



TEXAS DEPARTMENT OF WATER RESOURCES

REPORT 244

STREAMFLOW AND RESERVOIR-CONTENT RECORDS IN TEXAS

Compilation Report

January 1889 through December 1975

By

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VOLUME 3

Gaging Stations in the Lavaca, Guadalupe,
San Antonio, Nueces, and Rio Grande Basins
and Adjoining Coastal Basins

April 1980

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LAVACA RIVER BASIN

08163500 Lavaca River at Hallettsville, Texas

LOCATION: Lat 29°26'35", long 96°56'39", Lavaca County, 75 ft (23 m) downstream from the bridge on U.S. Highway 77 in Hallettsville, and 0.7 mi (1.1 km) downstream from Campbell Branch.

DRAINAGE AREA: 108 mi² (280 km²).

PERIOD OF RECORD: August 1939 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 186.72 ft (56.912 m) above mean sea level, datum of 1929. Prior to Apr. 19, 1960, water-stage recorder for high stages and movable nonrecording gage for stages below about 6.2 ft (1.89 m). Apr. 20, 1960 to June 2, 1961, movable nonrecording gage. All gages at same site and datum.

AVERAGE DISCHARGE: 37 years, 34,377 ac-ft/yr (42.4 hm³/yr).

EXTREMES: Period of record (1939-75): Maximum discharge, 93,100 ft³/s (2,640 m³/s) June 30, 1940 (gage height, 40.60 ft or 12.375 m, from floodmarks); no flow at times in 1953 and 1956.

Maximum stage since at least 1840, that of June 30, 1940.

REMARKS: Records good. No diversion above station. The Corps of Engineers began channel rectification 1.6 mi (2.6 km) downstream from the gage in April 1959. This rectification reached the gage on Sept. 21, 1959 and was completed in February 1960.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	-	-	102	146	39.0	92.0	114	-
1940	134	867	149	232	1270	69890	5860	152	69.0	4110	27650	15430	125613
1941	6120	4430	9000	12680	20360	7200	1400	1160	511	3690	1020	552	68123
1942	487	419	385	19340	496	236	10870	615	1540	376	1190	602	36556
1943	943	539	1480	331	2940	1030	1810	210	256	151	244	1320	11254
1944	5050	902	9660	895	4710	720	674	4140	425	269	1710	1220	30375
1945	5850	1110	3540	5300	1020	1220	201	128	85.0	565	192	290	19501
1946	712	4490	2380	1910	774	10070	648	4190	4630	3510	5640	2990	41944
1947	4920	1060	4160	3690	3230	296	205	123	86.0	95.0	685	767	19319
1948	366	1420	647	352	5220	176	259	120	132	51.0	125	137	9005
1949	264	1270	650	10160	643	214	226	476	548	4420	192	2830	21893
1950	522	1410	321	2930	2430	1340	141	48.0	83.0	54.0	53.0	202	11534
1951	158	150	234	348	412	3820	62.0	14.0	578	65.0	152	267	6260
1952	65.0	772	177	3530	7540	1370	124	58.0	112	23.0	873	1970	16614
1953	198	438	247	1640	2190	67.0	39.0	355	161	751	156	193	6435
1954	138	93.0	76.0	2100	1160	29.0	19.0	27.0	16.0	70.0	27.0	41.0	3798
1955	256	7170	74.0	86.0	11760	1220	33.0	2280	126	34.0	25.0	51.0	23115
1956	53.0	533	40.0	36.0	51.0	28.0	506	71.0	2.80	5.60	12.0	2250	3588
1957	95.0	796	6980	18620	6280	3890	52.0	39.0	6400	22220	7130	708	73210
1958	4470	11150	934	490	1540	298	777	34.0	501	259	204	271	20928
1959	213	1120	234	13430	4180	3780	966	351	1280	6180	1910	3270	36914
1960	1870	2510	970	1330	1280	6070	715	1520	319	30310	2620	4430	53944
1961	5010	10360	654	1530	367	20400	3510	376	25410	696	1500	974	70787
1962	1000	742	700	4070	530	2050	200	55.0	572	176	35.0	340	10450
1963	389	2100	311	194	78.0	419	664	24.0	34.0	103	336	116	4768
1964	474	631	1550	913	104	960	27.0	509	3550	135	85.0	117	9055
1965	3320	10340	401	241	22850	8130	114	143	48.0	3650	28110	4650	61997
1966	1390	4550	2990	4880	5590	1310	478	693	256	143	166	245	22691
1967	279	223	242	834	336	52.0	23.0	662	18940	4770	316	325	27002
1968	5110	922	713	2640	5930	12050	600	211	1630	276	748	2390	33420
1969	574	10370	7340	13630	21610	739	169	118	177	435	330	837	56329
1970	1290	1930	4000	610	11030	1070	243	416	3260	2190	298	326	26663
1971	296	244	519	178	160	299	36.0	5470	13050	1060	404	3150	24866
1972	2060	1440	3620	428	30300	2290	491	313	220	177	254	243	42036
1973	988	1560	4240	24130	2160	36570	1940	629	1280	13880	1900	914	90191
1974	10460	2940	914	599	3170	9280	261	3080	25090	1450	4020	1940	63204
1975	1680	2940	811	7750	19070	2480	7360	669	322	325	393	422	44222
MAX	10460	11150	9660	24130	30300	69890	10870	5470	25410	30310	28110	15430	125813
MIN	53.0	93.0	40.0	36.0	51.0	28.0	19.0	14.0	2.80	5.60	12.0	41.0	3588
MEAN	1867	2609	1987	4502	5632	5918	1158	799	3028	2885	2454	1538	34377
NO.	36	36	36	36	36	36	36	37	37	37	37	37	36
DISTR													
OF MEAN	5.41	7.61	5.81	13.11	16.41	17.21	1.41	2.31	6.81	8.41	7.11	4.51	1001

LAVACA RIVER BASIN
08164000 Lavaca River near Edna, Texas

LOCATION: Lat 28°57'35", long 96°41'10", Jackson County, at the upstream bridge of two bridges on U.S. Highway 59, 660 ft (201 m) upstream from the Texas and New Orleans Railroad Co. bridge, and 2.8 mi (4.5 km) southwest of Edna.

DRAINAGE AREA: 817 mi² (2,116 km²).

PERIOD OF RECORD: September 1938 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 13.88 ft (4.231 m) above mean sea level, datum of 1929. Prior to June 6, 1939, nonrecording gage (property of the Corps of Engineers); June 6, 1939 to Apr. 3, 1957, nonrecording gage at site 110 ft (34 m) downstream; Apr. 4, 1957 to Mar. 21, 1961, nonrecording gage; all at the same datum.

AVERAGE DISCHARGE: 38 years, 224,793 ac-ft/yr (277.2 hm³/yr).

EXTREMES: Period of record (1938-75): Maximum discharge, 73,000 ft³/s (2,070 m³/s) July 1, 1940 (gage height, 32.51 ft or 9.909 m); no flow at times.

Maximum stage since at least 1880, 33.8 ft (10.30 m) May 25, 1936 (discharge, 83,400 ft³/s or 2,360 m³/s), from information by a local resident.

REMARKS: Records good. There are several small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1938	-	-	-	-	-	-	-	-	1790	904	1570	2680	-
1939	2330	2630	2370	1740	9070	14970	57060	1850	3040	824	636	970	97490
1940	1050	11400	2010	1370	2450	5840	245900	3550	1790	12010	204200	102500	594070
1941	37340	25360	82430	75400	171100	120700	25650	12120	5280	9770	14610	5910	585670
1942	4450	4380	4700	54720	5370	3170	66080	3610	16690	5070	5210	4280	177730
1943	5960	3350	12800	3510	6870	8060	8110	3360	2140	1660	7940	20060	83820
1944	41920	11230	80110	7740	50360	8030	3170	3020	12330	2160	6070	9920	236060
1945	22590	6300	7820	36740	3410	7850	1980	2630	980	2600	1210	1990	96100
1946	5090	27790	14920	6380	10130	49230	6560	43840	96590	86850	39390	10810	397580
1947	39060	6780	12650	10150	35940	4100	2010	1610	994	1060	2080	2730	119164
1948	3740	10280	9560	2530	73130	4290	2980	716	1160	695	813	988	110882
1949	2280	9910	4400	62150	9460	3670	4080	5300	2090	23720	2280	27140	156480
1950	7120	5940	2670	6650	4850	8010	1760	398	413	316	337	669	39133
1951	908	996	1200	941	697	19170	417	118	8420	1780	834	861	36342
1952	673	2130	1480	14300	79630	12000	1810	1220	1030	256	17100	23720	155349
1953	3060	3250	2000	2980	41950	1620	1140	14270	6660	1590	1080	1020	80620
1954	994	748	749	5070	4250	370	132	322	452	970	850	170	13210
1955	598	36030	968	1900	42710	6530	751	9290	2610	310	133	298	102128
1956	343	1050	405	263	502	5640	1020	3140	2540	580	-20	2010	5763
1957	3440	4610	27470	84760	28300	18450	947	313	10060	117300	68900	7370	368283
1958	41090	65890	10220	4510	23790	1840	7460	919	23060	14060	3970	7160	203989
1959	3710	64920	6450	79030	21020	8380	3630	4380	4470	16280	13920	10450	236640
1960	11470	12800	5060	6880	5230	64520	11270	39310	4690	223300	50690	36510	471730
1961	58490	63770	10020	6880	5710	81190	34670	5050	123300	9670	65270	7710	471730
1962	5900	5350	4460	37160	5910	14230	3350	1290	9160	3610	2120	3710	96250
1963	5100	17670	3040	1780	1810	1730	4450	462	391	312	1180	2390	40315
1964	2240	4210	5480	4420	1870	17590	1080	1630	11480	2520	637	917	54074
1965	36600	55890	5090	4240	99660	40830	3020	1980	1240	5380	48700	17150	319780
1966	7580	16100	9240	34890	45160	8480	5330	2770	2130	1170	1110	1350	135310
1967	1510	1200	1660	4450	2340	701	270	1180	112200	51710	5010	2850	185081
1968	61370	8840	10130	13230	83660	114800	12760	3800	6590	2770	2890	12430	333270
1969	6940	62770	44230	83470	87580	6720	2990	2290	3140	7580	3840	18270	329820
1970	16600	4060	22460	4810	76940	26190	3740	2740	21850	16240	2460	2130	200220
1971	2010	2060	2280	1790	1480	5380	1160	39660	83220	22150	4810	34110	200110
1972	21970	26580	13970	3810	191100	23650	6600	6560	2870	2410	2420	2160	304100
1973	4380	9510	65340	153600	34140	297800	23690	9940	14460	110200	12900	7860	743860
1974	68140	13300	7550	5890	30950	50810	3860	6560	90390	8940	37870	17270	341530
1975	10430	9640	5930	34980	106200	28880	27370	6050	4570	3520	2830	12750	253150
MAX	68140	65890	82430	153600	191100	297800	245900	43840	123300	223300	204200	102500	743860
MIN	340	748	405	263	502	560	132	3140	250	580	-20	170	5763
MEAN	14731	16722	13603	23381	37966	29455	15899	6599	18257	20281	16764	11135	224793
NO.	37	37	37	37	37	37	37	37	38	38	38	38	37
DISTR													
OF MEAN	6.6%	7.4%	6.1%	10.4%	16.9%	13.1%	7.1%	2.9%	8.1%	9.0%	7.5%	5.0%	100%

LAVACA RIVER BASIN

08164300 Navidad River near Hallettsville, Texas

LOCATION: Lat 29°28'00", long 96°48'45", Lavaca County, 28 ft (9 m) downstream from the bridge on U.S. Highway 90-A, 0.8 mi (1.3 km) downstream from Mixons Creek, 1.2 mi (1.9 km) southwest of Sublime, and 8 mi (13 km) northeast of Hallettsville.

DRAINAGE AREA: 332 mi² (860 km²).

PERIOD OF RECORD: October 1961 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 159.28 ft (48.549 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 15 years, 114,010 ac-ft/yr (140.6 hm³/yr).

EXTREMES: Period of record (1961-75): Maximum discharge, 53,500 ft³/s (1,520 m³/s) Sept. 13, 1974 (gage height, 36.05 ft or 10.988 m); no flow Aug. 5-7, 22, Sept. 2-16, 1964.

Maximum stage since at least 1860, 40 ft (12.2 m) in June 1940, from information by local residents and the Southern-Pacific Railroad Co.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1961	-	-	-	-	-	-	-	-	-	2900	11820	3160	-
1962	4210	4590	2920	13570	2670	4080	996	279	1930	433	566	2090	38334
1963	1360	7100	1110	930	381	661	3870	80.0	42.0	59.0	255	428	16476
1964	1090	1750	4150	1400	600	395	19.0	28.0	2350	267	304	710	13063
1965	9810	27430	2050	1080	52370	30800	657	241	135	4300	55440	13390	197703
1966	3400	12120	6640	10980	13040	2640	1110	849	527	452	519	764	53041
1967	839	748	810	2210	2980	286	54.0	54.0	55160	13980	1460	1230	79811
1968	42510	3610	3450	12150	18500	64430	5620	952	3220	980	1830	9330	166582
1969	2720	35270	26250	36130	33840	2460	766	549	900	1220	1200	3040	144345
1970	3430	3340	15470	2770	27340	3050	872	437	4950	9770	1340	1360	74129
1971	1250	958	1030	736	868	589	99.0	20390	20150	3950	1340	13310	64670
1972	6260	4990	15320	1690	92350	8390	1880	1510	623	866	1010	1130	135621
1973	2800	3720	11310	68900	7200	106700	5630	2010	2900	29280	6060	4450	250960
1974	41780	6390	3890	2760	7470	11530	863	9540	117600	3930	21250	7630	234633
1975	5820	9700	3670	21860	58890	11300	5260	2230	1400	1240	1630	1890	124890
MAX	42510	35270	26250	68900	92350	106700	5630	20390	117600	29280	55440	13390	250960
MIN	839	748	810	736	381	286	19.0	28.0	42.0	59.0	255	428	13083
MEAN	9091	8694	7019	12655	22750	17665	1978	2796	15135	4897	7068	4262	114010
NO. OF	14	14	14	14	14	14	14	14	14	15	15	15	14
DISTR OF MEAN	8.0%	7.6%	6.2%	11.1%	20.0%	15.5%	1.7%	2.5%	13.3%	4.3%	6.2%	3.7%	100%

LAVACA RIVER BASIN
08164500 Navidad River near Ganado, Texas

LOCATION: Lat 29°01'32" N, long 96°33'08" W, Jackson County, at the upstream bridge of two bridges on U.S. Highway 59, 170 ft (52 m) upstream from the Texas and New Orleans Railroad Co. bridge, 0.2 mi (0.3 km) downstream from Sandy Creek, and 2.5 mi (4.0 km) southwest of Ganado.

DRAINAGE AREA: 1,062 mi² (2,751 km²).

PERIOD OF RECORD: June 1939 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 13.62 ft (4.151 m) above mean sea level. Prior to May 7, 1958, nonrecording gage at site 70 ft (21 m) downstream at same datum. Mar. 7, 1958 to Mar. 22, 1961, nonrecording gages at the same site and datum.

AVERAGE DISCHARGE: 37 years, 402,166 ac-ft/yr (485.9 hm³/yr).

EXTREMES: Period of record (1939-75): Maximum discharge, 88,000 ft³/s (2,490 m³/s) June 15, 1973 (gage height, 39.8 ft or 12.13 m); no flow at times in 1955-56 and 1967.

Maximum stage since at least 1876, 39.8 ft (12.13 m³/s) May 27, 1936 and June 15, 1973, from information by a local resident, Texas and New Orleans Railroad Co., and the Texas Highway Department; discharge, 84,000 ft³/s (2,600 m³/s) May 27, 1936.

REMARKS: Records good. There are numerous diversions for irrigation above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	22330	50250	2890	1930	595	442	1070	-
1940	829	9870	2190	1190	2190	13870	215800	3330	2150	19300	383800	166600	821119
1941	55150	32150	100900	137700	186500	116500	85850	31940	10470	40130	36110	12780	846180
1942	4430	6750	7460	83690	5630	8400	101500	9770	19280	6210	13730	720	274270
1943	17000	4200	35120	3690	15690	6800	9770	6270	4620	2450	30410	38510	174530
1944	103000	22530	170200	7390	92140	10020	5110	5230	18370	3400	19280	50430	507100
1945	40560	14520	8630	126200	4080	6380	5690	37320	11120	9180	1410	10890	275980
1946	30860	62270	41130	15260	44370	135300	21410	26920	83220	61680	76220	13940	612580
1947	78600	6200	18980	10630	52490	4350	5840	8500	6960	1010	3230	11660	208450
1948	15010	32010	27140	4270	51780	2470	7690	894	8620	781	1330	724	152719
1949	2220	30980	18310	110800	13040	3260	10650	10580	9550	118000	5330	53560	386280
1950	26900	20480	3190	14750	3110	51840	4390	1240	6710	1100	294	585	136589
1951	695	815	4810	1940	1120	56330	924	2150	24020	5180	1340	929	99453
1952	562	5730	2690	54010	98440	16710	3010	2490	7190	739	23680	43270	258521
1953	6490	6500	2120	1880	66680	1920	5130	33730	60190	2530	1450	4410	213030
1954	847	528	552	990	4880	121	181	1310	2880	1470	20.0	22.0	13801
1955	860	46140	331	1710	38090	10990	1440	6580	17150	2820	0	0	126111
1956	552	4550	0	1480	64.0	517	13.0	1390	2350	73.0	39.0	27.50	13778
1957	12.0	6350	71680	115500	82920	81650	1130	1570	30310	191200	98750	7710	688782
1958	63510	85000	9200	4760	31460	2230	9680	3900	36650	15530	11220	24480	297620
1959	13160	122800	8120	162000	27420	50890	8120	20950	13940	52850	37900	38290	556440
1960	33200	37980	8310	14790	23060	206700	40940	80280	17060	164800	94680	65200	767000
1961	93780	164700	12200	7630	5090	144900	65310	10300	263000	7290	65520	5730	845450
1962	6270	7170	4670	39740	9370	21230	14580	4510	16630	2600	824	10900	138494
1963	14730	17060	2430	1790	3050	4130	21410	4870	4490	1250	6140	12410	93760
1964	2680	15630	9710	2240	3240	29400	7210	7090	30200	6990	3150	882	118422
1965	35040	44670	3200	4420	156900	43220	9290	6100	10410	14350	88470	33790	449860
1966	20700	40380	21630	53270	110800	29590	16100	18790	11330	4910	616	1070	329386
1967	2240	1010	1060	6610	7660	3990	6150	22190	213200	60460	4350	1890	330810
1968	167500	14380	13910	15300	124200	291900	32600	8710	21850	13730	9690	28950	742920
1969	17130	112900	75750	97260	130700	10140	5980	5510	14160	12670	8100	27210	517510
1970	28260	3810	66210	9070	122100	32280	15330	6190	71670	77410	3680	1800	438030
1971	1710	2450	1470	3820	4160	3220	6260	42010	114300	56160	3120	55790	294470
1972	29280	57080	16050	4330	256000	39710	23840	12920	11340	4850	4180	1700	461280
1973	10440	21500	106400	228500	39100	551600	28470	28460	102000	126400	26750	10270	1279890
1974	119700	15580	10990	20040	58310	54020	11560	19770	251000	16750	56970	32580	707270
1975	17720	12940	5370	37420	157600	69370	33990	21550	20020	9500	2600	33270	442110
MAX	167500	164700	170200	228500	256000	551600	215800	30260	263000	141200	383800	166600	1279890
MIN	12.0	526	0	990	64.0	121	13.0	894	1430	73.0	0	0	13778
MEAN	29490	30266	24764	39056	57040	57741	24124	14006	41971	30172	51496	21986	442160
NO.	36	36	36	36	36	37	37	37	37	37	37	37	36
DISTR OF MEAN	7.3%	7.5%	6.2%	9.7%	14.2%	14.4%	6.0%	3.5%	10.4%	7.5%	7.8%	5.5%	100%

LAVACA-GUADALUPE COASTAL BASIN

08164600 Garcitas Creek near Inez, Texas

LOCATION: Lat 28°53'28", long 96°49'08", Victoria County, at the bridge on U.S. Highway 59 access road, 0.3 mi (0.5 km) upstream from the Southern-Pacific Railroad Co. bridge, 2.0 mi (3.2 km) southwest of Inez, and 3.6 mi (5.8 km) upstream from Casa Blanca Creek.

DRAINAGE AREA: 91.7 mi² (238 km²).

PERIOD OF RECORD: June 1970 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 29.16 ft (8.888 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 6 years, 30,818 ac-ft/yr (38.0 hm³/yr).

EXTREMES: Period of record (1970-75): Maximum discharge, 5,110 ft³/s (145 m³/s) June 14, 1973 (gage height, 19.91 ft or 6.069 m); no flow May 22, 23, May 26 to June 17, 1971.

Maximum stage since 1903, 24.5 ft (7.47 m) Oct. 26, 1960.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1970	-	-	-	-	-	0	87.0	29.0	2770	990	46.0	41.0	-
1971	40.0	20.0	43.0	49.0	10.0	1420	320	507	14010	9420	656	3000	29495
1972	4020	1330	108	51.0	17930	307	1430	2400	182	138	234	82.0	28212
1973	639	3270	1410	12580	525	20760	331	322	3220	10210	415	233	53915
1974	1780	309	220	104	8930	5770	285	351	5220	242	3740	2090	29041
1975	839	187	138	91.0	8730	2760	912	247	491	167	130	12910	27602
MAX	4020	3270	1410	12580	17930	20760	1430	2400	14010	10210	3740	12910	53915
MIN	40.0	20.0	43.0	49.0	10.0	0	87.0	29.0	182	138	46.0	41.0	27602
MEAN	1464	1023	384	2575	7225	5170	561	643	4316	3528	870	3059	30818
NO.	5	5	5	5	5	6	6	6	6	6	6	6	5
DISTR OF MEAN	4.7%	3.3%	1.2%	8.4%	23.4%	16.8%	1.8%	2.1%	14.0%	11.4%	2.8%	9.9%	100%

LAVACA-GUADALUPE COASTAL BASIN

08164800 Placedo Creek near Placedo, Texas

LOCATION: Lat 28°43'30", long 96°46'07", Victoria County, at the bridge on Farm Road 616, 0.1 mi (0.2 km) downstream from the confluence of Lone Tree Creek and Arroyo Palo Alto, 1.2 mi (1.9 km) upstream from Ninemile Creek, and 4.4 mi (7.1 km) northeast of Placedo.

DRAINAGE AREA: 88.3 mi² (177 km²).

PERIOD OF RECORD: June 1970 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 5.58 ft (1.701 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 6 years, 41,028 ac-ft/yr (51.3 hm³/yr).

EXTREMES: Period of record (1970-75): Maximum discharge, 8,250 ft³/s (234 m³/s) June 13, 1973 (gage height, 25.96 ft or 7.913 m); no flow Sept. 8, 9, 1971.

Maximum stage since 1930, 31.9 ft (9.72 m) in September 1967, from information by a local resident.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1970	-	-	-	-	-	0	1190	166	11190	1790	75.0	55.0	-
1971	25.0	29.0	36.0	152	209	380	170	1220	33760	14350	188	2600	53119
1972	885	436	942	54.0	21750	1830	907	6610	4610	6890	1240	50.0	46204
1973	766	2940	52.0	9840	147	30370	110	286	12120	6390	489	94.0	63604
1974	2000	66.0	85.0	994	15740	787	248	2370	5270	465	5450	1010	34485
1975	356	85.0	44.0	86.0	2250	1470	1630	530	4160	713	49.0	14520	25893
MAX	2000	2940	942	9840	21750	30370	1630	6610	33760	14350	5450	14520	63604
MIN	25.0	29.0	36.0	54.0	147	0	110	166	4160	465	49.0	50.0	25893
MEAN	806	711	232	2225	8019	5806	709	1864	11852	5100	1249	3055	41628
NO.	5	5	5	5	5	6	6	6	6	6	6	6	5
DISTR OF MEAN	1.9%	1.7%	.6%	5.3%	19.3%	13.9%	1.7%	4.5%	28.5%	12.3%	3.0%	7.3%	100%

GUADALUPE RIVER BASIN

08165300 North Fork Guadalupe River near Hunt, Texas

LOCATION: Lat 30°03'36", long 99°23'40", Kerr County, 410 ft (125 m) downstream from the bridge on Ranch Road 1340, 1.3 mi (2.1 km) downstream from Bear Creek, 3.7 mi (6.0 km) west of Hunt, and 4.1 mi (6.6 km) upstream from Honey Creek.

DRAINAGE AREA: 168 mi² (435 km²).

PERIOD OF RECORD: August 1967 to December 1975.

GAGE: Water-stage recorder and crest-stage gages. Datum of gage is 1,800.10 ft (548.670 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 9 years, 26,056 ac-ft/yr (32.1 hm³/yr).

EXTREMES: Period of record (1967-75): Maximum discharge, 38,400 ft³/s (1,090 m³/s) Oct. 13, 1973 (gage height, 26.55 ft or 8.092 m); minimum, 0.68 ft³/s (0.019 m³/s) May 30, 1969.

Maximum stage since at least 1900 occurred July 1, 1932, gage height 37.3 ft (11.37 m), discharge 140,000 ft³/s (3,960 m³/s) by slope-area measurements of the combined flow of the North Fork Guadalupe River 5 mi (8 km) upstream and Bear Creek 2 mi (3 km) upstream from the mouth and adjusted for the difference in the drainage areas.

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1967	-	-	-	-	-	-	-	789	1030	1940	2120	1450	-
1968	6940	2410	2050	2200	1990	1500	1730	1250	1340	1260	1150	1260	25080
1969	1190	1050	1060	1160	921	698	682	773	954	4870	2690	3160	19208
1970	2000	1600	2320	1630	1460	1350	1130	1030	1050	1060	1070	1040	16740
1971	984	843	835	807	727	640	674	18600	1710	3720	1930	1720	33190
1972	1510	1230	1150	956	3940	1490	1370	2070	1590	1420	1330	1400	19456
1973	1380	1220	1320	1230	1040	958	1470	1580	1130	14780	2380	1960	30448
1974	1640	1210	1210	1080	3330	1120	1220	6070	7550	6620	3240	2520	36810
1975	2290	2400	2160	1880	7190	4650	3170	2460	2100	2020	1900	1840	34060
MAX	6940	2410	2320	2200	7190	4650	3170	18600	7550	14780	3240	3160	36810
MIN	984	843	835	807	727	640	674	773	954	1060	1070	1040	16740
MEAN	2242	1495	1513	1368	2575	1551	1431	3847	2050	4188	1979	1817	26056
NL	8	8	8	8	8	8	8	9	9	9	9	9	8
DISTR													
OF MEAN	8.6%	5.7%	5.8%	5.2%	9.9%	6.0%	5.5%	14.8%	7.9%	16.1%	7.6%	7.0%	100%

GUADALUPE RIVER BASIN
08165500 Guadalupe River at Hunt, Texas

LOCATION: Lat 30°04'08", long 99°19'23". Kerr County, 56 ft (17 m) upstream and 137 ft (42 m) to the right of the right end of the bridge on State Highway 39, 0.6 mi (1.0 km) downstream from the confluence of the North and South Forks, and 0.8 mi (1.3 km) east of Hunt.

DRAINAGE AREA: 288 mi² (746 km²).

PERIOD OF RECORD: November 1941 to September 1949, May 1965 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,722.7 ft (525.08 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 20 years (1941-49, 1965-75), 39,438 ac-ft/yr (48.6 hm³/yr).

EXTREMES: Period of record (1941-49, 1965-75): Maximum discharge, 47,000 ft³/s (1,330 m³/s) Aug. 13, 1966 (gage height, 21.4 ft or 6.52 m, from floodmark); minimum, 6.9 ft³/s (0.20 m³/s) June 17, 1948.

Maximum stage since 1900, 38.6 ft (11.16 m) July 2, 1932, from information by local residents (discharge, 208,000 ft³/s or 5,830 m³/s) determined by slope-area measurement 4.5 mi (7.2 km) downstream from the gage.

REMARKS: Records good. There are numerous diversions for irrigation above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1941	-	-	-	-	-	-	-	-	-	-	3190	2990	-
1942	2720	2390	2430	-	-	3080	2380	2390	2710	4390	2960	2650	-
1943	2460	2110	2490	2200	2130	3520	1850	1380	1670	1800	1750	2000	25360
1944	2340	2190	2680	2040	-	3240	1870	2250	2690	2190	2100	2580	-
1945	4100	2880	3070	3530	2310	2020	1800	1390	1280	-	2200	2830	-
1946	2400	1980	2000	1960	3060	1850	1470	954	1570	-	-	2450	-
1947	-	3070	3050	-	3450	-	2940	2340	1780	1820	1970	2260	-
1948	2000	2090	2220	2270	2070	1380	2060	1160	1460	1410	1540	1610	21270
1949	1700	-	3900	-	2990	2800	1810	-	2050	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	5130	4880	2100	1680	1710	2050	2020	2170	-
1966	1910	1690	1770	4430	3730	1830	2310	40390	8300	4180	3030	2570	76140
1967	2480	2130	2070	1940	1580	1020	3310	1120	2370	6050	4640	3500	32210
1968	9300	2710	4300	4830	4250	3020	3080	1880	2340	2140	2260	2470	42580
1969	2270	1970	2170	2920	2380	1650	1430	1500	2190	9700	4710	5890	38780
1970	4150	3420	5020	3420	3170	2500	2060	1660	2090	2060	2230	2280	34060
1971	2180	2000	2010	2040	1690	1170	1190	20800	3050	5220	3540	3180	48070
1972	2770	2310	2150	1860	7210	2550	1910	5210	2940	2570	2510	2460	36450
1973	2530	2400	2620	2350	1990	2180	3930	2810	2230	18230	4090	3410	48770
1974	3160	2640	2830	2360	10180	2250	1890	7180	10030	7630	6760	4860	61770
1975	4550	5820	4620	3510	10650	7380	4990	3520	3160	3300	3330	3210	58040
MAX	9300	5820	5020	4830	10650	7380	4990	40390	10030	18230	6760	5890	76140
MIN	1700	1690	1770	1860	1580	1020	1190	954	1280	1410	1540	1610	21270
MEAN	3119	2576	2856	2777	3998	2684	2336	5534	2927	4671	3046	2914	39438
NO.	17	17	18	15	17	18	19	18	19	16	18	19	12
OF MEAN	7.9%	6.5%	7.2%	7.0%	10.1%	6.8%	5.9%	14.0%	7.4%	11.8%	7.7%	7.4%	100%

GUADALUPE RIVER BASIN

08166000 Johnson Creek near Ingram, Texas

LOCATION: Lat 30°06'00", long 99°16'58", Kerr County, 1.8 mi (2.6 km) upstream from Henderson Branch, 3.4 mi (5.5 km) northwest of Ingram, 3.8 mi (6.1 km) upstream from the mouth, and 9.2 mi (14.8 km) northwest of Kerrville.

DRAINAGE AREA: 114 mi² (295 km²).

PERIOD OF RECORD: October 1941 to November 1959, October 1961 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,721.30 ft (524.652 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 34 years (1941-59, 1961-75), 12,490 ac-ft/yr (15.4 hm³/yr).

EXTREMES: Period of record (1941-59, 1961-75): Maximum discharge, 85,900 ft³/s (2,720 m³/s) Oct. 4, 1959 (gage height, 24.25 ft or 7.391 m); minimum, 0.4 ft³/s (0.011 m³/s) July 26, 27, 1956.

Maximum stage since at least 1852, 35 ft (10.7 m) July 2, 1932, from information by a local resident; discharge, 138,000 ft³/s (3,910 m³/s) by slope-area measurement at a point 0.5 mi (0.8 km) downstream from the State Fish Hatchery and 7 mi (11 km) upstream from the gage.

REMARKS: Records good. There are numerous small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1941	-	-	-	-	-	-	-	-	-	1920	1020	982	-
1942	904	851	821	1080	2040	845	661	572	676	1680	1030	899	12059
1943	781	649	729	752	681	1350	622	454	558	524	562	627	8289
1944	705	676	738	599	1350	731	445	473	655	573	575	799	8319
1945	1680	869	968	1150	768	655	525	471	437	669	566	551	9309
1946	628	525	531	534	638	406	250	427	350	803	2910	742	8744
1947	3860	1060	1070	1690	1320	4990	946	718	565	639	702	702	18116
1948	688	702	623	801	969	494	686	774	691	443	482	542	7895
1949	593	2060	839	1770	889	637	449	545	794	679	533	571	10359
1950	620	552	566	515	498	449	360	323	432	407	410	428	5560
1951	417	406	425	412	689	1080	234	217	257	295	345	401	5178
1952	377	348	442	512	436	1770	372	178	1540	418	492	676	7361
1953	661	447	498	485	340	169	210	244	424	450	389	370	4687
1954	442	363	338	250	361	177	71.0	69.0	180	439	333	335	3358
1955	470	410	500	346	1430	425	389	305	332	387	477	410	5881
1956	326	364	324	324	349	169	94.0	96.0	223	727	307	417	3720
1957	343	406	406	775	1510	1550	382	299	1040	2070	756	895	10432
1958	1030	2430	1660	1030	2120	4970	1240	1180	3660	2140	1800	1700	24960
1959	1360	1070	1000	1420	1270	1990	7010	839	573	18430	1210	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	964	968	1070	-
1962	1040	787	847	1050	912	729	461	393	479	600	584	736	8618
1963	660	653	574	479	543	381	259	271	393	387	376	637	6113
1964	587	624	1140	621	478	325	200	302	4180	964	668	691	10780
1965	654	850	625	719	2730	960	559	415	472	619	635	692	10130
1966	686	584	613	956	746	399	244	789	1640	922	728	702	9009
1967	648	584	574	472	352	191	813	294	711	978	1270	831	7718
1968	6010	1730	2160	2380	1740	1300	1060	758	861	789	803	861	20452
1969	811	776	724	851	618	447	374	710	589	5140	1930	1950	14920
1970	1700	1390	2240	1650	1350	1080	879	747	931	944	770	853	14534
1971	807	748	711	739	591	537	476	8410	1060	2310	1380	1260	19029
1972	1120	952	942	759	1100	749	719	1310	871	813	813	805	10953
1973	851	845	897	869	617	1330	1560	2130	1080	4610	1660	1410	17859
1974	1270	1030	1040	916	2380	714	604	12610	4220	3780	3060	2740	34364
1975	2080	2560	2220	1850	5290	3540	3420	2350	1830	1750	1530	1660	30080
MAX	6010	2560	2240	2380	5290	4990	3420	12610	4220	18430	3060	2740	34364
MIN	326	348	324	250	340	169	71.0	69.0	180	295	307	335	3358
MEAN	1088	884	875	899	1160	1111	643	1240	1016	1741	956	877	12490
NO.	32	32	32	32	32	32	32	32	32	34	34	33	31
DISTR OF MEAN	8.7%	7.1%	7.0%	7.2%	9.3%	8.9%	5.1%	9.9%	8.1%	13.9%	7.7%	7.0%	100%

GUADALUPE RIVER BASIN
08166500 Guadalupe River near Comfort, Texas

LOCATION: Lat 29°58', long 98°54', Kendall County, at a low-water bridge and dam on State Highway 27, and 2.6 mi (4.2 km) west of Comfort.

DRAINAGE AREA: 762 mi² (1,973.6 km²).

PERIOD OF RECORD: January 1918 to September 1932.

GAGE: Staff gage. Datum of gage is 1,380 ft (420.6 m) above mean sea level. Prior to August 11, 1924, staff gage at site 1.0 mi (1.6 m) upstream at datum 4.33 ft (1.3 m) higher.

AVERAGE DISCHARGE: 15 years, 101,987 ac-ft/yr (125.7 hm³/yr).

EXTREMES: Period of record (1918-32): Maximum discharge, 182,000 ft³/s (5,154.2 m³/s) July 1, 1932 (gage height, 27.85 ft or 8.4 m); minimum, 0.40 ft³/s (0.01 m³/s) August 2, 1918 (gage height, 0.80 ft or 0.2 m).

REMARKS: Records good. There is some water diverted above the gage for irrigation. There are several small power plants upstream that partly regulate the low-water flow.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1918	1690	1540	1440	10900	1540	484	94.7	4210	2390	2040	-	-	-
1919	-	5830	9590	6600	10400	10700	17500	100000	-	-	-	32200	-
1920	26600	19600	17000	12700	-	-	7010	-	5340	4300	-	10300	-
1921	6210	4830	8670	7800	5150	-	4020	2690	-	2870	3120	3540	-
1922	3720	3320	3580	-	-	4090	2470	2340	1840	1880	2970	2490	-
1923	2500	3510	3870	8030	3860	2040	769	562	21200	6080	24800	21300	98521
1924	14200	10300	23800	16100	12700	18800	5930	3420	4220	3840	3860	4130	121300
1925	4190	3460	3600	2760	3800	2090	1240	1580	2470	12900	8860	3830	50780
1926	4200	3080	6440	11000	10200	4930	12700	3400	2310	3790	4770	5900	72720
1927	4150	15100	13700	10600	4830	6640	2990	1780	2600	5080	2600	3110	73180
1928	3280	3560	5630	2960	3700	5770	1200	1150	2180	2280	2370	2720	36800
1929	2790	2380	2690	2170	43500	4860	9280	1240	3050	1600	1730	2880	78170
1930	2480	2080	2360	2240	24600	4550	1470	818	1040	47400	5910	5480	100428
1931	8610	11600	11300	21300	20200	7380	8300	4270	2560	2810	3840	4570	106740
1932	4800	6100	10700	23200	11300	4400	159000	8730	34000	-	-	-	-
MAX	26600	19600	23800	23200	43500	18800	159000	100000	34000	47400	24800	32200	121300
MIN	1890	1540	1440	2170	1540	484	94.7	562	1040	1600	1730	2490	36800
MEAN	6401	6419	8291	9883	11983	5903	15598	9728	6554	7452	5894	7881	101987
NO.	14	15	15	14	13	13	15	14	13	13	11	13	9
DISTR OF MEAN	6.3%	6.3%	8.1%	9.7%	11.7%	5.8%	15.3%	9.5%	6.4%	7.3%	5.8%	7.7%	100%

GUADALUPE RIVER BASIN
08167000 Guadalupe River at Comfort, Texas

LOCATION: Lat 29°57'55", long 98°53'49", Kendall County, at the bridge on U.S. Highway 87, and 0.1 mi (0.2 km) downstream from Cypress Creek.

DRAINAGE AREA: 838 mi² (2,170 km²).

PERIOD OF RECORD: June 1939 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,372.05 ft (418.201 m) above mean sea level, datum of 1929. Prior to Nov. 27, 1939, nonrecording gage.

AVERAGE DISCHARGE: 37 years, 116,714 ac-ft/yr (143.9 hm³/yr).

EXTREMES: Period of record (1939-75): Maximum discharge, 111,000 ft³/s (3,140 m³/s) Oct. 4, 1959 (gage height, 33.15 ft or 10.104 m); no flow at times in 1952-57 and 1963-64.

Maximum stage since at least 1848, 40.3 ft (12.28 m) in July 1869, from a report by the Corps of Engineers.

REMARKS: Records good. There are many small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	1040	8690	3030	1810	7970	3100	3070	-
1940	3170	4640	5830	18320	14830	11110	8560	5060	2700	5740	10310	27590	117860
1941	8690	31090	26310	47660	48190	15420	10200	7090	12650	19260	8970	8220	243750
1942	7520	6200	5740	27720	39240	10260	5880	4330	5640	15670	8490	7740	144430
1943	6510	5240	6240	6570	5070	12370	3620	1770	2780	3190	2990	4010	60360
1944	5430	6290	11470	6940	68500	21860	5910	6330	7500	8480	5420	11970	166100
1945	19520	16820	25290	21720	9610	6010	5120	2530	9410	11660	5410	12200	145300
1946	7520	7680	8460	7540	13740	7770	2810	1510	4040	16540	25470	11610	114670
1947	24680	14880	13230	14030	12360	24400	7070	4160	2620	2630	3600	4240	127900
1948	3890	4890	4660	4930	4140	3360	4170	1470	1910	2510	2200	2640	40770
1949	3430	19260	10800	11970	8350	7020	3340	7590	5640	3740	3170	3790	88300
1950	4260	4320	3690	5190	5670	3470	1780	1060	1810	1870	1940	2200	37060
1951	2270	2350	4240	2960	11790	7060	932	379	646	797	1640	1820	36884
1952	1810	1780	2350	4980	8090	6550	1540	197	22740	2520	2280	7320	62157
1953	5610	3180	3440	2470	1210	139	559	807	6610	3650	2410	2240	32325
1954	2330	1820	1390	3720	3910	575	130	0	0	2440	1660	1230	19205
1955	2400	2390	1420	787	6970	766	8710	1570	1220	988	1020	1520	29761
1956	1320	1560	1020	924	919	5480	0	895	351	0	216	645	7856
1957	1030	1360	5710	35900	21240	13450	1430	263	3080	44370	15830	12770	156433
1958	20620	30730	33940	15100	15720	20980	7320	4140	30680	11160	14450	12270	217110
1959	10150	8150	6760	11340	8090	23970	9190	4640	3310	67290	7380	7090	167360
1960	8810	12670	9760	8250	5940	2630	6510	37610	7800	44700	21590	29870	196140
1961	24900	42110	26090	14520	9380	14080	10070	7620	5600	5590	6140	6090	172190
1962	5670	4710	4630	5630	5250	3890	1400	642	926	3020	2520	3270	41558
1963	3170	2740	2780	2490	2300	1290	387	164	1350	2300	4150	2840	25961
1964	2790	4690	8290	4640	2710	790	25.0	4880	34180	8710	5030	4480	81215
1965	4210	11540	7940	6420	30040	21080	4380	2190	2430	3920	3550	5210	102910
1966	4510	4360	4370	10210	9610	3680	2740	28910	12320	6410	4970	4650	96740
1967	4620	3530	3180	2880	1830	633	3060	991	6970	13130	10070	6320	57214
1968	49900	20170	21670	21060	20830	11960	8890	4320	4300	4320	5220	6050	178690
1969	4810	4950	5050	7810	4760	2120	843	3110	5770	59320	14640	17390	130573
1970	12480	11330	21040	13060	16240	9790	5310	3400	4470	5260	4550	4680	111610
1971	4310	3640	3620	3440	2820	1770	1510	107000	10740	36440	19210	14750	209250
1972	11620	9070	7780	6670	46860	14110	8400	15370	8340	6840	7060	6440	148560
1973	6960	8570	11040	9880	7550	9960	25130	13050	8530	44520	15430	11590	172210
1974	10520	8000	8260	6270	40820	7300	3990	29230	26060	22920	30840	18290	212500
1975	18500	45090	23340	18690	68990	38470	19690	11900	9500	9650	8250	8430	280500
MAX	49900	45090	33940	47660	68990	38470	25130	107000	34180	67290	30840	29870	260500
MIN	1030	1360	1020	787	919	5.80	0	0	0	0	216	645	7856
MEAN	8887	10327	9745	10908	16210	9220	5392	8898	7477	13766	7870	8014	116714
NO.	36	36	36	36	36	36	37	37	37	37	37	37	36
DISTR OF MEAN	7.61	8.81	8.31	9.31	13.91	7.91	4.61	7.61	6.41	11.81	6.71	6.91	1001

GUADALUPE RIVER BASIN
08167500 Guadalupe River near Spring Branch, Texas

LOCATION: Lat. 29°51'38", long 98°22'58", Comal County, at a bridge on a county road, 82 ft (25 m) downstream from the bridge on Ranch Road 311, 1.9 mi (3.1 km) southeast of the Spring Branch Post Office, and 7.5 mi (12.1 km) downstream from Curry Creek.

DRAINAGE AREA: 1,315 mi² (3,406 km²).

PERIOD OF RECORD: July 1922 to December 1975.

GAGE: Water-stage recorder and crest-stage gages. Datum of gage is 948.10 ft (288.981 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 54 years, 206,647 ac-ft/yr (254.8 hm³/yr).

EXTREMES: Period of record (1922-75): Maximum discharge, 121,000 ft³/s (3,430 m³/s) July 3, 1922 (gage height, 42.10 ft or 12.832 m); no flow at times in 1951-52, 1954-56, and 1963-64.

Maximum stage since at least 1859, about 53 ft (16.2 m) in 1869.

REMARKS: Records good. There are several small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1922	-	-	-	-	-	-	4250	2760	2070	2600	3610	3210	-
1923	3210	4380	5330	17400	8190	2740	1410	628	50100	6300	31700	51000	182388
1924	25700	25900	39300	33600	49100	28800	10300	4870	7010	4800	5180	5870	240430
1925	5470	4460	4260	3500	4480	1960	1320	1840	2680	18200	11300	5030	64500
1926	5480	4080	9010	43000	24200	9640	14000	5340	3160	4170	6490	8110	136680
1927	5750	16700	25800	21500	11900	24000	6460	2880	2990	6460	3450	4270	132160
1928	4490	5230	8730	3540	4300	7260	1670	1200	1840	2450	2180	2620	45510
1929	2780	2580	3490	5040	66900	14300	27200	3200	2560	2030	2860	4350	137290
1931	3560	3550	3400	2700	25300	23800	4290	1220	1160	53500	10300	9280	142060
1931	18400	30800	29000	41700	56500	16300	15700	7870	3900	3550	4940	6330	234990
1932	9720	9320	21200	13900	15700	6190	230000	12600	37500	16000	10500	12500	395130
1933	21600	13000	14200	11000	14300	7200	4020	3140	3250	3010	3160	3760	101640
1934	7070	4920	7560	13600	6070	2140	4770	1380	1530	1090	1860	2530	54520
1935	2510	4690	3070	3320	57350	237900	26100	9990	58500	20710	14100	21590	459830
1936	15960	11570	12190	8880	43710	56290	74650	13190	241300	69540	39380	32640	619300
1937	27890	20790	24610	16960	11180	36980	8780	4340	4700	5720	5230	13970	181150
1938	30130	17470	14110	24470	22820	9840	5550	3170	3650	2920	3240	3450	140820
1939	6190	4120	4150	3940	4570	1320	9290	3330	1410	14060	3860	4070	60310
1940	4080	5620	9090	22110	16300	19660	10690	5090	2910	4250	12870	39730	152400
1941	14290	70760	63860	89490	111900	34840	23270	11120	16000	25250	13110	11250	485140
1942	9440	7910	7610	38820	51350	14170	8750	6530	22570	29480	16850	14320	227800
1943	12750	9120	9890	10960	7790	17490	8610	2930	5420	4370	3760	5480	98570
1944	9070	14040	30710	17450	102200	37880	11640	17640	18610	15730	10440	29660	315070
1945	45040	42270	59010	43180	18720	11150	9250	5820	14590	20210	9290	23640	302170
1946	14640	17170	19110	14480	29970	13920	5480	3340	13830	23940	45110	27470	228460
1947	59290	33610	26570	24680	21180	26440	10440	5740	3490	3390	4530	5610	224970
1948	5160	5510	5450	5310	4600	9910	5500	2150	2330	3500	2640	3220	55280
1949	4240	20950	13200	23920	18420	10140	4840	7880	6670	4770	4190	4850	124070
1950	5280	5920	4940	6700	11260	6330	5000	1910	2530	2010	2140	2960	56980
1951	2950	2980	5070	3930	11170	7090	821	56.0	54.0	363	1250	2220	37954
1952	1970	1800	2480	6540	20350	9140	2210	436	126100	4650	4670	11500	191846
1953	10030	5960	6700	4960	2770	617	967	980	14720	5270	3660	3750	60384
1954	3700	2590	2250	1530	7270	731	33.0	16.0	17.0	1680	1170	1180	22167
1955	2430	4190	1760	957	8460	2310	8500	2330	919	874	809	1430	34989
1956	1510	1680	1040	364	1190	0	0	348	408	416	659	398	8013
1957	671	1950	16140	87960	45500	36750	4100	1610	16290	85520	44080	29660	370231
1958	46580	61010	66170	30830	104500	40290	16290	7080	40210	23160	28940	16630	483690
1959	14200	12700	10910	18340	13530	36860	15200	7380	4970	85900	12250	13150	245390
1960	16900	19700	17100	14860	9510	4860	8610	48390	10900	80670	34280	49050	314830
1961	42340	81620	44070	24480	15390	27590	16080	9510	7040	6550	7310	7010	288990
1962	6470	5920	5890	7210	5920	9080	2150	740	2840	4710	4080	5050	60060
1963	4130	3480	3690	6540	3020	1570	658	199	520	3370	5730	3960	36867
1964	3680	8550	16820	7100	3810	3010	237	4960	41060	12160	9560	6670	117617
1965	6080	23280	13340	21900	83910	43670	10210	4920	6120	11260	6860	15880	247430
1966	10530	9860	10350	21420	20860	9080	5230	32710	18260	9590	6810	6350	161050
1967	5580	5210	4960	3970	2950	1010	2520	1350	23450	17260	19480	12870	100610
1968	103500	41090	39610	39420	43930	22860	14650	7220	7790	6500	6550	8370	341490
1969	6850	7590	8280	15150	18180	11360	3920	6880	10040	77760	20630	33800	220440
1970	22840	20700	43580	24660	39610	24250	10420	5680	6860	7720	6530	6560	219410
1971	6110	5060	5440	4570	3850	1510	1270	121400	27630	64470	37690	31320	310520

GUADALUPE RIVER BASIN

08167500 Guadalupe River near Spring Branch, Texas--Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1972	20250	35390	12800	12980	89570	29320	13520	20560	11620	12040	13990	11220	263280
1973	13570	18580	23450	22490	17210	29990	124200	33190	25790	92720	37310	22530	461030
1974	17800	13190	13380	10300	48820	11390	5500	42590	37510	20010	55850	31100	367440
1975	35490	103800	42140	32130	111800	74640	44370	21190	15720	14560	10970	10430	517240
MAX	103500	103800	66170	89490	111900	237900	230000	121400	241300	92720	55850	51000	619300
MIN	671	1680	1040	364	1190	0	0	16.0	17.0	363	659	398	8013
MEAN	14818	16874	16911	18674	29308	21275	16017	9905	18431	18948	12396	13090	206647
NO. OF MEAN	53	53	53	53	53	53	54	54	54	54	54	54	53
OF MEAN	7.2%	8.2%	8.2%	9.0%	14.2%	10.3%	7.6%	4.8%	8.9%	9.2%	6.0%	6.3%	100%

GUADALUPE RIVER BASIN
08167600 Rebecca Creek near Spring Branch, Texas

LOCATION: Lat 29°55'06", long 98°22'10". Comal County, 72 ft (22 m) upstream from a private road crossing, 2.9 mi (4.7 km) upstream from the mouth, 3.7 mi (6.0 km) northeast of the Spring Branch Post Office, and 6.3 mi (10.1 km) south of Twin Sisters.

DRAINAGE AREA: 10.9 mi² (28.2 km²).

PERIOD OF RECORD: February 1960 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 985.55 ft (300.306 m) above mean sea level.

AVERAGE DISCHARGE: 16 years, 3,756 ac-ft/yr (4.6 km³/yr).

EXTREMES: Period of record (1960-75): Maximum discharge, 9,300 ft³/s (263 m³/s) Oct. 18, 1965 (gage height, 7.97 ft or 2.429 m); no flow in 1963, 65, 1967, 1971, and 1974.

Maximum stage since at least 1085, 25.5 ft (7.77 m) in September 1952.

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1960	-	221	214	227	114	70.0	81.0	70.0	51.0	1480	585	857	-
1961	500	534	254	102	55.0	100	96.0	55.0	51.0	43.0	57.0	49.0	1896
1962	44.0	34.0	43.0	57.0	37.0	36.0	18.0	12.0	16.0	18.0	27.0	57.0	399
1963	41.0	52.0	51.0	704	95.0	54.0	27.0	24.0	7.50	13.0	28.0	25.0	1122
1964	32.0	203	221	158	48.0	130	47.0	16.0	23.0	55.0	125	75.0	1133
1965	133	1330	482	1290	3130	1850	121	119	53.0	1190	301	934	10933
1966	292	737	393	971	637	153	73.0	50.0	206	112	60.0	59.0	3743
1967	45.0	25.0	45.0	29.0	38.0	24.0	13.0	7.40	1170	362	554	239	2551
1968	3450	716	429	283	392	443	100	65.0	60.0	74.0	63.0	95.0	6170
1969	59.0	81.0	166	525	607	385	102	89.0	243	252	189	577	3475
1970	368	600	697	315	1550	428	125	96.0	88.0	102	61.0	61.0	4491
1971	45.0	39.0	41.0	40.0	44.0	20.0	10.0	59.0	46.0	101	155	445	1045
1972	204	146	98.0	64.0	1170	1340	304	148	89.0	84.0	491	353	4491
1973	418	515	453	225	223	781	2190	302	346	1340	399	197	7389
1974	173	136	112	82.0	136	68.0	34.0	585	318	304	284	277	2509
1975	313	1080	275	179	1070	493	512	136	58.0	58.0	103	89.0	4366
MAX	3450	1330	697	1290	3130	1850	2190	565	1170	1480	585	934	10933
MIN	32.0	25.0	41.0	29.0	37.0	20.0	10.0	7.40	7.50	13.0	27.0	25.0	399
MEAN	408	403	248	328	597	398	241	115	177	349	218	274	3756
NO.	15	16	16	16	16	16	16	16	16	16	16	16	15
UISTR OF PEAK	10.9%	10.7%	6.6%	8.7%	15.9%	10.6%	6.4%	3.1%	4.7%	9.3%	5.6%	7.3%	100%

GUADALUPE RIVER BASIN

08167700 Canyon Lake near New Braunfels, Texas

LOCATION: Lat 29°52'07", Long 98°11'55", Comal County, in the intake structure of Canyon Dam on the Guadalupe River, and 12 mi (19 km) northwest of New Braunfels.

DRAINAGE AREA: 1,432 mi² (3,709 km²).

PERIOD OF RECORD: July 1962 to December 1975. Prior to October 1970, published as "Canyon Reservoir".

GAGE: Water-stage recorder. Datum of gage is at mean sea level. Prior to Sept. 24, 1964, nonrecording gage at present site and datum.

EXTREMES: Period of record (1962-75): Maximum contents, 458,000 ac-ft (565.9 hm³) July 18, 1973 (elevation 917.35 ft or 279.608 m); minimum contents since the first appreciable storage, 341,800 ac-ft (421.4 hm³) Sept. 30, 1975 (elevation, 903.95 ft or 275.524 m).

REMARKS: The lake is formed by a rolled earthfill dam 6,830 ft (2,082 m) long, consisting of the main dam 4,410 ft (1,344 m) long, an earthen dike 210 ft (64 m) long, a 1,260-foot (384-m) long uncontrolled broad-crested type spillway, and a 950-foot (290-m) concrete and earthen nonoverflow section. The capacity of the lake is 386,240 ac-ft (476.2 hm³). Deliberate impoundment of water began on June 16, 1964 and the main part of the dam was completed in August 1964. The flood-control outlet works consist of a 100-foot diameter (3.0-m) conduit controlled by two 5.7-foot by 10.0-foot (1.7- by 3.0-m) hydraulically operated slide gates. The lake was built for water conservation and flood control. The dam is operated by the U.S. Army Corps of Engineers.

END OF MONTH CONTENTS IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1962	-	-	-	-	-	-	530	739	810	1150	924	904
1963	875	904	856	914	885	810	731	722	748	866	875	856
1964	973	943	1020	1000	810	2650	2300	3690	23370	14900	11060	11670
1965	13500	44710	50460	69020	163100	208300	203900	202500	195600	203500	203800	227000
1966	225400	224600	220900	231000	246400	237400	224200	238800	241700	231700	224700	222900
1967	222400	222000	221600	218500	216500	211700	207100	200600	218600	211300	208100	205700
1968	325300	363600	382800	385800	382800	373200	370400	365100	365600	363200	364000	366100
1969	365200	364400	361800	373200	375800	368000	359500	357200	359900	393700	383500	396200
1970	376200	372000	383900	368500	399700	381800	367400	360800	362300	362700	359400	358300
1971	356100	355300	352800	353600	352900	349800	343800	387600	366900	391000	384100	384700
1972	379600	355200	349800	347000	395800	388300	362300	355900	350100	348200	355900	358500
1973	362800	370100	373000	376200	360100	383800	406600	379900	377600	429700	400600	381000
1974	373800	362500	356700	354900	370400	354400	348000	385400	384400	379700	380900	384900
1975	379700	383600	377600	377800	429400	384500	377500	354600	341800	345900	349900	357800
MAX	379700	383600	363900	385800	429400	388300	406600	387600	384400	429700	400600	396200
MIN	875	904	856	914	810	810	530	722	748	866	875	856
MEAN	260142	263066	264095	265956	284200	280358	255304	256682	256388	262680	259126	261181
NO.	13	13	13	13	13	13	14	14	14	14	14	14
DISTR OF MEAN	8.2%	8.3%	8.3%	8.4%	9.0%	8.8%	8.1%	8.1%	8.1%	8.3%	8.2%	8.2%

GUADALUPE RIVER BASIN

08167800 Guadalupe River at Sattler, Texas

LOCATION: Lat 29°51'32", long 98°10'47", Comal County, 200 ft (61 m) upstream from Horseshoe Falls, 0.8 mi (1.3 km) north of Sattler, 1.8 mi (2.9 km) downstream from Canyon Dam, 2.3 mi (3.7 km) upstream from Heiser Hollow, and 11.2 mi (18.0 km) north of New Braunfels.

DRAINAGE AREA: 1,436 mi² (3,719 km²), of which 1,432 mi² (3,708 km²) is above Canyon Dam.

PERIOD OF RECORD: March 1960 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 742.24 ft (226.235 m) above mean sea level.

AVERAGE DISCHARGE: 16 years, 251,094 ac-ft/yr (309.6 hm³/yr).

EXTREMES: Period of record (1960-75): Maximum discharge, 20,800 ft³/s (589 m³/s) Oct. 29, 1960 (gage height, 12.20 ft or 3.719 m). Maximum discharge since the closure of Canyon Dam on July 21, 1962, 5,390 ft³/s (153 m³/s) Feb. 11, 1975 (gage height, 8.18 ft or 2.493 m); no flow July 31 to Aug. 6, 1962 (result of the closure of Canyon Dam), and part of Jan. 29, 30, and Feb. 1, 1965 (result of closure while constructing the control facilities).

