov.	12	.88	135,000	1,030	.14	7.8	51	36	3.59	1.48	5.22	2.38	4.16	3.67	
Dec.	13	.92	17,600	1,050	.16	7.4	49	35	3.59	1.48	5.22	2.62	4.16	3.67	0
Mean ●	ø159	0.87	ø1,426,600	1,000	.15	7.5	49	34	3.68	1.34	4.73	2.54	3.90	3.35	
Period Avg.		0.78	1,100,000	899			45	28	3.59	1.21	4.00	2.59	3.86	2.46	
Tons of Constituents, 1975									188,000	44,600	278,000	195,000	486,000	393,000	
Avg. Tons, Period 1966-1975									139,000	25,400	178,000	159,000	359,000	170,000	

● Weighted mean ø Total ** Percent of total cation *** Percent of total anions

CHEMICAL ANALYSES OF WATER SAMPLES FROM THE RIO GRANDE AND TRIBUTARIES - 1975

Month	No. of Samples	Dissolved Solids: Tons Per Acre-Foot	Dissolved Solids: Total Tons	ECx10⁶ @25°C	Boron p.p.m.	pH	% Na **	% Cl ***	Mean Milligram Equivalents per Liter: Ca	Mg	Na	CO_3 + HCO_3	SO_4	Cl	NO_3
Rio Grande at Laredo, Texas															
Sampling by Laredo Water Plant															
Jan.	31	0.78	135,000	917		7.8	45		3.44	1.32	3.92	2.43		2.65	
Feb.	28	.82	174,000	929		7.9	45		3.54	1.23	3.96	2.75		2.68	
Mar.	31	.84	216,000	975	0.16	8.0	46	33	3.54	1.32	4.13	2.46	3.75	3.10	0.04
Apr.	30	.81	202,000	1,000		7.6	46		3.79	1.40	4.35	2.62		3.39	
May	31	.78	233,000	909		7.7	46		3.49	1.23	3.96	2.49		2.82	
June	30	.77	114,000	938		7.5	43		3.74	1.23	3.70	2.59		2.60	
July	31	.54	283,000	590		7.6	32		3.24	.78	1.91	2.56		1.44	
Aug.	31	.75	230,000	901		7.8	45		3.64	1.32	4.00	2.43		2.92	
Sept.	30	.83	132,000	915	.15	8.0	44	31	3.34	1.32	4.00	2.59	3.54	2.76	.05
Oct.	31	.79	169,000	900		7.8	44		3.64	1.40	3.92	2.49		2.82	
Nov.	30	.85	201,000	994		7.9	47		3.84	1.48	4.79	2.66		3.39	
Dec.	31	.82	54,500	937		8.0	43		3.64	1.65	3.92	2.82		2.71	
Mean ❊	∅365	0.76	∅2,294,500	877		7.8	43		3.58	1.24	3.71	2.56		2.68	
Period Avg.		0.68	1,500,000	778			41		# 4.52		3.15	2.53		2.13	
Tons of Constituents, 1975									205,000	62,600	351,000	316,000		391,000	
Avg. Tons, Period 1958-1975											216,000	225,000		227,000	
Río Salado at Las Tortillas, Tamaulipas															
Sampling by Mexican Section															
Jan.	1	5.36	28,500	4,000		7.3	43		16.97	13.16	23.00	3.28		14.39	
Feb.	1	5.20	16,700	4,530		8.0	45		15.47	12.34	22.62	2.30		14.39	
Mar.	1	5.02	25,400	5,300	2.0	7.8	47	30	18.46	13.16	27.84	2.23	39.56	13.34	0.39
Apr.	1	5.17	16,300	4,720		7.6	41		16.97	13.16	24.80	2.59		15.23	
May	1	5.08	30,000	5,160		7.5	46		17.96	15.63	28.71	2.43		16.64	
June	1	1.32	14,500	1,400		7.5	53		4.44	2.47	7.83	2.49		4.30	
July	1	5.10	441,000	4,380		7.7	46		14.97	13.16	23.49	2.23		11.85	
Aug.	1	2.31	34,500	2,360		7.9	44		8.48	5.26	10.83	3.15		7.36	
Sept.	1	.97	65,500	930	.31	8.0	34	20	4.99	1.81	3.44	3.01	4.58	2.14	.13
Oct.	1	1.16	29,900	1,190		7.9	35		5.49	2.47	4.35	3.01		2.82	
Nov.	1	1.75	30,000	1,830		7.9	42		8.00	4.23	8.26	2.56		5.08	
Dec. 2	0	2.31	27,200	2,360		7.9	44		8.48	5.26	10.88	3.15		7.36	
Mean ❊	∅ 12	3.07	∅ 813,400	2,700		7.8	44		10.22	7.57	14.03	2.88		7.83	
Period Avg.		1.05	367,000	1,070			38		# 7.10		4.37	2.48		2.95	
Tons of Constituents, 1975									73,700	33,100	116,000	31,100		99,000	
Avg. Tons, Period 1955-1975											47,000	35,200		40,500	
‡ Rio Grande below Falcon Dam, Texas–U. S. Tailrace															
Sampling by U. S. Section															
Jan.	14	0.36	222,000	968	0.21	7.7	45	27	3.04	1.48	4.26	2.49	4.37	2.60	0.01
Feb.	12	.35	133,000	959	.21	7.8	45	25	3.09	1.40	4.13	2.53	4.16	2.57	
Mar.	13	.35	158,000	964	.19	7.5	44	29	3.79	1.40	4.05	2.50	3.96	2.60	0
Apr.	13	.36	433,000	979	.20	7.7	44	29	3.97	1.48	4.26	2.62	4.16	2.71	.01
May	13	.34	352,000	990	.23	7.8	45	28	3.84	1.56	4.35	2.56	4.53	2.74	.01
June	13	.37	72,200	999	.24	7.8	44	29	3.89	1.56	4.35	2.56	4.16	2.71	.01
July	14	.35	186,000	995	.20	7.9	44	30	3.99	1.56	4.35	2.33	4.16	2.82	0
Aug.	13	.79	596,000	941	.19	8.1	40	30	3.54	1.48	4.13	2.38	4.16	2.79	0
Sept.	10 2	.80	214,000	901	.18	8.2	45	34	3.39	1.48	3.92	2.23	3.96	2.74	0
Oct.	14	.30	89,100	902	.19	7.7	46	30	3.34	1.40	4.05	2.23	3.96	2.71	0
Nov.	12	.79	39,000	919	.22	7.8	46	31	3.34	1.48	4.13	2.23	3.95	2.75	
Dec.	14	.81	41,500	930	.19	7.9	46	31	3.34	1.48	4.13	2.30	3.96	2.79	0
Mean ❊	∅152	0.53	∅2,500,400	959	0.20	7.7	45	29	3.79	1.46	4.19	2.45	4.19	2.72	
Period Avg.		0.72	1,615,000	833			43	29	3.34	1.26	3.51	2.29	3.52	2.42	
Tons of Constituents, 1975									345,000	75,300	400,000	322,000	354,000	409,000	
Avg. Tons, Period 1958-1975									205,000	47,000	247,000	213,000	217,000	242,000	

❊ Weighted mean ∅ Total # Sum of calcium and magnesium ‡ Tonnage figures based on total release from Falcon Reservoir

** Percent of total cations *** Percent of total anions

2 Estimated

CHEMICAL ANALYSES OF WATER SAMPLES FROM THE RIO GRANDE AND TRIBUTARIES - 1975

Month	No. of Samples	Dissolved Solids: Tons Per Acre-Foot	Dissolved Solids: Total Tons	ECx10⁶ @25°C	Boron p.p.m.	pH	% Na **	% Cl ***	Mean Milligram Equivalents per Liter: Ca	Mg	Na	CO_3 + HCO_3	SO_4	Cl	NO_3

Rio Grande at Fort Ringgold, Rio Grande City, Texas

Sampling by U. S. Section

Jan.	7	0.88	236,000	988	0.23	8.0	46	28	3.69	1.40	4.35	2.49	4.37	2.68	0.01
Feb.	3	.90	214,000	995	.20	8.0	45	28	3.79	1.48	4.35	2.56	4.58	2.77	0
Mar.	5	.89	215,000	1,010	.22	7.6	47	30	3.99	1.48	4.78	2.56	4.58	3.10	0
Apr.	4	.88	439,000	1,000	.23	7.7	45	28	3.79	1.56	4.35	2.82	4.58	2.82	0
May	5	.84	370,000	998	.23	7.7	45	29	3.79	1.48	4.35	2.56	4.37	2.79	.02
June	5	.90	97,400	1,000	.25	7.9	50	33	3.84	1.48	5.22	2.56	4.37	3.39	.01
July	5	.79	210,000	905	.21	7.7	43	30	3.54	1.32	3.70	2.33	3.75	2.60	0
Aug.	2	.79	613,000	938	.19	7.9	45	28	3.54	1.40	4.09	2.36	4.16	2.79	0
Sept.	6	.72	479,000	802	.16	7.9	41	28	3.49	1.23	3.26	2.43	3.33	2.26	0
Oct.	4	.78	136,000	882	.20	7.7	43	30	3.44	1.40	3.70	2.43	3.54	2.57	0
Nov.	4	.90	48,900	1,050	.30	7.7	50	35	3.64	1.56	5.22	2.43	4.37	3.67	
Dec.	2	.85	57,900	1,070	.26	8.2	47	35	3.84	1.56	4.78	2.09	4.16	3.67	.04
Mean ⊕	∅ 52	0.82	∅3,116,200	944	0.20	7.8	44	29	3.66	1.41	4.05	2.48	4.08	2.70	
Period Avg.		0.74	2,058,000	863			44	30	3.47	1.26	3.70	2.38	3.58	2.58	
Tons of Constituents, 1975									370,000	58,600	481,000	384,000	1,012,000	494,000	
Avg. Tons, Period 1959-1975									262,000	57,800	320,000	269,000	647,000	345,000	

Morillo Drain in Mexico, 8.4 River Miles above Anzaldúas Dam

Sampling by Mexican Section

Jan.	No	Flow													
Feb.	No	Flow													
Mar.	No	Flow													
Apr.	2	7.02	12,200	7,980	3.6	8.0	71	62	13.97	9.05	56.55	4.52	27.07	50.78	0.08
May	4	7.15	73,300	7,880	3.9	7.8	74	61	13.47	8.23	60.90	4.00	29.15	50.78	.16
June	4	8.30	190	9,500	2.5	7.8	74	62	16.47	10.69	73.30	4.02	33.31	62.06	.13
July	3	10.30	8,700	10,730	3.3	7.9	75	63	15.97	12.34	87.00	4.72	37.48	73.35	.11
Aug. ‖	0	10.20	38,100	10,500	3.5	8.2	75	63	18.49	11.86	89.56	4.93	38.59	72.79	.16
Sept.	1	9.69	44,100	10,200	3.4	8.0	75	63	17.96	11.52	87.00	4.79	37.48	70.52	.16
Oct.	3	7.95	30,800	8,650	3.0	7.8	74	59	14.97	9.05	69.60	3.21	35.39	56.42	.12
Nov.	No	Flow													
Dec.	No	Flow													
Mean ⊕	∅17	8.32	∅ 207,800†	8,910	3.6	7.9	74	61	15.37	9.68	71.78	4.22	33.15	59.24	0.15
Period Avg.		4.92	183,000	5,340			72	62	9.78	5.93	40.14	3.01	18.07	35.01	
Tons of Constituents, 1975 *									10,500	4,000	56,100	4,300	54,100	71,400	
Avg. Tons, Period 1959-1975									9,020	3,650	46,700	4,570	43,900	62,800	

Rio Grande below Anzalduas Dam, Texas

Sampling by U. S. Section

Jan.	31	0.95	94,100	1,030	0.25	7.8	47	32	3.84	1.65	4.78	2.49	4.79	3.39	0.01
Feb.	28	1.00	40,300	1,110	.25	7.8	49	31	3.94	1.56	5.22	2.62	5.00	3.39	.01
Mar.	31	.98	99,500	1,100	.27	7.7	49	31	3.99	1.65	5.22	2.59	5.00	3.39	.01
Apr.	30	.90	173,000	1,050	.24	7.6	48	30	3.89	1.56	4.78	2.62	4.58	3.10	.01
May	31	1.07	202,000	1,220	.33	7.7	51	35	4.09	1.73	6.09	2.62	5.41	4.23	.02
June	30	1.20	125,000	1,430	.40	7.9	54	40	4.54	1.89	7.40	2.69	5.20	5.36	.02
July	31	.98	210,000	1,070	.27	7.7	49	34	3.94	1.48	5.22	2.49	4.58	3.67	.01
Aug.	31	.90	965,000	1,030	.24	7.9	50	35	3.89	1.48	5.22	2.38	4.58	3.67	0
Sept.	30	.84	805,000	951	.23	7.9	47	34	3.59	1.40	4.35	2.36	3.75	3.10	.03
Oct.	31	.98	147,000	1,120	.30	7.8	51	38	3.84	1.65	5.66	2.43	4.58	4.23	.02
Nov.	30	1.17	86,000	1,370	.45	7.3	52	42	4.24	2.06	6.96	2.75	5.20	5.64	
Dec.	34	1.20	63,500	1,370	.35	7.9	52	41	4.44	1.98	6.96	2.82	5.20	5.64	.03
Mean ⊕	∅365	0.93	∅2,407,400	1,070	0.28	7.8	49	34	3.82	1.53	5.18	2.46	4.50	3.66	
Period Avg.		0.92	1,000,000	1,080			50	33	3.78	1.49	5.18	2.40	4.11	4.06	
Tons of Constituents, 1975									273,000	67,600	433,000	268,000	756,000	472,000	
Avg. Tons, Period 1959-1975									199,000	42,900	283,000	171,000	467,000	342,000	

⊕ Weighted mean ∅ Total ** Percent of total cations *** Percent of total anions

‖ Estimated † An additional 275,250 tons pumped to the gulf * To Rio Grande excluding storm runoff

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES
1975

The following tables show electrical conductivity, expressed in mhos per centimeter x 10^6 at 25°C, of individual water samples taken at Rio Grande and tributary stations. The determinations were made by the United States Section of the Commission.

Electrical conductivity is a relative indication of the concentration of dissolved solids in the water samples. Though no exact relationship exists between conductivity and dissolved solids in natural waters, a study of recent data pertaining to stations on the Rio Grande watershed indicates that the relationship may be expressed within 10 percent by the following equations:

Tons per Acre-Foot = .0008878 (EC x 10^6 at 25°C) when conductivity (EC x 10^6 at 25°C) is below 7,520 micromhos.

Tons per Acre-Foot = .001052 (EC x 10^6 at 25°C) - 1.235 when conductivity (EC x 10^6 at 25°C) ranges between 7,520 and 22,000 micromhos.

Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C

Rio Grande at El Paso, Texas

Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C	Date	ECx10^6 @25°C
January		February		March		May		June		August		September		November	
2	2,170	13	2,320	28	1,050	8	1,420	20	1,170	6	1,100	25	1,540	13	2,200
3	2,230	14	2,290	31	934	9	1,350	23	1,090	7	1,230	29	1,410	14	2,260
6	2,200	18	2,380	April		12	1,070	24	1,130	8	1,260	30	1,390	17	2,180
7	2,160	19	2,430	1	1,030	13	1,100	25	1,130	11	1,220	October		18	2,220
8	2,180	20	2,310	2	1,120	14	1,230	26	1,200	12	1,080	1	1,280	19	2,190
9	2,300	21	2,340	3	1,140	15	1,260	27	1,190	13	1,050	2	1,270	20	2,250
10	2,150	24	2,500	4	1,120	16	1,190	30	1,150	14	1,090	3	1,550	21	2,280
13	2,290	25	2,440	7	1,250	19	1,110	July		18	930	6	1,940	24	2,230
14	2,410	26	2,500	8	1,170	20	1,120	7	1,200	19	953	7	1,940	25	2,280
15	2,340	27	2,510	9	1,120	21	1,220	8	1,080	20	969	8	2,010	26	2,310
16	2,250	28	2,450	10	1,280	22	1,220	9	1,110	21	1,060	9	2,070	28	2,280
17	2,310	March		11	1,240	23	1,160	10	1,150	25	1,020	10	2,070	December	
20	2,350	3	2,610	14	1,130	27	1,060	11	1,220	26	1,090	14	2,110	1	2,290
21	2,300	4	1,880	15	1,130	28	1,100	14	1,070	27	1,100	15	2,130	2	2,310
22	2,350	5	1,240	16	1,120	29	1,140	15	1,230	28	1,280	16	2,160	3	2,290
23	2,240	6	1,230	17	1,200	30	1,080	16	1,240	September		17	2,210	4	2,290
24	2,260	7	1,230	18	1,280	June		17	1,270	2	1,030	20	2,170	5	2,330
27	2,290	10	1,340	21	1,100	2	1,100	18	1,170	3	1,110	21	2,190	8	2,320
28	2,100	11	1,270	22	1,080	3	1,100	21	1,140	4	1,230	24	2,030	11	2,310
29	1,350	12	1,330	23	1,160	4	1,160	22	1,250	5	1,120	28	2,120	12	2,300
30	1,280	13	1,330	24	1,170	5	1,210	23	1,250	8	954	29	2,110	15	2,330
31	1,290	14	1,260	25	1,120	6	1,110	24	1,200	9	1,050	30	2,160	16	2,340
February		17	1,210	28	1,080	9	1,130	25	1,220	10	1,070	31	2,160	17	2,320
3	1,510	18	1,150	29	1,130	10	1,120	28	1,120	11	1,210	November		18	2,320
4	1,570	19	1,140	30	1,100	11	1,220	29	1,160	16	1,240	3	2,130	19	2,330
5	1,610	20	1,150	May		12	1,230	30	1,180	17	1,590	5	2,150	22	2,250
6	1,710	21	1,080	1	1,180	13	1,120	31	1,290	18	1,770	6	2,190	23	2,220
7	1,930	24	987	2	1,160	16	1,120	August		19	1,890	7	2,200	24	2,210
10	2,260	25	994	5	1,210	17	1,160	1	1,270	22	2,050	10	2,240	29	2,290
11	2,250	26	1,040	6	1,230	18	1,140	4	1,230	23	1,110	11	2,200	30	2,320
12	2,290	27	1,210	7	1,270	19	1,200	5	1,010	24	1,130	12	2,260	31	2,340

Sampling by U. S. Section

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES

1975

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C

Rio Grande at Fort Quitman, Texas

January		February		April		May		July		August		October		November	
1	4,050	17	6,860	5	7,340	20	6,290	4	8,930	18	8,220	3	4,300	17	4,230
2	4,050	18	6,910	6	7,550	21	7,760	5	8,090	19	7,690	4	4,610	18	4,120
3	4,230	19	7,270	7	7,440	22	7,080	6	6,860	20	7,320	5	4,100	19	4,120
4	3,930	20	8,050	8	6,820	23	8,330	7	6,860	21	6,700	6	4,540	20	4,860
5	4,280	21	7,640	9	6,870	24	8,900	8	9,270	22	5,770	7	4,580	21	4,400
6	4,380	22	8,260	10	7,320	25	8,020	9	9,030	23	6,890	8	4,410	22	4,170
7	4,360	23	8,130	11	7,070	26	9,290	10	5,790	24	6,380	9	4,510	23	4,170
8	5,230	24	7,230	12	7,520	27	9,630	11	6,860	25	2,240	10	4,520	24	3,960
8	* 6,990	25	7,380	13	8,090	28	9,290	12	6,330	26	3,390	10	* 4,370	25	3,880
9	4,980	26	8,160	14	7,160	29	8,970	13	5,490	27	3,420	11	4,750	26	3,820
10	4,960	27	7,890	15	8,360	30	8,900	14	5,970	28	4,500	12	4,840	27	4,030
11	4,460	28	7,030	16	9,240	31	8,820	15	6,570	29	5,760	13	5,170	28	3,990
12	4,190	March		17	8,380	June		16	4,520	30	5,670	14	4,840	29	4,200
13	4,050	1	7,610	17	* 8,990	1	7,550	17	5,730	31	5,900	15	5,200	30	4,140
14	4,230	2	7,800	18	8,050	2	9,240	18	5,950	September		16	4,750	December	
15	4,410	3	7,910	19	7,630	3	8,910	19	6,230	1	6,380	17	5,350	1	3,820
16	4,610	4	8,410	20	7,020	4	8,300	20	6,140	2	6,480	18	5,660	2	3,810
17	4,590	5	7,830	21	6,370	5	9,500	21	6,140	3	7,360	19	5,590	3	3,810
18	4,630	6	8,690	22	9,160	6	9,230	22	6,140	4	6,540	20	5,560	4	3,810
19	4,770	7	8,210	23	8,580	6	* 8,750	23	5,780	5	5,730	21	5,560	5	3,750
20	5,740	8	8,030	24	8,940	7	8,670	23	* 5,820	6	6,080	22	5,480	6	4,040
21	5,590	9	8,240	25	8,810	8	8,540	24	5,930	7	6,710	23	5,680	7	4,040
22	5,630	10	8,160	26	8,510	9	6,860	25	5,800	8	5,770	24	5,460	8	3,910
23	5,800	11	8,020	27	7,600	10	6,870	26	6,300	9	5,020	25	5,200	9	4,420
24	6,080	12	8,600	28	7,320	11	6,750	27	6,530	10	3,820	26	5,000	10	4,530
25	5,830	13	8,260	29	7,700	12	8,260	28	6,740	11	4,210	27	5,020	11	4,140
26	6,130	14	7,940	30	8,700	13	7,990	29	5,770	12	3,720	28	4,190	11	* 4,190
27	5,860	15	8,320	May		14	8,050	30	6,490	13	1,540	29	4,430	12	4,300
28	5,660	16	9,090	1	8,520	15	7,860	31	6,230	13	* 1,630	30	4,290	13	4,070
29	6,050	17	8,580	2	8,780	16	7,340	August		14	1,590	31	4,260	14	4,230
30	5,940	18	8,780	3	8,500	17	8,250	1	7,700	15	2,050	November		15	4,330
31	4,310	19	8,910	4	6,790	18	8,810	2	7,010	17	2,530	1	4,510	16	4,270
February		20	8,840	5	5,750	19	7,740	3	6,810	18	3,510	2	4,250	17	4,200
1	3,860	21	8,690	6	6,860	20	7,730	4	7,760	19	3,860	3	4,330	18	4,400
2	3,460	22	9,070	7	6,970	21	8,680	5	7,500	20	4,930	4	4,410	19	4,270
3	3,190	23	8,930	8	7,310	22	7,610	6	7,970	21	4,230	5	4,220	20	4,850
4	2,910	24	7,800	8	7,040	23	6,530	7	5,890	22	4,680	6	4,270	21	4,530
5	3,460	25	9,190	9	7,620	23	* 6,530	8	7,910	23	4,940	7	4,560	22	4,200
6	3,710	26	8,240	10	8,030	24	7,140	9	6,860	24	4,230	7	* 4,320	23	3,710
7	3,790	27	6,970	11	8,140	25	8,680	10	6,980	25	4,260	8	4,500	23	* 4,060
8	4,920	28	8,170	12	7,190	26	8,440	11	7,010	26	5,330	9	4,620	24	3,650
9	4,920	29	8,650	13	7,090	27	9,430	12	7,900	27	5,370	10	4,520	25	3,580
10	4,920	30	7,760	14	6,210	28	9,060	13	7,140	28	5,550	11	5,230	26	3,510
11	5,350	31	3,190	15	7,450	29	9,060	14	7,300	29	5,330	12	3,940	27	3,540
12	5,790	April		16	7,500	30	9,520	14	* 6,110	30	5,450	13	4,150	28	3,630
13	6,280	1	2,680	16	7,140	July		15	6,810	October		14	4,970	29	3,760
14	6,320	2	5,090	17	6,440	1	8,980	16	8,110	1	5,710	15	4,820	30	3,860
15	6,960	3	4,510	18	6,820	2	8,970	17	8,120	2	5,700	16	4,590	31	3,810
16	7,820	4	4,930	19	6,030	3	8,510								

Sampling by U. S. Geological Survey except those marked with * which were by the U. S. Section

Rio Grande above Rio Conchos near Presidio, Texas

January		February		March		April		July		September		October		November	
2	4,860	10	5,840	17	7,570	21	6,100	18	1,250	1	1,030	6	3,790	17	4,530
6	4,900	18	4,070	24	7,980	28	7,770	21	977	3	1,110	14	5,130	24	4,700
13	4,690	24	5,150	31	8,190	May		28	1,740	8	1,270	20	4,710	December	
20	4,740	28	5,970	April		1	8,240	August		17	2,340	28	4,780	1	4,610
27	4,760	March		1	8,330	5	8,370	1	1,120	22	1,420	31	5,020	8	4,360
February		3	6,480	7	8,300	July		4	1,500	29	2,220	November		15	4,340
3	5,310	10	7,300	14	5,590	18	1,270	18	1,070	October		3	5,600	22	4,350
								28	771	2	2,910	10	4,730	29	4,500

Sampling by U. S. Section

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES

1975

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C

Rio Conchos near Ojinaga, Chihuahua

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C
January		February		March		May		June		August		October		November	
1	1,180	14	1,160	31	916	12	1,220	25	1,330	8	1,270	1	1,180	17	1,230
3	1,200	17	1,010	April		14	1,210	27	1,280	11	1,250	3	1,300	19	1,240
6	1,260	19	850	2	952	16	1,200	30	1,230	13	1,240	6	1,220	21	1,230
8	1,270	21	848	4	937	19	1,220	July		15	1,190	9	1,220	24	1,240
10	1,280	24	850	7	940	21	1,240	2	1,260	16	1,110	10	1,290	26	1,250
13	1,180	26	855	9	947	23	1,250	4	1,260	18	810	13	1,260	28	1,200
15	1,290	28	867	11	939	26	1,230	7	1,220	20	1,080	15	1,260	December	
17	1,190	March		14	1,220	28	1,220	9	1,220	23	1,160	17	1,240	1	1,270
20	1,250	3	860	16	1,230	30	1,160	11	1,240	25	1,210	20	1,240	3	1,250
22	1,240	5	870	19	1,220	June		14	1,240	27	1,250	22	1,200	5	1,260
24	1,160	7	875	21	1,160	2	1,220	16	1,180	29	917	24	1,220	8	1,260
27	1,240	10	879	23	1,230	4	1,220	18	1,090	September		26	1,220	10	1,320
29	1,240	12	885	25	1,220	6	1,290	21	1,170	1	1,150	29	1,210	12	1,440
31	1,240	14	882	28	1,210	9	1,230	23	1,150	3	1,210	31	1,200	15	1,290
February		17	895	30	1,220	11	1,230	25	1,290	5	1,210	November		17	1,280
3	1,180	19	897	May		13	1,220	28	1,130	8	1,190	3	1,210	19	1,260
5	1,250	21	897	2	1,240	16	1,230	30	1,000	16	1,100	5	1,160	22	1,300
7	1,260	24	889	5	1,230	18	1,249	August		17	1,140	7	1,190	24	1,310
10	1,200	26	876	7	1,240	20	1,240	1	998	22	1,210	10	1,180	26	1,280
12	1,190	28	900	9	1,230	23	1,250	4	1,160	24	1,210	12	1,220	29	1,270
								6	1,190	26	1,210	14	1,150	31	1,290

Sampling by Mexican Section

Rio Grande below Rio Conchos near Presidio, Texas

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C
January		February		April		May		July		August		September		November	
2	2,140	28	969	11	1,360	19	1,380	7	1,230	18	936	19	1,190	3	1,600
6	2,080	March		14	1,360	27	1,370	14	1,270	19	975	22	1,310	10	1,690
13	2,140	3	944	15	1,470	June		18	1,110	25	1,240	29	1,410	17	1,610
20	2,120	10	980	21	1,330	2	1,260	21	1,210	27	1,290	October		24	1,560
27	2,010	17	994	28	1,300	9	1,350	28	1,170	28	1,020	2	1,550	December	
February		24	945	May		16	1,340	August		September		3	1,710	1	1,710
3	2,000	31	944	1	1,370	23	1,360	1	1,030	1	1,240	6	1,620	8	1,590
10	2,250	April		5	1,390	30	1,230	4	1,220	3	1,270	14	1,810	15	1,750
18	1,030	1	952	8	1,280	July		7	1,280	8	1,250	20	1,720	22	1,710
24	961	7	999	12	1,360	2	1,320	11	1,360	15	1,180	28	1,590	29	1,740
												31	1,540		

Sampling by U. S. Section

Rio Grande at Johnson Ranch near Castolon, Texas

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C
January		February		April		June		July		August		October		November	
3	2,150	18	2,300	3	1,000	3	1,360	28	1,340	29	1,030	7	1,820	24	1,700
7	2,140	24	1,000	7	1,020	11	1,560	31	1,180	September		14	1,770	December	
14	2,170	28	993	15	1,480	17	1,420	August		1	1,030	20	1,810	1	1,680
20	2,190	March		22	1,490	July		4	1,130	8	1,250	28	1,710	9	1,560
27	2,240	3	998	29	1,440	1	936	12	1,550	15	1,070	November		16	2,270
31	2,090	10	1,010	May		8	1,080	14	1,240	22	1,250	3	1,630	22	1,570
February		17	992	6	1,460	15	1,200	17	922	29	1,460	11	1,630	29	1,900
3	2,040	24	970	20	1,350	21	1,090	17	989	October		13	1,810	31	1,840
10	2,150	31	974			25	970	18	970	2	1,470	18	1,610		

Sampling by U. S. Section

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES

1975

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C

Rio Grande at Foster Ranch near Langtry, Texas

January		February		April		May		July		August		October		November	
2	1,610	17	1,610	2	960	19	815	2	1,210	18	642	1	1,150	16	1,280
3	1,560	18	1,630	3	964	19	* 705	3	1,180	18	* 964	2	1,130	17	1,190
4	1,620	18	* 1,620	4	969	20	1,210	4	1,170	19	946	3	1,140	17	* 1,210
5	1,630	19	1,630	5	966	21	1,200	5	1,150	20	1,080	4	1,170	18	1,230
6	1,600	20	1,730	6	976	22	1,100	6	907	21	917	5	1,200	19	1,240
6	* 1,550	21	2,190	7	949	23	1,110	7	962	22	920	6	1,200	20	1,320
7	1,650	22	1,450	7	* 991	24	998	7	* 1,150	23	913	6	* 1,240	21	1,300
8	1,610	23	1,100	8	994	25	1,210	8	1,100	24	907	7	1,200	22	1,260
9	1,590	24	1,020	9	994	26	1,130	9	1,100	25	937	8	1,190	23	1,180
10	1,660	24	* 1,030	10	986	27	1,120	10	1,020	25	* 919	9	1,170	24	1,180
11	1,650	25	987	11	995	27	* 1,120	11	698	26	939	10	1,180	24	* 1,200
12	1,600	26	997	12	1,000	28	1,140	12	946	27	967	11	1,200	25	1,190
13	1,670	27	994	13	1,020	29	1,160	13	1,010	28	892	12	1,210	26	1,220
13	* 1,390	28	981	14	986	30	703	14	1,190	29	611	13	1,210	27	1,220
14	1,660	March		14	* 1,020	31	1,220	14	* 1,170	30	905	14	1,270	28	1,220
15	1,620	1	970	15	995	June		15	1,280	31	1,120	14	* 1,240	29	1,230
16	1,630	2	970	16	986	1	739	16	774	September		15	1,230	30	1,250
17	1,650	3	965	17	1,050	2	928	17	693	1	924	16	1,190	December	
18	1,680	3	* 977	18	1,110	2	* 835	18	579	2	843	17	960	1	1,200
19	1,680	4	975	19	1,210	3	1,220	19	1,140	2	* 952	18	1,190	1	* 1,260
20	1,670	5	980	20	1,250	4	1,230	20	1,020	3	1,050	19	1,230	2	1,290
20	* 1,680	6	984	21	1,270	5	1,200	21	877	4	766	20	1,220	3	1,260
21	1,630	7	977	21	* 1,260	6	1,140	22	1,110	5	930	20	* 1,250	4	1,180
22	1,600	8	976	22	1,260	7	1,160	23	788	6	975	21	1,250	5	1,200
23	1,620	9	986	23	1,260	8	1,150	24	976	7	1,010	22	1,250	6	1,240
24	1,600	10	989	24	1,260	9	496	25	967	8	983	23	1,250	7	1,240
25	1,640	10	* 991	25	1,240	9	* 602	26	899	8	* 963	24	1,270	8	1,250
26	1,670	11	989	26	1,240	10	1,090	27	880	9	1,050	25	1,270	8	* 1,260
27	1,650	12	990	27	1,240	11	804	28	796	10	1,100	26	1,260	9	1,220
27	* 1,650	13	997	28	1,250	12	517	28	* 811	11	999	27	1,280	10	1,310
28	1,640	14	991	29	1,250	13	1,070	29	923	12	1,010	28	1,280	11	1,330
29	1,610	15	980	30	1,250	14	1,090	30	713	13	416	28	* 1,310	12	1,310
30	1,580	16	991	May		15	810	31	592	14	719	29	1,270	13	1,360
31	1,590	17	991	1	1,240	16	931	August		15	1,020	30	1,230	15	1,330
February		17	* 999	2	1,210	16	* 812	1	747	15	* 978	31	1,250	15	* 1,340
1	1,600	18	977	3	1,220	17	1,120	2	958	16	1,080	November		16	1,290
2	1,610	19	993	4	1,230	18	1,140	3	672	17	1,190	1	1,250	17	1,210
3	1,640	20	983	5	1,240	19	1,160	4	1,130	18	1,210	2	1,230	18	1,140
3	* 1,650	21	989	5	* 1,240	20	1,250	4	* 1,110	19	1,040	3	1,140	19	1,130
4	1,670	22	989	6	1,200	21	1,190	5	1,090	20	806	3	* 1,250	20	1,130
5	1,570	23	994	7	1,300	22	1,160	6	1,040	21	947	4	1,160	21	1,200
6	1,600	24	993	8	1,220	23	1,170	7	1,020	22	909	5	1,220	22	1,270
7	1,600	24	* 995	9	1,210	23	* 1,170	8	979	22	* 1,010	6	1,230	22	* 1,280
8	1,600	25	1,010	10	1,190	24	1,190	9	1,020	23	1,030	7	1,280	23	1,370
9	1,560	26	1,030	11	1,000	25	1,180	10	1,010	24	1,070	8	1,270	24	1,600
10	1,550	27	960	12	1,210	26	725	11	1,030	25	1,060	9	1,240	25	1,400
10	* 1,560	28	955	12	* 1,210	27	1,210	11	* 1,010	26	1,090	10	1,200	26	1,360
11	1,530	29	947	13	1,310	28	1,030	12	1,090	27	1,110	10	* 1,240	27	1,350
12	1,520	30	935	14	806	29	1,200	13	433	28	1,090	11	1,210	28	1,250
13	1,510	31	960	15	875	30	674	14	1,050	29	1,110	12	1,140	29	1,190
14	1,520	31	* 954	16	821	30	* 782	15	1,120	29	* 1,110	13	1,120	29	* 1,200
15	1,500	April		17	1,020	July 782		16	1,150	30	1,140	14	1,110	30	1,160
16	1,550	1	965	18	878	1	951	17	797			15	1,140	31	1,180

Sampling by U. S. Geological Survey except those marked with * which were by the U. S. Section

Pecos River near Langtry, Texas

January		February		March		May		July		September		October		November	
6	5,580	18	5,050	31	5,030	27	3,530	7	2,710	2	3,220	20	3,070	24	3,030
13	5,320	24	5,130	April		June		14	2,470	22	2,040	28	3,040	December	
20	5,400	March		7	4,970	2	3,390	28	2,060	29	3,050	November		1	3,190
27	5,440	3	5,000	14	4,940	9	3,260	August		October		3	3,010	8	3,090
February		10	5,100	May		16	3,110	4	979	6	3,120	10	2,570	15	3,050
3	4,450	17	5,120	5	4,470	23	2,960	11	2,100	14	3,090	17	2,970	22	3,330
10	5,080	24	5,050	19	3,850	30	2,820	25	3,460					29	3,420

Sampling by U. S. Section

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES
1975

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C

Devils River at Pafford Crossing near Comstock, Texas

January		March		April		June		July		September		October		December	
6	411	3	390	21	407	2	387	21	395	2	361	28	399	1	421
20	416	17	415	May		16	368	28	360	29	345	November		8	421
February		24	407	5	385	30	355	August		October		3	384	15	409
3	398	April		12	274	July		4	296	6	399	17	395	22	429
18	407	7	387	19	384	7	378	18	369	20	400				

Sampling by U. S. Section

Rio Grande below Amistad Dam near Del Rio, Texas

January		February		April		May		June		August		October		November	
2	877	14	923	2	992	16	1,010	30	1,060	15	1,030	1	1,040	17	1,040
3	876	19	908	4	1,010	19	1,040	July		18	1,030	3	1,030	19	1,040
6	908	21	942	7	999	21	1,020	2	1,030	20	1,030	6	1,040	21	1,040
8	895	24	934	9	989	23	1,040	7	1,050	22	1,030	8	1,040	24	1,040
10	894	26	940	11	987	27	1,030	9	1,050	25	1,030	10	1,040	26	1,050
13	899	28	945	14	986	28	1,030	11	1,050	27	1,030	14	1,040	28	1,050
15	918	March		16	1,030	30	1,020	14	1,040	29	1,020	15	1,040	December	
17	902	3	941	18	1,020	June		16	1,060	September		17	1,030	1	1,050
20	899	5	937	21	1,010	2	1,030	18	948	2	1,030	20	1,040	3	1,040
22	924	7	939	23	1,040	4	1,030	21	1,040	4	1,020	22	1,050	5	1,050
24	901	10	949	25	1,020	6	1,030	23	1,040	6	1,020	24	1,040	8	1,050
27	918	12	969	28	1,000	9	1,040	25	1,040	8	1,020	28	1,030	10	1,050
29	918	14	947	30	1,010	11	1,030	28	1,030	10	1,020	29	1,030	12	1,040
31	889	17	970	May		13	1,040	30	1,040	12	1,020	31	1,030	15	1,050
February		19	969	2	1,040	16	1,050	August		15	1,020	November		17	1,040
3	877	21	970	5	1,040	18	1,090	1	1,020	17	1,010	3	1,030	19	1,040
5	887	24	961	7	1,020	20	1,060	4	1,020	19	1,020	5	1,030	22	1,040
7	875	26	1,010	9	1,030	23	1,060	6	1,020	22	1,030	7	1,030	24	1,050
10	890	28	975	12	1,020	25	1,050	8	1,030	24	1,020	10	1,020	29	1,040
12	900	31	985	14	1,020	27	1,060	11	1,020	26	1,020	12	1,020	31	1,040
								13	1,030	29	1,020	14	1,020		