Flood in July 1900 (stage unknown) exceeded 39 ft (11.9 m); maximum stage since at least 1904, 39 ft (11.9 m) in July 1932 and June 1935, from information by local residents.

REMARKS: Records good. The flow is completely regulated since July 21, 1962 by Canyon Lake (station 08167700) located 1.8 mi (2.9 km) upstream. There are several small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1960	-	-	19490	18730	13160	8610	11720	49570	13520	89980	44460	55960	-
1961	51710	88910	52390	27940	17330	31250	19560	11600	8040	7460	8280	8560	333030
1962	7860	6650	6800	7570	6430	10280	2300	450	2990	4670	5230	6360	67590
1963	5020	4590	4470	10280	4850	2150	1360	619	627	2650	5280	4230	46126
1964	3710	9030	14540	7900	4690	3450	1430	2370	8620	23310	18170	6800	104020
1965	5810	747	11200	6410	7740	12620	13850	3750	11490	7530	8900	2540	92567
1966	13750	16720	18720	17030	9270	18090	17280	11740	16570	17930	12150	6180	175430
1967	6210	5280	6760	6610	5630	3490	3830	5470	12100	24000	27290	15470	122140
1968	7620	7080	26220	41750	53210	37690	16420	8290	6360	6400	6010	6150	223200
1969	7730	12010	13310	13040	25490	20540	8370	6710	6550	41160	32610	26370	213890
1970	47100	31990	45070	47700	23840	48680	23640	10480	6610	6640	6440	6830	305020
1971	6950	5520	5240	2710	2900	2930	2970	67910	49550	40380	44780	39230	271070
1972	25860	40270	16400	11940	58520	45480	38900	26060	13730	11220	6220	8340	302940
1973	13110	16240	26450	27250	36860	19840	124200	66020	33120	58400	70050	41850	527390
1974	28180	25710	21170	13110	33870	25320	8450	5830	41280	22970	58890	29210	313990
1975	42880	106400	46000	35010	56920	129100	53330	41560	24690	8060	3940	2630	550520
MAX	51710	106400	52390	47700	58520	129100	124200	67910	49550	89980	70050	55960	550520
MIN	3710	747	4470	2710	2900	2150	1360	450	627	2650	3940	2540	46126
MEAN	18233	25143	20889	18436	22544	26220	21726	19527	15990	23298	22419	16669	251094
NO.	15	15	16	16	16	16	16	16	16	16	16	16	15
DISTR													
OF MEAN	7.3%	10.0%	8.3%	7.3%	9.0%	10.4%	8.7%	7.8%	6.4%	9.3%	8.9%	6.6%	100%

GUADALUPE RIVER BASIN

08168500 Guadalupe River above Comal River at New Braunfels, Texas

LOCATION: Lat 29°42'53", long 98°06'35", Comal County, 1.1 mi (1.8 km) upstream from the Comal River, and 21.9 mi (35.2 km) downstream from Canyon Lake.

DRAINAGE AREA: 1,518 mi² (3,932 km²).

PERIOD OF RECORD: January 1928 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 586.65 ft (1178.811 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 48 years, 276,905 ac-ft/yr (341.4 hm³/yr).

EXTREMES: Period of record (1928-75): Maximum discharge, 101,000 ft³/s (2,860 m³/s) June 15, 1935 (gage height, 32.95 ft or 10.043 m), no flow July 8, 9 and July 17 to Aug. 20, 1956.

Maximum stage since at least 1845, 38 ft (11.6 m) July 8, 1869 and in December 1913, from information by local residents.

REMARKS: Records good. Since July 21, 1962, the flow is largely regulated by Canyon Lake (station 08167700) located 21.9 mi (35.2 km) upstream.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1928	5180	11200	14900	5550	5450	8810	2100	1330	1860	2390	2450	3540	64760
1929	5690	3120	3940	8210	89800	30100	44000	6270	4440	3390	4250	5260	206470
1930	4560	4370	4300	3310	38500	28200	6520	1890	1350	52800	11700	12500	170000
1931	29400	42400	44400	49700	87300	24000	30800	12500	6250	4880	6010	8180	335620
1932	17300	15500	28900	16800	18000	7560	212000	13800	39700	17700	11400	13600	412260
1933	23100	14900	16200	12900	14600	7560	4670	4490	4500	3440	3610	4070	114040
1934	9160	9390	16800	22600	8480	3180	5560	2910	1700	1190	2950	3770	87690
1935	3990	8200	4600	4080	79560	272000	44530	21000	65430	28480	17240	24610	573720
1936	18940	13050	15270	10680	45580	45250	119900	18500	249900	78850	42330	33660	691910
1937	30230	24760	34060	22150	13270	48090	12640	6120	5900	7580	6400	22160	233380
1938	50550	29210	21340	38920	42920	15830	8760	5320	5250	4200	4450	5670	232420
1939	7640	5040	4900	4700	5160	2050	9020	3830	1700	12660	3840	4040	64580
1940	4380	5950	8980	23320	15920	21090	13120	4710	2620	2920	15640	55490	174340
1941	18410	77850	79610	109300	144500	51310	38180	18320	19120	32410	17390	14180	620580
1942	12060	10330	9850	45160	52840	16210	13420	8510	48650	51170	27150	22620	317970
1943	17580	11960	12660	14810	10820	21820	14740	5640	7890	6470	5170	6720	136280
1944	18490	28060	54040	28960	121100	55620	20700	20370	25920	18800	14720	43360	450140
1945	64500	63380	76830	63900	30450	18520	14440	8510	14660	27750	12320	25200	420660
1946	20980	26520	36190	22270	37840	24750	9220	6410	30270	41540	71670	50540	378200
1947	78760	46420	38120	31320	28000	29040	13080	10780	5400	4820	5400	6590	299730
1948	5920	6260	6390	5550	6910	11420	7410	2160	2450	4090	3010	3740	65310
1949	5110	21590	20600	33610	30370	14320	7490	9170	6670	9340	5920	6410	170650
1950	6500	10750	7350	8330	13380	8490	6020	2050	2470	2160	2190	3110	72800
1951	3150	3570	5570	5300	10990	9450	1110	343	657	472	1240	2520	44572
1952	2380	1990	2520	8250	23230	13680	2690	670	183200	9570	7600	19360	275360
1953	20350	9790	8790	8120	4630	1380	2140	1880	23900	12290	6670	10180	110320
1954	5870	4180	3220	2210	6890	1500	423	372	227	803	1840	1360	26895
1955	2210	3990	2210	1250	8540	2660	7260	2320	715	1090	704	1540	34489
1956	1560	1800	1210	556	842	4000	340	408	296	614	1250	1340	9913
1957	755	1960	19910	115700	65200	61150	10740	4620	27080	105700	57340	40330	510465
1958	61070	79710	87550	44660	134600	50600	24020	12760	49570	37370	44100	27930	653960
1959	22600	21320	21280	25090	18950	39480	20590	11150	7220	91970	19520	20040	319210
1960	28680	25990	21600	22040	18190	17910	17440	60410	19370	112000	60690	70370	474690
1961	64720	98980	60390	33530	20520	34640	22460	14080	9990	9750	11290	10900	391250
1962	9680	7970	8170	9300	7900	11240	3230	1070	5060	5700	6280	8100	83700
1963	6140	5860	5770	11230	5840	2870	1780	1430	951	2400	5080	4160	53531
1964	4380	10000	14500	8190	4850	7140	2480	2680	9650	25400	21740	8160	119170
1965	8570	12860	19020	13530	29920	22910	21150	6860	14160	12640	13630	17770	195040
1966	21700	23140	26440	24270	16660	23710	20060	14100	21560	21190	13920	7630	234380
1967	7620	6040	7500	6620	5890	3150	4020	5740	19780	29730	36170	21680	153940
1968	29480	18770	35490	48500	60600	44350	22060	13520	18120	8980	8050	10110	310030
1969	10090	17120	19400	21890	36600	27160	12130	9230	9700	46280	34470	33780	277850
1970	53910	39610	53060	51850	33650	58590	28610	13290	9120	9830	8660	9140	369320
1971	8760	6780	6020	3420	3650	3460	3650	73650	52540	47660	55380	52820	317790
1972	34320	47210	21820	14560	96010	53110	43500	32210	18160	14650	9470	10960	395480
1973	16720	21460	32210	36340	41980	28900	135800	66370	42400	76020	77780	50060	628040
1974	34300	30340	25860	16400	40510	28220	11090	9490	44000	26490	61620	3480	362900
1975	45220	120900	60140	42780	72720	141600	81660	46990	27220	10830	6410	4770	641240
MAX	78760	120900	67550	115700	144500	272000	212000	73650	249900	112000	77780	70370	691910
MIN	755	1800	1210	556	842	4000	340	343	227	472	704	1340	9913
MEAN	19951	23199	23539	24096	35627	30294	23717	12569	24190	23718	18098	17885	276905
NL	48	48	48	48	48	48	48	48	48	48	48	48	48
DISTR													
OF FLOW	7.2%	8.4%	8.5%	8.7%	12.9%	10.9%	8.6%	4.5%	6.7%	8.6%	6.5%	6.5%	100%

GUADALUPE RIVER BASIN
08169000 Comal River at New Braunfels, Texas

LOCATION: Lat 29°42'21", long 98°07'20". Comal County, 200 ft (61 m) upstream from the San Antonio Street viaduct in New Braunfels, and 1.1 mi (1.8 km) upstream from the mouth.

DRAINAGE AREA: 130 mi² (337 km²). Normal flow of river comes from springs; drainage area not applicable.

PERIOD OF RECORD: January 1928 to December 1975.

GAGE: Water-stage recorder. Concrete control since Oct. 1, 1955. Datum of gage is 582.80 ft (177.637 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 48 years, 211,831 ac-ft/yr (261.2 hm³/yr).

EXTREMES: Period of record (1928-75): Maximum discharge, 80,800 ft³/s (1,720 m³/s) May 11, 1972 (gage height, 38.55 ft or 11.740 m, from floodmark); no flow from the Comal Springs from June 13, to Nov. 3, 1956.

Flood information begins with the flood of July 8, 1869 which reached a stage of 36.91 ft (11.250 m) from painted and dated marks in the old Remmert Brewery 0.5 mi (0.8 km) downstream. The flood of Oct. 17, 1870 reached a stage of 37.65 ft (11.476 m) at the same site (probably some backwater from the Guadalupe River).

REMARKS: Records good. The flow from the Comal Springs emerges from the Edwards and associated limestones in the Balcones Fault Zone. Except during periods of rainfall, the flow of the river is primarily from the Comal Springs 1.0 mi (1.6 km) upstream.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1928	18400	-	-	17700	-	-	17800	16900	16300	17400	16500	17200	-
1929	17300	15200	16800	16500	-	18200	-	19100	17900	17800	17400	17500	-
1930	17100	15000	15800	15600	-	-	18400	16500	15800	-	15500	16500	-
1931	17800	17900	21900	-	-	20500	-	19800	19600	19400	17600	18200	-
1932	19800	18100	20100	-	18600	18500	20500	21300	-	19900	18800	19700	-
1933	19100	16600	19100	20200	20500	18100	19800	18800	18500	18000	17800	19000	225500
1934	20100	17000	20800	19800	20200	19300	20700	20000	17800	18990	17320	18120	230130
1935	18220	16480	18050	17990	24330	21560	21070	21000	20840	21120	22760	22630	244630
1936	23050	21220	22020	19930	22450	24090	22870	22050	21870	22490	21470	21760	265270
1937	21420	19480	22410	22320	23700	27970	22100	20960	20070	19630	18720	20410	259190
1938	21260	18310	20280	24950	23800	21760	21740	21000	20930	20880	20140	20350	255400
1939	19910	18250	19700	18780	18710	18130	16570	17770	18320	17670	16440	17600	217850
1940	17540	16570	17580	17490	16410	18610	17620	16960	16440	16830	16280	20100	208430
1941	18280	17380	20000	25030	28210	23300	22020	22190	20330	23060	20350	20570	260720
1942	20780	18710	20610	20480	19440	18900	22550	19640	26510	27840	24120	25560	265140
1943	25060	21660	23020	21180	20470	19970	20170	19570	19410	18860	18840	19280	247490
1944	21550	19220	22740	22800	24680	22440	21830	20140	19800	19980	18680	21080	254940
1945	22900	23050	26430	25690	25480	22370	21290	20980	19910	22390	19710	20640	270840
1946	20100	17820	21120	19720	24310	26400	23020	22090	27170	24300	25620	24650	276320
1947	25980	22610	25610	23420	24390	20550	20230	20120	19020	19190	18390	16990	257900
1948	18730	17740	18260	17600	17490	16510	16410	15830	15360	15850	15530	15760	201070
1949	15900	13830	16680	18840	19240	18880	19180	18820	17160	19250	16750	17490	212020
1950	17460	15870	17170	16350	16590	15700	15120	14720	14320	14330	14470	148700	179700
1951	14270	12490	13700	12890	13440	13130	11840	11150	10790	11290	11410	12460	148860
1952	11830	10460	11160	11070	11250	10850	10020	6300	39470	11880	12070	14040	262400
1953	14190	12600	13490	14540	12540	10590	8820	7840	11190	12060	12180	12630	142670
1954	12680	11350	10580	8800	9220	7200	6470	5250	4670	6790	7390	7960	98360
1955	8420	8000	7950	6310	8030	5550	4160	3350	3700	4350	5610	66820	68820
1956	5650	5410	4340	2690	1950	682	740	946	891	768	1410	2520	27997
1957	3170	2920	4800	19590	20510	17720	9740	5780	10610	14070	14320	15510	138740
1958	17780	20170	20810	20140	21400	18590	18670	16270	19080	20410	19950	20810	234080
1959	20590	18800	20580	20260	19940	17860	18530	17820	17050	19940	18430	19440	229240
1960	19970	18800	20040	19610	19560	19950	18260	18470	17840	26300	20630	22060	241690
1961	22270	20640	22320	20500	19720	19790	22390	19930	18620	21240	20960	20080	247960
1962	19870	17530	18640	17840	17570	15940	14630	12350	13220	14700	14590	16500	193380
1963	16410	14750	16090	14700	14360	11810	11000	8540	8720	10310	11530	12580	150800
1964	13070	13240	13930	12730	11830	11930	9400	7880	8510	10540	12290	12810	138560
1965	13050	16490	16900	16540	29570	19170	16230	13880	12410	16640	15770	22580	209230
1966	18770	17330	18640	17300	18570	16060	14550	13110	14240	15260	14530	14870	193430
1967	15040	12540	12940	11640	10050	6450	5730	5030	12780	13290	15380	15580	136450
1968	30680	19950	21600	22250	22170	20240	19550	17920	17260	18440	17730	18960	246750
1969	18770	17310	20050	19170	21220	18630	16260	13500	15260	16490	17030	18690	212380
1970	18640	17600	21030	20050	24480	20900	18470	17000	15700	17750	17220	17610	226650
1971	17020	13880	13900	11470	10210	7080	7430	12030	13720	16000	17440	19630	159810
1972	19790	18340	18470	15500	57740	21280	19130	16770	17730	18870	19100	19830	264550
1973	20090	18200	20850	22070	22530	24560	28230	24210	29480	30150	26760	26880	294010
1974	26560	23720	24750	22600	25580	21460	20220	20120	21760	23010	28920	25120	263820
1975	24560	24450	25320	24150	33600	26720	25160	23200	22080	22490	21490	22210	295430
MAX	30680	24450	26430	25690	57740	27970	28230	24210	39470	30150	28920	26880	295430
MIN	3170	2920	4340	2690	1950	682	740	946	891	768	1410	2520	27997
MEAN	18356	16701	18269	17978	20092	17744	16904	16028	17025	17631	17089	18014	211831
NOV.	46	47	47	46	44	46	46	48	47	47	48	48	43
DISTR													
COEFF	8.7%	7.9%	8.6%	8.5%	9.5%	8.4%	8.0%	7.6%	6.0%	8.3%	8.1%	8.5%	100%

GUADALUPE RIVER BASIN

08169500 Guadalupe River at New Braunfels, Texas

LOCATION: Lat 29°42', Long 98°06', Comal County, at the San Antonio-Austin Highway bridge, 700 ft (213.4 m) downstream from the International and Great Northern Railway Co. bridge, 1.0 mi (1.6 km) below the mouth of the Comal River, and 1.0 mi (1.6 km) northeast of New Braunfels.

DRAINAGE AREA: 1,624 mi² (4,206.2 km²).

PERIOD OF RECORD: February 1915 to December 1927.

GAGE: Water-stage recorder. Datum of gage is 572.36 ft (174.4 m) above mean sea level. Prior to September 28, 1917, staff gage at same site and datum.

AVERAGE DISCHARGE: 13 years, 556,359 ac-ft/yr (686.0 hm³/yr).

EXTREMES: Period of record (1915-27): Maximum discharge, 56,600 ft³/s (1,602.9 m³/s) September 10, 1921 (gage height, 28.6 ft or 8.7 m); no flow for short periods in 1922, 1923, and 1925.

REMARKS: Records fair. There are several small diversions above station for irrigation and municipal use. There is some regulation at times by the operation of a power plant upstream.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1915	-	32800	43300	162000	91600	51100	41400	34800	127000	36500	10600	31900	-
1916	32200	27300	26100	92200	120000	37300	33800	29700	24400	26300	23900	24500	497700
1917	24800	21500	23400	22000	29400	20400	27000	20000	24300	18300	19000	20100	265200
1918	20400	18600	20200	32300	25800	17700	17000	19600	20200	21400	36700	48100	298000
1919	50100	38200	45900	41600	51300	66000	94100	167000	277000	349000	135000	87900	1403100
1920	55900	78800	68900	57800	79900	57200	41300	51100	35700	34200	33500	34100	668400
1921	31700	27600	42600	75000	36300	78000	32400	25300	107000	35300	30500	29700	551400
1922	26000	24500	27600	66800	82100	39600	31000	27000	24000	25300	27600	25400	428900
1923	24800	24500	27900	44300	39300	27400	24200	21100	76000	35700	61900	92600	499700
1924	63500	59400	77600	68800	110000	70600	52700	45000	35400	33100	30200	31600	677900
1925	30100	25900	26100	25200	27400	24200	21200	21300	19600	39700	33600	25200	319500
1926	26900	26100	34300	114000	76500	39600	42500	33000	26000	25600	29500	32500	506500
1927	29600	41900	52500	44400	33900	44100	29000	22400	22100	28300	22900	24100	395200
MEAN	95900	78800	77600	162000	120000	78000	94100	167000	277000	349000	135000	92600	1403100
MIN	20400	18600	20200	22000	25800	17700	17000	19600	19600	18300	19000	20100	265200
MAX	38167	34392	39723	65108	61808	44092	37123	39792	62977	54515	39608	39054	556359
NO.	12	13	13	13	13	13	13	13	13	13	13	13	12
DISTN													
CF YEAR	6.9%	6.2%	7.1%	11.7%	11.1%	7.9%	6.7%	7.2%	11.3%	9.8%	7.1%	7.0%	100%

GUADALUPE RIVER BASIN

08170000 San Marcos River Spring Flow at San Marcos, Texas

LOCATION: Lat 29°52'06", long 97°55'38", Hays County, 0.7 mi (1.1 km) downstream from the bridge on Interstate Highway 35 and U.S. Highway 81, 1.2 mi (1.9 km) southeast of the courthouse in San Marcos, and 2.1 mi (3.4 km) upstream from the Blanco River.

DRAINAGE AREA: The normal flow of the river comes from springs; the drainage area of the stream is not applicable.

PERIOD OF RECORD: June 1956 to December 1975, June 1915 to January 1916, March 1916 to September 1921, May to September 1956, published as "San Marcos River at San Marcos".

GAGE: Water-stage recorder, Datum of gage is 536.82 ft (163.623 m) above mean sea level, datum of 1929. June 10, 1915 to Jan. 19, 1916, nonrecording gage at site 1.2 mi (1.9 km) upstream, and Mar. 13, 1916 to Sept. 7, 1921, water-stage recorder near the present site, datum relations unknown.

AVERAGE DISCHARGE: 20 years, 118,439 ac-ft/yr (146.0 hm³/yr).

EXTREMES: Period of record (1956-75): Maximum daily spring discharge, 316 ft³/s (8.95 m³/s) June 12, 1975; maximum discharge, 76,600 ft³/s (2,170 m³/s) May 15, 1970 (gage height, 35.12 ft or 10.705 m); minimum daily spring discharge, 46 ft³/s (1.30 m³/s) Aug. 15, 16, 1956.

Maximum stage since at least 1913, 38.6 ft (11.77 m) Sept. 10, 1921 (from floodmark) present datum (backwater from the Blanco River).

REMARKS: Records good. The flow is slightly regulated by a utilities dam located 1.5 mi (2.4 km) upstream. The entire flow of the river is from the San Marcos Springs, 1.8 mi (2.9 km) upstream, except during periods of local runoff. The springs emerge from the Edwards and associated limestones in the Balcones Fault Zone.

DISCHARGE IN ACRE-FEET

YEAP	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1956	-	-	-	-	-	3790	3350	3290	3520	3970	4180	4430	-
1957	4570	4020	5730	7920	12320	11460	9490	8340	7980	12250	13190	12980	110270
1958	12150	12120	15980	13980	16510	14000	12070	10440	9780	11130	12880	12400	153440
1959	10810	9720	10030	9940	10840	9650	9460	8710	8040	10010	9540	9300	116050
1960	9070	9070	9480	9990	13390	12110	13040	12430	12020	11750	14210	14870	141410
1961	14610	13630	14020	13150	12810	11470	11030	10660	9170	9510	8990	9210	138260
1962	8740	7550	8200	7840	7960	6930	6590	6840	8410	10150	8380	8260	95850
1963	7870	6910	7720	7570	7840	7480	6500	6070	5280	5030	5130	5310	78710
1964	5180	4880	5490	5840	6190	6240	6300	5680	5550	6390	6160	6280	70180
1965	6660	9670	10560	9820	11940	13180	12090	10830	9210	8930	8020	12110	123020
1966	11720	9900	11240	10140	10490	9860	9430	8860	7960	7850	7000	6910	111360
1967	6550	5440	6370	6510	6270	5670	5180	5170	6000	7260	8380	6850	77650
1968	11960	15010	14630	13630	14470	13780	12990	10490	9610	9230	8500	8760	143060
1969	8190	7400	9210	10310	12850	12710	11100	9910	9020	9360	8590	9170	117820
1970	9600	9390	12340	12550	14910	15480	14140	12190	10680	11870	11020	10190	144560
1971	9210	8010	8060	7420	7380	6640	6190	7130	6450	5640	7130	11590	90850
1972	11560	10030	9680	9130	10350	10150	10290	9610	8790	8350	8830	9880	116650
1973	9980	9940	12160	12280	12960	12950	14470	13620	11980	16130	16620	15110	158200
1974	13040	10840	11090	10200	11620	10710	9680	9250	10220	10690	11860	14570	133770
1975	13820	14640	14870	13280	16330	17430	16690	15050	12710	12520	11660	11090	170090
MAX	14610	15010	15980	13980	16510	17430	16690	15050	12710	16130	16620	15110	170090
MIN	4570	4020	5490	5840	6190	3790	3350	3290	3520	3970	4180	4430	70180
MEAN	9752	9377	10361	10079	11444	10566	10004	9229	8629	9400	9514	10064	118439
NO.	19	19	19	19	19	20	20	20	20	20	20	20	19
DISTR													
OF MEAN	8.2%	7.9%	6.7%	8.5%	9.7%	8.9%	8.4%	7.8%	7.3%	7.9%	8.0%	8.5%	100%

GUADALUPE RIVER BASIN
06170500 San Marcos River at San Marcos, Texas

LOCATION: Lat 29°52', long 97°55', Hays County, 500 ft (152.4 m) downstream from the Cape Ginning Company's Mill, 0.5 mi (0.8 km) downstream from the bridge on U.S. Highway 81, 1.0 mi (1.6 km) southeast of San Marcos, and 1.2 mi (1.9 km) upstream from the Blanco River.

DRAINAGE AREA: The normal flow of the river comes from springs; the drainage area of the stream not applicable.

PERIOD OF RECORD: July to December 1915, April 1916 to August 1921, June to September 1956.

GAGE: Water-stage recorder. Datum of gage is 536.82 ft (163.6 m) above mean sea level, datum of 1929. June 10, 1915 to January 19, 1916, staff gage at site 1.2 mi (1.9 km) upstream at unknown datum.

AVERAGE DISCHARGE: 8 years (1915-21, 1956), 93,540 ac-ft/yr (115.3 hm³/yr).

EXTREMES: Maximum stage known since at least 1913, 39.6 ft (11.8 m) present datum, September 10, 1921 (backwater from the Blanco River).

REMARKS: Records good. The flow is slightly regulated by a millpond just above the gage and by a utilities dam 1.5 mi (2.4 km) upstream. The entire flow of the river is from the San Marcos Springs except during periods of local runoff. The springs emerge from the Edwards limestone in the Balcones Fault Zone.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1915	-	-	-	-	-	-	18900	18400	14600	10100	10400	10800	-
1916	-	-	-	8270	7990	7800	7810	7260	7200	7560	7200	7070	-
1917	7070	6220	6640	6550	7320	6310	5370	5440	5080	5420	5580	5720	72720
1918	5450	5080	5960	8690	7380	5550	4960	5150	5020	4750	5290	7810	71090
1919	8300	6780	7500	8930	10100	10500	-	-	-	-	-	-	-
1920	-	-	-	11900	-	-	11400	-	11200	10300	8990	8920	-
1921	9040	7610	-	-	12300	10200	9100	8480	-	-	-	-	-
1922	-	-	-	-	-	-	-	-	-	-	-	-	-
1923	-	-	-	-	-	-	-	-	-	-	-	-	-
1924	-	-	-	-	-	-	-	-	-	-	-	-	-
1925	-	-	-	-	-	-	-	-	-	-	-	-	-
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	3790	3350	3370	3560	-	-	-	-
MAX	9040	7610	7500	11900	12300	10500	18900	18400	14800	10300	10400	10800	72720
MIN	5450	5080	5960	6550	7320	3790	3350	3370	3560	4750	5290	5720	71090
MEAN	7465	6423	6700	8868	9018	7358	8699	8017	7810	7626	7492	6064	93540
NO.	4	4	3	5	5	6	7	6	6	5	5	5	2
DISCH OF MEAN	8.0%	6.9%	7.2%	9.5%	9.6%	7.9%	9.3%	8.6%	8.3%	8.2%	8.0%	8.6%	100%

GUADALUPE RIVER BASIN

08171000 Blanco River at Wimberley, Texas

LOCATION: Lat 29°59'39", long 98°05'19", Hays County, at the bridge on Ranch Road 12, 0.3 mi (0.5 km) southeast of Wimberley, and 2,200 ft (671 m) downstream from Cypress Creek. Prior to June 13, 1975, at site 1,000 ft (305 m) upstream.

DRAINAGE AREA: 355 mi² (919 km²).

PERIOD OF RECORD: September 1924 to June 1926, July 1928 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 797.23 ft (242.896 m) above mean sea level, datum of 1929. Aug. 6, 1924 to Sept. 30, 1926, nonrecording gage at site 1,030 ft (314 m) upstream at datum 5.00 ft (1.524 m) higher. Recording gage, June 6, 1928 to June 12, 1975, at site 1,000 ft (305 m) upstream at datum 5.00 ft (1.524 m) higher.

AVERAGE DISCHARGE: 51 years (1924-26, 1928-75), 80,561 ac-ft/yr (106.7 hm³/yr).

EXTREMES: Period of record (1924-26, 1928-75): Maximum discharge, 113,000 ft³/s (3,200 m³/s) May 28, 1929 (gage height, 33.9 ft or 10.33 m, present site and datum, from floodmarks); minimum, 0.6 ft³/s (0.017 m³/s) Aug. 18, 1956.

Maximum stage since at least 1869, that of May 28, 1929.

REMARKS: Records good. There are numerous small diversions above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1924	-	-	-	-	-	-	-	-	3720	1560	1380	1450	-
1925	1380	1130	1100	998	869	547	530	593	551	-	-	-	-
1926	-	-	5360	46200	17800	6600	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	732	916	412	498	678	1060	-
1929	1340	661	841	5780	90400	18500	18100	3380	1900	1150	1610	1440	145102
1930	1230	1070	1130	958	17100	6430	2740	1130	669	4890	2270	4250	44067
1931	9720	22400	22100	20500	19100	6190	12400	3110	1930	1510	1400	1760	122140
1932	4030	4010	9900	3990	3140	1950	1950	2030	1880	1230	1180	1070	36360
1933	1750	1560	2160	1980	1910	1120	1190	1660	1170	892	696	738	16826
1934	3200	3450	8180	16100	4180	1710	1360	1010	508	696	2110	1120	43624
1935	946	2140	986	801	26040	43770	6480	2510	7480	3650	2490	3330	160623
1936	2900	1980	2410	1790	12720	18990	36160	5900	27200	8670	6690	6190	131600
1937	9250	7970	14600	7900	3720	5060	3370	1530	1690	5760	1340	6370	68580
1938	21040	13740	8530	29000	22840	8190	4370	2090	1410	1220	934	1320	114684
1939	1540	1110	1090	2320	877	677	1900	697	526	856	774	782	13149
1940	603	824	1490	3510	1000	4210	2860	1140	1000	383	7730	25460	50230
1941	7860	28810	34530	33730	45740	35920	10910	3570	2380	6220	2590	2110	214370
1942	1820	1750	1830	12600	4770	2670	1770	3810	22650	15770	9640	6590	65670
1943	5220	3580	4410	5660	3590	2770	3890	1480	2890	1550	1230	1160	37450
1944	5270	13910	21590	11740	19280	13390	4950	8680	10570	2860	3040	15520	130600
1945	20590	22400	30380	16680	7700	5690	3780	2070	2020	3180	2020	6100	122610
1946	6240	10890	16470	8450	7450	5070	2850	2120	3430	4740	30290	26230	118230
1947	24350	13480	9420	6830	5100	3280	2050	1730	1310	1316	1230	1270	71360
1948	1180	1150	972	960	3940	1370	1220	699	612	1940	787	793	15643
1949	930	2530	2940	17480	11060	3320	1940	1350	861	990	869	978	45248
1950	908	1660	1080	2700	3850	2560	1460	938	844	724	664	661	18069
1951	624	614	828	828	1150	3200	499	359	784	437	525	534	10362
1952	476	493	552	2420	6180	4750	1460	666	84090	3830	2770	4810	112497
1953	7610	3960	3660	5210	3240	1540	1150	3600	12740	3740	3840	4450	54740
1954	2830	2110	1760	1340	1050	679	531	472	440	669	466	595	12942
1955	703	825	571	499	5670	1030	604	610	448	399	441	464	12284
1956	409	468	364	309	770	205	105	178	549	2180	1750	1630	8917
1957	564	1410	11520	56700	20570	21920	3610	1720	14170	29180	23600	15430	200394
1958	14530	27760	28600	14280	66190	16720	6440	3290	9700	9820	14190	6810	220330
1959	5070	6760	6580	13040	7400	6830	3750	3690	2580	23110	4590	6110	89510
1960	9930	12600	9540	8340	5820	3890	5640	5880	3220	46890	19060	27590	158400
1961	23590	52040	19660	8530	5160	23500	9600	5310	4280	3840	3430	3310	162250
1962	3090	2450	2630	2720	2690	10060	2960	1560	2570	1760	1490	2840	36840
1963	2260	1930	1910	6340	2480	1270	845	734	700	728	726	825	20748
1964	739	1140	2640	1770	1230	1220	571	534	2340	1860	3620	1560	19224
1965	3400	21300	7490	13860	46290	34050	6290	4010	4640	8690	6080	22430	178530
1966	11110	11100	11670	14110	13910	5890	4100	3000	4780	3240	2350	2090	87350
1967	1920	1550	1570	1540	1710	1090	700	560	3000	4390	8650	4930	31610
1968	69750	19700	16430	14200	19140	10060	5690	3370	3410	2960	2370	3440	170520
1969	2560	3450	5610	10010	17580	9780	4530	3260	2850	5660	3800	7760	76850
1970	6570	11560	24110	10930	29910	16420	5670	3540	3070	3260	2260	2130	119430
1971	1740	1410	1470	1330	1160	865	734	1160	1050	3900	4700	10870	30409
1972	5830	3740	3120	2210	16230	8650	4570	3880	2410	3900	5700	4660	64900
1973	7250	12120	13610	13920	12430	33900	57520	12340	8020	53650	17700	8970	251430

GUADALUPE RIVER BASIN

08171000 Blanco River at Wimberley, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1974	6940	6060	5340	4280	4370	3020	2070	4410	7370	6270	13430	8860	72420
1975	10660	37900	12450	9250	33450	32790	17580	8840	6040	6370	6030	4570	185930
MAX	69750	52040	34530	56700	90400	43770	57520	12340	84090	53650	30290	27590	251430
MIN	409	468	364	309	770	205	105	178	412	383	441	484	8917
MEAN	6947	8472	8106	9727	13468	9293	5636	2676	5701	6184	4641	5500	86551
NO. OF DAYS	46	48	49	49	49	49	49	49	50	49	49	49	47
OF YEAR	8.0%	9.8%	9.4%	11.2%	15.6%	10.7%	6.5%	3.1%	6.6%	7.1%	5.6%	6.4%	100%

GUADALUPE RIVER BASIN
08171300 Blanco River near Kyle, Texas

LOCATION: Lat 29°58'45", long 97°54'35", Hays County, 800 ft (240 m) downstream from the Tarbutton Ranch House (Hatchott Ranch), 2.2 mi (3.5 km) southwest of Kyle, 4.2 mi (6.8 km) downstream from Halifax Creek, and 6.3 mi (10.1 km) upstream from the bridge on Interstate Highway 35.

DRAINAGE AREA: 412 mi² (1,067 km²).

PERIOD OF RECORD: June 1956 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 620.12 ft (189.013 m) above mean sea level.

AVERAGE DISCHARGE: 20 years, 108,298 ac-ft/yr (133.5 hm³/yr).

EXTREMES: Period of record (1956-75): Maximum discharge, 98,000 ft³/s (2,780 m³/s) May 2, 1958 (gage height, 36.3 ft or 11.06 m, from floodmark); no flow at times in 1956-57, 1963-65, 1967, and 1971.

Maximum stage since at least 1882, about 40 ft (12.2 m) in May 1929, from information by local residents (discharge, 139,000 ft³/s or 3,940 m³/s).

REMARKS: Records good. There are several small diversions above the station for irrigation. Most of the low flow of the Blanco River enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin upstream from this station and below the station at Wimberley.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1956	-	-	-	-	-	0	0	0	0	854	549	562	-
1957	0	496	9890	47230	20030	22870	2800	808	13530	30900	23050	15670	187274
1958	16820	28510	29100	14100	70600	15330	5500	2530	10180	10270	15560	7130	225630
1959	4750	6160	5980	12130	7360	5700	3090	3100	1990	21350	4490	5700	81800
1960	10250	12700	9330	7960	5490	3380	4060	4230	2130	38510	20980	26650	147670
1961	25210	54220	20000	8270	4360	23550	8930	3960	2980	2410	2790	2580	159260
1962	2280	1730	1750	1700	1310	9060	2090	666	2310	1200	860	2900	27856
1963	2040	1740	1600	4380	1710	525	62.0	0	0	0	0	0	12057
1964	15.0	225	1410	545	120	1060	.20	0	0	1170	2790	618	7953
1965	3310	23820	7500	14260	46780	35080	5420	3040	2930	7390	5140	22450	177120
1966	10210	10310	11000	14000	14390	5130	2840	1830	3260	1980	1390	1250	77590
1967	1040	748	615	825	482	186	0	0	2870	2670	9570	3170	22376
1968	81110	20830	15870	12660	19780	9180	5040	2130	1890	1360	1420	3100	174370
1969	1900	3710	6070	10180	20010	8890	2950	1520	1410	3990	2210	6850	69690
1970	6760	13570	27400	11950	40880	20240	5410	2610	1980	2200	1600	1350	135950
1971	1150	899	751	564	233	7.60	2.10	905	61.0	2400	4830	11860	23663
1972	5450	3290	2220	1380	15940	7730	3280	2390	1140	2890	4690	3850	54250
1973	7060	11990	13570	15230	11770	14170	50880	12060	9370	66300	19220	8940	260560
1974	6550	5460	4430	3410	3700	1940	871	3870	6430	6510	19460	10310	72941
1975	11020	36870	12230	8260	35390	39210	20130	7600	3950	5470	3790	2920	186840
MAX	81110	54220	29100	47230	70600	39210	50880	12060	13530	66300	23050	26650	260560
MIN	0	225	615	545	120	0	0	0	0	0	0	0	7953
MEAN	10364	12488	9511	9949	16860	12162	6168	2662	3421	10491	7219	7003	108298
NC.	19	19	19	19	19	20	20	20	20	20	20	20	19
DISTR OF MEAN	9.6%	11.5%	8.8%	9.2%	15.6%	11.2%	5.7%	2.5%	3.2%	9.7%	6.7%	6.5%	100%

GUADALUPE RIVER BASIN
08172000 San Marcos River at Luling, Texas

LOCATION: Lat 29°39'54", long 97°38'59", Caldwell-Guadalupe County line, 390 ft (119 m) downstream from the bridge on State Highway 80, 1.0 mi (1.6 km) south of Luling, and 9.4 mi (15.1 km) upstream from Plum Creek.

DRAINAGE AREA: 838 mi² (2,170 km²).

PERIOD OF RECORD: May 1939 to December 1975.

GAGE: Water-stage recorder Datum of gage is 322.05 ft (98.16 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 37 years, 257,520 ac-ft/yr (317.5 hm³/yr).

EXTREMES: Period of record (1939-75): Maximum discharge, 57,000 ft³/s (1,610 m³/s) Sept. 12, 1952 (gage height, 34.95 ft or 10.653 m); minimum, 43 ft³/s (1.22 m³/s) Aug. 12, 1951.

Maximum stage since at least 1859, 40.4 ft (12.31 m) in 1869 or 1870, from information by the State Highway Department.

REMARKS: Records good. The base flow is largely maintained by spring flow near San Marcos. There are several diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	10420	7160	9860	6280	5820	5960	5730	5800	-
1940	5790	6070	7300	11390	7920	37140	11720	5950	5980	7610	29420	64710	201000
1941	23640	42650	52270	92240	88850	64320	32970	16950	12810	19630	11550	11410	469490
1942	10660	8510	9310	22370	13070	9960	60050	10730	80810	54920	26600	21160	328150
1943	17960	14100	15510	14780	14200	12510	12930	8530	11960	8680	9090	9090	149340
1944	19030	25650	52140	26240	54540	37010	18620	17500	16190	12380	18080	38560	335940
1945	48150	49810	68990	51590	22050	17890	14560	11590	10040	12130	10210	12710	329720
1946	19550	24300	41120	22140	20640	21130	11500	18740	31810	19440	55710	43540	329620
1947	54680	30480	27850	26780	22600	13810	11800	26810	9650	9040	8060	8520	250080
1948	8190	8130	8260	6950	12040	6520	6760	5650	5490	9310	5810	5870	88980
1949	6720	19540	9630	70110	23070	11370	8620	7300	6940	45950	7360	7680	224290
1950	7530	10640	8270	17630	11580	28880	7290	6110	6220	5530	5480	5270	120430
1951	5260	5110	5700	5200	6790	26380	5640	4820	6260	4900	4980	5210	66250
1952	5190	4660	5310	6300	17460	13130	7080	5450	93820	10630	16340	18650	204020
1953	18860	11750	10490	38110	12760	8980	6480	6280	21690	16600	12970	21320	186290
1954	11360	8960	9400	7740	12410	5440	4870	4580	4280	4340	4570	5050	83000
1955	4850	8640	5880	5520	16360	10170	4980	4850	4190	3670	3750	5320	78180
1956	4910	4690	4540	4670	7110	3480	3620	3950	4960	4460	4190	5780	56360
1957	4760	6710	17680	110000	61600	53080	13000	10020	39500	57370	46000	33720	453440
1958	41570	93450	54860	33780	98370	32270	18490	12870	28750	28200	32980	22050	497640
1959	18210	20520	18820	39460	23050	17990	13920	12350	9590	47030	19440	16630	257010
1960	23880	25700	20220	46980	21160	74570	19110	16420	12760	91110	46430	51850	450190
1961	47880	73310	38070	24460	17500	56930	23290	14760	12640	12840	20060	12510	354270
1962	11440	9470	10090	10480	8840	15080	8370	6950	13810	12710	8590	11070	126900
1963	9960	11860	9440	11350	8930	6520	5960	5310	5110	5190	6740	6050	92420
1964	6510	6290	9220	6720	6330	9120	5990	5630	9210	7760	11870	7440	92090
1965	22620	64580	25110	29010	90110	87870	19110	13270	12070	16350	16080	51720	427900
1966	24460	24680	24810	24220	27060	16950	11980	10540	12290	13330	8980	8770	208070
1967	8210	7010	7710	6720	6880	4970	4830	5150	25920	12710	32340	14020	136270
1968	140600	42400	34580	48200	40030	29210	18250	13120	12950	11390	14360	21250	426340
1969	11880	24240	25690	34010	46910	25280	15220	12250	11210	13000	11590	20310	251590
1970	16810	25070	43360	26270	93070	42010	22340	17110	13940	18020	12500	11510	342010
1971	10450	8580	8420	7270	7070	5810	5410	8270	9590	8260	10860	24040	114050
1972	16340	12610	11440	9470	105800	27230	15150	12890	9540	11450	13770	12690	258380
1973	17980	25780	34590	41970	28630	64980	73950	30650	31620	119300	44330	26090	541870
1974	28340	19480	18440	15620	25740	16040	10270	15880	44050	17630	83520	37720	332730
1975	29740	64860	30090	24760	126300	75180	45250	28310	18780	18690	15820	15260	493040
MAX	140600	93450	68990	110000	126300	75180	73950	30650	93820	119300	83520	64710	541870
MIN	4760	4660	4540	4670	6330	3480	3620	3950	4190	3670	3750	5050	56360
MEAN	21221	23625	21795	27237	32893	26388	15925	11455	18169	21015	18815	18982	257520
NO.	36	36	36	36	37	37	37	37	37	37	37	37	36
DISTR OF MEAN	8.2%	9.2%	8.5%	10.6%	12.8%	10.2%	6.2%	4.4%	7.1%	8.2%	7.3%	7.4%	100%

GUADALUPE RIVER BASIN

08172400 Plum Creek at Lockhart, Texas

LOCATION: Lat 29°55'22", long 97°40'44", Caldwell County, 546 ft (167 m) upstream from the bridge on U.S. Highway 183, 2.7 mi (4.3 km) north of Lockhart, 3.7 mi (6.0 km) upstream from Town Creek, and 5.0 mi (8.0 km) downstream from Brushy Creek.

DRAINAGE AREA: 112 mi² (290 km²).

PERIOD OF RECORD: February 1925 to March 1930 (Published as "near Lockhart"), May 1959 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 431.19 ft (131.427 m) above mean sea level, datum of 1928. Apr. 30, 1959 to July 25, 1968, at site 548 ft (167 m) downstream at present datum.

AVERAGE DISCHARGE: 23 years, 35,587 ac-ft/yr (43.9 hm³/yr).

EXTREMES: Period of record (1925-30, 1959-75): Maximum discharge, 26,600 ft³/s (753 m³/s) Oct. 29, 1960 (gage height, 20.62 ft or 6.285 m); no flow for several days each year.

Maximum stage since at least 1905, 22 ft (6.7 m) in June 1936 at present site.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1925	-	156	172	1170	562	65.5	6.0	0	912	13700	4860	214	-
1926	2300	268	12300	40500	4770	1600	297	98.8	48.2	570	805	490	64047
1927	530	6820	1300	853	486	6400	330	32.7	30.5	1360	140	519	18821
1928	138	7540	3680	333	719	3430	1270	50.0	99.0	30.0	164	211	17664
1929	212	72.0	2360	13200	63300	1480	2070	18.0	8.90	37.0	87.0	132	82977
1930	170	1370	965	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	2220	709	38.0	3.20	0	8320	1810	360	-
1960	986	1920	616	13350	630	10020	249	2100	182	36570	4640	7530	78793
1961	7580	6700	432	73.0	10.0	16010	1450	16.0	3440	76.0	2010	283	38080
1962	134	88.0	112	309	11.0	193	19.0	0	2350	2600	179	2230	8225
1963	177	2850	146	984	6.00	0	0	0	0	0	0	0	4163
1964	0	4.40	0	130	12.0	774	8.30	0	2900	975	861	92.0	5753
1965	7210	14070	775	1920	14000	3960	47.0	0	0	0	449	11590	54021
1966	614	3170	2560	2220	1120	105	880	0	121	119	0	62.0	10092
1967	11.0	4.90	2.10	0	20.0	1.00	0	11.0	2770	1870	6790	804	12284
1968	25580	2900	1050	2300	2450	7990	906	24.0	0	0	2200	3480	48880
1969	426	4330	5970	12080	13180	755	14.0	0	6.0	0	31.0	2270	39059
1970	318	5270	6530	3260	23860	1440	53.0	0	0	0	0	0	40731
1971	0	38.0	231	0	0	0	0	111	0	0	0	1640	2020
1972	242	106	3.00	0	2740	1.00	0	0	0	92.0	109	59.0	3352
1973	1040	2890	4240	3500	656	10240	3340	151	1260	24220	1680	344	53561
1974	3260	777	240	198	10650	213	0	7250	8440	1490	29960	13870	76568

GUADALUPE RIVER BASIN

08172400 Plum Creek at Lockhart, Texas--Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1975	2000	11630	486	3490	36570	15310	4560	196	11.0	3690	181	625	78749
MAX	25580	14070	12300	40500	63300	16010	4560	7250	8440	36570	29960	13870	62977
MIN	0	0	0	0	0	0	0	0	0	0	0	0	2020
MEAN	2521	3317	2008	4756	8099	3668	666	457	1026	4352	2589	2128	35587
NO.	21	22	22	21	22	22	22	22	22	22	22	22	20
DISTR OF MEAN	7.1%	9.3%	5.6%	13.4%	22.8%	10.3%	1.9%	1.3%	2.9%	12.2%	7.3%	6.0%	100%

GUADALUPE RIVER BASIN
08173000 Plum Creek near Luling, Texas

LOCATION: Lat 29°41'58", Long 97°36'12"; Caldwell County, at a bridge on a county road, 1.2 mi (1.8 km) upstream from West Fork, 1.9 mi (3.1 km) upstream from the Southern-Pacific Railroad Co. bridge, 2.2 mi (3.5 km) upstream from McNeil Creek, and 3.0 mi (4.8 km) northeast of Luling.

DRAINAGE AREA: 309 mi² (800 km²).

PERIOD OF RECORD: April 1930 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 325.57 ft (99.539 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 46 years, 72,347 ac-ft/yr (89.2 hm³/yr).

EXTREMES: Period of record (1930-75): Maximum discharge, 78,500 ft³/s (2,220 m³/s) July 1, 1936 (gage height, 25.7 ft or 7.83 m, from floodmarks); no flow at times.

Maximum stage since at least 1868, that of July 1, 1936.

REMARKS: Records fair. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1930	-	-	-	821	11900	8450	542	305	549	965	576	2310	-
1931	24500	17200	12400	3800	6520	407	1500	580	155	167	205	429	67863
1932	23400	13600	11100	8150	1160	415	799	1630	2020	260	433	701	63668
1933	1220	950	1590	2300	640	162	7560	3040	1950	168	179	335	20094
1934	3680	6390	8610	9220	362	117	1960	164	525	154	1830	7920	40932
1935	2430	12520	665	713	35350	33140	719	290	15380	765	567	9220	111759
1936	1140	1000	2050	605	25120	932	120600	958	3140	5430	1120	3190	165285
1937	2260	1330	13390	1860	656	17410	428	391	279	323	408	2370	41105
1938	19230	2840	2850	40460	7740	2580	440	247	283	193	323	408	77594
1939	442	396	534	813	1750	374	1150	194	169	99.0	181	253	6355
1940	273	410	480	1860	506	11850	9520	172	145	1040	19780	32730	78766
1941	7450	8000	11410	47020	25040	22140	8470	1350	481	1520	528	619	134028
1942	554	624	545	1430	447	246	44510	374	23400	13670	3660	4140	95600
1943	2700	748	1430	859	2130	600	2260	132	502	233	467	370	12431
1944	7360	9000	15630	1080	19070	10450	1070	2470	4430	302	10280	19270	100412
1945	19210	11150	11140	22240	2850	6560	646	485	407	933	609	777	77007
1946	6350	5830	35560	6120	12800	9720	746	14610	12750	3230	28760	9800	146276
1947	21780	2340	6520	8790	3610	697	504	33110	619	432	412	541	79355
1948	671	734	582	478	4700	821	355	186	91.0	397	160	196	9371
1949	818	11470	646	37680	1970	593	577	174	74.0	21470	377	454	76303
1950	401	1680	401	9040	2600	32490	2160	91.0	155	71.0	121	163	49373
1951	227	200	516	260	1350	25220	69.0	17.0	1170	55.0	100	209	29393
1952	290	209	228	1110	1850	6140	302	3.00	4100	33.0	12730	4660	31655
1953	799	604	418	39360	1810	464	174	42.0	1590	7560	1170	4870	58861
1954	656	254	180	186	1630	75.0	310	79.0	75.0	33.0	12.0	37.0	3527
1955	63.0	2670	112	1400	4160	2090	7.70	272	39.0	8.10	38.0	169	11029
1956	113	254	64.0	2470	2140	17.0	0	0	0	0	0	363	5421
1957	49.0	749	5300	51400	3330	3340	52.0	7.10	28890	25620	9240	4680	132657
1958	13350	27300	2780	2300	8350	314	1460	54.0	8370	4620	2820	793	72511
1959	940	7160	1050	14740	2650	1210	403	181	132	8930	4000	1170	42566
1960	3630	4210	1620	45280	4350	25160	972	2810	749	78730	6700	9910	184121
1961	12590	13380	1810	984	489	57740	2730	443	5860	1050	6020	1070	104166
1962	1120	943	1030	1500	398	1970	300	34.0	2550	4080	560	3350	17835
1963	526	5400	551	2110	406	142	44.0	167	213	55.0	666	202	10482
1964	295	454	2340	395	136	3590	50.0	51.0	12850	1800	2660	312	24933
1965	28270	41260	2460	2320	41240	14430	407	132	105	800	6190	26850	164464
1966	1410	7720	5080	3140	4580	810	380	312	971	3200	387	443	28433
1967	385	317	276	190	1280	93.0	54.0	109	12910	11410	18990	1450	47464
1968	56980	5340	3100	22790	8570	23810	2270	354	1120	1180	7200	22620	155334
1969	1900	21390	18400	21200	20070	2130	435	322	676	755	1550	7280	96106
1970	2570	13780	15610	5440	33000	3800	644	321	732	7730	1010	566	85203
1971	623	631	1030	335	255	171	115	4290	667	221	298	3220	11856
1972	642	506	287	152	36980	3600	250	205	161	243	557	404	43987
1973	1830	4280	9320	8240	1190	24850	4600	229	1990	55640	4690	1240	118099
1974	12310	2040	938	547	12330	3680	194	13000	24740	1900	57490	20430	149599
1975	4690	23280	2000	5120	118200	29090	8580	1530	693	4600	958	1720	200461
MEAN	56980	41260	35560	51400	118200	57740	120600	33110	28890	78730	57490	32730	200461
MIN	49.0	200	64.0	152	136	17.0	0	0	0	0	0	37.0	3527
MAX	6492	6501	4756	9572	10384	8567	5029	1868	1888	5915	4718	4657	72347
NO.	45	45	45	46	46	46	46	46	46	46	46	46	45
DISTR OF MEAN	9.0%	9.0%	6.6%	13.2%	14.4%	11.8%	7.0%	2.6%	5.4%	8.2%	6.5%	6.4%	100%

GUADALUPE RIVER BASIN
08173500 San Marcos River at Ottine, Texas

LOCATION: Lat 29°36', long 97°35', Gonzales County, at the bridge on Farm Road 2091, 0.25 mi (0.4 km) southwest of Ottine, and 4 mi (6.4 km) downstream from Plum Creek.

DRAINAGE AREA: 1,249 mi² (3,234.9 km²).

PERIOD OF RECORD: July 1915 to January 1943.

GAGE: Water-stage recorder. Datum of gage is 285.2 ft (86.9 m) above mean sea level, datum of 1929. October 12, 1915 to March 14, 1920, staff gage at site 400 ft (121.9 m) upstream at same datum. March 15, 1920 to March 26, 1925, chain gage at same site and datum.

AVERAGE DISCHARGE: 29 years, 331,070 ac-ft/yr (409.3 hm³/yr).

EXTREMES: Period of record (1915-43): Maximum discharge, 202,000 ft³/s (5,720.6 m³/s) May 29, 1929 (gage height, 43.32 ft or 13.2 m); no flow July 29, 1923, March 31, 1925, and June 24, 1926.

Maximum stage known, 44.0 ft (13.4 m) December 1913, from information by local residents.

REMARKS: Records good. The low flow is regulated by several small power plants above the station. Most of the basic flow comes from large springs near San Marcos.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1915	-	-	-	-	-	-	18300	15700	14500	11900	10900	11700	-
1916	14000	10000	9590	23200	29000	10400	9530	10700	7200	7190	6960	7440	145210
1917	7010	6780	7320	15100	33900	6390	7010	5200	5550	4750	5030	5790	109630
1918	6210	5550	23800	47200	28700	7260	4540	4690	4850	14900	7140	30000	164840
1919	36400	15600	15200	33400	70800	149000	112000	40300	71700	124000	53300	40800	762500
1920	111000	44400	31700	23500	155000	42000	20500	50100	17200	14600	14800	13800	538600
1921	13300	11200	74800	102000	22100	38200	20300	9590	61200	19900	13500	13100	399190
1922	11500	9880	51100	114000	121000	30500	15700	12200	9480	8620	9140	8640	401760
1923	9320	54300	36000	44400	16600	11400	11200	6190	15100	29900	24600	117000	378210
1924	32100	75100	51700	51700	62600	45900	21300	13200	13600	11700	9490	10700	399090
1925	8900	8120	8470	9270	7770	6920	8400	9680	10300	61600	21300	9490	170220
1926	14000	10600	41700	141000	53200	21500	20700	16500	9760	13100	14700	11100	367660
1927	10100	21900	21800	22500	12800	22800	12600	7120	6110	13100	12100	10200	173130
1928	9410	32000	22400	12800	15500	25300	11000	5420	6600	5960	7440	9900	163730
1929	11600	7330	19100	52900	366000	52200	36900	16000	13700	10400	11000	11100	628230
1930	11300	12200	12800	11000	43400	32900	11900	8360	7320	13000	9640	14900	168720
1931	56600	57800	58900	33300	47200	17400	25900	12900	8630	8180	8450	10000	345260
1932	54500	30700	35400	20500	13600	9940	9590	10600	11800	7620	7740	6240	220230
1933	9410	9500	11600	12800	10500	7140	20300	15100	10500	7500	6960	7380	128690
1934	14900	19300	33000	35900	14400	6690	10300	7380	7080	6840	8170	18760	164720
1935	11320	26000	9980	8730	120700	116800	22710	13790	46470	13040	11070	27820	428430
1936	11650	11140	12750	9350	70740	16370	289300	16540	37630	26010	15820	18020	535320
1937	22450	21060	54000	19260	12830	65720	13010	9470	9360	13020	9040	20460	269680
1938	93840	28510	23220	118600	50590	23770	15520	11790	10380	9170	9270	9160	403620
1939	9570	8590	9190	10340	12300	8120	11660	6760	5950	6290	6040	6320	101130
1940	6430	7300	8490	13150	8270	36800	37170	6830	6470	8760	54500	104600	298370
1941	33430	52320	65380	145300	124500	86590	40580	20050	15070	23520	13610	13050	633400
1942	11310	10400	10880	26210	14720	10340	121900	12610	103300	68070	30630	25910	444280
1943	22740	-	-	-	-	-	-	-	-	-	-	-	-
MAX	111000	75100	74800	145300	386000	149000	289300	50100	103300	124000	54500	117000	762500
MIN	6210	5550	7320	8730	7770	6390	4540	4690	4650	4750	5030	5790	101130
MEAN	23725	22503	28143	42867	57738	33717	34279	13456	19529	20023	14726	21264	331970
NO.	28	27	27	27	27	27	28	28	28	28	28	28	27
LISTED													
OF MEAN	7.1%	6.8%	6.5%	12.9%	17.4%	10.2%	10.3%	4.1%	5.9%	6.0%	4.4%	6.4%	100%

GUADALUPE RIVER BASIN
08174500 Peach Creek near Dilworth, Texas

LOCATION: Lat 29°31', long 97°19', Gonzales County, at the San Antonio and Aransas Pass Railway Co. bridge, and 1.5 mi (2.4 km) west of Dilworth.

DRAINAGE AREA: 445 mi² (1,152.6 km²).

PERIOD OF RECORD: April 1930 to April 1933.

GAGE: Water-stage recorder. Datum of gage is 227.98 ft (69.5 m) above mean sea level.

EXTREMES: Period of record (1930-33): Maximum discharge, 5,310 ft³/s (150.4 m³/s) January 6, 1932 (gage height, 21.1 ft or 6.4 m); no flow at times.

Maximum known discharge, 10,400 ft³/s (295.5 m³/s) at gage height 23 ft (7.0 m).