Sampling by U. S. Section

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES
1975

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C

* Rio Grande below Maverick Dam near Del Rio, Texas

January		February		April		May		July		August		October		November	
1	859	15	929	1	1,070	16	986	1	1,000	16	1,030	1	975	16	999
2	881	16	944	2	991	17	994	2	993	17	1,030	2	974	17	1,010
3	882	17	921	3	1,000	18	1,000	3	977	18	1,020	3	971	18	1,010
4	888	18	952	4	987	19	1,000	4	982	19	1,030	4	970	19	1,010
5	889	19	914	5	1,010	20	1,000	5	1,000	20	1,050	5	970	20	1,020
6	898	20	908	6	1,010	21	986	6	1,000	21	1,050	6	981	21	1,000
7	921	21	932	7	1,010	22	996	7	1,000	22	1,040	7	975	22	1,000
8	922	22	933	8	992	23	1,010	8	1,000	23	1,020	8	978	23	1,000
9	911	23	922	9	983	24	1,020	9	1,000	24	1,030	9	972	24	1,000
10	909	24	925	10	990	25	1,000	10	994	25	1,030	10	972	25	1,010
11	915	25	932	11	985	26	1,010	11	1,000	26	1,040	11	974	26	985
12	908	26	936	12	990	27	965	12	1,010	27	1,030	12	977	27	965
13	897	27	956	13	1,020	28	996	13	991	28	1,020	13	981	28	962
14	904	28	958	14	993	29	1,020	14	996	29	1,020	14	1,050	29	957
15	917	March		15	1,020	30	1,020	15	1,020	30	1,030	15	1,020	30	957
16	919	1	943	16	1,030	31	1,000	16	1,030	31	1,030	16	1,000	December	
17	928	2	951	17	1,040	June		17	1,020	September		17	1,010	1	962
18	907	3	950	18	1,020	1	1,030	18	273	1	1,030	18	1,010	2	961
19	910	4	942	19	987	2	1,000	19	559	2	1,020	19	1,010	3	972
20	911	5	932	20	997	3	1,010	20	940	3	1,010	20	1,010	4	962
21	909	6	954	21	1,010	4	1,020	21	1,000	4	995	21	1,010	5	967
22	921	7	953	22	1,020	5	1,020	22	1,020	5	1,010	22	1,020	6	955
23	921	8	935	23	1,030	6	1,000	23	1,020	6	1,000	23	1,020	7	953
24	908	9	945	24	1,040	7	1,000	24	1,030	7	1,020	24	1,010	8	956
25	904	10	996	25	1,020	8	995	25	1,030	8	1,010	25	1,020	9	955
26	921	11	946	26	1,030	9	999	26	995	9	1,010	26	1,010	10	963
27	917	12	990	27	1,050	10	963	27	1,030	10	1,000	27	1,000	11	957
28	915	13	946	28	1,050	11	1,010	28	1,030	11	1,000	28	1,020	12	956
29	913	14	938	29	1,010	12	1,010	29	1,030	12	1,000	29	1,010	13	950
30	912	15	954	30	1,000	13	992	30	1,030	13	995	30	1,010	14	950
31	926	16	983	May		14	1,000	31	1,030	14	1,010	31	1,010	15	966
February		17	951	1	1,000	15	1,010	August		15	1,040	November		16	949
1	893	18	977	2	1,010	16	1,020	1	1,040	16	1,030	1	1,040	17	951
2	868	19	969	3	1,030	17	1,010	2	1,030	17	1,000	2	1,020	18	948
3	884	20	972	4	1,010	18	1,030	3	1,020	18	1,000	3	1,030	19	953
4	887	21	977	5	1,020	19	1,040	4	1,020	19	1,010	4	1,020	20	943
5	913	22	970	6	1,020	20	1,060	5	1,000	20	999	5	1,020	21	946
6	900	23	968	7	1,030	21	1,030	6	1,020	21	981	6	1,020	22	951
7	882	24	980	8	940	22	1,020	7	1,040	22	1,000	7	1,020	23	939
8	887	25	955	9	1,010	23	1,010	8	1,020	23	1,000	8	1,020	24	940
9	926	26	963	10	1,020	24	1,020	9	1,040	24	1,000	9	1,030	25	946
10	895	27	997	11	1,010	25	1,020	10	1,040	25	990	10	1,030	26	940
11	906	28	983	12	1,030	26	1,020	11	1,030	26	992	11	1,020	27	930
12	922	29	967	13	1,020	27	1,020	12	1,030	27	985	12	1,010	28	934
13	915	30	967	14	1,010	28	1,010	13	1,070	28	979	13	998	29	942
14	914	31	966	15	1,000	29	1,010	14	1,040	29	986	14	997	30	939
						30	998	15	1,020	30	980	15	996	31	1,010

Sampling by Maverick County Water Control and Improvement District No. 1
* Samples collected at the Maverick Canal headgate

Rio Grande at San Antonio Crossing near El Indio, Texas

January		March		April		May		July		September		October		November	
8	913	5	1,020	16	1,030	28	999	9	1,020	3	940	15	864	26	975
22	940	19	1,020	May		June		23	710	17	963	29	990	December	
February		April		1	1,040	11	835	August		October		November		10	846
5	921	2	997	14	1,080	25	1,090	6	911	1	837	12	1,000	24	855
19	954							20	907						

Sampling by U. S. Section

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES
1975

Rio Grande at Laredo, Texas

Date	ECx10⁶ @25°C
January	
1	848
2	848
3	873
4	856
5	877
6	872
7	899
8	849
9	879
10	883
11	897
12	903
13	988
14	1,040
15	932
16	988
17	954
18	907
19	911
20	914
21	896
22	963
23	930
24	986
25	915
26	913
27	908
28	924
29	953
30	956
31	927
February	
1	918
2	937
3	947
4	976
5	919
6	942
7	896
8	905
9	922
10	932
11	926
12	928
13	901
14	924
15	909
16	914
17	909
18	911
19	942
20	938
21	929
22	921
23	963
24	927
25	965
26	944
27	938
28	
March	
1	911
2	914
3	955
4	938
5	948
6	993
7	991
8	995
9	952
10	957
11	944
12	986
13	964
14	971
15	1,020
16	945
17	994
18	961
19	947
20	952
21	1,010
22	975
23	1,010
24	1,010
25	980
26	1,010
27	975
28	1,010
29	975
30	994
31	973
April	
1	1,030
2	998
3	964
4	972
5	1,020
6	1,000
7	1,040
8	1,030
9	841
10	645
11	806
12	955
13	1,000
14	1,010
15	995
16	1,020
17	1,020
18	1,010
19	1,010
20	1,050
21	1,030
22	1,030
23	993
24	1,010
25	1,020
26	1,030
27	1,030
28	1,040
29	1,030
30	1,010
	1,040
May	
1	1,060
2	1,020
3	1,020
4	999
5	1,020
6	1,040
7	1,030
8	1,040
9	1,050
10	1,060
11	1,070
12	1,070
13	1,010
14	862
15	947
16	1,030
17	1,070
18	1,060
19	1,100
20	1,120
21	1,120
22	1,110
23	1,100
24	876
25	863
26	569
27	724
28	654
29	472
30	625
31	853
June	
1	848
2	838
3	923
4	989
5	1,020
6	997
7	1,020
8	1,030
9	1,050
10	1,030
11	1,010
12	695
13	955
14	829
15	793
16	782
17	840
18	899
19	985
20	1,050
21	1,050
22	853
23	793
24	670
25	644
26	696
27	834
28	963
29	1,030
30	1,090
July	
1	1,110
2	1,110
3	1,120
4	1,100
5	1,120
6	1,130
7	1,070
8	1,050
9	1,060
10	1,020
11	1,010
12	988
13	1,040
14	1,020
15	923
16	903
17	866
18	746
19	822
20	310
21	340
22	489
23	602
24	678
25	732
26	806
27	832
28	882
29	791
30	857
31	886
August	
1	848
2	891
3	879
4	862
5	848
6	915
7	924
8	873
9	848
10	882
11	853
12	854
13	881
14	916
15	880
16	916
17	932
18	995
19	939
20	891
21	866
22	845
23	884
24	925
25	954
26	953
27	972
28	946
29	908
30	961
31	983
September	
1	989
2	969
3	925
4	914
5	908
6	917
7	899
8	892
9	901
10	923
11	922
12	908
13	885
14	892
15	884
16	900
17	906
18	856
19	947
20	977
21	976
22	938
23	927
24	887
25	883
26	825
27	921
28	879
29	955
30	966
October	
1	979
2	909
3	854
4	889
5	911
6	772
7	836
8	904
9	924
10	850
11	842
12	846
13	832
14	859
15	866
16	861
17	788
18	774
19	841
20	923
21	931
22	889
23	906
24	941
25	933
26	920
27	904
28	927
29	944
30	966
31	962
November	
1	981
2	979
3	984
4	985
5	989
6	984
7	975
8	978
9	992
10	987
11	987
12	984
13	985
14	1,000
15	1,000
16	1,020
17	1,040
18	1,050
19	1,080
20	1,070
21	985
22	986
23	987
24	977
25	981
26	986
27	985
28	985
29	970
30	1,020
December	
1	995
2	981
3	1,010
4	990
5	1,010
6	983
7	948
8	942
9	974
10	936
11	969
12	935
13	959
14	876
15	912
16	910
17	891
18	893
19	917
20	934
21	898
22	954
23	911
24	933
25	957
26	906
27	877
28	857
29	916
30	921
31	886

Sampling by Laredo Water Plant

Río Salado at Las Tortillas, Tamaulipas

Date	ECx10⁶ @25°C
January	
3	4,660
February	
6	4,520
March	
6	5,290
April	
2	4,720
May	
8	5,160
June	
6	1,490
July	
1	4,370
August	
5	2,360
September	
17	990
October	
8	1,200
November	
5	1,820

Sampling by Mexican Section

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES
1975

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C

Rio Grande below Falcon Dam, Texas–U. S. Tailrace

January		February		March		May		June		August		October		November	
1	975	14	954	31	967	12	985	25	999	11	944	1	893	17	916
3	971	17	954	April		14	985	27	997	13	949	3	904	19	916
6	970	19	957	2	977	16	985	30	993	15	924	6	906	21	912
8	967	21	958	4	972	19	987	July		18	918	8	902	24	915
10	967	24	958	7	972	21	991	2	1,000	20	916	10	903	26	914
13	964	26	961	9	977	23	991	4	993	22	963	13	898	28	922
15	966	28	960	11	974	26	993	7	998	25	914	15	905	December	
17	967	March		14	978	28	990	9	996	27	914	17	901	1	925
20	963	3	963	16	976	30	994	11	996	29	906	20	898	3	923
22	962	5	964	18	978	June		14	996	September		22	904	5	930
24	961	7	961	21	977	2	994	16	1,000	1	905	24	901	8	928
27	962	10	961	23	978	4	992	18	989	4	904	27	902	10	931
29	952	12	961	25	979	6	993	21	986	5	907	29	902	12	935
31	949	17	962	28	981	9	996	23	994	8	907	31	903	15	926
February		18	960	30	979	11	994	30	965	17	890	November		17	927
3	957	19	961	May		13	995	August		19	896	3	910	19	930
5	955	21	967	2	987	16	996	1	966	22	892	5	907	22	927
7	957	24	965	5	983	18	1,000	4	958	24	898	7	910	24	937
10	958	26	965	7	985	20	996	6	963	26	896	10	911	26	932
12	955	28	969	9	987	23	996	8	950	29	894	12	910	29	934
												14	909	31	931

Sampling by U. S. Section

Rancherías Drain in Mexico, 69.3 River Miles above Anzaldúas Dam

January		February		March		April		May		June		July		November	
2	6,480	6	4,220	5	7,500	2	7,240	14	5,400	25	6,320	23	5,860	12	6,040
8	6,490	11	5,440	12	7,390	9	7,350	21	5,720	July		August		December	
15	6,660	19	6,440	19	7,290	16	6,960	June		2	5,740	19	5,950	5	6,040
22	6,530	27	7,310	25	7,240	23	3,540	2	5,640	9	5,790	September		18	5,900
29	6,880					30	4,810	18	6,520			18	6,340	30	6,130

Sampling by Mexican Section

Río San Juan at Camargo, Tamaulipas

January		January		February		March		April		May		June		November	
2 #	2,150	29 ø	1,980	19 ø	2,030	19 ø	1,790	9 ø	1,900	21 ø	2,380	25 #	1,800	12 #	1,350
8 #	2,280	February		27 #	1,770	25 ø	2,100	16 ø	1,710	June		July		December	
15 #	2,120	6 ø	1,970	March		April		23 ø	1,760	2 #	1,770	2 #	1,380	5 #	843
22 ø	1,990	11 ø	1,870	12 ø	1,940	2 ø	1,780	30 ø	1,670	18 #	1,750	9 #	1,860	18 #	983
												23 #	1,960	30 #	959

Sampling by Mexican Section # Below Marte R. Gomez Dam ø 4 miles below Marte R. Gomez Dam

Rio Grande at Fort Ringgold, Rio Grande City, Texas

January		February		March		May		June		July		September		November	
3	1,020	3	982	17	983	1	990	9	1,210	31	981	15	894	10	1,200
6	994	10	984	April		5	999	20	1,180	August		25	810	17	941
10	983	18	995	4	985	19	1,010	30	569	22	922	29	837	21	990
13	981	March		7	1,000	23	1,010	July		26	949	October		24	966
17	976	3	1,000	14	988	29	942	11	1,020	September		3	864	December	
20	987	7	999	21	993	June		18	485	2	635	6	867	5	1,090
31	953	14	999	28	989	2	1,060	25	997	4	597	10	825	22	1,050
						6	1,040	28	994	11	854	17	940		

Sampling by U. S. Section

Puertecitos Drain in Mexico, 46.8 River Miles above Anzaldúas Dam

January		February		March		April		May		July		September		November	
2	4,340	6	4,590	12	4,770	16	3,970	21	4,880	2	4,420	18	4,530	10	4,490
8	4,300	11	4,080	19	4,810	23	4,020	June		9	4,290	October		December	
15	4,170	19	4,450	26	4,830	30	4,330	2	4,250	23	4,580	8	4,120	5	4,420
22	3,800	27	4,720	April		May		18	4,670	August		23	4,130	18	4,360
29	4,050	March		2	4,690	2	4,390	25	4,480	19	4,460	29	4,350	31	4,350
		5	4,790	9	4,750	14	4,630								

Sampling by Mexican Section

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES
1975

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C

Los Indios Drain in Mexico, 46.8 River Miles above Anzaldúas Dam

January		February		March		April		May		June		August		November	
2	3,040	6	3,170	12	3,230	9	3,020	14	3,180	25	3,300	19	3,070	10	2,970
8	2,990	11	3,350	19	3,210	16	3,290	21	3,430	July		October		December	
15	2,830	19	3,230	26	3,300	23	3,490	June		2	3,150	8	3,040	5	2,870
22	3,080	27	3,300	April		May		2	3,500	9	3,080	23	3,040	18	2,840
29	2,940	March		2	3,170	2	3,240	18	3,370	23	3,080	29	2,950	31	2,890
		5	3,290												

Sampling by Mexican Section

Huizache Drain in Mexico, 41.8 River Miles above Anzaldúas Dam

May		June		July		July		September		October		November		December	
2	3,230	18	4,430	2	4,220	23	4,310	18	4,600	23	3,840	10	4,080	18	3,650
June		25	4,400	9	4,190	August		October		29	3,690	December		31	3,440
2	3,700					19	4,230	8	3,790			5	3,510		

Sampling by Mexican Section

Rio Grande near Los Ebanos, Texas

January		February		April		May		July		August		October		November	
1	1,060	17	1,020	2	1,020	16	1,030	4	1,140	18	957	6	902	19	1,150
3	1,060	19	1,050	5	1,010	19	1,050	7	1,510	20	939	8	902	21	1,180
6	1,030	21	1,190	8	999	28	783	9	1,260	22	938	10	916	24	1,190
8	1,040	24	1,140	9	1,010	30	1,030	11	1,060	25	952	13	956	26	1,210
10	1,040	26	1,130	11	998	June		14	1,070	27	977	15	977	28	1,200
13	1,030	28	1,240	15	1,000	2	1,250	16	528	September		17	1,120	December	
15	1,000	March		16	1,030	4	1,230	18	508	5	771	20	992	1	1,220
17	1,010	3	1,100	19	1,010	6	1,290	21	923	8	888	22	1,060	3	1,110
20	979	5	1,040	21	1,010	10	1,250	23	968	10	870	24	1,170	5	1,210
22	989	7	1,070	23	1,000	11	1,100	25	1,020	12	885	27	1,120	8	1,430
24	1,010	10	1,040	25	998	13	1,130	28	1,020	15	881	29	1,100	10	1,260
27	1,010	12	1,040	28	1,000	16	1,790	30	1,000	17	886	31	1,220	12	1,280
29	991	14	1,270	30	1,030	18	1,440	August		19	887	November		15	1,200
31	1,000	17	1,030	May		20	1,470	1	995	22	882	3	1,280	17	1,190
February		19	1,030	2	1,000	23	1,220	4	987	24	817	5	1,450	19	1,160
3	989	21	1,040	5	1,010	25	1,170	6	1,040	26	837	7	1,430	22	1,660
5	1,010	24	998	7	1,010	27	1,270	8	959	29	854	10	1,400	24	1,210
7	1,010	26	1,180	9	1,010	July		11	955	October		12	1,120	27	1,350
10	1,010	28	1,020	12	1,020	1	922	13	959	1	890	15	1,390	29	1,360
12	967	31	1,040	14	1,010	2	1,030	15	957	3	874	17	1,390	31	1,250
14	1,030														

Sampling by U. S. Section

Rio Grande at Penitas, Texas

January		February		March		May		July		August		October		November	
1	1,150	14	1,090	31	1,050	14	1,030	2	952	15	1,070	1	900	17	1,590
3	1,150	17	1,100	April		16	1,170	4	1,270	18	1,060	3	897	19	1,600
6	1,130	19	1,120	2	1,060	19	1,060	7	1,400	20	1,350	6	908	21	1,240
8	1,130	21	1,120	4	1,080	21	1,050	9	1,630	22	1,010	8	917	24	1,300
10	1,120	24	1,220	7	1,010	23	1,040	11	1,240	25	998	10	941	26	1,230
13	1,140	26	1,080	9	1,000	26	1,070	14	1,030	27	1,020	13	1,580	28	1,300
15	1,070	28	1,220	11	1,010	28	1,260	16	950	29	1,120	15	1,000	December	
17	1,020	March		14	1,000	30	1,250	18	909	September		17	1,090	1	1,290
20	1,010	3	1,220	16	1,000	June		21	1,360	1	1,050	20	1,020	3	1,250
22	1,010	5	1,110	18	1,000	2	1,220	23	902	3	1,020	22	1,130	5	1,150
24	1,000	7	1,070	21	1,010	4	1,210	25	1,520	5	998	24	1,120	8	1,300
27	1,560	10	1,060	23	1,000	6	1,300	28	1,540	8	962	27	1,210	10	1,520
29	1,120	12	1,080	25	998	9	1,360	30	1,060	10	964	29	1,100	12	1,350
31	1,170	14	1,230	28	999	11	1,290	August		12	1,520	31	1,140	15	1,300
February		17	1,070	30	1,010	13	1,280	1	1,120	15	952	November		17	1,320
3	1,440	19	1,060	May		16	1,290	4	1,070	17	1,230	3	1,250	19	1,290
5	1,270	21	1,100	2	1,010	18	1,170	6	1,060	19	1,140	5	1,530	22	1,560
7	1,250	24	1,080	5	1,020	23	1,320	8	1,050	22	933	7	1,620	24	1,690
10	1,230	26	1,050	7	1,020	25	1,250	11	1,060	24	942	10	1,500	26	1,630
12	1,090	28	1,040	9	1,020	27	1,310	13	1,070	26	891	12	1,510	29	1,480
				12	1,030	30	1,260			29	903	14	1,540	31	1,430

Sampling by U. S. Section

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES
1975

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C

Rio Grande above Anzalduas Dam, South of Abram, Texas

January		February		April		May		July		August		October		November	
1	1,070	17	1,040	2	1,020	19	1,080	2	869	15	977	1	863	17	1,620
3	1,050	19	1,040	4	1,070	21	1,080	4	964	18	977	3	853	19	1,460
6	1,050	21	1,300	7	1,000	23	1,070	7	1,180	20	953	6	875	21	1,200
8	1,080	24	1,210	9	1,000	26	1,110	9	1,550	22	952	8	912	24	1,270
10	1,180	26	1,110	11	986	28	1,070	11	1,190	25	947	10	933	26	1,220
13	1,070	28	1,130	14	990	30	833	14	1,090	27	975	13	982	28	1,220
15	1,030	March		16	972	June		16	487	29	977	15	1,060	December	
17	1,010	3	1,270	18	1,010	2	1,200	18	458	September		17	1,120	1	1,320
20	1,000	5	1,180	21	1,000	4	1,280	21	607	1	1,030	20	1,090	3	1,220
22	1,030	7	1,060	23	995	6	1,280	23	647	3	743	22	1,060	5	1,080
24	986	10	1,140	25	995	9	1,320	25	1,090	5	546	24	1,050	8	1,160
27	1,080	12	1,100	28	993	11	1,310	28	1,020	8	772	27	1,190	10	1,440
29	1,020	14	1,140	30	1,010	13	1,070	30	997	10	791	29	1,030	12	1,460
31	999	17	1,070	May		16	1,670	August		12	922	31	1,120	15	1,370
February		19	1,040	2	1,000	18	1,940	1	1,010	15	915	November		17	1,360
3	980	21	1,070	5	1,010	20	1,720	4	998	17	896	3	1,250	19	1,370
5	988	24	1,010	7	996	23	1,300	6	984	19	901	5	1,490	22	1,460
7	1,030	26	1,010	9	1,010	25	1,250	8	961	22	903	7	1,350	24	1,410
10	1,030	28	1,030	12	1,030	27	1,250	11	965	24	903	10	1,470	26	1,600
12	1,040	31	1,030	14	1,020	30	1,280	13	962	26	864	12	1,520	29	1,270
14	1,040			16	1,260					29	863	14	1,520	31	1,490

Sampling by U. S. Section

Morillo Drain in Mexico, 8.4 River Miles above Anzaldúas Dam

January		February		March		May		June		July		October		November	
3	a) 10,100	14	a) 8,320	28	a) 10,590	14	b) 4,280	6	a) 8,960	25	a) 11,070	23	b) 6,820	27	a) 9,210
13	a) 8,320	21	a) 8,830	April		14	c) 9,660	13	a) 8,450	September		23	c) 9,810	December	
17	a) 6,490	26	a) 9,580	7	a) 8,270	22	b) 6,530	20	a) 10,380	22	b) 7,940	30	a) 9,430	4	a) 9,470
24	a) 6,200	March		25	a) 7,690	22	c) 9,940	27	a) 10,400	22	c) 12,600	November		11	a) 10,060
30	a) 7,980	7	a) 10,020	May		29	b) 6,040	July		October		6	a) 9,380	18	a) 10,040
February		14	a) 10,380	2	b) 8,780	29	c) 11,260	4	a) 10,330	8	b) 7,480	13	a) 10,000	25	a) 9,140
7	a) 7,860	21	a) 10,690	2	c) 6,170			11	a) 10,420	8	c) 9,330	20	a) 10,130		

Sampling by Mexican Section

a) Morillo Drain Diversion Canal b) Esterito Drain at Brecha Arguelles
c) Morillo Drain below Brecha Arguelles

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES

1975

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C

Rio Grande below Anzalduas Dam, Texas

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C
January		February		April		May		July		August		October		November	
1	1,100	15	1,100	1	1,060	16	1,260	1	1,320	16	1,020	1	1,050	16	1,590
2	1,170	16	1,140	2	1,030	17	1,300	2	1,250	17	1,030	2	1,000	17	1,560
3	1,110	17	1,120	3	1,040	18	1,270	3	1,100	18	1,010	3	986	18	1,640
4	1,090	18	1,080	4	1,130	19	1,290	4	928	19	1,000	4	990	19	1,660
5	1,090	19	1,070	5	1,120	20	1,310	5	972	20	1,000	5	992	20	1,620
6	1,080	20	1,100	6	1,060	21	1,300	6	1,000	21	1,000	6	1,000	21	1,550
7	1,080	21	1,120	7	1,030	22	1,310	7	1,470	22	1,000	7	1,030	22	1,350
8	1,050	22	1,280	8	1,020	23	1,240	8	1,430	23	995	8	1,060	23	1,260
9	1,100	23	1,250	9	1,020	24	1,220	9	1,590	24	1,000	9	1,120	24	1,290
10	1,150	24	1,280	10	1,020	25	1,430	10	1,630	25	1,020	10	1,190	25	1,300
11	1,190	25	1,260	11	1,030	26	1,280	11	1,420	26	1,030	11	1,280	26	1,290
12	1,180	26	1,170	12	1,030	27	1,320	12	1,250	27	1,060	12	1,280	27	1,310
13	1,100	27	1,120	13	1,000	28	1,320	13	1,110	28	1,090	13	1,330	28	1,310
14	1,100	28	1,120	14	1,030	29	1,390	14	1,370	29	1,090	14	1,310	29	1,280
15	1,060	March		15	1,020	30	1,140	15	1,250	30	1,140	15	1,330	30	1,270
16	1,040	1	1,250	16	1,020	31	1,100	16	798	31	1,180	16	1,420	December	
17	1,020	2	1,310	17	1,020	June		17	628	September		17	1,390	1	1,250
18	1,050	3	1,340	18	1,030	1	1,050	18	681	1	1,340	18	1,580	2	1,290
19	1,040	4	1,370	19	1,020	2	1,130	19	747	2	1,160	19	1,460	3	1,330
20	998	5	1,160	20	1,010	3	1,210	20	908	3	972	20	1,380	4	1,430
21	1,040	6	1,180	21	1,020	4	1,370	21	936	4	741	21	1,330	5	1,290
22	1,010	7	1,100	22	1,030	5	1,380	22	955	5	676	22	1,310	6	1,250
23	1,030	8	1,090	23	1,020	6	1,390	23	973	6	810	23	1,360	7	1,190
24	1,030	9	1,120	24	1,010	7	1,370	24	955	7	798	24	1,430	8	1,170
25	1,050	10	1,100	25	1,040	8	1,410	25	1,100	8	1,010	25	1,440	9	1,160
26	1,140	11	1,110	26	1,110	9	1,420	26	1,050	9	917	26	1,160	10	1,200
27	1,150	12	1,100	27	1,110	10	1,450	27	1,040	10	923	27	1,220	11	1,220
28	1,110	13	1,100	28	1,100	11	1,610	28	1,060	11	1,020	28	1,230	12	1,380
29	1,070	14	1,150	29	1,140	12	1,340	29	1,060	12	992	29	1,180	13	1,500
30	1,040	15	1,160	30	1,130	13	1,140	30	1,160	13	998	30	1,130	14	1,620
31	1,020	16	1,260	May		14	1,010	31	1,100	14	971	31	1,100	15	1,530
February		17	1,170	1	1,130	15	1,090	August		15	975	November		16	1,470
1	1,040	18	1,080	2	1,130	16	1,440	1	1,130	16	965	1	1,100	17	1,440
2	1,040	19	1,060	3	1,130	17	2,050	2	1,080	17	964	2	1,110	18	1,450
3	1,010	20	1,100	4	1,140	18	2,230	3	1,080	18	976	3	1,130	19	1,430
4	1,030	21	1,090	5	1,190	19	2,110	4	1,080	19	1,000	4	1,140	20	1,450
5	1,040	22	1,120	6	1,170	20	2,030	5	1,080	20	975	5	1,160	21	1,460
6	1,030	23	1,080	7	1,180	21	1,930	6	1,060	21	971	6	1,180	22	1,440
7	1,060	24	1,040	8	1,190	22	2,050	7	1,110	22	978	7	1,340	23	1,380
8	1,100	25	1,020	9	1,160	23	1,810	8	1,040	23	975	8	1,570	24	1,390
9	1,070	26	1,010	10	1,150	24	1,400	9	1,030	24	927	9	1,430	25	1,450
10	1,150	27	1,040	11	1,160	25	1,320	10	1,090	25	896	10	1,340	26	1,400
11	1,080	28	1,080	12	1,160	26	1,360	11	1,030	26	931	11	1,360	27	1,360
12	1,100	29	1,050	13	1,270	27	1,280	12	1,030	27	932	12	1,500	28	1,450
13	1,090	30	1,030	14	1,230	28	1,300	13	1,050	28	953	13	1,490	29	1,620
14	1,080	31	1,040	15	1,260	29	1,430	14	1,020	29	963	14	1,520	30	1,330
						30	1,380	15	1,020	30	990	15	1,520	31	1,270

Sampling by U. S. Section

North Floodway near Sebastian, Texas

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C
January		February		March		April		May		June		August		October	
13	5,120	14	6,320	10	5,320	7	4,670	5	4,200	4	5,060	15	4,220	30	6,160
										July		September		December	
										7	4,490	8	3,270	1	6,180

Sampling by U. S. Section

Arroyo Colorado South of Harlingen, Texas

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C
January		February		March		April		June		August		September		November	
13	4,540	14	5,540	10	4,890	7	4,360	4	4,210	15	4,240	22	4,320	6	5,400
						May		July		September		October		December	
						2	4,100	7	4,860	8	2,840	10	5,220	1	4,990

Sampling by U. S. Section

ELECTRICAL CONDUCTIVITY OF WATER SAMPLES

1975

Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C	Date	ECx10⁶ @25°C

Rio Grande at Mercedes, Texas, Pumps

January		February		April		May		July		August		October		November	
1	1,140	15	1,310	1	1,050	16	1,280	1	1,480	15	1,020	1	1,000	16	1,630
2	1,110	16	1,300	2	1,050	17	1,230	2	1,490	16	1,030	2	998	17	1,640
3	1,120	17	1,300	3	1,060	18	1,350	3	1,440	17	1,030	3	1,020	18	1,590
4	1,120	18	1,290	4	1,070	19	1,350	4	1,390	18	1,030	4	995	19	1,620
5	1,170	19	1,300	5	1,080	20	1,330	5	1,370	19	1,030	5	1,040	20	1,600
6	1,120	20	1,240	6	1,110	21	1,300	6	1,400	20	1,020	6	1,040	21	1,670
7	1,130	21	1,190	7	1,100	22	1,300	7	1,390	21	1,000	7	1,040	22	1,710
8	1,130	22	1,160	8	1,120	23	1,310	8	1,110	22	1,010	8	1,030	23	1,680
9	1,130	23	1,230	9	1,060	24	1,310	9	1,110	23	1,010	9	1,040	24	1,680
10	1,120	24	1,200	10	1,050	25	1,280	10	1,170	24	1,010	10	1,070	25	1,690
11	1,130	25	1,190	11	1,030	26	1,250	11	1,490	25	1,010	11	1,130	26	1,400
12	1,230	26	1,320	12	1,030	27	1,310	12	1,470	26	1,010	12	1,160	27	1,370
13	1,230	27	1,340	13	1,040	28	1,290	13	1,270	27	1,020	13	1,170	28	1,370
14	1,190	28	1,360	14	1,040	29	1,260	14	1,270	28	1,040	14	1,310	29	1,350
15	1,210	March		15	1,010	30	1,360	15	1,300	29	1,060	15	1,280	30	1,380
16	1,170	1	1,340	16	1,010	31	1,320	16	1,420	30	1,090	16	1,320	December	
17	1,210	2	1,350	17	1,020	June		17	1,100	31	1,060	17	1,360	1	1,410
18	1,160	3	1,360	18	1,030	1	1,320	18	693	September		18	1,340	2	1,410
19	1,110	4	1,280	19	1,030	2	1,300	19	846	1	1,070	19	1,390	3	1,320
20	1,090	5	1,290	20	1,050	3	1,260	20	863	2	1,050	20	1,420	4	1,300
21	1,060	6	1,400	21	1,050	4	1,080	21	859	3	1,300	21	1,490	5	1,350
22	1,020	7	1,400	22	1,020	5	1,170	22	915	4	1,050	22	1,470	6	1,380
23	1,000	8	1,290	23	1,030	6	1,270	23	985	6	746	23	1,430	7	1,450
24	1,030	9	1,300	24	1,030	7	1,450	24	1,330	7	744	24	1,360	8	1,450
25	1,260	10	1,300	25	1,030	8	1,390	25	1,320	8	881	25	1,350	9	1,360
26	1,260	11	1,160	26	1,020	9	1,380	26	1,280	9	952	26	1,380	10	1,310
27	1,260	12	1,190	27	1,030	10	1,380	27	1,060	10	1,010	27	1,470	11	1,280
28	1,280	13	1,200	28	1,130	11	1,410	28	1,060	11	939	28	1,430	12	1,270
29	1,240	14	1,180	29	1,110	12	1,390	29	1,060	12	942	29	1,260	13	1,270
30	1,240	15	1,200	30	1,100	13	1,690	30	1,040	13	1,010	30	1,260	14	1,330
31	1,190	16	1,230	May		14	1,630	31	1,040	14	1,020	31	1,260	15	1,330
February		17	1,230	1	1,140	15	1,220	August		15	1,010	November		16	1,510
1	1,130	18	1,260	2	1,140	16	1,240	1	1,040	16	992	1	1,160	17	1,600
2	1,200	19	1,260	3	1,130	17	1,420	2	1,080	17	1,000	2	1,170	18	1,660
3	1,200	20	1,170	4	1,130	18	1,300	3	1,080	18	997	3	1,160	19	1,550
4	1,150	21	1,130	5	1,140	19	1,730	4	1,070	19	981	4	1,160	20	1,490
5	1,090	22	1,100	6	1,150	20	2,170	5	1,080	20	981	5	1,180	21	1,530
6	1,100	23	1,160	7	1,170	21	2,170	6	1,070	21	981	6	1,240	22	1,520
7	1,130	24	1,160	8	1,170	22	2,200	7	1,060	22	983	7	1,230	23	1,560
8	1,300	25	1,120	9	1,180	23	2,050	8	1,070	23	988	8	1,260	24	1,500
9	1,260	26	1,060	10	1,180	24	2,020	9	1,040	24	980	9	1,280	25	1,530
10	1,260	27	1,040	11	1,160	25	2,100	10	1,080	25	990	10	1,280	26	1,530
11	1,270	28	1,040	12	1,160	26	1,740	11	1,070	26	895	11	1,300	27	1,520
12	1,250	29	1,050	13	1,160	27	1,410	12	1,020	27	940	12	1,570	28	1,530
13	1,240	30	1,080	14	1,180	28	1,390	13	1,040	28	941	13	1,430	29	1,530
14	1,250	31	1,080	15	1,220	29	1,350	14	1,020	29	941	14	1,450	30	1,460
						30	1,350			30	971	15	1,550	31	1,480

Sampling by U. S. Section

Rio Grande near San Benito, Texas

January		February		April		May		June		August		October		November	
7	1,140	18	1,270	1	1,070	15	1,190	16	1,320	20	1,020	17	1,330	25	1,650
14	1,280	25	1,210	8	1,170	19	1,270	24	2,090	25	999	22	1,540	December	
21	1,120	March		15	1,010	27	1,230	30	1,360	September		28	1,470	1	1,400
27	1,110	11	1,270	22	1,050	June		July		2	1,120	November		9	1,520
February		17	1,200	28	1,170	3	1,120	10	1,120	15	1,050	3	1,220	15	1,320
10	1,190	27	1,050	May		10	1,360	August		22	998	10	1,270	22	1,600
				6	1,150			4	1,080	29	1,020			29	1,540

Sampling by U. S. Section

Rio Grande near Brownsville, Texas

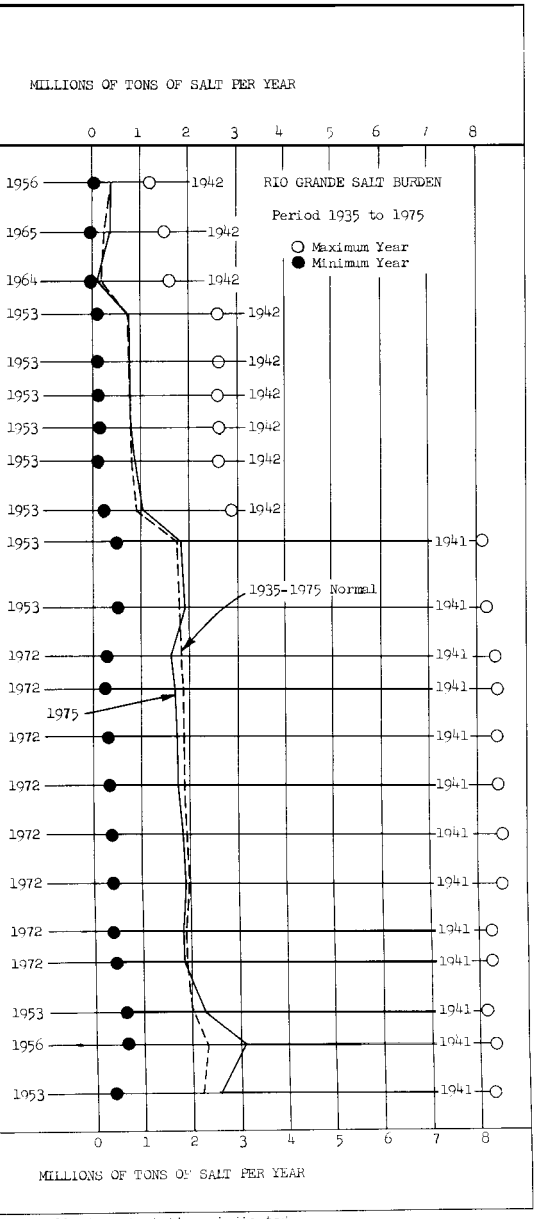
January		February		March		May		June		August		September		November	
2	1,120	10	1,180	28	1,560	6	1,160	16	1,490	22	1,040	22	999	25	1,620
7	1,210	18	1,360	April		16	1,160	24	1,760	25	997	October		December	
14	1,240	24	1,510	1	1,110	19	1,250	30	2,110	September		17	1,300	2	1,510
20	1,380	March		8	1,200	29	1,350	July		2	1,050	21	1,320	9	1,560
27	1,060	3	1,430	15	1,150	June		10	1,560	8	675	28	1,390	15	1,530
February		10	1,620	22	1,150	4	1,400	15	1,250	15	1,010	November		23	1,540
3	1,360	14	1,650	28	1,100	10	1,260	30	1,050			10	1,280	29	1,590

Sampling by U. S. Section

RIO GRANDE SALT BURDEN

The term "salt", as used herein, means total dissolved solids. The 1975 concentrations which are marked by an asterisk (*) are based on the chemical analyses shown on preceding pages of this bulletin. Those without asterisks are based on chemical analyses reported in previous water bulletins or have been developed by deduction. Average concentrations shown for the period 1935 to 1975 are the weighted means of the values determined for the 41-year period indicated.