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1930	-	-	-	65.0	206.00	125.0	13.0	0	0	54.90	10.00	126.00	-
1931	13800	15700	10100	613	352	7.70	121.0	84.8	1.20	0	0	1.30	42762
1932	33600	13800	5050	4110	2330	106	1460	24300	14600	406	90.0	223	100075
1933	121	1830	4570	253	-	-	-	-	-	-	-	-	-
MAX	33600	15700	10100	4110	20600	1250	1460	24300	14600	5490	1000	12600	100075
MIN	121	1830	4570	65.0	352	7.70	130	0	0	0	0	1.30	42762
MEAN	15640	10443	6573	1260	7761	455	933	8383	4667	1965	363	4318	63161
NO.	3	3	3	4	3	3	3	3	3	3	3	3	2
DISTR OF MEAN	25.1%	16.5%	10.4%	2.0%	12.3%	.7%	1.5%	13.3%	7.7%	3.1%	.6%	6.8%	100%

GUADALUPE RIVER BASIN
08174600 Peach Creek below Dilworth, Texas

LOCATION: Lat 29°28'26", long 97°18'59", Gonzales County, at the bridge on U.S. Highway 90-A, 1.3 mi (2.1 km) downstream from Mitchell Creek, 3.1 mi (5.0 km) southwest of Dilworth, 6.4 mi (10.3 km) upstream from the mouth, and 8.5 mi (13.7 km) southeast of Gonzales.

DRAINAGE AREA: 460 mi² (1,191 km²).

PERIOD OF RECORD: August 1959 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 212.53 ft (65.084 m) above mean sea level, datum of 1929. Prior to Feb. 11, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE: 17 years, 107,821 ac-ft/yr (132.9 hm³/yr).

EXTREMES: Period of record (1959-75): Maximum discharge, 28,000 ft³/s (793 m³/s) May 12, 1972 (gage height, 32.00 ft or 9.754 m); no flow at times in 1959-67 and 1969-74.

Maximum stage since at least 1840, 35.3 ft (10.76 m) in June 1940.

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1959	-	-	-	-	-	-	-	137	133	987	1310	1280	-	
1960	2260	4420	415	6930	15610	40340	690	185	0	105700	21980	16620	215150	
1961	19120	10050	1000	1120	1830	69520	22380	467	44130	840	31220	988	202665	
1962	1670	1180	506	3850	526	1020	3.20	0	1960	370	13.0	1330	12428	
1963	68.0	3820	44.0	24.0	0	0	0	0	0	0	5820	340	10116	
1964	666	1950	16500	818	48.0	2210	1.40	153	2520	40.0	0	0	24906	
1965	1190	28300	287	154	28870	15090	44.0	13.0	547	7000	43420	23700	148615	
1966	897	13980	3530	12890	28690	1400	60.0	212	37.0	.10	0	0	61696	
1967	0	12.0	1.40	64.0	487	162	82.0	251	26650	2530	1520	231	32190	
1968	47060	2160	3240	9670	18710	111100	1740	200	38760	858	3670	23980	261148	
1969	1260	40390	35940	26550	11990	533	42.0	72.0	202	164	206	479	117828	
1970	1820	3990	6400	736	11780	1250	7.30	0	2650	10580	414	265	39692	
1971	266	199	1460	86.0	171	114	30.0	2390	13210	521	314	9110	27865	
1972	3620	1880	572	60.0	103900	7630	123	280	12.0	523	263	136	118999	
1973	4730	5150	22340	59360	8480	68710	5350	194	3430	66090	5360	1360	250554	
1974	70620	3390	1240	592	902	2200	27.0	2090	21210	240	20080	2100	124691	
1975	1380	9650	983	6190	70500	11650	3540	1310	618	180	540	274	106815	
MAX	70620	40390	35940	59360	103900	111100	22380	2390	44130	105700	43420	23980	261148	
MIN	0	12.0	1.40	24.0	0	0	0	0	0	0	0	0	10116	
MEAN	9789	8158	5879	8068	18906	20808	2132	468	9204	11566	8008	4835	107821	
N.O.	16	16	16	16	16	16	16	17	17	17	17	17	16	
DISTR														
OF MEAN	9.1%	7.6%	5.5%	7.5%	17.5%	19.3%	2.0%	.4%	8.5%	10.7%	7.4%	4.5%	100%	

GUADALUPE RIVER BASIN

08175000 Sandies Creek near Westhoff, Texas

LOCATION: Lat 29°12'54", long 97°26'57", De Witt County, 100 ft (30 m) downstream from a county highway bridge, 1.9 mi (3.1 km) upstream from Birds Creek, and 2.0 mi (3.2 km) northeast of Westhoff.

DRAINAGE AREA: 549 mi² (1,422 km²).

PERIOD OF RECORD: April 1930 to October 1934, August 1959 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 178.27 ft (54.337 m) above mean sea level, datum of 1929. Prior to Nov. 9, 1934, water-stage recorder at site 150 ft (46 m) upstream at datum 0.86 ft (0.262 m) higher. Aug. 10, 1959 to Feb. 2, 1960, nonrecording gage at present site and datum.

AVERAGE DISCHARGE: 22 years (1930-34, 1959-75), 88,995 ac-ft/yr (109.7 hm³/yr).

EXTREMES: Period of record (1930-34, 1959-75): Maximum discharge, 79,700 ft³/s (2,260 m³/s) Sept. 22, 1967 (gage height, 32.34 ft or 9.857 m); no flow at times.

Maximum discharge since at least 1864, 92,700 ft³/s (2,630 m³/s) July 2, 1936 (gage height, 33.1 ft or 10.09 m, from floodmarks) on the basis of computation of the peak flow at the present site and datum.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1930	-	-	-	325	1290	2030	438	45.0	36.0	195	194	392	-
1931	1690	2670	2240	363	689	625	1250	440	29.0	22.0	71.0	346	10435
1932	23300	5250	1920	14900	6400	165	38.0	5800	3800	207	101	208	62089
1933	451	1670	5010	381	2770	489	7440	15200	2590	253	295	164	36713
1934	13500	7000	18400	2890	81.0	19.0	8420	640	281	88.0	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	79.0	15.0	829	704	473	-
1960	1240	1160	476	1310	295	19050	5690	4660	523	105700	27950	5950	174004
1961	12250	15110	1350	1070	325	71060	8550	637	1770	1060	7210	764	121156
1962	694	617	477	1980	472	1780	234	4.40	3060	592	1770	1730	13416
1963	572	5000	345	194	54.0	63.0	109	6.20	283	16.0	1630	519	8791
1964	940	3530	6240	4500	722	941	14.0	606	2920	1020	301	341	22075
1965	18750	40350	695	500	15010	26610	171	112	84.0	16600	3040	7600	129522
1966	859	5540	1200	15920	24660	2120	730	181	918	266	119	176	52689
1967	251	225	163	354	605	72.0	229	2740	241600	12720	9040	1040	269039
1968	42370	4550	2190	1600	33550	44260	2440	397	3930	560	578	5130	141575
1969	2730	32270	25700	35800	17290	1320	200	714	1610	2310	509	2770	123223
1970	3590	1930	8120	725	4090	2500	248	72.0	276	262	218	289	22320
1971	309	263	270	213	97.0	3860	543	3350	22420	2170	400	2440	36315
1972	2510	1800	652	252	126800	5610	371	419	330	360	465	491	140680
1973	988	3300	4630	42800	5500	96600	1680	720	1640	72520	4650	10660	236088
1974	47840	2200	887	521	4260	4750	227	3050	26700	1520	10990	1380	104345
1975	1050	4330	829	14570	61890	19340	7600	780	737	455	560	670	113031
MAX	47840	40350	25700	42800	126800	96600	8550	15200	241600	105700	27950	7660	269039
MIN	251	225	163	194	54.0	19.0	14.0	4.40	15.0	16.0	71.0	164	8791
MEAN	8794	6938	4090	6722	14613	14442	2230	1847	14343	9968	3372	1616	88995
NO.	20	20	20	21	21	21	21	22	22	22	21	21	19
DISTR OF MEAN	9.91	7.81	4.67	7.61	16.41	16.21	2.57	2.11	16.11	11.21	3.87	1.81	1001

GUADALUPE RIVER BASIN
08175800 Guadalupe River at Cuero, Texas

LOCATION: Lat 29°03'57", long 97°19'16", De Witt County, at the bridge on U.S. Highways 77-A, 87, and 183, 2.1 mi (3.4 km) upstream from Gohlke Creek, 2.4 mi (3.9 km) southwest of Cuero, and 4.2 mi (6.8 km) downstream from Sandies Creek.

DRAINAGE AREA: 4,934 mi² (12,779 km²).

PERIOD OF RECORD: January 1903 to December 1906, September 1916 to April 1919, September 1920 to November 1935, January 1964 to December 1975. Published as "near Cuero" 1903-06 and as "below Cuero" 1916-35.

GAGE: Water-stage recorder. Datum of gage is 128.64 ft (39.209 m) above mean sea level, datum of 1929. January 1903 to June 1903, nonrecording gage at site 7.1 mi (11.4 km) upstream at different datum, gage heights moved to site 3.3 mi (5.3 km) upstream from present site before computation; July 1903 to December 1906 nonrecording gage 3.3 mi (5.3 km) upstream at different datum; Aug. 19, 1916 to Dec. 16, 1935, water-stage recorder at site 5.0 mi (8.0 km) downstream at datum 3.19 ft (0.972 m) lower.

AVERAGE DISCHARGE: 36 years (1903-06, 1916-35, 1964-75), 1,125,020 ac-ft/yr (1,388.2 hm³/yr).

EXTREMES: Period of record (1903-06, 1916-35, 1964-75): Maximum discharge, 101,000 ft³/s (2,860 m³/s) May 30, 1929 (gage height, 35.2 ft or 10.73 m, site and datum then in use); maximum gage height, 36.90 ft (11.247 m) May 14, 1972; minimum discharge, 79 ft³/s (2.24 m³/s) Aug. 13, 14, 1967.

Maximum stage since at least 1900, July 2, 1936, 44.33 ft (13.512 m), present site and datum, from information by the Texas Highway Department.

REMARKS: Records good. The flow below New Braunfels is partly regulated by a series of small power dams, combined capacity of six of the largest dams is 33,550 ac-ft (41.4 hm³). There are many small diversions above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1903	102000	248000	348000	108000	102000	72000	375000	205000	60700	62700	60100	53100	1796600
1904	43040	39750	39290	39930	100800	47250	34990	35970	61410	51590	33920	67330	595270
1905	51650	60780	94080	189900	184300	82000	74220	43530	39630	38980	52600	42060	953730
1906	40300	53800	41000	41100	40800	30900	36600	36700	36500	35400	33800	37300	464200
1907	-	-	-	-	-	-	-	-	-	-	-	-	-
1908	-	-	-	-	-	-	-	-	-	-	-	-	-
1909	-	-	-	-	-	-	-	-	-	-	-	-	-
1910	-	-	-	-	-	-	-	-	-	-	-	-	-
1911	-	-	-	-	-	-	-	-	-	-	-	-	-
1912	-	-	-	-	-	-	-	-	-	-	-	-	-
1913	-	-	-	-	-	-	-	-	-	-	-	-	-
1914	-	-	-	-	-	-	-	-	-	-	-	-	-
1915	-	-	-	-	-	-	-	-	-	-	-	-	-
1916	-	-	-	-	-	-	-	-	-	-	-	-	-
1917	37100	32800	33000	38600	80600	24700	30700	20600	35300	33000	36500	40200	396300
1918	24400	23800	71300	109000	121000	35500	21000	20000	29700	91600	70200	127000	744500
1919	156000	61600	75600	93400	-	-	-	-	-	-	-	-	-
1920	-	-	-	-	-	-	-	-	59400	53600	53600	54700	-
1921	53700	45400	117000	175000	70100	142000	76900	36900	145000	62600	43400	50500	1016500
1922	48100	41400	63800	362000	280000	84300	54400	42400	37200	35700	45500	37000	1131800
1923	40500	78200	106000	106000	63600	44800	42500	31900	93100	76700	98900	408000	1190200
1924	126000	209000	161000	177000	212000	210000	73700	52400	55700	45700	39500	45300	1407300
1925	45500	37600	38200	32100	36100	32400	29500	25200	30100	162000	73500	45900	568100
1926	68000	44900	142000	535000	194000	82100	67300	50000	38600	72300	62600	53800	1430800
1927	45500	63400	89500	211000	57400	85000	54700	30200	22700	53800	31000	32300	776500
1928	30100	61600	64000	43800	53700	86300	26500	18400	27100	26400	50300	52100	540300
1929	62100	28400	114000	159000	390000	455000	176000	48300	39200	32000	54400	45600	1606000
1930	62700	52900	40600	34200	136000	94600	40600	24700	20100	64800	43000	60500	699700
1931	114000	153000	159000	90400	165000	64300	95300	38400	31600	28900	31000	41100	1012200
1932	181000	105000	102000	88100	105000	34200	162000	82400	89900	57700	43000	50800	1121100
1933	67000	54100	77500	49400	60500	40000	33500	78100	38500	29200	28200	29800	565800
1934	81800	71600	132000	99400	44800	28700	42700	29300	23500	25350	60290	104200	744040
1935	39600	101200	39170	61670	510400	582300	110600	70710	315400	91490	58640	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-

GUADALUPE RIVER BASIN
08175800 Guadalupe River at Cuero, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	26650	46550	78210	40610	24080	33200	13790	12100	48100	45020	55170	27290	450770
1965	97070	265200	66860	65930	275900	251500	62480	37990	37680	75250	117600	150800	1504260
1966	76660	100000	101100	126200	149600	71360	51860	38950	53490	55110	41110	35140	900600
1967	35240	29070	31020	27710	24020	15540	13070	19160	518500	113300	129800	59240	1015670
1968	431900	114600	103400	169700	246200	332500	83540	51210	90280	46590	55320	122700	1847940
1969	53020	187000	178700	184900	184900	87800	49300	39920	43220	80480	70250	89100	1248590
1970	104500	104200	160500	112100	195900	148900	76160	49580	42810	64120	40100	39810	1138680
1971	38310	31540	32930	22660	20320	24230	16040	100000	147200	76040	82790	119000	711060
1972	82030	86860	60500	42500	754300	146700	89650	73180	49430	50020	46310	46860	1528340
1973	64850	83320	144000	287300	127300	400500	253000	149500	131000	589300	183800	127500	2541370
1974	220400	97690	85010	65630	115900	94800	44850	61700	224200	78170	274600	150500	1513450
1975	117800	253100	131000	134200	594200	356900	178800	114000	83050	63190	54450	51850	2132540
MAX	431900	265200	348000	535000	754300	582300	375000	205000	518500	589300	274600	408000	2541370
MIN	24400	23800	31020	22660	20320	15540	13070	12100	20100	22200	21900	23000	396300
MEAN	84368	90216	97684	121278	173355	130979	79189	53588	80886	74580	65639	74158	1125920
NO.	34	34	34	34	33	33	33	33	35	35	35	34	32
DISTR													
CF MEAN	7.5%	8.0%	8.7%	10.8%	15.4%	11.6%	7.0%	4.8%	7.2%	6.6%	5.8%	6.6%	100%

GUADALUPE RIVER BASIN

08176500 Guadalupe River at Victoria, Texas

LOCATION: Lat 28°47'34", long 97°00'46", Victoria County, at the upstream bridge of two bridges on U.S. Highway 59 in Victoria, 1,300 ft (395 m) upstream from the Southern-Pacific Railroad Co. bridge, and 15 mi (24 km) upstream from Coleta Creek.

DRAINAGE AREA: 5,198 mi² (13,463 km²).

PERIOD OF RECORD: December 1934 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 29.15 ft (8.885 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 42 years, 1,257,981 ac-ft/yr (1,551.1 hm³/yr).

EXTREMES: Period of record (1934-75): Maximum discharge, 179,000 ft³/s (5,070 m³/s) July 3, 1936 (gage height, 31.22 ft or 9.516 m); minimum, 14 ft³/s (0.40 m³/s) Aug. 20, 1956.

Maximum stage since at least 1833, that of July 3, 1936.

REMARKS: Records good. There are many diversions above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1934	-	-	-	-	-	-	-	-	-	-	-	-	1029 00
1935	48500	107800	46890	66650	483700	537700	114300	71940	273400	121800	64320	126500	2063500
1936	86800	59700	64910	48630	296300	136500	1133000	80610	193100	266900	105100	95190	2568740
1937	86320	75250	174200	81220	59000	162600	57560	42140	38640	49800	39250	70960	937140
1938	161900	95660	89320	311100	302500	81360	58590	47460	41810	37100	38160	41140	1306100
1939	43810	36330	37600	35530	44020	43340	47470	25770	24860	31740	26760	30480	427710
1940	31560	41610	38860	57860	45810	66080	407800	32220	27390	38690	380600	348800	1517280
1941	158000	220100	270400	280900	798600	284600	155000	86680	69240	83570	71090	57450	2535630
1942	53150	44670	48770	155800	98240	54530	386700	57300	260700	170500	105200	89550	1525110
1943	86780	61570	69530	61440	55690	82530	57750	41190	44960	40460	38740	45020	685660
1944	82181	94630	182500	90370	209000	181200	74290	54930	104500	53040	74960	131000	1332600
1945	198900	180900	169800	331500	93540	79540	56520	43590	38430	77990	47730	63730	1382170
1946	77710	102500	189700	91740	127100	139700	49660	64260	267700	254400	218100	137800	1740370
1947	220600	118900	133000	130000	132800	69420	55790	83070	41240	35860	37940	44250	1102870
1948	41160	47400	47240	32860	86920	33380	45760	33690	23520	28650	23600	26240	470420
1949	30010	55580	96340	244000	170200	67270	54910	40620	34220	167900	50820	60920	1072790
1950	43500	49980	41510	76460	55990	139200	36140	22650	22680	21800	21040	25120	556070
1951	24170	23530	26280	27090	34690	135600	19060	11430	22340	14640	18720	20050	377600
1952	20680	23080	20570	35110	83010	80640	29000	11090	237600	43450	57310	115900	757440
1953	101600	46310	40000	43490	156900	20020	19630	29820	103000	103500	41210	54460	759940
1954	35770	28050	25370	28770	43170	14650	9010	6630	6380	7460	11930	14850	232040
1955	15900	52760	20230	17270	47400	47440	13160	12960	9400	6150	6360	11230	260260
1956	11970	14680	9720	9350	13800	3550	3310	2316	3670	10070	3550	29890	115270
1957	7270	22780	71660	246800	427600	316100	41590	21850	229600	488500	250500	122300	2246550
1958	250300	480100	241200	119900	264000	105000	76720	45660	119600	113900	132600	89180	2038380
1959	78150	109200	60030	196600	103000	67380	79300	50770	43980	154000	77320	68510	1108240
1960	87990	86780	74020	77380	147100	169900	162000	111000	64920	566700	461800	202200	2211790
1961	235700	257700	151200	96320	70780	407900	162100	72230	113100	63640	133000	61280	1824950
1962	55700	50120	48020	56210	45860	52400	31440	20410	43790	40050	40890	49470	534360
1963	42880	57950	40780	43920	30090	21900	18680	10600	11940	13120	46140	29120	367120
1964	27690	46450	73670	40350	27470	33250	15970	16640	42630	51260	57460	32350	465240
1965	98290	263000	78170	72570	266000	239100	68630	42950	42060	78420	117100	161100	1527390
1966	75930	92710	97690	122000	160300	71420	54900	39370	51730	53990	41860	36660	898560
1967	36660	30040	31510	28210	24130	16680	12840	18590	55500	139600	131700	68470	1093930
1968	438400	135100	114900	173000	306900	367600	102600	59130	98120	51520	56130	125900	2029300
1969	57400	184700	183400	218500	200100	91360	52990	43560	50070	83180	72860	94210	1332330
1970	110500	103500	173000	114300	211100	164100	74060	52430	47460	64670	43480	42730	1201330
1971	41250	34020	35860	25570	22570	22480	19840	96540	173400	89350	86180	124600	771660
1972	86900	91060	64940	45000	752000	166000	101300	82570	57800	57370	52270	51450	1610660
1973	69380	90780	155600	307900	138500	446900	263000	167300	130300	648600	202100	131800	2752160
1974	224300	105100	89950	70870	136000	102500	52980	61020	233700	87450	278800	175100	1617770
1975	129100	256100	138300	132900	544200	383300	203400	122700	86920	71010	58980	71910	2198820
MAX	438400	480100	270400	331500	798600	537700	1133000	167300	555500	648600	461800	348800	2752160
MIN	7270	14680	9720	9350	13800	3550	3310	2310	3070	6150	3550	11230	115270
MEAN	93092	99468	92357	108425	178441	139222	109238	49701	100127	111751	93260	82899	1257981
NO.	41	41	41	41	41	41	41	41	41	41	41	42	41
OF MEAN	7.4%	7.9%	7.3%	8.6%	14.2%	11.1%	8.7%	4.0%	8.0%	8.9%	7.4%	6.6%	100%

GUADALUPE RIVER BASIN

08177000 Coleta Creek near Schroeder, Texas

LOCATION: Lat 28°49'53", long 97°11'10", Goliad-Victoria County line, 373 ft (114 m) downstream from the bridge on Farm Road 622, 2.5 mi (4.0 km) northeast of Schroeder, 4.2 mi (6.8 km) downstream from the confluence of Twelvemile and Fifteenmile Creeks.

DRAINAGE AREA: 369 mi² (956 km²).

PERIOD OF RECORD: January 1930 to December 1933, October 1952 to December 1975.

GAGE: Water-stage recorder, Datum of gage is 87.59 ft (26.697 m) above mean sea level, datum of 1929. Prior to Dec. 31, 1933, nonrecording gage at site 0.7 mi (1.1 km) downstream at same datum; Oct. 20, 1952 to Jan. 17, 1955, and Sept. 22 to Nov. 8, 1967, nonrecording gage at site 0.6 mi (1.0 km) downstream at same datum. Jan. 18, 1955 to Sept. 21, 1967, water-stage recorder at same site and datum.

AVERAGE DISCHARGE: 28 years (1930-33, 1952-75), 66,122 ac-ft/yr (81.5 hm³/yr).

EXTREMES: Period of record (1930-33, 1952-75): Maximum discharge, 122,000 ft³/s (3,460 m³/s) Sept. 21, 1967 (gage height, 33.47 ft or 10.202 m, from floodmark); no flow for many days in 1956, 1963-65, and 1971.

Maximum stage since at least 1872 at present site and datum, that of Sept. 21, 1967.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1930	4090	5020	1060	774	3440	613	370	141	110	707	453	592	17370
1931	4786	3570	6460	1770	601	10600	15800	2230	464	350	314	1080	48019
1932	25500	11200	3430	14800	4470	631	360	242	881	1140	402	545	63601
1933	614	6160	6700	540	848	3400	4010	2570	8930	658	456	397	35283
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	523	7480	2860	-
1953	483	491	296	254	13810	396	55.0	14540	3900	1680	384	211	36500
1954	225	159	124	240	1990	37.0	14.0	8.50	12.0	36.0	21.0	18.0	2885
1955	11.0	3730	43.0	86.0	3530	235	11.0	1110	400	81.0	19.0	23.0	9279
1956	64.0	20.0	20.0	19.0	734	13.0	4.80	.60	584	2560	3670	197	7886
1957	15.0	253	5690	33310	16230	14260	118	27.0	4690	9530	25900	1040	110963
1958	17580	62320	3520	1390	15590	754	82.3	42.0	7070	8770	1300	1400	120559
1959	916	10090	1370	18290	6400	849	36.0	2.17	1020	1800	451	352	42115
1960	624	608	465	371	409	5030	4220	4930	747	55010	14140	10100	96654
1961	6080	7640	1640	1170	1220	9260	2120	358	845	274	2900	451	33958
1962	404	1310	448	2030	411	5010	165	17.0	4080	225	259	1430	15789
1963	558	1180	352	177	100	487	1250	3.00	17.0	17.0	251	992	5384
1964	1210	3020	1510	181	260	23.0	20.0	5340	3130	68.0	25.0	77.0	14864
1965	6950	19640	878	299	18650	18630	426	138	58.0	2420	416	2000	70505
1966	928	1500	498	3480	9040	1190	3100	206	593	124	62.0	106	20827
1967	241	128	155	287	159	4.40	3.50	676	291700	62440	3770	1420	360984
1968	8980	2690	2010	984	39430	29050	2770	756	20810	1070	707	1460	110717
1969	677	6190	2950	37790	31970	17790	997	638	701	813	599	1080	102195
1970	3080	1510	5640	1230	6660	3020	616	323	295	245	184	324	23127
1971	287	244	278	158	24.0	5700	622	2300	34220	13430	1440	2870	61573
1972	7080	2990	4220	1080	41100	3150	932	1190	3100	1110	610	552	67114
1973	995	2250	3430	31780	2010	76370	3220	2910	9510	101000	4490	2550	240515
1974	7830	2470	2410	1500	10700	1090	660	1070	6300	1490	1890	1410	38820
1975	1720	1170	918	1350	12040	2150	1740	563	846	254	526	7390	30687
MAX	25500	62320	6700	37790	41100	76370	15800	14540	291700	101000	25900	10100	360984
MIN	11.0	20.0	20.0	19.0	24.0	4.40	3.50	.60	12.0	17.0	19.0	18.0	2885
MEAN	3775	5835	2089	5753	8957	7768	1659	1577	15000	9565	2611	1533	66122
NO.	27	27	27	27	27	27	27	27	27	28	28	28	27
DISTR OF MEAN	5.7%	8.8%	3.2%	8.7%	13.5%	11.7%	2.5%	2.4%	22.7%	14.5%	3.9%	2.3%	100%

GUADALUPE RIVER BASIN
08177500 Coleto Creek near Victoria, Texas

LOCATION: Lat 28°43', long 97°09', Victoria County, at the bridge on U.S. Highway 59, 100 ft (30.5 m) upstream from the Texas and New Orleans Railroad Co. bridge, 1.1 mi (1.8 km) downstream from Perdido Creek, and 9.4 mi (15.1 km) southwest of Victoria.

DRAINAGE AREA: 514 mi² (1,331.3 km²).

PERIOD OF RECORD: July 1939 to September 1954.

GAGE: Water-stage recorder. Datum of gage is 49.18 ft (14.99 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 16 years, 59,762 ac-ft/yr (73.7 hm³/yr).

EXTREMES: Period of record (1939-54): Maximum discharge, 89,000 ft³/s (2,520.5 m³/s) October 10, 1946 (gage height, 31.64 ft or 9.6 m, from floodmark); no flow at times.

Maximum stage known since at least 1875, that of October 16, 1946.

REMARKS: Records poor.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	-	10040	879	392	157	156	199	-
1940	293	3550	483	316	2790	40740	14530	4350	281	8630	64500	23290	163753
1941	2380	2980	12450	28010	55820	16200	21660	2080	1400	1300	1310	1060	146650
1942	1040	2710	1600	1360	638	328	62240	1340	2710	820	858	695	76339
1943	914	815	4410	833	3860	4740	1460	158	548	332	786	1400	20256
1944	3820	1370	13770	1120	18310	1720	422	8000	4710	554	731	1080	55607
1945	843	639	1920	12410	492	942	171	292	620	239	122	303	18435
1946	556	3950	574	427	11330	13690	559	8510	5810	122300	9620	2330	179656
1947	5280	1750	1610	1700	26640	1600	490	560	246	166	310	604	40956
1948	570	1510	996	555	4250	313	575	105	113	680	140	133	9328
1949	217	550	458	7710	3880	4130	3370	972	380	8140	916	3770	34495
1950	863	538	428	486	265	393	151	730	510	220	280	970	3129
1951	830	117	200	131	1930	5010	289	0	16640	433	594	229	25656
1952	179	384	767	3940	19830	2600	227	400	32660	538	11070	3090	75325
1953	590	554	425	306	12990	444	370	22290	8170	1240	448	266	47760
1954	286	188	173	246	1310	500	0	0	0	-	-	-	-
MAX	5280	3950	13770	28010	55820	40740	62240	22290	32660	122300	64500	23290	179656
MIN	830	117	173	131	265	500	0	0	0	220	280	970	3129
MEAN	1194	1440	2664	3970	10956	6180	7264	3099	4636	9663	6106	2570	59762
NO. OF PEAK	15	15	15	15	15	15	16	16	16	15	15	15	14
DISTR	2.01	2.41	4.51	6.61	18.31	10.31	12.21	5.21	7.81	16.21	10.21	4.31	1061

SAN ANTONIO RIVER BASIN

08177700 Olmos Creek at Dresden Drive at San Antonio, Texas

LOCATION: Lat 29°29'56", long 98°30'36", Bexar County, 30 ft (9 m) downstream from the low-water bridge on Dresden Drive in San Antonio, 0.15 mi (0.24 km) west of the intersection of Blanco Road and Dresden Drive, and 4.0 mi (6.4 km) upstream from Olmos Dam.

DRAINAGE AREA: 21.2 mi² (54.9 km²).

PERIOD OF RECORD: June 1968 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 726.10 ft (221.315 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 8 year, 2,899 ac-ft/yr (3.6 km³/yr).

EXTREMES: Period of record (1968-75): Maximum discharge, 5,420 ft³/s (153 m³/s) May 7, 1972 (gage height, 13.20 ft or 4.023 m, from floodmark); no flow at times.

Maximum stage since 1935, that of May 7, 1972.

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1968	-	-	-	-	-	32.0	24.0	1.80	119	3.90	118	39.0	-
1969	53.0	97.0	118	64.0	304	74.0	2.30	265	10.0	328	28.0	90.0	1453
1970	40.0	108	86.0	36.0	515	20.0	2.70	2.20	99.0	21.0	3.90	4.50	938
1971	1.70	9.6	2.70	2.70	31.0	76.0	9.7	418	142	422	97.0	2.37	1474
1972	62.0	32.0	11.0	103	3240	159	64.0	132	50.0	62.0	93.0	17.0	4025
1973	92.0	168	106	1020	447	1690	755	10.0	3380	826	26.0	22.0	8542
1974	49.0	13.0	45.0	63.0	279	16.0	1.50	1440	219	181	223	1.19	2649
1975	58.0	498	8.60	199	1120	290	35.0	16.0	4.90	145	2.70	95.0	2472
MAX	92.0	498	118	1020	3240	1690	755	1440	3380	826	223	2.37	8542
MIN	1.70	9.6	2.70	2.70	31.0	16.0	1.50	1.80	4.90	3.90	2.70	4.50	938
MEAN	50.8	132	53.9	216	848	295	112	268	503	249	73.9	77.9	2899
NO.	7	7	7	7	7	8	8	8	8	8	8	8	7
DISTR OF PEAK	1.8%	4.6%	1.9%	7.4%	29.2%	10.2%	3.9%	9.9%	17.3%	8.6%	2.6%	2.7%	100%

SAN ANTONIO RIVER BASIN

08178000 San Antonio River at San Antonio, Texas

LOCATION: Lat 29°24'34", long 98°29'41", Bexar County, 193 ft (59 m) downstream from the South Alamo Street Bridge in San Antonio, and 2.1 mi (3.4 km) upstream from San Pedro Creek.

DRAINAGE AREA: 41.8 mi² (108.3 km²). The flow of the river comes from intermittent spring flow and from artesian wells; the drainage area of the stream is not applicable.

PERIOD OF RECORD: February 1915 to October 1929, March 1939 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 605.26 ft (184.483 m) above mean sea level, datum of 1929. Jan. 26, 1915 to Feb. 27, 1916, nonrecording gage at site 1.3 mi (2.1 km) upstream at different datum. Feb. 28, 1916 to Apr. 7, 1920, nonrecording gage at site 1.1 mi (1.8 km) upstream at different datum. Apr. 8, 1920 to Nov. 16, 1929, and Feb. 15, 1939 to Apr. 25, 1967, water-stage recorder in the vicinity of the South Alamo Street Bridge at 7.00 ft (2.134 m) higher datum. Apr. 25, 1967 to May 13, 1969, water-stage recorder at site 307 ft (94 m) downstream at same datum.

AVERAGE DISCHARGE: 52 years (1915-29, 1939-75), 38,775 ac-ft/yr (47.8 hm³/yr).

EXTREMES: Period of record (1915-29, 1939-75): Maximum discharge, 15,300 ft³/s (433 m³/s) Sept. 10, 1921 (gage height, 20.14 ft or 6.139 m, from floodmark, at former site and datum); no flow at times.

Maximum stage since 1819, that of Sept. 10, 1921.

REMARKS: Records good. The floodflow is regulated by Olmos flood-control reservoir (capacity, 15,500 ac-ft or 19.1 hm³) located about 8.5 mi (13.7 km) upstream. The dam was completed in 1926. Springs emerge intermittently from the Edwards and associated limestones in the Balcones Fault Zone.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1915	-	5720	6520	13000	11000	8330	10500	13600	8090	7130	6070	5800	-
1916	5700	4890	4030	6400	6060	5130	5020	5900	6550	5090	4280	4000	63870
1917	3630	2890	2030	2030	2530	1540	1650	1500	1400	1470	1390	1460	24320
1918	1440	1270	1370	2870	5100	982	910	1900	633	928	566	1090	19259
1919	2080	2150	1940	2770	3300	3950	7130	5650	11100	18100	13900	12800	84870
1920	15900	12400	12500	10900	10300	9400	8790	8240	7320	7320	7020	6820	116910
1921	6700	5460	8050	7320	6130	6370	5210	4250	14900	6650	5850	4960	62650
1922	4610	3530	3030	6110	6070	6620	5430	4730	4080	3710	4260	4480	57560
1923	3460	3890	4110	4850	4120	3250	2980	2090	3100	3260	4490	8530	46130
1924	8200	7730	9060	10200	11400	12000	10200	8110	7330	7020	5580	5650	103280
1925	5090	4020	4070	3150	3270	2130	1640	2250	1660	1850	2000	1870	33200
1926	2250	1850	2590	0020	8100	5640	4080	2840	2200	2250	2110	2310	42240
1927	1960	1920	7420	1810	1800	3640	1630	1520	1470	1590	1340	1350	22650
1928	1330	1150	1350	1220	1880	1290	959	1100	1360	1180	1020	898	14737
1929	1060	502	836	1080	1660	1420	1430	1150	1610	1930	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	2490	1750	1780	1190	1170	1920	1480	1130	1020	1050	-
1940	1060	1180	1000	1390	1680	2240	1100	999	1000	1850	1060	1670	16228
1941	1660	3370	4680	7780	9630	7840	6210	4250	4610	6570	6320	6180	69300
1942	5020	4640	4500	5400	5070	3690	4340	2160	7570	13170	9950	6380	74490
1943	7520	5660	6020	4800	3560	2950	3410	2130	2030	1820	1750	1740	43390
1944	2010	1670	4790	4460	5760	6270	2610	1560	2910	2450	2710	5920	43320
1945	7630	9080	6930	9180	7570	4830	3440	2080	1610	3400	2720	2770	63440
1946	2860	2500	3230	3030	3720	3240	1700	1810	13270	8530	8200	7700	59790
1947	6410	7090	7260	6060	4940	2570	1970	2560	1650	1600	1480	1570	47120
1948	1500	1620	1600	1420	1630	1160	1680	3270	1430	1800	1250	1240	19600
1949	1230	1690	1620	3710	2680	3450	2050	1620	1580	3790	1560	1830	26810
1950	1690	1540	1450	1690	1610	1360	1540	1930	1620	1450	1230	1190	18300
1951	1170	1400	1520	1220	1890	2760	1300	1490	1680	1530	1080	1130	16170
1952	1140	1280	1190	1360	1330	1550	1620	1290	1530	928	1020	1330	15568
1953	877	859	863	827	783	895	650	1060	1570	836	615	745	10560
1954	676	615	668	805	849	992	803	540	569	815	647	540	8541
1955	640	1040	437	478	1390	726	972	962	515	461	575	509	8705
1956	469	525	435	413	920	457	457	885	598	891	787	815	7652
1957	498	698	1100	5550	4530	2230	596	509	3860	2310	1280	669	23830
1958	2250	2370	1090	828	1840	1390	1970	877	3580	3490	5350	4830	29865
1959	4200	4070	3760	3600	3370	1280	1030	1060	981	3800	2400	3090	32661
1960	3410	3190	3290	2220	1990	1460	997	2030	741	3300	4660	5890	33178
1961	6060	6360	5710	3070	1240	3680	5780	2550	2330	4030	4200	3830	48840
1962	2510	1630	1360	1950	1230	1410	737	831	1310	792	1620	1220	16600
1963	704	1730	815	1170	972	770	837	665	1380	1940	1030	859	12872
1964	1720	1150	1550	1120	1100	1710	934	1650	1370	1400	2570	1040	17314

SAN ANTONIO RIVER BASIN
08178000 San Antonio River at San Antonio, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1965	1300	3480	1670	1050	7800	1860	801	992	1160	1150	926	1900	24089
1966	986	1200	1550	1790	2010	1460	918	2080	1390	1160	869	904	16357
1967	864	968	1160	730	750	612	939	1160	5700	1200	2040	935	17056
1968	9180	2730	2660	2390	3430	2320	2070	976	1560	1080	1700	1510	31626
1969	1360	1840	1950	1440	4380	1590	746	1860	2490	2460	1250	1680	23448
1970	1350	1830	2270	1590	4440	1370	814	829	1320	873	809	893	18398
1971	863	765	767	1050	1150	1730	759	3840	2500	2960	2440	2830	21654
1972	1600	1400	611	1440	9570	2380	1410	2260	1200	1430	1610	1590	27101
1973	2590	2640	2400	6680	5460	7590	9390	5320	16550	15010	10620	9090	93340
1974	8090	5780	4360	3290	5380	1560	1010	7660	7550	4910	6870	5450	61910
1975	5110	6150	6060	5460	11550	7300	3950	2900	2990	2900	2560	3110	62040
MAX	15900	12400	12500	13000	11550	12000	10500	13600	16550	18100	13900	12800	116910
MIN	469	502	435	413	750	457	457	509	515	461	566	509	7652
MEAN	3289	3081	3169	3501	4072	3150	2705	2641	3477	3445	3115	3130	38775
NO.	50	51	52	52	52	52	52	52	52	52	51	51	49
DISTN OF MEAN	0.52	7.92	6.22	9.02	10.52	8.12	7.02	6.82	9.02	8.92	8.02	8.12	1002

SAN ANTONIO RIVER BASIN
08178500 San Pedro Creek at San Antonio, Texas

LOCATION: Lat 29°25', long 98°30', Bexar County, at the Missouri-Kansas-Texas Railroad Co. culvert, 200 ft (60.96 m) south of Arsenal Street in San Antonio, and 2.5 mi (4.0 km) above its confluence with the San Antonio River.

PERIOD OF RECORD: August 1916 to November 1929.

GAGE: Water-stage recorder. Datum of gage is 612.26 ft (186.6 m) above mean sea level. Staff gage at site 2.2 mi (3.5 km) upstream, January 26, 1915 to February 27, 1916, and at site 1.9 mi (3.06 km) upstream, February 28, 1916 to April 7, 1920, both at different but unknown datum.

AVERAGE DISCHARGE: 14 years, 5,903 ac-ft/yr (7.3 km³/yr).

EXTREMES: Period of record (1916-29): Maximum stage, 8.6 ft (2.6 m) September 9, 1921, when backwater from Alizan Creek existed (discharge unknown); no flow on August 16, 1926 and May 23, 1928.

Flood in October 1913 reached a stage of 10.2 ft (3.1 m), from floodmark.

REMARKS: Records fair. No diversion above station. The flow is partly regulated by a small swimming pool dam above the station. The entire flow of San Pedro Creek, except during periods of heavy precipitation, is furnished by San Pedro Springs, 2 mi (3.2 km) upstream.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1916	-	-	-	-	-	-	-	351	399	522	469	550	-
1917	818	655	333	271	301	289	204	173	150	188	209	183	3774
1918	233	254	266	247	282	252	223	188	181	202	231	206	2765
1919	446	317	378	714	549	827	959	861	922	1400	1080	898	9351
1920	775	788	806	893	830	690	605	670	515	719	708	555	8554
1921	536	504	836	529	515	547	477	396	-	600	460	499	-
1922	489	504	531	619	751	688	569	518	469	507	505	470	6620
1923	475	471	401	507	455	315	448	409	454	439	528	527	5429
1924	624	642	732	1080	1410	1160	698	671	687	357	513	570	9144
1925	457	439	415	435	505	357	376	525	567	470	430	396	5372
1926	484	416	561	961	972	704	578	459	476	450	475	393	6929
1927	338	405	455	483	491	708	384	329	291	322	293	387	4886
1928	312	351	418	294	425	469	274	196	330	248	218	257	3792
1929	350	208	323	286	516	277	333	260	255	224	271	-	-
MAX	818	788	836	1080	1410	1160	959	861	922	1400	1080	898	9351
MIN	233	208	266	247	282	252	204	173	150	188	209	183	2765
MEAN	487	458	497	563	616	560	471	429	438	475	456	453	5903
NO. OF MEAN	13	13	13	13	13	13	13	14	13	14	14	13	11
DISTR	8.3%	7.8%	8.4%	9.5%	10.4%	9.5%	8.0%	7.3%	7.4%	8.0%	7.7%	7.7%	10.0%

SAN ANTONIO RIVER BASIN

08178700 Salado Creek (Upper Station) at San Antonio, Texas

LOCATION: Lat 29°30'57", long 98°25'51", Bexar County, at the upstream bridge of two bridges on Interstate Highway 410 in San Antonio, 1.0 mi (1.6 km) west of Northeast School, 1.1 mi (1.8 km) upstream from Perrin-Beitel Creek, and 2.7 mi (4.3 km) east of the San Antonio International Airport.

DRAINAGE AREA: 137 mi² (355 km²).

PERIOD OF RECORD: October 1960 to December 1975.

GAGE: Water-stage recorder with concrete control. Datum of gage is 684.60 ft (208.606 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 16 years, 6,738 ac-ft/yr (8.3 hm³/yr).

EXTREMES: Period of record (1960-75): Maximum discharge, 24,900 ft³/s (705 m³/s) May 12, 1972 (gage height, 15.22 ft or 4.639 m); no flow at times.

Maximum stage since at least 1853, 23 to 24 ft (7.0 to 7.3 m) in October 1913.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1960	-	-	-	-	-	-	-	-	-	775	13.0	19.0	-
1961	24.0	36.0	11.0	12.0	0	49.0	184	1.20	1.60	101	6.20	0	426
1962	3.80	2.00	0	15.0	5.00	16.0	4.20	17.0	26.0	24.0	869	1.01	1163
1963	21.0	33.0	7.30	8.90	14.0	14.0	4.80	7.70	34.0	56.0	57.0	24.0	282
1964	59.0	12.0	26.0	11.0	48.0	446.0	53.0	197	129	126	420	69.0	5610
1965	209	579	247	144	897.0	122	106	78.0	75.0	1560	22.0	51.00	17212
1966	39.0	65.0	28.0	160	162	162	51.0	168	61.0	106	40.0	7.10	1049
1967	13.0	39.0	55.0	31.0	237	43.0	259	178	115.0	62.0	236	53.0	2356
1968	10650	210	116	60.0	76.0	75.0	51.0	43.0	55.0	36.0	40.0	32.0	11444
1969	25.0	45.0	53.0	38.0	876	249	83.0	390	65.0	125	57.0	52.0	2058
1970	52.0	67.0	76.0	51.0	2500	179	48.0	49.0	40.0	45.0	4.50	23.0	3135
1971	33.0	33.0	39.0	50.0	50.0	45.0	44.0	271	107	141	135	1.88	1136
1972	98.0	91.0	97.0	79.0	15440	49.0	43.0	57.0	40.0	36.0	64.0	47.0	16141
1973	87.0	131	115	1740	39.0	3980	9430	128	11110	2250	448	317	29775
1974	149	137	78.0	50.0	169	133	47.0	2250	438	142	1580	1.92	5365
1975	129	806	214	151	1820	468	122	108	77.0	96.0	51.0	60.0	4102
MAX	10650	806	247	1740	15440	4460	9430	2250	11110	2250	1580	5100	29775
MIN	3.80	2.00	0	8.90	0	14.0	4.20	1.20	1.60	24.0	4.50	0	282
MEAN	773	152	77.5	173	2027	670	702	263	894	355	253	3.98	6738
NO.	15	15	15	15	15	15	15	15	15	16	16	16	15
DISTR													
OF MEAN	11.5%	2.3%	1.2%	2.6%	30.1%	9.9%	10.4%	3.9%	13.3%	5.3%	3.8%	5.9%	100%

SAN ANTONIO RIVER BASIN

08178800 Salado Creek (Lower Station) at San Antonio, Texas

LOCATION: Lat 29°21'25", long 98°24'45", Bexar County, at the bridge on Loop 13 in San Antonio, 1.4 mi (2.3 km) east of the Brooks Air Force Base, and 3.3 mi (5.3 km) upstream from Rosillo Creek.

DRAINAGE AREA: 189 mi² (490 km²).

PERIOD OF RECORD: October 1960 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 526.95 ft (160.614 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 16 years, 27,889 ac-ft/yr (34.4 hm³/yr).

EXTREMES: Period of record (1960-75): Maximum discharge, 13,100 ft³/s (371 m³/s) Sept. 27, 1973 (gage height, 28.83 ft or 8.787 m); no flow on Aug. 13, 1967.

Maximum stage since at least 1941, that of Sept. 27, 1973. Floods of Sept. 27, 1946 and Aug. 15, 1960 were of equal magnitude.

REMARKS: Records good. There are several small diversions above the station. Most of the low flow comes from artesian wells and springs in the City of San Antonio.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1960	-	-	-	-	-	-	-	-	-	4590	1710	2130	-
1961	2060	2000	1380	1080	699	2690	3750	1690	1860	1840	2590	1040	22679
1962	1100	942	841	1230	923	1040	450	437	1140	528	2160	1190	11981
1963	778	1850	732	1300	719	525	320	115	336	1560	755	586	9576
1964	1220	1300	1640	766	769	3390	205	1350	723	1170	3740	825	17098
1965	662	4520	1630	1140	13810	1500	611	586	795	1400	883	5670	33407
1966	1010	1190	1260	1890	1720	869	389	763	680	697	561	619	11848
1967	584	547	846	584	312	98.0	331	272	3760	1270	3050	1130	12784
1968	23290	2870	1590	1720	2300	1550	2340	974	1770	1130	1660	1850	43044
1969	1360	2160	2250	1490	3920	1730	719	1550	1430	3410	1540	2560	24119
1970	2600	2110	1700	1400	6760	1530	1030	873	1200	928	805	918	21654
1971	940	742	651	609	552	896	254	3080	2130	2030	2150	2680	16714
1972	1470	1210	1110	1140	22010	1560	1290	2020	1160	1260	1560	1400	37190
1973	2320	2500	1630	5420	1850	10620	14380	2100	23820	8410	2660	2490	78400
1974	2500	1670	1720	1570	3460	1520	1130	10850	4560	2830	6390	2290	40510
1975	2130	4680	1910	2110	7480	5490	2060	2030	1670	2420	1190	1660	34830
YR	23290	4680	2250	5420	22010	10620	14380	10850	23820	8410	6390	5670	78400
MIN	584	547	651	584	312	96.0	205	115	336	528	561	586	9576
MEAN	2948	2019	1393	1563	4487	2334	1951	1913	3149	2217	2100	1815	27889
NO.	15	15	15	15	15	15	15	15	15	16	16	16	15
LISTR													
OF MEAN	10.6%	7.2%	5.0%	5.6%	16.1%	8.4%	7.0%	6.9%	11.3%	7.9%	7.5%	6.5%	100%

SAN ANTONIO RIVER BASIN
08179000 Medina River near Pipe Creek, Texas

LOCATION: Lat 29°40'31", long 98°58'33", Bandera County, 500 ft (150 m) upstream from the Bandera Falls, 0.6 mi (1.0 km) upstream from Red Bluff Creek, and 4.1 mi (6.6 km) southwest of Pipe Creek.

DRAINAGE AREA: 474 mi² (1,228 km²).

PERIOD OF RECORD: October 1922 to June 1935, October 1952 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,067.37 ft (325.334 m) above mean sea level, datum of 1929, December 1922 to June 1935, water-stage recorder at site 1.9 mi (3.1 km) upstream at different datum.

AVERAGE DISCHARGE: 38 years (1922-35, 1952-75), 94,923 ac-ft/yr (117.0 hm³/yr).

EXTREMES: Period of record (1922-35, 1952-75): Maximum discharge, 72,900 ft³/s (2,060 m³/s) July 15, 1973 (gage height, 37.3 ft or 11.37 m, from floodmark); minimum, 0.2 ft³/s (0.006 m³/s) July 14-16, 1956.

Maximum stage since at least 1880, about 43 ft (13.1 m) in 1919, present site and datum, from information by a local resident.

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1922	-	-	-	-	-	-	-	-	-	2150	1610	1670	-
1923	1680	2200	2280	11900	2950	1450	2300	480	7820	4040	18900	23100	79100
1924	10800	9780	18100	12900	12900	7160	4350	2300	2350	1270	958	1280	84148
1925	1460	1130	1240	1120	4170	718	802	229	626	7820	5390	1760	26465
1926	2090	1760	3320	18200	12100	5090	8080	2540	871	2060	2650	5510	64211
1927	3340	12700	19400	11800	5880	6040	2060	762	492	1400	928	1360	66162
1928	1520	2150	2740	1400	1300	6370	719	271	194	1300	594	1920	20478
1929	1200	905	1110	916	25400	4670	5380	726	916	633	1110	2240	45206
1930	1360	1060	978	875	14000	7860	2210	646	341	22600	5530	5476	62930
1931	12500	17000	16700	28900	36600	8690	15300	3860	1590	1300	1540	2940	146940
1932	3120	3990	6700	6960	6520	2540	104000	9220	25900	12500	7500	7620	196570
1933	12100	8330	8240	6310	4980	2640	1420	1110	1210	806	934	1240	49320
1934	2130	1950	1290	4220	1460	312	947	283	121	115	169	906	13923
1935	811	1170	954	2940	33400	75100	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	49.0	238	2150	-
1953	2420	1450	1420	917	440	98.0	570	2580	7750	11520	2790	2020	33975
1954	1500	1220	1120	913	4530	1110	367	120	139	93.0	76.0	89.0	11277
1955	511	1160	689	502	4130	496	3470	1200	254	169	120	189	12890
1956	255	351	381	224	400	52.0	31.0	1300	252	155	525	74.0	4000
1957	72.0	157	6170	37440	20540	20150	3150	1000	10910	25410	17160	11460	153619
1958	26000	27660	38250	15460	13790	49100	12220	4660	29390	30960	28470	13550	289510
1959	8780	6410	5310	9650	6940	12730	7790	3260	2180	22090	6570	5750	97460
1960	6920	6430	7580	6426	4710	2060	6660	29660	8080	10990	12070	18270	119850
1961	17300	29770	18790	9860	5480	14250	8220	5720	3580	3260	3410	3500	123140
1962	3040	2200	2200	3200	1860	1640	416	239	139	7420	1800	2190	26344
1963	1680	1480	1580	1800	1800	803	328	235	119	103	323	1050	11301
1964	1460	3280	4660	3090	1650	703	217	2780	39170	10030	6490	4360	77890
1965	3380	8730	7030	7410	15560	9030	3340	1350	1830	6110	2710	5490	71970
1966	4450	3790	3930	5300	6350	3850	2900	17080	14150	6820	4260	3400	76280
1967	2790	2190	2090	1960	926	407	110	93.0	4910	12220	12160	6730	46586
1968	27180	20530	22040	15090	27670	12540	10720	4240	3630	3240	3000	3490	153570
1969	2790	2660	3200	6640	6090	2590	910	644	1200	40700	9290	10330	87044
1970	7280	6930	15590	10090	15290	13460	4540	2290	2930	4130	2790	2700	86020
1971	2340	1900	1810	1590	1490	899	704	129700	13010	40820	21850	12650	228763

SAN ANTONIO RIVER BASIN

08179000 Medina River near Pipe Creek, Texas--Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	OCC	ANNUAL
1972	8710	6610	5510	3980	43100	12340	6850	10970	8046	7310	5850	4940	124210
1973	4840	6560	9500	8270	7730	16810	123600	22660	11550	41240	18190	10600	283570
1974	8330	6330	6420	4900	18030	6810	3700	14650	12080	8090	14300	13070	116710
1975	15140	45330	17840	12190	39690	25630	16690	9000	5440	4720	4060	3870	199600
MAX	27160	45330	38250	37440	43100	75100	123600	129700	39170	41240	28470	23100	289510
MIN	72.0	157	381	224	400	52.0	31.0	93.0	119	49.0	76.0	74.0	4000
MEAN	5869	7145	7393	7648	11385	9339	10431	8225	6382	9612	6117	5377	94923
NO.	36	36	36	36	36	36	35	35	35	37	37	37	35
DISTR OF MEAN	6.2%	7.5%	7.8%	8.1%	12.0%	9.8%	11.0%	8.7%	6.7%	10.1%	6.4%	5.7%	10.0%

SAN ANTONIO RIVER BASIN
08179100 Red Bluff Creek near Pipe Creek, Texas

LOCATION: Lat 29°40'51", long 98°57'19", Bandera County, 0.8 mi (1.3 km) upstream from the bridge on Farm Road 1283, 1.8 mi (2.9 km) downstream from Pipe Creek, 1.9 mi (3.1 km) upstream from the mouth, and 3.2 mi (5.1 km) south of Pipe Creek.

DRAINAGE AREA: 56.3 mi² (145.8 km²).

PERIOD OF RECORD: April 1956 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,107.2 ft (337.475 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 20 years, 8,525 ac-ft/yr (10.5 hm³/yr).

EXTREMES: Period of record (1956-75): Maximum discharge, 46,800 ft³/s (1,330 m³/s) Sept. 27, 1964 (gage height, 22.64 ft or 6.901 m); no flow for many days each year.

Maximum stage since at least 1905, that of Sept. 27, 1964.

REMARKS: Records good. There are several small dams on upstream tributaries that affect the flow during time of storm runoff. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1956	-	-	-	0	0	0	0	0	54.0	0	127	0	-
1957	0	0	227	1780	3430	2300	3.20	0	56.0	677	1770	652	10895
1958	2710	1960	2570	671	5650	408	0	0	1700	3430	3150	569	22818
1959	130	341	234	170	29.0	2950	849	10.0	0	26.0	0	9.3	4748
1960	129	79.0	73.0	57.0	0	0	108	2580	119	406	638	971	5160
1961	1250	1770	776	74.0	0	39.0	0	0	0	0	0	0	3909
1962	0	0	0	26.0	0	.40	0	0	0	262	26.0	0	314
1963	0	0	0	219	0	0	0	0	0	0	0	0	219
1964	20.0	0	54.0	1.20	0	0	0	28.0	8290	159	295	0	8847
1965	0	499	203	3410	6690	1280	30.0	0	0	0	0	0	12112
1966	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	180	2070	225	550	55.0	3080
1968	3080	1680	1280	2770	3810	806	67.0	0	0	0	0	0	13493
1969	0	0	0	778	672	31.0	0	96.0	164	1290	200	1980	5211
1970	508	354	1950	609	1890	1080	4.20	0	0	0	0	0	6395
1971	0	0	0	0	0	0	0	11210	414	3560	899	397	16480
1972	100	2.00	0	0	2260	215	0	0	0	58.0	0	0	2635
1973	0	92.0	229	1120	453	1210	17520	1660	2090	5700	1340	38.0	31452
1974	0	0	0	0	853	0	0	3940	1290	106	1260	711	8160
1975	660	8310	1050	226	1270	925	59.0	0	0	0	0	0	12700
MAX	3080	8310	2570	3410	6690	2950	17520	11210	8290	5700	3150	1960	31452
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	462	794	455	596	1350	562	932	985	812	795	513	269	8525
NO.	19	19	19	20	20	20	20	20	20	20	20	20	19
DISTR													
OF MEAN	5.4%	9.3%	5.3%	7.0%	15.6%	6.6%	10.9%	11.6%	9.5%	9.3%	6.0%	3.2%	100%

SAN ANTONIO RIVER BASIN

08179500 Medina Lake near San Antonio, Texas

LOCATION: Lat 29°32'24", long 98°56'01". Medina County, at the gate operating platform, 576 ft (176 m) from the left end of Medina Dam on the Medina River, 4.2 mi (6.8 km) upstream from the Medina Diversion Dam, 13 mi (21 km) north of Castroville, and 28 mi (45 km) west of San Antonio.

DRAINAGE AREA: 634 mi² (1,642 km²).

PERIOD OF RECORD: April 1913 to December 1975.

GAGE: Nonrecording gage. Datum of gage is 7.80 ft (2.377 m) below mean sea level, datum of 1929.

EXTREMES: Period of record (1913-75): Maximum contents, 288,800 ac-ft (356.1 hm³) Sept. 16, 1919 (gage height, 1,078.0 ft or 328.57 m); minimum contents since the lake first filled, 780 ac-ft (0.962 hm³) Apr. 11, 1948 (gage height, 944.0 ft or 287.73 m)

REMARKS: The lake is formed by a gravity-type concrete dam 1,580 ft (482 m) long, with a capacity of 254,000 ac-ft (313.2 hm³). The dam was completed and started to begin on May 7, 1913. The uncontrolled spillway section is a cut through natural rock 880 ft (268 m) long, with a 3-foot wide (1-m) cut-off wall, and is located near the right end of the dam. The dam and lake are owned by the Bexar-Medina-Atascosa Counties Water Improvement District No. 1, which has a permit from the Texas Water Rights Commission to irrigate 150,000 acres (60,700 hm²) annually. An undetermined amount of water from the lake enters the Edwards and associated limestones in the Balcones Fault Zone, part of which is above and part below the dam. Water is released downstream to the Medina Diversion Reservoir where it is diverted into the Medina Canal by the Water District.