CONCENTRATION Tons per Acre-Foot		
1975	Average 1935-1975	
* 1.15	1.08	EL PASO
* 4.09	2.49	FORT QUITMAN
* 3.79	1.90	ABOVE RIO CONCHOS
* .97	.76	RIO CONCHOS
.40	.31	ALAMITO CREEK
1.10	.89	BELOW RIO CONCHOS
.63	.62	TERLINGUA CREEK
* 1.17	.89	JOHNSON RANCH
* 1.02	.79	FOSTER RANCH
* 3.44	2.65	PECOS RIVER
.34	.29	DEVILS RIVER
* .87	.91	AMISTAD RESERVOIR BELOW AMISTAD DAM
.49	.49	ARROYO LAS VACAS
.48	.48	SAN FELIPE CREEK
.48	.48	PINTO CREEK
.32	.35	RIO SAN DIEGO
.21	.26	RIO SAN RODRIGO
.70	.82	EAGLE PASS
.50	.49	RIO ESCONDIDO
* .76	.80	LAREDO
* 3.07	.97	RIO SALADO
** .83	.81	FALCON RESERVOIR BELOW FALCON DAM



* Based on 1975 chemical analyses of samples collected at stations indicated
** Based on 1975 chemical analyses of samples collected at Falcon Dam - U. S. Tailrace

SANITARY ASPECTS OF WATER QUALITY

The United States and Mexican Sections of the Commission and the Texas State Department of Health cooperate in the joint sanitary water-sampling program along the Rio Grande. All analyses below have been made under the "Rules of Laboratory Procedure," as approved by the participating agencies and which conform with the procedures set out in the manual "Standard Methods for the Examination of Water and Wastewater," Fourteenth Edition (1975), prepared jointly by the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation. These analyses were made in the laboratories of the Cameron County Health Unit and the United States Section of the International Boundary and Water Commission.

Rio Grande at Laredo, Texas, Water Plant

Date 1975	Coliform Organisms per 100 c. c.	Total Bacteria per c. c. (plate count)	Date 1975	Coliform Organisms per 100 c. c.	Total Bacteria per c. c. (plate count)	Date 1975	Coliform Organisms per 100 c. c.	Total Bacteria per c. c. (plate count)
Jan. 13	60	130	June 9	26	270	Nov. 10	620	675
Feb. 10	360	555	July 14	60	3,150	Dec. 8	52	295
Mar. 10	1,100	760	Aug. 11	230	1,000			
Apr. 14	1,100	950	Sept. 8	1,100	515	Total	4,978	9,150
May 12	210	560	Oct. 6	60	290	Average	415	762

Samples and analyses by U. S. Section

Rio Grande at 8.6 Miles below Laredo, Texas, R. R. Bridge

Jan. 13	23,000	9,000	June 9	110,000	66,500	Dec. 8	36,000	39,500
Feb. 10	28,000	15,000	Aug. 11	380,000	128,500			
Mar. 10	380,000	17,500	Sept. 8	380,000	30,000	Total	1,600,000	482,500
Apr. 14	94,000	16,500	Oct. 6	23,000	25,000	Average	145,000	43,900
May 12	36,000	102,500	Nov. 10	110,000	32,500			

Samples by Mexican Section and analyses by U. S. Section

Rio Grande below Falcon Dam, Texas–U. S. Tailrace

Jan. 13	230	175	July 14	2.6	40	Dec. 8	11.0	95
Feb. 10	6.0	55	Aug. 18	6.0	70			
Mar. 10	2.6	60	Sept. 8	0	275	Total	288.7	2,290
Apr. 14	2.6	40	Oct. 6	2.6	100	Average	26.2	208
June 9	16.0	365	Nov. 10	9.3	1,015			

Samples and analyses by U. S. Section

Rio Grande at Mercedes, Texas, Pumps

Mar. 24	1,600		July 21	2,300		Dec. 2	1,500	
Apr. 7	2,400		Aug. 25	700				
May 12	600		Sept. 8	2,800		Total	12,640	
June 9	740					Average	1,580	

Samples by U. S. Section and analyses by Cameron County Health Unit

RAINFALL ON THE RIO GRANDE WATERSHED IN THE UNITED STATES

In Inches

Tabulated below, in approximate downstream order, are monthly records of United States rainfall stations with averages for their periods of record. With the exception of Las Cruces, New Mexico, all stations are located in Texas. For location, elevation, period of record, type of gage in use, watershed subdivision in which the station is located, and the observer, see alphabetical listing of these stations shown on pages 137 through 139 in this bulletin. These rainfall records have not been published elsewhere. Records of daily rainfall amounts, where available, are on file in the office of the United States Section of the Commission. Daily records for years prior to 1953 may also be found in corresponding water bulletins.

Detailed listings of the months and years for which records are available through 1970 may be found under "Index to Precipitation Records" in Water Bulletins 10, 14, 26, and Supplement 40A.

	Las Cruces, New Mexico		American Dam		Island Station		County Line Station		Port Hancock Bridge	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.78		0.38	0.38	0.44	0.32		0.31		0.35
Feb.	.35		.73	.37	.68	.30		.22		.31
Mar.	.29		.16	.34	.12	.23		.26		.25
Apr.	0		0	.19	0	.14		.19		.24
May	.40		.06	.20	0	.23		.35		.49
June	T		T	.56	0	.51		.58		.34
July	.74		.98	1.52	.40	1.09	.01	1.17	.38	1.34
Aug.	2.82		.43	1.32	.98	1.19	0	1.28	1.46	1.69
Sept.	1.84		1.95	1.12	3.34	.91		.94	.65	1.18
Oct.	.63		.37	.88	0	.69		.90	0	.97
Nov.	.27		.09	.24	0	.24	0	.27	.38	.32
Dec.	.27		.27	.40	.37	.38	.15	.33	T	.40
Yearly	8.39		5.42	7.32	6.33	6.28		6.80		8.38

	Guayuco Arroyo		Fort Quitman		Neely Ranch		La Nutria Station		Bill Shannon Ranch	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.32	0.30	0.72	0.38		0.33	0.40	0.07	0.45	0.44
Feb.		.20	.02	.25	.07	.19	0	.29	.50	.40
Mar.		.17	.14	.23	.16	.19	0	.20	0	.40
Apr.		.18	0	.22	0	.14	0	.12	0	.14
May		.39	.33	.40	.28	.36	.40	.28	.10	.74
June		.59	0	.81	0	.78	.85	.79	.20	1.39
July	.60	1.47	1.11	1.51	1.12	1.76	3.30	1.45	1.70	2.32
Aug.	.34	1.80	.57	1.69	.99	1.86	.30	2.25	1.85	2.35
Sept.	1.75	1.08	1.17	1.05	1.09	1.30	3.50	1.92	3.30	2.22
Oct.	.08	1.04	.02	.85	.16	1.00	0	1.08	.40	1.14
Nov.		.21	0	.30	0	.22	.15	.35	.30	.38
Dec.	1.37	.37	.08	.36	.59	.40	.55	.17	0	.40
Yearly		7.80	4.16	8.05		8.53	9.25	8.97	8.80	12.32

	Adobes Ranch		Shafter		Presidio (IB&WC Gage)		Quebec Ranch		Eloys Camp	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0	0.33	0.30	0.11	0.20	0.26	0	0.43	1.09	0.69
Feb.	0	.25	.80	.47	.35	.23	0	.34	.63	.67
Mar.	0	.19	0	.46	.10	.19	0	.31	.05	.58
Apr.	0	.12	0	.39	0	.18	0	.24	.28	.43
May	.14	.69	.50	.61	.25	.49	1.20	.85	.85	1.43
June	.27	1.30	.90	2.66	1.00	1.20	0	1.62	.36	2.46
July	2.32	2.08	3.90	4.14	3.65	1.53	4.00	2.84	5.77	3.57
Aug.	2.83	1.85	5.60	4.12	1.80	1.14	1.70	2.51	2.48	4.01
Sept.	1.75	2.23	4.90	4.32	1.40	1.38	4.10	2.31	3.87	2.87
Oct.	0	.66	0	1.25	0	.61	.50	.84	.22	1.51
Nov.	0	.28	0	.52	T	.29	0	.34	T	.62
Dec.	.15	.25	0	0	.10	.21	.80	.29	.76	.57
Yearly	7.96	10.23	16.70	19.05	8.85	7.71	12.30	12.72	16.36	19.39

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN THE UNITED STATES

In Inches

	Kerr Mitchell Ranch		Loma Vista Ranch		H. T. Fletcher Ranch		Redford		Lajitas	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.80	0.47	0	0.61	1.20	0.76	0.35	0.29	0	0.08
Feb.	.32	.36	0	.31	0	.33	.20	.23	.14	.36
Mar.	0	.21	0	.22	0	.38	T	.25	0	.37
Apr.	.18	.43	1.26	.52	.30	.43	0	.25	.30	.46
May	.00	1.13	0	.98	1.70	1.12	.25	.49	0	.48
June	.51	1.75	.50	1.79	1.60	1.56	1.00	.85	2.36	1.46
July	2.09	2.02	4.00	2.08	6.05	2.91	3.15	1.34	3.08	1.23
Aug.	2.47	2.26	0	2.11	2.75	2.98	.70	1.13	0	1.60
Sept.	2.26	1.95	2.20	1.88	2.45	2.36	.50	1.78	2.05	2.51
Oct.	0	1.28	0	1.06	0	1.49	0	.74	0	.59
Nov.	.10	.35	0	.30	0	.44	T	.36	0	.24
Dec.	.25	.35	.50	.43	.60	.40	.10	.18	0	.13
Yearly	9.88	12.56	8.46	12.29	16.65	15.16	6.25	7.89	7.93	9.51

	02 Ranch		Earl Hammond Ranch		* Terlingua Creek Tex. Hwy. Dep. Camp		Villa de La Mina		Maverick Ranger Station	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.50	0.47	0.36	0.20	0	0.14	0.26		0.30	0.35
Feb.	.50	.39	.55	.47	0	.34	.48		.30	.34
Mar.	.50	.36	0	.43	0	.26	0		T	.17
Apr.	0	.38	0	.36	0	.29	0		0	.16
May	.50	1.00	0	.55	0	.46	.24		T	.76
June	.50	1.40	.82	1.35	.94	1.14	1.04		T	1.42
July	3.05	2.08	4.31	2.24	2.63	1.62	3.54		3.45	1.63
Aug.	2.80	2.33	2.41	2.68	.78	1.46	2.13		1.05	1.66
Sept.	1.30	2.00	1.00	2.53	.72	2.02	0	1.51	.05	1.59
Oct.		1.38	0	1.28	.25	.73	.16	.19	0	.95
Nov.		.63	0	.40	0	.28	0	.27	0	.22
Dec.		.37	.25	.39	.04	.20	.13	.45	T	.25
Yearly		12.79	9.70	12.88	5.36	8.94	7.98		5.15	9.50

	Terlingua Creek Station		Castolon		Johnson Ranch		J. F. Woodward Ranch		Yarborough Ranch	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.30	0.23	0.45	0.22	T	0.32	0.78	0.47	0.70	0.22
Feb.	.30	.24	.50	.37	.30	.25	.28	.41	0	.46
Mar.	0	.17	0	.32	0	.20	0	.22	0	.33
Apr.	0	.33	0	.29	0	.39	.25	.49	.26	.30
May	.25	.62	.26	.84	.75	1.01	.26	1.01	.67	.80
June	1.00	1.01	1.44	1.34	.25	1.01	1.83	1.81	1.10	1.50
July	3.65	1.13	4.77	1.80	2.55	1.11	4.34	2.16	2.60	2.75
Aug.	2.35	1.17	1.48	1.87	.15	.87	2.78	2.95	2.73	3.26
Sept.	.10	1.27	2.79	2.04	T	1.32	1.59	2.16	3.16	3.06
Oct.	0	.63	T	.73	0	.65	.17	.98	.85	1.08
Nov.	T	.17	0	.17	T	.19	.68	.56	.56	.65
Dec.	.55	.25	0	.24	.15	.29	.15	.24	.08	.37
Yearly	8.50	7.22	11.69	10.28	4.15	7.61	13.11	13.46	12.71	14.78

	Kokernot Ranch Headquarters		Buttrill Ranch		A. M. Potter Ranch		Nitaville Mercantile		Black Gap Game Refuge - Hdqtrs.	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.57	0.47	1.60	0.52	0.90	0.35	0.67	0.34	0.89	0.45
Feb.	.50	.32	.45	.19	0	.48	.70	.35	0	.49
Mar.	T	.19	0	.19	0	.22	T	.25	0	.30
Apr.	.15	.50	0	.47	0	.23	.05	.03	0	.34
May	2.25	.83	1.55	1.08	.54	.98	.60	.39	.50	1.31
June	.93	1.27	1.22	1.39	1.52	1.13	.42	.14	1.51	1.28
July	2.57	1.80	1.41	1.55	5.79	1.39	1.45	1.67	2.02	1.70
Aug.	3.39	1.69	1.40	1.52	2.91	1.68	2.05	1.77	1.27	1.38
Sept.	3.24	1.75	1.95	1.91	2.85	1.81	.19	2.12	.73	2.22
Oct.	.16	.09	.50	.93	1.33	.54	.21	.62	.50	1.10
Nov.	.33	.34	0	.29	0	.41	0	.28		.31
Dec.	.01	.35	.24	.20	0	.42	.34	.49	.60	.32
Yearly	14.15	10.50	10.32	10.24	15.84	9.64	6.68	8.50		11.20

T - Trace * Formerly Big Bend Chev. Station - Study Butte

RAINFALL ON THE RIO GRANDE WATERSHED IN THE UNITED STATES

In Inches

Month	Harold Wynne Ranch Headquarters		Persimmon Gap Ranger Station		Sheep Pasture		Mouth of Maravillas Creek		Dove Mountain Ranch	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	1.00	0.50	0.22	0.53	0.39	0.24	0.39	0.17		0.45
Feb.	.40	.20	.61	.54	0	.48	0	.14	.60	.40
Mar.	0	.50	0	.37	0	.44	0	.27	0	.25
Apr.	0	.35	0	.42	0	.16	0	.36	0	.36
May	.70	.35	0	.89	1.20	1.14	1.16	.87	.65	.98
June	1.00	.50		1.22	1.31	1.48	.88	1.54	0	1.12
July	4.10	2.20		1.48	4.44	2.06	1.30	1.29	1.71	1.84
Aug.	3.10	4.25		1.00	2.36	1.67	3.25	2.00	.40	1.31
Sept.	0	2.75		1.40	.72	2.95		1.47	.30	1.49
Oct.	.90	.90		1.10	.50	1.54		1.05	.25	1.33
Nov.	0	.35		.27	0	.41		.37	0	.32
Dec.	.30	.50		.31	.50	.34		.14	.25	.36
Yearly	11.50	13.35		9.53	11.42	12.91		9.67		10.21

Month	Steve Stumberg Ranch		McGonagill Ranch Headquarters		E. W. Hardgrave Ranch		Lewis James Ranch		Dryden	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.29	0.51	0	0.32	0.89	0.51	0.55	0.37	0.48	.51
Feb.	.53	.42	0	.55	.53	.66	.65	.67	.43	.52
Mar.	0	.46	0	.49	0	.36	0	.40	0	.44
Apr.	0	.64	0	.47	.07	1.23	0	.72	.08	.87
May	.50	1.30	.20	1.05	1.03	1.33	.47	1.20	1.54	1.65
June	.22	1.69	2.60	1.92	.59	1.54	.72	.91	2.64	1.12
July	2.00	1.99	4.50	2.22	2.35	1.17	2.81	1.56	2.01	1.07
Aug.	4.75	1.86	2.10	1.74	.80	1.59	.43	2.26	.65	1.36
Sept.	2.04	2.23	2.70	2.40	2.08	2.84	3.46	3.84	5.31	2.14
Oct.	.08	1.54	.20	1.07	1.26	1.68	.75	1.55	1.72	1.32
Nov.	1.22	.45	.20	.23	.95	.57	.51	.54	1.40	.42
Dec.	.20	.48	0	.13	.19	.37	.26	.33	.30	.44
Yearly	11.83	13.57	12.50	12.59	10.74	13.85	10.61	14.35	16.56	11.86

Month	Bricker Ranch		Ross Foster Ranch		W. A. Arledge Ranch		Hoffman Ranch		Owens Ranch	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0	0.37	1.00	0.44	0	0.65	1.69	0.45	0.61	0.34
Feb.	.98	.63	.65	.53	2.07	.56	.25	.44	1.30	.71
Mar.	0	.44	0	.31	0	.45	.17	.35	0	.95
Apr.	0	.98	.03	.78	.45	1.26	.30	.30	.46	1.45
May	2.19	1.22	1.15	1.34	4.33	1.81	0	1.07	1.65	1.78
June	.83	1.33	.77	1.10	.61	1.67	4.40	1.95	0	1.45
July	2.27	.75	1.80	.68	3.75	1.21	2.82	2.25	5.01	.96
Aug.	2.14	1.15	2.25	1.51	2.10	1.37	.45	2.26	.04	1.92
Sept.	.96	2.22	.70	2.16	1.05	2.14	3.78	2.13	2.85	2.94
Oct.	.60	1.08	.42	1.04	1.01	1.57	0	1.12	1.60	2.20
Nov.	.41	.40	0	.22	.40	.47	0	.40	2.20	1.18
Dec.	0	.38	.30	.30	.16	.51	0	.30	.20	.54
Yearly	10.38	10.95	9.07	10.41	15.93	13.67	13.86	13.02	15.92	16.42

Month	Terrell Plant (E.P.N.G. Co.)		Calvin Hutto Ranch		Latham Ranch		Rit Terry		Prosser Ranch No. 3	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.		0.36			0	0.41			0.30	0.35
Feb.	1.73	.84			2.20	1.09			1.50	.92
Mar.		.63			0	.64			0	.65
Apr.		1.63			1.20	1.79			1.00	1.34
May	.51	1.43			2.80	3.07			1.85	1.84
June	0	1.44			0	2.05			.75	1.26
July	2.83	.93	1.69		6.00	2.90	5.20		5.00	1.56
Aug.	.59	1.34	4.13		3.50	3.53	2.70		1.58	2.78
Sept.	.47	3.64	1.90		.50	4.14	1.10		1.72	4.61
Oct.	2.18	1.70	1.80		1.20	1.90	1.70		1.30	1.86
Nov.	0	.57	.90		1.00	1.09	1.20		.60	.54
Dec.	0	.33	0		0	.67	.30		.25	.31
Yearly		14.84			18.40	23.28			15.85	18.02

RAINFALL ON THE RIO GRANDE WATERSHED IN THE UNITED STATES

In Inches

Month	Ranchita (Continental)		Pecos River near Langtry Station		Dead Mans Canyon near Comstock		Prosser Ranch No. 1		Continental Ranch	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.30	0.27	0.21	0.22	0.45	0.30	0.30	0.29	0.30	0.52
Feb.	1.80	.90	.99	.78	1.15	.71	1.50	.79	2.10	1.00
Mar.	0	.87	0	.61	0	.73	0	.54	0	.76
Apr.	.75	1.03	.70	.94	.50	1.06	.35	1.36	.60	1.31
May	2.25	1.71	1.57	1.19	3.05	2.04	2.50	1.95	3.30	2.43
June	1.30	2.12	.01	1.50	1.95	1.96	1.57	1.62	1.30	1.97
July	5.79	1.67	.90	1.62	4.65	2.45	5.40	2.23	6.30	2.74
Aug.	.70	3.70	1.00	2.22	.40	2.55	.12	2.61	1.40	3.04
Sept.	1.70	3.68	.90	3.22	1.20	3.42	1.26	4.09	2.60	4.84
Oct.	.95	2.37	.05	1.30	.55	2.21	1.00	1.98	1.85	2.59
Nov.	.40	.69	0	.51	.20	.51	.50	.56	.60	.64
Dec.	0	.44	.10	.30	.20	.41	T	.35	0	.43
Yearly	15.94	19.45	6.43	14.41	14.30	18.35	14.50	18.37	20.35	22.27

Month	Martin King Ranch		Brotherton Ranch		Walker Ranch		Zuberbueler Ranch		P. W. Kelly Ranch	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.17	0.52	0.26	0.72	0.40	0.27			0.46	0.48
Feb.	1.42	.78	1.65	.95	1.30	.80	1.39		.60	.85
Mar.	0	.37	0	.66	0	.77	0		0	.89
Apr.	.36	.84	.45	.94	.40	.87	.49		.52	1.14
May	1.41	1.49	1.76	1.35	2.00	1.84	1.66		1.86	2.05
June	1.19	1.59	.25	1.85	.78	2.09	.47		1.47	2.28
July	4.27	1.31	4.34	1.32	7.70	2.20	5.77		9.35	2.19
Aug.	.52	1.56	.31	2.19	.54	1.65	.41		0	2.42
Sept.	1.18	2.90	1.91	3.07	1.04	5.27	1.65		.33	3.37
Oct.	.52	2.30	.60	2.00	.70	2.34	.56		.35	2.10
Nov.	.13	.46	.20	.43	.35	.54	.10		0	.48
Dec.	.10	.44	.15	.28	.10	.40	.22		0	.25
Yearly	11.27	14.56	11.88	15.76	15.31	19.04			14.94	18.50

Month	Comstock		Cow Creek near Comstock		Goodenough Spring Raft		Amistad Reservoir near Comstock		Feely	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.38	0.60	0.22	0.34	1.10	0.39	0.90	0.31	0.35	0.44
Feb.	.84	.83	.90	.64	0	.55	0	.41	1.00	.84
Mar.	.01	.62	0	.50	0	.34	0	.66	0	.62
Apr.	1.39	1.36	.30	1.13	.35	1.30	.80	.52	1.80	1.32
May	2.36	1.88	.90	1.04	.75	1.03	1.75	1.25	.80	1.69
June	.58	2.17	.20	1.50	.20	1.77	.20	1.50	.20	2.10
July	5.43	1.18	5.05	1.17	2.97	.86	2.58	1.32	6.84	1.28
Aug.	.23	1.95	.90	2.69	.03	1.81	.02	2.41	.26	2.34
Sept.	1.41	2.45	.05	2.67	.60	3.00	.45	2.86	.20	2.84
Oct.	.57	1.90	.50	1.82	.30	2.20	.50	2.69	.55	2.24
Nov.	.18	.54	1.00	.50	0	.38	0	.15	T	.30
Dec.	.20	.65	.10	.28	0	.34	0	.16	T	.32
Yearly	13.58	16.13	10.12	14.28	6.30	13.97	7.20	14.24	12.00	16.33

Month	Lock Store		W. E. Sawyer Ranch		Whitehead Brothers Ranch		Prosser Ranch No. 2		Bakers Crossing	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.42	0.55	0.16	0.41	1.85	0.52	0.40	0.37	0.54	0.79
Feb.	2.31	1.05	2.10	1.04	.18	.80	1.60	.93	1.13	1.01
Mar.	0	.52	0	.94	0	.86	0	.79	0	.81
Apr.	.32	1.01	1.83	1.93	2.40	1.69	1.11	1.34	0	1.12
May	3.56	2.09	2.85	2.02	4.50	2.01	2.40	1.80	5.26	2.45
June	2.62	1.43	2.80	1.62	0	1.41	1.20	1.51	1.39	2.03
July	4.10	1.87	6.20	2.26	4.40	1.52	4.00	2.06	5.44	1.61
Aug.	.70	2.90	0	3.62	2.00	2.95	.95	3.09	.72	2.30
Sept.	1.57	4.52	2.46	3.37	1.20	3.58	1.15	4.62	1.21	3.79
Oct.	2.39	1.93	1.93	2.39	1.61	3.10	1.00	2.13	1.64	1.83
Nov.	2.90	.86	0	.65	.39	.71	1.10	.61	.43	.56
Dec.	.52	.35	0	.54	.30	.41	.15	.34	.20	.66
Yearly	21.41	20.08	20.33	20.79	18.83	20.15	15.06	19.64	17.96	18.96

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN THE UNITED STATES

In Inches

	Erekson Ranch		Vinegarone		Eugene Miller Ranch		Dolan Springs		H. K. Fawcett Ranch	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	1.50	0.95	2.67	0.55			1.75	0.48	1.50	0.76
Feb.	1.88	1.27	.35	.94			T	.87	1.00	.30
Mar.	0	.88	0	.39			0	.83	0	.86
Apr.		2.12	2.48	1.49			1.71	1.66	1.10	1.69
May	4.87	2.51	4.75	2.33			4.20	1.90	3.38	2.29
June	1.35	2.99	2.90	1.71			3.34	1.86	2.10	1.55
July	4.84	1.84	2.80	1.66	4.69		5.10	1.76	5.35	1.24
Aug.	0	2.43	2.10	3.61	3.21		2.00	3.91	2.25	2.70
Sept.	0	3.13	1.00	3.12	2.19		1.85	3.70	.50	3.61
Oct.	2.28	2.71	1.55	3.10	1.49		.82	2.62	.75	2.53
Nov.	.93	.83	.36	.73	1.28		.18	.62	.25	.54
Dec.	0	.44	.30	.43	.22		.30	.38	0	.43
Yearly		22.10	21.26	20.56			21.35	20.84	18.18	19.00

	Ed Crane Ranch		H. T. Miers Ranch Headquarters		H. T. Miers Ranch No. 2		A. A. Baker Ranch		Harlow Ranch	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.59	0.35	1.67	0.65	0.68	0.47	0.77	0.40	0.40	0.30
Feb.	1.35	1.28	0	1.17	1.41	1.00	.76	.78	.65	.56
Mar.	.03	.64	0	.30	.15	.95	0	.57	0	.48
Apr.	.89	1.68	1.90	1.64	.28	1.32	1.14	1.32	.70	1.23
May	3.11	2.57	6.58	2.66	6.53	2.43	1.89	1.72	1.72	1.88
June	.60	2.06	.71	2.89	.38	2.15	1.08	1.85	.43	2.10
July	5.38	1.74	5.08	1.40	4.24	1.30	4.61	1.43	4.21	1.44
Aug.	.80	1.15	.60	2.43	.44	3.28	.66	2.34	.09	2.41
Sept.	1.71	2.96	1.65	2.82	1.16	3.20	.73	3.45	.50	3.68
Oct.	.58	2.06	.80	3.06	.87	2.23	.40	1.91	.60	2.56
Nov.	.28	.74	0	.72	.20	.69	0	.52	0	.44
Dec.	.22	.64	.15	.55	.22	.57	.10	.36	0	.28
Yearly	15.54	18.38	21.14	20.79	16.56	19.59	12.14	16.65	9.30	17.36

	Gillis Ranch		Goldwire Ranch		Pafford Crossing		Big Satan Creek Station		Cliff Lowry Ranch	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	1.53	0.51	2.50	0.59	2.43	0.53	2.25	0.58	0.47	0.42
Feb.	2.07	1.00	.20	.76	.05	.83	.20	.75	.91	1.17
Mar.	0	.81	0	.81	0	.51	0	1.13	.07	.72
Apr.	1.85	1.58	1.40	1.20	1.50	1.16	1.65	1.29	1.80	1.66
May	3.18	2.11	5.40	2.32	3.26	1.74	3.93	1.79	5.39	2.49
June	.83	1.59	.45	2.11	.27	2.07	.43	1.61	.79	2.09
July	6.79	1.52	4.53	2.13	5.62	1.36	5.95	1.67	6.70	1.15
Aug.	.41	2.02	.80	5.10	.55	2.37	.70	4.79	.35	2.84
Sept.	1.75	3.87	1.80	3.14	3.00	3.63	.80	3.16	2.55	3.62
Oct.	.48	2.54	.10	2.76	.30	2.20	.80	2.85	1.12	2.26
Nov.	.15	.83	0	.65	0	.47	0	.63	.30	.72
Dec.	.22	.60	.15	.35	.20	.45	.20	.47	.19	.46
Yearly	19.26	18.98	17.33	21.92	17.18	17.32	16.91	20.72	20.84	19.60

	Lowry Ranch No. 2		Tuffy Whitehead Ranch		Stewart Ranch		Rough Canyon Near Del Rio		Devils Lake	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.54	0.36	0.33	0.32	0.34	0.42	0.49	0.30	1.45	0.66
Feb.	1.17	.98	1.12	.81	.78	.93	1.21	1.03	.57	.88
Mar.	.04	.86	0	.66	.05	.56	0	.66	.01	.60
Apr.	2.25	1.67	1.16	1.32	.61	1.53	.50	1.11	1.12	1.62
May	3.27	2.13	1.52	1.53	3.48	1.60	2.90	1.08	2.98	1.82
June	.47	1.87	.75	1.85	.55	2.30	.58	1.83	.46	2.26
July	5.92	1.25	5.22	1.08	7.44	1.50	4.47	1.45	5.53	.97
Aug.	.03	3.37	0	1.82	.22	2.22	.42	3.09	.02	1.97
Sept.	.96	2.71	1.83	3.36	2.24	2.86	.51	2.85	.78	2.45
Oct.	.69	2.08	.50	1.95	.91	2.17	.75	2.66	.50	1.93
Nov.	.13	.89	0	.52	.03	.65	.05	.67	.07	.63
Dec.	.28	.48	.17	.40	.27	.49	.20	.45	.14	.70
Yearly	15.75	18.45	12.80	15.82	17.12	17.23	12.08	18.18	13.63	16.40

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN THE UNITED STATES

In Inches

Month	Sellers Ranch		Evans Creek near Comstock		J. G. Brite Ranch		Hutto Ranch No. 1		Hutto Ranch No. 2	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.32	0.39	0.30	0.20	0.37	0.36	1.16	0.55	0.96	0.52
Feb.	1.28	.81	1.20	.83	1.22	.98	.54	.99	1.06	1.05
Mar.	0	.54	0	.76	0	.72	.06	.61	.05	.61
Apr.	.80	1.36	.30	1.01	.88	1.66	.66	1.86	1.00	2.19
May	2.01	1.40	1.50	.83	2.06	1.99	3.13	1.60	1.86	1.51
June	.40	2.24	.35	1.74	.48	1.81	1.14	2.15	1.71	2.13
July	4.94	1.02	7.95	2.09	5.30	1.13	10.32	1.64	10.16	1.56
Aug.	.23	2.35	.04	4.44	.12	2.82	.31	2.82	.07	2.68
Sept.	1.72	2.76	.71	3.96	1.86	3.73	2.00	3.19	1.22	4.13
Oct.	.60	2.01	.75	2.59	.60	2.22	1.72	2.41	1.40	2.21
Nov.	0	.46	0	.51	0	.62	.11	.70	.10	.81
Dec.	.10	.44	.10	.30	.30	.45	.30	.47	.27	.40
Yearly	12.40	15.78	13.20	19.26	13.19	18.49	21.45	18.99	19.39	19.80

Month	Middle Fork San Pedro		North Fork San Pedro		Long Ranch		Buoy No. 11		Amistad Raft	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.58	0.43	0.49	0.39	0.45	0.45	1.10	0.39	1.18	0.45
Feb.	1.42	.86	1.21	.81	1.43	.74	0	.42	0	.48
Mar.	0	.69	0	.75	0	.82	0	.72	0	.67
Apr.	.90	1.46	.75	1.24	.26	1.41	1.40	.92	.50	1.29
May	1.90	1.84	2.85	1.65	2.01	1.31	1.45	1.40	2.50	1.80
June	.30	2.05	.50	2.08	.71	1.79	.23	1.99	.53	2.06
July	10.46	2.30	8.52	2.16	4.63	2.01	5.92	1.85	8.15	2.05
Aug.	.15	3.68	.20	3.63	.03	2.76	.05	3.02	.39	4.51
Sept.	1.50	1.73	1.68	2.32	2.41	2.94	1.20	3.30	2.24	3.03
Oct.	1.79	3.48	1.60	3.00	1.66	2.49	.66	2.46	1.10	3.17
Nov.	.11	.70	.10	.75	0	.36	0	.11	0	.57
Dec.	.30	.50	.30	.47	.36	.43	.20	.34	.35	.41
Yearly	19.41	19.72	18.20	19.25	13.95	17.51	12.21	16.90	16.94	20.40

Month	Amistad Dam		Laughlin Air Force Base		Gillis Headquarters Ranch		Lewis Ranch		Maverick County Canal Headgate	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.36	0.44	0.54	0.50	0.34	0.52	0.40	0.59	0.70	0.55
Feb.	1.06	.88	1.65	.99	2.07	1.16	1.30	1.14	1.10	1.04
Mar.	.02	.70	.04	.44	T	.77	0	.67	0	.59
Apr.	.46	1.38	1.96	1.95	.63	1.98	.80	2.07	1.00	1.60
May	2.47	1.92	3.86	1.74	3.87	2.30	3.55	2.24	3.60	2.04
June	.51	1.81	2.06	2.71	1.31	2.62	1.35	2.54	2.07	2.18
July	7.97	1.42	12.68	2.19	11.77	2.47	9.55	1.28	5.32	1.53
Aug.	.40	2.76	.97	2.28	.11	4.18	.35	2.97	.30	1.73
Sept.	2.45	4.44	1.49	2.92	1.56	2.22	.80	3.84	2.00	2.94
Oct.	1.55	1.99	1.15	2.65	1.22	3.09	1.75	3.07	2.20	2.10
Nov.	0	.58	.02	.76	.12	.93	.20	.75	0	.49
Dec.	.32	.50	.67	.54	.35	.55	.40	.57	0	.51
Yearly	17.57	19.32	27.19	19.67	23.35	22.79	20.51	21.73	18.29	17.50

Month	Sultenfuss Ranch		Pinto Creek Station		Las Moras Creek		Wipff Ranch		Lateral No. 2 Spill	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0	0.63	1.75	0.57	0.40	0.72	0.35	0.70	0.40	0.62
Feb.	2.15	1.58	.55	.84	1.15	1.12	.65	.90	.60	.78
Mar.	0	.75	0	.46	.04	.82	.05	.60	T	.88
Apr.	3.20	2.65	1.25	1.27	2.13	1.40	1.15	1.46	3.40	1.50
May	6.00	2.57	3.60	1.79	3.79	2.12	4.00	2.01	3.35	2.40
June	2.80	2.36	2.60	2.64	3.79	2.75	6.80	2.50	3.20	2.44
July	6.90	1.19	7.45	1.37	2.31	1.19	2.50	1.35	2.35	1.64
Aug.	.30	4.22	.30	1.95	1.08	2.35	.50	2.17	.85	2.43
Sept.	2.70	3.96	5.30	3.33	1.68	3.78	2.70	3.24	2.90	3.43
Oct.	1.90	3.74	.90	2.06	.38	2.57	.80	2.24	.95	2.16
Nov.	.60	1.06	0	.75	.01	.96	T	.93	0	.83
Dec.	.60	.34	.40	.50	.12	.59	.25	.52	.15	.46
Yearly	27.15	26.05	24.10	17.53	17.88	20.19	19.75	18.62	18.15	19.37

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED

IN THE UNITED STATES

In Inches

Month	Normandy		Lateral No. 12 Headgate		Lateral No. 15 Spill		Maverick Power Plant		Cooper Ranch	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.54	0.77	0.20	0.60	0.35	0.62	0.32	0.70	0.25	0.49
Feb.	.63	.79	.70	.66	.70	.70	.84	.82	.70	.76
Mar.	0	.78	T	.65	T	.57	0	.81	T	.74
Apr.	2.96	1.66	2.95	1.48	1.95	1.31	2.39	1.70	2.90	1.45
May	4.10	2.48	3.45	2.38	3.65	2.37	3.57	2.61	4.90	2.26
June	4.20	2.15	4.60	2.03	4.05	1.98	4.20	2.31	8.00	2.41
July	2.14	1.87	2.35	1.40	2.80	1.59	1.99	1.43	2.55	1.90
Aug.	1.16	2.53	1.70	2.06	T	1.97	.24	2.11	.40	2.10
Sept.	3.49	3.45	1.95	3.27	2.15	2.65	3.46	2.86	4.40	3.75
Oct.	1.11	2.42	1.00	2.58	1.60	2.59	2.17	2.47	2.75	2.49
Nov.	.03	.83	0	.64	0	.57	T	.66	T	.71
Dec.	.36	.71	.20	.49	.40	.52	.42	.56	.20	.52
Yearly	20.72	20.44	19.10	18.24	17.65	17.44	19.60	19.04	27.05	19.58

Month	Coal Mine		Elm Creek Station		Chittim Ranch		Eagle Pass		Canon Diablo	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.21	0.59	0.25	0.50	0.20	0.55	0.41	0.68	0.30	0.55
Feb.	.30	.84	.70	.72	.55	.89	.53	1.02	.50	.84
Mar.	0	.81	T	.57	.05	.64	.09	.96	.05	.79
Apr.	2.71	1.58	3.90	1.57	3.05	1.61	2.62	1.38	1.90	1.78
May	3.85	2.63	4.00	2.80	5.70	2.92	6.30	3.55	4.75	3.88
June	8.49	1.88	9.25	2.22	7.85	2.11	6.30	2.88	7.05	2.64
July	1.84	2.20	2.70	1.84	2.30	1.83	3.29	1.53	2.40	.98
Aug.	.43	1.97	T	2.46	0	2.46	.12	3.56	0	2.83
Sept.	3.03	3.65	3.85	3.17	3.35	3.24	3.00	3.97	3.95	4.24
Oct.	1.19	2.47	.65	2.58	.70	2.77	.86	2.49	1.10	2.38
Nov.	0	.61	T	.52	T	.55	.02	.58	0	.64
Dec.	.27	.42	.40	.52	.15	.55	.22	.74	T	.53
Yearly	22.32	19.45	25.70	19.49	23.90	20.12	23.76	23.34	22.00	22.08

Month	Rosita Creek Siphon		Weyrich Farm		Trees Farm		Rosita Creek Station		Farias Ranch	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.40	0.47	0.40	0.52	0.45	0.54	0.20	0.43	0.44	0.63
Feb.	.60	.83	.40	.88	.60	.89	.55	.76	.66	1.16
Mar.	.05	.68	0	.57	0	.51	.05	.56	0	.57
Apr.	3.10	1.58	1.30	1.63	3.37	1.71	1.55	1.71	2.14	1.86
May	4.80	2.72	4.30	3.10	4.44	2.95	5.55	2.57	3.77	3.06
June	6.10	2.18	6.20	1.96	3.96	1.72	6.30	2.19	7.30	1.98
July	3.45	1.79	1.60	.93	3.11	1.77	3.30	1.12	3.84	2.14
Aug.	0	1.98	.10	2.10	.25	1.93	T	1.95	.10	2.33
Sept.	3.05	3.27	3.00	3.27	6.18	3.14	5.75	3.30	6.06	4.30
Oct.	.95	2.40	1.60	1.83	1.81	3.14	1.60	2.83	2.66	2.96
Nov.	0	.66	0	.61	0	.63	0	.63	0	.77
Dec.	.20	.59	0	.56	0	.57	T	.54	.14	.71
Yearly	22.70	19.15	18.90	17.96	24.17	19.50	24.85	18.59	27.11	22.47

Month	Indio Ranch		El Indio		Van Dalsem Farm		Wuensche Farm		Keisling Farm	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.33	0.61	0.41	0.76	0.10	0.52	0.23	0.66	0.25	0.56
Feb.	.52	.92	.63	.96	.45	.95	.59	1.02	.64	.97
Mar.	.06	.60	.15	.56	.05	.55	.04	.64	.05	.74
Apr.	1.93	1.97	2.74	1.64	.90	1.76	1.57	1.65	1.49	1.76
May	2.45	2.56	1.36	3.23	2.95	2.03	4.40	2.67	3.49	2.51
June	4.05	2.50	4.38	1.98	4.00	1.44	4.61	2.25	5.25	2.66
July	2.42	1.92	2.75	1.18	2.20	1.51	2.43	1.26	2.51	1.38
Aug.	.05	1.84	1.10	2.07	T	1.77	.00	1.89	.47	1.99
Sept.	5.06	4.08	4.91	3.36	4.00	3.82	2.58	3.31	3.19	3.17
Oct.	1.62	2.75	3.10	2.23	2.55	2.63	1.46	2.27	1.47	2.55
Nov.	0	.76	T	.56	0	.65	0	.68	T	.60
Dec.	.23	.61	.18	.61	.20	.60	.25	.57	.17	.77
Yearly	18.72	21.12	22.21	19.29	17.40	15.83	18.22	18.87	18.98	19.06

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN THE UNITED STATES

In Inches

Month	Cuervo Creek Station		Apache Ranch		Laredo Water Plant		Fort McIntosh (Laredo)		Corralitos Ranch	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.20	0.62	0	0.66	0.47	0.75	0.33	0.73	0.02	0.56
Feb.	.45	.78	0	1.00	.17	.82	.26	.88	0	.82
Mar.	.05	.46	0	.41	.78	.58	.81	.69	.40	.35
Apr.	.90	1.49	0	1.41	.35	1.06	.55	1.26	.60	1.01
May	2.75	2.16	5.10	2.31	4.26	2.38	4.23	2.64	4.65	1.86
June	5.15	2.24	1.90	1.98	2.53	2.24	3.09	2.29	3.00	2.54
July	2.30	1.25	4.00	2.12	6.58	1.22	7.72	1.42	6.00	1.09
Aug.	.30	1.80	3.70	2.21	.37	1.85	.75	1.94	0	1.98
Sept.	3.00	3.34	1.30	3.80	2.24	3.22	3.20	3.00	4.30	3.60
Oct.	1.70	2.38	0	2.25	3.88	1.75	4.22	1.74	2.50	1.77
Nov.	0	.64	0	.80	.01	.85	T	1.14	0	.82
Dec.	.15	.52	0	.69	.10	.82	.25	.84	.40	.45
Yearly	16.95	17.68	16.00	19.64	21.74	17.54	25.41	18.57	21.87	16.85

Month	Huisache Ranch		Zapata Water Plant		El Peyote Ranch		Arroyo Tigre Chiquito		Falcon Dam	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.02	0.70	0.39	0.78	0.20	1.06	0.60	0.78	0.53	0.81
Feb.	0	1.01	.15	.91	.40	1.33	.10	.90	.23	.91
Mar.	.45	.48	.32	.46	.23	.57	.40	.36	.21	.67
Apr.	1.20	1.28	.89	1.45	.15	.87	.35	1.03	.46	1.14
May	5.60	2.21	6.82	2.75	3.70	3.18	5.22	2.42	2.50	2.37
June	2.50	2.42	2.82	2.18	2.87	4.11	1.98	2.28	3.11	2.76
July	4.10	1.09	7.00	1.20	7.73	1.83	6.02	1.13	4.86	1.02
Aug.	0	1.64	.43	1.88	.50	1.71	1.78	2.27	3.13	2.00
Sept.	7.60	4.49	9.08	5.02	3.80	6.22	4.80	5.03	6.63	4.76
Oct.	.40	2.02	.62	1.62	1.10	2.18	.70	2.06	.66	2.17
Nov.	0	.85	0	.93	.60	.71	0	1.02	0	1.09
Dec.	0	.60	.40	.55	0	.49	.44	.53	.49	.60
Yearly	21.87	18.79	28.92	19.73	21.28	24.28	22.39	18.86	22.81	20.90

Month	Roma International Bridge		Garciasville		Los Ebanos		La Joya		HCWCID #6, Goodwin Pump No. 4B	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0	0.85	0.35	0.90	0.75	1.04	0.32	1.01	0.84	1.21
Feb.	.70	1.05	.38	.96	.60	.86	.41	.90	.53	.97
Mar.	.70	.67	0	.46	0	.48	0	.46	0	.52
Apr.	.60	1.37	0	1.05	0	1.59	0	1.01	0	1.03
May	.43	1.76	2.15	2.22	4.00	1.98	3.98	2.20	3.75	2.12
June	1.28	2.20	3.30	2.47	0	2.29	1.01	2.63	3.56	2.50
July	5.33	1.05	7.15	1.38	6.90	1.23	7.29	1.20	7.94	1.14
Aug.	1.25	2.05	4.85	2.01	3.90	2.03		1.74	3.06	1.44
Sept.	9.50	4.70	1.35	3.38	4.30	3.57		3.43	.95	3.66
Oct.	.97	2.06	1.83	2.16	2.30	2.21		2.00	1.90	2.70
Nov.	0	.76	0	.88	0	.91		.92	0	.93
Dec.	.58	.47	.46	.63	.90	.67		.84	.72	.78
Yearly	21.84	18.99	21.62	19.00	23.65	18.54		18.34	23.25	19.00

Month	HCWCID #6, Goodwin Pump No. 3		HCWCID #6, Goodwin Pump No. 5		HCWCID #6, Goodwin Pump No. 3A		HCWCID #6, Goodwin Pump No. 4		Penitas (Edinburg Pumping Plant)	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.86	1.26	1.68	1.32	1.50	1.21	1.55	1.66	0.51	1.27
Feb.	.52	1.07	0	1.06	0	1.07	.72	1.05	.53	1.01
Mar.	0	.66	0	.67	0	.67	0	.57	.03	.55
Apr.	0	1.29	0	1.25	0	1.36	0	1.21	0	.93
May	4.39	2.34	4.29	2.59	4.20	2.14	4.39	2.36	3.25	2.33
June	2.02	2.51	3.13	2.48	1.88	2.78	2.76	2.99	1.49	3.13
July	9.73	1.44	7.68	1.27	11.21	1.34	10.28	1.60	7.93	1.34
Aug.	5.06	1.59	4.90	2.33	10.44	1.85	7.13	1.73	6.42	2.12
Sept.	2.77	3.51	1.95	4.40	4.00	3.64	.85	4.22	2.88	4.00
Oct.	1.82	2.46	3.25	2.73	1.50	2.95	1.53	2.93	1.36	2.78
Nov.	0	.36	0	.04	0	.80	0	.04	0	.93
Dec.	.70	.90	.73	.66	.68	.80	.75	1.00	.77	.93
Yearly	27.37	20.29	27.61	21.85	35.41	20.70	30.06	22.31	25.72	21.37

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED

IN THE UNITED STATES

In Inches

Month	New Mission Pumping Plant		O. C. Dale Farm		HCWCID #15 (Edinburg Office)		Edinburg Filtration Plant		La Feria Pumping Plant	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.75	0.78	1.30	1.60	1.31	1.36	1.38	1.44	1.35	1.61
Feb.	.75	.78	1.07	1.23	.83	1.09	.98	1.16	1.20	1.74
Mar.	.10	.85	.17	.87	.03	.67	.12	.75	0	.84
Apr.	0	.97	.04	1.65	.04	1.80	.34	1.49	0	1.85
May	0	2.48	3.08	2.19	1.71	2.33	2.10	2.29	.80	3.27
June	1.73	3.14	4.54	3.14	1.86	2.51	2.79	2.80	2.52	3.56
July	10.46	1.62	10.39	1.51	8.05	1.31	8.49	1.12	6.30	2.30
Aug.	8.12	1.76	7.10	2.02	9.75	2.10	9.05	1.99	12.55	3.60
Sept.	2.30	3.25	1.74	4.25	3.65	4.57	3.37	3.97	3.51	7.03
Oct.	1.05	2.29	2.29	3.17	2.45	2.71	2.73	2.52	1.50	4.19
Nov.	0	.52	T	1.17	1.75	1.02	T	1.08	0	1.85
Dec.	.85	.70	.58	1.05	.53	.59	.65	.98	2.45	1.36
Yearly	27.01	19.14	32.69	23.85	31.96	22.26	32.05	21.59	32.68	33.30

Month	La Feria Materials Yard		CCWCID #10 (Adams Gardens)		San Benito Pump		Whipple Farm		* CCWCID #11 Bayview Dist. Office	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	1.18	1.29	1.09	1.19	0.40	1.34	1.80	1.87	1.01	1.48
Feb.	.70	1.46	.69	1.28	0	.98	0	1.96	0	1.76
Mar.	0	.87	.08	.77	0	.82	0	.68	0	.72
Apr.	0	1.30	0	1.35	0	1.17	T	1.70	0	1.44
May	.66	3.19	1.27	2.55	2.04	2.48	4.31	3.17	1.67	2.76
June	3.63	3.97	.95	2.84	1.40	2.54	10.10	3.56	2.01	2.48
July	5.77	1.87	7.23	1.37	3.51	1.66	6.35	2.09	6.32	1.66
Aug.	8.25	3.15	12.70	2.77	7.04	2.18	15.00	3.21	2.00	2.69
Sept.	3.35	5.66	6.23	4.31	6.07	4.49	3.10	5.97	1.80	5.52
Oct.	2.30	3.19	2.57	2.79	4.40	2.48	.70	3.05	.84	2.28
Nov.	0	1.30	.12	1.33	.20	1.01	.70	1.46	.73	1.36
Dec.	1.52	1.83	2.03	1.07	2.17	1.28	3.05	1.54	1.54	1.32
Yearly	27.34	25.58	34.06	23.60	27.23	22.43	46.01	30.28	19.72	25.47

Month	Los Freanos Pumping Plant	
	1975	Average
Jan.	2.14	1.57
Feb.	0	1.85
Mar.	0	.53
Apr.	T	1.57
May	1.00	2.33
June	2.15	4.02
July	3.07	1.59
Aug.		2.66
Sept.		5.40
Oct.		3.86
Nov.		1.54
Dec.		1.21
Yearly		27.23

T Trace * Average of 15 gages

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Tabulated below, in approximate downstream order, are monthly records of Mexican rainfall stations with averages for their periods of record. For location, elevation, period of record, type of gage in use, watershed subdivision in which the station is located, and the observer, see alphabetical listing of these stations shown on pages 140 through 144 in this bulletin. These rainfall records have not been published elsewhere. Records of daily rainfall amounts, where available, are on file in the office of the Mexican Section of the Commission.

Detailed listings of the months and years for which records are available through 1970 may be found under "Index to Precipitation Records" in Water Bulletins 10, 14, 22, 26, and Supplement 40A.

Month	Juarez, Chihuahua		* El Sauzal D.B., Chihuahua		Garita Km. 28, Chihuahua		Samalayuca, Chihuahua		San Agustin, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.63	0.40	0.31	0.53	1.26	0.53	0.71	0.37	0.51	0.38
Feb.	.75	.45	.67	.52	.75	.42	1.06	.51	.63	.38
Mar.	.16	.38	.16	.11	.47	.32	.20	.37	.20	.28
Apr.	0	.29	0	.04	0	.07	0	.11	0	.11
May	0	.32	.12	.15	.20	.17	.24	.17	.16	.23
June	0	.85	0	.58	.08	.77	1.02	.84	0	.83
July	.59	1.57	.39	1.38	1.54	1.90	3.23	2.11	.63	1.68
Aug.	.39	1.47	.63	1.28	.91	1.68	1.65	1.92	1.02	1.23
Sept.	2.68	1.41	1.61	2.07	1.77	1.86	1.34	2.09	1.85	1.47
Oct.	.16	.96	.12	.79	.47	.88	.20	.55	0	.61
Nov.	0	.51	0	.18	.08	.40	0	.37	0	.27
Dec.	.63	.54	.63	.42	.75	.57	1.14	.46	.24	.51
Yearly	5.99	8.95	4.64	8.05	8.28	9.57	10.79	9.87	5.24	7.78

Month	Guadalupe, Chihuahua		Tinajas, Chihuahua		Praxedis Guerrero, Chihuahua		San Antonio, Chihuahua		Porvenir, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.94	0.38	0	0.26	0.75	0.32	0	0.34	0.51	0.37
Feb.	.83	.39	0	.30	0	.26	0	.31	.24	.40
Mar.	.43	.40	.55	.33	0	.26	0	.30	.24	.28
Apr.	0	.09	0	.06	0	.04	0	.06	0	.10
May	.35	.23	.91	.30	.55	.25	.12	.33	.59	.42
June	0	.69	0	.67	0	.63	0	1.21	0	.84
July	2.32	1.99	1.14	1.90	.71	2.02	2.76	2.49	1.30	1.78
Aug.	.47	1.55	2.05	1.70	.24	1.36	1.34	2.25	.71	1.90
Sept.	1.26	1.41	.71	1.63	.63	1.33	.31	1.81	.71	1.66
Oct.	.20	.87		.98	0	.79	0	.96	.08	.90
Nov.	0	.38		.37	0	.34	0	.45	0	.45
Dec.	1.06	.34		.30	1.46	.37	.94	.40	1.54	.50
Yearly	7.86	8.72		8.85	4.34	7.97	5.47	10.91	5.92	9.60

Month	Vado de Cedillos, Chihuahua		Los Barriles, Chihuahua		Banderas, Chihuahua		Luis L. Leon, Chihuahua		El Cuarenta, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.71	0.38	0	0.37	0	0.15	0.87	0.38	0.87	0.39
Feb.	.39	.36	T	.25	0	.32	.08	.29	.31	.39
Mar.	.24	.24	.04	.25	.28	.22	.28	.24	.24	.27
Apr.	0	.14	0	.12	0	.12	0	.15	T	.10
May	.87	.35	.98	.40	0	.28	.47	.35	.08	.28
June	0	1.11	0	1.12	0	.96	0	1.24	T	.65
July	2.05	1.90	2.05	2.24	.16	1.41	1.57	1.95	1.81	1.97
Aug.	.75	1.86	1.22	2.34	.51	2.22	.67	2.24	1.93	2.46
Sept.	1.61	1.75	.31	1.72	.55	1.46	1.54	1.47	.31	1.95
Oct.	0	1.03	.04	1.17	0	.87	.24	1.11	.16	1.08
Nov.	0	.39	0	.54	0	.36	0	.45	.20	.50
Dec.	1.50	.53	.04	.34	.31	.26	.87	.37	1.18	.49
Yearly	8.12	10.04	4.83	10.86	1.31	8.83	6.39	10.24	7.09	10.53

* Formerly Loma Blanca, Chihuahua T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	El Cuervo, Chihuahua		Carichic, Chihuahua		El Vergel, Chihuahua		Balleza, Chihuahua		El Sitio, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.20	0.22	0.16	0.40	0.47	1.40	T	0.34	0	0.20
Feb.	0	.36	.04	.57	.94	.84	T	.36	.16	.39
Mar.	0	.14	0	.14	0	.56	0	.12	0	.14
Apr.	0	.15	.16	.16	.20	.45	0	.20	0	.17
May	0	.47	0	.39	T	.79	0	.24	0	.40
June	.12	1.20	.94	1.43	1.81	2.79	T	1.56	.79	1.47
July	3.86	2.37	10.91	6.36	10.55	6.79	14.76	4.74	9.06	4.48
Aug.	2.17	2.57	5.00	5.12	6.10	6.80	T	4.87	5.35	4.94
Sept.	4.49	2.16	2.99	3.16	2.13	4.60	3.82	3.38	1.22	3.57
Oct.	T	.90	0	1.09	.31	1.64	T	.79	0	.74
Nov.	0	.18	.08	.57	.94	.70	T	.50	0	.43
Dec.	T	.07	.04	.64	1.10	1.50	T	.48	.04	.36
Yearly	10.84	10.79	20.32	20.03	24.55	28.86	18.58	17.58	16.62	17.29

Month	La Boquilla, Chihuahua		San Antonio, Durango		Estacion Rosario, Durango		Ojo Caliente, Chihuahua		Villa Coronado, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.04	0.29	0	0.30	0.16	0.25	0.12	0.18	0.08	0.22
Feb.	.43	.19	0	.18	.24	.39	.24	.24	.39	.39
Mar.	0	.16	0	.08	0	.15	0	.17	0	.20
Apr.	0	.18	0	.23	0	.16	0	.17	0	.20
May	0	.53	0	.55	0	.91	T	.50	0	.51
June	.91	1.40	1.73	1.76	1.50	2.32	.91	1.62	1.81	2.54
July	3.94	2.96	5.28	4.46	7.36	4.52	4.02	3.25	3.46	3.89
Aug.	2.40	3.00	3.03	4.03	4.72	5.24	2.09	2.77	6.77	4.75
Sept.	1.22	2.94	2.20	4.35	2.72	5.37	.35	2.59	2.60	3.66
Oct.	T	.88	.08	1.18	.08	1.16	.55	1.08	.35	1.15
Nov.	0	.32	0	.25	0	.41	0	.18	0	.43
Dec.	.08	.36	.35	.27	.39	.48	.08	.27	.94	.43
Yearly	9.02	13.21	12.67	17.64	17.17	21.36	8.36	13.02	16.40	18.37

Month	Santa Barbara, Chihuahua		Valle Allende, Chihuahua		Escalon, Chihuahua		Jimenez, Chihuahua		Parral, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	T	0.28	0.16	0.18	0.16	0.35	0.08	0.22	T	0.19
Feb.	1.42	.61	.31	.24	.04	.21	T	.17	.55	.23
Mar.	0	.24	0	.08	0	.12	0	.09	0	.10
Apr.	0	.12	0	.17	0	.25	0	.11	0	.20
May	0	.89	T	.61	.08	.63	0	.43	T	.42
June	.39	2.08	1.26	1.67	.75	1.50	.43	1.05	1.50	1.72
July	13.50	4.18	3.98	3.91	1.81	2.30	2.44	3.44	4.84	4.28
Aug.	3.74	5.78	4.84	4.75	3.19	2.90	1.57	2.38	.98	4.33
Sept.	1.69	4.86	2.17	3.93	1.02	2.87	1.97	2.28	3.54	4.34
Oct.	.08	.91	.04	.89	.16	1.10	0	1.27	.16	1.13
Nov.	0	.33	0	.25	0	.24	0	.23	0	.49
Dec.	T	.39	.47	.33	.47	.35	.39	.23	.55	.39
Yearly	20.82	20.67	13.23	17.01	7.68	12.82	6.88	11.90	12.12	17.82

Month	Camargo, Chihuahua		Victoria, Chihuahua		Tacubaya, Chihuahua		Rosetilla, Chihuahua		Nonoava, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.12	0.35	0.47	0.29	0.35	0.21	0.16	0.37	0.08	0.11
Feb.	.31	.34	.67	.77	0	.68	.24	.18	.35	.51
Mar.	T	.13	0	.19	0	.14	T	.10	0	.21
Apr.	T	.18	0	.21	0	.17	T	.27	T	.16
May	T	.58	.16	.80	.28	1.11	.08	.34	1.89	.40
June	.71	1.54	1.97	1.98	1.46	1.60	.35	1.06	8.98	1.87
July	4.80	3.15	6.06	3.03	5.98	4.18	3.50	2.72	5.83	5.86
Aug.	2.20	2.87	2.28	3.10	1.46	2.27	2.80	2.81	1.77	3.22
Sept.	.71	2.78	.47	2.78	.98	2.94	1.30	2.16	1.77	2.52
Oct.	.16	.92	.31	.57	.24	.57	.31	.79	.55	1.00
Nov.	0	.36	0	.20	0	.21	0	.20	T	.42
Dec.	.12	.38	.55	.35	.35	.49	.04	.34	T	.40
Yearly	9.13	13.58	12.94	14.27	11.10	14.57	8.78	11.34	21.22	16.68

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	San Lorenzo, Chihuahua		Villalba, Chihuahua		Las Virgenes, Chihuahua		Km. 135, Chihuahua		Km. 99, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.08	0.16	0.04	0.30	0.28	0.25	0.08	0.07	0.16	0.09
Feb.	.08	.23	.16	.16	.28	.14	.16	.28	.24	.28
Mar.	0	.01	0	.06	0	.05	0	.09	0	.09
Apr.	0	.06	0	.16	T	.20	0	.28	0	.19
May	T	.52	T	.36	T	.31	0	.53	.31	.44
June	1.81	1.46	1.22	1.11	.24	1.05	.20	1.11	.43	1.36
July	8.43	3.99	5.04	3.57	5.31	2.56	2.64	2.37	5.08	2.81
Aug.	4.96	4.64	.98	3.03	.91	2.57	.43	2.64	.71	2.72
Sept.	3.35	4.50	3.35	2.75	1.57	2.29	.75	3.19	1.57	2.59
Oct.	.08	.77	.12	.91	.24	.78	.08	.80	.16	.74
Nov.	0	.48	0	.27	0	.23	0	.23	0	.22
Dec.	.12	.46	.31	.38	.12	.34	.24	.26	.24	.36
Yearly	18.91	17.28	11.22	13.06	8.95	10.77	4.58	11.85	8.90	11.89

Month	Delicias, Chihuahua		Lazaro Cardenas, Chihuahua		Meoqui, Chihuahua		Las Burras, Chihuahua		Ciudad Guerrero, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.31	0.32	0.08	0.22	0.24	0.14	0.24	0.22	0.67	0.58
Feb.	.28	.17	.39	.30	.28	.25	.24	.21	T	.42
Mar.	0	.12	.04	.11	0	.09	T	.13	T	.20
Apr.	0	.26	0	.26	T	.42	0	.18	.08	.19
May	.28	.32	0	.48	T	.45	.08	.36	0	.30
June	.43	1.09	.16	1.27	.67	1.04	.28	.96	.39	1.48
July	3.70	2.49	3.98	3.10	3.46	2.56	3.23	2.82	5.87	4.81
Aug.	.94	2.50	1.77	2.48	1.06	2.55	1.42	2.51	4.49	5.30
Sept.	1.30	2.16	.94	2.60	.98	2.39	2.68	2.36	4.33	3.05
Oct.	.24	.78	.08	.93	.39	.88	.04	.71	.08	1.20
Nov.	0	.25		.28	T	.16	0	.18	.31	.51
Dec.	.08	.37	0	.22	.31	.35	.16	.34	.39	.70
Yearly	7.56	10.83		12.25	7.39	11.08	8.37	10.98	16.61	18.74

Month	Bachiniva, Chihuahua		La Trasquila, Chihuahua		Cuauhtemoc, Chihuahua		Colonia Anahuac, Chihuahua		Presa Chihuahua, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.59	0.39	0.39	0.22	0.47	0.28	0.79	0.30	0.47	0.15
Feb.	0	.20	.04	.37	0	.16	0	.36	.04	.27
Mar.	.04	.33	0	.12	0	.11	0	.12	0	.14
Apr.	.04	.10	0	.14	0	.19	0	.22	0	.20
May	0	.22	0	.32	0	.35	0	.51	T	.75
June	.79	1.39	.35	1.31	1.26	1.44	3.27	1.37	1.18	2.06
July	4.65	5.70	4.72	3.76	4.72	4.70	4.69	4.97	4.72	4.71
Aug.	3.74	4.70	2.68	2.80	3.66	4.20	2.68	4.84	1.30	4.40
Sept.	4.13	2.56	1.46	3.37	2.52	2.70	4.49	3.53	3.78	3.20
Oct.	.08	1.15	.08	.68	0	1.09	0	.99	.04	.84
Nov.	.24	.35	0	.34	0	.31	0	.38	0	.30
Dec.	.04	.39	.43	.30	T	.37	.43	.24	.47	.31
Yearly	14.34	17.48	10.15	13.73	12.63	15.90	16.35	17.83	12.00	17.33

Month	Chihuahua, Chihuahua		Majalca, Chihuahua		Planta Zootecnia, Chihuahua		Villa Aldama, Chihuahua		La Campana, Chihuahua	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.39	0.26	0.43	0.30	0.31	0.22	0.24	0.17	0.47	0.24
Feb.	.04	.21	.20	.43	0	.26	T	.23	0	.38
Mar.	T	.20	0	.24	0	.15	T	.17	.08	.17
Apr.	T	.18	0	.33	T	.27	0	.19	0	.26
May	T	.41	.04	.81	.04	.44	T	.40	0	.28
June	.71	1.45	1.54	2.46	.47	1.50	.39	1.67		1.47
July	5.43	3.57	10.55	6.83	2.17	3.71	3.94	3.09	7.48	3.52
Aug.	1.81	3.35	4.92	6.18	2.36	3.94	1.38	2.80	1.06	2.99
Sept.	2.32	2.80	5.63	3.98	2.76	2.69	2.60	3.07	2.87	3.34
Oct.	T	.81	T	.88	T	1.03	0	.57	0	.92
Nov.	0	.42	0	.35	0	.34	0	.30	0	.30
Dec.	.31	.34	.59	.29	.12	.30	.16	.35	.12	.31
Yearly	11.01	14.00	23.90	23.08	8.23	14.35	8.71	13.01		14.18

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

	Presa Luis L. Leon, Chihuahua		El Anteojo, Chihuahua		Maciovio Herrera (Falomir), Chihuahua		Parrita, Chihuahua		Maijoma, Chihuahua	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	T	0.06	0.04	0.02	0.12	0.31	0.51	0.12	0.47	0.40
Feb.	.04	.14	.28	.23	.98	.21	.04	.30	.39	.38
Mar.	T	.14	0	.03	0	.14	0	.09	T	.19
Apr.	T	.20	0	.28	.98	.31	0	.45	T	.23
May	T	.25	.28	.45	0	.48	.51	.33	.63	.66
June	.04	.99	1.30	1.61	.98	1.07	.35	1.82	.79	1.52
July	.35	2.25	1.34	2.40	9.06	2.96	5.79	2.57	7.24	3.00
Aug.	.39	2.57	2.48	2.24	2.72	2.63	1.34	3.03	2.52	3.29
Sept.	.87	2.57	.91	2.51	7.20	3.25	4.02	3.26	.39	2.64
Oct.	T	.56	0	.82	0	.76	0	.93	.08	.04
Nov.	T	.20	0	.19	0	.29	0	.23	T	.34
Dec.	.04	.15	.24	.31	.12	.59	.20	.13	.55	.36
Yearly	1.73	10.08	6.87	11.09	22.16	13.00	12.76	13.26	13.06	13.95

	Coyame, Chihuahua		Las Varas, Chihuahua		Gallego, Chihuahua		El Sueco, Chihuahua		Ojinaga (IB&WC), Chihuahua	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.35	0.15		0.27	0.31	0.28	0.31	0.40	0.20	0.33
Feb.	.28	.40	T	.44	.16	.44	.16	.46	.31	.27
Mar.	0	.18	.16	.16	.24	.17	.12	.25	0	.21
Apr.	.08	.25	0	.18	0	.16	0	.18	0	.24
May	.28	.60	.16	.26	.12	.28	T	.25	.12	.44
June	.79	1.20	.79	1.06	.51	.96	.47	.79	.28	1.23
July	5.28	2.64	2.09	2.99	4.33	3.26	4.09	3.06	1.54	1.74
Aug.	.94	1.89	3.15	3.18	2.20	3.17	2.40	3.48	1.69	1.52
Sept.	2.28	2.76	1.69	2.48	0	2.61	3.78	2.86	1.10	1.60
Oct.	0	.78	.04	1.33	.12	1.31	.08	1.13	.12	.99
Nov.	0	.34	0	.40	0	.28	0	.40	0	.37
Dec.	.20	.16	.35	.27	.67	.24	.04	.27	.20	.27
Yearly	10.48	11.35		13.02	8.66	13.16	12.35	13.57	5.56	9.21

	Ojinaga (M. S. of Mexico), Chihuahua		Potrero del Llano, Chihuahua		Manuel Benavides, Chihuahua		Sierra Mojada, Coahuila		Mina La Borrada, Coahuila	
Month	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.16	0.30	0.16	0.10	0.31	0.13	0.35	0.51	0	0.22
Feb.	.47	.25	.67	.23	.24	.28	.59	.31	.51	.43
Mar.	0	.22	0	.37	0	.34	0	.28	.51	.23
Apr.	T	.26	0	.11	T	.23	0	.25	.16	.31
May	.24	.58	.08	.27	.24	1.10	.04	1.01	1.73	.91
June	.47	1.10	.08	1.29	.98	1.24	1.50	2.26	1.34	1.65
July	2.28	1.59	2.83	2.35	3.66	2.48	5.20	2.83	.55	1.08
Aug.	2.64	1.54	1.73	2.15	2.28	2.58	2.20	2.95	2.64	2.14
Sept.	1.18	1.61	0	1.31	.83	2.82	1.38	3.03	.28	2.15
Oct.	.16	.99	0	.45	.12	.82	.51	1.26	.83	1.06
Nov.	0	.38	0	.14	.08	.23	0	.48	0	.36
Dec.	.39	.39	.04	.24	.63	.29	.43	.60	.51	.26
Yearly	7.99	9.21	5.59	9.06	9.37	12.54	12.20	15.77	9.06	10.80

	Ejido Eutimias, Coahuila					La Rosita, Coahuila			Santa Rosa, Coahuila	
Month	1972	1973	1974	1975	Average	1974	1975	Average	1975	Average
Jan.		0	0	1.18	0.39	0	0	0	1.97	0.80
Feb.		.04	0	.71	.25	0			0	.95
Mar.		0	.08	0	.03	.24	0	.12	0	.66
Apr.	.16	0	T	0	.04	.55	0	.28	0	.94
May	2.24	0	.04	1.26	.88	.08	.71	.40	2.52	1.33
June			0	1.26	.63	.16			5.00	1.75
July	.04		1.26	3.46	1.59	.12	.63	.38	0	1.35
Aug.	.04	0	0	.83	.22	.47	1.26	.86	.59	1.94
Sept.	.04	1.61	2.44	.59	1.17		0		2.56	2.80
Oct.	.04	0	0	.79	.21	.47	.31	.39	.59	2.33
Nov.	.12	0	.75	0	.22		0		0	.79
Dec.		0	1.06	1.02	.69		2.52		0	.41
Yearly			5.63	11.10	6.32				13.23	16.05

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	San Fernando, Coahuila		Hacienda San Miguel, Coahuila		Rcho. La Chuparrosa, Coahuila		Presa Centenario, Coahuila		Amstd. Res. near Tlaloc, Coahuila	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0	0.28	0.16	0.29	0.21	0.14	1.38	0.57	0.30	0.42
Feb.	1.54	.68	1.85	.65	.55	.44	.24	.91	1.10	.66
Mar.	0	.45	0	.55	0	.62	0	.49	0	.83
Apr.	.08	1.04	.39	1.59	.67	.78	1.69	1.30	.65	1.28
May	2.60	1.13	5.24	2.12	1.61	1.27	2.72	1.48	2.55	1.64
June	1.02	1.22	1.10	2.05	.28	1.47	2.52	2.19	.45	2.26
July	5.24	1.14	2.16	1.63	3.51	1.49	3.15	1.01	7.25	2.48
Aug.	1.14	1.68	.79	1.89	.07	2.87	1.18	3.17	.25	3.93
Sept.	1.57	3.40	1.57	3.51	.31	3.24	1.30	4.58	1.90	4.66
Oct.	1.38	1.86	.87	1.91	.38	2.70	1.14	2.54	.70	2.02
Nov.	0	.38	0	.35	0	.14	0	.78	0	.16
Dec.	.43	.36	.31	.30	.07	.19	.51	.50	0	.30
Yearly	15.00	13.62	14.44	16.84	7.66	15.35	15.83	19.52	15.15	20.64

Month	Represa Amistad, Coahuila								Ciudad Acuna, Coahuila	
	1969	1970	1971	1972	1973	1974	1975	Average	1975	Average
Jan.		0.35	0	0.43	0.43	0	0.67	0.31	0.35	0.55
Feb.		1.30	.04	.04	1.26	0	.94	.60	2.01	.91
Mar.		.35	0	1.93		1.30	0	.72	0	.72
Apr.		0	2.28	1.65	.91	.93	.51	1.06	1.02	1.57
May		1.26	.04	1.38	.16	2.05	1.85	1.12	2.48	2.26
June	.08	1.50		1.77	1.97	.08	.43	.97	.98	2.31
July	.16	.04		.63	3.74	0	6.50	1.84	8.86	1.45
Aug.	2.64	1.02		8.98	.55	2.48	.08	2.62	.55	2.09
Sept.	1.30	7.01		2.68	1.81	7.56	1.22	3.60	1.65	3.35
Oct.	7.32	.08	2.13		4.41		1.16	3.02	1.50	2.48
Nov.	2.60	0	.04	.59	0		0	.54	T	.57
Dec.	.98	0	.16	0	0		.20	.22	.47	.52
Yearly		12.91					13.58	16.62	19.87	18.78

Month	Presa Cabeceras, Coahuila		Presa San Miguel, Coahuila		Palestina, Coahuila		Chupadero, Coahuila		Jimenez, Coahuila	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	1.22	0.54	0.83	0.48	1.42	0.90	0.59	0.50	0.71	0.68
Feb.	.67	.82	.39	.88	.47	1.00	2.68	1.02	.94	.96
Mar.	0	.58	0	.57	0	.65	0	.52	0	.73
Apr.	2.05	1.29	2.44	.96	1.77	1.63	1.97	1.65	2.28	1.69
May	5.12	2.45	5.20	2.12	2.68	2.32	2.52	1.87	3.11	2.49
June	3.54	2.20	2.09	2.19	1.81	2.34	2.24	2.24	3.23	2.73
July	16.81	2.41	6.02	1.46	11.06	1.92	9.45	1.56	5.43	1.50
Aug.	3.35	3.70	1.30	3.07	.98	2.36	.39	2.41	.71	1.94
Sept.	4.37	5.66	3.46	4.62	1.50	3.28	1.02	3.88	3.43	3.25
Oct.	2.20	3.10	.98	2.38	1.89	2.09	1.18	2.11	1.18	2.55
Nov.	0	.83	0	.66	0	.72	0	.70	0	.85
Dec.	.47	.43	.20	.50	.63	.75	.51	.44	.28	.64
Yearly	39.80	24.01	22.71	19.89	24.21	19.96	22.55	18.90	21.30	20.01

Month	El Remolino, Coahuila		Piedras Negras, Coahuila		Allende, Coahuila				Villa Guerrero, Coahuila	
	1975	Average	1975	Average	1974	1975	Average		1975	Average
Jan.	0.20	0.38	0.51	0.74		0.43	0.64		0.28	0.58
Feb.	0	.70	.94	1.04		.71	1.01		.67	.82
Mar.	0	.35	.24	.70	.87	0	.44		.87	.47
Apr.	.59	1.35	1.42	1.83	.08		1.09		0	1.41
May	3.62	2.28	7.28	3.19	.63		2.31		4.13	2.39
June	6.69	3.61	5.79	2.42	0	2.60	2.26		4.57	2.60
July	5.51	1.96	2.01	1.96	.08	3.07	1.63		2.13	1.28
Aug.	0	1.87	.35	2.84	1.81		2.83		1.85	2.41
Sept.	0	3.92	4.72	3.45	4.29	2.60	3.73		1.57	4.06
Oct.	.79	3.15	.91	2.96	2.44	.75	2.12		1.02	2.89
Nov.	0	.52	T	.71	.83		.62		0	.57
Dec.	0	.39	.43	.64	3.15		.66		0	.55
Yearly	17.40	20.48	24.60	22.48			19.34		17.09	20.03

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	Rancho San Diego, Coahuila		Rancho Mercedes, Coahuila		Villa Hidalgo, Coahuila		Colombia, Nuevo Leon		Rancho Los Vidrios, Tamaulipas	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0	0.26	0	0.49	0.31	0.76	0.59	0.26	1.18	0.75
Feb.	0	.60	0	.82	.08	1.02	0	.78	0	1.00
Mar.	0	.41	0	.75	.04	.61	T	.65	.39	.50
Apr.	0	1.14	1.65	1.97	.24	1.43	.39	1.23	.59	1.28
May	6.69	2.72	5.16	2.80	10.08	2.66	5.51	2.77	4.92	3.02
June	.98	1.94	1.61	2.36	4.33	2.30	1.57	1.99	3.94	2.09
July	0	1.25		.69	2.87	1.01		.94	5.51	1.44
Aug.	0	1.52		2.55	.43	2.12	1.18	2.95	2.38	2.16
Sept.	.98	3.51		3.03	1.57	3.70	3.15	4.43	1.97	3.65
Oct.	0	1.51		2.44	2.36	1.88	.59	1.74	.39	2.45
Nov.	0	.72		.95	0	.95	0	1.03	0	1.17
Dec.	0	.53		.63	.31	.72	0	.47	0	.85
Yearly	8.65	16.11		19.48	22.62	19.16		19.24	21.25	20.36