END OF MONTH CONTENTS IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1913	-	-	-	0	3850	12700	13180	13180	17950	56380	71430	147500
1914	151600	152500	147600	158400	224800	239900	235900	238900	232300	225300	220700	215700
1915	211200	208100	205100	258100	258100	250000	239400	234400	233400	226800	219200	214200
1916	210200	205100	196500	227300	251700	243000	241900	237400	230300	226300	220200	213200
1917	208100	203100	192500	184900	182300	173100	163400	152500	145700	136800	132900	125100
1918	119500	115600	106500	109600	104200	93020	80740	70960	62980	64440	61850	71660
1919	25150	77010	77940	80740	85160	92450	117400	217700	260400	259800	256300	255700
1920	256900	255700	252200	253400	254000	250000	239400	234400	226300	218200	215700	211200
1921	207600	202600	201600	200100	194000	218200	206600	194500	203100	196500	190700	186100
1922	181900	178100	173100	187800	201100	197500	187400	178100	168900	161300	156700	150400
1923	145000	145700	144300	152100	148200	137200	126900	117700	124100	125500	139000	158800
1924	165100	170600	163600	196000	205100	211700	203100	191200	184900	177300	172200	166800
1925	160900	155000	145700	137200	135100	120500	108500	105300	101300	106200	108200	103900
1926	102200	98470	97320	123700	134000	132600	131500	124100	117000	112200	110200	108800
1927	105900	110200	118800	128700	126900	126900	125100	118100	106800	103100	97320	93020
1928	87290	85860	84700	82370	77710	76550	69560	63050	57100	51630	47070	42910
1929	40670	37240	33260	29920	29590	46160	51260	47620	40780	34680	29590	25950
1930	23420	20440	17330	14010	21880	23970	17880	10860	3930	21320	22870	24740
1931	32840	48160	62580	77710	120200	120900	127300	121300	111900	104600	99040	97610
1932	97040	97320	99900	101000	101600	94460	190300	187000	217700	224300	221800	221800
1933	229800	232800	233400	229800	223300	215200	202600	191600	183200	173500	165100	157100
1934	154600	151200	147100	148500	140700	127600	119800	108200	99040	99310	84700	81670
1935	79810	79810	72120	71190	103900	219700	248200	244200	256900	254600	252300	254600
1936	254000	252900	251700	247100	256300	278300	253400	245900	261000	255700	254600	254000
1937	254000	253400	254000	252900	241900	252300	244700	231300	219200	210200	200600	197500
1938	203600	205100	204100	206600	207600	196000	184000	170100	161700	144300	135100	128700
1939	126900	122700	114200	102500	88730	77710	79340	70960	60020	59300	54370	49440
1940	44510	45610	36670	37780	34680	29700	25620	16020	7080	1770	5920	25290
1941	25070	61850	84230	112600	153700	156700	149200	145000	142200	142200	137900	135100
1942	129800	126200	118100	116300	130500	118100	113900	103900	105600	135800	137900	136100
1943	133300	126900	120200	115900	117000	118100	110200	95890	90160	82600	76550	73520
1944	72360	75380	84930	83070	105900	108800	97900	90160	87010	80510	75620	78410
1945	94170	105900	113900	123400	132200	107600	94460	78880	80970	89870	84460	82600
1946	79810	80270	75150	69560	82140	80040	67240	58200	64910	81440	83300	84930
1947	97900	104500	105600	101600	94460	86150	72820	60570	46880	29700	21320	15600
1948	9230	5530	2310	2220	2790	13260	9300	1380	2140	5000	5110	4940
1949	6290	14430	18910	31700	39820	48160	41780	37380	30990	28710	25620	24630
1950	23310	24630	20220	17950	18500	20440	15950	7670	3010	2160	3050	3960
1951	4330	5130	5850	7410	14360	15880	14570	13120	11570	10080	9620	9180
1952	9020	8320	8780	11380	13460	15880	15260	14260	26060	24890	24680	27380
1953	28600	29040	25320	19450	12580	11180	10890	14630	25510	34400	35740	36100
1954	36640	36360	35820	35110	37450	36670	35110	33400	24080	17050	11640	2160
1955	2720	3770	4250	4330	9100	9100	11570	12280	11700	11120	10780	10340
1956	10010	9620	9360	8900	8320	7600	6780	7660	7130	6730	7410	7020
1957	6630	6370	13320	49800	79340	104800	97560	86430	89300	109600	123400	130500
1958	155000	179400	212200	218700	233400	255200	250500	238900	255700	258600	254600	254000
1959	253400	253400	249400	251700	250500	256300	252900	243600	235400	246500	245300	244700
1960	244700	243600	244700	243600	238400	227300	226300	245300	241400	244700	250000	255700
1961	255200	256300	255200	252300	242400	254000	252900	247100	238900	233900	229300	225300
1962	218200	214200	205100	202100	192500	183600	171000	156300	147100	145000	139300	134000

SAN ANTONIO RIVER BASIN
08179500 Medina Lake near San Antonio, Texas--Continued

END OF MONTH CONTENTS IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1963	131500	127300	121600	115900	110500	100200	88150	75380	66770	58930	54500	51450
1964	48340	49260	50350	48530	41780	37940	26060	19120	59300	62220	67240	66300
1965	63510	72820	77010	86430	109900	114900	106800	97900	91020	93020	90450	95030
1966	95600	96460	95030	95030	98760	92450	85160	95030	102800	101000	97320	93310
1967	69670	65860	60040	77010	65370	52910	42490	33830	42060	50720	60940	64440
1968	92740	110500	130800	145700	173100	179000	179400	169300	167200	161700	156700	155000
1969	151600	151200	149200	151600	155800	148500	138300	126700	122700	157100	159200	167200
1970	169300	172700	165700	169900	200600	204100	197000	168200	162700	179400	172200	166800
1971	159600	152100	143200	134000	120500	109900	100800	255200	255200	257500	255200	254600
1972	252900	250500	245900	236900	255200	253400	248200	252900	251700	249400	245300	240900
1973	238400	238400	240400	247600	248200	256300	257500	254600	255700	256900	254600	254000
1974	254000	251700	246800	241900	254000	245900	234400	254000	254000	254600	254600	255700
1975	255200	256300	254600	255700	257500	255700	254600	251100	247100	240900	236400	231800
MAX	256900	256300	255200	258100	258100	278300	257500	255200	261000	259600	256300	255700
MIN	2720	3770	2310	0	2790	7600	6780	1360	2140	1770	3050	2160
MEAN	126246	127363	127298	128649	134232	135609	131926	130219	129587	129770	127665	127874
NO.	62	62	62	63	63	63	63	63	63	63	63	63
QISTR												
OF MEAN	8.1%	8.2%	8.2%	8.3%	8.6%	8.7%	8.5%	8.4%	8.3%	8.3%	8.2%	8.2%

SAN ANTONIO RIVER BASIN
08180000 Medina Canal near Riomedina, Texas

LOCATION: Lat 29°30'19", long 98°54'11", Medina County, 54 ft (16 m) upstream from the center pier of a double-barrel flume, 350 ft (107 m) downstream from a county highway bridge, 1,900 ft (579 m) downstream from the head of the canal and diversion dam, 4.7 mi (7.4 km) downstream from Medina Dam, 4.7 mi (7.6 km) north of Riomedina, and 25 mi (40 km) northwest of San Antonio.

PERIOD OF RECORD: April 1922 to April 1934, July 1957 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 910 ft (277 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 32 years, 28,889 ac-ft/yr (35.6 hm³/yr).

EXTREMES: Period of record (1922-34, 1957-75): Maximum discharge, 216 ft³/s (6.12 m³/s) May 6, 1971; no flow at times.

REMARKS: Records good. The station is above all diversions from the canal. The canal diverts water from the right end of the Medina Diversion Dam located 1,900 ft (579 m) upstream from the gage for irrigation downstream near Lacoste and Natalia.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1922	-	-	-	1180	1160	2170	4460	3640	2830	1590	261	835	-
1923	680	202	390	435	3470	6160	4550	4160	1200	639	237	840	22427
1924	358	376	497	800	736	1450	3160	3390	1520	1830	1200	679	15996
1925	1220	1910	4830	4440	3510	7010	5440	2580	0	1010	227	457	32634
1926	490	449	544	342	565	1800	1530	1720	1570	1290	928	501	11729
1927	894	471	611	1680	2560	1190	1760	2640	1620	1580	1540	749	17495
1928	888	372	658	752	707	3120	2880	2280	1110	1250	1060	668	15745
1929	990	744	953	881	1690	2760	1290	3890	2300	2200	1190	1090	19976
1930	643	756	991	1480	819	2330	4290	5010	3060	611	410	551	20951
1931	589	167	604	683	640	3180	1740	3090	4360	3340	2200	762	21555
1932	689	708	879	3190	2140	4300	2400	2740	1050	1360	1260	855	21571
1933	769	594	1260	2160	3880	2700	4720	3730	3130	3300	3060	2960	32263
1934	965	622	1170	1490	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	1740	5490	3650	252	391	1010	-
1958	750	250	696	2570	2170	5140	3500	6040	1040	463	740	2800	25484
1959	2230	315	2490	2570	2360	5240	4940	4870	3610	2640	2230	1360	34855
1960	1540	1110	2050	2810	5030	6950	2330	3860	4540	3610	1060	510	35400
1961	853	660	4500	6020	8410	4590	2820	3250	4600	3490	953	1430	41776
1962	3320	2450	4600	2430	5690	5550	7710	7880	4280	5560	3490	3030	55990
1963	114	2850	3250	3610	3860	7080	6410	6820	4460	4160	1670	414	46898
1964	1660	473	1540	1980	4890	3290	8590	5740	2630	2240	253	757	34243
1965	1590	201	569	636	536	3250	6900	4980	4490	611	1260	171	25214
1966	386	401	1530	2470	680	5940	5800	2890	1310	2650	3210	2760	30029
1967	2280	2660	5610	2010	7750	9020	6160	6340	616	1170	400	365	44383
1968	1110	117	587	931	980	3820	4030	6660	657	2510	2030	612	22955
1969	994	735	1040	1820	1010	4810	6030	5250	2190	1180	843	550	26452
1970	716	583	337	2150	2290	3610	4290	4350	2980	1730	3680	2910	29626
1971	4040	4610	5860	7390	9660	7990	5400	1030	1040	182	806	250	48256

SAN ANTONIO RIVER BASIN

00180000 Medina Canal near Riomedina, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1972	1130	922	4850	7820	1330	3030	5290	2290	3440	2820	665	895	34482
1973	370	521	955	292	4140	3200	1200	2300	878	109	723	1950	16638
1974	1660	2520	4440	6620	2050	6360	8050	2800	306	1470	281	789	37346
1975	747	610	3240	2160	205	1990	3010	4700	2230	3560	2230	2310	26992
MAX	4040	4610	5860	7820	9660	9020	8590	8820	4800	5560	3680	3030	55990
MIN	1.10	117	337	292	2.05	1190	1200	1030	0	109	227	84.0	11729
MFAN	1103	979	2051	2445	2837	4302	4272	4143	2364	1949	1313	1131	28869
MC.	30	30	30	31	30	30	31	31	31	31	31	31	29
LIST OF MEAN	3.8x	3.4x	7.1x	8.5x	9.8x	14.9x	14.8x	14.3x	8.2x	6.7x	4.5x	3.9x	100x

SAN ANTONIO RIVER BASIN
08180500 Medina River near Riomedina, Texas

LOCATION: Lat. 29°29'53" long 98°54'16", Medina County, 223 ft (71 m) upstream from the bridge at Haby's Crossing, 0.9 mi (1.4 km) downstream from the Bexar-Medina-Atascosa Counties Water Control and Improvement District No. 1 diversion dam, 4.2 mi (6.8 km) northwest of Riomedina, 10.0 mi (16.1 km) north of Castroville, and 10.4 mi (16.7 km) upstream from San Geronimo Creek.

DRAINAGE AREA: 650 mi² (1,684 km²), of which 634 mi² (1,642 km²) is above Medina Dam.

PERIOD OF RECORD: December 1923 to December 1926, October 1929 to September 1931, February 1953 to September 1973.

GAGE: Nonrecording gage. Datum of gage is 857.6 ft (261.4 m) above mean sea level. Jan. 21, 1922 to Sept. 30, 1934, water-stage recorder on the upstream side of the diversion dam 0.9 mi (1.4 km) upstream at different datum. January 1953 to July 15, 1973, water-stage recorder at same site and datum.

AVERAGE DISCHARGE: 28 years (1923-26, 1929-31, 1953-73), 37,435 ac-ft/yr (46.2 hm³/yr).

EXTREMES: Period of record (1923-26, 1929-31, 1953-73): Maximum discharge, 28,600 ft³/s (810 m³/s) July 15, 1973, gage height, 23.2 ft (7.1 m), from floodmark; no flow at times.

REMARKS: Records good. The flow is regulated by Medina Lake (station 08179500) located 5 mi (8 km) upstream and the diversion dam located 0.9 mi (1.4 km) upstream. See Medina Canal (station 08180000) for the diversion canal records. A large part of the streamflow is lost into the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin upstream from the station and below the upstream end of Medina Lake. All of the flow is seepage under and around the dam except for occasional flow over the spillway of the dam and local runoff downstream from the diversion dam. There are some diversions for irrigation above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1923	-	-	-	-	-	-	-	-	-	-	-	469	-
1924	322	69.2	697	1490	1440	1220	203	0	109	1600	1610	1410	10370
1925	1230	1220	1230	1490	1600	1550	1660	1350	452	0	0	0	12262
1926	0	0	0	3970	1330	0	0	0	0	1290	928	501	8019
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	1290	1190	1300	-
1930	1220	1060	1220	1330	1360	1320	1320	1450	1440	1470	1130	1090	15410
1931	1030	1230	1530	1510	1560	1510	1560	1560	1510	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	0	137	834	970	388	13.0	0	298	68.0	0	0	-
1954	0	0	15.0	0	0	0	0	0	644	841	716	895	3111
1955	430	39.0	0	0	0	0	0	0	0	0	0	0	469
1956	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	173	241	368	801	556	457	552	776	3924
1958	1440	1920	2760	1160	2900	1267	4200	1190	16350	32140	34650	7390	107367
1959	3090	3590	2030	1380	1400	5620	4380	1360	1380	2140	1630	2620	30640
1960	2550	2730	2050	2290	1840	1810	2700	1920	1690	2790	4690	12100	39360
1961	17290	31470	14260	2360	1690	7850	3650	2220	1650	1920	1840	1670	87870
1962	1720	1640	1720	1760	1870	1750	1750	1770	1620	1520	1350	1590	20060
1963	1320	1250	1560	1720	1810	1720	1730	1820	1660	1610	1800	1750	19750
1964	1640	1460	1560	1450	1460	1550	1310	1130	1080	1340	1250	1070	16320
1965	1270	1050	1000	1230	1470	1500	1160	1170	1130	883	920	1620	14403
1966	970	966	1100	1040	916	1150	1090	1130	1120	1120	920	823	12345
1967	1030	908	1030	994	1330	1360	1360	1250	1120	986	1040	988	13396
1968	1100	1440	1710	1430	1840	1710	1440	1440	1430	1080	994	1160	16774
1969	976	992	1210	1060	1590	1290	1450	1390	1190	1300	1160	1580	15188
1970	1600	1370	2100	1520	2090	2280	1570	1590	1670	1710	1190	1340	20030
1971	1200	1060	1210	1390	1410	1580	1440	16200	9760	53940	20620	10210	120020
1972	5050	3870	1750	1590	33820	8760	1880	3110	2210	2600	4440	3990	73070

SAN ANTONIO RIVER BASIN
08180500 Medina River near Rionedina, Texas--Continued

DISCHARGE IN ACRE-FEET													
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1973	4350	3790	4180	5890	3750	12700	188600	26240	13630	-	-	-	-
MAX	17290	11470	14260	5890	33620	12700	188600	26240	33630	53940	34650	12100	120020
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	2033	2429	1779	1496	2676	2313	8647	2697	3246	4564	3385	2166	37435
NO.	25	26	26	26	26	26	26	26	26	25	25	26	23
DISTR OF MEAN	5.4%	6.5%	4.8%	4.0%	7.2%	6.2%	23.1%	7.2%	6.7%	12.2%	9.0%	5.8%	100%

SAN ANTONIO RIVER BASIN

08180800 Medina River near Somerset, Texas

LOCATION: Lat 29°15'45", long 99°34'56", Bexar County, 300 ft (91 m) upstream from the bridge on State Highway 16, 2.1 mi (3.4 km) upstream from Elm Creek, 4.9 mi (7.9 km) downstream from Medio Creek, and 5.2 mi (8.4 km) northeast of Somerset.

ORAINAGE AREA: 967 mi² (2,505 km²), of which 634 mi² (1,642 km²) is above Medina Dam.

PERIOD OF RECORD: October 1970 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 493.56 ft (150.437 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 6 years, 206,691 ac-ft/yr (254.8 hm³/yr)

EXTREMES: Period of record (1970-75): Maximum discharge, 30,500 ft³/s (864 m³/s) July 17, 1973 (gage height, 29.39 ft or 8.958 m); minimum, 21 ft³/s (0.59 m³/s) July 23, 24, 1971.

Maximum stage since about 1890, that of July 17, 1973.

REMARKS: Records good. The flow is regulated by Medina Lake (station 08179500) located 56 mi (90 km) upstream and by Medina Diversion Lake (capacity, 4,500 ac-ft or 5.55 hm³). A large part of the streamflow is lost into the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin between the upstream end of Medina Lake and 5 mi (8 km) downstream from Medina Dam or 0.9 mi (1.4 km) downstream from the diversion dam. There are several small diversions below the Medina Diversion Dam.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1970	-	-	-	-	-	-	-	-	-	2 810	2 520	26 00	-
1971	2 390	1 860	2 110	2 120	1 910	3 390	2 320	2 0930	9 970	4 9920	30 270	1 78 30	1 45 020
1972	10 050	7 120	5 130	4 040	4 3240	1 62 30	5 640	5 790	4 390	4 270	5 910	5 980	1 17 790
1973	6 560	6 640	6 620	11 470	6 070	1 3740	1 76800	3 5200	5 1670	7 8960	3 6530	1 69 50	4 47 210
1974	12 260	7 980	6 410	5 260	7 570	4 610	3 710	2 1770	2 0930	8 550	1 6230	1 25 20	1 27 800
1975	1 8560	7 0990	2 5500	1 2760	3 7000	3 2890	1 8240	5 700	3 980	4 240	4 440	4 130	2 38 430
MAX	1 8560	7 0990	2 5500	1 2760	4 3240	3 2890	1 7 6800	3 5200	5 1670	7 8960	3 6530	1 78 30	4 47 210
MIN	2 390	1 860	2 110	2 120	1 910	3 390	2 320	5 700	3 980	2 810	2 520	26 00	1 17 790
MEAN	9 964	1 8918	9 154	7 130	1 9158	1 4172	4 1342	1 7878	1 8188	2 4792	1 5983	1 00 02	2 06 661
NL.	5	5	5	5	5	5	5	5	5	6	6	6	5
DISTR													
CF FEAN	4.6%	9.2%	4.4%	3.4%	9.3%	6.9%	20.0%	8.7%	8.8%	12.0%	7.7%	4.8%	100%

SAN ANTONIO RIVER BASIN
08181400 Helotes Creek at Helotes, Texas

LOCATION: Lat 29°34'42", long 98°41'29", Bexar County, 42 ft (13 m) left of and 44 ft (13 m) downstream from the bridge on State Highway 16, 0.1 mi (0.2 km) northwest of Helotes, and 8.6 mi (13.8 km) upstream from the mouth.

DRAINAGE AREA: 15.0 mi² (38.8 km²).

PERIOD OF RECORD: June 1968 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,014.82 ft (309.317 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 8 years, 3,239 ac-ft/yr (4.0 hm³/yr).

EXTREMES: Period of record (1968-75): Maximum discharge, 7,680 ft³/s (217 m³/s) July 16, 1973 (gage height, 10.8 ft or 3.29 m, from floodmarks); no flow most of the time.

Maximum stage since 1923, 13.7 ft (4.18 m) in 1927, from information by a local resident.

REMARKS: Records good. Some flow enters the Edwards and associated limestones through the Balcones Fault Zone in the vicinity of the gage.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1968	-	-	-	-	-	109	.80	0	.20	.08	2.20	.08	-
1969	0	9.1	.20	25.0	479	36.0	0	.08	0	1.20	.08	1.82	733
1970	.02	76.0	197	3.10	1110	402	.20	0	5.20	0	0	0	1794
1971	6	0	0	.10	0	.30	0	827	32.0	344	113	369	1685
1972	56.0	0	0	0	1530	99.0	1.00	8.00	17.0	14.0	261	53.0	2039
1973	51.0	255	308	2380	450	1030	5190	412	2150	4100	499	123	16948
1974	37.0	7.40	.20	.02	1.50	.10	0	94.0	658	1.40	4.30	.40	804
1975	.30	606	2.30	17.0	46.0	29.0	2.20	0	.40	.90	0	.30	704
MAX	56.0	606	308	2380	1530	1030	5190	827	2150	4100	499	369	16948
MIN	0	0	0	0	0	.10	0	0	0	0	0	0	704
MEAN	20.6	136	72.5	346	517	213	649	168	358	558	110	91.0	3239
NUM. DISTR OF MEAN	7	7	7	7	7	8	8	8	8	8	8	8	7
	.6%	4.2%	2.2%	10.7%	16.0%	6.6%	26.0%	5.2%	11.0%	17.2%	3.4%	2.8%	100%

SAN ANTONIO RIVER BASIN

08181450 Leon Creek Tributary at Kelly Air Force Base, Texas

LOCATION: Lat 29°23'12", long 98°38'00", Bexar County, 128 ft (39 m) downstream from the bridge on Billy Mitchell Road at Kelly Air Force Base, 0.15 mi (0.24 km) upstream from the mouth, and 2.0 mi (3.2 km) southeast of the intersection of U.S. Highway 90 West and Loop 13.

DRAINAGE AREA: 1.19 mi² (3.08 km²).

PERIOD OF RECORD: April 1969 to December 1975.

GAGE: Water-stage recorder and sharp-crested weir. Datum of gage is 657.57 ft (220 427 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 7 years, 355 ac-ft/yr (0.4 km³/yr).

EXTREMES: Period of record (1969-75): Maximum discharge, 555 ft³/s (15.7 m³/s) May 14, 1970 (gage height, 4.44 ft or 1.353 m); no flow at times each year.

REMARKS: Records fair.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1969	-	-	-	10.0	141	5.60	0	101	4.50	73.0	16.0	24.0	-
1970	6.60	29.0	21.0	2.60	112	4.70	0	1.00	7.60	1.20	0	0	186
1971	0	0	0	.10	6.90	52.0	0	66.0	35.0	50.0	33.0	24.0	267
1972	10.0	2.00	0	11.0	108	8.00	20.0	61.0	29.0	4.70	17.0	.60	271
1973	15.0	43.0	5.70	56.0	6.20	115	61.0	5.20	163	126	61.0	18.0	675
1974	21.0	5.90	14.0	17.0	55.0	2.40	0	252	25.0	49.0	24.0	3.30	469
1975	1.90	47.0	0	27.0	67.0	20.0	5.60	3.20	0	27.0	0	7.50	206
MAX	21.0	47.0	21.0	56.0	141	115	61.0	252	163	126	61.0	24.0	675
MIN	0	0	0	.10	6.20	2.40	0	1.00	0	1.20	0	0	186
MEAN	9.1	21.1	6.78	17.7	70.9	29.7	12.4	69.9	37.7	47.3	21.6	11.1	355
NL.	6	6	6	7	7	7	7	7	7	7	7	7	6
DISIP													
OF MEAN	2.6%	6.0%	1.9%	5.0%	19.9%	8.4%	3.5%	19.7%	10.6%	13.3%	6.1%	3.1%	100%

SAN ANTONIO RIVER BASIN
08181500 Medina River at San Antonio, Texas

LOCATION: Lat 29°15'14", long 98°28'20", Bexar County, at the upstream bridge of two bridges on U.S. Highway 281 in San Antonio, and 6.8 mi (10.9 km) upstream from the mouth.

DRAINAGE AREA: 1,317 mi² (3,411 km²), of which 634 mi² (1,642 km²) is above Medina Dam.

PERIOD OF RECORD: August 1929 to December 1975. Published as "near San Antonio" August 1939 to September 1970.

GAGE: Water-stage recorder. Datum of gage is 439.0 ft (133.81 m) above mean sea level. October 1929 to December 1930, nonrecording gage at Losoya 1.5 mi (2.4 km) downstream at different datum.

AVERAGE DISCHARGE: 37 years, 104,497 ac-ft/yr (128.8 hm³/yr).

EXTREMES: Period of record (1939-75): Maximum discharge, 31,900 ft³/s (903 m³/s) July 17, 1973 (gage height, 43.59 ft or 13.286 m); minimum, 3.3 ft³/s (0.093 m³/s) Apr. 18, Nov. 1, 1956, and Jan. 24, 1957.

Maximum stage 55 ft (16.8 m) sometime prior to the construction of Medina Dam in 1913, from information by the State Highway Department.

REMARKS: Records good. The flow is slightly regulated by Medina Lake (station 08170500) located 60 mi (97 km) upstream and diversion dam reservoir (capacity, 4,600 ac-ft or 5.55 hm³). For diversion of canal records, see Medina Canal near Riomedina (station 08180000). For statement concerning losses into the Edwards and associated limestone formation, see Medina River near Somerset (station 08180800). There are several small diversions below the diversion dam reservoir.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	-	-	2253	2080	2280	2220	3970	-
1940	2520	3740	2720	4860	4750	7810	6530	2430	2090	5040	7590	8510	58590
1941	4490	20940	6080	14080	12420	5730	3940	3380	3730	4090	3870	4660	87410
1942	3810	4990	3720	7660	8290	3570	14250	4180	50560	37280	8810	6300	153420
1943	7610	5780	5470	4950	4950	5170	5490	3690	5950	4740	5860	4750	64410
1944	6550	4980	5060	4490	6550	3760	3670	7540	5850	5710	4990	9010	68160
1945	13100	12880	8770	8450	6430	8450	4820	5250	5790	6310	4790	5600	90640
1946	7240	5360	6190	7640	7640	8940	4830	51610	53970	15150	9170	8540	186300
1947	8760	6380	6720	5640	5790	5270	4990	5090	4640	5050	5900	6610	70840
1948	5670	6250	4990	5000	2660	5530	4100	3980	1760	2850	2200	1780	44770
1949	2650	6630	2230	14870	4680	23150	3460	2440	2530	16390	3480	6910	89420
1950	6740	4000	4630	5690	4880	6590	3050	5770	5340	3380	3900	3760	57930
1951	1240	3870	2900	1320	8610	2920	783	740	3240	857	809	930	28219
1952	1050	3480	1890	1430	1550	628	501	394	2770	535	1500	2210	17938
1953	766	706	2530	2040	536	451	428	2060	21160	1200	958	1200	34035
1954	1070	732	805	2130	1800	469	377	423	490	1570	725	780	11371
1955	1770	4080	2340	636	3310	664	432	2160	807	468	506	963	18136
1956	1290	856	601	395	1040	388	414	1720	1720	4510	507	1190	14631
1957	343	1460	1510	33160	19400	16870	10880	595	9050	6840	4030	3310	97648
1958	11110	16000	6630	4310	32540	12230	11420	3260	35630	45150	45140	15240	238660
1959	8750	9440	6310	6660	5810	7100	7900	3790	3190	15220	4840	5430	84440
1960	5170	5980	6900	4560	3710	3710	5870	3130	2420	8970	6960	12970	70350
1961	18260	29930	18550	6620	4310	11420	14340	4370	5710	13070	6830	6350	139760
1962	6670	4800	3230	6250	4980	4280	2030	2620	2010	1660	2230	2990	43750
1963	2550	3080	2680	2780	2410	1940	1380	847	3390	9110	2910	3250	36327
1964	3860	3830	6600	2980	2810	7190	1110	1580	3640	6910	13760	3580	57850
1965	3360	12960	5310	5740	28200	8120	3520	2550	2620	3560	3350	9980	89470
1966	3920	3840	3390	5150	5030	2790	2110	2760	4420	2750	2540	2890	41580
1967	3170	2990	3280	2650	1830	1720	2120	1550	25920	5070	6210	4840	61350
1968	60210	11110	9300	7430	14880	6330	7980	4260	5360	4650	4820	5870	142200
1969	5180	6720	6080	4860	17960	7990	3620	10850	4950	7090	5240	7100	87640
1970	5860	7560	6480	5850	16070	8260	4480	3810	4080	4340	4090	4180	77060
1971	3860	3290	3700	3760	3380	6460	3720	34700	14370	59470	35440	22800	194950
1972	12960	9880	7560	5780	67350	21090	8130	9000	6790	6560	8570	8450	172120
1973	9540	10970	9380	23700	9250	23530	200500	40750	84930	106600	42650	21710	583510
1974	16230	11500	10130	8500	12790	6890	5840	37950	33280	13000	20840	16080	193030
1975	22210	83990	27730	14790	44160	40710	20230	8030	6400	6340	6030	6330	286950
MAX	60210	83990	27730	33160	67350	40710	200500	51610	84930	106600	45140	22800	583510
MIN	343	706	601	395	536	388	377	394	490	468	506	780	11371
MEAN	7765	9306	5905	6856	10688	7948	10262	7608	11698	11994	7953	6514	104497
NO.	36	36	36	36	36	36	36	37	37	37	37	37	36
UJSTR													
OF MEAN	7.4%	8.9%	5.7%	6.6%	10.2%	7.6%	9.8%	7.3%	11.2%	11.5%	7.6%	6.2%	100%

SAN ANTONIO RIVER BASIN

08181800 San Antonio River near Elmendorf, Texas

LOCATION: Lat 29°14'15", long 98°21'43", Bexar County, 2,000 ft (610 m) downstream from Braunig Plant Lake, and 2.2 mi (3.5 km) southwest of Elmendorf.

DRAINAGE AREA: 1,743 mi² (4,514 km²).

PERIOD OF RECORD: October 1962 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 392.50 ft (119.634 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 14 years, 328,301 ac-ft/yr (404.8 hm³/yr).

EXTREMES: Period of record (1962-75): Maximum discharge, 40,000 ft³/s (1,130 m³/s) Sept. 27, 1973 (gage height, 47.60 ft or 14,508 m); minimum, 12 ft³/s (0.34 m³/s) Aug. 24-26, 1963.

Maximum stage since at least 1900, 61 ft (18.6 m) in 1946.

REMARKS: Records good. The flow is slightly regulated by Medina Lake (station 08179500) and the Olmos flood-control reservoir (combined capacity, 269,500 ac-ft or 332.3 hm³). Storage began in the Medina Reservoir in 1913 and the Olmos Dam was completed in 1926. Some water is diverted above the station from the Medina River for irrigation in the vicinity of Oevine and Lytle with some water diverted for irrigation near San Antonio.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1962	-	-	-	-	-	-	-	-	-	8830	13170	13840	-
1963	12100	16850	9140	10980	8360	7660	5360	3250	10430	22710	12220	10700	129760
1964	14900	15570	18810	10270	9800	16540	5030	10400	10580	14690	33670	11910	172170
1965	11270	39650	18140	19020	78580	24690	11040	6970	11860	15210	10820	28460	277710
1966	13980	14770	14300	18520	20400	12490	9260	14160	15210	10420	9110	10500	163140
1967	10310	6130	9730	8940	7990	5270	12100	9040	69680	17110	24720	14910	197930
1968	134700	29210	24780	22780	32180	18260	21310	11310	18820	12650	16740	20050	362790
1969	15990	17530	18770	14050	36300	15170	6040	19290	8710	17190	10010	17340	196390
1970	20480	23540	23610	18160	46690	19830	9940	11400	13580	13910	9290	9840	220270
1971	12260	10510	8800	10400	8830	14290	6600	60330	27120	70740	46800	38580	315260
1972	24700	21420	18410	16930	119600	36000	22100	25460	18100	17530	21640	20950	362840
1973	25320	27960	25980	52240	26830	74110	231500	58810	164300	149000	65980	42670	944700
1974	37910	28040	26550	22800	34490	17530	12150	78400	56730	33610	48300	35560	432090
1975	38950	104400	44210	34330	80170	75790	38350	28220	23430	24440	20030	20890	533210
MAX	134700	104400	44210	52240	119600	75790	231500	78400	164300	149000	65980	42670	944700
MIN	10310	6130	8600	8940	7990	5270	5030	3250	8710	8830	9110	9840	129760
MEAN	28682	27506	20095	19955	39248	25972	30060	26082	34504	30574	24464	21159	328301
NO.	13	13	13	13	13	13	13	13	13	14	14	14	13
DISTR OF MEAN	8.7%	8.4%	6.1%	6.1%	12.0%	7.9%	9.2%	7.9%	10.5%	9.3%	7.5%	6.4%	100%

SAN ANTONIO RIVER BASIN

08182400 Calaveras Creek Subwatershed No. 6 near Elmendorf, Texas

LOCATION: Lat 29°22'49", long 98°17'33", Bexar County, near the center of the dam on Chupaderos Creek, a tributary to Calaveras Creek, 0.5 mi (0.8 km) north of Sayer, 9.1 mi (14.6 km) north of Elmendorf, and 9.2 mi (14.8 km) upstream from the mouth.

DRAINAGE AREA: 7.01 mi² (18.16 km²).

PERIOD OF RECORD: December 1956 to December 1975.

GAGE: Water-stage recorder and concrete drop-inlet control. Datum of gage is 516.06 ft (157.295 m) above mean sea level.

AVERAGE INFLOW: 20 years, 1,300 ac-ft/yr (1.6 hm³/yr).

EXTREMES: Period of record (1956-75): Maximum inflow, 4,770 ft³/s (135 m³/s), average for 5-minute interval, June 8, 1975, computed from the change in the pool contents and adjusted for the outflow and rainfall on the pool surface; no inflow at times.

REMARKS: Records good. The pool is formed by an earthfill dam that was completed on Dec. 15, 1956. The outlet structure is a 36-inch (914-millimeter) square concrete drop inlet connected to a 17-inch (432-millimeter) concrete outlet pipe. The top of the drop inlet is at a gage height of 18.00 ft (5.486 m); the bottom of four 8- by 8-inch (203- by 203-millimeter) uncontrolled openings are at a gage height of 14.60 ft (4.511 m); the right spillway is at a gage height of 34.3 ft (10.45 m); the left spillway is at a gage height of 34.5 ft (10.52 m). A controlled 8-inch (203-millimeter) sluice gate is located in the upstream face of the drop-inlet structure at a gage height of 8.52 ft (2.597 m). The pool capacity is 1,640 ac-ft (2.02 hm³) at the spillway crest; 107 ac-ft (0.132 hm³) at the top of the drop inlet; and 4.2 ac-ft (0.0052 hm³) at the bottom of the sluice gate.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1956	-	-	-	-	-	-	-	-	-	-	-	275	-
1957	0	103	175	1140	962	237	0	0	1230	329	107	690	4290
1958	382	897	998	530	551	296	124	100	740	230	440	140	1904
1959	60	140	120	107	770	350	160	640	170	912	150	760	301
1960	289	130	350	170	160	860	150	90	0	396	184	358	498
1961	380	199	0	0	0	450	282	0	240	70	147	40	906
1962	40	80	40	610	40	250	0	20	0	0	450	0	153
1963	0	130	0	840	0	20	0	0	50	262	388	100	312
1964	873	345	181	60	90	0	20	20	20	91	997	60	725
1965	60	298	640	360	598	170	0	0	30	193	30	712	999
1966	10	150	570	298	343	0	0	10	10	10	0	0	717
1967	0	0	0	0	0	0	0	0	429	200	248	20	679
1968	1440	290	270	106	206	373	113	20	91	0	277	177	2110
1969	280	250	470	20	843	90	0	140	0	180	160	394	565
1970	50	520	163	400	639	270	0	0	120	0	0	0	671
1971	0	0	0	0	0	0	0	214	102	481	240	400	315
1972	0	0	0	90	1610	190	0	0	280	0	0	0	1616
1973	90	143	843	563	250	1040	235	251	3270	507	201	496	5896
1974	720	410	410	275	221	10	40	354	203	200	272	840	921
1975	340	169	70	490	240	1236	370	40	40	690	60	60	1667
MAX	1440	897	181	1140	1610	1236	282	354	3270	507	277	275	5896
MIN	0	0	0	0	0	0	0	0	0	0	0	0	153
MEAN	103	118	262	106	275	161	288	318	262	977	654	256	1300
NO.	19	19	19	19	19	19	19	19	19	19	19	20	19
DISTR OF MEAN	7.9%	9.1%	2.0%	8.1%	21.2%	12.4%	2.2%	2.4%	20.2%	7.5%	5.0%	2.0%	100%

SAN ANTONIO RIVER BASIN
08182500 Calaveras Creek near Elmendorf, Texas

LOCATION: Lat 29°15'38", long 98°17'34", Bexar County, at the upstream bridge of two bridges on U.S. Highway 181, 1.6 mi (2.6 km) downstream from Calaveras Dam, 2.5 mi (4.0 km) east of Elmendorf, and 7.2 mi (11.6 km) upstream from the mouth.

DRAINAGE AREA: 77.2 mi² (199.9 km²).

PERIOD OF RECORD: October 1954 to September 1971.

GAGE: Water-stage recorder. Datum of gage is 406.45 ft (123.9 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE 18 years, 6,580 ac-ft/yr (8.1 hm³/yr).

EXTREMES: Period of record (1954-71): Maximum discharge, 5,310 ft³/s (150.4 m³/s) September 25, 1957 (gage height, 21.83 ft or 6.6 m); no flow at times.

Maximum stage since at least 1860, 35 ft (10.7 m) September 29, 1946, from information by local residents.

REMARKS: Records fair.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1954	-	-	-	-	-	-	-	-	-	6.30	113	0	-
1955	147	556	339	0	1360	338	6.50	285	37.0	224	0	258	3551
1956	0	0	0	0	170	0	251	26.0	215	204	5.60	3030	3902
1957	1.00	100	673	6610	5670	3130	0	0	9530	3040	1040	52.0	31846
1958	3200	7920	628	43.0	4050	155	750	25.0	399	258	327	11.0	17966
1959	13.0	16.0	1.40	253	1060	121	2.00	.20	.40	1390	23.0	44.0	2924
1960	201	5.40	71.0	34.0	0	165	0	0	0	3080	511	641	4708
1961	75.0	238	14.0	0	0	2610	676	30.0	.20	6.20	1090	0	4739
1962	0	1.60	0	175	6.90	712	0	0	0	0	178	112	1166
1963	0	169	0	71.0	0	0	.20	0	131	836	1090	.40	2298
1964	536	986	1370	1.80	24.0	48.0	0	509	.60	293	878	0	4646
1965	0	1120	0	8.30	5300	40.0	0	0	11.0	137	8.40	361	6986
1966	173	44.0	0	191	80.0	35.0	34.0	3.40	83.0	52.0	0	0	695
1967	0	0	6.20	0	209	0	0	6.60	4860	68.0	2730	4.20	7884
1968	10940	1110	66.0	956	2230	110	0	0	0	0	108	5.40	15527
1969	0	122	.02	0	556	6.00	0	42.0	.20	133	1.60	27.0	866
1970	6.00	8.40	29.0	1.50	177	32.0	0	0	11.0	1.60	0	0	266
1971	.80	28.0	1.50	.60	0	14.0	0	1570	115	-	-	-	-
MAX	10940	7920	1370	8610	5670	3130	750	1570	9530	3080	2730	3030	31846
MIN	0	0	0	0	0	0	0	0	0	0	0	0	266
MEAN	900	731	200	609	1229	442	101	147	905	572	477	267	6580
NO.	17	17	17	17	17	17	17	17	17	17	17	17	16
DISTR OF MEAN	13.7%	11.1%	3.0%	9.2%	18.7%	6.7%	1.5%	2.2%	13.8%	8.7%	7.2%	4.1%	106%

SAN ANTONIO RIVER BASIN
08183000 San Antonio River at Calaveras, Texas

LOCATION: Lat 29°13', long 98°15', Wilson County, 0.25 mi (0.4 km) south of the San Antonio and Aransas Pass Railway Co. Station in Calaveras, and 1 mi (1.6 km) below the mouth of Calaveras Creek.

DRAINAGE AREA: 1,786 mi² (4,625.7 km²).

PERIOD OF RECORD: April 1918 to August 1925.

GAGE: Staff gage. Datum of gage is 361.23 ft (110.1 m) above mean sea level.

AVERAGE DISCHARGE: 8 years, 261,985 ac-ft (323.0 hm³/yr).

EXTREMES: Period of record (1918-25): Maximum discharge, 18,500 ft³/s (523.9 m³/s) September 11, 1921 (gage height, 42.0 ft or 12.8 m); minimum, 15 ft³/s (0.4 m³/s) September 14, 1918.

REMARKS: The flow is partly regulated by Medina Lake (capacity, 254,000 ac-ft or 313.2 hm³). Storage began in the Medina Reservoir in 1913. Water is diverted above the station from the Medina River for irrigation in the vicinity of Devine and Lytle and some water is diverted for irrigation near San Antonio.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1918	-	-	-	22800	38900	4720	2160	3730	3120	9720	5170	11700	-
1919	29100	5830	5470	13600	13800	17900	33000	12400	216000	238000	75600	40500	701200
1920	46100	35100	25700	19800	25300	21100	13300	13600	9680	10900	14900	13100	248780
1921	13300	9780	32500	17700	12400	13200	8420	5870	72800	13600	10300	14100	223970
1922	12600	8700	21800	39400	46600	17600	9660	6440	5740	5830	12800	6500	195670
1923	9080	17100	14100	17200	9500	7050	6260	5780	10400	7850	14700	27000	146020
1924	17700	21400	16700	23300	29900	51600	18200	11800	14100	10300	11100	14100	242200
1925	9770	7950	7990	6170	9170	4480	3910	4930	-	-	-	-	-
MAX	46100	35100	32500	39400	46600	51600	33000	13600	216000	238000	75600	40500	701200
MIN	9080	5830	5470	6170	9170	4480	2160	3730	3120	5830	5170	8500	146020
MEAN	19664	15123	18037	19996	23196	17206	11864	8069	47434	42314	20653	18429	261985
NO. OF	7	7	7	8	8	8	6	8	7	7	7	7	6
DISTR													
OF MEAN	7.51	5.81	6.91	7.61	8.91	6.61	4.51	3.11	18.11	16.21	7.91	7.01	1001

SAN ANTONIO RIVER BASIN
08183500 San Antonio River near Falls City, Texas

LOCATION: Lat 28°57'05", long 98°03'50", Karnes County, 23 ft (7 m) downstream from the bridge on Farm Road 791, 0.9 mi (1.4 km) upstream from Scared Day Creek, and 3.6 mi (5.8 km) southwest of Falls City.

DRAINAGE AREA: 2,113 mi² (5,473 km²).

PERIOD OF RECORD: May 1925 to December 1975

GAGE: Water-stage recorder. Datum of gage is 285.49 ft (87.017 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 51 years, 258,600 ac-ft/yr (318.8 hm³/yr).

EXTREMES: Period of record (1925-75): Maximum discharge, 47,400 ft³/s (1,340 m³/s) Sept. 29, 1946 (gage height, 33.80 ft or 10.302 m, from Hoodmark); minimum, 15 ft³/s (0.42 m³/s) June 27, 28, 1956.

Maximum stage since at least 1875, that of Sept. 29, 1946

REMARKS: Records good. For diversions and regulations above the station, see Remarks for Medina River at San Antonio (station 08181500) and San Antonio River near Elmendorf (station 08181800). The flow is slightly regulated by Calaveras Lake on Calaveras Creek which enters the San Antonio River downstream from the San Antonio River near Elmendorf.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1925	-	-	-	-	12400	5930	5880	5170	8670	6510	11200	7420	-
1926	6770	6430	13100	96100	45500	14200	9410	6210	5250	6200	7250	9160	217580
1927	9240	9370	12200	13100	7800	21700	5670	3840	5030	10700	4090	7190	106930
1928	7440	5810	9960	8090	20500	17000	5400	3190	10200	7690	12400	9650	117330
1929	7930	6660	10000	11800	81800	13800	14100	4590	6430	8120	6720	9220	181170
1930	6670	7160	6120	7740	12100	12600	6460	3540	3430	6050	6070	5260	67200
1931	12500	10400	21900	10400	12600	9400	17500	7990	6310	5490	7220	9040	130850
1932	13800	12900	9220	6270	10800	5770	10000	7500	20800	12500	9580	10800	131940
1933	10000	12200	9780	8570	12100	10000	13000	9780	9640	6950	6780	6580	115380
1934	17000	13000	13400	27800	9100	5360	10100	6270	5950	7180	11220	23160	146540
1935	9950	11530	9590	18280	105200	197600	27000	15650	46460	31810	18320	20690	512060
1936	18910	15700	18190	14420	77670	34990	153200	23750	71370	84240	36070	30730	579140
1937	25650	19800	21620	18190	12760	107100	17670	11590	9990	12970	10900	35060	303520
1938	33250	16410	22690	40410	27380	14700	10970	8430	8440	7060	8810	10160	268110
1939	11670	9880	9530	7090	6280	7390	8250	8360	6260	5200	5110	7650	92690
1940	6880	9380	7390	17410	11140	20970	24240	11090	6180	12600	46250	28330	201860
1941	17470	35520	19730	41620	53840	30990	14250	12160	23130	19550	11760	13960	293880
1942	12720	12770	11180	22210	17980	11610	91530	14130	114500	92500	25830	18910	445370
1943	20320	15870	17520	14910	14520	15960	18890	11010	15620	12270	13340	12540	182970
1944	21650	13450	19960	14310	30950	15460	12030	13410	16100	12660	12110	21490	203560
1945	32390	35550	29090	32940	18460	22360	14360	13440	11630	21160	13310	13310	258200
1946	18430	15980	20550	25450	33200	35180	12160	53020	243900	62120	35660	27020	503070
1947	32910	22750	26660	19720	20270	15450	14860	19660	12000	11380	13690	14860	221150
1948	13550	14300	12500	11050	9660	8100	17040	21370	10550	13020	8100	7430	146670
1949	8990	16670	9560	58770	20660	75450	18270	13970	8600	35390	12520	15920	294770
1950	14150	9930	12720	13480	12240	14780	8650	10650	9630	6660	6930	7170	127210
1951	5560	9160	10000	8090	20030	19640	5840	4450	12050	7430	7100	7040	116990
1952	7030	11250	8190	13650	7700	6230	9030	3850	11550	4280	6970	10560	100290
1953	9910	6710	8590	8260	9850	3500	4800	10300	38310	6610	6520	7710	121020
1954	7340	5290	5590	7730	12700	4340	3400	2480	3490	5880	4650	4340	67430
1955	6410	12680	7990	3900	12130	5710	3740	6300	6480	3540	4000	6440	79320
1956	6510	5460	4650	3640	5210	2260	4710	5390	15000	10760	4680	12560	50630
1957	5470	7500	11860	77340	80650	56380	6510	4240	54900	29170	20590	13530	300140
1958	47230	63880	22770	15760	58650	22360	26220	9220	50430	65610	72550	32040	466720
1959	24160	23890	20470	24190	28080	15180	16060	11920	12170	52680	18290	17070	244160
1960	19670	19320	23380	15690	14960	14180	16600	24360	10330	54580	32480	37030	282580
1961	37760	53590	35760	17540	12410	37310	41660	16950	17450	27970	22460	16590	337670
1962	16350	14480	12820	17780	13510	17340	7660	9130	11440	9120	13120	14580	157830
1963	12330	17330	11500	12220	8790	7560	6280	3640	10430	21600	14260	11130	137270
1964	12420	20820	20590	11120	9060	17370	5040	10420	10280	13870	28430	12180	171600
1965	11980	39200	14140	21970	84930	23460	10980	8990	10670	14330	10210	25320	276180
1966	14070	15710	14560	19190	20780	12450	9780	13050	15200	10310	9210	10550	164860
1967	11100	8260	10110	9260	7760	4630	11300	9500	120500	20700	32130	16600	201850
1968	166300	34880	26200	24580	54000	25740	23620	11810	30780	13600	16100	21900	449510
1969	16220	23370	19060	15330	48390	19850	6640	18500	11090	18270	10550	15800	223070
1970	21310	23340	24560	17560	50850	25130	10220	11130	12560	13200	9630	9480	228970
1971	12120	9690	9630	9590	8380	12100	7610	59740	25740	73340	49420	40410	317770
1972	25760	20440	16890	15490	130100	40230	21130	26230	18870	18170	21370	20660	375360
1973	25290	28900	25930	54620	28540	107900	225100	67300	167100	179900	79850	46740	1057170
1974	41100	30220	27970	23900	37750	21350	12680	61770	73630	35850	50640	37280	454140

SAN ANTONIO RIVER BASIN
08183500 San Antonio River near Falls City, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1975	42620	109700	50460	36270	116500	88260	41310	26720	21490	22810	18800	21020	595960
MAX	166300	109700	50460	86100	130100	197600	225100	67300	243900	179900	79850	46740	1057170
MIN	5470	5290	4650	3640	5210	2260	3400	2480	3430	3540	4000	4340	67430
MEAN	20005	19430	16393	20736	30952	26553	21499	14847	29192	24153	18148	16692	258600
NO.	50	50	50	50	51	51	51	51	51	51	51	51	50
DISTR OF MEAN	7.7%	7.5%	6.3%	8.0%	12.0%	10.3%	8.3%	5.7%	11.3%	9.3%	7.0%	6.5%	10%

SAN ANTONIO RIVER BASIN
08183900 Cibola Creek near Boerne, Texas

LOCATION: Lat 29°45'26", long 98°41'50", Kendall County, 0.6 mi (1.0 km) upstream from the Southern-Pacific Lines bridge, 0.9 mi (1.4 km) downstream from Menger Creek, and 2.5 mi (4.0 km) southeast of Boerne.

DRAINAGE AREA: 68.4 mi² (177.2 km²).

PERIOD OF RECORD: March 1962 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,339.61 ft (408.313 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 14 years, 20,297 ac-ft/yr (25.0 hm³/yr).

EXTREMES: Period of record (1962-75): Maximum discharge, 36,400 ft³/s (1,030 m³/s) Sept. 27, 1964 (gage height, 19.15 ft or 5.837 m, from floodmark); no flow at times in 1962-64, 1966-67, and 1971.

Maximum stage since at least 1892, that of Sept. 27, 1964.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1962	-	-	140	386	222	137	5.00	0	7.50	214	6.00	56.0	-
1963	100	110	62.0	443	83.0	7.10	0	0	0	0	6.40	0	811
1964	482	686	677	390	143	119	3.00	0	7760	328	332	166	11066
1965	189	1560	972	6420	11950	3660	616	213	133	442	287	1160	27542
1966	638	647	711	1140	1200	549	170	202	603	356	195	137	6746
1967	112	120	77.0	88.0	50.0	17.0	0	88.0	1430	694	1340	930	4946
1968	7300	4110	3330	5060	5550	1160	611	150	351	135	182	334	28273
1969	223	506	561	2320	1630	496	91.0	82.0	665	3670	1400	4960	16666
1970	2290	2200	4480	2450	3420	3080	866	217	427	307	211	195	20645
1971	154	130	104	176	64.0	17.0	1.50	8290	2980	6170	2560	2740	23437
1972	1570	1050	626	495	6450	1910	692	1070	541	866	732	655	16657
1973	1030	1930	2430	3010	2570	4720	18190	3130	2780	10160	3020	1470	54440
1974	1190	8835	661	402	3310	1030	247	4610	2770	1540	3090	2660	30745
1975	3190	12770	2390	4060	7380	3800	1440	556	290	352	365	286	36899
MAX	7300	12770	4980	6420	11950	4720	18190	8290	7760	10360	3090	4960	54440
MIN	100	110	62.0	88.0	50.0	7.10	0	0	0	0	6.00	0	811
MEAN	1421	2666	1282	1919	3144	1479	1638	1343	1497	1802	960	1126	20297
NL	13	13	14	14	14	14	14	14	14	14	14	14	13
DISTR													
CF MEAN	7.07	13.12	6.33	9.52	15.52	7.32	6.12	6.62	7.42	8.92	4.82	5.52	1002

SAN ANTONIO RIVER BASIN
08184000 Cibolo Creek near Bulverde, Texas

LOCATION: Lat 29°43'35", long 98°25'40", Bexar-Comal County line, 1.8 mi (2.9 km) downstream from the bridge on U.S. Highway 281, and 2.0 mi (3.2 km) southeast of Bulverde.

DRAINAGE AREA: 198 mi² (512.8 km²).

PERIOD OF RECORD: May 1946 to November 1965.

GAGE: Water-stage recorder. Datum of gage is 1,013 ft (308.8 m) above mean sea level, datum of 1829.

AVERAGE DISCHARGE: 20 years, 7,546 ac-ft/yr (9.3 hm³/yr).

EXTREMES: Period of record (1946-65): Maximum discharge, 21,100 ft³/s (597.6 m³/s) May 2, 1958 (gage height, 22.5 ft or 6.8 m, from floodmark); no flow most of the time.

REMARKS: Records fair. The purpose of the station is to determine the streamflow losses during the periods of medium and low flow. There are several small diversions above the station. Much of the flow enters sink holes and caverns in the Glen Rose limestone above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1946	-	-	-	-	343	0	0	0	7300	719	1610	363	-
1947	1020	1.00	0	0	0	0	0	0	0	0	0	0	1021
1948	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	1.60	3010	161	0	0	0	0	1.40	0	0	3173
1950	0	0	0	0	0	0	261	0	0	0	0	0	261
1951	0	0	0	0	4.20	0	0	0	0	0	0	0	4.20
1952	0	0	0	0	0	0	0	0	10200	0	6.70	1.20	10208
1953	0	0	0	0	0	0	143	164	1020	4.40	0	0	1351
1954	0	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	24.0	0	0	0	0	24.0
1957	0	0	2320	11950	12080	6500	0	0	7.50	3170	1580	2.40	37610
1958	2750	3290	2990	.20	18620	0	0	0	684	2460	2270	0	33264
1959	0	0	0	0	0	2080	0	0	0	6.50	0	0	2087
1960	0	0	0	0	0	0	0	4400	0	1310	7.30	0	5717
1961	0	0	0	0	0	0	3.20	0	0	2.00	0	0	5.20
1962	0	0	0	.60	0	0	0	0	284	225	0	0	510
1963	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	2740	0	0	6790	0	157	0	9687
1965	1.20	621	0	4820	20050	4850	0	0	0	3370	0	-	-
MAX	2750	3290	2990	11950	20050	6500	261	4400	10200	3370	2270	363	37610
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	198	206	280	1041	2563	809	20.4	230	1324	563	292	19.3	7546
NO.	19	19	19	19	20	20	20	20	20	20	20	19	18
DISTR													
CF. MEAN	2.6%	2.7%	3.7%	13.8%	34.0%	10.7%	.3%	3.1%	17.6%	7.5%	3.9%	.3%	100%

SAN ANTONIO RIVER BASIN
08184500 Cibola Creek above Bracken, Texas

LOCATION: Lat 29°40'30", Long 98°23'00", Bexar-Comal County line, 0.1 mi (0.16 km) downstream from West Fork Creek, and 5.8 mi (9.3 km) northwest of Bracken.

DRAINAGE AREA: 251 mi² (650.1 km²).

PERIOD OF RECORD: April 1946 to September 1951.

GAGE: Water-stage recorder. Datum of gage is 850 ft (259.1 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 6 years, 575 ac-ft/yr (0.7 hm³/yr).

EXTREMES: Period of record (1946-51): Maximum gage height, 11.4 ft (3.4 m) September 27, 1946, from floodmark (discharge not determined); no flow most of the time.

REMARKS: The purpose of the station is to determine the streamflow losses during the periods of medium and low flow. There are no diversions above the station but much of the surface flow enters sink holes and caverns in the Glen Rose limestone above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1946	-	-	-	0	-	0	0	0	-	613	-	807	-
1947	878	63.0	0	0	0	0	0	0	0	0	0	0	941
1948	0	0	0	0	165	0	0	0	0	0	0	0	165
1949	0	0	0	-	337	0	0	0	0	13.0	0	0	-
1950	0	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	-	-	-	-
MAX	878	63.0	0	0	337	0	0	0	0	613	0	807	941
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	176	12.6	0	0	100	0	0	0	0	125	0	161	575
NO.	5	5	5	5	5	6	6	6	5	5	4	5	5
DISTR OF MEAN	30.6%	2.2%	.0%	.0%	17.5%	.0%	.0%	.0%	.0%	21.8%	.0%	28.1%	100%

SAN ANTONIO RIVER BASIN
08185000 Cibolo Creek at Selma, Texas

LOCATION: Lat 29°35'38", long 98°18'39", Bexar-Guadalupe County line, 0.6 mi (1.0 km) downstream from the Missouri-Kansas-Texas Railroad Co. bridge, and 0.9 mi (1.4 km) upstream from the bridge on Interstate Highway 35 at Selma.

DRAINAGE AREA: 274 mi² (710 km²).

PERIOD OF RECORD: April 1946 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 728.34 ft (221.998 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 30 years, 11,403 ac-ft/yr (14.0 hm³/yr).

EXTREMES: Period of record (1946-75): Maximum discharge, 65,000 ft³/s (1,840 m³/s) July 16, 1973 (gage height, 26.2 ft or 7.99 m, from floodmark); no flow most of the time.

Maximum stage since at least 1869, that of July 16, 1973.

REMARKS: Records good. A considerable amount of the flow of Cibolo Creek enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin between this station and the station near Boerne (station 08183900).