Month	Nv. Laredo (M. S. Of Mexico) Tamps.		Nv. Laredo (IB&WC), Tamaulipas		Nuevo Laredo (Sur), Tamaulipas		Nv. Laredo Km. 26, SSW, Tamaulipas		Rancho Las Espuelas Tamaulipas	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	1.97	0.80	0.31	0.64			0.39	0.62	0.39	0.60
Feb.	1.77	.94	.28	.98			T	1.23	.31	1.27
Mar.	.59	.62	.79	.44			T	.48	0	1.14
Apr.	.47	1.17	.55	1.10			.98	1.52	.59	.98
May	4.76	2.44	4.61	2.62	4.72		2.36	2.69	5.71	4.43
June	3.46	2.32	3.62	2.78	2.91		1.57	2.35	1.89	3.38
July	7.60	1.37	9.17	1.25	5.59		8.27	1.45	8.58	3.54
Aug.	.28	1.67	.98	2.41	1.02		2.76	2.54	.71	1.31
Sept.	4.02	3.09	3.74	3.62	3.07		.98	4.10	5.31	5.43
Oct.		1.55	3.50	1.88	2.32		2.56	1.99	3.70	1.65
Nov.	0	.96	T	.98	0		0	.99	0	.83
Dec.	.12	.84	.28	.68	.16		.20	.57	0	.36
Yearly		17.77	27.83	19.38			20.07	20.53	27.19	24.92

Month	San Ignacio, Tamaulipas		Rancho San Juan de la Palma, Tamps.		El Treinta, Coahuila		Muzquiz, Coahuila		Conchos, Coahuila	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.39	0.60	0.59	0.70	0	0.29	0.08	0.78	0.55	0.29
Feb.	T	1.11	.12	1.03	.79	.53	.39	.59	.75	.68
Mar.	.08	.41	.16	.60	0	.53	0	.85	0	.30
Apr.	.83	1.17	1.02	1.72	.28	1.10	1.97	1.01	1.10	1.56
May	3.54	2.89	6.30	2.03	6.73	2.54	5.51	3.82	3.27	2.31
June	1.18	2.43	2.28	2.24	6.30	3.21	.98	3.47	3.62	2.76
July	2.56	.86	6.93	1.08	5.43	2.31	5.87	2.53	3.07	1.88
Aug.		2.55	.94	1.95	.79	2.12	1.10	2.51	2.52	2.12
Sept.	1.57	4.58	5.20	4.68	4.25	4.47	3.82	5.11	3.58	3.40
Oct.	1.18	2.18	.87	1.69	1.10	1.73	2.36	2.22	2.20	2.26
Nov.	0	.98	0	.97	0	.33	0	1.09		.54
Dec.	.20	.58	.24	.68	0	.25	0	.88		.44
Yearly		20.34	24.65	19.37	25.67	19.41	21.88	24.86		18.54

Month	Sabinas, Coahuila		Juarez, Coahuila		Cuatro Cienegas, Coahuila		Ocampo, Coahuila		Ejido San Blas, Coahuila	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.		0.59	0.16	0.59	0.24	0.32	0	0.36	0.79	0.55
Feb.	.16	.73	.20	.56	.55	.38	.47	.32	.59	1.65
Mar.	0	.41	0	.41	0	.13	0	.22	0	0
Apr.	.16	1.14	.47	1.15	.0	.28	0	.65		.17
May	3.66	2.48	2.09	1.93	.75	.78	4.65	1.23	2.40	1.45
June	3.74	2.06	1.06	1.75	.04	.73	1.81	1.39	2.95	4.12
July	3.62	1.30	4.69	.99	.67	.80	1.85	1.86		1.80
Aug.	1.42	2.16	.94	1.41	1.18	1.06	.24	1.66		2.41
Sept.	3.62	3.43	5.55	3.39	.43	1.43	.08	2.23	2.56	3.40
Oct.	.39	1.77	2.91	1.63	.67	.74	.31	.96	.71	4.08
Nov.	0	.58	.31	.57	0	.37	0	.25	.24	.14
Dec.	0	.49	0	.34	.20	.41	.12	.34	0	.11
Yearly		17.14	18.38	14.72	4.73	7.43	9.33	11.47		19.88

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	San Buenaventura, Coahuila		Monclova, Coahuila		Progreso, Coahuila		Presa Carranza, Coahuila		Laguna de Salinillas, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0	0.60	0.08	0.47	0.39	0.49	0.31	0.71	0.39	0.64
Feb.	.16	.51	.31	.50	.08	.54	.08	.67	.08	.66
Mar.	0	.39	0	.31	.04	.40	0	.51	.04	.59
Apr.	0	.70	.04	.58	.16	1.13	.20	1.16	.31	.97
May	1.18	1.47	2.01	1.44	3.43	2.14	.98	2.10	.55	2.18
June	.55	1.63	.87	1.41	2.60	1.70	.47	1.82	.24	1.82
July	2.44	1.53	3.62	1.56	2.17	.91	4.72	1.04	3.90	.82
Aug.	.75	1.69	1.14	1.59	.71	1.90	.67	2.04	1.18	2.50
Sept.	1.81	2.50	2.28	3.01	3.35	3.07	4.02	3.08	5.75	3.51
Oct.	.63	1.33	.83	1.23	1.83	1.78	1.54	1.67	3.07	1.86
Nov.	0	.53	0	.55	.04	.54	0	.59	0	.68
Dec.	.08	.62	.16	.53		.48	.16	.62	.16	.54
Yearly	7.60	13.50	11.34	13.18		15.08	13.15	16.01	15.67	16.77

Month	Candela, Coahuila		Lampazos, Nuevo Leon		Anahuac, Nuevo Leon		Rio Salado, Carr. 85, N. L.		Bustamante, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.08	0.29	0.47	0.59	0.39	0.69	0.24	0.45	0.35	0.60
Feb.	0	.83	.35	.95	.16	.64	0	.88	.28	.88
Mar.	0	.22	.16	.58	.39	.51	0	.37	0	.48
Apr.	.47	.38	.35	.99	1.50	1.10	.59	1.14	.83	.97
May	1.06	1.21	3.50	2.46	2.99	2.25	4.29	2.48	1.57	1.45
June	.91	2.46	1.42	2.98	1.77	1.92	1.02	3.18	1.81	3.69
July	8.27	2.50	5.67	1.84	6.14	1.33	7.40	1.68	9.25	1.86
Aug.	2.76	1.54	1.77	1.73	.94	2.24	.98	1.58	4.57	3.43
Sept.	3.54	3.79	6.22	5.70	4.88	3.39	3.82	5.21	6.02	6.23
Oct.	1.02	.94	3.31	1.74	.75	1.64	2.56	1.77	1.85	2.09
Nov.	0	.32	0	.64	0	.63	0	.70	0	.78
Dec.	.04	.24	.43	.48	.08	.69	.39	.56	.12	.58
Yearly	18.15	14.72	23.65	20.68	19.99	17.03	21.29	20.00	26.65	23.04

Month	Sabinas Hidalgo, Nuevo Leon		Garza Ayala, Nuevo Leon							
	1975	Average	1968	1969	1970	1971	1972	1973	1974	1975
Jan.	0.47	0.49	0.71	0		0.16				0.04
Feb.	0	.88	1.61	.55		.39				0
Mar.	0	.79	1.61	.35		0				.43
Apr.	.59	1.09	1.54	1.18	1.10	0				.98
May	4.92	2.49	.55	1.85	3.54	0				.24
June	T	4.72	2.60		.87	3.94				0
July	9.61	2.64	1.65		7.91	21.18				2.16
Aug.	6.06	2.66	.20	2.99	8.46	2.05				2.56
Sept.	9.69	7.49	1.54	3.90	14.72	7.01				2.09
Oct.	1.38	2.78	1.22		1.14	20.24				.67
Nov.	0	.99	.08	.87	0	16.46				
Dec.	.12	.58	1.02	.35	0				.16	
Yearly	32.84	27.50	14.33							

Month	Garza Ayala, Nuevo Leon		Vallecillo, Nuevo Leon		Las Tortillas, Tamaulipas		Rancho Bonanza, Tamaulipas		Rancho San Rafael, Bustamante, Tamps.	
	Average		1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.23		0.37	0.51	0.59	0.50	0.59	0.93	0.79	0.68
Feb.	.64		.31	.84	T	1.21	.20	1.56	T	1.63
Mar.	.60		.35	.44	T	.57	.51	1.01	.39	.60
Apr.	.96		.37	1.75	.79	1.26	.59	.37	.98	.90
May	1.20		3.86	1.92	5.91	3.28	8.50	4.74	6.89	3.20
June	1.85		.67	3.43	1.18	2.98	1.61	3.51	2.40	4.18
July	8.22		9.02	1.62	6.10	1.27	7.48	2.69	5.91	1.69
Aug.	3.25		2.24	1.94	5.12	2.10	0	1.77	3.74	3.30
Sept.	5.85		3.78	4.78	T	4.85	7.80	5.61	3.35	6.00
Oct.	5.82		.71	2.23	.83	1.68	2.09	2.10	3.74	3.45
Nov.	4.35		0	.76	0	1.08	0	.20	0	1.22
Dec.	.48		.98	.60	.20	.70	0	0	0	.39
Yearly	33.43		23.66	20.82	20.72	21.48	20.37	24.49	28.19	27.24

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	Rio Salado Riberena, Tamaulipas		Aniego 166, Tamaulipas		La Bandera, Tamaulipas		Nueva Cd. Guerrero, Tamaulipas		Hacienda El Alamo, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	1.38	0.59	0.39	0.73	0.39	0.71	0.28	0.91	1.06	0.66
Feb.	.20	1.15	.20	1.13	.20	.95	.28	.97	.31	1.20
Mar.	.20	.59	.20	.50	.20	.73	.28	.55	.28	.30
Apr.	.98	1.11	1.18	1.05	1.18	1.37	.43	1.23	1.18	.67
May	5.43	2.84	8.07	3.34	4.80	3.02	1.69	2.05	4.57	2.08
June	.98	2.80	4.72	3.06	5.59	3.67	2.72	2.84	.24	4.99
July	7.87	1.20	2.36	.79	12.16	1.62	3.86	1.03	8.94	3.04
Aug.	1.57	2.70	2.36	2.55	4.33	2.45	1.81	2.13	7.48	3.33
Sept.	5.71	6.25	3.15	6.84	2.76	6.06	3.94	4.52		6.31
Oct.	1.30	2.15	1.18	1.73	1.18	1.78	.83	2.04	8.58	3.13
Nov.	0	1.01	0	.93	0	.67	0	.90	0	.82
Dec.	0	.72	.39	.52	.39	.57	.55	.52	.67	.51
Yearly	25.62	23.11	24.20	23.17	33.18	23.02	16.67	19.69		27.04

Month	Paras, Nuevo Leon		San Javier, Nuevo Leon		Cd. Mier, Km. 8, SW, Tamaulipas		Cd. Mier, Tamaulipas		Miguel Aleman, Tamaulipas	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.59	0.27	0.39	0.74	0.39	0.74	0.28	1.01	0.55	0.86
Feb.	.24	.51	.28	1.11	.24	1.20	.20	1.24	.16	1.12
Mar.	.24	.64	0	.72	0	.74	0	.69	.20	.40
Apr.	1.22	.66	.39	1.61	.39	1.29	.12	1.28	.75	1.70
May	4.06	1.17	3.70	3.69	2.05	3.06	.51	2.66	.55	2.13
June	2.09	3.13	2.87	3.73	1.85	3.38	2.83	2.64	.39	2.52
July	6.61	1.35	9.88	2.03	5.91	1.67	5.04	.94	6.30	1.53
Aug.	3.43	1.86	6.22	3.32	3.78	2.92	2.95	2.68	3.46	2.32
Sept.	4.33	4.11	2.36	6.43	3.46	6.01	6.26	5.36	6.80	7.03
Oct.	1.97	2.52	.98	2.28	.79	2.40	.51	2.21	1.18	1.60
Nov.	0	.56	0	1.00	0	.98	0	1.07	0	.85
Dec.	.35	.28	.31	.64	.20	.64	.35	.62	.59	.56
Yearly	25.13	17.06	27.38	27.30	18.86	25.03	19.05	22.40	21.02	22.62

Month	Parras, Coahuila		General Cepeda, Coahuila		Reata, Coahuila		San Antonio de las Alazanas, Coahuila		Saltillo, Coahuila	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.08	0.48	0.08	0.46	0	0.25	1.10	0.97	0.16	0.57
Feb.	0	.40	.16	.50	.39	.25	.59	.82	.83	.58
Mar.	0	.36	0	.30	0	.29	.24	.46	0	.41
Apr.	0	.21	0	.38		.32	.75	.88	T	.78
May	.31	1.00	.39	.82		.78	1.81	1.85	1.26	1.16
June	.31	1.89	.35	2.17		1.05	2.95	2.72	1.89	2.20
July	3.74	2.35	4.21	3.23	3.31	.96	6.77	3.23	4.09	2.59
Aug.	3.58	3.24	2.99	3.11	1.50	1.57	1.81	3.06	5.67	2.55
Sept.	.04	2.76	.20	2.32	.43	1.39	1.54	2.74	2.36	2.73
Oct.	1.02	1.25	.63	1.28	.59	.67	.04	1.04	.39	1.26
Nov.	0	.40	0	.47	0	.42	0	1.09	T	.81
Dec.	1.18	.81	1.30	.54	.63	.30	2.17	.96	1.42	.64
Yearly	10.26	15.17	10.31	16.08		8.25	20.67	20.72	18.07	16.26

Month	Ramos Arizpe, Coahuila		Carbonera, Nuevo Leon		Icamole, Nuevo Leon		Mina, Nuevo Leon		La Popa, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.79	0.47	0.51	0.83	0.04	0.24	0.24	0.45	0	0.43
Feb.	0	.36	.31	.73	.39	.29	.43	.45	0	.92
Mar.	0	.31	0	.70	0	.14	.04	.11	0	.28
Apr.	0	.44	.04	.79	0	.26		.49	0	.41
May	.79	.85	.71	1.99	.87	.81	0	.57	0	1.02
June	1.85	1.07	2.44	2.43	.04	1.06	0	1.32	0	1.96
July	1.85	1.40	5.51	2.70	1.77	.57	3.27	.92	1.81	1.07
Aug.	3.23	1.38	2.72	3.50	1.42	1.11	4.33	1.61	7.24	2.16
Sept.	.79	1.73	.83	2.90	2.60	2.29	5.16	3.51	4.61	3.52
Oct.	.31	.76	.55	1.56	.59	.93	.55	1.12	.55	.81
Nov.	0	.45	0	.75	0	.42	0	.56	0	.51
Dec.	.98	.51	2.05	.85	1.50	.43	1.42	.48	1.22	.57
Yearly	10.59	9.75	15.67	19.83	9.02	8.55		12.09	15.43	13.68

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	La Arena, Nuevo Leon									
	1968	1969	1970	1971	1972	1973	1974	1975	Average	
Jan.	1.77	0.20	0.71	0.04	0.55	2.13	0.51	0.55	0.81	
Feb.	1.65	.47	2.83	.35	.20	2.13	0	.39	1.00	
Mar.	.71	.71	.08	0	2.28	0	1.02	.16	.62	
Apr.	3.15	1.57	1.22	0	.16	.47	.04	2.16	1.10	
May	2.52	1.06	3.35	.87	3.11	.98	2.44	3.46	2.22	
June	2.24	1.89	1.65	2.60	10.59	9.06	2.76	.79	3.95	
July	4.30	.20	4.96	2.40	3.82	8.58	.24	6.06	3.88	
Aug.	2.83	4.92	5.39	11.18		8.35	.35	1.89	4.99	
Sept.	8.82	1.77	5.75	4.96	4.17	9.13	10.08	7.76	6.56	
Oct.	7.13	2.56	.87	2.99	2.24	6.10	.28	1.93	3.01	
Nov.	1.14	1.61	0	.04	1.06	1.22	.04	.20	.66	
Dec.	.04	.47	.04	.39	.12	1.89	.31	1.02	.54	
Yearly	30.80	17.43	26.85	25.82		50.04	18.07	26.37	29.34	

Month	Cienega de Flores, Nuevo Leon		Hacienda Mamulique, Nuevo Leon		Topo Chico, Nuevo Leon		Higueras, Nuevo Leon		Sombreretillo, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.71	1.23			0.63	0.39	0.91	0.65	2.44	2.16
Feb.	.87	.98				.55	.87	.59	1.34	2.57
Mar.	.24	1.10				.45	.08	.65	.47	1.25
Apr.	.51	1.53	.20	.16	.83	.93	.79	1.24	4.72	1.60
May	1.50	2.63	.63	.38	3.46	1.37	1.18	1.94	8.74	5.78
June	.20	3.32	2.28	3.52	.12	2.48	.35	2.71	1.10	8.09
July	6.81	2.01	5.24	2.66	8.46	1.48	5.67	2.13	2.91	4.01
Aug.	7.32	4.45	2.24	2.00	6.14	2.98	10.63	3.31	3.43	4.40
Sept.	9.25	6.13	6.30	6.19	3.07	4.62	5.12	4.99	5.16	15.22
Oct.	.88	2.71	.47	.89	.04	2.60	.39	1.79	2.60	8.73
Nov.	.20	1.07	.63	.29	.08	.66	.12	.77	.08	1.58
Dec.	1.26	1.13	1.38	.65	.94	.44	1.10	.65	.79	1.66
Yearly	29.85	28.29				18.95	27.21	21.42	33.78	57.05

Month	Los Ramones, Nuevo Leon		Cerro Prieto, Nuevo Leon		Los Herrera (La Tableta), N. L.		Madero (Los Aldamas), Nuevo Leon			
	1975	Average	1975	Average	1975	Average	1970	1971	1972	1973
Jan.	0.91	0.67	0.35	0.39	0.35	0.57		0.16	2.36	1.97
Feb.	.59	.76	.91	.76	.28	.66		.98	.87	3.15
Mar.	.24	.54	0	.43	.24	.66		T	2.53	0
Apr.	1.18	1.61	.28	.66	.71	1.31		.31	2.09	.94
May	8.50	2.56	12.36	4.76	6.81	2.74	2.48	.43	3.98	2.91
June	.12	3.35		4.60	.39	2.77	6.54	4.06	4.68	9.65
July		1.87	5.16	2.62	15.59	1.76	1.65	2.40	2.09	.51
Aug.		3.58	5.59	3.08	5.98	2.81	1.77	14.25	1.42	13.23
Sept.		5.38	5.75	4.72	4.96	4.83	6.46	9.88	6.35	8.03
Oct.	.83	2.39	0	2.39	T	2.44	.47	7.20	1.26	2.01
Nov.		.67	1.42	.27	.04	.62		.20	1.22	.04
Dec.		.43	1.38	.38	1.42	.47		.55	.20	.08
Yearly		24.46		25.56	36.77	21.64		40.42	29.85	42.52

Month	Madero (Los Aldamas), Nuevo Leon				Riconada, Nuevo Leon		Santa Catarina, Nuevo Leon		Monterrey, Nuevo Leon	
	1974	1975	Average		1975	Average	1975	Average	1975	Average
Jan.	0.31	0.43	1.05		0	0.28		0.64	0.51	0.61
Feb.	T	.43	1.09		.71	.29		.44	.63	.69
Mar.	1.85	.43	1.02		0	.21		.32	.12	.72
Apr.	T	.51	.77		0	.41		.63	.63	1.12
May	1.42	3.46	2.45		.79	.52		.89	1.69	1.57
June	1.73	5.76	5.40		0	1.11		2.10	.20	2.85
July	2.05	7.05	2.62		3.58	.43		1.10	7.99	2.35
Aug.	2.40	4.61	6.28		2.13	1.27	1.65	2.87	2.95	3.21
Sept.	3.31	4.13	6.44		1.61	1.77	4.61	4.14	5.47	5.99
Oct.	.71	1.38	2.17		.47	.91	.63	1.68	.55	3.19
Nov.	.24	0	.34		0	.28	0	.45	.08	1.20
Dec.	.28	1.18	.46		1.26	.33	.71	.51	.94	.69
Yearly	14.30	29.36	30.09		10.55	7.81		15.77	21.76	24.19

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	Apodaca, Nuevo Leon		Agua Blanca Canoas, Nuevo Leon		Pajonal, Nuevo Leon		Cadereyta, Nuevo Leon		La Cruz, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.59	0.63	0	0.63	0	0.53	0.24	0.72	0	0.57
Feb.	.59	.90	0	.47	0	.64	.31	.90	0	.47
Mar.	.16	.55	.98	.32	0	.24	.20	1.13	.71	.27
Apr.	2.56	.94	0	.51	0	.62	2.36	2.02	0	.46
May	2.56	2.03	0	1.39	T	1.59	4.57	2.47	0	1.36
June	0	3.05	1.30	2.64	2.76	2.57	.24	3.68	1.18	2.55
July	4.88	1.57	5.98	2.17	2.52	2.42	6.54	2.51	5.12	2.39
Aug.	6.26	3.80	6.77	3.26	5.31	3.73	4.57	3.59	6.26	3.73
Sept.	7.91	6.42	2.20	4.62	.94	4.64	9.45	5.34	3.43	4.64
Oct.	.31	2.16	2.91	2.25	.39	1.88	1.38	3.30	3.31	2.13
Nov.	.12	.69	1.73	.81	0	.51	.35	1.13	1.54	.74
Dec.		.60	2.09	.54	.63	.58	1.69	.72	1.42	.33
Yearly		23.34	23.96	19.61	12.55	19.95	31.90	27.51	22.97	19.64

Month	Tunel San Francisco, Nuevo Leon		Las Comitas, Nuevo Leon		Las Enramadas, Nuevo Leon		La Boca, Nuevo Leon		Adjuntas, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.47	0.92	0.20	0.32	0.83	0.87	0.28	0.90	0.16	0.40
Feb.	.91	1.28	.35	.40	.79	.72	1.06	1.03	.24	.60
Mar.	.63	1.64	0	.26		.77	.31	1.12	.28	.38
Apr.	1.77	1.93	0	.69	.47	1.84	1.22	1.64	.04	.98
May	2.28	2.94	.59	.98	2.20	2.87	1.50	2.60	4.33	2.84
June	2.68	7.43	1.61	2.57	.63	3.55	.83	5.80	3.58	9.72
July	9.61	3.58	4.33	1.77	4.41	2.32	13.54	3.62	5.55	5.42
Aug.	10.08	7.28	1.85	3.32	3.19	3.80	7.24	6.22	8.19	4.02
Sept.		11.08	7.95	4.65	5.59	6.40	10.31	9.37	15.47	11.47
Oct.		5.61	.55	1.85		2.65	1.69	5.02	2.05	4.68
Nov.		1.65	0	.44	.87	.76	.24	1.36	.20	.53
Dec.		.96	.94	.36	1.42	.73	1.10	.86	.51	.37
Yearly		46.30	18.37	17.61		27.28	39.32	39.54	40.60	41.41

Month	Villa Allende, Nuevo Leon		San Juan, Nuevo Leon		Laguna de Sanchez, Nuevo Leon		Cerritos, Nuevo Leon		Casillas, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.63	0.95	0.47	0.49	1.02	0.63	0.24	0.50	0.91	0.49
Feb.	1.26	1.26	.87	.94	.98	.63	0	1.15	.31	.78
Mar.	1.30	1.34	.79	.71	0	.45	.04	.56	.31	.63
Apr.	1.34	2.49	1.42	1.81	.91	1.16	2.05	.62	.47	.81
May	7.48	3.64	4.06	2.40		1.91	2.80	3.67	.08	2.06
June	3.15	5.42	.94	3.25	2.87	3.60	2.60	9.06	.79	3.58
July	15.83	3.44	6.69	2.07	4.57	2.56	14.49	6.94	2.83	2.28
Aug.	11.30	5.63	3.39	3.80	6.14	4.37	7.20	5.00	1.22	2.94
Sept.	13.07	8.69	7.72	5.68	5.75	5.67	6.85	12.13	3.58	3.76
Oct.	2.20	5.61	.71	3.10	1.26	2.74	1.26	4.01	0	2.37
Nov.	.24	1.59	T	.86		.56	.08	.32	.16	.61
Dec.	1.93	.94	1.81	.52	1.10	.57	.08	.24		.61
Yearly	59.73	41.00	28.87	25.63		24.85	37.69	44.20		20.92

Month	Cienega del Toro, Nuevo Leon		Mimbres, Nuevo Leon		Rusio, Nuevo Leon		Rayones, Nuevo Leon		Santa Rosa, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.47	0.86	0.59	1.37	T	0.76	0.79	0.31	0.12	0.35
Feb.	.28	.50	2.17	1.40	.31	.64	1.97	.43		.18
Mar.	0	.66	0	1.33	0	.57	0	.30	0	.31
Apr.	0	.85	.26	1.23	0	1.08	0	.95	0	.20
May	1.77	1.97	1.97	2.01	1.22	1.87	15.35	1.80	2.56	1.58
June	2.52	2.48	5.67	3.07	.12	2.12	4.49	2.16	2.91	1.21
July	6.34	1.85	4.53	2.57	3.07	.98	3.27	1.07	2.99	1.40
Aug.	3.27	2.91	4.88	3.58	2.28	1.50	1.18	2.74	1.50	1.71
Sept.	2.68	3.52	4.17	3.87	1.42	1.74	5.71	3.09	0	.77
Oct.	.39	2.04	1.10	1.99	.94	1.25	1.61	1.51	.63	.39
Nov.	0	.45	0	1.00	0	.63	0	.36	0	.06
Dec.		.61	2.48	1.15	.47	.78	1.54	.32	.87	.16
Yearly		18.70	27.84	24.57	9.83	13.92	35.91	15.04		8.32

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	Potosi, Nuevo Leon		Galeana, Nuevo Leon		Iturbide, Nuevo Leon		Cabezones, Nuevo Leon		Linares, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.08	1.00	0.08	0.17	0.08	0.56	0.31	0.80	0.28	0.89
Feb.	1.18	.80	2.48	.56	2.13	.68		.91	.83	.86
Mar.		.42	0	.33	.04	.58	.08	1.25	T	1.07
Apr.		1.23	.08	.90	.04	1.11	.63	2.32	.79	2.28
May	1.30	1.60	1.34	1.21	1.54	1.93	7.80	3.70	5.75	3.65
June		1.38	3.15	1.94	4.09	3.59	2.91	5.15	.55	3.88
July		.80	3.94	1.38	5.67	2.56	7.32	2.99	14.33	2.67
Aug.	1.42	1.67	2.68	2.46	5.20	4.15	10.98	5.74	9.61	3.85
Sept.	1.18	1.27	3.82	2.57	7.40	5.56	4.13	7.96	4.80	6.31
Oct.		1.27	1.50	1.22	2.20	2.54	.04	3.43	.83	3.39
Nov.	0	1.40	0	.18	0	.54	.08	.95	.16	1.13
Dec.	1.50	1.89	1.34	.43	1.34	.48	1.54	.65	1.38	1.02
Yearly		14.73	20.41	13.35	29.73	24.28		35.85	39.31	31.00

Month	Montemorelos, Nuevo Leon		Gral. Teran Exprmt. Station, N. L.		El Realito, Nuevo Leon		San Rafael, Nuevo Leon		El Cuchillo, Nuevo Leon	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.16	0.78	0.39	0.62	0.39	0.54	0.31	0.88	0.39	0.61
Feb.	1.42	.99	1.38	.90	1.18	.59	0	1.09	.35	.54
Mar.	.24	1.15	0	1.35	0	.37	0	.57	.20	.52
Apr.	1.14	2.20	1.50	1.33	1.50	.56	0	.64	.63	1.26
May	7.40	3.23	4.96	2.87	3.31	2.63	.55	1.52	3.27	2.19
June	4.13	4.17	.87	4.54	1.50	3.69	1.85	2.11	1.73	2.60
July	7.17	2.11	8.19	2.52	5.75	3.36	3.82	2.29	12.68	1.91
Aug.	9.53	4.32	.94	3.78	10.98	4.10	3.35	2.65	7.28	2.84
Sept.	6.30	5.98	14.92	7.86	5.51	6.98	.20	2.29	3.54	4.38
Oct.	2.32	3.96	.67	4.16	1.61	1.75	1.10	1.29	.39	2.03
Nov.	.08	1.59	0	.99	.12	.15	0	.68	.04	.51
Dec.	1.73	.87	0	.60	1.81	.54	1.34	.75	1.65	.47
Yearly	41.62	31.35	33.82	31.52	33.66	25.26	12.52	16.76	32.15	19.86

Month	Gral. Bravo, Nuevo Leon		Cerralvo, Nuevo Leon		Comales, Tamaulipas		Camargo, Tamaulipas		Valadeces, Tamaulipas	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.24	0.75	0.79	0.67	0.75	0.84	0.47	0.99	0.59	1.18
Feb.	.43	.56	.39	.63	.51	.77	.16	.96	.47	1.01
Mar.	.04	.58	.20	.54	.16	.66	.16	.54	.08	.66
Apr.	.71	1.43	1.42	1.82	.20	1.48	.12	1.62	0	1.44
May	1.89	2.87	7.13	2.98	1.26	2.06	1.26	2.10	.83	2.89
June	2.05	2.70	1.30	3.28	1.02	2.20	3.15	2.57	1.97	3.82
July	10.63	2.26	8.27	1.67	7.52	1.30	6.46	1.45	5.08	1.73
Aug.	4.37	2.70	.63	3.42	5.55	2.77	3.70	2.20	4.65	2.79
Sept.	2.24	4.39	8.03	5.42	3.07	4.27	10.28	4.92	5.08	5.22
Oct.	.24	2.05	1.14	2.67	2.01	2.34	1.42	1.85	1.65	2.42
Nov.	.04	.83	T	.66	T	.69	0	1.06	0	1.09
Dec.	1.69	.72	.91	.46	1.10	.69	.83	.65	.79	.76
Yearly	24.57	21.84	30.21	24.22	23.15	20.07	28.01	20.91	21.19	25.01

Month	Bajo Rio San Juan, Tamps., No. 2-29		Cd. Dias Ordaz, Tamaulipas		Reynosa Km. 22 SW, Tamaulipas		Bajo Rio San Juan, Tamps., No. 2-38		Bajo Rio San Juan, Tamps., No. 2-33	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.55	1.20	0.83	0.89	0.59	1.01	0.55	1.12	0.71	1.23
Feb.	.67	.98	.63	.94	.79	.86	.71	.91	.59	.98
Mar.	.08	.46	.16	.56	0	.71	0	.56	0	.54
Apr.	0	1.37	.28	1.54	0	1.21	.12	1.16	.12	1.32
May	.98	3.72	2.13	2.43	1.57	2.81	1.85	3.91	2.52	4.01
June	2.32	3.19	2.56	2.47	1.46	3.00	1.89	3.63	1.18	3.38
July	7.87	1.50	7.76	1.30	8.46	2.04	9.61	1.87	11.57	2.03
Aug.	7.56	3.23	6.30	2.18	5.71	2.23	8.54	3.67	5.87	3.25
Sept.	5.12	5.08	1.18	4.00	2.36	4.98	3.07	4.62	2.36	5.17
Oct.	2.01	2.47	2.60	2.65	1.57	2.25	1.02	1.74	1.57	2.39
Nov.	0	.90	0	.93	0	.88	0	1.06	0	.97
Dec.	.83	.79	.87	.80	1.18	1.13	1.10	.81	.94	1.05
Yearly	27.99	24.89	25.30	20.69	23.69	23.11	28.46	25.06	27.43	26.32

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	Arguelles, Tamaulipas		Presa Anzalduas, Tamaulipas		Reynosa, Tamaulipas		Bajo Rio San Juan, Tamps., No. 3-55		Bajo Rio San Juan, Tamps., No. 3-53	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.39	1.17	0.55	0.69	1.34	1.04	1.22	1.71	0.59	1.49
Feb.	.39	1.23	.79	.53	.71	.88	.55	1.36	.47	1.20
Mar.	0	.58	0	.60	0	.73	0	.72	0	.72
Apr.	0	1.30	0	1.29	0	1.18	0	1.57	0	1.31
May	.79	2.83	2.24	2.51	2.56	2.25	1.22	2.65	1.34	2.54
June	0	2.84	1.26	2.49	1.73	2.27	1.87	3.61	2.25	3.22
July	8.07	1.66	6.93	1.48	9.61	1.42	6.82	2.30	7.99	2.81
Aug.	5.51	1.63	4.69	1.61	2.87	1.52	7.07	2.85	10.47	3.07
Sept.	2.17	4.62	2.60	4.09	8.62	3.62	4.96	4.62	4.65	4.91
Oct.	1.18	1.86	.12	2.33	1.10	2.17	1.61	3.28	1.34	3.03
Nov.	0	.84	0	.61	0	.88	0	.65	0	.91
Dec.	.79	1.10	.67	.64	.98	.76	1.50	.76	1.61	.82
Yearly	19.29	21.66	19.85	18.87	29.52	18.72	28.94	26.58	30.74	26.03

Month	Bajo Rio San Juan, Tamps., No. 3-60		Bajo Rio San Juan, Tamps., No. 3-47		Bajo Rio San Juan, Tamps., No. 3-63		Rio Bravo, Tamaulipas		Retamal, Tamaulipas	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.59	1.35	1.61	1.80	0.98	1.54	0.71	1.13	1.02	0.90
Feb.	.51	1.24	.59	1.22	.43	1.43	.59	1.29	.55	.91
Mar.	0	.70	0	.64	0	.69	0	.70	T	.72
Apr.	0	1.57	0	1.50	0	1.08	0	1.54	0	1.38
May	1.89	2.51	4.92	3.64	3.23	2.36	2.91	2.37	2.72	2.39
June	.87	3.40	2.68	3.89	2.95	3.49	.35	2.88	2.87	2.81
July	7.99	2.27	9.06	2.66	5.67	2.40	8.62	2.29	7.09	1.36
Aug.	2.91	2.47	7.87	2.52	3.46	2.87	9.29	2.60	7.52	2.51
Sept.	.79	4.85	1.89	5.04	6.81	5.23	.71	4.85	2.72	3.36
Oct.	1.30	3.07	1.42	2.84	2.17	2.48	1.10	2.75	.94	2.57
Nov.	0	.86	0	.96	0	.74	0	1.08	0	1.11
Dec.	1.02	.74	1.46	.90	.83	.63	1.50	.80	1.02	.84
Yearly	17.87	25.03	31.50	27.61	26.53	24.96	25.78	24.18	26.45	20.86

Month	Bajo Rio Bravo, Tamps., No. 3-15		Bajo Rio Bravo, Tamps., No. 4-16		Bajo Rio Bravo, Tamps., No. 3-14		Bajo Rio Bravo, Tamps., No. 3-17		Bajo Rio Bravo, Tamps., No. 2-8	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	1.26	1.63	0.31	1.38	0.79	1.36	1.06	1.63	0.75	1.48
Feb.	.39	1.51	.35	1.27	.47	1.00	.51	1.38	.39	1.36
Mar.	0	.85	0	.74	0	.98	0	.71	0	.98
Apr.	.08	1.43	.08	1.35	0	1.11	0	1.10	.04	1.52
May	2.52	2.82	5.24	2.56	2.72	2.05	1.18	2.88	3.70	2.70
June	.75	3.97	1.57	3.83	1.81	2.98	1.61	3.28	1.34	3.16
July	7.28	2.73	7.68	2.21	5.94	2.22	4.69	2.47	8.58	2.80
Aug.	9.29	3.09	13.35	3.81	9.21	2.56	11.30	3.29	12.04	4.08
Sept.	1.89	3.32	2.95	4.73	1.85	3.94	4.45	5.09	7.76	5.80
Oct.	3.50	2.91	1.28	2.55	2.44	2.39	2.36	2.42	1.97	2.93
Nov.	0	1.01	0	1.34	0	.69	0	1.13	0	1.62
Dec.	2.40	1.07	1.81	1.01	1.89	.87	2.09	1.08	2.63	1.06
Yearly	29.36	26.54	34.60	26.78	27.12	22.65	29.25	26.46	39.85	29.49

Month	Bajo Rio Bravo, Tamps., No. 2-6		Bajo Rio Bravo, Tamps., No. 2-10		Valle Hermoso, Tamaulipas		Control, Tamaulipas		Bajo Rio Bravo, Tamps., No. 2-5	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	1.89	1.86	1.38	1.40	1.42	1.09	0.83	1.26	0.94	1.84
Feb.	.39	1.48	.47	1.39	.43	1.25	.39	1.07	.31	1.46
Mar.	0	1.00	0	1.28	0	.73	0	.64	0	1.30
Apr.	0	1.33	0	1.39	0	1.60	0	1.42	0	1.42
May	2.20	2.07	3.35	2.37	3.58	2.66	1.22	2.81	2.26	2.67
June	.87	2.95	.47	3.15	.47	3.17	.87	3.09	1.26	3.32
July	8.27	2.37	6.46	2.40	4.88	1.91	5.04	1.51	4.37	1.84
Aug.	8.74	3.33	5.04	2.92	10.43	2.10	12.60	3.03	11.38	3.57
Sept.	4.37	4.90	7.76	5.34	2.88	5.41	2.60	5.18	2.40	5.24
Oct.	2.01	2.82	1.57	2.15	1.81	2.40	3.82	2.48	2.44	2.40
Nov.	0	1.06	.91	1.20	.08	1.41	0	1.16	.12	1.13
Dec.	2.48	1.17	2.09	.84	1.89	.90	1.54	.91	2.91	1.12
Yearly	31.22	27.04	29.50	26.34	27.87	24.63	28.71	24.56	26.41	27.31