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1946	-	-	-	0	1600	124	0	0	6940	77.0	2660	267	-
1947	8.90	0	0	0	0	0	0	0	0	0	0	0	8.90
1948	0	0	0	0	0	0	6.70	0	0	2.20	0	0	8.90
1949	0	0	0	1920	82.0	0	0	0	0	17.0	0	0	2019
1950	0	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	312	0	0	0	0	0	0	312
1952	0	0	0	0	0	0	0	0	22040	1.20	0	0	22041
1953	0	0	0	.80	0	0	0	1.00	244	0	0	44.0	290
1954	0	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	.60	0	0	0	0	0	0	0	.60
1956	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	1110	12930	17670	6410	0	0	207	2840	0	0	43167
1958	97.0	2580	1130	0	22560	0	0	0	1200	936	1050	0	29553
1959	0	0	0	0	0	104	0	0	0	26.0	0	0	130
1960	0	0	0	6.00	0	0	0	3060	0	2190	65.0	0	5321
1961	0	0	0	0	0	0	0	0	0	58.0	34.0	0	92.0
1962	0	0	0	5.60	0	0	0	0	0	0	0	9.9	15.5
1963	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	3010	0	0	8240	23.0	0	0	11273
1965	0	14.0	0	2450	26270	3630	0	0	0	4360	0	4940	41664
1966	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	426	0	4.20	0	430
1968	22830	146	.08	0	1200	0	0	0	0	0	0	0	24176
1969	0	0	0	0	595	0	0	0	.01	0	0	.01	595
1970	0	0	0	0	22.0	0	0	0	0	0	0	0	22.0
1971	0	0	0	0	0	0	0	4960	0	1610	0	0	6570
1972	0	0	0	0	38260	3.00	0	0	0	0	0	0	38263
1973	0	0	0	11.0	0	3260	64200	554	4690	18660	971	.02	92346
1974	0	0	0	0	16.0	0	0	3030	260	0	604	.60	3911
1975	0	6310	0	0	746	.90	0	0	0	0	0	0	7057
MAX	22830	6310	1130	12930	38260	8410	64200	4960	22040	18660	2660	4940	92346
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	791	312	77.2	577	3634	628	2140	387	1475	1027	180	175	11403
NO.	29	29	29	30	30	30	30	30	30	30	30	30	29
DISCH OF MEAN	6.91	2.71	.71	5.11	31.91	5.51	18.81	3.41	12.91	9.01	1.61	1.51	1001

SAN ANTONIO RIVER BASIN
08185500 Cibolo Creek at Sutherland Springs, Texas

LOCATION: Lat 29°17', long 98°03', Wilson County, at a county road bridge in Sutherland Springs, and 5.5 mi (8.8 km) below the mouth of Elm Creek.

DRAINAGE AREA: 669 mi² (1,722.4 km²).

PERIOD OF RECORD: July 1924 to April 1929.

GAGE: Staff gage. Datum of gage is 370 ft (112.8 m) above mean sea level.

AVERAGE DISCHARGE: 6 years, 45,000 ac-ft/yr (55.5 hm³/yr).

EXTREMES: Period of record (1924-29): Maximum discharge, 23,800 ft³/s (674.0 m³/s) April 21, 1926 (gage height, 28.5 ft or 8.7 m); minimum, 4.4 ft³/s (0.12 m³/s) November 11, 12, 1928.

REMARKS: Records fair. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1924	-	-	-	-	-	-	1520	1210	1120	774	1210	1030	-
1925	984	990	639	964	893	718	809	799	599	2320	1270	819	12604
1926	1170	897	4400	112000	7500	1910	1010	857	657	992	652	1140	133385
1927	1010	1220	6730	3740	920	2660	765	625	875	2200	655	799	24199
1928	916	805	667	988	8730	10600	713	482	546	885	4250	1630	31412
1929	1270	666	1010	5710	-	-	-	-	-	-	-	-	-
MAX	1270	1220	6730	112000	8730	10600	1520	1210	1120	2320	4250	1630	133385
MIN	916	666	639	964	893	718	713	482	546	774	655	799	12604
MEAN	1070	916	3169	24680	4511	3972	963	795	759	1434	1647	1064	45000
NO.	5	5	5	5	4	4	5	5	5	5	5	5	4
LISTR													
OF MEAN	2.43	2.03	7.03	54.83	10.03	8.83	2.13	1.83	1.73	3.23	3.73	2.43	1003

SAN ANTONIO RIVER BASIN
08186000 Cibola Creek near Falls City, Texas

LOCATION: Lat 29°00'50", long 97°55'48", Karnes County, at the bridge on State Highway 123, 5.7 mi (9.2 km) northeast of Falls City, and 10.4 mi (16.7 km) upstream from the mouth.

DRAINAGE AREA: 827 mi² (2,142 km²).

PERIOD OF RECORD: October 1930 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 264.28 ft (80.553 m) above mean sea level, datum of 1929. Nov. 4, 1930 to Aug. 4, 1940, water-stage recorder at site 1,600 ft (488 m) upstream at datum 0.56 ft (0.171 m) higher. Aug. 5 to Sept. 13, 1940, nonrecording gage at present site and datum.

AVERAGE DISCHARGE: 46 years, 85,456 ac-ft/yr (106.6 hm³/yr).

EXTREMES: Period of record (1930-75): Maximum discharge, 33,600 ft³/s (952 m³/s) July 6, 1942 (gage height, 34.45 ft or 10,500 m); maximum gage height, 35.44 ft (10,802 m) Sept. 28, 1973; no flow July 30, 31, Aug. 4-22, 1956 and Aug. 1, 1971.

Maximum stage since at least 1890, that of Sept. 28, 1973.

REMARKS: Records good. There are several diversions for irrigation above the station. Much of the base flow is effluent from the Carrizo Sands in the vicinity of Sutherland Springs.

DISCHARGE IN ACRE-FeET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1930	-	-	-	-	-	-	-	-	-	742	637	707	-
1931	4370	3880	6850	1640	6080	2640	8980	824	672	522	481	744	39683
1932	5390	7360	3170	7620	3500	696	965	592	2120	646	625	799	33483
1933	818	794	799	1190	12300	625	17000	2100	1150	885	613	707	36981
1934	5850	2470	5400	12400	1230	543	16800	984	982	908	9030	9470	66067
1935	1590	6860	1540	11870	69470	87840	4550	2180	15750	2820	1620	4240	210330
1936	1600	1410	2470	1700	24300	2200	55050	1870	4650	3310	1910	1840	102310
1937	1850	1460	2690	1710	1030	42770	1470	1210	2100	1600	954	23020	81864
1938	16550	2040	10060	45780	7390	3050	1610	1190	1080	960	1160	1360	92230
1939	1230	1070	1120	877	1460	943	1010	1900	588	611	511	697	12017
1940	799	857	629	6370	1550	22510	6730	556	527	4340	33590	30930	109588
1941	10260	16220	9470	46260	44470	18360	3080	2040	10460	10790	1640	1620	174670
1942	1450	1280	1360	5140	2990	1110	83450	3610	87600	34650	4660	3240	230740
1943	3110	2300	3020	1800	4560	4250	4400	1050	2320	1170	2490	1430	31900
1944	7440	2060	5140	3570	39540	3390	1680	1740	2420	1230	1530	4100	73860
1945	11540	14460	10930	12860	1690	4390	1140	1070	691	3880	1100	1210	64961
1946	1970	2160	5260	16100	38060	14140	1300	55890	49790	15440	7000	3650	210760
1947	10790	2220	4980	2990	15480	2120	1460	1800	1100	958	1180	1370	46448
1948	1340	1520	1310	1090	3980	1190	2680	9930	1660	2410	661	930	28901
1949	1150	2940	1220	46200	5590	16240	2120	2280	1070	31560	2060	3820	116270
1950	1610	1810	1410	3080	1210	15930	1180	1190	1170	725	740	912	30967
1951	956	966	1200	984	2430	10450	579	477	2120	645	795	869	68003
1952	906	1630	946	2730	3590	1020	782	369	48650	1190	1570	4400	68003
1953	1570	1060	1030	3020	4250	784	536	5950	16880	1640	1050	3670	41510
1954	1110	902	893	968	2500	890	448	292	370	933	730	614	10650
1955	746	2280	3150	753	2910	4050	446	1050	1490	665	501	863	18904
1956	635	555	433	450	1120	121	505	147	1570	2720	659	6670	17585
1957	688	1330	6040	62930	39470	29420	1550	865	33510	10500	8480	2040	196823
1958	2110	48690	3720	2570	31780	2350	1990	910	5860	10920	4660	1530	136090
1959	1630	1750	1430	8870	4570	1260	1500	843	781	11860	1960	1430	37884
1960	2370	1350	1530	1560	1560	8060	2270	3850	831	48040	8110	8600	88131
1961	4140	6840	2210	1980	1620	40790	17720	2190	1680	4900	18770	2470	105310
1962	2140	1920	1910	2970	1450	2330	1100	419	965	764	1760	1850	19578
1963	1150	3410	1100	1310	832	409	343	243	402	833	7480	909	18421
1964	3080	5650	5670	980	607	3400	349	824	6000	2330	7330	978	37198
1965	1750	21690	2040	4900	52810	9750	1270	1010	623	14510	2640	16070	129063
1966	1770	2860	3770	5190	6530	1420	975	964	2030	936	772	726	27943
1967	1070	718	683	519	318	103	450	2820	86250	3960	19230	2640	118761
1968	100000	7440	3930	11220	17590	9900	2640	1350	9120	1460	3150	6560	176360
1969	2580	20620	5020	5500	12560	5260	1160	1030	1670	2910	1570	2880	62760
1970	2320	2300	4970	1630	28710	4560	1410	1030	828	1110	869	1030	50767
1971	1020	825	687	311	282	287	120	24580	6060	7850	1880	6850	50752
1972	1850	1470	1290	875	137100	9260	3170	2270	1640	1330	1810	1740	163805
1973	2440	4410	4150	25060	3250	63840	59190	6440	93960	61240	9960	4930	338870
1974	6150	3260	3160	2530	6680	1860	1300	13140	13360	2060	16240	4160	73900
1975	3290	15950	2900	4770	37910	16130	4260	3230	1660	1790	1840	2170	96100
MAX	100000	46690	10930	62930	137100	87840	83450	55890	93960	61240	33590	30930	338870
MIN	635	555	433	311	282	103	120	147	370	522	481	614	10650
MEAN	5715	5224	3220	8552	15296	10503	7172	3785	11707	6898	4309	4075	86456
NO.	45	45	45	45	45	45	45	45	45	46	46	46	45
DISTR OF MEAN	6.67	6.01	3.71	9.91	17.71	12.11	8.31	4.41	13.51	8.01	5.01	4.71	1001

SAN ANTONIO RIVER BASIN
08186500 Ecleto Creek near Runge, Texas

LOCATION: Lat 28°55'12", long 97°46'19", Karnes County, 55 ft (17 m) downstream from the bridge on Farm Road 81, 215 ft (66 m) left of the left end of the bridge, 2.6 mi (4.2 km) upstream from Salt Branch, 4.5 mi (7.2 km) northwest of Runge, and 5.2 mi (8.4 km) upstream from the mouth.

DRAINAGE AREA: 239 mi² (619 km²).

PERIOD OF RECORD: April 1962 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 215.03 ft (65.541 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 14 years, 24,724 ac-ft/yr (30.5 hm³/yr).

EXTREMES: Period of record (1962-75): Maximum discharge, 58,400 ft³/s (1,650 m³/s) Sept. 22, 1967 (gage height, 33.3 ft or 10.15 m, from floodmark); no flow at times 1962-67, 1969-72, and 1974.

Flood information begins with the flood in June 1903 which reached a stage of 34 ft or 10.4 m (discharge, 71,000 ft³/s or 2,010 m³/s).

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1962	-	-	-	133	25.0	2470	3.80	0	983	0	187	1090	-
1963	34.0	816	6.40	0	6.00	0	42.0	0	20.0	1.80	167	171	1264
1964	251	1390	1400	68.0	7.30	0	0	340	66.0	8.50	0	0	3531
1965	7360	11650	106	36.0	36.10	1120	0	0	0	7680	35.0	499	32090
1966	30.0	86.0	27.0	1530	3080	120	118	0	429	.08	0	0	5420
1967	0	0	2.50	37.0	16.0	0	0	197	99630	2090	1380	230	103583
1968	20780	1370	762	1030	11810	3210	180	26.0	792	12.0	9.5	1140	41122
1969	414	5610	5040	7900	9300	3280	18.0	.30	318	751	19.0	393	33043
1970	1550	632	3670	79.0	228	64.0	1.00	23.0	.40	0	0	.70	6248
1971	1.70	4.40	3.30	1.50	0	42.0	0	1010	2410	909	6.00	131	4519
1972	90.0	47.0	11.0	3.00	14390	2320	16.0	3.00	22.0	31.0	4.50	7.00	16945
1973	15.0	233	237	8240	193	28940	448	346	2090	8710	492	168	50112
1974	336	129	82.0	25.0	1240	1140	0	1160	1510	74.0	551	47.0	6294
1975	35.0	232	27.0	2640	15480	9310	3810	386	49.0	14.0	59.0	59.0	32101
MAX	20780	11650	5040	8240	15480	28940	3810	1160	99630	8710	1380	1140	103583
MIN	0	0	2.50	0	0	0	0	0	0	0	0	0	1264
MEAN	2377	1708	875	1552	4242	3715	331	249	7737	1449	208	281	24724
NO.	13	13	13	14	14	14	14	14	14	14	14	14	13
DISTR													
OF MEAN	9.6%	6.9%	3.5%	6.3%	17.2%	15.0%	1.3%	1.0%	31.3%	5.9%	.8%	1.1%	100%

SAN ANTONIO RIVER BASIN

08187000 Escondido Creek Subwatershed No. 1 near Kenedy, Texas

LOCATION: Lat 28°46'41", long 97°53'41", Karnes County, near the center of the dam on an unnamed fork of Panther Creek, 900 ft (274 m) upstream from the bridge on State Highway 72, and 3.9 mi (6.3 km) southwest of Kenedy.

DRAINAGE AREA: 3.29 mi² (8.52 km²).

PERIOD OF RECORD: October 1954 to September 1973.

GAGE: Water-stage recorder and concrete drop-inlet control. Datum of gage is 350.00 ft (106.68 m) above mean sea level.

AVERAGE INFLOW: 20 years, 426 ac-ft/yr (0.5 hm³/yr).

EXTREMES: Period of record (1954-73): Maximum inflow, 5,260 ft³/s (149 m³/s), average for 5-minute interval, Oct. 25, 1960, computed from the change in the reservoir contents and adjusted for the outflow and rainfall on the pool surface; no inflow at times.

REMARKS: Records good. The dam was completed on Sept. 21, 1954, but no appreciable storage began until July 1955. The first outflow occurred on Apr. 27, 1957. The pool is formed by a rolled-fill earthen dam, 2,300 ft (701 m) long, with an earthen spillway at the left end of the dam at gage height 27.7 ft (8.4 m). The outlet structure is a 2.5-foot (0.8-m) square concrete drop inlet connected to a 12-inch (305-millimeter) concrete outlet pipe. The top of the drop inlet is at gage height 18.0 ft (5.5 m); the 12-inch (305-millimeter) outlet pipe is at gage height 9.2 ft (2.8 m). There is a 10-inch (254-millimeter) auxiliary pipe opening into the upstream face of the drop inlet at gage height 16.0 ft (4.9 m). There is also an 8-inch (203-millimeter) uncontrolled emergency outlet pipe opening into the upstream face of the drop inlet at gage height 9.2 ft (2.8 m). The pool capacity is 905 ac-ft (1.12 hm³) at the spillway crest; 220 ac-ft (0.27 hm³) at the top of the drop inlet; 150 ac-ft (0.185 hm³) at the bottom of the 10-inch (254-millimeter) uncontrolled pipe; and 23.2 ac-ft (0.029 hm³) at the bottom of the 8-inch (203-millimeter) controlled outlet. The dam was built by the Soil Conservation Service for flood control.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1954	-	-	-	-	-	-	-	-	-	0	21.9	0	-
1955	.10	3.10	0	0	9.3	0	101	148	3.50	0	.70	0	266
1956	0	0	0	0	23.8	35.4	.10	1.40	0	12.8	5.80	12.4	91.7
1957	.70	5.10	39.2	304	300	46.9	0	5.80	18.4	0	47.4	2.40	935
1958	176	171	.30	0	295	2.10	11.1	0	2.80	0	0	.10	658
1959	3.20	2.30	0	2.10	.70	13.9	.60	0	16.0	88.8	0	6.40	134
1960	24.7	.90	1.00	1.30	.40	0	71.2	59.4	0	1200	221	83.4	1663
1961	39.7	71.3	.30	2.00	.20	2.80	0	.50	0	0	0	0	117
1962	0	2.40	0	0	0	96.3	0	0	.80	39.8	104	54.5	298
1963	0	.50	0	60.7	0	10.5	4.90	.40	1.00	.50	30.9	7.70	117
1964	1.60	.40	15.3	.20	.30	.30	.40	107	0	.10	.40	0	126
1965	121	137	.10	1.90	123	.10	.10	.50	.10	15.3	0	4.70	404
1966	.20	10.0	0	12.7	4.60	0	0	0	0	0	0	0	27.5
1967	0	0	0	9.00	54.8	.80	0	86.7	1440	11.6	.20	0	1603
1968	30.4	0	0	.90	334	.20	.20	2.70	75.5	3.40	1.30	.20	449
1969	1.00	17.5	1.50	63.4	77.9	46.0	0	2.20	0	4.90	2.30	9.5	226
1970	34.4	0	25.1	0	206	107	0	0	0	0	0	0	373
1971	0	0	0	0	0	.10	0	1.00	38.2	24.8	0	17.4	81.5
1972	45.8	0	0	0	9.5	6.90	0	0	39.0	0	0	0	101
1973	0	0	0	156	0	235	8.00	2.60	6.30	-	-	-	-
MAX	176	171	39.2	304	334	235	101	148	1440	1200	221	83.4	1663
MIN	0	0	0	0	0	0	0	0	0	0	0	0	27.5
MEAN	25.2	22.2	4.36	32.3	75.8	31.8	10.4	22.0	95.1	73.8	22.9	10.5	426
NO.	19	19	19	19	19	19	19	19	19	19	19	19	18
DISTR OF MEAN	5.9%	5.2%	1.0%	7.6%	17.8%	7.5%	2.4%	5.2%	22.3%	17.3%	5.4%	2.5%	100%

SAN ANTONIO RIVER BASIN
08187500 Escondido Creek at Kenedy, Texas

LOCATION: Lat 28°49'11", long 97°51'32", Karnes County, at the bridge on U.S. Highway 181 at the northwest edge of Kenedy, 4.6 mi (7.4 km) upstream from Dry Escondido Creek, and 9.6 mi (15.4 km) upstream from the mouth.

DRAINAGE AREA: 72.4 mi² (188 km²).

PERIOD OF RECORD: August 1954 to September 1973.

GAGE: Water-stage recorder and V-notch sharp-crested weir installed on Nov. 11, 1971. Datum of gage is 246.40 ft (75.10 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 20 years, 9,829 ac-ft/yr (11.9 hm³/yr).

EXTREMES: Period of record (1954-73): Maximum discharge, 37,000 ft³/s (1,050 m³/s) Sept. 22, 1967, gage height, 25.48 ft (7.77 m), from floodmark; no flow for many days in 1954-67 and 1969-73.

Maximum stage since at least 1887, that of Sept. 22, 1967.

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1954	-	-	-	-	-	-	-	0	0	4.00	347	0	-
1955	1.20	2.20	0	0	6.39	1.40	36.0	2280	75.0	15.0	0	0	3266
1956	0	0	0	0	1.67	1.60	0	0	75.1	558	36.0	2.36	1750
1957	0	4.00	871	4870	2820	906	0	0	4330	272	1500	98.0	15671
1958	3290	2600	214	1.80	3960	226	251	65.0	1600	800	64.0	1.60	13072
1959	0	34.0	0	703	126	1760	0	0	235	1770	0	6.90	4635
1960	84.0	4.86	218	5.60	2.00	487	46.0	232	69.0	11030	6820	1090	20088
1961	474	24.30	37.0	153	5.60	25.0	0	0	11.0	37.0	101	0	3274
1962	0	0	0	41.0	32.0	1070	0	0	48.0	106	797	16.10	3704
1963	4.60	39.0	0	93.0	40.0	144	0	0	1.40	51.0	966	4.75	1813
1964	30.0	6.27	649	0	0	0	0	1130	0	0	0	0	2436
1965	525	2610	14.0	0	5430	229	5.60	0	0	341	1.02	6.00	9161
1966	0	4.70	0	281	52.0	1.20	488	0	56.0	0	0	0	883
1967	0	1.06	1.04	361	569	0	0	2730	40600	6740	57.0	10.0	51067
1968	2110	114	40.0	28.0	11540	401	87.0	9.2	710	11.0	21.0	66.0	15137
1969	14.0	640	889	3040	2390	1680	6.50	1.02	1.10	61.0	2.70	23.0	8746
1970	135	20.0	110	3.40	2490	4040	47.0	20.0	4.50	1.00	1.80	2.60	6674
1971	1.96	1.30	1.70	1.30	0	318	0	345	1430	159	12.0	45.0	2313
1972	288	50.0	11.0	7.00	17.0	728	3.00	38.0	400	9.6	1.60	1.90	1555
1973	2.50	7.00	3.20	4.770	2.76	13700	1010	63.0	182	-	-	-	-
MAX	3290	2610	889	4870	11540	13700	1010	2730	40600	11030	6820	1610	51067
MIN	0	0	0	0	0	0	0	0	0	0	0	0	883
MEAN	366	495	161	756	1608	1354	104	346	2525	1156	565	193	9629
NO.	19	19	19	19	19	19	19	20	20	19	19	19	18
DISTR													
OF MEAN	3.87	5.11	1.71	7.81	16.71	14.11	1.11	3.61	26.21	12.01	5.91	2.01	1001

SAN ANTONIO RIVER BASIN

08187900 Escondido Creek Subwatershed No. 11 (Dry Escondido Creek) near Kenedy, Texas

LOCATION: Lat 28°51'39", long 97°50'39", Karnes County, near the center of the dam on Dry Escondido Creek, 0.5 mi (0.8 km) upstream from the bridge on Farm Road 792, 3 mi (5 km) north of Kenedy, and 5.0 mi (8.0 km) upstream from Escondido Creek.

DRAINAGE AREA: 8.43 mi² (21.83 km²).

PERIOD OF RECORD: October 1958 to December 1975.

GAGE: Water-stage recorder with concrete drop-inlet control. Datum of gage is 285.12 ft (86.905 m) above mean sea level, datum of 1929.

AVERAGE INFLOW: 18 years, 652 ac-ft/yr (1.0 hm³/yr).

EXTREMES: Period of record (1958-75): Maximum inflow, 18,000 ft³/s (510 m³/s), average for 5-minute interval, Sept. 21, 1967, computed from the change in the pool contents and adjusted for the outflow and rainfall on the pool surface; no inflow at times.

REMARKS: Records good. The dam was completed on Jun. 31, 1958, but the lower drain valve in the drop-inlet structure remained open until Sept. 15, 1958. The first outflow (since the lower drain valve was closed) occurred on Sept. 22, 1958. The pool is formed by a rolled earthfill dam 2,600 ft (792 m) long with spillways at both the left and the right end of the dam. The outlet structure is a 36-inch (914 millimeter) square concrete box drop inlet connected to a 28-inch (711-millimeter) concrete outlet pipe. Four 10-inch (254-millimeter) square portholes are set in the sides of the drop inlet, two on the upstream side and two on the downstream side. The bottom of the portholes are at gage height 15.67 ft (4.776 m). The top of the drop inlet is at gage height 18.00 ft (5.486 m). The two spillways (both left and right) are at gage height 32.8 ft (10.00 m). The lower drain valve is an 8-inch diameter (203-millimeter) cleanout gate at the bottom of the drop-inlet structure at a gage height of 9.4 ft (2.87 m). The pool capacity is 2,670 ac-ft (3.29 hm³) at the spillway crests; 236 ac-ft (0.291 hm³) at top of the drop inlet; 140 ac-ft (0.173 hm³) at the bottom of the portholes; and 29.9 ac-ft (0.037 hm³) at the 8-inch (203-millimeter) controlled outlet. The dam was built by the Soil Conservation Service for flood control.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1958	-	-	-	-	-	-	-	-	-	98.3	30.2	1.00	-
1959	1.00	2.20	.10	51.3	4.70	28.1	.10	1.80	4.50	2.40	.70	2.70	99.6
1960	.70	.30	.50	.30	0	1.30	1.70	1.10	0	2.24	1.21	17.1	368
1961	21.0	93.4	.60	0	0	0	0	0	0	3.10	6.00	0	124
1962	2.40	1.20	.30	1.30	6.40	39.5	0	0	0	1.70	11.5	87.5	507
1963	.80	4.90	.40	.30	.30	374	22.5	.10	3.30	.10	32.5	14.5	453
1964	17.0	90.9	47.0	1.30	.40	.50	18.4	44.5	.20	.40	0	.70	221
1965	228	338	.60	1.20	7.57	14.2	.50	.20	1.20	16.3	1.70	14.2	1373
1966	.10	4.90	3.90	22.1	18.9	.90	0	.50	52.7	.60	0	0	105
1967	0	.40	1.00	21.0	16.2	.10	1.00	146	7380	151	17.3	.10	7734
1968	221	10.6	.10	.20	534	4.50	.10	0	6.00	.20	6.80	3.50	787
1969	.80	29.4	45.9	101	132	8.50	5.20	0	0	4.00	0	0	327
1970	15.4	2.30	6.50	0	333	31.2	0	0	0	0	0	0	669
1971	0	0	0	1.10	0	20.8	0	8.50	46.8	10.4	0	4.10	91.7
1972	23.2	0	0	0	33.2	5.30	1.60	.90	8.10	2.10	2.90	3.10	78.4
1973	7.20	11.5	5.70	274	2.40	902	3.00	8.90	39.6	22.4	0	.60	1277
1974	7.40	.30	3.50	2.40	5.10	1.60	2.10	20.2	79.2	4.60	.90	3.10	130
1975	1.60	.50	1.10	2.60	38.5	13.0	2.70	1.80	1.20	2.20	2.40	4.10	71.7
MAX	228	338	47.0	274	7.57	902	22.5	146	7380	224	121	87.5	7734
MIN	0	0	0	0	0	0	0	0	0	0	0	0	71.7
MEAN	32.2	34.8	6.89	28.2	111	122	3.46	13.8	448	30.2	13.0	8.68	852
NO.	17	17	17	17	17	17	17	17	17	18	18	18	17
LISTED													
CF MEAN	3.81	4.12	.81	3.31	13.01	14.41	.41	1.61	52.61	3.51	1.51	1.01	1001

SAN ANTONIO RIVER BASIN

08188000 Dry Escondido Creek near Kenedy, Texas

LOCATION: Lat 28°52', long 97°50', Karnes County, at the bridge on Farm Road 792, 3.5 mi (5.6 km) north of Kenedy, and 4.0 mi (6.4 km) upstream from Escondido Creek.

DRAINAGE AREA: 9.43 mi² (24.4 km²).

PERIOD OF RECORD: August 1954 to September 1959.

GAGE: Water-stage recorder. Datum of gage is 276.55 ft (84.3 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 6 years, 562 ac-ft/yr (10.7 hm³/yr).

EXTREMES: Period of record (1954-59): Maximum discharge, 706 ft³/s (19.99 m³/s) April 21, 1957 (gage height, 10.53 ft or 3.2 m); no flow most of the time.

Maximum stage since at least 1906, about 16 ft (4.9 m) May 18, 1953, from information by a local resident.

REMARKS: Records fair.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1954	-	-	-	-	-	-	-	0	0	.20	32.0	0	-
1955	0	9.1	0	0	82.0	0	0	37.0	1.00	0	0	0	129
1956	0	0	0	0	31.0	0	.20	16.0	56.0	1.20	0	3.60	110
1957	0	0	35.0	393	49.0	4.80	0	6.00	762	13.0	50.0	26.0	1339
1958	216	428	89.0	0	203	.40	0	0	397	46.0	31.0	0	1410
1959	0	0	0	1.60	1.60	1.20	0	0	0	-	-	-	-
MAX	216	428	89.0	393	203	4.80	.20	37.0	762	46.0	50.0	26.0	1410
MIN	0	0	0	0	1.60	0	0	0	0	0	0	0	110
MEAN	43.2	87.4	24.8	78.9	73.3	1.28	.04	9.8	203	12.1	22.6	5.92	562
NO. DISTR	5	5	5	5	5	5	5	6	6	5	5	5	4
OF MEAN	7.7%	15.5%	4.4%	14.0%	13.0%	.2%	.0%	1.7%	36.1%	2.1%	4.0%	1.1%	100%

SAN ANTONIO RIVER BASIN
08188500 San Antonio River at Goliad, Texas

LOCATION: Lat 28°38'58", long 97°23'04", Goliad County, at the bridge on U.S. Highway 163, 1.2 mi (1.9 km) southeast of the courthouse in Goliad, and 11.7 mi (18.8 km) upstream from Manahuilla Creek.

DRAINAGE AREA: 3,921 mi² (10,155 km²).

PERIOD OF RECORD: July 1924 to March 1929, March 1939 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 91.08 ft (27.761 m) above mean sea level, datum of 1929. Prior to Mar. 31, 1929, nonrecording gage at the Texas and New Orleans Railroad Co. bridge 0.9 mi (1.4 km) upstream at same datum.

AVERAGE DISCHARGE: 43 years (1924-29, 1939-75), 439,894 ac-ft/yr (542.1 km³/yr).

EXTREMES: Period of record (1924-29, 1939-75): Maximum discharge, 138,000 ft³/s (3,910 m³/s) Sept. 23, 1967 (gage height, 53.7 ft or 16.37 m, from floodmark); minimum, 1.2 ft³/s (0.034 m³/s) June 16, 1956.

Maximum stage since 1869, that of Sept. 23, 1967.

REMARKS: Records good. There are many diversions and regulations above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1924	-	-	-	-	-	-	22300	14300	16900	13200	12200	17100	-
1925	13700	12200	11900	9020	13000	6200	8930	6960	12800	53600	13200	9410	170920
1926	12500	7340	23700	120000	65600	17800	15300	8460	5970	14300	11000	11600	313570
1927	9980	11400	18400	29300	9180	24900	7040	3300	5430	18000	5450	6580	148960
1928	7190	6440	10600	8630	25800	29900	5620	3140	23300	8360	45500	17800	192280
1929	-	6720	52000	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	10770	8666	8510	9880	15850	11380	7120	5840	5840	8290	-
1940	8180	14370	8280	22190	12730	35360	85570	24330	8230	18570	153100	101700	492610
1941	37660	60080	42560	85590	221900	96890	54490	27960	54600	34150	28560	19310	763750
1942	17460	17280	14430	31050	26530	16640	258000	25190	293000	132900	39630	31360	903470
1943	29770	22660	28556	23410	27830	51850	29500	15540	20180	15760	18810	17410	301270
1944	28130	21250	28700	17350	114400	31050	16970	21920	33310	16470	15970	26660	374200
1945	43910	48350	32780	68050	24660	30060	16020	14760	12750	26950	15110	16130	349530
1946	26990	22050	30610	44140	97310	65250	16380	51260	256700	340100	55180	34520	1034690
1947	48880	26640	34010	27000	57390	20520	15780	21370	16170	13820	16340	17490	317410
1948	16040	17320	35640	14200	18970	8120	24510	46930	17130	20270	9960	10020	219110
1949	11490	16580	16230	136100	44070	60090	47870	18190	12460	73450	18590	26160	481280
1950	16590	12310	14220	16230	14000	36750	11590	13120	10680	8070	7520	8110	169190
1951	7660	11030	10730	11610	30340	66210	7470	5540	46980	9250	9260	9250	225330
1952	8420	12330	10760	18820	30660	10440	10200	4760	196800	9180	13420	15730	341520
1953	16680	9090	10520	12290	57840	5060	7600	19950	78510	14370	9270	12050	253230
1954	9200	6860	6910	9470	16060	7470	5070	3070	3970	7650	7910	5320	88960
1955	7790	19560	10900	5320	19320	9900	4240	10150	14430	4620	4530	7070	117830
1956	6400	6130	5160	5160	11820	1560	3220	3730	11910	22630	9260	23510	110490
1957	6760	9260	30260	149700	178600	138100	10100	6690	120500	58560	53300	18190	780020
1958	100900	160200	39240	21820	127000	27030	31070	12050	55460	73900	95670	35810	780150
1959	28560	28670	24510	37940	38210	20810	21000	13910	13170	41740	23590	20620	312730
1960	24220	21960	24210	20800	19580	34030	31850	34010	14760	155000	105300	58040	543760
1961	53370	75420	42100	25150	16390	81390	62240	23530	21610	34090	47550	21050	503890
1962	20350	18070	15040	19440	15480	41460	10190	8990	16910	9390	13990	23270	214580
1963	13220	21380	12200	12450	9450	7490	6980	2940	8930	18110	20480	15080	148710
1964	13140	30880	27430	11500	9370	17230	5460	29020	12310	19430	35640	14070	225480
1965	34910	98770	19900	27490	160200	43570	14180	10640	10520	36640	14270	43650	514740
1966	17930	19990	19600	26990	36630	15940	11480	14810	22440	12730	9640	11270	221650
1967	11940	9720	10780	11090	10380	4250	10770	24240	716800	64700	57650	23660	955980
1968	264900	58330	39780	40360	126800	50170	33110	17980	50790	19380	18870	35930	756400
1969	22130	54980	35480	42190	81980	34140	10460	14260	19900	23570	14850	21840	375780
1970	28190	26170	42770	20630	69720	77130	14310	14410	13170	16720	12170	12470	348060
1971	14580	11570	11900	10370	8420	13410	8780	76980	57210	86160	54320	46860	404580
1972	32990	25950	21760	33060	260400	63870	31790	32040	30770	37480	27600	24340	622050
1973	27160	34330	32060	106600	36700	253100	290400	86060	133600	435600	96680	57940	1590230

SAN ANTONIO RIVER BASIN
08188500 San Antonio River at Goliad, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1974	50730	37550	36110	30550	47930	31000	15640	64030	98780	41690	64770	43980	562760
1975	47230	114800	56030	46630	154800	135200	60280	36340	30350	27770	23470	31820	764720
MAX	264900	166200	56030	149700	260400	253100	290400	86060	716600	435600	153100	101700	1590230
MIN	6400	6130	5160	5160	8420	1560	3220	2940	3970	4620	4530	5320	88960
MEAN	29796	36439	23570	34648	57462	42225	32610	21434	62126	49862	31320	24202	439694
NO.	40	41	42	41	41	41	42	42	42	42	42	42	40
DISTR OF MEAN	6.8%	6.9%	5.4%	7.9%	13.1%	9.6%	7.4%	4.9%	14.1%	11.3%	7.1%	5.5%	100%

GUADALUPE RIVER BASIN

08188600 Guadalupe-Blanco River Authority Calhoun Canal Flume No. 1 near Long Mott, Texas

LOCATION: Lat 28°29'44", long 96°46'18", Calhoun County, at the concrete Parshall Flume No. 1, 518 ft (158 m) upstream from the bridge on State Highway 185, 1,900 ft (579 m) downstream from the pumping station on Goff Bayou, and 1.1 mi (1.8 km) northwest of Long Mott

PERIOD OF RECORD: March 1968 to December 1975.

GAGE: Deflection-vane recorder, duplex water-stage recorder, and Parshall flume. Datum of gage is 23.53 ft (7.172 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 8 years, 71,852 ac-ft/yr (88.6 hm³/yr).

EXTREMES: Period of record (1968-75): Maximum discharge, 311 ft³/s (8.81 m³/s) July 7, 1968; no flow at times in 1968-74.

REMARKS: Records fair. The flow is diverted from the Guadalupe River 650 ft (198 m) upstream from the Guadalupe River near Tivoli (station 06188800) and then through a system of canals, Hog Bayou, and Goff Bayou, a distance of 8.9 mi (14.3 km) to the pumping station on Goff Bayou, 1,900 ft (579 m) upstream from Flume No. 1.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1968	-	-	1380	4960	7080	8650	13220	9230	6170	4310	2100	1930	-
1969	1540	420	799	4650	8200	13530	14950	9080	10030	4360	1600	1660	70819
1970	1050	811	2380	3960	5810	10090	10300	8610	5080	4030	1970	1400	55491
1971	1960	977	4660	10030	10030	13590	9670	8420	5940	3170	1580	1940	72167
1972	2120	1560	2780	6920	7500	11470	9890	6220	10240	5400	992	1300	66392
1973	1200	1270	3000	3830	10010	9640	15220	11340	4730	5270	2020	2450	69980
1974	1410	2260	2530	7680	9480	14530	14130	11380	12060	6750	2400	3120	67730
1975	2730	3360	5960	9230	10620	14590	12120	9640	10950	5010	2310	3430	89950
MAX	2730	3360	5960	10030	10620	14590	15220	11380	12060	6750	2400	3430	69950
MIN	1050	420	799	3830	5810	8650	9670	6220	4730	3170	992	1300	55491
MEAN	1716	1523	2961	6408	8591	12011	12438	9240	8150	4788	1872	2154	71852
NO.	7	7	8	8	8	8	8	8	8	8	8	8	7
CISTR OF MEAN	2.41	2.11	4.11	8.91	12.01	16.71	17.31	12.91	11.31	6.71	2.61	3.01	1001

GUADALUPE RIVER BASIN

08188750 Guadalupe-Blanco River Authority Calhoun Canal Flume No. 2 near Long Mott, Texas

LOCATION: Lat 28°30'00", long 96°45'40", Calhoun County, at the concrete Parshall Flume No. 2, 3,700 ft (1,130 m) downstream from the bridge on State Highway 165, 4,200 ft (1,280 m) downstream from the GBRA Flume No. 1 (station 08188800), and 1.4 mi (2.3 km) north of Long Mott.

PERIOD OF RECORD: October 1971 to December 1975.

GAGE: Deflection-vane recorder, water-stage recorder, and Parshall flume. Datum of gage is 22.37 ft (6.818 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 5 years, 59,965 ac-ft/yr (73.9 hm³/yr).

EXTREMES: Period of record (1971-75): Maximum discharge, 282 ft³/s (7.99 m³/s) June 23, 1975; no flow at times in 1972-75.

REMARKS: Records fair. The flow is diverted from the Guadalupe River 550 ft (168 m) from the Guadalupe River near Tivoli (station 08188800) and then through a system of canals, Hog Bayou, and Golf Bayou, a distance of 8.9 mi (14.3 km) to the pumping station of Golf Bayou, 1,900 ft (579 m) upstream from Flume No. 1.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1971	-	-	-	-	-	-	-	-	-	2490	460	260	-
1972	290	139	1570	5790	7020	5910	8820	4870	8610	4280	305	458	52262
1973	410	650	940	2140	8440	6730	14040	10130	3900	4350	1060	1110	55900
1974	506	398	635	5650	8460	13180	12300	9980	10290	3520	156	360	65511
1975	360	827	3420	7730	9700	13260	10260	8920	9550	3320	121	266	67410
MAX	506	827	3420	7730	9700	13260	14040	10130	10290	4350	1060	1110	67410
MIN	360	139	635	2140	7020	6730	8820	4870	3900	2490	121	360	52262
MEAN	311	504	1691	5378	8405	11270	11355	8475	8136	3592	420	426	59965
NO.	4	4	4	4	4	4	4	4	4	5	5	5	4
DISTR OF MEAN	.5%	.8%	2.8%	9.0%	14.0%	18.8%	18.9%	14.1%	13.6%	6.0%	.7%	.7%	10.0%

SAN ANTONIO-NUECES COASTAL BASIN

08189200 Copano Creek near Refugio, Texas

LOCATION: Lat 36°18'12", long 97°08'44", Refugio County, at the bridge on Farm Road 774, 3.6 mi (5.8 km) upstream from Alameda Creek, 8.1 mi (13.0 km) east of Refugio, and 11.9 mi (19.1 km) upstream from the mouth.

DRAINAGE AREA: 87.8 mi² (227 km²).

PERIOD OF RECORD: July 1970 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 17.25 ft (5.258 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 6 years, 37,952 ac-ft/yr (46.8 hm³/yr).

EXTREMES: Period of record (1970-75): Maximum discharge, 6,300 ft³/s (178 m³/s) Sept. 12, 1971 (gage height, 21.00 ft or 6.401 m), no flow at times each year.

Maximum stage since the early 1920's, 22 ft (6.7 m) in September 1967, from information by local residents.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1970	-	-	-	-	-	-	4240	2240	316	1330	2460	0	-
1971	440	0	0	0	0	0	0	850	61150	16050	147	722	78919
1972	496	320	1040	8950	25340	7050	1940	2740	2050	882	2940	840	47102
1973	3340	663	367	1760	101	21160	3030	1020	12360	20520	841	2840	61883
1974	1180	112	2840	646	4420	5540	0	0	8420	2740	2260	660	17808
1975	293	4740	420	4840	145	274	120	2640	3540	3440	5640	313	1391
MAX	1180	663	367	8950	25340	21160	4240	1020	61150	20520	2260	722	78919
MIN	440	0	0	0	0	0	0	0	3540	2740	2460	0	1391
MEAN	400	226	8140	2281	6001	5708	1555	324	14055	6474	556	289	37952
NO.	5	5	5	5	5	5	6	6	6	6	6	6	5
OF MEAN	1.1%	.6%	.2%	6.0%	15.8%	15.0%	4.1%	.9%	37.0%	17.1%	1.5%	.8%	100%

SAN ANTONIO-NUECES COASTAL BASIN

08189300 Medio Creek near Beeville, Texas

LOCATION: Lat 28°26'58", long 97°39'23", Bee County, at the bridge on U.S. Highway 59, 8 mi (13 km) northeast of Beeville, and 9 mi (14 km) upstream from Parker Hollow Creek.

DRAINAGE AREA: 204 mi² (528 km²).

PERIOD OF RECORD: March 1962 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 163.00 ft (49.682 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 14 years, 13,990 ac-ft/yr (17.2 km³/yr).

EXTREMES: Period of record (1962-75): Maximum discharge, 105,000 ft³/s (2,970 m³/s) Sept. 22, 1967 (gage height, 38.68 ft or 11.790 m, from floodmark); no flow at times each year. Maximum stage since at least 1914, that of Sept. 22, 1967.

REMARKS: Records fair.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1962	-	-	0	0	0	3450	0	0	775	115	78.0	34.0	-
1963	0	0	0	565	879	88.0	0	0	0	63.0	1450	9.1	1054
1964	34.0	25.0	186	0	0	0	0	2300	0	0	0	0	2545
1965	300	4800	2.20	5.60	3480	1.20	0	0	0	497	0	0	9086
1966	0	480	0	160	521	0	0	0	0	0	0	0	1161
1967	0	0	0	0	0	0	0	770	129500	1730	261	100	132361
1968	219	75.0	68.0	31.0	7160	1760	323	26.0	762	39.0	.08	.30	10463
1969	.90	73.0	12.0	761	325	1170	0	2.50	0	0	0	0	2344
1970	233	0	977	.90	2060	2680	26.0	.20	0	0	0	0	5977
1971	0	0	0	0	0	0	0	36.0	7350	1590	25.0	91.0	9092
1972	591	230	19.0	0	1180	111	2.00	341	1360	1330	97.0	15.0	5276
1973	26.0	78.0	61.0	1820	22.0	3750	180	87.0	689	1470	23.0	17.0	8423
1974	64.0	51.0	16.0	33.0	51.0	20.0	9.00	196	8.70	35.0	97.0	23.0	606
1975	42.0	46.0	20.0	18.0	24.0	126	12.0	.30	2.70	1.70	9.3	149	451
MAX	591	4800	977	1820	7160	3750	323	2300	129500	1730	1450	149	132361
MIN	0	0	0	0	0	0	0	0	0	0	0	0	451
MEAN	116	451	97.4	242	1122	940	39.4	268	10046	491	146	31.3	13990
NO.	13	13	14	14	14	14	14	14	14	14	14	14	13
DISTR OF MEAN	.81	3.21	.71	1.71	8.01	6.71	.31	1.91	71.81	3.51	1.01	.21	1001

SAN ANTONIO-NUECES COASTAL BASIN

08189500 Mission River at Refugio, Texas

LOCATION: Lat 28°17'30", long 97°16'44", Refugio County, at the upstream bridge of two bridges on U.S. Highway 77, 560 ft (171 m) upstream from the Missouri-Pacific Railroad Co. bridge, and 0.2 mi (0.3 km) southwest of Refugio.

DRAINAGE AREA: 690 mi² (1,787 km²).

PERIOD OF RECORD: July 1939 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1.00 ft (0.305 m) above mean sea level, datum of 1929. Prior to Nov. 25, 1958, nonrecording gage at site 69 ft (18 m) downstream at same datum. Nov. 26, 1958 to Apr. 18, 1963, nonrecording gage at present site and datum.

AVERAGE DISCHARGE: 37 years, 79,334 ac-ft/yr (97.8 hm³/yr).

EXTREMES: Period of record (1939-75): Maximum discharge, 79,000 ft³/s (2,240 m³/s) Sept. 12, 1971 (gage height, 38.25 ft or 11.659 m); minimum, 0.7 ft³/s (0.02 m³/s) Oct. 7, 9, 1940, Aug. 18-20 and Sept. 5, 1945, Dec. 29, 31, 1940, Jan. 1, 1950, July 13 and Aug. 28, 1963, July 18, 19, 22-26, 31, Aug. 1, 2, 1971.

Maximum stage since 1899, that of Sept. 12, 1971.

REMARKS: Records fair. There are several small diversions above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	-	4340	451	656	105	90.0	147	-
1940	199	236	160	113	270	8050	8280	111	81.0	10830	18810	11390	58532
1941	695	5350	4010	31820	68560	8200	27700	8580	1690	1340	571	705	159221
1942	544	2610	899	521	523	264	97640	66160	28530	2700	1730	1380	203501
1943	1380	966	1620	709	1500	21750	612	263	228	276	634	946	30884
1944	2460	635	15770	655	14200	1890	404	2530	6360	477	398	493	46272
1945	389	294	6290	25190	1080	1200	169	515	118	180	132	321	35878
1946	439	5210	674	338	3600	4330	317	3060	7010	45040	2980	1410	74428
1947	2230	705	1100	4630	32200	2540	1100	793	386	358	413	858	47313
1948	540	757	1100	378	390	150	1430	128	198	177	192	201	5641
1949	253	1590	355	13670	4020	676	1940	644	426	474	290	161	24499
1950	302	294	264	427	252	175	179	107	139	343	179	216	2677
1951	213	176	195	185	552	1650	186	207	23740	549	259	307	28219
1952	258	705	256	856	15550	940	423	262	51130	1460	998	930	73768
1953	684	543	513	574	4150	306	214	5920	13750	10540	649	431	38274
1954	375	297	309	400	286	195	196	199	226	1490	223	235	4431
1955	268	240	244	220	195	216	245	296	1180	313	250	208	3875
1956	347	182	1790	224	1870	128	124	220	138	128	87.0	2840	8078
1957	137	121	5750	29980	16570	15210	431	155	4260	233	2500	393	75740
1958	23710	65450	2170	1430	2870	675	347	163	6610	13060	1910	1180	118975
1959	762	11650	1150	558	1630	6230	333	1480	611	16700	1250	509	42863
1960	659	5070	4910	746	941	25650	1790	3690	1220	69020	6560	23020	143276
1961	13150	14020	1620	6450	1010	2800	4210	452	807	359	1280	403	46761
1962	388	292	343	311	199	15130	494	135	10980	331	2320	2310	53233
1963	378	286	232	134	678	150	95.0	71.0	701	121	1450	317	4613
1964	358	963	481	165	651	120	3520	1810	115	112	121	235	8671
1965	1690	12540	384	388	16240	977	127	131	101	496	1580	3490	38144
1966	1030	2580	331	14510	49650	1830	10680	3190	1500	379	246	255	86181
1967	320	259	206	150	5920	134	163	5670	318300	39050	3930	2180	376282
1968	2950	4060	1370	918	68240	16170	5680	1160	1360	3570	738	741	106977
1969	584	27590	7360	4170	9850	3560	611	499	471	376	1430	3770	60271
1970	3780	565	5310	6090	10910	21900	1360	1660	638	523	331	310	53377
1971	298	272	249	229	277	109	51.0	12150	253800	33540	3150	3150	307275
1972	2250	2740	1220	5610	85280	7180	6090	7760	11070	10530	3160	1170	144060
1973	1470	3430	1190	7090	777	110000	5060	4400	30460	115700	6390	2750	288717
1974	2630	1670	2750	1210	5310	11180	855	795	50650	2050	5840	1600	66540
1975	1190	815	817	617	731	707	1080	972	5330	716	652	15190	28817
MAX	23710	65450	15770	31820	85280	110000	97640	66180	318300	115700	18810	23020	376282
MIN	137	121	160	113	195	109	51.0	71.0	81.0	105	87.0	147	2677
MEAN	1925	4867	2044	4491	11859	8121	5094	3698	22551	10363	1993	2328	79334
NO.	36	36	36	36	36	36	37	37	37	37	37	37	36
DISTR OF MEAN	2.4%	6.1%	2.6%	5.7%	14.9%	10.2%	6.4%	4.7%	28.4%	13.1%	2.5%	2.9%	100%

SAN ANTONIO-NUECES COASTAL BASIN

08189700 Aransas River near Skidmore, Texas

LOCATION: Lat. 28°16'56", long 97°37'14", Bex County, 160 ft (49 m) downstream from a county road bridge, 3.8 mi (6.1 km) downstream from the confluence of West Aransas and Pozzta Creeks, and 4.4 mi (7.1 km) northeast of Skidmore.

DRAINAGE AREA: 247 mi² (640 km²).

PERIOD OF RECORD: April 1964 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 72.37 ft (22.058 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 12 years, 37,413 ac-ft/yr (46.1 hm³/yr).

EXTREMES: Period of record (1964-75): Maximum discharge, 82,800 ft³/s (2,340 m³/s) Sept. 22, 1967 (gage height, 42.22 ft or 12.869 m, from floodmark); no flow at times in 1964-67 and 1971.

Maximum stage since at least 1914, that of Sept. 22, 1967.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1964	-	-	-	30.0	1040	153	1750	6.40	150	3.60	10.0	44.0	-
1965	112	3120	1390	314	3170	1170	4.60	0	0	572	100	171	10124
1966	85.0	91.0	34.0	6570	11730	104	37.0	74.0	516	7.40	18.0	52.0	19318
1967	82.0	61.0	41.0	18.0	1350	1.60	518	1820	140200	5240	270	139	149741
1968	243	168	103	85.0	10890	1810	575	81.0	157	775	65.0	102	15054
1969	91.0	6590	316	200	1900	97.0	1520	123	62.0	419	236	387	11941
1970	176	97.0	486	80.0	6500	3800	570	139	90.0	41.0	44.0	73.0	12096
1971	65.0	75.0	60.0	52.0	151	1080	42.0	3140	83960	4310	355	337	93627
1972	595	305	201	193	21480	616	380	164	3670	303	272	181	28360
1973	222	215	163	478	123	30460	1020	584	3790	19570	434	338	57397
1974	401	281	348	276	1240	3890	185	1140	34050	454	365	333	42963
1975	301	215	246	197	198	256	251	236	264	193	202	1030	3589
MAX	595	6590	1390	6570	21480	30460	1750	3140	140200	19570	434	1030	149741
MIN	65.0	61.0	34.0	18.0	123	1.60	4.60	0	0	3.60	10.0	44.0	3589
MEAN	216	1020	308	708	4981	3620	571	626	22242	2657	198	266	37413
NO.	11	11	11	12	12	12	12	12	12	12	12	12	11
DISTR													
OF MEAN	.6%	2.7%	.8%	1.9%	13.3%	9.7%	1.5%	1.7%	59.5%	7.1%	.5%	.7%	100%

SAN ANTONIO-NUECES COASTAL BASIN

06189800 Chiltipin Creek at Sinton, Texas

LOCATION: Lat 28°02'48", long 97°30'10", San Patricio County, at the bridge on U.S. Highway 77, 0.2 mi (0.3 km) upstream from the Missouri-Pacific Railroad Co. bridge, and 0.8 mi (1.3 km) northeast of Sinton.

DRAINAGE AREA: 128 mi² (332 km²).

PERIOD OF RECORD: August 1970 to December 1975.

GAGE: Water stage recorder. Datum of gage is 18.74 ft (5.712 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 6 years, 37,573 ac-ft/yr (46.3 km³/yr).

EXTREMES: Period of record (1970-75): Maximum discharge, 22,300 ft³/s (632 m³/s) Sept. 12, 1971 (gage height, 29.10 ft or 8.870 m); no flow for part of each day Aug. 25-27, 1973 and July 6-9, 1975).

Maximum stage since 1910, 30.27 ft (9.226 m) Sept. 22, 1967, from information by local residents.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1970	-	-	-	-	-	-	-	204	300	953	801	82.0	-
1971	91.0	74.0	67.0	106	288	98.0	76.0	2690	82230	9380	150	136	95386
1972	126	291	224	565	16840	847	992	3800	4690	603	162	93.0	29233
1973	131	140	37.0	31.0	17.0	34180	322	548	3590	27980	20.0	8.60	67005
1974	15.0	4.70	196	7.30	1170	2390	15.0	11.0	4470	23.0	1700	35.0	10037
1975	27.0	5.70	4.70	2.50	32.0	89.0	31.0	895	8300	39.0	96.0	18.0	9540
MAX	131	291	224	565	16840	34180	992	3800	82230	27980	1700	136	95386
MIN	15.0	4.70	4.70	2.50	17.0	89.0	15.0	11.0	300	23.0	20.0	8.60	9540
MEAN	78.0	103	106	142	3669	7521	287	1358	17263	6496	488	62.1	37573
NO. OF MEAN	5	5	5	5	5	5	5	6	6	6	6	6	5
	.2%	.3%	.3%	.4%	9.8%	20.0%	.8%	3.6%	45.9%	17.3%	1.3%	.2%	100%

NUECES RIVER BASIN

08190000 Nueces River at Laguna, Texas

LOCATION: Lat 29°25'42", long 99°59'49", Uvalde County, 0.5 mi (0.8 km) downstream from Sycamore Creek, and 1.0 mi (1.6 km) northeast of Laguna.

DRAINAGE AREA: 764 mi² (1,979 km²).

PERIOD OF RECORD: October 1923 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,119.72 ft (341.291 m) above mean sea level, datum of 1929. Prior to Jan. 26, 1925, nonrecording gage at site 2 mi (3 km) downstream at different datum.

AVERAGE DISCHARGE: 53 years, 107,248 ac-ft/yr (132.2 hm³/yr).

EXTREMES: Period of record (1923-75): Maximum discharge, 307,000 ft³/s (8,680 m³/s) Sept. 24, 1955 (gage height, 29.95 ft or 9.129 m, in gage well, 32.7 ft or 9.97 m, from floodmarks); minimum, 2.6 ft³/s (0.074 m³/s) Mar. 14-16, 1957.

Maximum stage since at least 1866, that of Sept. 24, 1955.

REMARKS: Records good. There are many small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1923	-	-	-	-	-	-	-	-	-	29200	32400	14500	-
1924	9070	6840	7770	8440	5540	4440	2380	986	769	899	1090	1470	49694
1925	1930	2330	2460	1910	39400	14200	4860	2270	2490	15200	9590	5640	102260
1926	4250	3680	4120	4380	6590	2860	37600	7940	2940	1850	2260	3490	76960
1927	3730	9110	7380	8450	3710	4190	4120	1780	689	14900	3280	2650	64189
1928	2680	2740	2530	2280	3970	10300	1630	3600	1030	3360	2550	2240	38910
1929	2000	1720	1830	1680	17800	6780	6830	2120	2000	1220	1040	2140	47160
1930	2280	2150	2630	1590	2290	52800	5030	1520	1180	36400	7360	6270	120920
1931	6330	12100	9840	10700	26500	9460	15900	10500	5160	3900	3760	4140	118290
1932	3980	3470	5080	4910	6090	3140	49000	15000	120000	22700	12500	9100	254970
1933	7870	6220	5980	4690	3840	3130	1730	1120	1140	1440	1400	1850	40410
1934	1990	1930	2310	2770	3430	1610	996	683	548	526	492	643	17928
1935	845	1040	1340	1410	53360	321800	24110	13860	22820	10000	7170	7260	465015
1936	6200	4990	5360	4690	5000	7710	9210	4000	134300	24540	16510	10890	233400
1937	7750	5620	7030	5760	3950	4890	3030	2010	1440	1690	2430	16390	61990
1938	13640	7660	6050	7440	7790	4060	9560	5240	3600	2890	2490	2640	72460
1939	3320	2820	2950	2490	2130	1570	97170	8760	4540	23150	4630	4890	158420
1940	4260	4390	4190	5330	10380	6140	4220	3240	2630	2050	2430	3560	52820
1941	3500	3560	4530	7430	14810	7750	8600	4960	4840	14650	6820	5220	86690
1942	4190	3260	3280	3350	5820	3260	2530	3560	24640	24570	10400	7160	96020
1943	4850	3820	4000	4620	4220	7080	3210	2060	1660	2260	2390	3120	43430
1944	4900	5220	7580	6370	4900	3950	2260	1920	12700	6060	3830	4130	63720
1945	8430	5630	5360	5400	3320	1980	1410	1160	897	5030	3610	3260	45487
1946	3360	3160	2660	2470	4310	7960	3460	1440	1670	24090	7080	4910	66770
1947	8110	7940	7060	5330	7620	9200	8400	3840	2420	1900	1870	2280	65970
1948	2540	2730	2820	2440	2390	2900	15490	2070	1350	1510	1590	1690	39520
1949	2070	64420	19780	10480	11940	7550	4890	28080	11530	8960	7380	6280	183360
1950	5800	5040	4640	3630	4550	5390	4110	2980	2820	2920	2500	2810	47190
1951	2520	2200	2730	2870	2250	1830	1350	976	643	535	663	877	19444
1952	1040	1230	1510	4710	6720	2600	1340	875	595	454	443	527	22044
1953	893	1150	1680	1840	1120	727	498	430	6930	3010	2240	1860	22398
1954	1660	1430	1350	2150	10930	22150	10270	3090	1650	1710	1420	1360	59170
1955	1660	1670	1900	1480	1340	1090	3720	2040	158700	10740	6280	3860	194480
1956	3010	2500	2420	1850	1630	1100	857	556	512	645	322	343	15745
1957	336	283	433	4710	10570	16930	3960	2000	1960	7050	7170	7080	62482
1958	7260	10390	17560	8860	9510	65020	19350	9230	54320	30840	25130	15690	273160
1959	10410	8180	7660	6240	7960	25840	23800	12020	12080	28350	9920	8560	161020
1960	8420	8610	8170	6520	5660	3640	6160	17820	8830	14390	18460	12630	117310
1961	11690	12790	10630	7890	6060	11570	20330	13890	8480	12270	10370	7960	133930
1962	6480	5110	5010	4590	3570	5660	2630	1670	1380	6830	5840	4350	53120
1963	3670	3680	3780	3680	25610	3600	2140	1150	1100	1290	1420	2250	53370
1964	2480	3360	4270	4230	3640	2270	1350	1000	80360	20100	8020	6830	137910
1965	6380	7050	5960	5310	11290	15090	6880	3570	2650	3470	3840	5250	76740
1966	4780	3620	3600	5030	5910	3330	4670	61760	29400	9280	5910	5100	142390
1967	4640	3760	3480	3070	2260	1960	1510	1710	5430	19280	14180	9950	71230
1968	24880	14320	14770	14770	18080	9390	14830	6780	5410	5010	4430	5480	138150
1969	5070	4110	4330	6790	6240	4540	2600	2000	1860	46990	13890	16280	114700
1970	10880	7640	11290	8100	8300	6500	3690	2780	27690	11890	6890	5830	111680
1971	4960	4140	4820	3530	2880	4090	5690	153700	20010	36550	19200	14430	274000
1972	11680	8490	7490	6140	12980	7270	5130	35810	11350	8410	6780	6150	127680

NUECES RIVER BASIN
08190000 Nueces River at Laguna, Texas--Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1973	5840	5620	6600	6020	4300	14890	17810	8760	5920	124800	17660	12030	230250
1974	8970	6070	5460	3800	13480	5270	1730	8010	9730	14050	14850	8390	99810
1975	7590	6490	7890	6180	12380	12000	14350	9730	6580	5450	5260	4970	100870
MAX	24880	64420	19780	14770	53360	321800	97170	153700	158700	124800	32400	16390	465015
MIN	336	283	433	1410	1120	727	498	430	512	454	322	343	15745
MEAN	5521	6144	5479	5015	8852	14701	9684	9578	16661	13418	6971	5824	107248
NO.	52	52	52	52	52	52	52	52	52	53	53	53	52
DISTR													
OF MEAN	5.1%	5.7%	5.1%	4.7%	8.3%	13.7%	9.0%	8.9%	15.0%	12.5%	6.5%	5.4%	100%

NUECES RIVER BASIN

08190500 West Nueces River near Brackettville, Texas

LOCATION: Lat 29°28'21", long 100°14'10", Kinney County, at the Wilson Ranch, 10.6 mi (17.1 km) downstream from Sycamore Creek, 12 mi (19 km) upstream from Liveoak Creek, and 15.8 mi (25.4 km) northeast of Brackettville.