T Trace

RAINFALL ON THE RIO GRANDE WATERSHED IN MEXICO

In Inches

Month	Bajo Rio Bravo, Tamps., No. 2-11		Bajo Rio Bravo, Tamps., No. 1-2		Bajo Rio Bravo, Tamps., No. 2-7		Bajo Rio Bravo, Tamps., No. 1-4		Bajo Rio Bravo, Tamps., No. 1-18	
	1975	Average	1975	Average	1975	Average	1975	Average	1975	Average
Jan.	0.98	1.55	0.75	1.73	0.67	1.43	1.10	1.66	0.71	1.53
Feb.	.35	1.13	.35	1.99	.24	1.30	.67	1.29	.08	1.39
Mar.	0	.71	0	.52	0	.79	0	.80	0	.40
Apr.	0	2.09	0	1.01	0	1.85	0	1.51	0	1.04
May	4.33	2.96	.75	3.28	3.46	3.03	1.10	2.64	1.50	2.36
June	1.38	4.13	1.14	4.05	.51	3.45	.75	3.38	2.44	3.64
July	5.20	2.35	4.49	1.90	5.35	2.04	6.57	1.42	4.72	1.86
Aug.	10.12	3.48	11.02	3.61	12.60	3.81	11.97	3.25	13.11	3.30
Sept.	6.89	5.62	3.58	5.55	3.31	5.13	3.78	5.56	1.54	4.76
Oct.	2.13	2.95	2.91	2.49	1.34	2.22	2.44	2.46	.47	2.96
Nov.	.39	1.13	.04	1.12	.08	1.52	.16	1.02	1.46	1.29
Dec.	2.24	1.15	1.38	.90	2.05	1.09	1.39	1.13	2.13	1.17
Yearly	34.01	29.25	26.41	28.15	29.61	27.66	30.43	25.32	28.16	25.70

Month	Bajo Rio Bravo, Tamps., No. 1-3		Bajo Rio Bravo, Tamps., No. 1-13		Bajo Rio Bravo, Tamps., No. 1-12		Matamoros, Tamaulipas			
	1975	Average	1975	Average	1975	Average	1975	Average		
Jan.	0.75	1.59	0.67	1.46	0.83	1.88	1.34	1.79		
Feb.	.31	1.27	.31	1.29	.35	1.56	.08	1.90		
Mar.	0	.54	0	.61	0	.56	T	.53		
Apr.	0	1.33	0	1.35	0	1.21	.04	1.53		
May	1.65	2.65	1.46	1.89	1.18	2.72	.98	2.51		
June	1.02	3.54	2.01	3.63	3.03	3.38	1.65	3.96		
July	6.89	1.78	5.31	1.76	5.16	1.98	9.13	1.84		
Aug.	7.72	2.84	6.81	3.13	9.13	2.59	13.50	3.75		
Sept.	4.21	5.22	4.49	5.53	5.00	5.59	4.45	6.40		
Oct.	1.14	2.51	.83	2.28	1.77	3.04	.98	3.44		
Nov.	.08	1.42	0	1.13	.39	1.09	1.50	1.30		
Dec.	1.69	1.02	1.57	1.03	2.36	1.18	3.70	1.56		
Yearly	25.46	25.71	23.46	25.09	29.20	26.78	37.35	30.51		

T Trace

AVERAGE RAINFALL ON SUBDIVISIONS OF THE RIO GRANDE WATERSHED

With Averages for the 105 Years 1871-1975, Inclusive

In Inches

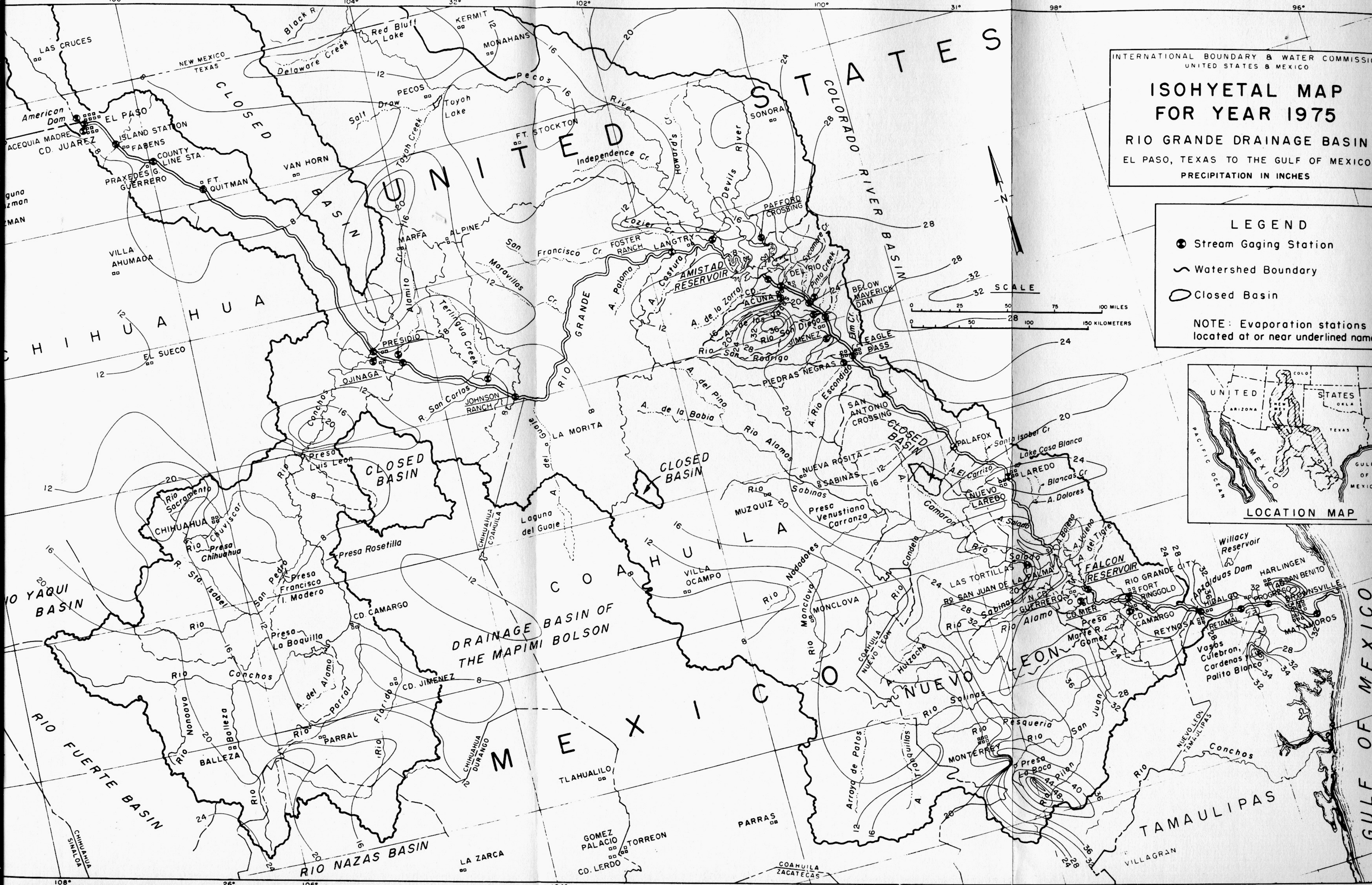
The precipitation records of all stations on or adjacent to the watershed subdivisions listed below have been used, with proper weighting for area, in calculating the average rainfalls shown here. The drainage area for each subdivision is shown in parentheses. The hundreds of individual records are delineated in the various "Indexes to Precipitation Records" shown in Water Bulletins Nos. 10, 14, 22, 26, and Supplement 40A.

Month	El Paso to Fort Quitman (2,677 Square Miles)		Fort Quitman to Above Rio Conchos (3,022 Square Miles)		* Above Rio Conchos to Johnson Ranch (3,815 Square Miles)		Johnson Ranch to Langtry (13,669 Square Miles)	
	1975	Period Average	1975	Period Average	1975	Period Average	1975	Period Average
Jan.	0.61	0.44	0.50	0.39	0.35	0.34	0.27	0.49
Feb.	.42	.38	.26	.27	.34	.29	.55	.38
Mar.	.23	.33	.10	.25	T	.20	.06	.41
Apr.	0	.26	.01	.34	.02	.39	.05	.80
May	.39	.40	.27	.60	.43	.76	1.23	1.50
June	.07	.80	.54	1.19	.94	1.10	.85	1.71
July	1.51	2.32	2.50	2.99	4.78	1.87	2.59	1.88
Aug.	.97	1.92	1.48	2.42	2.07	1.38	1.90	2.12
Sept.	1.32	1.41	2.56	1.93	1.01	1.55	1.12	2.21
Oct.	.11	.91	.15	1.02	.05	.84	.47	1.21
Nov.	.04	.43	.11	.41	.02	.33	.18	.58
Dec.	.91	.59	.44	.53	.36	.40	.30	.54
Total	6.58	10.19	8.92	12.34	10.37	9.95	9.57	13.83

Month	Pecos River below Sheffield (3,390 Square Miles)		# Langtry to Amistad Dam (2,091 Square Miles)		Devils River (4,305 Square Miles)		‡ Amistad Dam to Eagle Pass (1,625 Square Miles)	
	1975	Period Average	1975	Period Average	1975	Period Average	1975	Period Average
Jan.	0.36	0.70	0.36	0.51	0.78	0.68	0.57	0.75
Feb.	1.40	.88	1.34	.65	1.36	.73	1.05	.92
Mar.	.02	.77	T	.77	.01	1.07	.02	1.00
Apr.	.60	1.86	.34	1.32	1.50	1.77	1.94	1.68
May	2.19	1.80	3.22	1.95	3.61	2.58	4.09	2.90
June	.34	2.45	1.26	2.21	1.44	2.66	3.34	2.50
July	3.50	1.85	3.65	1.23	4.69	1.75	5.70	1.84
Aug.	2.15	2.01	.80	1.67	1.10	2.16	.61	2.01
Sept.	2.06	2.50	1.47	2.40	1.60	3.00	2.47	3.13
Oct.	1.62	1.84	.91	1.47	1.83	2.21	1.34	2.06
Nov.	1.40	.92	.05	.73	1.47	1.52	.09	1.00
Dec.	.16	.73	.25	.62	.27	.99	.34	.86
Total	15.80	18.31	13.65	15.53	19.66	21.12	21.56	20.65

Month	● Eagle Pass to Laredo (3,795 Square Miles)		ß Laredo to Falcon Dam (3,369 Square Miles)		† Falcon Dam to Rio Grande City (468 Square Miles)		United States Side below Rio Grande City (986 Square Miles)	
	1975	Period Average	1975	Period Average	1975	Period Average	1975	Period Average
Jan.	0.24	0.73	0.38	0.75	0.48	0.90	1.11	1.25
Feb.	.26	.82	.16	.81	.26	.84	.51	1.09
Mar.	.15	.93	.32	.80	.30	.95	.05	1.05
Apr.	.72	1.57	.62	1.38	.35	1.19	.03	1.34
May	5.57	3.11	4.37	3.20	3.13	2.44	2.71	2.81
June	3.29	2.47	2.65	1.99	2.15	2.13	2.53	2.55
July	3.38	1.44	6.53	2.08	6.26	1.90	7.48	1.76
Aug.	1.49	2.33	1.23	1.87	2.31	2.16	7.16	2.32
Sept.	2.40	3.08	3.75	3.14	6.09	3.62	4.17	4.42
Oct.	.85	1.88	1.72	1.62	1.02	1.95	1.72	2.53
Nov.	0	.96	.12	1.54	.10	.77	.25	1.36
Dec.	.05	.97	.19	.81	.44	.66	1.24	1.24
Total	18.40	20.29	22.04	19.99	22.89	19.51	28.96	23.72

* Excluding Rio Conchos, Alamito, and Terlingua Creeks # Excluding Pecos and Devils Rivers
‡ Excluding Arroyo Las Vacas, San Felipe Creek, Pinto Creek, Rio San Diego, and Rio San Rodrigo
● Excluding Rio Escondido ß Excluding Rio Salado above Old Cd. Guerrero
† Excluding Rio Alamo and Rio San Juan


INTERNATIONAL BOUNDARY & WATER COMMISSION
UNITED STATES & MEXICO
ISOHYETAL MAP
FOR YEAR 1975
RIO GRANDE DRAINAGE BASIN
EL PASO, TEXAS TO THE GULF OF MEXICO
PRECIPITATION IN INCHES
LEGEND
Stream Gaging Station
Watershed Boundary
Closed Basin
NOTE: Evaporation stations located at or near underlined name
SCALE
0 25 50 75 100 MILES
0 50 100 150 KILOMETERS
LOCATION MAP
UNITED STATES
MEXICO
PACIFIC OCEAN
UNITED STATES
MEXICO
CHIHUAHUA
COAHUILA
NUEVO LEON
TAMAULIPAS
GULF OF MEXICO
CLOSED BASIN
DRAINAGE BASIN OF THE MAPIMI BOLSON
RIO YAQUI BASIN
RIO FUERTE BASIN
RIO NAZAS BASIN
COLORADO RIVER BASIN
EL PASO
CD. JUAREZ
LAS CRUCES
American Dam
ACEQUIA MADRE
ISLAND STATION
FABENS
COUNTY LINE STA.
PRAXEDES G. GUERRERO
FT. QUITMAN
VAN HORN
PECOS
MONAHANS
KERMIT
Red Bluff Lake
Black R.
Delaware Creek
Toyah Lake
Toyah Creek
Salt Draw
FT. STOCKTON
Pecos River
Independence Cr.
Howard's Cr.
SONORA
Devils River
PAFFORD CROSSING
Sycamore Cr.
Pinto Creek
DEL RIO
CD. ACUÑA
AMISTAD RESERVOIR
LANGTRY
FOSTER RANCH
Lozier Cr.
San Francisco Cr.
Maravillas Cr.
ALPINE
MARFA
Alamito Cr.
Terlingua Creek
PRESIDIO
OJINAGA
JOHNSON RANCH
R. San Carlos
RIO GRANDE
A. Paloma
A. Castura
A. de la Zorra
A. de los Jimenez
Rio San Diego
JIMENEZ
Rio San Rodrigo
Elm Cr.
BELOW MAVERICK DAM
EAGLE PASS
PIEDRAS NEGRAS
Rio Escondido
SAN ANTONIO CROSSING
A. del Pino
A. de la Babia
Rio Alamos
NUEVA ROSITA
SABINAS
Rio Sabinas
MUZQUIZ
Presa Venustiano Carranza
CLOSED BASIN
PALAFOX
Santa Isabel Cr.
Lake Casa Blanca
LAREDO
NUEVO LAREDO
A. El Carrizo
Blancas Cr.
A. Dolores
Camaron
A. Salado
A. Bolaño
A. Veleño
A. del Tigre
Rio Salado
FALCON RESERVOIR
LAS TORTILLAS
SAN JUAN DE LA PALMA
RIO GRANDE CITY
FORT RINGGOLD
CD. CAMARGO
REYNOSA
Anzalduas Dam
HIDALGO
RETAMAL
HARLINGEN
SAN BENITO
PROGRESO
BROWNSVILLE
MATAMOROS
Willacy Reservoir
Vasos Culebron, Cardenas y Palito Blanco
CD. GUERRERO
CD. MIER
Presa Marte R. Gomez
Rio Alamo
Rio Sabinas
Rio San Juan
Rio Pesqueria
MONTERREY
Presa La Boca
Rio Pilon
Rio Salinas
A. Huizache
Candela
Rio Nadadores
Rio Monclova
MONCLOVA
VILLA OCAMPO
Arroyo de Patos
A. Tanquillas
Rio Conchos
VILLAGRAN
CHIHUAHUA
VILLA AHUMADA
EL SUECO
Rio Sacramento
Rio Chuviscar
Presa Chihuahua
R. Sta. Isabel
Rio San Pedro
Presa Francisco I. Madero
Presa Luis Leon
Rio Conchos
CD. CAMARGO
Presa Rosetilla
Presa La Boquilla
A. del Alamo
Rio Parral
Rio Florido
CD. JIMENEZ
PARRAL
BALLEZA
Rio Balleza
Rio Nonoava
Laguna del Guaje
Arroyo del Guaje
LA MORITA
TLAHUALILO
GOMEZ PALACIO
TORREON
CD. LERDO
PARRAS
LA ZARCA
CHIHUAHUA COAHUILA
CHIHUAHUA DURANGO
CHIHUAHUA SINALOA
COAHUILA ZACATECAS
COAHUILA NUEVO LEON
NUEVO LEON TAMAULIPAS
NEW MEXICO TEXAS
108° 106° 104° 102° 100° 98° 96°
32° 31° 26° 25° 24°

LOCATION OF RAINFALL STATIONS ON THE RIO GRANDE WATERSHED

The precipitation records of stations listed below began on the date shown and extend through 1975. For detailed information regarding sources of data, specific periods of record, and other pertinent matters relative to these and additional rainfall stations on the Rio Grande watershed see "Index to Precipitation Records" in Water Bulletins Nos. 10, 14, 22, 26, and Supplement 40A. With the exception of Las Cruces, New Mexico, all United States precipitation stations listed below are in Texas, while those in Mexico are in the indicated state as shown.

In United States

NAME OF STATION	TYPE GAGE	LATI-TUDE	LONGI-TUDE	ELEV. (FT.)	RECORD BEGAN	WATERSHED SUBDIVISION	OBSERVER
Adobes Ranch	S	29° 46'	104° 34'	2,550	1950	Fort Quitman - Above Rio Conchos	T. C. Davis
American Dam	S	31° 47'	106° 32'	3,730	1938	El Paso - Fort Quitman	I. B. & W. C.
Amistad Dam	R	29° 28'	101° 02'	1,150	July 1962	Langtry - Below Amistad Dam	I. B. & W. C.
Amistad Raft	C	29° 27'	101° 03'	‡‡	Dec. 1968	Langtry - Amistad Dam	I. B. & W. C.
Amistad Reservoir near Comstock	C	29° 33'	101° 13'	1,130	1970	Langtry - Amistad Dam	I. B. & W. C.
Apache Ranch	C	27° 56'	99° 56'	500	# 1953	Eagle Pass - Laredo	Leroy Tibiletti
Arledge, W. A. Ranch	S	29° 58'	101° 38'	1,950	June 1933	Johnson Ranch - Langtry	W. A. Arledge
Arroyo Tigre Chiquito	C	26° 41'	99° 07'	314	Apr. 1954	Laredo - Falcon Dam	I. B. & W. C.
Baker, A. A. Ranch	R	29° 44'	101° 09'	1,720	July 1962	Devils River	I. B. & W. C.
Bakers Crossing	S	29° 58'	101° 09'	1,520	#Apr. 1955	Devils River	James Baker
Big Bend Chevron Station-Study Butte	S	29° 19'	100° 32'	2,550	1967	Terlingua Creek	M. Hernandez
Big Satan Creek Station	C	29° 40'	100° 58'	1,150	Nov. 1968	Devils River	I. B. & W. C.
Black Gap Game Refuge	S	29° 34'	102° 57'	2,325	# 1952	Johnson Ranch - Langtry	Ben Martin
Bloys Camp	V	30° 33'	104° 07'	5,650	# 1941	Alamito Creek	George Knight
Bricker Ranch	S	29° 59'	101° 52'	1,680	May 1952	Johnson Ranch - Langtry	Lenamae Bricker
Brite, J. G. Ranch	R	29° 33'	101° 01'	1,150	Sept.1962	Devils River	I. B. & W. C.
Brotherton Ranch	V	29° 42'	101° 19'	1,400	1961	Langtry - Below Amistad Dam	Perry Calk
Buoy No. 11	C	29° 31'	101° 10'	‡‡	Dec. 1969	Langtry - Amistad Dam	I. B. & W. C.
Buttrill Ranch	S	30° 00'	103° 16'	3,500	Mar. 1952	Johnson Ranch - Langtry	Tom B. Leary
Canon Diablo	C	28° 39'	100° 27'	700	1964	Eagle Pass - Laredo	I. B. & W. C.
Castolon	S	29° 08'	103° 31'	2,100	#Mar. 1953	Above Rio Conchos - Johnson Ranch	National Park Service
CCWID #11 (Bayview Dist. Off.) Avg. 18 Gages	S	26° 08'	97° 21'	25	1952	Lower Rio Grande Valley	CCWID #11
CCWCID #19 (Adams Gardens)	S	26° 10'	97° 47'	50	1952	Lower Rio Grande Valley	CCWCID #19
Chittim Ranch	C	28° 44'	100° 23'	810	Mar. 1959	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Coal Mine	R	28° 48'	100° 29'	770	Mar. 1959	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Comstock	S	29° 41'	101° 10'	1,530	May 1939	Langtry - Below Amistad Dam	I. B. & W. C.
Continental Ranch	S	29° 51'	101° 18'	1,560	Mar. 1965	Pecos River Below Sheffield	Julio Crowder
Cooper Ranch	C	28° 50'	100° 27'	800	Mar. 1959	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Corralitos Ranch	C	27° 07'	99° 25'	346	1953	Laredo - Falcon Dam	I. B. & W. C.
County Line Station	R	31° 23'	105° 59'	3,550	1938	El Paso - Fort Quitman	I. B. & W. C.
Cow Creek near Comstock	R	29° 36'	101° 12'	1,210	Apr. 1965	Langtry - Below Amistad Dam	I. B. & W. C.
Crane, Ed Ranch	S	29° 51'	101° 05'	1,630	# 1955	Devils River	Ed Crane
Cuervo Creek Station	C	28° 21'	100° 19'	620	1954	Eagle Pass - Laredo	I. B. & W. C.
Dale, O. C. Farm	S	26° 15'	98° 16'	130	1952	Lower Rio Grande Valley	O. C. Dale
Dead Mans Canyon near Comstock	C	29° 47'	101° 19'	1,320	Sept.1967	Pecos River below Sheffield	I. B. & W. C.
Devils Lake	R	29° 34'	100° 59'	1,146	May 1939	Devils River	I. B. & W. C.
Dolan Springs	C	29° 54'	100° 59'	1,360	Feb. 1966	Devils River	I. B. & W. C.
Dove Mountain Ranch	S	29° 48'	102° 54'	2,880	#Mar. 1952	Johnson Ranch - Langtry	Sam Cavness
Dryden	S	30° 03'	102° 07'	2,130	# 1931	Johnson Ranch - Langtry	Lewis Cash
Eagle Pass	S	28° 42'	100° 30'	815	1964	Eagle Pass - Laredo	I. B. & W. C.
Edinburg Filtration Plant	S	26° 18'	98° 10'	100	1952	Lower Rio Grande Valley	City of Edinburg
El Indio	S	28° 31'	100° 19'	725	# 1941	Eagle Pass - Laredo	Glen Stidham
Elm Creek Station	C	28° 46'	100° 30'	720	1959	Below Amistad Dam - Eagle Pass	I. B. & W. C.
El Peyote Ranch	C	27° 07'	98° 58'	650	1966	Laredo - Falcon Dam	F. J. Saldana
Erekson Ranch	S	29° 56'	100° 34'	2,330	1955	Devils River	Bob Erekson
Evans Creek near Comstock	C	29° 32'	101° 06'	1,180	July 1969	Devils River	I. B. & W. C.
Falcon Dam	S	26° 33'	99° 08'	323	Apr. 1950	Laredo - Falcon Dam	I. B. & W. C.
Farias Ranch	R	28° 36'	100° 20'	720	Mar. 1959	Eagle Pass - Laredo	I. B. & W. C.
Fawcett, H. K. Ranch	C	29° 53'	100° 54'	1,550	# 1941	Devils River	H. K. Fawcett
Feely	C	29° 34'	101° 07'	1,250	Apr. 1965	Langtry - Below Amistad Dam	I. B. & W. C.
Fletcher, H. T. Ranch	S	30° 12'	104° 15'	5,100	# 1939	Alamito Creek	Hayes Mitchell,Jr.
Fort Hancock Bridge	S	31° 16'	105° 51'	3,500	Apr. 1940	El Paso - Fort Quitman	I. B. & W. C.

S Standard R Recording C Cumulative V Visual ‡‡ Reservoir Surface
Some months or years missing

LOCATION OF RAINFALL STATIONS ON THE RIO GRANDE WATERSHED

In United States

NAME OF STATION	TYPE GAGE	LATI-TUDE	LONGI-TUDE	ELEV. (FT.)	RECORD BEGAN	WATERSHED SUBDIVISION	OBSERVER
Fort McIntosh (Laredo)	V	27° 30'	99° 31'	410	# 1850	Eagle Pass - Laredo	I. B. & W. C.
Fort Quitman	R	31° 06'	105° 36'	3,430	# 1937	Fort Quitman - Above Rio Conchos	I. B. & W. C.
Foster, Ross Ranch	C	29° 47'	101° 45'	1,230	May 1961	Johnson Ranch - Langtry	I. B. & W. C.
Garciasville	R	26° 20'	98° 41'	200	Apr. 1957	Lower Rio Grande Valley	I. B. & W. C.
Gillis Headquarters Ranch	S	29° 37'	100° 47'	1,410	1968	Amistad Dam - Eagle Pass	Jake Schiller
Gillis Ranch	S	29° 41'	101° 03'	1,440	1965	Devils River	Walter Gillis
Goldwire Ranch	C	29° 44'	100° 57'	1,685	Nov. 1968	Devils River	Jake Schiller
Goodenough Spring Raft	C	29° 32'	101° 16'	‡‡	Aug. 1958	Langtry - Amistad Dam	I. B. & W. C.
Guayuco Arroyo	R	31° 10'	105° 40'	3,600	#May 1940	El Paso - Fort Quitman	I. B. & W. C.
Hammond, Earl Ranch	S	29° 41'	103° 51'	3,700	Apr. 1963	Terlingua Creek	Earl Hammond
Hardgrave, E. W. Ranch	S	30° 18'	102° 09'	2,650	Apr. 1952	Johnson Ranch - Langtry	Jack Hardgrave
Harlow Ranch	C	29° 50'	101° 11'	1,695	Mar. 1969	Devils River	I. B. & W. C.
HCWCID #6 Goodwin Pump No. 3	S	26° 16'	98° 24'	175	# 1953	Lower Rio Grande Valley	HCWCID #6
HCWCID #6 Goodwin Pump No. 3A	S	26° 14'	98° 22'	130	# 1953	Lower Rio Grande Valley	HCWCID #6
HCWCID #6 Goodwin Pump No. 4	S	26° 16'	98° 21'	185	1958	Lower Rio Grande Valley	HCWCID #6
HCWCID #6 Goodwin Pump No. 4B	S	26° 18'	98° 23'	210	# 1953	Lower Rio Grande Valley	HCWCID #6
HCWCID #6 Goodwin Pump No. 5	S	26° 22'	98° 21'	225	# 1953	Lower Rio Grande Valley	HCWCID #6
HCWCID #15 (Edinburg Office)	S	26° 23'	98° 09'	85	1952	Lower Rio Grande Valley	HCWCID #15
Hoffman Ranch	S	30° 38'	103° 51'	4,650	#June 1955	Pecos River Above Sheffield	Dr.A.J. Hoffman
Huisache Ranch	C	26° 57'	99° 21'	383	Aug. 1953	Laredo - Falcon Dam	I. B. & W. C.
Hutto, Calvin Ranch	S	30° 04'	101° 49'	1,990	July 1975	Pecos River	I. B. & W. C.
Hutto Ranch No. 1	R	29° 30'	100° 50'	1,240	Jan. 1964	Devils River	I. B. & W. C.
Hutto Ranch No. 2	R	29° 29'	100° 54'	1,210	Jan. 1964	Devils River	I. B. & W. C.
Indio Ranch	S	28° 31'	100° 22'	700	1959	Eagle Pass - Laredo	Earnest Scales
Island Station	R	31° 32'	106° 14'	3,630	1939	El Paso - Fort Quitman	I. B. & W. C.
James, Lewis Ranch	S	30° 11'	102° 07'	2,275	1966	Johnson Ranch - Langtry	Lewis James
Johnson Ranch	C	29° 01'	103° 23'	2,050	#July 1933	Johnson Ranch - Langtry	I. B. & W. C.
Keisling Farm	S	28° 23'	100° 17'	740	Dec. 1958	Eagle Pass - Laredo	Robert Smith
Kelly, P. W. Ranch	S	29° 46'	101° 12'	1,750	1965	Langtry - Below Amistad Dam	Bobby Kelly
King, Martin Ranch	R	29° 44'	101° 22'	1,460	Nov. 1954	Langtry - Below Amistad Dam	I. B. & W. C.
Kokernot Ranch - Hqtrs.	S	29° 59'	103° 34'	4,140	# 1952	Johnson Ranch - Langtry	David Kokernot
La Feria Materials Yard	V	26° 10'	97° 50'	60	1960	Lower Rio Grande Valley	CCWCID #3
La Feria Pumping Plant	S	26° 03'	97° 50'	60	1952	Lower Rio Grande Valley	CCWCID #3
Lajitas	S	29° 16'	103° 48'	2,320	June 1967	Above Rio Conchos - Johnson Ranch	Texas Hwy. Dept.
La Joya	R	26° 15'	98° 29'	150	Apr. 1957	Lower Rio Grande Valley	I. B. & W. C.
La Nutria Station	C	30° 14'	104° 43'	2,880	Mar. 1967	Fort Quitman - Above Rio Conchos	I. B. & W. C.
Laredo Water Plant	S	27° 33'	99° 31'	410	# 1930	Eagle Pass - Laredo	Laredo Water Plant
Las Cruces, New Mexico	S	32° 19'	106° 47'	3,893	Jan. 1975	Caballo Dam - El Paso	I. B. & W. C.
Las Moras Creek	S	29° 00'	100° 38'	800	1958	Below Amistad Dam - Eagle Pass	Lou McGee
Lateral No. 2 Spill	C	28° 56'	100° 38'	760	Mar. 1959	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Lateral No. 12 Headgate	C	28° 54'	100° 34'	800	1959	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Lateral No. 15 Spill	C	28° 51'	100° 34'	740	1959	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Latham Ranch	S	30° 13'	101° 22'	2,120	1965	Pecos River Below Sheffield	John and Bob Latham
Laughlin Air Force Base	S	29° 22'	100° 47'	1,080	Dec. 1958	Below Amistad Dam - Eagle Pass	U. S. A. F.
Lewis, Billie C., Jr. Ranch	S	29° 33'	100° 40'	1,400	1967	Below Amistad Dam - Eagle Pass	Billie C. Lewis, Jr.
Lock Store	S	30° 40'	100° 57'	2,400	Oct. 1962	Devils River	Claud Ward
Loma Vista Ranch	S	30° 13'	103° 47'	5,050	# 1941	Alamito Creek	Hayes Mitchell
Long Ranch	R	29° 28'	100° 57'	1,140	Oct. 1971	Devils River	I. B. & W. C.
Los Ebanos	C	26° 16'	98° 33'	150	Apr. 1957	Lower Rio Grande Valley	I. B. & W. C.
Los Fresnos Pump. Plant	S	25° 57'	97° 34'	30	1952	Lower Rio Grande Valley	CCWCID #6
Lowry, Cliff Ranch	R	29° 39'	100° 52'	1,490	June 1962	Devils River	I. B. & W. C.
Lowry Ranch No. 2	R	29° 37'	100° 46'	1,160	May 1965	Devils River	I. B. & W. C.
Maverick County Canal Headgate	S	29° 10'	100° 46'	870	Mar. 1948	Below Amistad Dam - Eagle Pass	MCWCID #1
Maverick Power Plant	S	28° 50'	100° 33'	800	June 1952	Below Amistad Dam - Eagle Pass	C. P. & L. Co.
Maverick Ranger Station	S	29° 18'	103° 30'	2,780	1955	Terlingua Creek	Park Ranger
McGonagill Ranch - Headquarters	S	30° 20'	102° 58'	4,150	Apr. 1952	Johnson Ranch - Langtry	W. E. McGonagill
Middle Fork San Pedro	C	29° 30'	100° 53'	1,170	June 1969	Devils River	I. B. & W. C.

S Standard R Recording C Cumulative V Visual ‡‡ Reservoir Surface
Some months or years missing

LOCATION OF RAINFALL STATIONS ON THE RIO GRANDE WATERSHED

In United States

NAME OF STATION	TYPE GAGE	LATI-TUDE	LONGI-TUDE	ELEV. (FT.)	RECORD BEGAN	WATERSHED SUBDIVISION	OBSERVER
Miers, H. T. Ranch - Headquarters	C	29° 44'	100° 51'	1,760	1957	Devils River	I. B. & W. C.
Miers, H. T. Ranch No. 2	R	29° 44'	100° 53'	1,600	Apr. 1964	Devils River	I. B. & W. C.
Miller, Eugene Ranch	S	30° 25'	101° 10'	2,150	July 1975	Devils River	I. B. & W. C.
Mitchell, Kerr Ranch	S	30° 13'	104° 00'	4,450	# 1941	Alamito Creek	Mrs. K. Mitchell
Mouth of Maravillas Creek	S	29° 34'	102° 47'	1,650	#Oct. 1949	Johnson Ranch - Langtry	Black Gap Game Refuge
Neely Ranch	S	30° 59'	105° 32'	3,350	Aug. 1941	Fort Quitman - Above Rio Conchos	Mrs. Tom Neely
New Mission Pump. Plant	S	26° 11'	98° 24'		Aug. 1961	Lower Rio Grande Valley	HCWCID #14
Nitaville Mercantile	S	29° 37'	103° 34'	3,332	Feb. 1973	Terlingua Creek	W. Terrison
Normandy	S	28° 55'	100° 36'	780	Dec. 1958	Below Amistad Dam - Eagle Pass	Fannin G. Lowe
North Fork San Pedro	C	29° 31'	100° 53'	1,144	June 1969	Devils River	I. B. & W. C.
02 Ranch	S	29° 51'	103° 45'	3,780	# 1914	Terlingua Creek	Calvin Woodward
Owens Ranch	S	30° 45'	101° 40'	2,170	July 1963	Pecos River Below Sheffield	Jeff Owens
Pafford Crossing	C	29° 41'	101° 00'	1,180	Feb. 1960	Devils River	I. B. & W. C.
Pecos River near Langtry Station	C	29° 48'	101° 27'	1,260	July 1967	Pecos River Below Sheffield	I. B. & W. C.
Penitas (Edinburg Pumping Plant)	S	26° 14'	98° 27'	100	July 1957	Lower Rio Grande Valley	B. Leadbetter
Persimmon Gap Ranger Station	S	29° 40'	103° 10'	2,900	# 1948	Johnson Ranch - Langtry	Park Ranger
Pinto Creek Station	C	29° 09'	100° 43'	870	Dec. 1958	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Potter, A. M. Ranch	S	29° 46'	103° 25'	3,440	1952	Johnson Ranch - Langtry	A. M. Potter
Presidio (IB&WC Gage)	C	29° 34'	104° 23'	2,550	Oct. 1949	Above Rio Conchos - Johnson Ranch	I. B. & W. C.
Prosser Ranch No. 1	C	29° 54'	101° 14'	1,710	Mar. 1965	Pecos River Below Sheffield	I. B. & W. C.
Prosser Ranch No. 2	C	29° 59'	101° 16'	1,850	Mar. 1965	Devils River	I. B. & W. C.
Prosser Ranch No. 3	C	30° 02'	101° 16'	2,020	Mar. 1965	Pecos River Below Sheffield	I. B. & W. C.
Quebec Ranch	V	30° 31'	104° 25'	4,600	1949	Adjacent to Alamito Creek	George Jones
Ranchita (Continental)	S	29° 50'	101° 20'	1,540	1969	Pecos River	Julio Crowder
Redford	C	29° 29'	104° 13'	2,500	July 1954	Above Rio Conchos - Johnson Ranch	I. B. & W. C.
Roma (Internat'l Bridge)	S	26° 24'	99° 01'	230	1941	Falcon Dam - Rio Grande City	Starr County Bridge Co.
Rosita Creek Siphon	C	28° 41'	100° 24'	760	# 1959	Eagle Pass - Laredo	I. B. & W. C.
Rosita Creek Station	C	28° 36'	100° 24'	700	# 1959	Eagle Pass - Laredo	I. B. & W. C.
Rough Canyon nr. Del Rio	C	29° 35'	100° 56'	1,147	June 1969	Devils River	I. B. & W. C.
San Benito Pump	S	26° 03'	97° 45'	50	Oct. 1953	Lower Rio Grande Valley	I. B. & W. C.
Sawyer, W. E. Ranch	S	30° 28'	100° 47'	2,100	June 1966	Devils River	Geo. Powell
Sellers Ranch	C	29° 34'	101° 02'	1,190	#Feb. 1960	Devils River	I. B. & W. C.
Shafter	V	29° 49'	104° 19'	3,800	July 1968	Above Rio Conchos - Johnson Ranch	Rosa Munoz
Shannon, Bill Ranch	C	29° 57'	104° 40'	2,680	# 1956	Fort Quitman - Above Rio Conchos	Bill Shannon
Sheep Pasture	S	29° 33'	102° 55'	2,210	May 1965	Johnson Ranch - Langtry	Black Gap Game Refuge
Stewart Ranch	R	29° 35'	100° 52'	1,330	Feb. 1960	Devils River	I. B. & W. C.
Stumberg, Steve Ranch	C	30° 11'	102° 53'	4,300	1943	Johnson Ranch - Langtry	Mrs. Steve Stumberg
Sultenfuss Ranch	S	29° 21'	100° 37'	1,110	1965	Pinto Creek	Udo Sultenfuss
Terlingua Creek Station	C	29° 12'	103° 36'	2,215	Mar. 1952	Above Rio Conchos - Johnson Ranch	I. B. & W. C.
Terrell Plant (El Paso Nat. Gas Co.)	R	30° 22'	101° 50'	2,510	July 1962	Pecos River Below Sheffield	Bob Norred
Terry, Bit	S	30° 10'	101° 14'	1,830	July 1975	Devils River	I. B. & W. C.
Trees Farm	R	28° 38'	100° 25'	720	Mar. 1959	Eagle Pass - Laredo	I. B. & W. C.
Van Dalsem Farm	C	28° 27'	100° 19'	700	1959	Eagle Pass - Laredo	I. B. & W. C.
Villa de la Mina	S	29° 45'	103° 40'	3,274	Sept. 1964	Terlingua Creek	Glenn Pepper
Vinegarone	C	29° 57'	100° 46'	1,780	May 1966	Devils River	I. B. & W. C.
Walker Ranch	C	29° 49'	101° 14'	1,530	July 1969	Devils River	I. B. & W. C.
Weyrich Farm	C	28° 40'	100° 24'	760	Sept. 1962	Eagle Pass - Laredo	I. B. & W. C.
Whipple Farm	S	26° 04'	97° 29'	25	1952	Lower Rio Grande Valley	Harry Whipple
Whitehead Bros. Ranch	S	30° 02'	100° 52'	1,900	May 1966	Devils River	I. B. & W. C.
Whitehead, Tuffy Ranch	R	29° 38'	101° 07'	1,420	July 1962	Devils River	I. B. & W. C.
Wipff Ranch	C	29° 00'	100° 35'	840	Mar. 1959	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Woodward, J. F. Ranch	S	30° 08'	103° 36'	4,750	1954	Johnson Ranch - Langtry	J. F. Woodward
Wuensche Farm	S	28° 24'	100° 19'	670	# 1952	Eagle Pass - Laredo	I. B. & W. C.
Wynne, Harold Ranch Hdq.	S	29° 29'	103° 23'	3,610	Jan. 1973	Johnson Ranch - Langtry	H. Wynne
Yarborough Ranch	S	30° 06'	103° 36'	4,550	1966	Johnson Ranch - Langtry	Venancio Victorino
Zapata Water Plant	S	26° 54'	99° 16'	380	May 1953	Laredo - Falcon Dam	Zapata Water Plant
Zuberbuler Ranch	S	29° 41'	101° 14'		Feb. 1975	Langtry - Amistad Dam	J. U. Zuberbuler