DRAINAGE AREA: 700 mi² (1,800 km²).

PERIOD OF RECORD: October 1939 to September 1950, April 1956 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,326.79 ft (404.406 m) above mean sea level, datum of 1929. Prior to Mar. 14, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE: 32 years (1939-50, 1956-75), 26,121 ac-ft/yr (32.2 hm³/yr).

EXTREMES: Period of record (1939-50, 1956-75): Maximum discharge, 246,000 ft³/s (6,970 m³/s) Sept. 20, 1964 (gage height, 31.3 ft or 9.54 m, from floodmark); no flow most of the time.

Maximum stage since at least 1879, about 40 ft (12.2 m) June 14, 1935, discharge, 550,000 ft³/s (15,600 m³/s), at site 33 mi (53 km) upstream from the gage.

REMARKS: Records fair. In ordinary years, a large part of the streamflow from the basin is lost by seepage into the Balcones Fault Zone of the Edwards and associated limestones above the station. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	-	-	-	-	9730	75.0	0	-
1940	0	0	0	7.10	183	27.0	210	0	0	0	0	0	427
1941	0	0	15.0	20.0	161	8.10	0	0	0	22.0	3.80	0	230
1942	0	0	0	0	0	0	0	0	85.0	3770	43.0	0	3698
1943	0	0	0	0	37.0	33.0	0	0	0	0	0	0	70.0
1944	0	2.60	2.60	0	0	8.30	0	0	0	0	0	0	13.5
1945	11.0	0	0	0	0	0	0	0	0	0	0	0	11.0
1946	0	0	0	0	0	15.0	0	0	22.0	7500	82.0	20	7619
1947	98.0	7.50	0	14.0	273	1650	409	16.0	0	0	0	0	2468
1948	0	0	0	0	0	25510	58.0	0	0	0	0	0	25568
1949	0	54320	2140	26.0	0	0	0	1460	328	28.0	7.10	0	58309
1950	0	0	0	0	0	0	0	0	3.00	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	0	0	0	0	0	0	174	0	0	-
1957	0	0	0	1780	16370	132	0	0	0	0	0	0	18262
1958	9.0	4510	1850	105	0	111900	3650	289	49400	5410	4550	541	182205
1959	29.0	0	0	0	1840	15040	11210	1900	300	2350	27.0	0	32696
1960	0	0	0	0	0	0	11.0	96.0	0	6460	447	8.10	7042
1961	1.20	27.0	0	0	0	0	27660	133	0	0	0	0	27821
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	129700	5550	373	24.0	135647
1965	0	0	0	0	132	40940	1810	68.0	0	0	0	0	42950
1966	0	0	0	1960	241	1.80	0	12180	4150	311	22.0	0	16860
1967	0	0	0	0	0	0	0	0	46.0	130	302	40.0	520
1968	507	254	113	27.0	169	12.0	0	0	0	0	0	0	1082
1969	0	0	0	.70	0	0	0	0	0	4230	448	2.16	4895
1970	17.0	29.0	22.0	0	.30	0	0	0	31.0	55.0	0	0	154
1971	0	0	0	0	0	20300	2690	80440	5810	8220	514	177	118151
1972	21.0	4.00	0	0	3.00	4.00	0	40420	92.0	2.10	0	0	40540
1973	0	4.90	2.80	13.0	.20	3150	2890	282	53.0	57570	1830	378	66174
1974	96.0	18.0	13.0	3.40	1170	.70	0	6.50	5.60	12.0	5.60	2.10	1333
1975	1.90	35.0	4.90	.70	17.0	27.0	336	120	22.0	18.0	13.0	2.90	598
MAX	507	54320	2140	1960	16370	111900	27660	80440	129700	57570	4550	541	182205
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	26.1	1974	139	128	664	7057	1643	4433	6131	3599	282	44.8	26121
NO.	30	30	30	31	31	31	31	31	31	31	31	31	29
LISTH													
OF MEAN	.1%	7.6%	.5%	.5%	2.5%	27.0%	6.3%	17.0%	23.5%	13.8%	1.1%	.2%	100%

NUECES RIVER BASIN

08192000 Nueces River below Uvalde, Texas

LOCATION: Lat 29°07'25", long 99°53'40", Uvalde County, at the McDaniel Ranch, 5.7 mi (9.2 km) upstream from the bridge on U.S. Highway 83, 8.8 mi (14.2 km) southwest of Uvalde, and 18.2 mi (29.3 km) downstream from the West Nueces River.

DRAINAGE AREA: 1,947 mi² (5,043 km²).

PERIOD OF RECORD: October 1927 to April 1939 (published as "near Uvalde"), May 1939 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 796.12 ft (242.657 m) above mean sea level, datum of 1929. October 4, 1927 to Apr. 30, 1939, water-stage recorder at site 6.2 mi (10.0 km) upstream at different datum.

AVERAGE DISCHARGE: 49 years, 101,800 ac-ft/yr (125.5 hm³/yr).

EXTREMES: Period of record (1927-75): Maximum discharge, 169,000 ft³/s (5,350 m³/s) Sept. 24, 1955 (gage height, 24.61 ft or 7.501 m, from floodmark); no flow at times in 1951-57.

Maximum stage since at least 1836, 40.4 ft (12.31 m) June 14, 1935, from floodmarks (discharge at former site, 616,000 ft³/s or 17,400 m³/s, by slope-area measurement).

REMARKS: Records good. A part of the flow of the Nueces River enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin just north of Uvalde. At low stages, most of the headwater flow enters this formation. There are many small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1927	-	-	-	-	-	-	-	-	-	8780	405	253	-
1928	246	242	235	204	341	2470	296	354	317	110	840	114	5013
1929	900	370	950	560	11500	714	2580	119	407	719	104	660	16487
1930	470	470	480	330	280	63100	471	160	760	45200	487	339	110036
1931	285	3330	2280	2770	28100	4470	11700	5120	1040	599	549	580	60823
1932	484	431	465	386	441	395	191000	3230	417000	23100	12700	7500	657126
1933	5470	3590	2730	1870	1700	1230	1010	898	952	848	714	658	21670
1934	539	633	571	333	450	357	403	336	315	314	248	250	4749
1935	221	187	197	257	79740	603200	20320	9600	24080	7650	3420	3220	752092
1936	2570	1880	2170	1430	1350	4780	8030	2250	126800	22210	14340	7860	195670
1937	5240	3190	3110	2490	1620	1370	1170	1110	902	815	664	24090	45771
1938	6730	2740	1770	1360	2760	1370	18700	2490	1320	1080	899	756	41975
1939	682	547	578	566	891	737	61580	2170	1500	11830	2620	1920	85621
1940	1570	1270	1140	1100	1180	1200	1110	924	619	768	639	922	12642
1941	726	690	868	1000	6060	2890	2310	1680	1440	8920	2470	2150	31204
1942	1800	1310	1280	1120	1340	881	924	704	8430	16650	4450	2560	41449
1943	1960	1210	1180	1160	1110	1000	966	736	727	839	730	686	12306
1944	615	668	590	506	752	1980	552	1950	2900	1360	990	954	13817
1945	900	700	807	708	660	560	459	368	421	455	407	437	6882
1946	440	396	378	327	636	1460	831	538	1500	13130	1760	1400	22796
1947	992	835	964	968	970	2560	2270	1590	1210	964	867	837	15047
1948	764	690	662	529	483	23240	7870	1110	740	553	422	402	37465
1949	403	138100	13050	2630	3330	2110	1630	20410	3270	2730	2290	2150	192163
1950	1750	1360	1230	1020	904	766	662	365	460	489	354	399	9779
1951	359	258	297	199	344	145	0	0	0	350	280	0	16665
1952	0	0	0	0	2990	219	790	0	0	0	0	0	3217
1953	0	0	0	0	0	0	0	0	9990	200	790	0	10269
1954	0	0	0	0	9550	38620	5680	352	113	910	370	150	54456
1955	0	0	0	0	0	0	660	400	146200	1770	481	201	148722
1956	134	490	0	0	0	0	0	0	0	0	0	0	183
1957	0	0	0	569	9020	8440	716	350	248	255	175	125	19898
1958	141	108	3650	1870	1050	208000	11950	2710	95280	24960	22610	12070	384399
1959	7360	4340	3470	2460	3570	36600	23250	9400	18950	51200	10140	7040	177780
1960	6700	5950	4980	3930	2960	2120	2380	11330	5030	9280	13280	8440	76380
1961	8120	9500	6830	3800	2640	6340	40480	11590	4580	7340	6660	4070	111950
1962	3240	2590	2520	1890	1670	1430	1060	797	833	811	704	867	18432
1963	863	797	857	734	19880	1430	910	571	479	445	400	428	27796
1964	401	367	332	219	271	198	114	980	183300	11370	2430	1390	200490
1965	972	805	803	1080	1220	41820	3200	1450	922	853	783	837	54745
1966	740	668	756	673	716	539	394	41240	19840	4180	2050	1470	73286
1967	1200	926	821	889	599	381	283	239	310	8020	4740	3490	21896
1968	16870	9490	8250	8700	14280	4760	6810	2750	2010	1750	1380	1290	78340
1969	1200	1020	1000	885	954	801	619	666	843	49110	11960	15370	84428
1970	7960	4020	7100	4060	3060	2520	1880	1390	17560	6130	2420	1800	59900
1971	1490	1040	799	778	744	13130	2460	224700	19900	35520	19360	12480	332401
1972	9140	6040	4470	3150	6440	3390	2560	61070	7760	5280	3530	3000	115830
1973	2490	2050	2410	2310	2060	8130	15010	6170	3600	193900	19870	11320	269320
1974	8150	5210	4310	3100	10840	3660	2470	4070	6910	8130	19860	6950	63860
1975	5740	7290	5720	5000	8500	10220	29040	8670	4640	3490	3210	2660	94180
MAX	16870	138100	13050	8700	79740	603200	191000	224700	417000	193900	22610	24090	752092
MIN	0	0	0	0	0	0	0	0	0	0	0	0	183
MEAN	2454	4721	1995	1440	5202	23249	10171	9330	23873	12128	4057	3160	101800
NO.	48	48	48	46	48	48	48	48	48	49	49	49	46
LISTR													
OF YEAR	2.4%	4.6%	2.0%	1.4%	5.1%	22.8%	10.0%	9.2%	23.5%	11.9%	4.0%	3.1%	100%

NUECES RIVER BASIN

08192500 Nueces River near Cinonia, Texas

LOCATION: Lat 28°47', long 99°50', Zavala County, at the bridge on Farm Road 1025, 2 mi (3.2 km) east of Cinonia, and 8 mi (12.9 km) northeast of Crystal City.

DRAINAGE AREA: 2,150 mi² (5,568.5 km²).

PERIOD OF RECORD: August 1915 to September 1925.

GAGE: Staff gage. Datum of gage not published.

AVERAGE DISCHARGE: 11 years, 39,191 ac-ft/yr (48.3 km³/yr).

EXTREMES: Period of record (1915-25): Maximum stage, 50.0 ft (15.2 m) May 31, 1925; no flow at times.

Maximum known flood occurred in 1913 when the river reached a stage of 53.2 ft (16.2 m), from information by local residents.

REMARKS: There is a considerable amount of water diverted above the station for irrigation. A part of the flow of the river enters the Edwards limestone in the Balcones Fault Zone.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1915	-	-	-	-	-	-	-	1110	-	2750	1300	1060	-
1916	879	1060	1020	2810	4370	845	2310	4830	1350	799	786	984	22043
1917	898	739	612	493	594	303	131	16.0	51.0	64.6	124	250	4476
1918	253	232	172	92.6	3130	475	0	10.8	1.20	5310	732	1210	11716
1919	6760	755	503	851	3490	1100	2840	14900	-	70700	25300	14900	-
1920	10900	7360	5230	3160	1940	1840	1200	1510	750	873	946	885	36594
1921	1650	869	2010	1670	1480	1070	390	143	237	216	295	424	9674
1922	446	418	1250	17000	16500	23000	5220	867	601	1290	799	861	68252
1923	645	1050	1530	1050	567	1560	246	58.9	-	7700	32900	9580	-
1924	5720	2540	2070	2560	2180	2440	1130	645	529	611	514	644	21583
1925	692	566	694	487	-	-	1460	877	904	-	-	-	-
MAX	10900	7360	5230	17000	16500	23000	5220	14900	1350	70700	32900	14900	68252
MIN	253	232	172	92.6	567	303	0	16.0	1.20	64.6	124	250	4476
MEAN	2844	1563	1529	3017	3806	3626	1493	2279	553	9031	8370	3080	39191
NO.	10	10	10	10	9	9	10	11	8	10	10	10	7
GISIR													
CF MEAN	7.31	4.01	3.91	7.71	9.71	9.31	3.81	5.81	1.41	23.01	16.31	7.91	1001

NUECES RIVER BASIN

08193000 Nueces River near Asherton, Texas

LOCATION: Lat 28°30'00", long 98°40'54", Dimmit County, 28 ft (9 m) downstream from the bridge on Farm Road 190, 0.1 mi (0.2 km) downstream from El Moro Creek, and 5.5 mi (8.8 km) northeast of Asherton.

DRAINAGE AREA: 4,082 mi² (10,572 km²).

PERIOD OF RECORD: October 1939 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 470.82 ft (143.536 m) above mean sea level, datum of 1929. Prior to Feb. 2, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE: 37 years, 132,897 ac-ft/yr (183.9 hm³/yr).

EXTREMES: Period of record (1939-75): Maximum discharge, 28,500 ft³/s (807 m³/s) Oct. 6, 1959 (gage height, 30.88 ft or 9.412 m); no flow for many days each year.

Maximum stage since at least 1900, 33 ft (10.1 m) June 17, 1935. The flood of June 30, 1913 reached the same stage, from information by local residents.

REMARKS: Records good. A part of the flow of the Nueces River and its headwater tributaries enters the Edwards and associated Irrestones in the Balcones Fault Zone which crosses the basin just north of Uvalde. At low stages, most of the headwater flow enters this formation. There are considerable losses of floodflows into various permeable formations that occur downstream from the Balcones Fault Zone. The flow is slightly regulated by the Upper Nueces Reservoir (capacity, 7,580 ac-ft or 9.36 hm³) located 13 mi (21 km) upstream since March 1948. There are many small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	-	-	-	-	39550	844	33.0	-
1940	0	143	1110	18120	23360	29050	10090	5370	2120	0	0	35.0	69398
1941	6190	24680	57.0	10040	24470	1080	34.0	99.0	4890	367	81.0	0	71988
1942	0	0	0	3520	13560	242	6400	502	63970	9840	1320	0	99354
1943	0	0	0	0	624	27800	122	0	185	3410	1650	18.0	43809
1944	0	0	1850	.80	27360	12230	0	103400	147600	3790	0	19.0	296250
1945	44.0	13.0	7870	30300	3120	0	0	0	22490	49140	21.0	0	112998
1946	0	0	0	36650	17840	6120	134	1590	6780	8990	11.0	16.0	78131
1947	0	0	0	0	3560	29930	1070	1430	131	30.0	67.0	0	36218
1948	0	0	0	0	252	32290	11900	0	12500	3550	86.0	0	60578
1949	0	83210	82840	16900	6430	18720	191	20010	818	6400	179	0	235698
1950	0	0	0	0	2400	17130	3270	9820	7140	227	0	0	39987
1951	0	0	0	0	27170	1260	0	0	46.0	344	13.0	0	28833
1952	0	0	0	0	20930	1380	10.0	0	0	0	0	0	22320
1953	0	0	0	0	1880	0	0	1650	66190	9270	25.0	0	79015
1954	0	0	0	216	41700	15660	31570	0	0	10360	0	0	99506
1955	0	0	0	0	109	29.0	23800	992	93200	3990	0	0	122120
1956	0	0	0	0	0	0	4050	2390	280	4230	2.40	0	10952
1957	0	0	0	74740	106900	87890	0	0	1600	24160	605	6.70	295902
1958	3690	8440	1400	.80	0	184400	15450	743	126400	46040	37770	11310	435644
1959	6410	4090	2020	67.0	10510	30710	29350	7640	12760	200100	8920	5010	317587
1960	5670	4350	2790	1370	642	7.50	26070	9960	8060	15440	17480	7920	99760
1961	7200	9690	4890	347	0	19630	46990	10570	1700	0	1670	1740	104427
1962	310	0	0	0	0	0	0	0	0	0	144	0	454
1963	0	13.0	0	655	11490	34.0	.40	0	1540	1500	1.60	0	15234
1964	0	0	16.0	0	2190	48.0	0	11530	218600	64810	457	8.50	297660
1965	2.20	17.0	0	284	49110	26920	1200	0	0	0	0	0	77533
1966	0	0	0	5240	49950	240	0	22990	14700	133	0	0	93253
1967	0	0	0	156	0	0	0	474	34170	12790	98.0	52.0	47740
1968	12700	8490	6380	6450	92910	1220	947	60.0	1020	10510	111	12.0	140810
1969	0	0	0	0	7830	4460	0	2930	4850	94270	22520	20200	157060
1970	7640	3400	5710	1580	29.0	303	0	1050	14100	6730	0	0	40542
1971	0	0	0	0	0	42360	113400	322500	21940	85080	21190	13500	619970
1972	8630	6120	3070	64.0	2700	1550	85.0	38870	6260	1480	2.80	57.0	68889
1973	1170	1680	1330	377	.90	0	12180	3480	2560	133900	22950	11390	191018
1974	6910	3660	5920	1100	10240	2.50	0	5780	14910	2660	14840	5040	71063
1975	4140	5200	1770	4920	6600	117300	26170	8110	3670	2210	1340	108	161538
MAX	12700	83210	82840	74740	106900	184400	113400	322500	218600	200100	37770	20200	619970
MIN	0	0	0	0	0	0	0	0	0	0	0	0	454
MEAN	1964	4533	3584	5919	15719	19722	10125	16498	25477	23116	4173	2067	132897
NO.	36	36	36	36	36	36	36	36	36	37	37	37	36
DISTR OF MEAN	1.5%	3.4%	2.7%	4.5%	11.8%	14.8%	7.6%	12.4%	19.2%	17.4%	3.1%	1.6%	100%

NUECES RIVER BASIN

08194000 Nueces River at Cotulla, Texas

LOCATION: Lat 28°25'32", long 99°14'26", La Salle County, at the bridge on U.S. Highway 81, 0.3 mi (0.5 km) upstream from the Missouri-Pacific Railroad Co bridge, 0.8 mi (1.3 km) south of Cotulla, and 1.2 mi (1.9 km) upstream from Lind Dam.

DRAINAGE AREA: 5,260 mi² (13,620 km²).

PERIOD OF RECORD: November 1923 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 368.08 ft (112.191 m) above mean sea level, datum of 1929, Oct. 31, 1923 to Aug. 3, 1924, nonrecording gage at the approximate site of the present gage at datum 7.28 ft (2.219 m) higher, Aug. 4, 1924 to Nov. 19, 1934, nonrecording gage at site 5,000 ft (1,520 m) downstream at datum 8.42 ft (2.566 m) higher, Nov. 20, 1934 to July 14, 1938, water-stage recorder, and July 15, 1938 to Apr. 30, 1963, nonrecording gage at present site and datum.

AVERAGE DISCHARGE: 53 years, 203,070 ac-ft/yr (250.4 km³/yr).

EXTREMES: Period of record (1923-75): Maximum discharge, 82,609 ft³/s (2,340 m³/s) June 18, 1935 (gage height, 32.4 ft or 9.88 m, from floodmarks); no flow at times each year.

Maximum stage since at least 1879, that of June 18, 1935.

REMARKS: Records good. A part of the flow of the Nueces River and its headwater tributaries enter the Edwards and associated limestones in the Balcones Fault Zone just north of Uvalde. At low stages, most of the headwater flow enters this formation. There are considerable masses of the floodflows into various permeable formations that occur downstream from the Balcones Fault Zone. The low flow is slightly regulated by small storage reservoirs above the station and most of the flow is diverted above the station by pumping.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1923	-	-	-	-	-	-	-	-	-	-	33530	14690	-
1924	4020	1400	269	614	21690	14360	0	0	11090	266	0	1160	54869
1925	29.0	C	340	48.0	1180	228700	1450	11640	14730	5150	833	0	264100
1926	358	0	69.4	66400	21700	28400	-	-	-	12100	288	0	-
1927	0	2470	105	2400	11.9	6920	11900	4310	0	79300	27.0	0	107444
1928	0	0	0	0	19300	14000	0	2160	56400	3200	0	0	95060
1929	0	0	6060	8150	131000	14300	3250	5750	107000	4860	205	6960	290535
1930	31.0	0	5260	14300	40000	84500	707	0	0	28100	7080	41.0	180019
1931	1430	8000	354	454	45600	25700	28600	6070	230	0	0	0	116638
1932	C	3110	397	0	21000	C	222000	7130	377000	57900	14100	9220	711877
1933	9530	6940	4260	3210	1110	256	0	0	0	1520	34.0	0	26860
1934	759	794	20.0	8330	6460	9040	236	493	12400	3440	13560	4030	59602
1935	1610	20.0	694	15470	130900	635300	103200	29440	97580	9560	4600	3590	1031964
1936	2360	1320	662	766	10730	4950	130500	610	211700	55390	15200	9420	443708
1937	5140	2400	2200	940	77.0	12020	28.0	0	0	0	0	1970	24775
1938	42340	3070	1270	12820	2730	259	39730	53560	0	0	0	158	155937
1939	31.0	17.0	39.0	0	111900	11260	29290	8710	66.0	40280	515	87.0	202195
1940	20.0	61.0	4460	30220	39400	65140	29390	96.0	6360	27.0	27.0	32.0	175233
1941	25.0	32490	184	8410	59010	2250	642	13.0	6120	107	428	19.0	109698
1942	19.0	17.0	13.0	2740	12880	852	18040	192	106600	13500	1490	30.0	156453
1943	122	36.0	1.80	7.30	1.60	43090	5040	61.0	804	5320	1250	235	55964
1944	36.0	9.7	2380	72.0	42090	37820	4.00	180400	212900	2730	24.0	529	478995
1945	28.0	68.0	4610	61320	13120	12.0	0	0	0	182300	172	45.0	261675
1946	38.0	12.0	94.0	84300	37400	19380	520	1000	22550	23460	57.0	10.0	168621
1947	31.0	3.00	C	0	6020	50360	11980	434	251	0	0	0	69079
1948	0	0	0	0	0	26060	35210	0	11630	6070	348	0	79316
1949	0	8880	144600	44060	9090	44680	3180	16230	420	8300	469	266	260281
1950	11.0	2.20	0	0	3170	21160	3910	565	19810	1990	0	0	50610
1951	0	0	0	0	25290	3770	0	0	0	510	67.0	0	29637
1952	0	0	0	0	21530	12530	0	0	0	0	0	0	54060
1953	0	0	0	0	1390	0	0	1620	81410	21950	410	0	106780
1954	0	0	0	2250	20070	35660	37730	0	0	7600	0	0	103310
1955	0	0	0	0	1100	21.0	13760	136	46310	40070	0	0	161397
1956	0	0	0	0	0	0	22990	969	244	5510	45.0	0	29756
1957	0	0	37.0	85920	115200	138900	0	0	11230	31310	3150	95.0	365642
1958	11970	16000	7200	11.0	4.80	127300	32080	395	129900	69060	51940	11790	459651
1959	6430	3810	1510	59.0	8560	10290	49480	7900	8280	240200	9350	4770	350639
1960	5450	4160	2800	1040	300	0	20150	13230	7170	23560	26070	11170	115100
1961	7080	10690	4950	487	0	30570	29830	24030	1460	28.0	461	1230	110816
1962	410	12.0	0	33.0	1.00	787	0	0	0	0	3350	180	4594
1963	0	0	0	3900	10630	511	39.0	0	1010	1960	147	0	18197
1964	0	0	0	0	1720	189	0	35240	322300	120800	1360	27.0	461636
1965	.20	20.0	.20	0	79110	18130	5130	0	.20	1040	0	1.10	163432
1966	4.00	3.30	.20	5960	54690	894	0	14100	22440	566	.10	0	98678
1967	0	0	0	7530	81.0	0	0	12000	107900	25150	1760	43.0	154464
1968	15470	9740	6330	6860	83050	1840	297	77.0	1020	11090	39.0	2.70	135816
1969	0	4.10	.06	17.0	6500	4320	0	0	6390	110500	41900	25460	195511
1970	7980	3660	5340	2110	1140	2880	1.40	1620	12920	17960	17.0	0	55648
1971	0	0	0	0	0	43450	241200	394300	29290	190700	24680	12780	936400
1972	8370	5600	2570	179	6120	1370	15.0	33270	6300	1760	12.0	19.0	65585

NUECES RIVER BASIN

08194000 Nueces River at Cotulla, Texas--Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1973	514	1360	1170	181	18.0	0	11530	3140	29710	156200	29000	14340	247163
1974	7030	3900	9030	1400	12240	205	0	20990	26150	2710	15600	5240	104495
1975	4390	4660	2040	4160	7200	119700	49630	7980	3800	2070	1930	142	207702
MAX	42340	32490	144600	85920	131000	635300	241200	394300	377000	240200	53940	25480	1031964
MIN	0	0	0	0	0	0	0	0	0	0	0	0	4594
MEAN	2752	2592	4260	9368	23921	37577	23386	17644	41782	31295	5802	2691	203070
NO.	52	52	52	52	52	52	51	51	51	52	53	53	51
DISTR OF MEAN	1.4%	1.3%	2.1%	4.6%	11.8%	18.5%	11.5%	8.7%	20.6%	15.4%	2.9%	1.3%	100%

NUECES RIVER BASIN
08194200 San Casimiro Creek near Freer, Texas

LOCATION: Lat 27°57'53", Long 98°58'00", Webb County, at the bridge on State Highway 44, 11 mi (18 km) upstream from the Nueces River, and 22 mi (35 km) northwest of Freer.

DRAINAGE AREA: 469 mi² (1,215 km²).

PERIOD OF RECORD: January 1962 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 298 ft (90.8 m) above mean sea level.

AVERAGE DISCHARGE: 14 years, 50,373 ac-ft/yr (62.1 hm³/yr).

EXTREMES. Period of record (1962-75): Maximum discharge, 82,000 ft³/s (2,320 m³/s) Oct. 17, 1971 (gage height, 26.87 ft or 8.190 m); no flow for many days each year.

Maximum stage since at least 1946, that of Oct. 17, 1971.

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1962	0	0	0	121	0	2370	22.0	60.0	28.0	125	182	1.60	2910
1963	0	627	.60	24.0	1900	35280	78.0	0	1170	0	274	4.80	39358
1964	0	0	0	792	3520	33.0	5.40	823	9610	2680	0	0	17663
1965	0	0	0	0	6340	0	0	243	0	345	699	3.67	7994
1966	0	57.0	1.10	6770	26800	5330	22.0	1990	1510	0	0	0	42480
1967	0	282	0	108	40.0	4.60	0	9860	140900	414	50.0	108	151767
1968	88.0	12.0	14.0	510	155	327	163	5.60	4600	3630	.20	.02	9505
1969	0	187	0	368	898	541	2.40	0	108	1260	472	822	4658
1970	166	403	16.0	0	7820	12220	76.0	3350	1690	468	2.20	0	26211
1971	0	0	0	0	250	6400	2890	1190	65770	185800	264	120	262664
1972	6.00	28.0	54.0	17.0	44280	3580	3.00	1.00	729	29.0	0	.40	48727
1973	1.40	1080	60.0	5.30	0	2650	63.0	1960	16270	26340	158	11.0	48559
1974	12.0	3.50	2160	7.10	698	38.0	0	3810	4690	26.0	750	5.50	11600
1975	0	0	0	0	15670	2370	386	879	2940	6730	2060	7.40	31042
MAX	166	1080	2160	6770	44280	35280	2890	9860	140900	185800	2060	822	262684
MIN	0	0	0	0	0	0	0	0	0	0	0	0	2910
MEAN	19.5	191	165	623	7741	5082	265	1727	17830	16275	351	103	50373
NO.	14	14	14	14	14	14	14	14	14	14	14	14	14
DISTR OF MEAN	.62	.42	.32	1.22	15.42	10.12	.52	3.42	35.42	32.32	.72	.22	1002

NUECES RIVER BASIN
08194500 Nueces River near Tilden, Texas

LOCATION: Lat 28°18'31", long 98°33'25", McMullen County, at the bridge on State Highway 16, 1.8 mi (2.9 km) upstream from Kings Branch, and 10.5 mi (16.9 km) south of Tilden.

DRAINAGE AREA: 8,192 mi² (21,217 km²).

PERIOD OF RECORD: December 1942 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 183.5 ft (55.93 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 34 years, 324,746 ac-ft/yr (400.4 km³/yr).

EXTREMES: Period record (1942-75): Maximum discharge, 76,500 ft³/s (2,170 m³/s) Sept. 24, 1967 (gage height, 26.57 ft or 8.099 m); no flow at times.

Maximum stage since 1902, that of Sept. 24, 1967.

REMARKS: Records good. A part of the flow of the Nueces River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin just north of Uvalde and upstream from this station. At low stages, most of the headwater flow enters this formation. There are some losses of the floodflows into various permeable formations that occur downstream from the Balcones Fault Zone. There are some diversions for irrigation above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1942	-	-	-	-	-	-	-	-	-	-	-	59.0	-
1943	41.0	30.0	298	25.0	340	70730	8540	20.0	15900	9530	2760	1920	110134
1944	17.0	2.20	2430	384	70990	130900	830	7920	383300	3480	40.0	252	600545
1945	54.0	1180	15090	81920	27270	1570	2710	9.7	2640	209400	380	31.0	341655
1946	28.0	13.0	277	24050	94020	76490	2440	1280	66940	343100	322	55.0	609015
1947	158	36.0	28.0	4280	141900	13660	39610	11440	629	183	5050	319	217293
1948	34.0	69.0	395	112	2820	166	51280	43.0	9140	14000	1820	157	60036
1949	5.60	884	129400	120700	80410	52900	11310	27340	1850	10770	2940	4620	443130
1950	103	990	89.0	2060	47220	89670	3820	23.0	15770	15270	1.00	0	175216
1951	0	11.0	943	85.0	15220	63500	276	0	34270	6730	427	22.0	121484
1952	3.80	241	143	112	14120	64410	2320	0	0	0	0	5.60	81355
1953	14.0	46.0	15.0	12450	15990	5.40	0	13540	151700	47870	14960	34.0	256624
1954	9.1	275	0	1300	7840	105200	80100	899	1590	8970	5910	1.20	212094
1955	21.0	22.0	0	0	12820	11120	5490	978	20240	42240	202	5.60	93189
1956	13.0	12.0	0	464	3010	701	9970	13200	2870	5690	298	5.80	35734
1957	5.20	21.0	2020	95480	253500	222800	49.0	0	47610	27300	15130	1140	665055
1958	117600	266200	26050	100	9240	14960	100200	133	33470	152500	105600	13630	839683
1959	10430	4310	2020	84.0	5940	4060	34990	7880	10170	259000	9610	4730	353224
1960	5290	3810	2640	948	1530	14350	10430	24120	9030	27000	32320	24010	155478
1961	17360	13010	5450	3580	139	16680	11860	28100	1450	18.0	5.80	624	98277
1962	381	7.10	20	335	20	7630	185	0	1470	96.0	1720	12.0	11836
1963	0	1090	1.00	1670	9790	93250	1050	0	1370	15.0	1420	2.11	109867
1964	80	0	758	349	3820	927	35.0	12450	229600	223100	1400	35.0	472475
1965	11.0	849	27.0	11.0	132400	14760	11560	79.0	2540	2830	1000	1060	167127
1966	120	623	63.0	22480	175800	25070	304	9020	26320	937	1.40	2.60	260741
1967	16.0	26.0	4.00	8180	2150	40	0	26150	604200	62310	3860	1100	707996
1968	14260	10290	5660	5760	60260	4350	340	16.0	7120	11030	59.0	14.0	119159
1969	8.86	70.0	1.60	381	5060	3770	571	1280	4070	74420	70240	31490	191362
1970	9690	4300	5030	2260	19220	50450	342	12660	2530	23960	52.0	16.0	130510
1971	10.0	8.10	3.00	0	0	9270	386800	442500	394100	691600	39740	17670	1981701
1972	9730	6270	5530	398	84550	8260	232	19360	14850	5290	99.0	54.0	154643
1973	345	3900	2570	670	220	5320	9140	4180	42850	337100	41510	13320	461125
1974	6610	4380	2780	2100	11750	1240	36.0	68940	39040	2300	16310	5520	186098
1975	5320	4340	2260	3180	25960	111500	84130	13540	10490	6350	9010	212	276292
MAX	117600	266200	129400	120700	253500	222800	386800	442500	604200	691600	105600	31490	1981701
MIN	0	0	0	0	0	40	0	0	0	0	0	0	11636
MEAN	5991	9919	7184	11997	40464	39072	26392	22640	66319	79528	11642	3598	324746
NO.	33	33	33	33	33	33	33	33	33	33	33	34	33
DISTR OF MEAN	1.81	3.11	2.21	3.71	12.51	12.01	8.11	7.01	20.41	24.51	3.61	1.11	1001

NUECES RIVER BASIN
08194600 Nueces River at Simmons, Texas

LOCATION: Lat 26°25'16", long 98°17'03", Live Oak County, 58 ft (18 m) upstream from the centerline of a county road bridge, 714 ft (218 m) to the right of the right abutment of the above county road bridge, 1.1 mi (1.8 km) north of Simmons, 1.5 mi (2.4 km) upstream from Lang Creek, and 10.1 mi (16.3 km) upstream from the Frio River.

DRAINAGE AREA: 8,561 mi² (22,173 km²).

PERIOD OF RECORD: April 1965 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 119.63 ft (36.463 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 11 years, 415,071 ac-ft/yr (511.8 hm³/yr).

EXTREMES: Period of record (1965-75): Maximum discharge, 72,000 ft³/s (2,040 m³/s) Sept. 25, 1967 (gage height, 43.21 ft or 13.170 m); no flow at times.

Maximum stage since at least 1875, 43.5 ft or 13.26 m (discharge, 75,800 ft³/s or 2,150 m³/s), in September 1919.

REMARKS: Records good. A part of the flow of the Nueces River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin just north of Uvalde and upstream from this station. At low stages, most of the headwater flows enter this formation. There are some losses of the floodflows into various permeable formations that occur downstream from the Balcones Fault Zone. There are some diversions for irrigation above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1965	-	-	-	30.0	117300	20630	10600	13.0	1240	3560	1130	1240	-
1966	179	625	13.0	17290	183500	25350	631	8690	24690	1730	6.50	0	262705
1967	.50	14.0	0	8070	1740	.08	0	25810	691900	80820	3600	1140	813095
1968	16870	11460	6190	5650	57010	10280	510	7.00	8130	11690	98.0	46.0	127941
1969	19.0	517	28.0	582	5520	3240	850	2570	4120	65580	70030	33460	166516
1970	10170	4350	4790	2380	23310	58540	723	9870	1310	19090	113	27.0	134673
1971	4.20	.60	.20	15.0	0	9680	349700	382600	411700	639400	48190	16370	1857660
1972	11040	6890	5490	596	80220	7400	486	16170	14900	5690	342	167	149391
1973	375	3090	2690	1170	217	10600	8200	4610	32880	313900	44370	13760	435662
1974	7090	4350	24790	2660	12050	1650	43.0	60240	48020	3450	14670	6160	165173
1975	6310	4970	2670	3010	22460	94810	68660	14150	11200	4990	9780	502	243512
MAX	16870	11460	24790	17290	183500	94810	349700	382600	691900	639400	70030	33460	1857660
MIN	.50	.60	0	15.0	0	.08	0	7.00	1240	1730	6.50	0	127941
MEAN	5206	3627	4666	3768	45757	22016	40037	47703	113645	104536	17485	6625	415071
NL.	10	10	10	11	11	11	11	11	11	11	11	11	10
DISTR OF MEAN	1.3%	.9%	1.1%	.9%	11.0%	5.3%	9.6%	11.5%	27.4%	25.2%	4.2%	1.6%	100%

NUECES RIVER BASIN
08195000 Frio River at Concan, Texas

LOCATION: Lat 29°28'18", long 99°42'16", Uvalde County, 0.7 mi (1.1 km) southeast of the Concan Post Office, and 15 mi (24 km) upstream from the Dry Frio River.

DRAINAGE AREA: 405 mi² (1,049 km²).

PERIOD OF RECORD: November 1923 to September 1929, October 1930 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,203.71 ft (366.891 m) above mean sea level, datum of 1929, Oct. 26, 1923 to July 28, 1924, nonrecording gage at site 86 ft (26 m) upstream at datum 5.08 ft (1.548 m) lower, July 29, 1924 to Oct. 3, 1930, nonrecording gage, and Oct. 4, 1930 to May 18, 1939, water-stage recorder at site 130 ft (40 m) downstream at present datum.

AVERAGE DISCHARGE: 53 years, 77,360 ac-ft/yr (95.4 hm³/yr).

EXTREMES: Period of record (1923-29, 1930-75): Maximum discharge, 162,000 ft³/s (4,590 m³/s) July 1, 1932 (gage height, 34.44 ft or 10.497 m, from floodmarks); no flow Aug. 5, 1956 to Jan. 6, 1957.

Maximum stage since at least 1869, that of July 1, 1932.

REMARKS: Records good. There are many small diversions for irrigation above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1923	-	-	-	-	-	-	-	-	-	-	18600	10900	-
1924	7220	5500	7680	8600	9760	6190	2840	1350	1500	1590	1650	1770	55650
1925	1750	1920	2090	1910	4850	2700	1220	1090	1620	4470	3240	2910	29770
1926	2810	2410	2770	3340	2860	2120	27300	5350	3200	3310	2340	3180	60990
1927	3060	9090	9510	6830	4840	3790	3340	2220	1560	2610	1870	1950	50670
1928	1970	1930	2040	1870	2310	1990	959	2550	1500	2210	1430	1490	22249
1929	1490	1160	1230	988	4110	2750	4010	1180	1380	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	31300	5890	5210	-
1931	6760	11000	9900	12900	26000	9220	26700	8980	4680	7910	4250	4520	132820
1932	4810	5340	7750	5800	7810	4470	174000	12500	68300	22300	10500	8180	331760
1933	8240	6000	5730	4570	4390	3480	2430	2210	2300	1990	2060	2190	45590
1934	2620	2150	2350	3800	4070	1400	1080	978	643	649	728	1230	21698
1935	1500	1620	1510	1920	64040	146900	34780	14750	29150	10580	7000	7940	321690
1936	6930	5550	5370	5410	5860	5650	5460	3450	79300	24330	16090	10150	173550
1937	7920	6110	7240	5480	4180	5160	3090	2070	1730	2160	2630	6220	53990
1938	8250	6430	6090	5710	6540	4250	3200	2450	1850	1730	1490	1840	49830
1939	2630	2430	2430	1880	1460	1130	22980	5640	2510	3930	2990	2800	52810
1940	2550	2870	2770	4450	6890	5460	6590	2950	2210	1830	2480	4060	45110
1941	3630	4240	5350	15070	20690	8880	6050	9480	11600	13420	9570	6910	114890
1942	5220	4120	3940	5670	7330	3910	3420	3450	9950	9040	6510	4950	67510
1943	4170	3150	3280	3550	3010	3420	2480	1370	1570	1850	1730	2470	32050
1944	3140	3010	5550	4660	6460	7360	3730	4510	5620	4650	3360	4010	56060
1945	8340	6620	6360	7050	5880	3260	2110	1240	972	3760	2820	3230	51642
1946	2820	2690	2500	2260	3060	2160	1730	877	1660	17150	6320	4240	47467
1947	6510	5580	5140	5140	6110	9750	6590	3420	2310	1930	2220	2690	57390
1948	2490	2470	2440	2010	1750	1900	1730	842	834	1170	1200	1420	20256
1949	1780	27720	10960	8190	7080	5120	3170	3140	3280	3730	3190	3310	80670
1950	3430	3220	3440	2860	2990	2570	1790	1430	1360	1460	1160	1530	27240
1951	1290	1400	2030	2250	7520	2600	888	433	2300	728	984	1238	23653
1952	1260	1150	1410	1900	2620	1610	727	248	9140	9540	415	1230	12756
1953	1760	1320	1280	980	474	7140	7740	181	851	1290	1220	1210	10714
1954	1080	885	781	650	10710	3530	2700	1130	522	358	439	567	23352
1955	807	994	1070	692	2560	856	2270	894	1980	1110	908	946	15087
1956	823	730	726	507	399	6440	166	1420	0	0	0	0	3416
1957	185	458	1710	10600	5590	8380	1980	720	1340	6650	6140	5130	48883
1958	5740	8560	12980	6580	5720	31240	12830	8490	45570	24790	23290	12110	197900
1959	8170	5660	5180	5030	5370	23040	14630	7660	5850	15530	7930	6510	110560
1960	6450	5970	5890	5060	4300	2880	5640	13050	7220	7920	10440	12070	86890
1961	10450	13010	11050	7680	5600	13030	11040	9000	5820	6400	5450	4870	103400
1962	4330	3470	3240	3460	3190	5200	1750	879	785	3950	3110	3120	36484
1963	2800	2510	2820	2750	2800	1450	814	384	466	758	2190	2550	22292
1964	2620	3550	3820	3950	3210	1690	820	557	6910	6410	3850	3600	40987
1965	3240	3920	3640	3760	9670	12260	4480	2260	1630	3030	3310	3980	55180
1966	3800	3120	3130	4040	4700	2980	5870	38590	18250	9700	5850	4620	104650
1967	4020	3300	3270	2930	2090	1060	8700	2690	5230	16920	17960	9960	78130
1968	13670	12860	12300	10730	16450	8970	10190	5580	4710	4380	3900	4490	108230
1969	3840	3380	3490	4370	4030	2350	1340	1340	2300	39830	9770	11380	87420
1970	7620	5610	8430	6370	11320	8020	4640	3220	13230	9580	6360	5390	89790
1971	4450	3460	3670	3090	2620	1690	1640	64570	12010	29440	17560	11570	155770
1972	8120	6120	5440	4180	16690	8480	5490	16930	11610	9270	6770	5730	104830

NUECES RIVER BASIN
08195000 Frio River at Concan, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1973	5150	4780	5970	5910	4580	16780	51860	14560	7530	38060	14510	9910	179600
1974	7950	5750	5790	4750	14040	5080	3240	7840	6610	6870	7600	6170	81690
1975	6340	8870	7440	6010	10200	8890	7620	5860	4550	5010	5090	4560	80440
MAX	13670	27720	12980	15070	64040	146900	174000	64570	79300	39830	23290	12110	331760
MIN	185	458	726	507	399	64.0	77.0	1.20	0	0	0	0	3416
MEAN	4471	4807	4745	4709	7466	8376	10082	6011	8038	8414	5545	4696	77360
NO.	51	51	51	51	51	51	51	51	51	51	52	52	50
DISTR OF MEAN	5.8%	6.2%	6.1%	6.1%	9.7%	10.8%	13.0%	7.8%	10.4%	10.9%	7.2%	6.1%	100%

NUECES RIVER BASIN
08196000 Dry Frio River near Reagan Wells, Texas

LOCATION: Lat 29°30'16", long 99°46'52", Uvalde County, 2.3 mi (3.7 km) upstream from the bridge on U.S. Highway B3, 0.1 mi (5.0 km) upstream from Rocky Creek, and 4.3 mi (6.9 km) southeast of Reagan Wells.

DRAINAGE AREA: 117 mi² (303 km²).

PERIOD OF RECORD: September 1952 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,335.2 ft (406.97 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 24 years, 24,408 ac-ft/yr (30.1 hm³/yr).

EXTREMES: Period of record (1952-75): Maximum discharge, 123,000 ft³/s (3,480 m³/s) Aug. 13, 1966 (gage height, 27.6 ft or 8.41 m, from floodmark); no flow at times.

Maximum stage since at least 1875 occurred in 1880, about 33 ft (10.1 m).

REMARKS: Records good. There are several small diversions above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1952	-	-	-	-	-	-	-	-	6.50	6.10	28.0	2.32	-
1953	391	235	284	221	82.0	12.0	4.80	15.0	1510	529	412	271	3967
1954	223	178	138	95.0	5350	1610	1090	249	112	164	120	122	9451
1955	186	244	252	155	160	116	471	218	6190	677	299	266	9434
1956	202	190	167	89.0	53.0	19.0	13.0	0	0	0	0	3.40	736
1957	32.0	48.0	266	1590	2870	7750	502	184	1170	13630	2480	1510	32032
1958	2570	5110	6470	2260	1810	13760	5020	2150	16460	10190	7540	3190	76530
1959	2070	1440	1190	1210	2010	4530	3500	1520	3430	10230	2210	1710	35050
1960	1640	1250	1090	926	979	430	1510	5740	1790	2430	2560	2400	22745
1961	2370	3230	2110	1250	720	8580	4400	3810	1560	1620	1250	906	31806
1962	781	657	649	607	691	337	181	91.0	86.0	64.0	62.0	437	4643
1963	349	510	428	685	977	297	104	24.0	12.0	41.0	236	440	4103
1964	491	1330	1540	1150	528	184	39.0	14.0	1110	1520	863	543	9312
1965	421	1870	768	799	4840	2020	497	166	237	685	576	1410	14289
1966	1390	801	699	568	701	233	475	22470	5250	1940	1060	817	36404
1967	702	611	595	451	266	138	1500	487	3200	10570	7980	2970	29470
1968	3540	3200	3430	4950	4490	2510	5900	1910	1340	1040	789	1070	34169
1969	821	698	713	1110	846	544	231	264	417	15870	3170	3310	27994
1970	1790	1540	2290	1440	1370	1210	614	362	6620	3160	1470	1130	22996
1971	867	768	767	653	505	537	1080	17790	3610	10210	4770	2460	44017
1972	1620	1320	1130	758	1070	2670	683	1790	1790	1440	901	756	15928
1973	819	1070	1330	1490	1160	12490	16290	4660	2450	14130	4610	2520	63019
1974	1850	1220	1280	950	3100	938	680	4150	1940	2330	2480	1710	22628
1975	1900	3360	1860	1350	2490	2380	2800	1240	801	830	799	669	20479
MAX	3540	5110	6470	4950	5350	13760	16290	22470	16460	15870	7980	3310	76530
MIN	32.0	48.0	138	89.0	53.0	12.0	4.80	0	0	0	0	3.40	736
MEAN	1175	1343	1280	1076	1612	2752	2069	3013	2545	4313	1944	1286	24408
NO.	23	23	23	23	23	23	23	23	24	24	24	24	23
DISTR OF MEAN	4.8%	5.5%	5.2%	4.4%	6.6%	11.3%	8.5%	12.3%	10.4%	17.7%	8.0%	5.3%	100%

NUECES RIVER BASIN

08197500 Frio River below Dry Frio River near Uvalde, Texas

LOCATION: Lat 29°14'44", long 99°40'27", Uvalde County, 1.1 mi (1.8 km) upstream from the bridge on Farm Road 1023, 5.7 mi (9.2 km) downstream from the Dry Frio River, 6.3 mi (10.1 km) downstream from the bridge on U.S. Highway 90, and 7.2 mi (11.6 km) northeast of Uvalde.

DRAINAGE AREA: 661 mi² (1,712 km²).

PERIOD OF RECORD: September 1952 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 882.47 ft (268.977 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 24 years, 18,036 ac-ft/yr (22.2 hm³/yr).

EXTREMES: Period of record (1952-75): Maximum discharge, 88,500 ft³/s (2,510 m³/s) Aug. 13, 1966 (gage height, 23.88 ft or 7.279 m, from floodmark); no flow most of the time each year.

Maximum stage since at least 1887, about 35 ft (10.7 m) in 1894.

REMARKS: Records fair. A part of the flow of the Frio River enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin just north of Uvalde and above this station. Most of the low flow enters this formation. There are many diversions for irrigation above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1952	-	-	-	-	-	-	-	-	0	0	0	0	-
1953	0	0	0	0	0	0	0	17.0	0	0	0	0	17.0
1954	0	0	0	0	156.10	0	0	0	0	0	0	0	156.10
1955	0	0	0	0	0	0	0	0	52.10	0	0	0	52.10
1956	0	0	0	0	0	0	0	4.0	0	0	0	0	4.0
1957	0	0	0	316.0	402.0	481.0	0	0	70.5	776.0	0	0	2047.5
1958	0	0	166	0	0	1813.0	138	0	4162.0	5500	484.0	0	7039.4
1959	0	0	0	0	0	1817.0	175	0	45.0	687.0	0	0	2526.0
1960	0	0	0	0	0	0	0	87.8	0	0	0	0	87.8
1961	0	0	0	0	0	367.0	0	0	0	0	0	0	367.0
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	33.8	0	0	0	33.8
1965	0	0	0	0	0	188.0	0	0	0	0	0	0	188.0
1966	0	0	0	0	0	0	48.5	4710.0	224.0	0	0	0	4982.5
1967	0	0	0	0	0	0	282.0	0	0	1285.0	275.0	0	1842.0
1968	182.0	42.0	0	0	48.9	0	46.5	0	0	0	0	0	281.6
1969	0	0	0	0	0	0	0	0	0	4407.0	1.00	0	4407.1
1970	0	0	0	0	35.9	0	5.70	0	0	5.70	0	0	37.0
1971	0	0	0	0	0	0	0	5518.0	50.0	1039.0	83.7	0	6645.7
1972	0	0	0	0	252.0	21.5	0	454.0	1.00	0	0	0	727.6
1973	0	0	0	0	0	1014.0	3674.0	216.0	0	2668.0	103.0	0.70	7675.1
1974	0	0	0	0	329.0	0	0	796.0	23.0	244	701	0	1221.8
1975	0	0	0	0	0	0	0	0	0	0	0	0	0
MAX	182.0	42.0	166	318.0	156.10	1817.0	3674.0	5518.0	4162.0	4407.0	484.0	0.70	7675.1
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	79.1	1.83	7.22	138	114.3	2488	177.5	512.3	209.3	476.5	42.3	0.03	1803.6
NO.	23	23	23	23	23	23	23	23	24	24	24	24	23
COEFF OF VARIATION	.41	.01	.01	.81	6.31	13.81	9.81	28.41	11.61	26.41	2.31	.01	1001

NUECES RIVER BASIN

08198000 Sabinal River near Sabinal, Texas

LOCATION: Lat 29°29'35", long 99°29'49", Uvalde County, 108 ft (33 m) upstream from a concrete dam, 2.3 mi (3.7 km) downstream from the mouth of Onion Creek, and 12.5 mi (20.1 km) north of Sabinal.

DRAINAGE AREA: 206 mi² (534 km²).

PERIOD OF RECORD: October 1842 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,131.20 ft (344.790 m) above mean sea level, datum of 1929. Prior to Apr. 9, 1971, at site 0.3 mi (0.5 km) downstream at same datum.

AVERAGE DISCHARGE: 34 years, 34,777 ac-ft/yr (42.0 hm³/yr).

EXTREMES: Period of record (1942-75); Maximum discharge, 55,200 ft³/s (1,560 m³/s) June 17, 1958 (gage height, 28.3 ft or 8.63 m, from floodmark at present site); no flow at times.

Maximum stage since at least 1892, about 33 ft (10.1 m) July 2, 1932, from information by local residents. There is a legend that a flood in the middle 1800's reached a stage of nearly 63 ft (19.2 m). See flood history for station 08198500.

REMARKS: Records good. There are several small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1942	-	-	-	-	-	-	-	-	-	5120	2550	1770	-
1943	1330	930	964	1760	909	2180	1660	442	180	198	186	324	11063
1944	851	1310	4360	2770	2820	3800	1730	2530	1310	998	801	1610	24890
1945	6140	3640	5240	6340	3440	1670	820	264	563	995	672	978	30762
1946	754	732	617	1010	1170	696	305	28.0	1890	4860	2820	1710	16592
1947	2180	2040	1840	1660	1900	4010	1560	731	312	78.0	72.0	206	16589
1948	274	397	451	206	49.0	278	151	0	348	306	42.0	84.0	2586
1949	288	5360	3800	5500	4890	2950	1510	1420	1300	1770	1310	1140	31258
1950	1270	1460	1610	1240	1250	1840	869	193	50.0	30.0	28.0	67.0	9907
1951	109	122	254	292	5030	1290	219	3.40	0	0	0	0	7319
1952	0	0	0	268	1550	1190	195	11.0	3.20	0	0	27.0	3244
1953	101	181	147	9.3	0	0	0	16.0	276	1250	585	498	3063
1954	247	114	35.0	0	5700	1050	558	87.0	0	0	0	0	7791
1955	0	0	0	0	349	13.0	226	0	0	0	0	0	590
1956	0	0	0	0	0	0	1150	0	0	0	0	0	1150
1957	0	0	1380	6090	2650	5570	501	80	5230	4050	4090	3670	33232
1958	5900	8810	15740	5970	5700	42600	9530	3670	15350	18400	19100	7990	158760
1959	4550	2790	2180	2650	2010	13100	9200	3830	2160	7570	4910	3980	58930
1960	4110	3560	2990	2530	2720	976	5900	11800	3730	5370	5610	6420	55756
1961	5840	9860	7540	3980	2720	9750	5450	3590	1580	2210	1170	1200	54890
1962	1040	690	545	725	547	370	13.0	0	0	0	12.0	399	4341
1963	486	843	424	484	1680	250	29.0	0	0	0	0	0	4196
1964	190	664	2210	1200	657	169	0	184	6020	2630	1510	1190	16624
1965	920	1830	1480	1320	1720	2520	883	236	2550	3390	1650	2550	21049
1966	1870	1430	1360	1400	2320	1130	508	5100	12520	5480	2820	2040	37978
1967	1420	994	824	2340	632	167	0	0	7460	12360	13360	6420	45977
1968	9160	10620	11370	7870	18130	7940	7320	3180	2960	2210	1600	1730	84090
1969	1550	1330	1410	1530	1840	1030	293	347	589	19510	5550	4170	39149
1970	3260	3240	6210	4400	4160	2270	1500	629	532	1290	1070	1080	29641
1971	855	586	634	550	260	112	64.0	41130	6550	19540	10970	5840	87091
1972	3970	2900	2360	1620	5410	3320	1840	9110	5690	4160	2990	2300	45670
1973	2000	1940	2620	3200	2950	9310	63610	13870	5590	12600	7890	5400	130980
1974	3960	2570	2300	1560	4410	2330	1050	3430	3290	2240	2480	2890	32950
1975	3260	7090	5300	3360	3900	3860	3980	2160	1720	1760	1450	1270	39110
MAX	9160	10620	15740	7870	18130	42600	63610	41130	15350	19540	19100	7990	158760
MIN	0	0	0	0	0	0	0	0	0	0	0	0	590
MEAN	2057	2365	2673	2237	2833	3871	3716	3274	2720	4130	2673	2028	34777
NO.	33	33	33	33	33	33	33	33	33	34	34	34	33
DISTR													
OF MEAN	5.9%	6.8%	7.7%	6.4%	8.1%	11.1%	10.7%	9.4%	7.8%	11.9%	8.3%	5.8%	100%

NUECES RIVER BASIN

08198500 Sabinal River at Sabinal, Texas

LOCATION: Lat 29°18'47", long 99°28'46". Uvalde County, 80 ft (24 m) downstream from the bridge on U.S. Highway 90, 1,100 ft (335 m) downstream from the Southern-Pacific Railroad Co. bridge, 0.8 mi (1.3 km) west of Sabinal, and 5.8 mi (9.3 km) upstream from Rancho Creek.

DRAINAGE AREA: 247 mi² (640 km²).

PERIOD OF RECORD: September 1952 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 882.17 ft (268.885 m) above mean sea level, datum of 1929. Prior to July 29, 1958, nonrecording gage, and July 29, 1958 to Mar. 19, 1964, water-stage recorder at site 80 ft (24 m) upstream at same datum.

AVERAGE DISCHARGE: 24 years, 20,054 ac-ft/yr (24.7 hm³/yr).

EXTREMES: Period of record (1952-75): Maximum discharge, 73,300 ft³/s (2,080 m³/s) June 17, 1958 (gage height, 33.3 ft or 10.15 m); no flow at times most years.

Maximum stage since at least 1890, 40 ft (12.2 m) Aug. 24, 1919, from information by local residents. There is a legend that a flood in 1858 covered the townsite of Sabinal. This would call for a stage of 70 to 80 ft (21.3 to 24.4 m) which seems unlikely. However, it is possible that a flood occurred in 1858 that covered part of the townsite and was higher than any flood since that date.

REMARKS: Records good. There are several small diversions for irrigation above the station. Most of the low flow of the Sabinal River enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin upstream from this station and below the next upstream station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1952	-	-	-	-	-	-	-	-	3.80	0	0	0	-
1953	0	0	5.20	4.60	0	0	0	25.0	852	634	88.0	113	1722
1954	45.0	22.0	13.0	8.70	8070	232	64.0	59.0	8.90	66.0	4.80	4.60	8598
1955	15.0	22.0	27.0	31.0	4.40	16.0	2.40	12.0	25.0	5.20	0	0	160
1956	0	0	0	0	0	0	672	64.0	8.30	33.0	.60	0	778
1957	0	0	383	5900	3120	3170	76.0	167	4250	1460	965	572	20063
1958	2070	4920	11630	2420	822	54130	6440	159	12510	11760	13050	3820	123731
1959	1100	255	165	111	27.0	11730	3950	304	123	3170	621	241	21797
1960	193	323	193	140	110	36.0	24.0	459	122	559	1260	2090	5509
1961	1800	4360	2150	380	142	1910	284	252	116	116	101	89.0	11700
1962	35.0	38.0	48.0	31.0	18.0	3.00	1.80	0	0	0	0	4.60	179
1963	4.80	8.30	7.10	12.0	12.0	2.20	0	0	0	0	0	1.60	48.0
1964	7.30	9.5	7.30	8.90	8.10	109	22.0	2.80	4510	293	140	77.0	5195
1965	53.0	50.0	37.0	37.0	37.0	24.0	51.0	19.0	884	1400	154	92.0	2838
1966	75.0	63.0	40.0	25.0	22.0	7.40	.40	1710	4610	296	117	86.0	7052
1967	73.0	53.0	70.0	1130	93.0	60.0	26.0	16.0	5460	8890	6210	2040	24121
1968	4790	5680	6040	3180	12020	3220	1520	202	145	94.0	81.0	91.0	37063
1969	68.0	46.0	44.0	44.0	60.0	31.0	21.0	137	103	16030	679	211	17474
1970	141	85.0	521	247	204	105	64.0	47.0	48.0	61.0	56.0	45.0	1624
1971	39.0	31.0	35.0	46.0	30.0	31.0	33.0	43590	2350	14630	5000	1280	67095
1972	307	173	142	110	441	138	90.0	4800	469	191	149	121	7131
1973	93.0	82.0	74.0	77.0	59.0	6250	65550	8920	964	8290	3340	956	94655
1974	382	233	160	119	854	161	98.0	3270	445	267	220	168	6377
1975	153	1000	341	209	195	162	144	108	73.0	66.0	61.0	62.0	2574
MAX	4790	5680	11630	5900	12020	54130	65550	43590	12510	16030	13050	3820	123731
MIN	0	0	0	0	0	0	0	0	0	0	0	0	48.0
MEAN	498	759	962	620	1146	3545	3441	2797	1587	2846	1346	567	20054
NO.	23	23	23	23	23	23	23	23	24	24	24	24	23
DISTR													
OF MEAN	2.51	3.81	4.81	3.11	5.71	17.71	17.21	13.91	7.91	14.21	6.71	2.51	1001

NUECES RIVER BASIN
08199700 Frio River near Frio Town, Texas

LOCATION: Lat 29°05'30", long 99°24'40", Uvalde County, 1.5 mi (2.4 km) below Sabinal Creek, and 7 mi (11.3 km) northwest of Frio Town (Frio County).

DRAINAGE AREA: 1,460 mi² (3,781.4 km²).

PERIOD OF RECORD: May 1924 to September 1927.

GAGE: Combination staff and chain gage. Datum of gage not published.

AVERAGE DISCHARGE: 4 years, 29,448 ac-ft/yr (36.3 km³/yr).

EXTREMES: Period of record (1924-27): Maximum discharge, 30,200 ft³/s (855.3 m³/s) April 20, 1926 (gage height, 30.5 ft or 9.3 m); no flow most of the time.

REMARKS: Records fair. There are several small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1924	-	-	-	-	1520	1300	3000	0	0	0	0	0	-
1925	0	0	0	0	3230	0	0	0	0	1760	0	0	4990
1926	0	0	0	68100	0	0	14100	0	0	0	0	0	82200
1927	0	0	0	730	0	787	2730	0	0	-	-	-	-
MAX	0	0	0	68100	3230	1300	14100	0	0	1760	0	0	82200
MIN	0	0	0	0	0	0	0	0	0	0	0	0	4990
MEAN	0	0	0	22943	1188	522	4208	0	0	587	0	0	29448
NO.	3	3	3	3	4	4	4	4	4	3	3	3	2
DISTR OF MEAN	.0%	.0%	.0%	77.9%	4.0%	1.8%	14.3%	.0%	.0%	2.0%	.0%	.0%	100%

NUECES RIVER BASIN
08200000 Hondo Creek near Tarpley, Texas

LOCATION: Lat 28°34'10", long 99°14'47", Medina County, 460 ft (140 m) downstream from the bridge on Ranch Road 462, 6.3 mi (10.1 km) southeast of Tarpley, and 16.6 mi (26.7 km) northwest of Hondo.

DRAINAGE AREA: 86.2 mi² (223.3 km²).

PERIOD OF RECORD: September 1952 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1,169.1 ft (356.34 m) above mean sea level.

AVERAGE DISCHARGE: 24 years, 26,298 ac-ft/yr (32.4 hm³/yr).

EXTREMES: Period of record (1952-75): Maximum discharge, 69,800 ft³/s (1,980 m³/s) June 17, 1958 (gage height, 28.2 ft or 8.60 m, from floodmark); no flow at times in 1952-57, 1962-64, 1957, and 1971.

Maximum stage since at least 1907, that of June 17, 1958.

REMARKS: Records good. There are several small diversions for irrigation above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1952	-	-	-	-	-	-	-	-	432	40	136	665	-
1953	279	148	124	72.0	4.60	40.0	1.80	397	2170	3030	676	353	7295
1954	230	116	94.0	127	2240	517	85.0	11.0	19.0	97.0	0	0	3536
1955	9.1	62.0	384	15.0	128	6.0	114	5.40	0	0	0	0	718
1956	0	0	0	0	0	40.0	168	34.0	58.0	111	1.40	0	412
1957	0	0	2370	8580	4290	4600	590	106	7240	4860	5390	2880	40906
1958	7810	8330	9610	3080	2300	31570	3730	1090	9090	8630	7950	2830	96020
1959	1390	827	633	3020	1750	2350	2040	727	382	4060	1990	1390	20559
1960	1400	1130	1210	1460	1130	398	2950	3800	1860	2330	3330	5030	26046
1961	3920	6160	3800	1770	839	6930	2700	1530	724	732	478	365	29948
1962	266	194	195	302	274	434	41.0	2.80	51.0	70.0	81.0	125	2036
1963	67.0	117	92.0	249	532	119	16.0	2.00	2.20	116	79.0	60.0	1449
1964	273	449	323	417	203	145	17.0	1.60	3240	1260	795	435	7559
1965	286	1420	1090	906	4050	2530	687	297	327	4190	581	2620	18984
1966	1320	904	803	584	1110	960	729	3000	4110	1260	461	317	15558
1967	209	185	126	222	56.0	7.60	2.70	67.0	3430	2280	3910	1680	12175
1968	6670	5330	8280	4960	9580	3830	3940	1780	912	640	433	621	46976
1969	429	455	630	2020	3540	1260	449	642	894	6740	2250	2280	21589
1970	1450	1840	4690	2220	2840	2260	876	396	455	629	358	249	18263
1971	210	146	45.0	111	79.0	60.0	34.0	40200	4260	15600	4420	2250	67415
1972	1360	831	571	1050	8560	3340	1620	6720	3540	1770	1050	819	31231
1973	742	1480	2690	2190	2090	8820	35270	5460	2170	7930	3360	1900	74102
1974	1260	829	739	503	6300	2460	840	1780	2110	1210	2380	1870	22281
1975	2850	10380	3080	2410	10390	6510	5220	2290	1200	742	661	560	46293
MAX	7810	10380	9610	8580	10390	31570	35270	40200	9090	15600	7950	5030	96020
MIN	0	0	0	0	0	4.80	1.80	1.40	0	0	0	0	412
MEAN	1410	1797	1808	1578	2708	3443	2701	3058	2028	2845	1699	1221	26296
NO.	23	23	23	23	23	23	23	23	24	24	24	24	23
DISTR													
OF MEAN	5.4%	6.8%	6.9%	6.0%	10.3%	13.1%	10.3%	11.6%	7.7%	10.8%	6.5%	4.6%	100%

NUECES RIVER BASIN

08200500 Hondo Creek near Hondo, Texas

LOCATION: Lat 29°27', long 99°11', Medina County, 43 ft (13.1 m) upstream from Schlentz's Crossing, 7.8 mi (12.6 km) northwest of Hondo, and 13.5 mi (21.7 km) upstream from Verde Creek.

DRAINAGE AREA: 132 mi² (341.9 km²).

PERIOD OF RECORD: August 1952 to October 1964.

GAGE: Water-stage recorder and concrete control. Datum of gage is 986.4 ft (300.6 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 13 years, 11,768 ac-ft/yr (14.5 hm³/yr).

EXTREMES: Period of record (1952-64): Maximum discharge, 71,700 ft³/s (2,022.0 m³/s) June 17, 1958 (gage height, 23.4 ft or 7.1 m, from floodmark); no flow most of the time.

Maximum stage since at least 1910, 25.8 ft (7.9 m) in September 1919, from information by a local resident.

REMARKS: Records fair. Most of the low flow enters the Edwards limestone in the Balcones Fault Zone which crosses the basin upstream from the station. There are several small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1952	-	-	-	-	-	-	-	0	237	0	0	490	-
1953	0	0	0	0	0	0	0	234	5550	4200	120	0	9985
1954	0	0	0	0	2610	150	0	0	0	0	0	0	2625
1955	0	0	448	0	0	0	0	0	0	0	0	0	448
1956	0	0	0	0	0	0	219	0	0	0	0	0	219
1957	0	0	1910	8820	8200	3850	0	0	6910	3440	3370	1540	38040
1958	5810	6430	8070	1460	317	26770	1420	0	7980	5450	5170	911	69788
1959	106	0	0	1130	440	641	260	0	0	2930	0	0	4837
1960	0	0	0	0	0	0	992	1830	0	791	870	602	4302
1961	0	2630	335	0	0	6400	1100	116	0	0	0	0	10581
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	2920	110	-	-	-
MAX	5810	6430	8070	8820	8200	26770	1420	1830	7980	5450	5170	1540	69788
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	493	755	897	951	928	3140	313	168	1815	1294	719	295	11768
NO.	12	12	12	12	12	12	12	13	13	13	12	12	11
DISTR OF MEAN	4.2%	6.4%	7.6%	8.1%	7.9%	26.7%	2.7%	1.4%	15.4%	11.0%	6.1%	2.5%	100%

NUECES RIVER BASIN

08200700 Hondo Creek at King Waterhole near Hondo, Texas

LOCATION: Lat 29°23'26", long 99°09'04", Medina County, 0.3 mi (0.5 km) downstream from a county road low-water crossing, 3.1 mi (5.0 km) north of Hondo, and 7.8 mi (12.6 km) upstream from Verde Creek.

DRAINAGE AREA: 142 mi² (368 km²).

PERIOD OF RECORD: October 1960 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 897.87 ft (273.67 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 16 years, 10,793 ac-ft/yr (13.3 hm³/yr).

EXTREMES: Period of record (1960-75): Maximum discharge, 46,900 ft³/s (1,330 m³/s) July 15, 1973 (gage height, 16.4 ft or 5.00 m, from floodmark); no flow most of the time.

Maximum stage since at least 1875, 21 ft (6.4 m) in September 1919, from information by local resident.

REMARKS: Records good. Most of the low flow of Hondo Creek enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin upstream from the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1960	-	-	-	-	-	-	-	-	-	228	0	0.20	-
1961	0	1020	4.40	0	0	4790	16.0	0	0	0	0	0	5630
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	42.0	0	0	1930	7.70	16.0	0	1996
1965	0	0	0	0	446	13.0	0	0	0	2490	0	31.0	2982
1966	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	2.20	0	0	0	7	2540	0	214	0	2756
1968	3500	67.0	2970	86.0	6150	67.0	1710	0	0	0	0	0	14550
1969	0	0	0	0	900	0	0	0	0	3890	0	0	4790
1970	0	0	0	0	2300	19.0	0	0	0	0	0	0	2319
1971	0	0	0	0	0	0	0	62410	171	9840	643	0	73064
1972	0	0	0	0	5710	30.0	21.0	3210	14.0	4.70	2.70	1.30	8994
1973	.40	.70	.30	2.00	0	3180	31290	197	41.0	2230	41.0	24.0	37006
1974	18.0	17.0	14.0	3.70	619	65.0	4.70	4380	6.60	3.60	1.70	3.80	5137
1975	1.80	3430	1.60	3.20	15.0	5.10	4.20	7.30	5.20	7.30	2.20	1.90	3485
MAX	3500	3430	2970	86.0	6150	4790	31290	62410	2540	9840	643	31.0	73064
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	235	302	199	6.47	1076	547	2203	4680	314	1169	57.5	3.89	10793
NO.	15	15	15	15	15	15	15	15	15	16	16	16	15
DISTR OF MEAN	2.2%	2.8%	1.8%	.1%	10.0%	5.1%	20.4%	43.4%	2.9%	10.8%	.5%	.0%	100%

NUECES RIVER BASIN

08201500 Seco Creek at Miller Ranch near Utopia, Texas

LOCATION: Lat 29°34'23", long 99°24'10", Medina County, 200 ft (61 m) upstream from a county road crossing, 4.5 mi (7.2 km) downstream from Cascade Creek, and 7.9 mi (12.7 km) southeast of Utopia (Uvalde County).

DRAINAGE AREA: 43.1 mi² (111.6 km²).

PERIOD OF RECORD: May 1961 to December 1975.

GAGE: Water-stage recorder, crest-stage gages, and concrete control. Datum of gage is 1,265.8 ft (385.82 m) above mean sea level.

AVERAGE DISCHARGE: 15 years, 13,216 ac-ft/yr (16.3 hm³/yr).

EXTREMES: Period of record (1961-75): Maximum discharge, 38,500 ft³/s (1,090 m³/s) July 15, 1973 (gage height, 14.4 ft or 4.39 m, from floodmark); no flow for many days in 1963-64.

Maximum stage since at least 1901, 16.4 ft (5.00 m) June 17, 1958, from floodmarks, discharge, 52,600 ft³/s (1,480 m³/s), by slope-area measurement of the peak flow.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1961	-	-	-	-	361	2240	1410	949	463	422	283	234	-
1962	177	150	160	217	191	193	63.0	26.0	82.0	42.0	32.0	50.0	1383
1963	41.0	60.0	43.0	113	392	106	23.0	8.70	49.0	15.0	30.0	25.0	906
1964	133	180	168	169	87.0	66.0	23.0	1180	3450	1350	417	252	7475
1965	178	581	371	320	1190	1120	381	123	1600	1780	460	1690	9794
1966	833	514	453	336	346	228	139	1970	3170	897	329	219	9434
1967	157	122	112	392	105	30.0	15.0	28.0	3750	2420	2730	1160	11021
1968	3590	3020	4210	2290	4790	2170	3190	800	568	398	287	327	25640
1969	268	275	326	882	552	222	115	201	183	2830	775	615	7244
1970	413	600	1380	616	612	661	219	152	210	284	162	141	5450
1971	107	103	76.0	92.0	90.0	41.0	40.0	17150	3360	10400	2720	1230	35409
1972	627	378	339	439	3180	1150	466	7570	3020	1270	607	384	19430
1973	303	486	940	946	762	2200	16980	2470	1030	3360	1700	833	32010
1974	533	312	281	243	1260	438	326	416	1390	681	1310	958	8148
1975	1210	3890	1560	910	2560	2160	1740	699	356	312	251	210	15658
MAX	3590	3890	4210	2290	4790	2240	16980	17150	3750	10400	2730	1690	35409
MIN	41.0	60.0	43.0	92.0	87.0	30.0	15.0	8.70	49.0	15.0	30.0	25.0	906
MEAN	612	762	744	569	1099	868	1675	2250	1512	1764	806	555	13216
NO. OF MEAN	14	14	14	14	15	15	15	15	15	15	15	15	14
DISTR OF MEAN	4.6%	5.8%	5.6%	4.3%	8.3%	6.6%	12.7%	17.0%	11.4%	13.3%	6.1%	4.2%	100%

NUECES RIVER BASIN

08202000 Seco Creek near Utopia, Texas

LOCATION: Lat 29°32'45", long 99°24'08", Medina County, 0.5 mi (0.8 km) downstream from a county road crossing, 7.5 mi (12.2 km) upstream from Bartz Spring Creek, and 9 mi (14.5 km) southeast of Utopia (Uvalde County).

DRAINAGE AREA: 53.2 mi² (137.8 km²).

PERIOD OF RECORD: August 1952 to September 1961.

GAGE: Water-stage recorder. Datum of gage is 1,245.8 ft (379.7 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 10 years, 11.178 ac-ft/yr (13.8 hm³/yr).

EXTREMES: Period of record (1952-61): Maximum discharge, 52,600 ft³/s (1,489.6 m³/s) June 17, 1958 (gage height, 21.4 ft or 6.5 m, from floodmark); no flow at times.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1952	-	-	-	-	-	-	-	0	138	0	23.0	143	-
1953	8.90	0	.60	0	0	19.0	22.0	22.9	1140	662	232	77.0	2390
1954	48.0	2.20	0	79.0	2490	156	4.60	0	0	108	0	0	2888
1955	0	0	79.0	0	188	0	125	11.0	34.0	32.0	0	0	469
1956	0	0	0	0	0	0	184	36.0	12.0	16.0	0	0	248
1957	0	0	1370	2080	1470	2410	146	0	3520	1710	1740	1050	15496
1958	2700	2800	4090	1210	739	17540	2520	414	6430	5480	4600	1510	50033
1959	663	354	291	1350	637	877	1150	437	154	1660	926	709	9148
1960	730	545	713	758	384	60.0	980	1930	554	970	1580	1520	10724
1961	1400	1880	1220	576	284	2690	1320	803	334	-	-	-	-
MAX	2700	2800	4090	2080	2490	17540	2520	1930	6430	5480	4600	1520	50033
MIN	0	0	0	0	0	0	4.60	0	0	0	0	0	248
MEAN	617	620	863	673	688	2639	717	386	1232	1175	1011	557	11178
NO.	9	9	9	9	9	9	9	10	10	9	9	9	8
DISTR OF MEAN	5.5%	5.5%	7.7%	6.0%	6.2%	23.6%	6.4%	3.5%	11.0%	10.5%	9.0%	5.0%	100%

NUECES RIVER BASIN

08202500 Seco Creek near D'Hanis, Texas

LOCATION: Lat 26°29'00", long 99°23'10", Medina County, 0.25 mi (0.4 km) downstream from a concrete dam and road crossing at the Valdina Farms, 2.8 mi (4.5 km) upstream from Bartz Spring Creek, and 12.8 mi (20.6 km) northwest of D'Hanis.

DRAINAGE AREA: 87.4 mi² (226.4 km²).

PERIOD OF RECORD August 1952 to October 1964.

GAGE: Water-stage recorder. Datum of gage is 1,142.8 ft (348.3 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 13 years, 6,868 ac-ft/yr (8.6 hm³/yr).

EXTREMES: Period of record (1952-64): Maximum discharge, 72,000 ft³/s (2,039.0 m³/s) June 17, 1958 (gage height, 20.8 ft or 6.3 m, from floodmark); no flow most of the time.

Maximum stage since at least 1866, 26.2 ft (7.99 m) in May 1935, Discharge not determined.

REMARKS: Records fair. All of the low flow of Seco Creek enters the Edwards limestone in the Balcones Fault Zone which crosses the basin above this station. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1952	-	-	-	-	-	-	-	0	0	0	0	0	-
1953	0	0	0	0	0	0	0	173	1280	429	200	0	1884
1954	0	0	0	0	1210	0	0	0	0	0	0	0	1210
1955	0	0	361	0	203	0	55.0	0	0	0	0	0	619
1956	0	0	0	0	0	0	343	0	0	0	0	0	343
1957	0	0	1120	3190	1900	2620	18.0	0	3850	1710	1770	727	16905
1958	2680	2850	4310	1010	506	23950	1270	0	8200	5010	3500	588	53874
1959	28.0	0	0	307	0	252	.40	0	0	493	0	0	1080
1960	0	0	16.0	19.0	0	0	241	892	0	126	0	23.0	1317
1961	0	215	0	0	0	2770	.40	0	0	0	0	0	2985
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	167	0	0	0	0	0	0	0	167
1964	0	0	0	0	0	42.0	0	847	2830	316	-	-	-
MAX	2680	2850	4310	3190	1900	23950	1270	892	8200	5010	3500	727	53874
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MI AN	226	255	484	377	332	2470	161	147	1243	622	439	112	6868
NO.	12	12	12	12	12	12	12	13	13	13	12	12	11
DISTR OF MEAN	3.3%	3.7%	7.0%	5.5%	4.8%	36.0%	2.3%	2.1%	16.1%	9.1%	6.4%	1.6%	100%

NUECES RIVER BASIN

08202700 Seco Creek at Rowe Ranch near D'Hanis, Texas

LOCATION: Lat 29°21'43", long 99°17'05", Medina County, 2.9 mi (4.7 km) north of D'Hanis, and 8.0 mi (12.9 km) downstream from Rocky Creek.

DRAINAGE AREA: 168 mi² (435 km²).

PERIOD OF RECORD: October 1960 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 900.88 ft (274.588 m) above mean sea level, datum of 1929. Prior to October 1970, published as "at Crook Ranch near D'Hanis."

AVERAGE DISCHARGE: 16 years, 6,816 ac-ft/yr (8.4 hm³/yr).

EXTREMES: Period of record (1960-75): Maximum discharge, 30,500 cfs (864 m³/s) July 15, 1973 (gage height, 26.0 ft or 7.92 m, from floodmark); no flow most of the time each year.

Maximum stage since at least 1852, 35.7 ft (10.88 m) May 31, 1935, from information by local resident.

REMARKS: Records fair. All of the low flow of Seco Creek enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin just north of Uvalde and upstream from the station. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1960	-	-	-	-	-	-	-	-	-	0	0	0	-
1961	0	0	0	0	0	2710	1.80	0	0	0	0	0	2712
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	67.0	0	447	1600	2.00	.40	0	2116
1965	0	0	0	0	0	0	0	0	320	917	0	0	1237
1966	0	0	0	0	0	0	0	0	59.0	0	0	0	59.0
1967	0	0	0	0	0	0	0	0	2770	0	0	0	2770
1968	1520	.20	943	0	3130	0	41.0	0	0	0	0	0	5634
1969	0	0	0	0	555	.10	0	0	0	491	0	0	1046
1970	0	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	53030	.40	11240	0	0	64270
1972	0	0	0	0	42.0	0	0	5610	5.00	0	0	0	5657
1973	0	0	0	0	0	363	16880	.90	.20	13.0	0	0	17257
1974	0	0	0	0	0	0	0	75.0	1.80	0	0	0	76.8
1975	0	231	0	0	0	0	0	0	0	0	0	0	231
MAX	1520	231	943	0	3130	2710	16880	53030	2770	11240	.40	0	64270
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	101	15.4	62.9	0	248	209	1128	3944	317	791	.02	0	6816
NO.	15	15	15	15	15	15	15	15	15	16	16	16	15
DISTR OF MEAN	1.5%	.2%	.9%	.0%	3.6%	3.1%	16.6%	57.9%	4.7%	11.6%	.0%	.0%	100%

NUECES RIVER BASIN

08204000 Leona River Spring Flow near Uvalde, Texas

LOCATION: Lat 29°09'10", long 99°44'30", Uvalde County, at the old road crossing on White's Ranch, 3.5 mi (5.6 km) downstream from Cooks Slough, and 4.6 mi (7.4 km) southeast of Uvalde.

PERIOD OF RECORD: January 1939 to September 1964.

GAGE: Water-stage recorder. Datum of gage is 838.39 ft (255.5 m) above mean sea level, datum of 1920.

AVERAGE DISCHARGE: 27 years, 7,251 ac-ft/yr (8.9 km³/yr).

EXTREMES: Period of record (1939-64): Maximum daily spring discharge, 42 ft³/s (1.19 m³/s) March 15-20, 1962; no flow at times during 1048-49, 1951-59, and 1964.

REMARKS: Records good. The discharge represents the flow from several springs that enter the river above the station and below Uvalde. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	1540	1390	1480	1190	1110	934	900	1160	1190	1240	1320	1500	14954
1940	1560	1370	1310	1210	1200	1070	1070	952	906	833	819	837	13137
1941	799	676	781	795	1110	1310	1440	1360	1440	1640	1770	1880	15001
1942	1930	1780	1880	1760	1740	1390	1390	1240	1330	1540	1550	1660	19190
1943	1660	1500	1680	1650	1340	1260	1210	1010	1010	1060	891	855	15126
1944	728	538	560	497	478	590	585	394	672	781	809	885	7517
1945	875	827	1050	976	986	837	672	508	433	411	336	331	8242
1946	331	228	204	114	121	72.0	40.0	30.0	63.0	145	261	408	2017
1947	472	450	626	714	726	695	978	1000	839	762	843	863	8968
1948	742	637	518	325	198	54.0	50.0	54.0	14.0	15.0	25.0	7.30	2591
1949	15.0	18.0	20.0	85.0	264	374	374	460	532	774	996	1110	5022
1950	1230	1080	1070	899	789	698	465	355	295	254	113	51.0	7299
1951	18.0	12.0	6.0	0	0	0	0	0	0	0	0	0	30.6
1952	0	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	94.0	223	336	478	663	899	1080	966	1610	1730	2020	10099
1960	1910	1980	2100	1960	1970	1730	1730	1780	1670	1630	1770	1960	22190
1961	2240	2050	2140	1940	1580	1380	1920	2150	1870	1770	1940	2150	23130
1962	2210	2080	2330	1820	1510	1340	1080	910	833	904	712	780	16509
1963	672	493	300	404	482	251	110	26.0	16.0	21.0	18.0	26.0	2819
1964	19.0	0	0	0	0	0	0	0	0	0	0	0	19.0
1965	0	0	0	4.40	38.0	9.5	0	0	0	-	-	-	-
MAX	2240	2080	2330	1960	1970	1730	1920	2150	1870	1770	1940	2150	23130
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	702	637	677	618	597	543	552	534	521	592	612	666	7251
NO.	27	27	27	27	27	27	27	27	27	26	26	26	26
DISTR OF MEAN	9.7%	8.6%	9.3%	8.5%	8.2%	7.5%	7.6%	7.4%	7.2%	8.2%	8.4%	9.2%	100%

NUECES RIVER BASIN
08204500 Leona River near Divot, Texas

LOCATION: Lat 28°47', long 99°13", Frio County, at the bridge on the Divot-Pearshall Road, 2.5 mi (4.0 km) northeast of Divot, and 12 mi (19.3 km) above the mouth of the Leona River.

DRAINAGE AREA: 565 mi² (1,463.4 km²).

PERIOD OF RECORD: May 1924 to September 1929.

GAGE: Staff gage. Datum of gage not published.

AVERAGE DISCHARGE: 6 years, 10,002 ac-ft/yr (12.3 km³/yr).

EXTREMES: Period of record (1924-29): Maximum discharge, 6,130 ft³/s (173.6 m³/s) May 26, 1929; no flow at times.

REMARKS: Records fair. There are several small diversions above the station. The low flow is regulated by a dam upstream.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1924	-	-	-	-	1090	6570	89.9	0	0	0	0	1390	-
1925	409	95.8	0	0	1700	441	0	0	0	0	0	0	2646
1926	0	0	0	11100	2330	5270	71.8	1380	0	790	0	0	20942
1927	0	0	0	496	0	202	0	0	0	0	0	0	698
1928	0	0	0	0	322	3340	947	207	292	0	0	0	5108
1929	0	0	0	0	17600	10.0	0	0	1010	-	-	-	-
MAX	409	95.8	0	11100	17600	6570	947	1380	1010	790	0	1390	20942
MIN	0	0	0	0	0	10.0	0	0	0	0	0	0	698
MEAN	61.8	19.2	0	2319	1840	2639	185	265	217	158	0	278	10002
NO. OF MEAN	5	5	5	5	6	6	6	6	6	5	5	5	4
DISTR OF MEAN	.8%	.2%	.0%	23.2%	38.4%	26.4%	1.8%	2.6%	2.2%	1.6%	.0%	2.8%	100%

NUECES RIVER BASIN

08205500 Frio River near Derby, Texas

LOCATION: Lat 28°44'11", long 99°08'40", Frio County, 17 ft (5 m) downstream from the centerline of the railroad tracks, 35 ft (11 m) to the right of the Missouri-Pacific Railroad Co. bridge abutment, 167 ft (51 m) downstream from the bridge on Interstate Highway 35, 817 ft (280 m) downstream from the Leona River, and 2.4 mi (3.9 km) south of Oerby.

DRAINAGE AREA: 3,493 mi² (9,047 km²).

PERIOD OF RECORD: August 1915 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 449.11 ft (136.889 m) above mean sea level, datum of 1929. Aug. 1, 1915 to Apr. 21, 1931, nonrecording gage, and Apr. 22, 1931 to Mar. 6, 1940, water-stage recorder at same site and datum. Mar. 7, 1940 to May 4, 1972, water-stage recorder, and May 5 to Nov. 1, 1972, nonrecording gage at site 167 ft (51 m) upstream at same datum.

AVERAGE DISCHARGE: 61 years, 97,067 ac-ft/yr (119.7 hm³/yr).

EXTREMES: Period of record (1915-75): Maximum discharge, 230,000 ft³/s (6,510 m³/s) July 4, 1932 (gage height, 29.45 ft or 8.976 m, from floodmarks); no flow at times most years.

Maximum stage since at least 1860, that of July 4, 1932.

REMARKS: Records good. A part of the flow of the Frio River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone just north of Uvalde. At low stages, most of the headwater flow enters this formation. There are considerable losses of the floodflows into various permeable formations that occur downstream from the Balcones Fault Zone. There are many small diversions for irrigation above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1915	-	-	-	-	-	-	-	7120	18000	1120	0	0	-
1916	0	0	0	61600	13800	28.0	325	2480	1250	4330	0	0	83813
1917	0	0	0	0	0	232	55.0	0	2770	0	76.2	0	3133
1918	0	0	0	2660	19200	0	0	325	206	19500	11.5	27300	69203
1919	30100	1220	5660	1810	21400	41700	60800	126000	193000	111000	40100	6640	639430
1920	4460	3660	1990	827	7500	414	460	1240	211	223	508	459	21952
1921	449	444	4280	1360	842	9810	113	0	4940	120	0	0	22358
1922	.60	35.9	1700	49200	66900	7500	371	18.0	0	789	2030	163	128708
1923	207	1270	1590	6060	524	381	434	0	23500	1300	5020	3860	44146
1924	1460	545	970	4960	2020	17200	173	30.5	124	21.6	51.6	842	28398
1925	294	137	133	79.7	2130	563	90.6	0	0	190	0	0	3617
1926	0	4.20	101	63600	6010	3330	10600	944	0	778	0	0	85367
1927	43.6	73.8	90.0	1260	0	4950	1700	9.5	0	0	0	0	8127
1928	0	0	0	0	3820	7140	892	3030	210	0	0	0	15092
1929	0	0	0	1900	47300	1710	6210	0	66.0	0	0	972	58158
1930	27.0	21.0	36.0	1370	4270	22600	7.40	0	0	19600	61.0	58.0	48050
1931	365	3570	590	245	66400	732	17600	167	14.0	229	1.80	7.40	89921
1932	11.0	36.0	22.0	15.0	1280	20.0	550000	2530	111000	21000	3540	1910	691364
1933	3540	2700	2130	1230	947	508	281	363	418	413	517	769	13816
1934	1360	822	664	4050	581	20.0	55.0	38.0	8.30	970	1210	1070	10848
1935	56.0	200	119	1780	142600	480100	111900	9970	37120	5720	1610	3030	794205
1936	2830	2010	1810	3710	5990	2770	37570	744	71080	26530	7360	4760	167164
1937	3640	2870	3290	2430	1560	4290	1010	704	637	910	871	5170	27582
1938	6350	1520	2330	4760	2550	623	702	289	283	303	430	705	20845
1939	906	825	948	427	1500	410	33940	5120	360	13090	883	986	59395
1940	1180	1130	942	1670	1920	4770	1060	68.0	0	0	1600	3450	17790
1941	1170	48420	8950	22550	37360	6330	2260	7440	6630	11090	1380	1160	154740
1942	1310	1580	1390	2570	1370	369	10280	1230	34560	14020	748	780	70207
1943	1200	1150	1190	1130	851	16110	488	0	354	361	1740	403	24977
1944	388	278	2430	202	4050	3070	14.0	12480	8430	15250	62.0	391	47045
1945	7120	811	785	4730	79.0	1070	0	0	8230	18120	0	0	40945
1946	0	0	0	3170	1050	128	0	16300	28880	8270	17.0	15.0	57830
1947	12.0	10.0	9.7	10.0	0	20180	180	54.0	0	0	0	0	20456
1948	0	0	0	0	0	24300	2260	0	258	5190	0	0	32008
1949	0	24150	5770	15290	2220	5260	23.0	3940	0	13580	11.0	0	70244
1950	0	0	0	0	2000	31.0	163	0	0	0	0	0	2194
1951	0	0	0	0	61090	709	0	0	0	105	0	0	61904
1952	0	0	0	0	353	145	0	0	677	0	0	0	1175
1953	0	0	0	0	0	0	0	630	79410	7900	93.0	0	88033
1954	0	0	0	0	19260	85.0	0	127	0	0	0	0	19472
1955	0	0	0	0	6890	0	0	40.0	1400	9.9	0	0	8340
1956	0	0	0	436	0	0	6950	1650	0	1220	0	0	10256
1957	0	0	561	63810	74430	48760	0	0	9820	29070	1340	212	228003
1958	10080	10730	18630	1930	9420	98040	7720	6.30	57620	23030	29800	3680	270686
1959	1070	482	84.0	386	434	22340	7110	91.0	554	49460	275	164	82450
1960	119	82.0	123	41.0	0	0	239	2100	67.0	716	513	468	4468
1961	131	4720	1260	1.20	0	63880	4050	691	122	1150	739	857	77601
1962	1010	668	430	1850	153	91.0	0	0	0	0	0	0	4202
1963	0	0	0	0	3150	0	0	0	0	0	0	0	3150
1964	0	0	533	83.0	27.0	5700	0	0	6890	3080	2000	0	18313

NUECES RIVER BASIN
08205500 Frio River near Derby, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1965	0	253	63.0	3220	4280	33.0	0	0	0	1600	0	8.11	10260
1966	0	0	0	1250	521	0	0	23710	3730	2.00	0	0	29213
1967	0	0	0	1950	0	0	150	0	25110	14520	7480	1050	50266
1968	10200	5020	7060	3440	31600	2390	1780	0	165	0	0	0	61655
1969	0	0	0	0	1530	0	0	.10	0	49530	2150	1850	55060
1970	1080	722	1160	787	10850	2250	0	0	5780	1440	742	737	25548
1971	663	44.0	.20	0	0	30.0	4040	347300	6930	57140	12770	4820	433737
1972	3230	2350	1750	1080	23430	780	111	13620	3260	1680	1250	1830	54371
1973	2300	2430	2630	5170	1620	16510	158800	18250	29610	45700	14980	8390	306390
1974	7260	5500	5140	3480	11780	2520	539	8540	83980	7720	8010	6880	151349
1975	7090	26900	7650	8450	16400	9040	8270	4890	5030	4310	4650	4530	107410
MAX	30100	48420	18630	63810	142600	480100	550000	347300	193000	111000	40100	27300	794205
MIN	0	0	0	0	0	0	0	0	0	0	0	0	1175
MEAN	1879	2657	1620	6067	12454	16033	17530	10234	14310	10056	2568	1659	97067
NO.	60	60	60	60	60	60	60	61	61	61	61	61	60
DISTR OF MEAN	1.9%	2.7%	1.7%	6.3%	12.8%	16.5%	18.1%	10.5%	14.7%	10.4%	2.6%	1.7%	100%

NUECES RIVER BASIN

08206700 San Miguel Creek near Tilden, Texas

LOCATION: Lat 28°35'14", long 98°32'44", McMullen County, 25 ft (8 m) downstream from the bridge on State Highway 16, 0.3 mi (0.5 km) upstream from the mouth of Bruce Branch, 0.9 mi (1.4 km) downstream from the mouth of Far Live Oak Creek, 3 mi (5 km) upstream from San Patricio Creek, 7 mi (11 km) downstream from Clear Creek, 8.7 mi (14.0 km) north of Tilden, and 13 mi (21 km) upstream from the mouth.

DRAINAGE AREA: 793 mi² (2,054 km²).

PERIOD OF RECORD: February 1964 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 242.95 ft (74.051 m) above mean sea level, datum of 1920.

AVERAGE DISCHARGE: 12 years, 42,707 ac-ft/yr (52.6 hm³/yr).

EXTREMES: Period of record (1964-75): Maximum discharge, 13,700 ft³/s (388 m³/s) Sept. 22, 1967 (gage height, 25.99 ft or 7.922 m); no flow at times in 1964-67 and 1969-74.

Maximum stage since 1919, 32.6 ft (9.94 m) in 1942.

REMARKS: Records good. At times, excess water from the Bexar-Medina-Atascosa Counties Water Improvement District No. 1 system enters the San Miguel Creek basin via Chacon Creek, 52 mi (84 km) upstream.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1964	-	24.0	82.6	1.40	288	299	24.0	136.0	136.0	173.0	580.0	1.62	-
1965	29.0	22.0	86.0	179.0	209.0	44.3	11.0	75.0	139	701	105	119.0	2794.2
1966	6.20	6.30	.50	822.0	556.0	749.0	822	35.0	422.0	27.0	1.70	3.10	2639.2
1967	5.70	11	3.07	79.0	6.20	0	2.99	1400	7339.0	451.0	253.0	4.22	8367.4
1968	3944.0	221.0	6.62	257.0	469.40	340.0	1273.0	283	148.0	121	138	4.18	11039.2
1969	67.0	173.0	105	314	189.0	207	6.20	925	354	963.0	662	291	1618.1
1970	229	298	396.0	181	2470.0	1466.0	327	108.0	390.0	440	27.0	35.0	4983.7
1971	37.0	30.6	71.0	50.0	0	965	364	758.0	459	1225.0	729	5.22	2305.7
1972	229	161	91.0	102	638.0	544	100	34.0	108.0	1.20	1.50	2.50	872.6
1973	1.70	139	33.0	161.0	42.0	969.0	102.0	83.0	3531.0	773.0	564	4.27	5665.0
1974	483	327	314	203	132.0	127.0	2.50	2102.0	1448.0	585	364	2.66	4063.5
1975	221	264	157	380	387.40	681.0	182.0	188	366.0	639	93.0	1.99	5339.1
MAX	3944.0	221.0	396.0	822.0	469.40	1466.0	1273.0	2102.0	7339.0	1225.0	580.0	119.0	11039.2
MIN	1.70	6.30	.50	1.40	0	0	2.50	34.0	139	1.20	1.50	2.50	872.6
MEAN	372.8	62.7	55.1	129.2	122.83	381.5	146.0	283.9	1166.9	319.7	91.8	3.28	4270.7
NO.	11	12	12	12	12	12	12	12	12	12	12	12	11
COEFFICIENT OF VARIATION	8.7%	1.5%	1.3%	3.0%	28.8%	8.9%	3.4%	6.6%	27.3%	7.5%	2.1%	.8%	100%

NUECES RIVER BASIN

08207000 Frio River at Calliham, Texas

LOCATION: Lat 28°29'31", long 98°20'47", McMullen County, at a county road bridge, 0.6 mi (1.0 km) upstream from the bridge on Farm Road 99, 0.8 mi (1.3 km) north of Calliham, and 10.7 mi (17.2 km) downstream from San Miguel Creek.

DRAINAGE AREA: 5,491 mi² (14,222 km²).

PERIOD OF RECORD: October 1924 to April 1926, May 1932 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 153.47 ft (46.778 m) above mean sea level, datum of 1929. Prior to Apr. 30, 1926, nonrecording gage at present site and datum.

AVERAGE DISCHARGE: 47 years (1924-26, 1932-75), 184,929 ac-ft/yr (228.0 hm³/yr).

EXTREMES: Period of record (1924-26, 1932-75). Maximum discharge, 80,200 ft³/s (2,270 m³/s) July 6, 1932 (gage height, 39.2 ft or 11.95 m, from floodmarks); no flow at times.

Maximum stage since at least 1870, that of July 6, 1932, from information by a local resident.

REMARKS: Records good. A part of the flow of the Frio River and its headwater tributaries enter the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin just north of Uvalde. At low stages, most of the headwater flow enters this formation. There are considerable losses of the floodflows into various permeable formations that also occur downstream from the Balcones Fault Zone. There are many small diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1924	-	-	-	-	-	-	-	-	-	24.4	0	7.02	-
1925	40.9	11.1	92.4	87.7	22.1	28.3	32.3	70.1	34.0	22.2	169.0	1.22	447.55
1926	32.0	1.1	166.0	505.0	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	5.31	2.21	3907.0	90.4	1080.0	320.0	49.0	22.0	-
1933	39.1	35.2	23.2	13.4	12.5	24.9	17.0	25.0	32.8	2.6	3.7	4.2	233.74
1934	129.0	51.0	18.3	167.0	13.8	15.4	172.0	18.4	15.3	76.9	239.9	65.7	982.7
1935	14.8	101.2	35.3	97.0	1258.0	5504.0	706.6	310.8	833.8	129.9	37.6	45.7	9074.7
1936	39.3	27.4	28.6	40.3	173.2	236.9	1405.0	29.0	261.3	519.2	81.9	55.9	2896.0
1937	42.6	31.6	40.0	24.4	17.3	87.6	11.5	4.3	15.9	14.0	6.2	423.6	719.2
1938	489.9	20.9	26.5	285.3	103.2	11.0	8.3	3.1	4.5	17.0	3.8	47.1	1004.2
1939	15.6	7.6	6.9	2.8	9.5	7.2	2.8	6.8	1.5	1.6	9.6	7.1	80.8
1940	9.8	20.8	9.1	29.2	15.9	6.8	4.9	1.9	8.0	3.8	9.2	13.2	213.6
1941	130.1	430.4	109.1	85.8	1396.0	220.4	6.7	5.3	112.2	10.6	2.7	19.6	453.8
1942	14.5	16.7	1.2	5.9	10.9	8.7	176.8	10.9	10.5	2.8	2.8	1.5	347.5
1943	17.0	14.2	20.7	13.5	40.2	30.9	27.4	1.7	2.3	6.6	2.5	7.3	75.4
1944	12.5	7.6	3.8	1.3	7.2	14.0	1.8	9.2	1.9	9.6	6.9	1.8	136.3
1945	5.2	9.9	2.6	2.7	7.9	17.0	2.1	5.2	1.7	4.6	4.7	4.9	111.7
1946	7.2	4.7	2.2	1.6	1.8	1.5	5.8	4.1	10.6	1.9	2.2	1.9	32.6
1947	1.6	1.5	1.8	8.9	1.5	1.3	6.9	1.7	7.8	0	9.4	2.6	39.2
1948	8.4	3.1	1.1	4.6	4.0	1.6	2.7	4.4	2.3	1.4	1.3	1.3	44.0
1949	1.2	7.0	2.4	7.1	1.5	4.8	1.4	5.9	2.2	1.7	1.9	1.1	2.2
1950	2.8	1.7	6.7	5.4	1.8	9.8	4.5	0	0	0	0	0	2.6
1951	5.2	8.5	1.7	8.6	6.1	3.6	6.6	1.9	5.0	6.4	5.1	1.3	1.5
1952	1.7	6.9	1.8	7.1	3.8	4.6	3.4	0	4.4	0	2.8	7.9	34.1
1953	2.8	8.7	1.8	6.9	3.1	9.1	2.5	1.8	1.8	3.1	1.4	1.8	2.5
1954	1.3	6.9	3.4	6.3	7.4	1.9	1.1	0	7.1	1.1	5.9	8.7	3.6
1955	4.9	1.6	6.9	0	2.9	2.7	3.8	3.8	1.9	2.7	0	1.0	4.2
1956	3.4	2.4	0	0	3.9	1.2	3.2	1.8	1.7	1.9	1.3	9.2	5.6
1957	3.2	5.3	5.1	7.8	1.4	1.2	3.1	7.7	3.3	5.1	9.4	2.9	4.2
1958	101.3	112.3	23.8	3.6	1.5	5.1	1.6	2.5	5.3	4.3	4.1	8.5	4.7
1959	3.1	1.8	8.5	9.9	1.9	2.4	2.3	6.6	1.7	7.0	5.6	9.6	1.3
1960	9.7	1.8	8.9	4.2	1.8	8.8	2.6	2.4	1.7	2.6	1.7	7.0	9.6
1961	5.1	1.6	2.5	1.3	1.1	7.0	5.1	1.3	1.2	1.2	7.9	6.2	1.2
1962	1.7	8.5	5.9	7.3	1.3	6.7	1.1	0	4.4	0	0	3.2	1.6
1963	3.1	8.6	2.0	0	4.2	1.3	2.4	0	7.4	7.2	2.6	2.1	3.1
1964	4.3	2.2	1.2	6.6	5.1	3.3	3.7	3.5	1.2	7.9	9.0	1.2	2.7
1965	6.1	4.7	1.3	7.0	6.8	2.3	1.2	0	7.7	1.8	2.6	4.5	9.0
1966	1.9	2.4	1.9	1.6	1.8	9.9	8.9	1.1	2.1	5.9	6.2	0	6.2
1967	3.4	2.8	1.3	1.0	4.5	1.1	3.2	9.1	3.4	2.4	1.6	2.4	3.9
1968	9.5	1.4	9.2	7.0	1.1	8.0	1.7	6.7	3.3	2.7	1.3	7.2	2.6
1969	2.5	3.8	3.9	1.0	2.7	3.7	0.2	1.4	1.0	5.2	1.2	3.7	7.9
1970	2.0	1.7	6.7	8.8	3.6	2.9	1.0	2.1	7.8	3.3	4.2	3.7	9.1
1971	4.5	1.4	5.1	1.8	1.0	3.4	5.3	2.9	2.3	1.6	1.7	7.3	4.6
1972	4.8	3.6	2.2	1.5	2.8	2.5	5.9	4.1	2.4	2.8	1.4	1.8	7.0
1973	2.3	3.4	2.6	8.7	2.0	3.0	1.7	2.2	4.5	8.8	1.6	6.5	3.8

NUECES RIVER BASIN

08207000 Frio River at Calliham, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1974	7510	5400	14570	3480	11050	3840	862	31840	71330	8520	7920	6760	173082
1975	6710	21610	5790	5910	55560	22550	10160	4770	9350	4380	3970	3850	154610
MAX	101300	112300	24010	65870	142400	550400	390700	291100	340100	119200	41890	42360	907470
MIN	2.80	6.50	0	0	.10	91.0	.02	0	0	0	0	0	11662
MEAN	7551	6533	3834	11755	24811	29038	25891	13394	32963	20255	5345	3559	184929
NO.	45	45	45	45	45	45	45	45	45	46	46	46	44
DISTR OF MEAN	4.1%	3.5%	2.1%	6.4%	13.4%	15.7%	14.0%	7.2%	17.8%	11.0%	2.9%	1.9%	100%

NUECES RIVER BASIN
08207500 Atascosa River near McCoy, Texas

LOCATION: Lat 28°50'45", long 98°20'10", Atascosa County, 0.7 mi (1.1 km) upstream from Liveoak Creek, and 1.3 mi (2.1 km) southwest of McCoy.

DRAINAGE AREA: 530 mi² (1,372.7 km²).

PERIOD OF RECORD: August 1951 to August 1957.

GAGE: Water-stage recorder. Datum of gage is 243.1 ft (74.1 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 7 years, 2,056 ac-ft/yr (2.5 hm³/yr).

EXTREMES: Period of record (1951-57): Maximum discharge not determined; no flow at times.

REMARKS: Records fair. There are several small diversion above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1951	-	-	-	-	-	-	-	0	-	-	393	342	-
1952	345	-	-	-	-	231	77.0	0	-	164	189	-	-
1953	348	287	389	-	-	21.0	61.0	-	-	-	486	343	-
1954	388	276	207	218	-	-	-	25.0	131	395	135	122	-
1955	-	-	413	155	-	-	-	96.0	22.0	19.0	19.0	105	-
1956	142	151	105	-	-	-	58.0	-	-	-	184	-	-
1957	283	282	-	-	-	-	352	108	-	-	-	-	-
MAX	388	287	413	218	-	231	352	108	131	395	486	343	-
MIN	142	151	105	155	-	21.0	58.0	0	22.0	19.0	19.0	105	-
MEAN	301	249	279	187	-	126	137	45.8	76.5	193	234	228	2056
NO. OF DISTR	5	4	4	2	0	2	4	5	2	3	6	4	0
OF MEAN	14.6%	12.1%	13.5%	9.1%	0%	6.1%	6.7%	2.2%	3.7%	9.4%	11.4%	11.1%	100%

NUECES RIVER BASIN

08208000 Atascosa River at Whitsott, Texas

LOCATION: Lat 28°37'18", long 98°17'02". Live Oak County, 1,000 ft (305 m) upstream from the bridge on Farm Road 99, 1.1 mi (1.8 km) southwest of Whitsett, and 3.9 mi (6.3 km) downstream from La Parita Creek.

DRAINAGE AREA: 1,171 mi² (3,033 km²).

PERIOD OF RECORD: October 1925 to April 1926, June 1932 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 159.04 ft (48.475 m) above mean sea level, datum of 1929. Prior to May 8, 1926, nonrecording gage at the bridge 1,200 ft (366 m) downstream at datum 1.38 ft (0.421 m) higher.

AVERAGE DISCHARGE: 46 years (1924-25, 1932-75), 98,663 ac-ft/yr (121.6 hm³/yr).

EXTREMES: Period of record (1925-26, 1932-75): Maximum discharge, 121,000 ft³/s (3,430 m³/s) Sept. 23, 1967 (gage height, 41.3 ft or 12.59 m, from floodmark); no flow at times.

Maximum stage since at least 1881, that of Sept. 23, 1967.

REMARKS: Records good. There are considerable losses of the floodflows into various permeable formations that occur upstream from the station. There are several small diversions above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1925	-	-	-	-	-	-	-	-	-	3020	3720	629	-
1926	2430	328	6420	4290	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	33.0	2580	3860	9580	1800	215	563	-
1933	582	894	601	684	1230	613	2120	4440	1650	40.0	780	133	13767
1934	16200	5890	4240	9340	387	91.0	2040	141	928	2180	6570	7020	55027
1935	866	8880	2840	10460	33870	205000	3280	762	60090	4460	1320	2580	334408
1936	1490	972	5040	837	48860	10050	45720	2700	4110	2300	851	954	123884
1937	956	658	800	528	854	3180	1350	76.0	7.90	974	197	24520	34101
1938	12360	1280	1230	15990	2800	647	425	86.0	682	18.0	516	1790	37824
1939	776	562	455	95.0	1860	6220	8110	2740	5740	226	66.0	218	27068
1940	345	1200	763	7990	7330	19800	9150	8700	1050	4630	23730	17110	101798
1941	6000	8380	5670	69790	72260	26180	3590	6770	83820	10200	1100	1070	294830
1942	976	1370	936	6870	3270	531	177000	11580	116500	7270	1840	1390	329533
1943	1530	1290	2150	1090	2490	3480	1960	165	7550	690	1510	1030	24935
1944	6140	1290	5630	831	26580	1420	1270	1680	740	206	2390	2550	50727
1945	1320	4680	1910	23840	656	8750	949	132	1390	21190	555	556	65928
1946	1290	1530	8680	8400	15470	23090	540	74240	70400	48450	3340	2420	257850
1947	4380	1660	3540	1900	15030	940	681	7280	429	256	2210	893	39199
1948	691	1090	805	677	321	2750	11830	5220	421	2550	407	488	27250
1949	661	4980	1040	58540	3180	18450	62470	4890	1670	5580	1150	4050	166661
1950	1020	855	758	1760	6060	6820	11040	127	365	29.0	35.0	166	29035
1951	300	355	615	416	11550	14210	98.0	399	26460	1230	1230	852	57715
1952	1080	2790	915	3890	2410	402	7000	415	14610	466	974	1510	36462
1953	1380	956	1670	3540	33350	1800	1970	3100	35170	4690	828	617	88471
1954	613	865	936	3710	2700	2370	467	0	196	1330	1620	570	15377
1955	1180	7080	996	725	8000	3610	1180	2420	1160	48.0	310	721	27430
1956	716	649	652	1901	3860	1290	889	4180	10530	12560	408	3610	41244
1957	900	1040	6610	71870	83900	19080	845	548	41830	6170	14330	1440	248563
1958	57800	83230	3980	1830	12770	1410	2920	190	7010	23750	17040	5400	217330
1959	1770	2060	1210	1020	5130	1430	526	171	434	12300	1860	732	28643
1960	1030	990	1940	1320	619	11970	8710	8330	844	23140	12250	18070	89213
1961	5910	14290	1170	2490	495	46940	2750	909	319	16310	4400	1240	97223
1962	1200	1170	803	906	489	11190	150	130	463	59.0	254	1280	18094
1963	466	2750	305	117	2120	1180	311	174	152	192	1840	2760	12367
1964	409	1250	821	495	525	215	451	6270	166	1280	1010	257	13149
1965	425	5290	372	1880	33320	1120	586	100	201	2020	575	4070	49959
1966	450	567	333	11600	5700	3540	672	723	2700	535	89.0	226	27135
1967	302	350	310	170	3140	269	151	5790	297900	5690	9350	1490	324912
1968	126200	6280	2600	3300	76940	6280	5490	697	4900	616	665	2580	238548
1969	640	11030	1300	3540	21460	3050	287	1350	619	9150	544	881	53851
1970	1850	1610	15370	958	52290	46460	1840	991	1950	502	293	454	126568
1971	424	410	411	291	143	946	55.0	18160	4040	20350	1070	1220	47520
1972	813	702	569	316	54140	4070	475	2520	6100	552	356	346	70959
1973	554	2900	755	10220	1210	171500	4040	1640	26010	34870	2890	1390	257979
1974	1280	982	863	746	2750	1210	156	8600	11060	826	1620	675	30788

NUECES RIVER BASIN

08208000 Atascosa River at Whittsett, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1975	582	587	543	1490	40400	13980	3370	802	904	689	434	400	64181
MAX	126200	83230	15370	71870	83900	205000	177000	74240	297900	48450	23730	24520	334408
MIN	300	328	305	95.0	143	33.0	55.0	0	7.90	18.0	35.0	133	12367
MEAN	6097	4545	2249	8015	16324	16127	8898	4641	19610	6564	2861	2732	98663
NO.	44	44	44	44	43	44	44	44	44	45	45	45	43
DISTR OF MEAN	6.2%	4.6%	2.3%	8.1%	16.5%	16.3%	9.0%	4.7%	19.9%	6.7%	2.9%	2.8%	100%

NUECES RIVER BASIN

08210000 Nueces River near Three Rivers, Texas

LOCATION: Lat 28°26'10", long 98°11'06". Live Oak County, 100 ft (30 m) downstream from the Missouri-Pacific Railroad Co. bridge, 0.2 mi (0.3 km) downstream from the Frio River, and 1.7 mi (2.7 km) south of Three Rivers.

DRAINAGE AREA: 15,600 mi² (40,400 km²).

PERIOD OF RECORD: July 1915 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 101.13 ft (30.824 m) above mean sea level, datum of 1929. Prior to Apr. 5, 1932, nonrecording gage at the railroad bridge 100 ft (30 m) upstream at same datum.

AVERAGE DISCHARGE: 61 years, 619,205 ac-ft/yr (763.5 hm³/yr).

EXTREMES: Period of record (1915-75): Maximum discharge, 141,000 ft³/s (3,990 m³/s) Sept. 23, 1967 (gage height, 49.21 ft or 14.999 m); no flow at times.

Maximum stage since 1875, that of Sept. 23, 1967.