S Standard R Recording C Cumulative V Visual # Some months or years missing

LOCATION OF RAINFALL STATIONS ON THE RIO GRANDE WATERSHED

In Mexico

NAME OF STATION	TYPE GAGE	LATI-TUDE	LONGI-TUDE	ELEV. (FT.)	RECORD BEGAN	WATERSHED SUBDIVISION	OBSERVER
A. Bianca Canoas, Nuevo Leon	S	25° 32'	100° 30'	†	# 1958	Rio San Juan	Hydr. Resources
Adjuntas, Nuevo Leon	S	25° 18'	100° 08'	†	# 1958	Rio San Juan	Monterrey Wtrwrks
Allende, Coahuila	S	28° 21'	100° 51'	1,170	# 1947	Eagle Pass - Laredo	Hydr. Resources
Amistad Reservoir near Tlaloc, Coahuila	C	29° 26'	101° 07'	1,200	1970	Langtry - Amistad Dam	I. B. & W. C.
Anahuac, Nuevo Leon	S	27° 15'	100° 08'	656	#June 1933	Rio Salado	Hydr. Resources
Aniego 166, Tamaulipas	C	26° 46'	99° 15'	308	Jan. 1964	Laredo - Falcon Dam	I. B. & W. C.
Apodaca, Nuevo Leon	S	25° 46'	100° 11'	1,330	Feb. 1964	Rio San Juan	Hydr. Resources
Arguelles, Tamaulipas	C	26° 11'	98° 23'	†	1962	Lower Rio Grande Valley	I. B. & W. C.
Bachiniva, Chihuahua	S	28° 46'	107° 15'	6,250	# 1952	Adjacent to Rio Conchos	Meteor. Service of Mexico
Bajo Rio Bravo, Tamaulipas							
No. 1-2	S	25° 56'	97° 46'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 1-3	S	25° 50'	97° 42'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 1-4	S	25° 51'	97° 45'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 1-12	S	25° 56'	97° 38'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 1-13	S	25° 44'	97° 40'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 1-18	S	25° 49'	97° 42'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 2-5	S	25° 48'	97° 49'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 2-6	S	25° 44'	97° 53'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 2-7	S	25° 39'	97° 42'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 2-8	S	25° 40'	97° 55'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 2-10	S	25° 36'	97° 52'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 2-11	S	25° 35'	97° 46'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 3-14	S	25° 56'	97° 59'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 3-15	S	25° 46'	98° 01'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 3-17	S	25° 49'	97° 58'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 4-16	S	25° 35'	98° 00'	†	1964	Lower Rio Grande Valley	Hydr. Resources
Bajo Rio San Juan, Tamaulipas							
No. 2-29	S	26° 10'	98° 38'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 2-33	S	26° 10'	98° 28'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 2-38	S	26° 06'	98° 34'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 3-47	S	25° 58'	98° 07'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 3-55	S	25° 52'	98° 12'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 3-58	S	25° 50'	98° 11'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 3-60	S	25° 46'	98° 10'	†	1964	Lower Rio Grande Valley	Hydr. Resources
No. 3-63	S	25° 41'	98° 06'	†	1964	Lower Rio Grande Valley	Hydr. Resources
Balleza, Chihuahua	S	26° 57'	106° 21'	5,870	# 1903	Rio Conchos	Meteor. Service of Mexico
Banderas, Chihuahua	S	31° 00'	105° 39'	†	1963	Fort Quitman - Above Rio Conchos	Hydr. Resources
Bustamente, Nuevo Leon	S	26° 32'	100° 31'	1,450	# 1958	Rio Salado	Hydr. Resources
Cabezones, Nuevo Leon	S	24° 59'	99° 45'	†	1962	Adjacent to Rio San Juan	Hydr. Resources
Cadereyta, Nuevo Leon	S	25° 35'	100° 00'	1,180	#Sept. 1904	Rio San Juan	Hydr. Resources
Camargo, Chihuahua	S	27° 42'	105° 10'	5,420	Oct. 1956	Rio Conchos	Hydr. Resources
Camargo, Tamaulipas	S	26° 19'	98° 50'	223	# 1953	Falcon Dam - Rio Grande City	Hydr. Resources
Candela, Coahuila	S	26° 50'	100° 40'	†	# 1970	Rio Salado	Hydr. Resources
Carbonera, Nuevo Leon	S	24° 49'	100° 47'	†	# 1958	Rio San Juan	Hydr. Resources
Carichic, Chihuahua	S	27° 55'	107° 04'		May 1961	Rio Conchos	Meteor. Service of Chihuahua
Casillas, Nuevo Leon	S	25° 12'	100° 12'	4,060	# 1958	Rio San Juan	Hydr. Resources
Cd. Acuna, Coahuila	S	29° 20'	100° 57'	900	1951	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Cd. Diaz Ordaz	S	26° 14'	98° 36'	130	# 1953	Lower Rio Grande Valley	Hydr. Resources
Cd. Guerrero, Chihuahua	S	28° 33'	107° 29'	6,560	#May 1903	Adjacent to Rio Conchos	Meteor. Service of Mexico
Cd. Mier, Tamaulipas	S	26° 26'	99° 09'	260	Oct. 1955	Falcon Dam - Rio Grande City	I. B. & W. C.
Cd. Mier Km. 8, SW, Tamaulipas	C	26° 23'	99° 14'	†	1962	Rio Alamo	I. B. & W. C.
Cerralvo, Nuevo Leon	R	26° 05'	99° 37'	1,130	#Nov. 1938	Rio San Juan	Hydr. Resources
Cerritos, Nuevo Leon	S	25° 31'	100° 12'	†	# 1958	Rio San Juan	Monterrey Wtrwrks
Cerro Prieto, Nuevo Leon	S	25° 57'	99° 26'	†	#Sept. 1958	Rio San Juan	Hydr. Resources
Chihuahua, Chihuahua	S	28° 38'	106° 04'	4,690	# 1900	Rio Conchos	Meteor. Service of Mexico
Chupadero, Coahuila	S	29° 05'	100° 51'	980	1961	Rio San Diego	F. Jakubesch
Cienega de Flores, Nuevo Leon	R	25° 57'	100° 57'	1,770	Apr. 1938	Rio San Juan	Hydr. Resources
Cienega del Toro, Nuevo Leon	S	25° 05'	100° 20'	7,010	# 1958	Rio San Juan	Hydr. Resources
Colombia, Nuevo Leon	C	27° 42'	99° 46'	†	Jan. 1964	Eagle Pass - Laredo	I. B. & W. C.
Colonia Anahuac, Chihuahua	S	28° 29'	106° 44'	6,550	1961	Rio Conchos	Celulosa de Chihuahua, S.A.
Comales, Tamaulipas	R	26° 11'	98° 55'	260	#Mar. 1938	Rio San Juan	Hydr. Resources
Conchos, Coahuila	S	28° 01'	101° 20'	†	#Oct. 1950	Rio Salado	Hydr. Resources
Control, Tamaulipas	S	25° 58'	97° 49'	59	#June 1942	Lower Rio Grande Valley	Hydr. Resources

S Standard C Cumulative R Recording † Not available # Some months or years missing

LOCATION OF RAINFALL STATIONS ON THE RIO GRANDE WATERSHED

In Mexico

NAME OF STATION	TYPE GAGE	LATI-TUDE	LONGI-TUDE	ELEV. (FT.)	RECORD BEGAN	WATERSHED SUBDIVISION	OBSERVER
Coyame, Chihuahua	S	29° 28'	105° 06'	†	Nov. 1961	Rio Conchos	Meteor. Service of Chihuahua
Cuatro Cienegas, Coah.	S	26° 59'	102° 04'	2,430	# 1923	Rio Salado	Hydr. Resources
Cuauhtemoc, Chihuahua	S	28° 24'	106° 52'	7,250	#June 1923	Adjacent to Rio Conchos	Meteor. Service of Mexico
Delicias, Chihuahua	S	28° 11'	105° 28'	3,710	#Aug. 1933	Rio Conchos	Hydr. Resources
Don Martin, Coahuila	S	27° 31'	100° 37'	790	#June 1927	Rio Salado	Hydr. Resources
Ejido Eutimias, Coahuila	S	28° 20'	102° 45'	3,182	#Apr. 1972	Johnson Ranch - Langtry	Hydr. Resources
Ejido San Blas, Coahuila	S	27° 25'	101° 43'	†	# 1970	Rio Salado	Hydr. Resources
El Anteojo, Chihuahua	S	28° 29'	104° 48'	4,130	1963	Adjacent to Rio Conchos	Meteor. Service of Mexico
El Cuarenta, Chihuahua	S	30° 33'	105° 50'	†	1965	Adjacent to Ft. Quitman Above Rio Conchos	Meteor. Service of Mexico
El Cuchillo, Nuevo Leon	S	25° 43'	99° 16'	590	June 1938	Rio San Juan	Hydr. Resources
El Cuervo, Chihuahua	S	30° 15'	105° 08'	3,840	# 1961	Adjacent to Ft. Quitman Above Rio Conchos	Hydr. Resources
El Realito, Nuevo Leon	S	25° 18'	99° 21'	†	# 1970	Rio San Juan	Hydr. Resources
El Remolino, Coahuila	S	28° 45'	101° 05'	1,310	June 1958	Rio San Rodrigo	I. B. & W. C.
El Sitio, Chihuahua	S	27° 31'	106° 16'	†	July 1955	Rio Conchos	Meteor. Service of Chihuahua
El Sueco, Chihuahua	S	29° 54'	106° 24'	5,090	1958	Adjacent to Rio Conchos	Meteor. Service of Chihuahua
El Treinta, Coahuila	S	28° 20'	101° 24'	†	1961	Rio Salado	I. B. & W. C.
El Vergel, Chihuahua	S	26° 22'	106° 30'	7,350	# 1957	Rio Conchos	Meteor. Service of Mexico
Escalon, Chihuahua	S	26° 45'	104° 21'	4,144	# 1957	Adjacent to Rio Conchos	Meteor. Service of Mexico
Estacion Rosario, Durango	S	26° 30'	105° 38'	†	July 1962	Rio Conchos	Hydr. Resources
Galeana, Nuevo Leon	S	24° 50'	100° 04'	5,430	# 1958	Adjacent to Rio San Juan	Meteor. Service of Mexico
Gallego, Chihuahua	S	29° 50'	106° 23'	5,100	1958	Adjacent to Rio Conchos	Meteor. Service of Chihuahua
Garita Km. 28, Chihuahua	S	31° 33'	106° 28'	3,990	May 1958	El Paso - Ft. Quitman	I. B. & W. C.
Garza Ayala, Nuevo Leon	S	26° 29'	100° 03'	†	# 1968	Rio Salado	Hydr. Resources
Gral. Bravo, Nuevo Leon	S	25° 48'	99° 11'	590	#Sept.1906	Rio San Juan	Hydr. Resources
Gral. Cepeda, Coahuila	S	25° 23'	101° 29'	4,920	#Aug. 1926	Rio San Juan	Hydr. Resources
Gral. Teran (Experiment Station), Nv. Leon	S	25° 16'	99° 38'	1,090	# 1958	Rio San Juan	Agriculture and Livestock Dept.
Guadalupe, Chihuahua	S	31° 23'	106° 06'	3,650	1958	El Paso - Ft. Quitman	I. B. & W. C.
Hacienda El Alamo, Nuevo Leon	S	26° 29'	99° 47'	†	1968	Rio Alamo	I. B. & W. C.
Hacienda Mamulique, Nuevo Leon	S	26° 07'	100° 14'	†	1973	Rio San Juan	Hydr. Resources
Hacienda San Miguel, Coahuila	S	29° 13'	101° 30'	†	1961	Langtry - Below Amistad Dam	I. B. & W. C.
Higueras, Nuevo Leon	S	25° 58'	100° 01'	1,640	#Sept.1906	Rio San Juan	Meteor. Service of Mexico
Icamole, Nuevo Leon	S	25° 55'	100° 43'	4,900	# 1958	Rio San Juan	Hydr. Resources
Iturbide, Nuevo Leon	S	24° 44'	99° 54'	†	1941	Adjacent to Rio San Juan	Hydr. Resources
Jimenez, Chihuahua	S	27° 08'	104° 55'	4,490	# 1951	Rio Conchos	Hydr. Resources
Jimenez, Coahuila	S	29° 04'	100° 40'	810	# 1951	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Juarez, Chihuahua	S	31° 44'	106° 29'	3,740	# 1903	El Paso - Ft. Quitman	Hydr. Resources
Juarez, Coahuila	S	27° 37'	100° 44'	1,000	# 1943	Rio Salado	Hydr. Resources
Km. 99, Chihuahua	S	28° 08'	105° 35'	†	# 1962	Rio Conchos	Hydr. Resources
Km. 135, Chihuahua	S	28° 13'	105° 37'	†	# 1962	Rio Conchos	Hydr. Resources
La Arena, Nuevo Leon	S	25° 46'	100° 01'	†	# 1968	Rio San Juan	Hydr. Resources
La Bandera, Tamaulipas	C	26° 42'	99° 22'	†	1962	Laredo - Falcon Dam	I. B. & W. C.
La Boquilla, Chihuahua	S	27° 32'	105° 25'	4,330	# 1910	Rio Conchos	Electric Industry of Mexico
La Campana, Chihuahua	S	29° 20'	106° 20'	4,820	# 1958	Rio Conchos	Meteor. Service of Mexico
La Cruz, Nuevo Leon	S	25° 28'	100° 26'	†	1958	Rio San Juan	Hydr. Resources
La Gloria, Nuevo Leon	S	26° 53'	99° 49'	390	#May 1958	Rio Salado	I. B. & W. C.
La Popa, Nuevo Leon	S	26° 10'	100° 50'	3,230	# 1958	Rio San Juan	Hydr. Resources
La Rosita, Coahuila	S	28° 27'	103° 18'	3,440	# 1974	Johnson Ranch - Langtry	Hydr. Resources
La Trasquila, Chihuahua	S	29° 08'	107° 03'	†	# 1962	Adjacent to Rio Conchos	Hydr. Resources
Laguna de Salinillas, Nuevo Leon	S	27° 26'	100° 23'	750	# 1940	Rio Salado	Hydr. Resources
Laguna de Sanchez, N. L.	R	25° 22'	100° 17'	6,500	Apr. 1941	Rio San Juan	Hydr. Resources
Lampazos, Nuevo Leon	S	27° 02'	100° 30'	1,120	# 1958	Rio Salado	Meteor. Service of Mexico
Las Burras, Chihuahua	S	28° 31'	105° 26'	3,590	July 1949	Rio Conchos	Hydr. Resources
Las Comitas, Nuevo Leon	S	25° 26'	100° 09'	1,670	# 1940	Rio San Juan	Hydr. Resources
Las Enramadas, Nuevo Leon	S	25° 30'	99° 31'	730	#Sept.1926	Rio San Juan	Hydr. Resources
Las Tortillas, Tamaulipas	C	26° 50'	99° 34'	360	May 1961	Laredo - Falcon Dam	I. B. & W. C.
Las Varas, Chihuahua	S	29° 48'	106° 42'	†	# 1958	Adjacent to Rio Conchos	Meteor. Service of Mexico
Las Virgenes, Chihuahua	S	28° 10'	105° 38'	4,070	# 1943	Rio Conchos	Hydr. Resources

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LOCATION OF RAINFALL STATIONS ON THE RIO GRANDE WATERSHED

In Mexico

NAME OF STATION	TYPE GAGE	LATI-TUDE	LONGI-TUDE	ELEV. (FT.)	RECORD BEGAN	WATERSHED SUBDIVISION	OBSERVER
Lazaro Cardenas, Chihuahua	S	28° 23'	105° 37'	3,940	# 1961	Rio Conchos	Meteor. Service of Mexico
Linares, Nuevo Leon	R	24° 52'	99° 34'	1,180	# 1900	Adjacent to Rio San Juan	Hydr. Resources
Loma Blanca, Chihuahua	S	31° 35'	106° 18'	3,650	1970	El Paso - Ft. Quitman	Hydr. Resources
Los Barriles, Chihuahua	S	30° 55'	105° 45'	4,860	July 1958	El Paso - Ft. Quitman	I. B. & W. C.
Los Herrera(La Tableta), Nuevo Leon	R	25° 54'	99° 24'	820	#Sept.1939	Rio San Juan	Hydr. Resources
Los Ramones, Nuevo Leon	R	25° 42'	99° 38'	260	#Sept.1939	Rio San Juan	Hydr. Resources
Luis L. Leon, Chihuahua	S	31° 05'	105° 38'	3,460	Apr. 1958	El Paso - Ft. Quitman	I. B. & W. C.
Maclovio Herrera (Palomir), Chihuahua	S	29° 03'	105° 08'	3,380	# 1924	Rio Conchos	Meteor. Service of Mexico
Madero (Los Aldama), Nuevo Leon	S	26° 02'	99° 12'	†	#May 1970	Rio San Juan	Hydr. Resources
Maijoma, Chihuahua	S	28° 55'	104° 21'	4,270	Aug. 1955	Rio Conchos	Meteor. Service of Chihuahua
Majalca, Chihuahua	S	29° 53'	106° 21'	6,860	June 1963	Rio Conchos	Meteor. Service of Mexico
Manuel Benavides, Chihuahua	S	29° 06'	103° 54'	†	Oct. 1961	Above Rio Conchos - Johnson Ranch	Meteor. Service of Mexico
Matamoros, Tamaulipas	S	25° 52'	97° 30'	33	# 1958	Lower Rio Grande Valley	Hydr. Resources
Meoqui, Chihuahua	S	28° 16'	105° 29'	3,790	1961	Rio Conchos	Meteor. Service of Mexico
Miguel Aleman, Tamaulipas	S	26° 24'	99° 02'	180	1964	Falcon Dam - Rio Grande City	Hydr. Resources
Mimbres, Nuevo Leon	S	24° 58'	100° 16'	†	# 1958	Rio San Juan	Hydr. Resources
Mina, Nuevo Leon	S	26° 00'	100° 32'	†	# 1958	Rio San Juan	Hydr. Resources
Mina La Borrada, Coahuila	S	29° 21'	102° 36'	†	Aug. 1961	Johnson Ranch - Langtry	I. B. & W. C.
Monclova, Coahuila	S	26° 54'	101° 25'	1,920	# 1897	Rio Salado	Hydr. Resources
Montemorelos, Nuevo Leon	S	25° 12'	99° 50'	1,420	#Aug. 1904	Rio San Juan	Hydr. Resources
Monterrey, Nuevo Leon	S	25° 40'	100° 18'	1,740	# 1896	Rio San Juan	Hydr. Resources
Muzquiz, Coahuila	S	27° 53'	101° 31'	1,650	# 1923	Rio Salado	Meteor. Service of Mexico
Nonoava, Chihuahua	S	27° 29'	106° 44'	†	# 1963	Rio Conchos	Meteor. Service of Chihuahua
Nueva Cd. Guerrero, Tamaulipas	S	26° 34'	99° 14'	350	#May 1954	Laredo - Falcon Dam	I. B. & W. C.
Nuevo Laredo, Tamaulipas	V	27° 30'	99° 30'	430	1950	Laredo - Falcon Dam	I. B. & W. C.
Nuevo Laredo, Tamaulipas	S	27° 30'	99° 30'	430	# 1909	Laredo - Falcon Dam	Meteor. Service of Mexico
Nuevo Laredo Km. 26, SSW, Tamaulipas	C	27° 17'	99° 37'	†	Apr. 1961	Laredo - Falcon Dam	I. B. & W. C.
Nuevo Laredo (Sur), Tamaulipas	S	27° 26'	99° 32'	413	May 1975	Eagle Pass - Laredo	I. B. & W. C.
Ocampo, Coahuila	S	27° 19'	102° 24'	3,770	# 1960	Adjacent to Rio Salado	Hydr. Resources
Ojinaga, Chihuahua	S	29° 34'	104° 24'	2,590	#Apr. 1954	Rio Conchos	I. B. & W. C.
Ojinaga, Chihuahua	S	29° 34'	104° 25'	2,620	#Nov. 1906	Rio Conchos	Meteor. Service of Mexico
Ojo Caliente, Chihuahua	S	27° 41'	105° 12'	4,010	1942	Rio Conchos	Hydr. Resources
Pajonal, Nuevo Leon	S	25° 29'	100° 23'	†	1958	Rio San Juan	Hydr. Resources
Palestina, Coahuila	S	29° 09'	100° 59'	1,080	# 1931	Rio San Diego	Hydr. Resources
Paras, Nuevo Leon	S	26° 30'	99° 31'	541	1958	Rio Alamo	Hydr. Resources
Parral, Chihuahua	S	26° 56'	105° 39'	5,450	# 1903	Rio Conchos	Meteor. Service of Mexico
Parras, Coahuila	S	25° 27'	102° 10'	5,510	1958	Adjacent to Rio San Juan	Hydr. Resources
Parrita, Chihuahua	S	29° 25'	106° 29'	†	# 1958	Adjacent to Rio Conchos	Hydr. Resources
Piedras Negras, Coahuila	S	28° 43'	100° 31'	820	# 1951	Below Amistad Dam - Eagle Pass	Meteor. Service of Mexico
Planta Zootecnica, Chihuahua	S	28° 41'	106° 04'	4,770	# 1957	Rio Conchos	Meteor. Service of Mexico
Porvenir, Chihuahua	S	31° 14'	105° 52'	3,530	1958	El Paso - Ft. Quitman	I. B. & W. C.
Potosi, Nuevo Leon	S	24° 51'	100° 19'	6,260	# 1958	Adjacent to Rio San Juan	Hydr. Resources
Potrero del Llano, Chihuahua	S	29° 13'	104° 26'	3,540	#June 1964	Above Rio Conchos - Johnson Ranch	I. B. & W. C.
Praxedis G. Guerrero, Chihuahua	S	31° 22'	106° 00'	3,560	1958	El Paso - Ft. Quitman	I. B. & W. C.
Presa Anzalduas, Tamaulipas	V	26° 08'	98° 20'	105	Apr. 1960	Lower Rio Grande Valley	I. B. & W. C.
Presa Cabeceras, Coahuila	S	29° 02'	101° 05'	†	1964	Below Amistad Dam - Eagle Pass	Hydr. Resources
Presa Centenario, Coahuila	S	29° 13'	100° 57'	†	1964	Arroyo Las Vacas	Hydr. Resources
Presa Chihuahua, Chihuahua	S	28° 34'	106° 10'	5,230	Oct. 1961	Rio Conchos	Hydr. Resources
Presa Luis L. Leon, Chihuahua	S	28° 57'	105° 17'	†	Oct. 1964	Rio Conchos	Hydr. Resources
Presa San Miguel, Coahuila	S	29° 02'	100° 57'	1,000	1964	Rio San Diego	Hydr. Resources

S Standard C Cumulative R Recording V Visual # Some months or years missing
† Not available

LOCATION OF RAINFALL STATIONS ON THE RIO GRANDE WATERSHED

In Mexico

NAME OF STATION	TYPE GAGE	LATI-TUDE	LONGI-TUDE	ELEV. (FT.)	RECORD BEGAN	WATERSHED SUBDIVISION	OBSERVER
Progreso, Coahuila	S	27° 25'	101° 00'	1,210	#Feb. 1943	Rio Salado	Hydr. Resources
Ramos Arizpe, Coahuila	S	25° 32'	100° 57'	4,590	#Apr. 1907	Rio San Juan	Meteor. Service of Mexico
Rancho Bonanza, Tamaulipas	S	26° 50'	99° 26'	†	1973	Laredo - Falcon Dam	Delfino Garcia R.
Rancho La Chuparrosa, Coahuila	R	29° 30'	101° 15'	1,150	1970	Langtry - Amistad Dam	I. B. & W. C.
Rancho Las Espuelas, Tamaulipas	S	27° 07'	99° 27'	†	1971	Laredo - Falcon Dam	Delfino Garcia R.
Rancho Los Vidrios, Tamaulipas	C	27° 35'	99° 37'	450	Sept.1956	Eagle Pass - Laredo	I. B. & W. C.
Rancho Mercedes, Coahuila	S	28° 02'	100° 01'	540	May 1959	Eagle Pass - Laredo	I. B. & W. C.
Rancho San Diego, Coahuila	S	27° 59'	100° 35'	†	May 1959	Eagle Pass - Laredo	I. B. & W. C.
Rancho San Juan de la Palma, Tamaulipas	S	26° 54'	99° 20'	350	Apr. 1955	Laredo - Falcon Dam	I. B. & W. C.
Rancho San Rafael Bustamante, Tamps.	C	26° 54'	99° 30'	†	Nov. 1967	Rio Salado	I. B. & W. C.
Rayones, Nuevo Leon	S	25° 01'	100° 05'	1,970	#Oct. 1926	Rio San Juan	Hydr. Resources
Reata, Coahuila	S	26° 07'	101° 04'	3,070	#July 1944	Rio San Juan	Hydr. Resources
Represa Amistad, Coahuila	R	29° 26'	101° 02'	918	#June 1969	Below Amistad Dam - Eagle Pass	I. B. & W. C.
Retamal, Tamaulipas	S	26° 02'	98° 03'	82	Oct. 1949	Lower Rio Grande Valley	I. B. & W. C.
Reynosa, Tamaulipas	R	26° 06'	98° 17'	130	# 1941	Lower Rio Grande Valley	Hydr. Resources
Reynosa Km. 22, SW, Tamaulipas	C	26° 00'	98° 30'	†	# 1962	Lower Rio Grande Valley	I. B. & W. C.
Rinconada, Nuevo Leon	S	25° 41'	100° 42'	4,790	#Apr. 1944	Rio San Juan	Hydr. Resources
Rio Bravo, Tamaulipas	S	25° 59'	98° 06'	85	#Sept.1950	Lower Rio Grande Valley	Hydr. Resources
Rio Salado Riberena, Tamaulipas	S	26° 48'	99° 24'	330	July 1964	Laredo - Falcon Dam	I. B. & W. C.
Rosetilla, Chihuahua	S	28° 15'	105° 18'	3,780	1940	Rio Conchos	Electric Industry of Mexico
Rusio, Nuevo Leon	S	24° 42'	100° 26'	6,570	#June 1956	Adjacent to Rio San Juan	Hydr. Resources
Sabinas, Coahuila	S	27° 51'	101° 07'	1,120	#May 1922	Rio Salado	Hydr. Resources
Sabinas Hidalgo, Nuevo Leon	S	26° 30'	100° 10'	1,030	May 1958	Rio Salado	I. B. & W. C.
Saltillo, Coahuila	S	25° 26'	101° 00'	5,280	# 1886	Rio San Juan	Hydr. Resources
Samalayuca, Chihuahua	S	31° 21'	106° 28'	4,180	1958	El Paso - Ft. Quitman	Meteor. Service of Mexico
San Agustin, Chihuahua	S	31° 31'	106° 15'	3,650	1958	El Paso - Ft. Quitman	I. B. & W. C.
San Antonio de las Alazanas, Coahuila	S	25° 16'	100° 35'	†	1958	Rio San Juan	Hydr. Resources
San Antonio, Chihuahua	S	31° 01'	106° 00'	4,490	July 1958	El Paso - Ft. Quitman	I. B. & W. C.
San Antonio, Durango	S	26° 25'	105° 21'	5,430	# 1943	Rio Conchos	Hydr. Resources
San Buenaventura, Coahuila	S	27° 05'	101° 33'	2,300	#Dec. 1926	Rio Salado	Meteor. Service of Mexico
San Fernando, Coahuila	S	29° 25'	101° 43'	†	Aug. 1961	Langtry - Below Amistad Dam	I. B. & W. C.
San Ignacio, Tamaulipas	C	27° 04'	99° 23'	†	1964	Laredo - Falcon Dam	I. B. & W. C.
San Javier, Nuevo Leon	C	26° 16'	99° 25'	†	1962	Rio Alamo	I. B. & W. C.
San Juan, Nuevo Leon	S	25° 33'	99° 50'	880	#Nov. 1943	Rio San Juan	Hydr. Resources
San Lorenzo, Chihuahua	S	28° 10'	106° 29'	3,770	# 1961	Rio Conchos	Hydr. Resources
San Rafael, Nuevo Leon	S	25° 02'	100° 33'	†	# 1959	Adjacent to Rio San Juan	Hydr. Resources
Santa Barbara, Chihuahua	S	26° 48'	105° 49'	6,460	1964	Rio Conchos	Hydr. Resources
Santa Catarina, Nuevo Leon	R	25° 40'	100° 29'	2,230	Oct. 1937	Rio San Juan	Hydr. Resources
Santa Rosa, Coahuila	V	29° 33'	101° 28'	†	# 1958	Langtry - Below Amistad Dam	Ind. Co-operator
Santa Rosa, Nuevo Leon	S	24° 10'	100° 18'	†	1970	Adjacent to Rio San Juan	Hydr. Resources
Sierra Mojada, Coahuila	S	27° 17'	103° 42'	4,120	# 1897	Adjacent to Johnson Ranch - Langtry	Hydr. Resources
Sombreretillo, Nuevo Leon	S	26° 18'	99° 58'	†	1970	Rio San Juan	Hydr. Resources
Tacubaya, Chihuahua	S	28° 08'	104° 23'	5,150	#July 1962	Adjacent to Rio Conchos	Met. Serv. of Mexico
Tinajas, Chihuahua	S	31° 08'	106° 05'	4,320	1958	El Paso - Ft. Quitman	I. B. & W. C.
Topo Chico, Nuevo Leon	R	25° 44'	100° 20'	1,640	#Aug. 1939	Rio San Juan	Hydr. Resources
Tunel San Francisco, Nuevo Leon	S	25° 25'	100° 10'	†	# 1958	Rio San Juan	Hydr. Resources
Vado de Cedillos, Chihuahua	S	31° 13'	105° 48'	3,500	Apr. 1958	El Paso - Ft. Quitman	I. B. & W. C.
Valadeces, Tamaulipas	S	26° 14'	98° 40'	†	1964	Lower Rio Grande Valley	Hydr. Resources
Vallecillo, Nuevo Leon	S	26° 40'	99° 59'	900	#June 1958	Rio Salado	Hydr. Resources
Valle Allende, Chihuahua	S	28° 56'	105° 23'	†	Mar. 1962	Rio Conchos	Meteor. Service of Chihuahua
Valle Hermoso, Tamaulipas	S	25° 41'	97° 48'	52	#June 1949	Lower Rio Grande Valley	Hydr. Resources

S Standard C Cumulative R Recording V Visual # Some months or years missing
† Not available

LOCATION OF RAINFALL STATIONS ON THE RIO GRANDE WATERSHED

In Mexico

NAME OF STATION	TYPE GAGE	LATI-TUDE	LONGI-TUDE	ELEV. (FT.)	RECORD BEGAN	WATERSHED SUBDIVISION	OBSERVER
Victoria, Chihuahua	S	27° 58'	104° 33'	4,810	June 1963	Adjacent to Rio Conchos	Meteor. Service of Mexico
Villa Aldama, Chihuahua	S	28° 50'	105° 55'	4,140	1961	Rio Conchos	Meteor. Service of Mexico
Villa Allende, Nuevo Leon	S	25° 17'	100° 01'	2,210	#Nov. 1938	Rio San Juan	Hydr. Resources
Villa Coronado, Chihuahua	S	26° 44'	105° 08'	4,790	Aug. 1964	Rio Conchos	Hydr. Resources
Villa de Santiago, Nuevo Leon	S	25° 25'	100° 09'	1,460	# 1923	Rio San Juan	Hydr. Resources
Villa Guerrero, Coahuila	S	28° 19'	100° 23'	690	#June 1958	Eagle Pass - Laredo	I. B. & W. C.
Villa Hidalgo, Coahuila	S	27° 47'	99° 52'	660	1951	Eagle Pass - Laredo	I. B. & W. C.
Villalba, Chihuahua	S	28° 10'	105° 46'	3,940	Oct. 1940	Rio Conchos	Hydr. Resources

S Standard # Some months or years missing

EVAPORATION IN THE RIO GRANDE BASIN IN THE UNITED STATES

In Inches

Tabulated below are records of evaporation observed at eight stations in Texas operated by the United States Section of the Commission from Presidio to Brownsville. At all stations, the exposure to wind was uniform and relatively unimpeded. The sites were kept cleared of all high brush and trees within 150 feet, and all brush, tall weeds, and other obstructions within 100 feet of the fenced enclosures. Within the enclosures all vegetation has been eradicated or kept trimmed to within 3 inches of the ground surface. For specific location of these stations refer to data opposite same station name shown in "Location of Rainfall Stations on the Rio Grande Watershed," pages 137 through 139 in this bulletin.

Records were obtained by means of:

1. Standard National Weather Service pan. A circular pan, 4 feet in diameter and 10 inches deep, made of 22-gage galvanized iron, is set on a wooden platform with the rim of the pan 16 inches above the ground. The water level is maintained between 2 and 3 inches below the rim of the pan and is measured with a micrometer gage. This type of pan was in operation at Amistad Dam and Falcon Dam.

2. A circular pan, 2 feet in diameter and 36 inches deep, made of 22-gage galvanized iron, is set in the ground with the rim of the pan 3 inches above the ground surface and the top covered with a circular screen of No. 4 (1/4" mesh) galvanized hardware cloth. The water level is maintained between 2.5 and 3.5 inches below the rim of the pan. This type of pan was in operation at Falcon Dam. This same type of pan, equipped with an automatic feed tank that maintains the water at a level 3 inches below the rim of the pan, was in operation at Martin King Ranch and Eagle Pass.

3. An evaporometer, developed by the United States Section of the Commission and calibrated against a 2-foot pan described above, was in operation at Presidio, Johnson Ranch, and at a site 7 miles east of Brownsville. On October 1, 1971, the Wardlaw Ranch station was relocated to the Long Ranch, about 1.5 miles west, where an evaporometer was installed to replace the pan at the former location.

Month	Presidio		Johnson Ranch		Martin King Ranch		Long Ranch	
	1975	Average 1950-1975	1975	Average 1950-1975	1975	#Average 1956-1975	1975	Average October 1971-1975
Jan.	3.50	3.80	2.42	3.39	2.22	3.03	2.04	2.38
Feb.	5.18	5.19	4.03	4.88	3.56	3.59	2.46	2.98
Mar.	7.87	8.25	8.24	8.25	6.53	6.18	4.17	4.85
Apr.	9.02	10.10	9.48	10.55	6.58	7.42	4.68	5.83
May	10.21	11.89	10.97	11.94	6.79	8.39	4.54	5.98
June	11.52	12.85	10.03	12.30	8.81	10.08	6.61	7.46
July	9.14	12.07	7.15	12.25	8.00	11.13	6.39	8.03
Aug.	9.60	11.21	8.78	11.20	8.32	10.43	5.80	6.71
Sept.	7.07	9.51	8.13	9.08	5.75	7.45	5.35	5.13
Oct.	7.46	7.54	8.07	7.18	5.67	5.30	4.24	3.15
Nov.	5.90	4.89	4.52	4.59	4.28	3.84	3.80	3.17
Dec.	3.50	3.63	2.35	3.35	3.39	3.10	2.16	2.22
Total	89.97	100.93	84.17	98.96	69.90	79.94	52.24	57.89

Month	Amistad Dam		Eagle Pass		Falcon Dam				Brownsville	
					2-Foot Pan		4-Foot Pan			
	1975	Average March 1963-1975	1975	#Average 1964-1975	1975	#Average 1950-1975	1975	#Average 1956-1975	1975	#Average 1958-1975
Jan.	3.93	4.00	2.80	3.11	3.82	3.49	4.66	4.08	2.98	2.46
Feb.	5.12	4.86	3.86	3.65	4.41	4.42	5.36	5.36	4.60	3.45
Mar.	8.59	8.59	6.43	5.60	7.22	6.67	9.14	8.51	7.36	4.54
Apr.	9.57	10.31	6.10	6.72	8.00	7.92	10.64	10.56	6.84	5.43
May	9.69	11.17	6.33	6.92	9.06	9.35	10.97	12.11	2.77	5.27
June	12.83	13.23	7.40	9.50	10.63	10.92	13.00	13.52	2.80	5.72
July	10.08	15.34	6.32	10.84	9.10	12.74	11.85	15.63	4.56	6.53
Aug.	11.75	13.44	9.72	9.69	7.97	11.37	10.02	14.23	3.58	6.24
Sept.	8.41	9.54	6.00	6.93	5.34	8.04	6.74	9.99	5.22	4.83
Oct.	7.97	7.15	5.94	5.80	6.07	6.47	7.85	7.52	7.28	4.24
Nov.	5.04	4.88	5.64	3.80	6.40	4.87	6.57	5.46	3.80	3.44
Dec.	4.33	3.80	3.54	3.49	4.22	3.76	4.42	4.04	4.74	2.77
Total	98.21	106.31	70.08	76.05	82.24	90.02	100.62	111.01	56.53	54.92

Some months missing

EVAPORATION IN THE RIO GRANDE BASIN IN MEXICO

In Inches

Tabulated below are records of evaporation observed at nine stations operated and maintained by the Mexican Section of the Commission. Eight stations are along the Rio Grande from Cd. Acuna, Coahuila to Retamal, Tamaulipas and one is located on the Rio Conchos near Ojinaga, Chihuahua. At all stations, except Ojinaga, the sites were kept cleared of all high brush and trees within 150 feet, and of all brush and tall weeds within 100 feet of the fenced enclosures. There are several large trees at the Ojinaga station. The corrugated iron gage well, 42 inches in diameter, and one A-frame of the cableway of the Rio Conchos stream gaging station are in the north end of the enclosure. Inside the enclosures, all vegetation had been eradicated or was kept trimmed to within 3 inches of the ground surface. Except for a water barrel and a thermometer shelter in the northeast and northwest corners of the enclosures, the exposure to wind was uniform and relatively unimpeded. For specific location of these stations refer to data opposite same station name shown in "Location of Rainfall Stations on the Rio Grande Watershed," pages 140 through 144 in this bulletin.

The type of pan used at all these stations was a standard National Weather Service-type pan, 4 feet in diameter and 10 inches deep, made of 22-gage galvanized iron, set on a wooden platform with the rim of the pan 16 inches above the ground. The water level was maintained between 2 and 3 inches below the rim of the pan and was measured with a micrometer gage.

Data for other evaporation stations in the Rio Grande basin in Mexico, which were operated by various Mexican agencies, are available in Water Bulletin No. 45 published by the Mexican Section of the Commission.

Month	Ojinaga, Chihuahua		Cd. Acuna, Coahuila		Jimenez, Coahuila		Hidalgo, Coahuila		Nuevo Laredo, Tamaulipas	
	1975	#Avg. April 1954-1975	1975	#Average 1951-1975	1975	#Average 1951-1975	1975	#Average 1951-1975	1975	Avg. Aug. 1964-1975
Jan.	3.43	3.78	3.54	3.50	4.06	3.58	3.04	4.02	4.33	4.02
Feb.	4.57	5.13	5.16	4.74	4.92	4.52	5.24	5.28	5.47	5.09
Mar.	10.12	8.75	8.11	7.94	8.23	7.09	8.58	8.14	8.70	8.21
Apr.	10.47	11.23	9.25	9.03	9.25	7.88	10.04	10.17	9.72	10.14
May	13.23	13.47	7.95	10.03	8.74	9.02	8.62	12.10	10.79	11.01
June	14.37	13.94	10.31	11.75	10.79	10.83	12.01	13.71	12.64	12.52
July	8.32	13.11	9.49	13.37	9.41	12.18	14.45	15.25	11.81	13.85
Aug.	11.02	11.39	10.39	12.04	10.75	10.97	9.37	13.94	10.55	12.58
Sept.	8.31	9.13	8.93	8.66	7.28	7.75	6.54	9.97	8.58	9.68
Oct.	7.13	7.32	6.34	6.18	7.05	5.39	8.11	7.43	8.46	7.37
Nov.	5.47	4.55	5.31	4.01	6.42	3.67	5.63	4.88	6.65	5.09
Dec.	3.78	3.44	3.19	3.18	4.17	3.07	4.17	3.78	4.72	3.97
Total	100.72	105.24	85.97	94.43	91.07	85.95	96.70	103.67	102.42	103.53

Month	Rancho San Juan de la Palma, Tamaulipas		Nueva Cd. Guerrero, Tamaulipas		Cd. Mier, Tamaulipas		Retamal, Tamaulipas	
	1975	#Avg. April 1955-1975	1975	#Avg. June 1954-1975	1975	#Avg. Oct. 1955-1974	1975	#Average 1951-1975
Jan.	3.74	3.75	4.13	3.55	3.82	3.75	4.84	3.99
Feb.	4.80	4.89	4.57	4.43	5.55	4.87	5.12	4.74
Mar.	7.76	7.58	7.80	7.27	8.82	7.89	8.19	8.55
Apr.	9.33	9.59	8.78	9.10	8.90	9.72	7.87	8.03
May	9.29	11.35	9.13	10.55	10.12	11.07	7.76	8.54
June	10.43	12.01	10.98	11.53	10.94	12.19	8.90	9.04
July	10.12	13.51	10.55	13.38	11.14	14.38	8.46	9.83
Aug.	9.53	12.92	8.35	12.21	9.92	13.08	9.72	9.70
Sept.	6.42	9.60	6.22	8.89	6.02	9.70	6.46	7.35
Oct.	5.00	6.93	6.34	6.64	6.81	7.45	6.42	6.00
Nov.	4.69	4.77	5.79	4.76	5.63	4.09	6.54	4.42
Dec.	3.15	3.74	3.82	3.51	3.90	3.78	6.65	3.82
Total	84.20	100.64	86.46	95.82	91.57	102.87	86.93	82.01

Some months missing

TEMPERATURE, HUMIDITY AND WIND

The maximum and minimum temperatures shown for the stations in Mexico are from daily maximum and minimum thermometer observations. The mean monthly temperatures are averages of these daily maximum and minimum temperatures.

The mean monthly temperatures and relative humidities shown for stations in the United States were integrated from continuous records of hygrothermographs, housed in louvered shelters, with the sensing elements of the instruments 16 inches above the ground and 9 feet southwest of either a 2 or 4-foot diameter evaporation pan. The maximum and minimum temperatures shown below are the extreme temperatures for the month as recorded on the charts except for Falcon Dam and Amistad Dam where the readings are based on daily maximum and minimum thermometer observations.

Monthly mean wind velocities are based on the total miles of wind movement indicated by a standard 3-cup anemometer installed and operated according to specifications for a Class A National Weather Service evaporation station.

Temperature - Degrees Fahrenheit

In United States

Month	Amistad Dam, Texas				Eagle Pass, Texas				Falcon Dam, Texas			
	Mean 1975	Average March 1963-1975	1975 Max.	1975 Min.	Mean 1975	#Average 1964-1975	1975 Max.	1975 Min.	Mean 1975	Average July 1950-1975	1975 Max.	1975 Min.
Jan.	53.7	50.7	86	19	54.8	51.8	89	20	56.7	56.4	94	18
Feb.	55.4	52.9	81	29	56.7	54.6	84	34	57.7	59.9	92	31
Mar.	64.0	62.6	92	34	66.5	63.9	100	38	68.5	67.1	102	44
Apr.	71.4	71.6	93	41	73.2	73.2	100	43	73.8	75.2	109	45
May	77.6	76.6	95	60	77.8	77.6	100	60	79.8	80.0	105	65
June	82.2	81.9	103	60	82.2	82.6	99	62	81.0	83.9	103	64
July	80.5	84.7	99	64	80.7	85.6	100	66	80.6	85.9	104	64
Aug.	83.1	83.4	98	68	84.4	84.3	101	68	80.6	85.6	111	66
Sept.	75.9	77.8	99	49	76.7	78.2	99	52	76.0	81.0	94	54
Oct.	70.7	69.6	94	48	71.7	69.7	98	48	72.2	73.5	92	51
Nov.	62.1	60.1	90	29	62.4	60.8	91	30	64.1	64.1	92	31
Dec.	54.0	51.9	80	29	53.4	54.0	80	30	55.9	57.7	88	31
Yearly	69.2	68.6	103	19	70.0	69.7	101	20	70.6	72.5	111	18

In Mexico

Month	Cd. Juarez, Chihuahua				Ojinaga, Chihuahua				Cd. Acuna, Coahuila			
	Mean 1975	#Average July 1960-1975	1975 Max.	1975 Min.	Mean 1975	#Average April 1954-1975	1975 Max.	1975 Min.	Mean 1975	#Average April 1951-1975	1975 Max.	1975 Min.
Jan.	46.4	45.3	77	18	50.0	49.4	82	19	53.6	49.8	90	16
Feb.	50.0	49.4	77	23	53.6	53.9	84	25	57.2	54.6	86	21
Mar.	55.4	56.9	86	30	62.6	61.6	90	34	64.4	63.2	108	30
Apr.	60.8	64.0	91	34	69.8	71.0	100	41	71.6	72.3	102	30
May	71.6	73.4	93	43	78.8	79.6	100	52	77.0	78.6	105	54
June	82.4	81.2	104	54	87.8	85.0	109	63	82.4	84.6	109	48
July	80.6	82.9	100	63	80.6	85.5	102	68	82.4	87.3	108	63
Aug.	80.6	80.3	100	64	84.2	84.0	104	64	84.2	86.8	108	64
Sept.	73.4	74.8	95	46	77.0	79.5	97	50	77.0	81.3	108	43
Oct.	66.2	65.0	91	39	71.6	70.5	97	45	71.6	71.5	97	43
Nov.	53.6	52.7	82	23	60.8	58.3	97	25	60.8	59.2	95	23
Dec.	46.4	46.4	73	23	51.8	50.7	84	21	51.8	51.5	91	21
Yearly	64.0	64.4	104	18	69.0	69.1	109	19	69.5	70.1	109	16

Month	Chupadero, Coahuila				Jimenez, Coahuila				El Remolino, Coahuila			
	Mean 1975	#Average 1961-1975	1975 Max.	1975 Min.	Mean 1975	#Average March 1951-1975	1975 Max.	1975 Min.	Mean 1975	Average June 1958-1975	1975 Max.	1975 Min.
Jan.	48.2	49.0	81	23	53.6	52.5	97	43	59.0	56.7	91	34
Feb.	50.0	53.6	77	27	60.8	56.7	106	27	60.8	59.9	90	34
Mar.	59.0	63.0	93	34	64.4	63.0	95	23	64.4	65.9	97	36
Apr.	68.0	72.2	90	34	69.8	71.3	90	36	75.2	74.8	104	50
May	73.4	76.9	91	55	78.8	77.3	95	48	78.8	79.2	108	54
June	77.0	82.4	95	59	80.6	83.3	97	57	82.4	84.2	108	61
July	82.4	85.6	97	64	82.4	85.5	97	66	84.2	86.2	109	64
Aug.	80.6	84.1	95	64	84.2	85.2	100	70	84.2	85.7	111	61
Sept.	73.4	79.0	93	46	95.0	80.7	99	45	80.6	81.8	108	54
Oct.	66.2	70.0	88	43	69.8	71.7	90	46	75.2	73.9	100	50
Nov.	55.4	59.4	88	27	64.4	61.1	93	30	71.6	66.7	99	45
Dec.	60.8	52.2	73	21	59.0	54.2	97	28	64.4	60.0	93	36
Yearly	66.2	69.0	97	21	71.9	70.2	106	23	73.4	72.9	111	34

Some months missing

TEMPERATURE, HUMIDITY AND WIND

Temperature - Degrees Fahrenheit
In Mexico

Month	Piedras Negras, Coahuila				Guerrero, Coahuila				Villa Hidalgo, Coahuila			
	Mean 1975	#Average April 1951-1975	1975 Max.	1975 Min.	Mean 1975	#Average 1958-1975	1975 Max.	1975 Min.	Mean 1975	#Average August 1951-1975	1975 Max.	1975 Min.
Jan.	55.4	51.4	86	19	55.4	51.3	93	21	53.6	54.3	91	14
Feb.	55.4	55.5	84	32	59.0	54.8	88	36	55.4	57.9	90	28
Mar.	66.2	62.9	99	35	75.2	65.6	108	43	66.2	65.5	99	36
Apr.	73.4	71.9	99	43	71.6	73.0	102	41	75.2	75.8	111	37
May	78.8	77.7	100	61	82.4	79.2	104	61	78.8	80.5	106	48
June	82.4	83.7	99	61	86.0	83.4	104	63	80.6	85.9	99	59
July	82.4	86.3	102	64	86.0	85.7	104	68	78.8	87.2	102	66
Aug.	86.0	85.5	102	70	87.8	85.7	104	70	82.4	87.5	99	64
Sept.	77.0	79.4	104	52	78.8	80.3	102	48	77.0	82.6	97	48
Oct.	71.6	70.3	93	50	75.2	70.9	97	48	71.6	74.5	106	43
Nov.	62.6	59.2	93	28	64.4	61.5	93	28	62.6	61.8	91	36
Dec.	55.4	52.7	82	30	60.8	54.0	87	23	53.6	56.5	82	32
Yearly	70.6	69.7	104	19	73.6	70.4	108	21	69.6	72.5	111	14

Month	Nuevo Laredo, Tamps., C.I.I.A.				Nuevo Laredo, Tamps., M.S. of M.				Rancho San Juan de la Palma, Tamps.			
	Mean 1975	Average August 1964-1975	1975 Max.	1975 Min.	Mean 1975	#Average 1945-1975	1975 Max.	1975 Min.	Mean 1975	#Average April 1955-1975	1975 Max.	1975 Min.
Jan.	62.6	55.1	99	27	59.0	56.2	90	19	57.2	55.9	90	23
Feb.	62.6	58.5	91	37	75.2	60.7	86	30	59.0	59.5	86	36
Mar.	71.6	68.8	106	43	68.0	67.4	100	41	68.0	66.4	100	43
Apr.	78.8	77.2	111	48	77.0	75.5	104	46	75.2	75.2	102	50
May	86.0	81.4	108	66	84.2	80.8	102	64	80.6	80.1	102	45
June	87.8	85.0	106	68	86.0	84.6	100	66	82.4	84.8	104	48
July	86.0	87.1	106	68	84.2	87.5	102	64	80.6	87.2	100	61
Aug.	87.8	86.8	102	72	84.2	87.2	100	68	82.4	86.8	99	68
Sept.	82.4	82.7	102	57	78.8	81.4	100	54	78.8	82.3	102	66
Oct.	78.8	75.2	106	52		73.3			73.4	75.3	91	52
Nov.	69.8	66.5	99	37	66.2	64.3	88	32	64.4	66.0	90	34
Dec.	60.8	59.6	91	36	59.0	56.7	82	32	57.2	58.5	82	34
Yearly	76.2	73.7	111	27		73.0	104	19	71.6	73.2	104	23

Month	El Treinta, Coahuila				Sabinas Hidalgo, Nuevo Leon				Nueva Cd. Guerrero, Tamaulipas			
	Mean 1975	Average 1961-1975	1975 Max.	1975 Min.	Mean 1975	Average October 1961-1975	1975 Max.	1975 Min.	Mean 1975	Average 1958-1975	1975 Max.	1975 Min.
Jan.	51.8	50.4	91	14	59.0	57.1	99	23	64.4	55.5	93	39
Feb.	55.4	54.9	86	25	60.8	60.3	95	34	60.8	58.9	88	37
Mar.	66.2	64.3	102	36	71.6	67.1	108	41	71.6	66.8	102	45
Apr.	69.8	73.8	104	36	73.4	75.8	102	43	75.2	76.0	108	52
May	75.2	77.7	100	54	80.6	79.8	108	59	82.4	80.7	102	66
June	82.4	81.3	108	57	84.2	83.9	108	57	86.0	84.6	104	64
July	77.0	83.1	100	57	80.6	84.7	104	57	82.4	86.1	102	63
Aug.	80.6	82.8	99	61	80.6	84.6	100	66	84.2	86.1	100	70
Sept.	73.4	77.6	99	46	77.0	80.2	102	54	78.8	81.8	95	57
Oct.	69.8	69.8	95	45	69.8	74.0	93	50	75.2	74.7	93	54
Nov.	55.4	59.7	95	39	64.4	65.1	86	32	68.0	65.5	95	36
Dec.	51.8	52.2	79	28	60.8	59.4	86	36	59.0	57.9	88	34
Yearly	67.4	69.0	108	14	71.9	72.7	108	23	74.0	72.9	108	34

Month	Cd. Mier, Tamaulipas				Retamal, Tamaulipas			
	Mean 1975	#Average October 1955-1975	1975 Max.	1975 Min.	Mean 1975	#Average 1951-1975	1975 Max.	1975 Min.
Jan.	59.0	55.4	91	25	59.0	60.5	84	23
Feb.	60.8	59.1	88	32	62.6	63.0	90	37
Mar.	71.6	67.3	100	45	69.8	69.4	102	37
Apr.	77.0	75.8	108	48	73.4	76.7	93	45
May	84.2	80.3	104	66	80.6	80.3	99	61
June	86.0	84.3	104	66	80.6	83.6	97	61
July	84.2	86.1	102	64	80.6	85.4	102	66
Aug.	84.2	86.1	100	68	82.4	86.0	97	66
Sept.	77.0	81.8	93	52	77.0	82.9	93	50
Oct.	73.4	74.3	97	50	73.4	76.7	93	50
Nov.	68.0	65.0	93	34	68.0	68.3	91	32
Dec.	57.2	58.2	88	34	60.8	62.1	90	32
Yearly	73.6	72.8	108	25	72.4	74.6	102	23

Some months missing

TEMPERATURE, HUMIDITY AND WIND

Mean Wind Speed - Miles Per Hour
In United States

Month	Martin King Ranch, Texas		Amistad Dam, Texas		Falcon Dam, Texas	
	1975	Average 1957-1975	1975	#Average March 1963-1975	1975	#Average July 1950-1975
Jan.	2.7	3.8	3.0	3.3	3.8	3.8
Feb.	3.7	4.7	3.9	3.9	3.8	4.5
Mar.	5.2	6.2	4.4	4.8	4.7	4.9
Apr.	6.2	6.2	4.6	4.8	5.8	5.6
May	5.2	6.8	3.8	4.8	5.3	5.6
June	6.7	7.2	4.6	5.1	5.9	5.9
July	4.9	6.7	3.2	4.8	4.1	6.2
Aug.	5.0	5.9	3.5	4.1	3.1	5.2
Sept.	4.2	5.1	3.0	3.7	1.8	4.1
Oct.	4.9	4.7	3.4	3.5	2.8	3.6
Nov.	4.4	4.0	3.6	3.2	3.4	3.8
Dec.	3.6	3.6	3.0	3.2	3.4	3.5
Yearly	4.7	5.4	3.7	4.1	4.0	4.7

Mean Relative Humidity-Percent
In United States

Month	Amistad Dam, Texas		Eagle Pass, Texas		Falcon Dam, Texas	
	1975	Average March 1963-1975	1975	#Average 1964-1975	1975	Average July 1950-1975
Jan.	64.8	60.6	67.4	63.9	59.3	66.5
Feb.	60.5	59.4	63.6	61.3	55.2	63.7
Mar.	54.8	54.6	58.6	58.4	53.7	61.7
Apr.	55.4	57.7	63.3	61.0	55.6	61.6
May	69.5	63.3	74.6	67.6	58.3	64.4
June	64.8	62.1	71.8	65.5	57.9	63.8
July	71.2	58.6	72.7	61.3	60.2	60.0
Aug.	63.7	61.1	67.0	64.2	63.1	61.5
Sept.	68.2	67.7	70.9	71.6	66.7	66.2
Oct.	63.0	67.3	64.9	70.2	59.9	66.8
Nov.	51.7	63.3	59.6	67.9	49.2	66.3
Dec.	58.0	62.0	61.2	65.6	57.4	64.8
Yearly	62.1	61.5	66.3	64.9	58.0	63.9

In Mexico

Month	Nueva Cd. Guerrero, Tamaulipas	
	1975	Average August 1961-1975
Jan.	81	79
Feb.	85	78
Mar.	73	73
Apr.	77	74
May	75	79
June	76	78
July	78	75
Aug.	75	75
Sept.	74	80
Oct.	71	79
Nov.	68	78
Dec.	70	79
Yearly	75	77

Some months missing

DRAINAGE BASIN AND IRRIGATED AREAS

Along the Rio Grande and Tributaries – 1975

The total area within the outer rim of the Rio Grande basin is about 335,500 square miles but it contains large areas, especially along its southwestern boundary, that contribute no surface runoff to the Rio Grande. Such noncontributing areas constitute about 47 percent of the total area, leaving 176,333 square miles of productive watershed which is the only one included in the list below.

The irrigated areas shown below are listed in accordance with the location of their diversion points and are all within the Rio Grande basin, except in the Lower Rio Grande Valley where large portions of irrigated lands in both countries lie outside the basin boundary line.

Only areas irrigated in 1975 are shown except that, in the United States below Falcon Dam, the figures shown represent acreages which were subject to irrigation in 1975 but for which data on the portion actually irrigated is not known. On the Mexican side part of the data may have been gathered previous to 1975.

DESIGNATION OF AREAS AND GAGING STATIONS	Drainage Basin Square Miles			Irrigated Areas - Acres		
	United States	Mexico	Total	United States	Mexico	Total
Above Elephant Butte Dam	25,923	0	25,923			
Elephant Butte Dam to Caballo Dam	1,295	0	1,295	0	0	0
Above Caballo Dam	27,218	0	27,218	0	0	0
Caballo Dam to El Paso Station	2,049	0	2,049	93,253	0	93,253
Above El Paso Gaging Station	29,267	0	29,267	93,253	0	93,253
El Paso Station to American Dam	4	0	4	12,917	0	12,917
Above American Dam	29,271	0	29,271	106,170	0	106,170
American Dam to Island Station	187	285	472	31,624	14,332	45,956
Above Island Gaging Station	29,458	285	29,743	137,794	14,332	152,126
Island Station to County Line Station	485	259	744	0	0	0
American Dam to County Line Station - Total	672	544	1,216	31,624	14,332	45,956
Above County Line Gaging Station	29,943	544	30,487	137,794	14,332	152,126
County Line Station to Fort Quitman Station	663	794	1,457	13,662	0	13,662
Above Fort Quitman Gaging Station	30,606	1,338	31,944	151,456	14,332	165,788
Fort Quitman Station to Above Presidio Station	1,621	1,401	3,022	885	249	1,134
Above Presidio Station above Rio Conchos	32,227	2,739	34,966	152,341	14,581	166,922
Rio Conchos above Boquilla Dam	0	8,131	8,131	0	a) 5,832	5,832
Rio Conchos above Luis L. Leon Dam	0	22,992	22,992	0	382,455	382,455
Rio Conchos - Total	0	26,404	26,404	0	388,287	388,287
Alamito Creek above Gaging Station	1,504	0	1,504	67	0	67
Presidio Station above Rio Conchos to Presidio Station below Rio Conchos - excluding above tributaries	367	98	465	2,249	309	2,558
Presidio Station above Rio Conchos to Presidio Station below Rio Conchos - Total	1,871	26,502	28,373	2,316	388,596	390,912
Above Presidio Station below Rio Conchos	34,098	29,241	63,339	154,657	403,177	557,834
Terlingua Creek above Gaging Station	1,070	0	1,070	b) 1,150	0	1,150
Presidio Station below Rio Conchos to Johnson Ranch Station - excluding Terlingua Creek	1,093	2,258	3,351	1,044	1,184	2,228
Presidio Station below Rio Conchos to Johnson Ranch Station - Total	2,163	2,258	4,421	2,194	1,184	3,378
Above Johnson Ranch Gaging Station	36,261	31,499	67,760	156,851	404,361	561,212
Johnson Ranch Station to Foster Ranch Station	6,412	6,570	12,982	c) 3,548	0	3,548
Above Foster Ranch Gaging Station	42,673	38,069	80,742	160,399	404,361	564,760
Foster Ranch Station to Langtry Station	182	505	687	0	0	0
Above Langtry Gaging Station (Discontinued)	42,855	38,574	81,429	160,399	404,361	564,760
Pecos River above Girvin	29,562	0	29,562		0	
Pecos River, Girvin to Station near Langtry	5,617	0	5,617	0	0	0
Pecos River above Station at Mouth (Discontinued)	35,308	0	35,308	0	0	0
Devils River above Pafford Crossing Station	3,961	0	3,961	0	0	0
Devils River above Station near Mouth (Discontinued)	4,305	0	4,305	0	0	0
Langtry Station to Amistad Dam - excluding above tributaries	217	1,875	2,092	0	0	0
Langtry Station to Amistad Dam - Total	39,830	1,875	41,705	0	0	0

a) Includes area above Macero Reservoir b) Includes 1,000 acres irrigated by spreader dam
c) Includes 3,360 acres irrigated by spreader dam

DRAINAGE BASIN AND IRRIGATED AREAS

Along the Rio Grande and Tributaries – 1975

DESIGNATION OF AREAS AND GAGING STATIONS	Drainage Basin Square Miles			Irrigated Areas - Acres		
	United States	Mexico	Total	United States	Mexico	Total
Above Amistad Dam	82,685	40,449	123,134	160,399	404,361	564,760
Amistad Dam to Below Amistad Dam Gaging Station	5	4	9	0	0	0
Above the Below Amistad Dam Gaging Station	82,690	40,453	123,143	160,399	404,361	564,760
Below Amistad Dam Station to Del Rio Station	60	100	160	470	0	470
Above Del Rio Gaging Station	82,750	40,553	123,303	160,869	404,361	565,230
Arroyo Las Vacas above Gaging Station	0	350	350	0	536	536
San Felipe Creek above Gaging Station	46	0	46	2,300	0	2,300
Pinto Creek above Gaging Station	249	0	249	400	0	400
Rio San Diego above Gaging Station	0	853	853	0	12,929	12,929
Rio San Diego - Total	0	859	859	0	14,523	14,523
Del Rio Station to Below Maverick Dam Station near Quemado - excluding above tributaries	669	110	779	39,750	2,562	42,312
Del Rio Station to Below Maverick Dam Station near Quemado - Total	964	1,319	2,283	42,450	17,621	60,071
Above the Below Maverick Dam Gaging Station near Quemado	83,714	41,872	125,586	203,319	421,982	625,301
Rio San Rodrigo near Mouth above Gaging Station	0	1,049	1,049	0	6,301	6,301
Rio San Rodrigo - Total	0	1,049	1,049	0	6,301	6,301
Below Maverick Dam Station near Quemado to Maverick Power Plant - excluding Rio San Rodrigo	287	114	401	1,530	0	1,530
Below Maverick Dam Station near Quemado to Maverick Power Plant - Total	287	1,163	1,450	1,530	6,301	7,831
Above Maverick Power Plant	84,001	43,035	127,036	204,849	428,283	633,132
Maverick Power Plant to Eagle Pass Station	244	32	276	200	1,268	1,468
Above Eagle Pass Gaging Station	84,245	43,067	127,312	205,049	429,551	634,600
Rio Escondido above Gaging Station	0	1,459	1,459	0	10,235	10,235
Rio Escondido - Total	0	1,471	1,471	0	10,235	10,235
Eagle Pass Station to San Antonio Crossing Station - excluding Rio Escondido	237	206	443	275	267	542
Eagle Pass Station to San Antonio Crossing Station - Total	237	1,677	1,914	275	10,502	10,777
Above San Antonio Crossing Gaging Station	84,482	44,744	129,226	205,324	440,053	645,377
San Antonio Crossing Station to Palafox Station	629	1,683	2,312	902	1,329	2,231
Above Palafox Gaging Station	85,111	46,427	131,538	206,226	441,382	647,608
Palafox Station to Laredo Station	607	433	1,040	4,255	4,574	8,829
Above Laredo Gaging Station	85,718	46,860	132,578	210,481	445,956	656,437
Rio Salado above Venustiano Carranza Dam	0	15,831	15,831	0	61,262	61,262
Rio Salado above Las Tortillas Gaging Station	0	23,155	23,155	0	114,046	114,046
Rio Salado above River Road Crossing	0	23,323	23,323	0	114,046	114,046
Laredo Station to Falcon Dam - excluding Rio Salado	2,042	1,327	3,369	a) 8,664	3,875	12,539
Laredo Station to Falcon Dam - Total	2,042	24,650	26,692	8,664	117,921	126,585
Amistad Dam to Falcon Dam - excluding above tributaries	4,780	4,009	8,789	56,046	13,875	69,921
Above Falcon Dam	87,760	71,510	159,270	219,145	563,877	783,022
Rio Alamo above Gaging Station	0	1,675	1,675	0	7,660	7,660
Rio San Juan above Marte Gomez Dam	0	12,745	12,745	0	102,543	102,543
Rio San Juan - Marte Gomez Dam to Camargo Gaging Station	0	195	195	0	164,816	164,816
Rio San Juan - Total	0	12,940	12,940	0	267,364	267,364
Falcon Dam to Ft. Ringgold Station - excluding above tributaries	222	246	468	5,526	5,011	10,537
Falcon Dam to Ft. Ringgold Station - Total	222	14,870	15,092	5,526	230,035	235,561
Above Fort Ringgold Gaging Station	87,982	86,380	174,362	224,671	843,912	1,068,583
Fort Ringgold Station to Anzalduas Dam	952	798	1,750	178,407	502,328	680,735
Above Anzalduas Dam	88,934	87,178	176,112	403,078	1,346,240	1,749,318
Anzalduas Dam to Progreso Station	13	163	176	140,402	7,107	147,509
Above Progreso Gaging Station	88,947	87,341	176,288	543,480	1,353,347	1,896,827
Progreso Station to San Benito Station	7	9	16	316,322	3,481	319,803
Above San Benito Gaging Station	88,954	87,350	176,304	859,802	1,356,828	2,216,630
San Benito Station to Brownsville Station	14	15	29	100,420	2,544	103,064
Falcon Dam to Brownsville Station - excluding Rio Alamo and Rio San Juan	1,209	1,231	2,439	741,077	520,571	1,261,648
Above Brownsville Gaging Station	88,963	87,365	176,333	960,222	1,359,472	2,319,694

a) Includes 110 acres irrigated from small reservoirs

DRAINAGE BASIN AND IRRIGATED AREAS

Along the Rio Grande and Tributaries – 1975

DESIGNATION OF AREAS AND GAGING STATIONS	Drainage Basin Square Miles			Irrigated Areas - Acres		
	United States	Mexico	Total	United States	Mexico	Total
Brownsville Station to Gulf of Mexico				4,211	12	4,223
Falcon Dam to Gulf of Mexico - excluding Rio Alamo and Rio San Juan				745,288	520,583	1,265,871
Amistad Dam to Gulf of Mexico - excluding above tributaries				801,334	534,458	1,335,792
Above Gulf of Mexico				964,433	1,359,484	2,323,917

SUPPLEMENTARY DATA–INTERNATIONAL FALCON RESERVOIR

Deduced Inflows

Considering that a knowledge of the mean daily inflows reaching the International Falcon Reservoir would serve a useful purpose, such data have been deduced for 1975 showing the flows as close as they can be approximated. These data are based on the daily operation of the International Falcon Reservoir, taking into account: a) record of gage-heights at the dam; b) releases as measured at both hydroelectric plants and outlet works; c) elevation-area-capacity tables based on 1971-1972 surveys; and d) rate of evaporation measured at the dam and at Nueva Cd. Guerrero applied to an area one foot higher than the average area of two consecutive days.

Flow contributions from different sources, irrigation diversion between Laredo and Falcon, river channel losses, reservoir evaporation, accuracy of gage-height records, displacement due to wind action on the reservoir, and bank storage and return incident to changes in reservoir level, all tend to cause variations in the deduced determinations and the inflows shown below should not necessarily be in agreement with the combined flow of the Rio Grande at Laredo and the Rio Salado at Las Tortillas.

In spite of the deficiencies noted above and others that may occur, the data shown below represent a reasonable approximation of the flows entering the International Falcon Reservoir.

Mean Daily Discharge in Second-Feet 1975 — Annual and Period Summary

Day	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2,680	4,200	3,340	3,330	6,780	3,150	2,040	7,490	4,100	3,960	6,180	1,040
2	2,480	3,990	3,960	4,560	6,920	2,680	2,370	7,800	9,040	2,910	9,320	985
3	3,330	3,440	3,780	3,480	6,780	2,540	1,400	8,020	5,760	1,170	5,470	682
4	2,900	3,960	3,210	1,340	6,640	2,450	1,220	8,550	7,520	1,390	5,230	1,170
5	3,310	3,510	3,430	1,840	8,690	2,180	1,760	8,620	7,560	1,870	4,270	1,350
6	2,690	3,310	2,960	2,700	8,120	2,480	1,530	6,570	9,850	1,100	5,050	1,590
7	2,920	2,700	4,480	4,980	7,130	2,720	1,750	7,420	9,890	1,030	5,690	1,070
8	2,700	2,420	3,600	8,790	6,710	2,750	1,580	6,990	4,980	2,210	5,260	1,170
9	3,220	2,390	4,410	8,120	3,880	4,700	2,090	7,490	5,830	2,160	6,290	352
10	2,910	2,000	4,560	6,780	2,360	16,100	929	6,640	6,290	1,830	7,420	1,330
11	3,300	3,400	3,920	5,120	2,820	7,420	1,250	4,910	4,170	1,790	5,000	964
12	3,030	3,370	4,200	5,510	3,530	5,470	7,130	5,580	6,820	1,930	5,300	1,990
13	812	2,950	4,200	5,300	4,910	2,140	6,180	5,540	6,570	1,450	3,140	1,980
14	883	4,520	3,640	2,800	4,340	3,130	15,300	8,050	6,640	2,490	2,780	1,140
15	1,510	4,480	4,380	2,790	2,590	2,850	13,100	4,340	4,170	2,840	3,170	1,410
16	1,820	4,630	4,030	5,370	1,090	1,040	14,100	8,160	4,870	2,790	3,320	823
17	2,470	3,920	4,560	4,730	547	639	9,220	4,270	5,230	4,030	3,120	840
18	2,740	4,940	4,520	9,040	982	1,290	12,800	4,480	3,960	2,950	2,190	579
19	3,060	3,140	3,810	8,620	1,830	2,020	23,000	4,940	5,580	2,760	3,810	65.7
20	250	3,460	3,530	7,950	2,490	2,840	42,400	3,880	6,180	2,390	2,850	187
21	2,140	3,400	4,940	6,220	1,260	2,950	73,100	6,670	5,760	3,060	1,060	968
22	2,710	3,530	4,630	8,050	1,830	6,290	21,200	5,160	2,880	4,270	710	1,200
23	2,240	2,900	5,440	5,830	3,290	3,890	10,100	6,220	4,170	3,990	809	484
24	2,110	2,620	4,130	7,560	6,110	2,180	8,370	3,500	1,420	5,260	883	1,320
25	3,240	3,120	3,000	7,200	4,660	1,570	10,500	3,960	1,980	5,720	1,440	1,380
26	3,810	4,030	3,260	7,800	2,650	1,590	10,300	4,630	2,320	4,130	1,440	325
27	3,410	3,280	3,250	7,560	835	1,860	7,380	3,710	1,600	5,230	1,680	1,240
28	2,370	3,150	4,450	8,970	48,000	1,580	7,420	4,840	1,630	5,260	579	1,210
29	2,640		3,960	7,130	22,200	978	7,060	5,050	3,920	12,100	1,330	862
30	3,850		4,060	7,980	8,550	939	6,990	3,740	3,670	6,890	1,330	872
31	3,530		3,140		3,960		6,890	4,520		5,690		1,360
Sum	81,065	96,760	122,780	177,450	192,454	94,416	330,459	181,740	154,360	106,710	107,721	31,938.7

Month	Current Year 1975								Period 1968-1975		
	Extreme Gage Feet		∅ Extreme Second-Feet				Average Second-Feet	Total Acre-Feet	Acre-Feet		
	High	Low	Day	High	Day	Low			Average	Maximum	Minimum
Jan.			30	3,850	20	250	2,620	160,824	93,228	160,824	50,635
Feb.			18	4,940	10	2,000	3,450	191,910	158,495	453,053	54,934
Mar.			23	5,440	6	2,960	3,960	243,527	121,960	243,527	53,064
Apr.			18	9,040	4	1,340	5,900	351,929	123,204	351,929	49,911
May			28	48,000	17	547	6,220	381,866	203,568	381,866	101,854
June			10	16,100	17	639	3,150	187,148	246,101	770,709	46,609
July			21	73,100	10	929	10,700	655,239	259,272	834,367	33,481
Aug.			5	8,620	24	3,500	5,860	360,468	217,527	581,600	64,413
Sept.			7	9,890	24	1,420	5,160	306,105	523,392	1,442,582	137,408
Oct.			29	12,100	7	1,080	3,440	211,677	456,089	1,365,884	122,189
Nov.			2	9,320	28	579	3,600	213,867	181,587	538,929	45,260
Dec.			12	1,990	19	65.7	1,030	63,337	113,580	281,211	42,870
Yearly				73,100		65.7	4,590	3,327,697	2,693,033	6,234,950	1,280,067

∅ Mean daily

CORRECTIONS TO PREVIOUS WATER BULLETINS

Water Bulletin and Page Numbers	Heading	Reference	Published As	Correction
34-11	Diversions from the Rio Grande - Acequia Madre at Juarez, Chihuahua	Yearly Extreme Second-Feet	152	158
44-29	North Fork San Pedro Creek near Del Rio, Texas	EXTREME FLOWS FROM RECORDS: Momentary: Max.	4,710 second-feet on October 4, 1969 with a gage height of 8.04 feet	5,070 second-feet on August 12, 1972 with a gage height of 8.44 feet
44-68	Contributions from Rio San Juan - Fort Ringgold to Anzalduas Dam	REMARKS, last line, acre-feet diverted to the gulf	39,221	41,563
44-81	Outfalls from Sewers into the Rio Grande	Laredo Sewage Outfall, second line	Texas State Health Department	Laredo Waterworks System
44-83	Municipal and Industrial Water Uses	Roma, population	2,154	2,650
44-105	Chemical Analyses of Water Samples from the Rio Grande and Tributaries	Rio Grande at Laredo, Texas, Period Average, Total Tons	2,168,000	1,467,000
44-105	Chemical Analyses of Water Samples from the Rio Grande and Tributaries	Rio Grande below Falcon Dam, Texas, Period Average, Total Tons	2,203,000	1,563,000
44-106	Chemical Analyses of Water Samples from the Rio Grande and Tributaries	Rio Grande at Fort Ringgold, Rio Grande City, Texas, Period Average, Total Tons	2,703,000	1,992,000
44-106	Chemical Analyses of Water Samples from the Rio Grande and Tributaries	Footnote	π An additional 350,000 tons pumped to the gulf	π An additional 371,700 tons pumped to the gulf

Flow of the Rio Grande and Related Data

1975

UNITED STATES OF AMERICA
DEPARTMENT OF STATE

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

WATER BULLETIN NUMBER 45

COVER PHOTOGRAPH

Retamal Diversion Dam was constructed jointly by the United States and Mexico with the objective of providing facilities to allow an equal division of floodwaters between the two countries and to safeguard against flood flows downstream. Retamal Dam diverts floodwaters into the Mexican floodway; and Anzalduas Dam, approximately 38 river miles upstream, diverts floodwaters into Banker Floodway in the United States. Retamal Dam was completed in 1974.

The view shown looks upstream, with the United States bank on the right side of the picture. All gates are fully open.