REMARKS: Records good. A part of the flow of the Nueces and Frio Rivers and their headwater tributaries enter the Edwards and associated limestones in the Balcones Fault Zone just north of Uvalde. At low stages, most of the headwater flow enters this formation. There are considerable losses of the floodflows into various permeable formations that occur downstream from the Balcones Fault Zone. There are many small diversions for irrigation and municipal water supply above the station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1915	-	-	-	-	-	-	470	16900	54400	52100	1260	304	-
1916	265	72.0	3.00	46900	16900	6960	45900	184000	126000	26800	13800	218	467818
1917	1480	177	26.0	3000	1130	0	2390	664	4480	17.0	2880	0	162444
1918	0	284	9780	35500	130000	21400	247	621	59700	110000	102000	110000	579532
1919	70200	43800	135000	117000	129000	143000	184000	113000	423000	599000	263000	55700	2273700
1920	20900	17100	8560	4420	29500	16400	79800	26300	3900	2470	5610	726	215686
1921	732	636	54600	71400	29400	48400	6320	726	65700	3670	84.0	844	282492
1922	318	243	18700	181000	305000	159000	50900	1660	14300	14800	64300	748	810989
1923	895	280000	187000	129000	8020	1710	4720	46600	209000	51800	48700	103900	1071345
1924	11100	14700	6290	6640	42800	67200	3800	118	15400	7430	44.0	15700	191222
1925	576	417	15300	607	5560	160000	12300	34000	60700	39200	23600	725	352985
1926	8750	754	26700	53200	133000	30300	57700	17200	596	44400	3450	2030	378080
1927	476	1790	8870	8770	6680	117000	13800	2910	5520	118000	362	713	284891
1928	251	771	2810	2230	108000	48100	2290	14800	20600	30900	8630	5730	245112
1929	4950	179	82400	56800	239000	296000	25900	3310	17500	56800	2760	14800	800399
1930	873	475	7690	50800	210000	209000	42900	46.0	363	28500	21200	539	572386
1931	13300	48400	3200	4700	144000	40600	120000	30900	539	0	0	1990	407629
1932	3590	7080	2220	12000	21300	619	510000	15400	432000	149000	17900	11200	1182309
1933	11500	10900	7190	4090	5440	17700	12500	15700	24000	4160	1150	355	114685
1934	84200	21600	7440	38500	8670	7020	33400	31500	15600	20350	100500	18380	387360
1935	7780	25920	16030	68390	211900	1501000	128400	142200	306300	62770	8860	13040	2492590
1936	8740	4100	26230	8750	99180	49010	341000	6760	139500	184200	28800	19400	915670
1937	12550	7520	7570	4510	4880	21940	3590	16790	6300	2550	831	88070	177101
1938	171600	8420	5090	100500	46070	3240	11340	43380	4640	177	3490	10380	402327
1939	2650	1420	1150	295	117600	59800	50610	19830	39200	35450	1560	1150	330715
1940	1360	3720	18450	120500	76620	227800	274000	60860	18720	16270	35990	34970	889260
1941	17710	79340	18030	151900	486200	136500	83720	12630	227600	24970	5280	3460	1247340
1942	2910	3380	2380	15240	26170	9230	554200	18470	442100	52290	9480	3740	1139590
1943	3820	3090	5080	2850	5490	106600	39830	443	27760	11190	6480	4120	216753
1944	7570	2230	10430	3000	112800	175300	5240	22630	339100	15770	3320	5130	702520
1945	7820	17340	22350	133900	40740	43290	5620	77.0	1710	248000	1600	1170	523617
1946	2120	2180	12200	38930	151000	127700	3880	76920	261700	504800	8770	3960	1194160
1947	6560	2390	5710	15090	145200	41020	51990	22890	1680	339	7640	1930	302439
1948	798	1650	1370	599	2300	2600	92710	7870	8500	30480	3020	612	152509
1949	720	13840	140500	210300	143500	114600	80910	38500	3930	34270	9530	19980	810580
1950	1500	1670	988	4060	55550	112200	14110	179	12250	17270	2.00	38.0	219817
1951	228	322	1160	584	92980	139700	580	268	153200	15610	2560	874	408066
1952	1030	10700	1540	12730	31850	66480	8210	244	13980	376	1060	1170	149370
1953	1570	873	1020	15440	86810	753	2990	29930	349600	72870	25750	859	588465
1954	833	1120	867	10030	13260	70050	124700	1050	566	11010	10660	418	244564
1955	944	7890	855	539	42940	18000	5720	8340	23850	39510	322	879	149789
1956	632	567	558	3450	14800	2880	12760	31730	34020	37870	1470	4250	144987
1957	871	1270	24860	202700	531600	421900	1660	467	147100	95300	43640	5290	1476658
1958	297200	437000	91600	6710	45440	59070	110200	951	85700	224500	168600	28500	1555471
1959	18010	6720	4960	3190	12210	29550	58680	9660	8970	319800	18440	6780	498970
1960	7910	7050	6200	6710	3370	43910	19950	62480	14820	101900	79850	56040	410190
1961	35810	53440	9530	19490	783	122400	21340	31590	2590	16260	6210	2460	321903
1962	2860	2180	1450	3350	1630	26230	457	1.60	2010	33.0	1670	3090	44962
1963	470	4310	382	1520	16190	110600	5230	5.80	2140	1220	17140	6100	165308
1964	428	1450	3080	521	4320	3980	269	25470	216200	246300	10790	471	513279

NUECES RIVER BASIN

08210000 Nueces River near Three Rivers, Texas--Continued

DISCHARGE IN ACRE-FeET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1965	1470	20740	545	5360	215100	28450	12230	50.0	898	10320	1890	10390	307443
1966	847	5380	470	46960	212000	44100	2320	20760	52980	2620	52.0	216	388705
1967	222	604	566	8190	13810	519	188	42220	1407000	137600	28130	5320	1644369
1968	237300	33760	18690	16270	266300	32560	26190	1800	17890	12060	1080	4170	668070
1969	1240	19080	3220	8850	32300	7760	1340	4070	5970	131700	88370	38650	342550
1970	14300	7180	28280	4330	101000	169900	4510	12890	9050	24430	966	869	377705
1971	968	567	507	525	114	11960	351900	648600	484200	849200	71820	24660	2447021
1972	16900	11170	8410	2950	146900	15450	2060	24780	45530	10300	2290	2610	289350
1973	3340	8960	6080	25310	3230	216300	113500	30970	75760	456200	66940	23650	1030240
1974	16030	11130	39880	7030	25010	6380	951	96730	128000	11210	24140	12390	378881
1975	11560	25200	9670	11410	127900	128500	80230	20180	21400	8950	14720	5160	464880
MAX	297200	437000	187000	210300	531600	1501000	554200	648600	1407000	849200	263000	110000	2492590
MIN	0	72.0	3.00	295	114	0	188	1.60	363	0	0	0	16244
MEAN	19392	21804	19029	35492	89007	98360	64076	35312	109802	89137	24663	13131	619205
NO.	60	60	60	60	60	60	61	61	61	61	61	61	60
DISTR													
OF MEAN	3.1%	3.5%	3.1%	5.7%	14.4%	15.9%	10.3%	5.7%	17.7%	14.4%	4.0%	2.1%	100%

NUECES RIVER BASIN

08210300 Ramirena Creek near George West, Texas

LOCATION: Lat 28°08'30", long 98°06'11", Live Oak County, at the bridge on U.S. Highway 281, 1.7 mi (2.7 km) downstream from Elm Creek, and 13.5 mi (21.7 km) south of George West.

DRAINAGE AREA: 84.4 mi² (218.6 km²).

PERIOD OF RECORD: February 1968 to March 1972.

GAGE: Water-stage recorder. Datum of gage is 175.79 ft (53.6 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 5 years, 10,566 ac-ft/yr (13.0 hm³/yr).

EXTREMES: Period of record (1968-72): Maximum discharge, 60,800 ft³/s (1,438.6 m³/s) October 17, 1971 (gage height, 31.0 ft or 9.4 m, from floodmark); no flow at times each year.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1968	-	0	0	0	343	36.0	1.20	0	.10	.20	0	0	-
1969	.40	7.80	0	0	0	0	0	46.0	.10	0	164	14.0	232
1970	0	0	0	0	248	23.0	0	25.0	0	0	0	0	296
1971	0	0	0	0	151	61.0	0	357	16430	24260	67.0	28.0	41354
1972	0	0	0	-	-	-	-	-	-	-	-	-	-
MAX	.40	7.80	0	0	343	61.0	1.20	357	16430	24260	164	28.0	41354
MIN	0	0	0	0	0	0	0	0	0	0	0	0	232
MEAN	.10	1.56	0	0	186	30.0	.30	107	4108	6065	57.7	10.5	10566
NO.	4	5	5	4	4	4	4	4	4	4	4	4	3
DISTR OF MEAN	.0%	.0%	.0%	.0%	1.8%	.3%	.0%	1.0%	38.9%	57.4%	.5%	.1%	100%

NUECES RIVER BASIN

08210400 Lagarto Creek near George West, Texas

LOCATION: Lat 28°03'34", long 98°05'48", Live Oak County, 75 ft (23 m) downstream from the bridge on U.S. Highway 281, 0.6 mi (1.0 km) upstream from Dix Hollow, and 19.3 mi (31.1 km) south of George West.

DRAINAGE AREA: 155 mi² (401 km²).

PERIOD OF RECORD: October 1971 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 197.77 ft (60.280 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 5 years, 1,102 ac-ft/yr (1.4 km³/yr).

EXTREMES: Period of record (1971-75): Maximum discharge, 1,800 ft³/s (53.8 m³/s) May 13, 1972 (gage height, 12.20 ft or 3.719 m); no flow most of the time.

Maximum stage since 1887, 25.1 ft or 7.65 m (discharge, 33,500 ft³/s or 949 m³/s) Oct. 17, 1971.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1971	-	-	-	-	-	-	-	-	-	0	0	0	-
1972	0	0	0	0	3370	80.0	40.0	0	0	6.00	0	0	3496
1973	0	0	0	0	0	170	0	0	115	274	0	0	559
1974	0	0	164	0	94.0	0	0	149	1.30	0	0	0	408
1975	0	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	164	0	3370	170	40.0	149	115	274	0	0	3496
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	41.0	0	866	62.5	10.0	37.2	29.1	56.0	0	0	1102
NO. OF MEAN	4	4	4	4	4	4	4	4	4	5	5	5	4
DISTR OF MEAN	.0%	.0%	3.7%	.0%	78.6%	5.7%	.9%	3.4%	2.6%	5.1%	.0%	.0%	100%

NUECES RIVER BASIN

08210500 Lake Corpus Christi near Mathis, Texas

LOCATION: Lat 28°02'17", long 97°52'15", San Patricio-Jim Wells County line, on the right upstream corner of the outlet tower at the right end of Wesley E. Seale Dam on the Nueces River, 0.6 mi (1.0 km) upstream from the bridge on State Highway 359, and 4.5 mi (7.2 km) southwest of Mathis.

DRAINAGE AREA: 16,656 mi² (43,139 km²).

PERIOD OF RECORD: September 1948 to December 1975.

GAGE: Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 1, 1957, nonrecording gage at various sites 0.2 mi (0.3 km) upstream at datum 0.52 ft (0.158 m) higher. Oct. 1, 1957 to Apr. 3, 1961, nonrecording gage near the left end of Wesley E. Seale Dam 0.2 mi (0.3 km) upstream at present datum.

EXTREMES: Period of record (1948-75): Maximum contents, 320,000 ac-ft (394.6 hm³) Sept. 12, 1967 and Sept. 12, 1971; maximum elevation, 94.82 ft (28.901 m) Sept. 22, 1967; minimum contents, 14,740 ac-ft (18.2 hm³) May 5, 1951 (elevation, 67.62 ft or 20.611 m).

REMARKS: The original old Mathis Dam was completed and storage began on July 24, 1934. The original capacity at the spillway crest (elevation, 74.5 ft or 22.71 m) was 64,000 ac-ft (66.6 hm³), but by March 1948, the capacity had decreased because of sedimentation to 39,400 ac-ft (48.6 hm³). The Wesley E. Seale Dam was completed and deliberate impoundment began on Apr. 26, 1958, submerging the old Mathis Dam. The capacity of the lake is 269,000 ac-ft (332.8 hm³). Wesley E. Seale Dam is a rolled earth-fill dam 5,930 ft (1,807 m) long, including two spillways. The 1,320-foot (402-m) north spillway has 33 gates that are operated by movable hydraulic lifts. The 1,080-foot (329-m) south spillway has 27 gates that are electrically operated from the control tower. The gates were repaired and modified in August 1966. All gates in both spillways are 37.5 by 8.75 ft (11.4 by 2.67 m) wide. Water for municipal supply for the City of Corpus Christi is released downstream through a 4.0-foot diameter (1.2-m) cylinder valve and three 2.5- by 4.0-foot (0.8- by 1.2-m) rectangular openings. The releases are diverted from the river at Calallen located 35 mi (56 km) downstream. The dam is operated by the Lower Nueces River Water Supply District.

END OF MONTH CONTENTS IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1948	-	-	-	-	-	-	-	-	39400	39910	35830	33400
1949	31150	37360	39910	57000	39400	43480	39910	39400	37360	42800	37870	38890
1950	36340	34300	31600	32050	41950	37870	38380	30700	34300	34810	28630	24850
1951	21840	19600	17680	15200	40930	38890	30700	23800	42460	39910	37360	34300
1952	31600	39400	34300	39400	44500	37360	37360	29410	37360	31600	29800	28240
1953	26290	24500	21840	30700	39400	30700	24850	44500	38380	45070	37870	34810
1954	32950	30020	26290	33400	37870	45070	36850	29800	27070	34300	37360	32500
1955	29410	33400	28240	22400	39400	37870	33400	33850	39140	36340	32350	29410
1956	26420	23100	19120	20720	37360	32500	32500	41950	34300	39910	33400	38380
1957	33850	31600	39400	49630	47920	39400	32050	23100	49060	40460	39860	38120
1958	44840	123400	36440	35360	70320	103900	180900	155700	204900	203100	187600	185900
1959	185900	185900	179300	172800	169600	187600	187600	182600	172800	189300	184300	180900
1960	182600	182600	180900	176000	168000	197900	189300	203100	182600	201400	194400	196100
1961	187600	187600	180900	179300	163300	203100	185900	180900	169600	196600	168000	161800
1962	152700	145400	136900	132700	118300	148300	128700	112100	127300	114500	107300	103900
1963	97200	96120	87800	79200	81980	163300	148300	127300	119500	109700	126000	127300
1964	122100	118300	114500	103900	100500	90840	81980	89820	253800	293400	272100	261900
1965	253800	213900	177700	172800	206700	177700	168000	151200	135500	141100	135500	139700
1966	135500	136900	127300	169600	191000	177700	157200	161800	201400	185900	172800	160200
1967	154200	148300	138300	131400	135500	118300	99400	138300	311000	299900	302100	280500
1968	299900	293400	280500	289100	306500	304300	297800	280500	282700	276300	263900	259800
1969	253800	280500	272100	272100	297800	282700	265900	251800	245900	304300	304300	299900
1970	299900	293400	293400	276300	306500	299900	284800	280500	276300	286900	274200	265900
1971	255800	245900	228500	215700	201400	196100	291200	302100	304300	302100	302100	304300
1972	304300	295600	293400	278400	299900	295600	282700	289100	302100	268500	259000	249700
1973	244200	247900	246100	260900	251600	274300	274300	266600	272400	272400	272400	270400
1974	268500	259000	270400	257100	266600	255300	237000	272400	272400	272400	272400	272400
1975	268500	268500	262800	260900	272400	272400	272400	272400	266600	260900	262800	257100
MAX	304300	295600	293400	289100	306500	304300	297800	302100	311000	304300	304300	304300
MIN	21840	19600	17680	15200	37360	30700	24850	23100	27070	31600	28630	24850
MEAN	147451	147996	139467	139410	147283	151570	149607	148694	159998	162029	157555	153950
NO.	27	27	27	27	27	27	27	27	28	28	28	28
DISTR												
OF MEAN	8.2%	8.2%	7.7%	7.7%	8.2%	8.4%	8.3%	8.2%	8.9%	9.0%	8.7%	8.5%

NUECES RIVER BASIN

08211000 Nueces River near Mathis, Texas

LOCATION: Lat 28°02'17", Long 97°51'38"; San Patricio-Jim Wells County line, 6 ft (2 m) downstream from the bridge on State Highway 359, 200 ft (61 m) downstream from the Texas and New Orleans Railroad Co. bridge, 0.6 mi (1.0 km) downstream from Wesley E. Seale Dam, and 4 mi (6 km) southwest of Mathis.

DRAINAGE AREA: 16,660 mi² (43,150 km²).

PERIOD OF RECORD: September 1939 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 27.53 ft (8.391 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 37 years, 622,322 ac-ft/yr (767.3 hm³/yr).

EXTREMES: Period of record (1939-75): Maximum discharge, 138,000 ft³/s (3,910 m³/s) Sept. 24, 1967 (gage height, 47.7 ft or 14.54 m, from floodmark); minimum, 6.8 ft³/s (0.19 m³/s) Aug. 15, 1940.

Maximum stage since at least 1888, that of Sept. 24, 1967.

REMARKS: Records good. The flow is regulated by Lake Corpus Christi 0.6 mi (1.0 km) upstream (station 08210500). There are numerous diversions above the station for irrigation and municipal water use. Water for municipal and industrial uses at Corpus Christi is released from Lake Corpus Christi above the gage and is diverted from the river at Calallen 34 mi (55 km) downstream.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	-	-	-	46000	31060	1850	1720	-
1940	1730	1520	3620	124700	77080	231700	311500	54950	17930	18640	46240	34180	923790
1941	6850	86310	17700	78620	645900	137600	95960	11850	219400	20780	9010	7300	1337860
1942	6190	1350	5580	6690	10110	9430	642000	8810	518900	50140	12490	4350	1276040
1943	2370	1960	2440	2350	3940	115900	32120	2560	19020	11490	4560	5830	204540
1944	5630	5370	14020	4460	76310	213500	10400	12940	375800	13730	5090	5690	742940
1945	3290	14250	18640	117000	44330	40760	4430	3990	2620	232200	3430	3920	488860
1946	3240	2890	10580	26510	158200	139000	6760	33280	317000	589500	14210	5150	1306320
1947	5430	4660	5120	9910	171800	40500	53790	15380	6010	5100	3880	2010	323590
1948	2440	1750	1910	2220	2410	2600	72180	2810	8030	31860	7600	1960	137790
1949	2450	2700	145800	200200	244500	108400	97800	39980	3990	28220	15090	18360	907490
1950	3860	2360	2420	2710	40070	116300	9000	4260	3720	13290	3550	2930	204470
1951	2610	2500	2620	2860	59640	137900	4120	4140	186000	19250	4120	2490	428250
1952	2720	3410	4630	9360	24510	82160	9520	4700	10440	3400	2710	2710	160270
1953	3150	2570	3250	4170	81150	4370	5070	23720	400200	65690	40890	2710	636940
1954	2730	3260	3710	3120	3710	55260	145300	5320	4630	4450	7650	3590	242730
1955	2980	3020	4260	4410	17260	15180	5550	6120	22930	41310	3660	2790	129470
1956	3200	3040	3630	2920	4310	6310	6790	11280	44030	39030	6440	5740	136720
1957	3710	3530	19710	158500	583000	484500	6720	6500	103300	125000	46410	5620	1546500
1958	307100	286800	269100	5190	5140	6170	10210	7240	39220	256300	200700	19980	1413150
1959	24240	8590	6810	5210	5860	6760	51960	8130	5860	267700	18900	6600	416620
1960	5860	7520	4500	5210	5270	13730	18300	54630	28580	155800	94260	61480	455140
1961	51460	64610	11160	17230	7490	81440	28100	28100	11670	6780	6250	6260	320750
1962	6570	6240	5880	6360	8180	6140	8200	7840	5400	6580	4970	4030	76390
1963	5430	4630	5540	6570	8950	7640	8810	9650	6440	6560	5070	4620	79910
1964	4640	3950	5080	6480	6360	7890	8160	9670	6890	190100	22870	4540	276630
1965	4250	69830	31650	6710	163200	52070	9690	8120	7340	5900	5670	5300	369190
1966	4700	5200	5950	1810	205700	53330	12840	8090	6840	7370	6870	6370	331070
1967	5810	4740	6620	8560	8620	9770	10510	9370	1484000	210200	20180	21530	1799970
1968	220300	39600	27470	6040	270500	32240	31480	6810	7790	18650	6090	6020	672990
1969	5820	5290	6020	6030	7740	9250	9970	10010	7270	60460	80810	41340	250010
1970	13920	9860	26990	7770	74870	179500	7730	10300	6120	8710	6600	5940	358310
1971	6200	6270	7640	6630	7320	8330	211100	618000	646000	913300	80890	25730	2537410
1972	19660	16940	6370	8180	154900	15240	7700	9200	34380	9890	8210	7580	298250
1973	7620	5810	6450	6380	8190	250700	103900	34820	67070	465900	65950	19830	1042620
1974	14710	14830	29340	13140	11930	10830	9530	69930	174600	9940	19330	11730	389840
1975	10730	19140	7980	5990	97470	119700	67310	14820	15340	6180	5140	3930	373730
MAX	307100	286800	269100	200200	645900	484500	642000	618000	1484000	913300	200700	61480	2537410
MIN	1730	1350	1910	2220	2410	2600	4120	2560	2620	3400	1850	1720	76390
MEAN	21767	20175	20561	24879	91831	78114	59292	32704	131648	106769	24261	10321	622322
NO.	36	36	36	36	36	36	36	36	37	37	37	37	36
OISTR													
OF MEAN	3.5%	3.2%	3.3%	4.0%	14.8%	12.6%	9.5%	5.3%	21.2%	17.2%	3.9%	1.7%	100%

NUECES RIVER BASIN

08211100 Nueces River below Mathis, Texas

LOCATION: Lat 27°59'07", long 97°48'02", Nueces-San Patricio County line, 5.3 mi (8.5 km) downstream from Sixmile Creek, and 7.8 mi (12.6 km) south of Mathis.

DRAINAGE AREA: 16,726 mi² (43,320.3 km²).

PERIOD OF RECORD: February 1966 to February 1967.

GAGE: Water-stage recorder. Datum of gage is 11.83 ft (3.6 m) above mean sea level, datum of 1929.

REMARKS: Records good. The flow is largely regulated by Lake Corpus Christi (station 08210500).

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	-	5460	5540	-	-	-	13540	8330	6870	6570	6380	6210	-
1967	5680	4760	-	-	-	-	-	-	-	-	-	-	-
MAX	5680	5460	5540	-	-	-	13540	8330	6870	6570	6380	6210	-
MIN	5680	4760	5540	-	-	-	13540	8330	6870	6570	6380	6210	-
MEAN	5680	5110	5540	-	-	-	13540	8330	6870	6570	6380	6210	64230
NO.	1	2	1	0	0	0	1	1	1	1	1	1	0
DISTR OF MEAN	8.8%	8.0%	8.6%	.0%	.0%	.0%	21.1%	13.0%	10.7%	10.2%	9.9%	9.7%	100%

NUECES RIVER BASIN

08211200 Nueces River above Calallen, Texas

LOCATION: Lat 27°56'15", long 97°46'32", Nueces-San Patricio County line, 41 ft (12.5 m) downstream from the bridge on Farm Road 666, 5.5 mi (8.8 km) upstream from Cayamon Creek, and 10.3 mi (16.6 km) northwest of Calallen.

DRAINAGE AREA: 16,772 mi² (43,439.5 km²).

PERIOD OF RECORD: February 1966 to February 1967.

GAGE: Water-stage recorder. Datum of gage is 6.04 ft (1.84 m) above mean sea level, datum of 1929.

REMARKS: Records good. The flow is largely regulated by Lake Corpus Christi (station 09210500).

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	-	5840	5890	-	-	-	14470	8770	7100	6760	6420	6490	-
1967	6120	4790	-	-	-	-	-	-	-	-	-	-	-
MAX	6120	5840	5890	-	-	-	14470	8770	7100	6760	6420	6490	-
MIN	6120	4790	5890	-	-	-	14470	8770	7100	6760	6420	6490	-
MEAN	6120	5315	5890	-	-	-	14470	8770	7100	6760	6420	6490	67335
NO.	1	2	1	0	0	0	1	1	1	1	1	1	0
DISTR OF MEAN	9.1%	7.9%	8.7%	0%	0%	0%	21.5%	13.0%	10.5%	10.0%	9.5%	9.6%	100%

NUECES-RIO GRANDE COASTAL BASIN

08211520 Oso Creek at Corpus Christi, Texas

LOCATION: Lat 27°42'40", long 97°30'08", Nueces County, at the bridge on Farm Road 763, 1.5 mi (2.4 km) south of the intersection of Farm Roads 763 and 665, 1.6 mi (2.6 km) downstream from the mouth of West Oso Creek, and 1.9 mi (3.1 km) southwest of the intersection of Farm Road 665 and State Highway 357.

DRAINAGE AREA: 90.3 mi² (233.9 km²).

PERIOD OF RECORD: October 1972 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 1.91 ft (0.582 m) below mean sea level, datum of 1929.

EXTREMES: Period of record (1972-75): Maximum discharge, 6,110 ft³/s (173 m³/s) Oct. 12, 1973 (gage height, 26.09 ft 7.952 m); minimum, 0.25 ft³/s (0.007 m³/s) Aug. 26, 17, 1973.

Maximum stage since 1919, that of Oct. 12, 1973.

REMARKS: Records good. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1972	-	-	-	-	-	-	-	-	-	272	216	200	-
1973	231	190	149	146	117	17880	315	315	12610	21810	135	100	53998
1974	127	82.0	2320	84.0	1150	1880	96.0	66.0	1000	122	513	99.0	7539
1975	170	72.0	78.0	63.0	106	113	140	1530	7640	883	744	133	11672
MAX	231	190	2320	146	1150	17880	315	1530	12610	21810	744	200	53998
MIN	127	72.0	78.0	63.0	106	113	96.0	66.0	1000	122	135	99.0	7539
MEAN	176	115	649	97.7	458	6624	184	637	7083	5772	402	133	22531
NO.	3	3	3	3	3	3	3	3	3	4	4	4	3
DISTR													
CF MEAN	0.81	0.51	3.81	0.41	2.01	29.41	0.81	2.81	31.41	25.61	1.81	0.61	1001

NUECES-RIO GRANDE COASTAL BASIN

08211800 San Diego Creek at Alice, Texas

LOCATION: Lat 27°45'59", long 98°04'31", Jim Wells County, at the bridge on Edith Drive in Alice, 540 ft (165 m) downstream from the Texas and New Orleans Railroad Co. bridge, and 3.2 mi (5.1 km) upstream from its confluence with Chiltipin Creek.

DRAINAGE AREA: 319 mi² (826 km²).

PERIOD OF RECORD: October 1963 to December 1975.

GAGE: Water stage recorder. Datum of gage is 189.60 ft (57.790 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 13 years, 9.57 l ac-ft/yr (11.8 hm³/yr).

EXTREMES: Period of record (1963-75): Maximum discharge, 19,200 ft³/s (544 m³/s) Oct. 17, 1971 (gage height, 17.70 ft or 5.395 m); no flow most of the time each year.

Maximum stage since at least 1928, 18.2 ft (5.55 m) April 1949, the equivalent gage height in the channel was modified in 1955, 17.2 ft (5.24 m), from information by local residents.

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1963	-	-	-	-	-	-	-	-	-	0	0	0	-
1964	0	0	0	0	.20	0	81.0	585	606	0	0	0	1272
1965	0	1.00	1400	19.0	320	13.0	0	5.00	0	1190	0	.06	2948
1966	.30	0	0	495	1480	3.50	1.00	0	0	0	0	0	1980
1967	0	0	0	0	.06	0	0	53.0	31380	254	0	0	31687
1968	0	0	0	0	113	.20	.60	0	0	.40	0	0	114
1969	0	1.63	0	.70	0	0	9.5	10.0	.90	0	.80	.50	185
1970	0	0	0	0	153	79.0	0	18.0	0	0	0	0	250
1971	0	0	0	4.10	134	0	0	3490	29670	39840	1750	32.0	74920
1972	0	109	52.0	0	485	70.0	25.0	0	53.0	0	0	0	794
1973	0	0	0	0	0	141	0	0	312	723	7.60	7.20	1191
1974	15.0	1.30	233	1.60	197	122	0	1740	158	.10	15.0	0	2683
1975	1.60	0	0	0	45.0	6.80	89.0	43.0	25.0	0	0	0	216
MAX	15.0	1.63	1400	495	1480	141	89.0	3490	31380	39840	1750	32.0	74920
MIN	0	0	0	0	0	0	0	0	0	0	0	0	114
MEAN	1.39	22.9	140	43.4	261	36.3	17.2	495	5184	3231	136	3.06	9571
NL.	12	12	12	12	12	12	12	12	12	13	13	13	12
LISTR OF MEAN	.0%	.2%	1.5%	.5%	2.7%	.4%	.2%	5.2%	54.2%	33.8%	1.4%	.0%	100%

NUECES-RIO GRANDE COASTAL BASIN

08211850 Lake Alice at Alice, Texas

LOCATION: Lat 27°47'25", long 98°03'39", Jim Wells County, just upstream from Alice Dam on Chiltipin Creek, 1.8 mi (2.9 km) upstream from the confluence of Chiltipin and San Olego Creeks, and 2.6 mi (4.2 km) northeast of Alice.

DRAINAGE AREA: 150 mi² (388 km²).

PERIOD OF RECORD: December 1964 to December 1975.

GAGE: Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES: Period of record (1964-75): Maximum contents, 4,780 ac-ft (5.89 hm³) Sept. 12, 1971 (elevation, 198.83 ft or 60.603 m, from floodmark); minimum contents, 14 ac-ft (0.0173 hm³) Feb. 3, 1965 (elevation, 185.67 ft or 56.592 m).

REMARKS: The lake is formed by a rolled earthfill dam, which has a total length of 11,525 ft (3,513 m), with a capacity of 5,300 ac-ft (6.53 hm³). The dam consists of the main embankment 3,470 ft (1,060 m) long and two protective levees. The west protective levee is 4,275 ft (1,303 m) long and the east protective levee is 2,343 ft (714 m) long. Storage began on Oct. 26, 1964 and the dam was completed on Mar. 16, 1965. The emergency spillway is 1,000 ft (305 m) wide and is located between the main embankment and the west levee. Collapsible flashboards, 3.5 ft (1.1 m) high, were added to the crest of the emergency spillway. The main spillway is 414 ft (126 m) wide with thirteen 30-foot (9-m) wide slots for gates, but no gates have been installed at the present time. The main spillway is located between the main embankment and the east levee. The service spillway is a concrete siphon-type spillway, 22.5 ft (6.9 m) wide with a 3.5 ft (1.1 m) opening and is located in the main embankment section. The dam is the property of the Alice Water Authority and was built to store water for use by the City of Alice.

END OF MONTH CONTENTS IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1964	-	-	-	-	-	-	-	-	-	-	-	26.0
1965	16.0	51.0	202	93.0	2540	1470	459	361	275	358	429	417
1966	352	323	189	1830	2460	1880	1590	747	513	510	438	409
1967	594	406	205	136	377	102	70.0	86.0	2670	2610	2160	1690
1968	1410	1130	701	220	1420	960	631	317	244	260	317	441
1969	277	803	330	291	195	70.0	213	260	228	225	258	284
1970	310	529	676	628	740	648	453	1760	1420	868	444	110
1971	102	170	128	183	336	239	99.0	202	3180	3280	2750	2420
1972	2020	1920	1460	833	1550	1450	927	372	1490	923	472	180
1973	271	523	676	708	417	1270	328	185	1910	2820	2290	1830
1974	1490	1000	968	352	2910	1860	997	1250	1050	964	758	822
1975	911	939	856	659	542	275	305	435	412	312	221	277
MAX	2020	1920	1460	1830	2540	1880	1590	1760	3180	3280	2750	2420
MIN	16.0	51.0	128	93.0	195	70.0	70.0	86.0	228	225	221	26.0
MEAN	705	709	581	539	1181	929	552	543	1236	1194	958	742
NO.	11	11	11	11	11	11	11	11	11	11	11	12
DISTR OF MEAN	7.1%	7.2%	5.9%	5.5%	12.0%	9.4%	5.6%	5.5%	12.5%	12.1%	9.7%	7.5%

NUECES-RIO GRANDE COASTAL BASIN

08211900 San Fernando Creek at Alice, Texas

LOCATION: Lat 27°46'20", long 96°02'00", Jim Wells County, 34 ft (10 m) downstream from the downstream bridge of two bridges on State Highways 44 and 359, 0.5 mi (0.8 km) downstream from the confluence of San Diego and Chiltipin Creeks, 2.3 mi (3.7 km) upstream from the head of Pintas Creek, and 2.7 mi (4.3 km) northeast of Alice.

DRAINAGE AREA: 507 mi² (1,313 km²).

PERIOD OF RECORD: January 1965 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 161.88 ft (49.280 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 11 years, 23,572 ac-ft/yr (29.1 hm³/yr).

EXTREMES: Period of record (1965-75): Maximum discharge, 26,800 ft³/s (759 m³/s) Sept. 12, 1971 (gage height, 16.51 ft or 5.032 m); no flow for part of each day Aug. 23-26 and Sept. 14, 1965, for several days in June, July, and August 1967, and for part of Dec. 27, 1972.

Maximum stage since at least 1949, that of Sept. 12, 1971.

REMARKS: Records good. San Diego Creek joins Chiltipin Creek below Lake Alice to form San Fernando Creek. The flow is regulated by Lake Alice (station 08211850) located 2.3 mi (3.7 km) upstream on Chiltipin Creek since Oct. 26, 1964.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1965	66.0	173	1760	131	1900	78.0	45.0	45.0	47.0	2610	92.0	184	7131
1966	177	118	100	2090	5510	115	97.0	64.0	132	123	86.0	89.0	8721
1967	124	91.0	88.0	76.0	120	91.0	80.0	305	60900	591	97.0	91.0	62654
1968	117	103	109	113	1310	145	297	129	283	291	109	122	3128
1969	117	1030	136	133	122	87.0	365	518	184	134	162	186	3174
1970	147	103	132	151	519	508	164	948	293	143	134	118	3360
1971	120	119	119	124	311	120	120	5290	84430	50870	1650	261	143534
1972	176	297	263	82.0	2270	535	132	59.0	981	135	67.0	60.0	5077
1973	128	144	85.0	106	100	2230	211	210	2920	4510	145	146	10935
1974	160	109	399	118	3210	582	97.0	4730	240	81.0	116	88.0	9930
1975	99.0	96.0	71.0	88.0	197	84.0	221	447	123	74.0	73.0	71.0	1644
MAX	177	1030	1760	2090	5510	2230	365	5290	84430	50870	1650	261	143534
MIN	66.0	91.0	71.0	76.0	100	78.0	45.0	45.0	47.0	74.0	67.0	71.0	1644
MEAN	130	217	297	292	1415	416	166	1160	13685	5415	248	131	23522
NO.	11	11	11	11	11	11	11	11	11	11	11	11	11
DISTR													
OF MEAN	.62	.92	1.32	1.22	6.02	1.82	.72	4.92	58.12	23.02	1.12	.62	1002

NUECES-RIO GRANDE COASTAL BASIN

08212000 San Fernando Creek near Alice, Texas

LOCATION: Lat 27°43'30", long 97°59'15", Jim Wells County, 35 ft (10.7 m) downstream from the bridge on Farm Road 685, 1 mi (1.6 km) upstream from Lattas Creek, and 5 mi (8.0 km) east-southeast of Alice.

DRAINAGE AREA: Unknown

PERIOD OF RECORD: April 1962 to September 1963.

GAGE: Water-stage recorder. Datum of gage is 137.51 ft (41.9 m) above mean sea level, datum of 1929.

REMARKS: Records fair. The records do not include the total flood runoff from the basin. When the flow in San Fernando Creek exceeds 100 ft³/s (2.8 m³/s), part of the flow is diverted into Pintas Creek about 2 mi (3.2 km) upstream from the gaging station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1962	-	-	-	46.0	29.0	1810	52.0	5.80	4970	54.0	84.0	48.0	-
1963	62.0	50.0	41.0	48.0	57.0	29.0	291	8.30	317	-	-	-	-
MAX	62.0	50.0	41.0	48.0	57.0	1810	291	8.30	4970	54.0	84.0	48.0	-
MIN	62.0	50.0	41.0	46.0	29.0	29.0	52.0	5.80	317	54.0	84.0	48.0	-
MEAN	62.0	50.0	41.0	47.0	43.0	920	172	7.05	2644	54.0	84.0	48.0	4172
NO. OF DISR	1	1	1	2	2	2	2	2	2	1	1	1	0
OF MEAN	1.5%	1.2%	1.0%	1.1%	1.0%	22.0%	4.1%	.2%	63.4%	1.3%	2.0%	1.2%	100%

NUECES-RIO GRANDE COASTAL BASIN

08212400 Los Olmos Creek near Falfurrias, Texas

LOCATION: Lat 27° 15' 51", long 98° 08' 08", Jim Wells County, at the bridge on U.S. Highway 261, and 2.6 mi (4.2 km) north of Falfurrias (Brooks County).

DRAINAGE AREA: 480 mi² (1,243 km²), of which 4.5 mi² (11.7 km²) is probably noncontributing.

PERIOD OF RECORD: January 1967 to December 1975.

GAGE: Water-stage recorder and V-notch weir low-water control. Datum of gage is 116.58 ft (35.534 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 9 years, 8,024 ac-ft/yr (9.9 km³/yr).

EXTREMES: Period of record (1967-75): Maximum discharge, 5,300 ft³/s (150 m³/s) Sept. 13, 1971 (gage height, 12.66 ft or 3.859 m); no flow at times in 1970-75.

Maximum stage since at least 1929, 15.0 ft (4.57 m) Sept. 13, 1951, from information by the Texas Highway Department.

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1967	33.0	22.0	16.0	23.0	24.0	22.0	20.0	128.0	2919.0	173	16.0	18.0	3083.7
1968	23.0	22.0	21.0	24.0	44.4	24.0	64.9	28.0	47.0	117	33.0	30.0	1462
1969	30.0	24.0	33.0	84.0	114	39.0	36.0	36.0	57.0	46.0	45.0	46.0	590
1970	42.0	37.0	39.0	42.0	57.0	45.0	21.0	2.70	1.40	11.0	0	0	298
1971	.90	0	0	0	0	337	89.0	87.9	2338.0	305	0	0	2499.0
1972	0	15.0	64.9	0	144.0	40.0	0	0	0	0	0	0	2344
1973	0	0	0	6.40	0	314.0	14.0	13.0	398.0	44.9	5.30	3.10	761.1
1974	3.10	3.20	31.20	.60	53.0	14.6	.80	1.50	6.90	5.40	5.70	2.60	334.9
1975	7.10	1.70	1.20	1.50	8.00	4.30	66.2	12.0	26.0	4.70	3.60	2.90	735
MAX	42.0	37.0	31.20	84.0	144.0	314.0	66.2	128.0	2919.0	44.9	45.0	46.0	3083.7
MIN	0	0	0	0	0	4.30	0	0	0	0	0	0	298
MEAN	15.4	13.9	45.3	20.2	23.8	42.2	16.6	25.0	62.99	12.3	12.1	11.4	802.4
NO.	9	9	9	9	9	9	9	9	9	9	9	9	9
COEFFICIENT OF VARIATION	.23	.23	5.63	.33	3.03	5.33	2.13	3.13	78.53	1.53	.23	-.13	1003

RIO GRANDE BASIN

08363B40 Rio Grande at Vinton Bridge near Anthony, Texas

LOCATION: Lat 31°57'32", long 106°36'17", El Paso County, 40 ft (12 m) downstream from the bridge on Farm Road 273, 480 ft (146 m) west of U.S. Highway 80, and 2.8 mi (4.5 km) south of Anthony.

DRAINAGE AREA: 28,680 mi² (74,280 km²).

PERIOD OF RECORD: February 1970 to September 1974.

GAGE: Water-stage recorder. Datum of gage is 3,766.72 ft (1,148.10 m) above mean sea level, datum of 1929. Prior to May 31, 1972, on the left bank at same datum.

AVERAGE DISCHARGE: 5 years, 219,291 ac-ft/yr (270.4 hm³/yr).

EXTREMES: Period of record (1970-74): Maximum discharge, 2,710 ft³/s (76.7 m³/s) Aug. 30, 1973, gage height, 5.69 ft (1.73 m); minimum, 2.0 ft³/s (0.074 m³/s) January 28, 1973.

REMARKS: Records good. The flow is regulated by Cahallo Reservoir, capacity, 344,000 ac-ft (424.2 hm³), 1958 survey, and Elephant Butte Reservoir, capacity, 2,137,000 ac-ft (2,634.9 hm³), 1959 survey, both in New Mexico.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1970	-	4460	35860	26910	29670	36000	48310	41390	20180	6630	3550	3870	-
1971	3430	2030	37620	23650	23640	26630	26340	17230	9370	3060	2460	2210	177670
1972	2020	1700	30350	15540	7100	6290	26310	19400	8270	3250	1010	974	122214
1973	544	477	16710	25470	22990	34790	47050	64540	38250	8240	4540	3590	267191
1974	2950	2390	40750	29670	26480	40250	46130	44910	25940	-	-	-	-
MAX	3430	4460	40750	29670	29670	40250	48310	64540	38250	8240	4540	3870	267191
MIN	544	477	16710	15540	7100	6290	26310	17230	8270	3060	1010	974	122214
MEAN	2236	2211	32256	24248	21976	26792	38828	37494	20402	5295	2890	2661	219291
NO.	4	5	5	5	5	5	5	5	5	4	4	4	3
DISTR OF MEAN	1.0%	1.0%	14.7%	11.1%	10.0%	13.1%	17.7%	17.1%	9.3%	2.4%	1.3%	1.2%	100%

RIO GRANDE BASIN

08364000 Rio Grande at El Paso, Texas

LOCATION: Lat 31°48'10", Long 106°32'25", El Paso County, at the Courchesne Bridge, 5.6 mi (9.0 km) upstream from the Santa Fe Street—Juarez Avenue bridge, and 1.7 mi (2.7 km) upstream from the American Dam.

DRAINAGE AREA: 29,267 mi² (75,801.5 km²).

PERIOD OF RECORD: January 1889 to December 1975.

GAGE: Water-stage recorder and gravity well. Datum of gage is 3,722.30 ft (1,134.6 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 87 years, 574,865 ac-ft/yr (708.8 hm³/yr).

EXTREMES: Period of record (1889-75): Maximum discharge, 24,000 ft³/s (679.7 m³/s) June 12, 1905; no flow at times.

REMARKS: Records good. The flow is partly regulated by Elephant Butte Reservoir. There are many diversions above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1889	15160	14900	28800	66100	190300	157000	146000	0	0	0	0	4370	491230
1890	12100	16100	26100	130000	355000	266000	52500	45100	10500	4000	16900	32900	967200
1891	27700	45300	115000	256000	727000	399000	140000	40700	45700	91500	20300	21200	1929400
1892	20000	27400	46200	187000	436000	175000	41100	800	0	0	0	0	933500
1893	7680	8020	2150	48100	231000	13400	21280	7640	5940	13420	6320	5400	370350
1894	8800	8640	16700	38300	110300	100520	41400	14900	11540	26100	12300	10500	400000
1895	21000	20600	39500	91000	261800	238800	98400	35300	27400	62000	29200	25000	950000
1896	6500	6400	12300	28230	81300	74150	30560	11000	8500	19230	9100	7730	295000
1897	18800	10800	4410	104000	511000	363000	81800	8120	42000	108000	67400	41800	1361130
1898	30500	33700	20000	97900	140000	112000	196000	31200	2230	160	119	5720	669529
1899	12900	11300	7040	8810	10300	0	19600	430	0	0	0	2830	73210
1900	8110	5680	466	300	44800	93100	700	0	16500	0	0	732	169758
1901	278	4500	3670	0	158000	77000	12600	60700	21000	5340	12800	7990	363878
1902	8290	5770	635	7900	526	307	200	14500	9310	1430	298	1780	50766
1903	615	1290	22600	49500	204000	587000	158000	4330	1030	2030	298	2440	1033133
1904	972	387	0	0	0	0	0	7400	11000	366000	48400	38200	472359
1905	35900	43300	188500	198000	546000	851000	58800	19800	3320	4220	25500	37500	2011840
1906	27000	31700	25300	88000	349000	271000	96600	49200	2820	38200	59300	76300	1114420
1907	60400	46600	60000	176000	269000	443000	337000	135000	167000	50000	54900	37600	1836500
1908	33000	31200	47800	80100	117000	40200	16300	58600	14300	0	5080	23800	466980
1909	22300	17200	28600	61500	270000	234000	24800	19000	118000	35300	20600	22800	874300
1910	43500	20900	92900	117000	274000	33100	6900	0	129	0	0	595	582193
1911	9260	11900	43500	31900	248000	229000	435000	53600	11600	295000	119000	62400	1550160
1912	48600	32300	60400	96000	382000	514000	126000	30800	20300	1230	18400	27000	1357030
1913	18800	35000	15600	50700	88600	43100	5680	0	0	6740	17100	21100	302420
1914	21900	23200	38800	73000	259000	228000	147000	70100	8210	68100	51000	67500	1055810
1915	39300	32000	22200	37800	143000	184000	76700	88300	59900	19500	1930	28500	733130
1916	3440	16300	36500	53800	93800	112000	53700	55300	25900	39900	595	64600	555835
1917	64800	65700	58800	54200	73300	76200	141000	81100	78300	85100	43800	65900	888200
1918	2340	32000	48700	48600	46600	28600	28300	33900	19500	33900	20300	6400	349140
1919	3520	17100	42900	56400	90200	71100	67200	62000	50900	26900	16500	7260	511980
1920	24200	13100	49500	50400	72500	82600	84100	107000	74800	79700	28200	41100	707200
1921	6640	24800	67000	53900	76600	93600	105000	114000	116000	100000	69200	43900	870640
1922	17800	47900	67500	85500	74900	79000	83200	112000	82300	54100	36700	37800	778700
1923	16500	33700	47200	72200	87300	90300	90900	123000	60400	51600	23300	32300	728700
1924	17500	48500	56800	91000	122000	98200	111000	107000	77400	32000	21100	27700	810200
1925	11600	29200	56700	75100	73200	68400	79800	96900	87400	25300	15300	14900	633600
1926	12200	15400	41300	65400	69400	75200	88900	63100	65600	21100	21000	18800	556800
1927	13900	24600	38100	59000	71700	73800	86800	90700	80600	30300	29500	20600	619600
1928	12700	26600	43500	80100	68600	72900	86300	97500	67300	31700	22300	14300	623800
1929	13200	18000	37100	62500	70700	56200	83000	107000	51500	25900	14300	12700	552100
1930	8210	16300	42900	62500	58800	67800	82400	83300	51900	25800	16700	16100	532710
1931	9100	13900	40500	56800	53700	63100	76440	88640	52480	26740	22250	14130	517780
1932	9130	16880	34530	57240	62460	73630	78460	85750	67440	34860	24370	22490	567240
1933	11820	24870	39650	66470	63490	79110	82600	95640	66680	33630	20460	24760	669180
1934	11200	33100	43500	56700	60700	62000	73800	80200	48000	18300	11400	9590	508490
1935	8510	8800	18400	44900	47600	56700	69900	95900	65800	20200	11500	11700	459910
1936	8600	10700	29400	50800	62500	62800	76500	79700	50500	17800	12500	12000	473600
1937	8540	10240	26200	60400	69500	73300	76300	88500	68200	19800	17100	18200	536240
1938	10900	16800	43900	66300	71100	78500	78000	69000	61000	27300	16600	15500	554900

RIO GRANDE BASIN
08364000 Rio Grande at El Paso, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	10300	15700	36700	56000	59600	64100	73500	72300	61200	27500	18200	16500	511600
1940	10700	12700	38700	57800	52200	68300	68900	61000	41700	19000	11900	11000	453900
1941	8500	7230	26500	61400	58600	61600	74200	82500	71600	25600	16700	16800	511430
1942	13000	52200	62500	139000	357000	304000	198000	158000	171000	57900	21000	25600	1559200
1943	15100	21800	52400	78600	82500	82100	85600	84900	63500	27100	21300	16900	631800
1944	11900	15500	46200	74500	71700	71800	83900	94000	79200	29500	16700	17000	611900
1945	11400	16700	49000	68300	66700	63100	76200	81600	60500	35400	18400	21600	568900
1946	12000	15200	38400	61400	63500	59100	71100	77700	45100	25200	15200	14000	497900
1947	9860	9140	37300	65000	51800	63200	69700	77800	40600	14600	10400	9460	458860
1948	7770	6510	22300	51600	49700	59800	74800	71800	41800	18900	13400	13300	431680
1949	10800	8140	34400	57200	56200	59100	73500	65500	51500	20100	14900	12200	463540
1950	9830	10200	48000	57700	56700	59600	78400	68800	44500	18300	10900	9700	472630
1951	8460	6570	24600	32300	17900	33900	45500	47800	17100	6930	5640	5300	252000
1952	4290	3190	8970	26100	34400	47100	51400	58000	32700	7410	5120	5000	283680
1953	4320	2870	34900	33000	24700	35200	42400	46800	26800	5530	4290	3690	264500
1954	3250	2010	5470	22700	12700	12500	16200	11700	2430	3790	540	435	93725
1955	533	283	4580	10500	2130	6020	15000	12100	13600	1480	391	272	67089
1956	234	211	11000	17800	1220	7340	9920	4870	4300	151	229	206	57481
1957	220	136	1790	6820	542	14500	37000	47500	27700	2370	553	440	139571
1958	405	358	29700	35000	42900	55000	68100	66000	64400	19400	6560	5040	392863
1959	4010	3340	50700	38700	44700	60900	62200	66400	33700	8470	6120	6570	385810
1960	5720	3820	50700	38700	41600	52800	60900	61800	36600	11000	7400	7220	378260
1961	5810	3970	37800	33100	29800	40600	54000	48200	26900	7490	5830	7190	300690
1962	5010	3690	46500	35860	34690	52130	63860	63000	41200	13310	8850	8090	376190
1963	6070	4260	48420	32720	22190	41190	48060	29430	16530	6090	4560	4190	263710
1964	3510	2320	7880	12050	1200	6320	9650	10420	9430	534	483	501	64298
1965	495	451	3600	15240	522	39550	57110	51230	29810	2090	1190	1080	202388
1966	986	746	44770	36700	28780	51520	54390	54720	20260	6580	4750	4580	308782
1967	3730	2400	46080	25340	24210	25300	31660	36120	27480	5090	2520	2810	232740
1968	2780	1880	39550	27270	23460	41410	46580	40720	23900	6630	5000	5230	264410
1969	4890	2570	42310	33720	30950	52790	67720	69240	36610	10840	6790	7180	365410
1970	5600	5570	46390	38230	40800	46780	67260	54220	31760	11840	6740	5540	360730
1971	5010	3190	43170	30840	33570	37100	39610	28090	13140	4820	2850	2780	244170
1972	2500	1740	33840	16310	8900	7160	24670	21140	10440	5130	917	809	133556
1973	465	344	24940	30400	31250	44300	53280	58590	38160	10010	5510	4540	301789
1974	4270	3740	49180	35840	36460	55060	61300	59780	35840	22130	12140	7230	362970
1975	9070	6700	32140	38400	41460	49840	49140	55580	47040	13450	9050	9080	360950
MAX	64800	65700	188500	256000	727000	851000	435000	158000	171000	366000	119000	76300	2011840
MIN	220	136	0	0	0	0	0	0	0	0	0	0	50766
MEAN	12509	15723	37257	58454	111320	107515	72186	56586	40549	29785	16256	16725	574865
NO.	87	87	87	87	87	87	87	87	87	87	87	87	87
DISTR													
OF MEAN	2.2x	2.7x	6.5x	10.2x	19.4x	18.7x	12.6x	9.8x	7.1x	5.2x	2.8x	2.9x	100x

RIO GRANDE BASIN

08364500 American Canal Diversions at El Paso, Texas

LOCATION: Lat 31°46'40", Long 106°31'25", El Paso County, 2,400 ft (731.5 m) downstream from the headgates of the American Dam.

PERIOD OF RECORD: June 1938 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 3,712.09 ft (1,131.4 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DIVERSION: 38 years, 274,314 ac-ft/yr (338.2 hm³/yr).

EXTREMES: Period of record (1938-75): Maximum discharge, 1,840 ft³/s (52.1 m³/s) March 27, 1944; no flow at times.

REMARKS: Records good. Water is diverted from the Rio Grande at the American Dam into the Franklin Canal from which water is frequently returned to the Rio Grande. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1938	-	-	-	-	-	54100	59700	61000	43500	26400	12200	13600	-
1939	61.5	13800	34600	49700	46100	54300	60700	58900	45600	27300	13000	8730	412792
1940	61.5	8490	33000	45800	39700	52200	57000	55000	38200	13100	5630	8440	356622
1941	122	5170	24450	54800	45800	51200	60500	59000	41800	16800	7960	11800	379402
1942	6540	19500	45000	64600	56700	53900	42600	44000	47500	39000	20800	25500	465640
1943	8110	19200	50100	70900	69000	65700	66300	74600	54100	25900	21000	16700	541610
1944	1730	11500	43900	67100	57900	61800	70700	73300	63100	29100	16500	16800	513430
1945	1780	15600	47200	61700	53500	53400	64600	71400	50800	34400	18300	19500	492180
1946	8.50	11000	36500	54200	50000	49100	61200	67500	35000	22800	14400	13300	415009
1947	2100	8150	34500	57300	38600	53000	59900	58500	32900	14200	9880	8720	377750
1948	3600	5990	20300	41800	38000	44200	63200	58300	30400	15200	12700	12500	346190
1949	1020	2620	33200	47800	42000	49200	61700	55600	38000	12800	11200	11900	367040
1950	798	6560	45100	51100	43700	49300	59700	54600	34300	17100	5830	9270	377358
1951	651	2530	22600	30000	12200	26200	36700	37300	16200	6230	5320	4860	200791
1952	0	0	7470	22000	23600	35900	41200	46300	28300	5100	1680	1940	213490
1953	0	837	33200	28300	16000	29500	32700	37700	20000	2830	1580	3150	205797
1954	0	0	5370	18300	8450	12200	14100	8620	2230	2320	512	2.40	72104
1955	0	0	4410	5770	2080	5990	10700	10900	11400	1440	207	0	52897
1956	0	99.4	10800	10800	858	7260	8950	4840	3790	0	0	0	47397
1957	0	0	1700	4560	517	11700	27200	33700	21600	2350	387	0	103714
1958	0	0	29500	29600	29100	41500	55200	51400	40500	16400	6560	4960	304720
1959	1900	3310	46200	27800	33900	49300	49600	47600	29200	8350	6040	6560	309760
1960	4750	3500	48400	30000	29700	41500	48400	46800	31300	10700	7400	5540	307990
1961	0	3620	36400	23900	18700	31200	40400	36900	25800	7450	5820	6230	236420
1962	0	2450	45700	23700	22100	42100	46300	51300	28400	13200	8800	7430	291480
1963	0	1070	44300	22200	11500	30100	39200	29300	16500	5990	4500	3960	208820
1964	241	2220	7670	7020	1120	6260	8670	9450	9280	479	446	338	53194
1965	4.20	329	3500	9860	392	31500	45300	46000	22800	2030	1180	128	157023
1966	62.9	596	33800	24700	18900	37400	46800	42200	19100	6500	4650	4550	239279
1967	3520	70.6	35800	14300	16200	21800	28800	31600	24300	5070	2460	943	184864
1968	288	1200	16700	10700	12500	13800	13400	14200	13200	3520	4940	4990	109438
1969	4660	465	38000	22900	21700	43800	54500	54600	28300	10800	6750	7150	293625
1970	3290	5420	43800	26200	30800	34100	52200	41100	30300	11700	6680	5480	291070
1971	4930	3130	40200	18400	24300	27900	34100	21200	10400	4610	2810	2780	194760
1972	1930	1220	31200	8220	7200	7160	20800	20400	6290	1300	386	196	106302
1973	309	259	23200	17900	23400	33800	39700	45000	30200	9870	5410	4540	233588
1974	4270	3740	45600	24100	27100	43000	46600	46200	31900	18300	5120	6590	302720
1975	8710	5780	31100	26700	33100	38100	37500	42300	37600	13400	8510	9080	291880
MAX	6710	19500	50100	70900	69000	65700	70700	74600	63100	39000	21000	25500	541610
MIN	0	0	1700	4560	392	5990	8670	4840	2230	0	0	0	47397
MEAN	1769	4579	30667	31209	27200	36697	43864	43227	28792	12212	7041	7057	274314
NO. OF MEAN	37	37	37	37	37	38	38	38	38	38	38	38	37
OF MEAN	.61	1.71	11.21	11.41	9.91	13.41	16.01	15.81	10.51	4.51	2.61	2.61	1001

RIO GRANDE BASIN

08365000 Rio Grande below American Dam at El Paso, Texas

LOCATION: Lat 31°46'35", long 106°31'20", El Paso County, 3.3 mi (5.3 km) upstream from the Santa Fe Street-Juarez Avenue bridge, and 0.6 mi (0.96 km) downstream from the American Dam.

DRAINAGE AREA: 29,271 mi² (75,811.9 km²).

PERIOD OF RECORD: June 1938 to December 1975.

GAGE: Water-stage recorder, cableway, and gravity well. Datum of gage is 3,712.30 ft (1,131.5 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 38 years, 97,489 ac-ft/yr (120.2 hm³/yr).

EXTREMES: Period of record (1938-75): Maximum discharge, 11,300 ft³/s (320.0 m³/s) September 14, 1958, gage height, 14.50 ft (4.4 m); no flow at times.

REMARKS: Records good. The flow is partly regulated by reservoirs, diversions, and drainage returns above the station. The American Dam went into operation in June 1938. Since that date, part of the flow passing the El Paso gage (station 08364000) is diverted into the American Canal (station 08364500) and the remainder, including excess floodflows, passes this station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1938	-	-	-	-	-	24400	18300	7980	17500	901	4460	1910	-
1939	10300	1900	2060	6360	13500	9770	12900	13300	15500	197	5180	7760	98727
1940	10600	3810	5710	12000	12500	16100	11900	6040	3530	5810	6220	2520	96740
1941	8370	2060	2020	6640	12800	10400	13700	23400	29800	8990	8700	4990	131870
1942	6480	32800	17500	74500	300000	250000	155000	114000	124000	19000	153	120	1093553
1943	7020	2600	2240	7680	13500	16500	19400	10200	9410	1260	236	210	90256
1944	10300	4030	2240	7430	13800	9880	13200	20700	16100	381	179	184	98424
1945	9610	1030	1820	6570	13300	9660	11700	10200	9800	970	119	2140	76919
1946	12000	4290	1920	7230	13400	9940	9940	10200	10000	2430	788	683	82821
1947	7760	979	2730	7630	13200	10300	9600	19300	7580	375	507	730	80891
1948	4170	521	2600	9860	11700	15600	11500	13500	11400	3670	720	708	85349
1949	9780	5510	1390	9430	14200	9840	11800	9890	13500	7280	3750	389	96759
1950	9036	3610	2990	6610	13000	10200	18700	14200	10200	1180	5120	431	95271
1951	7810	4040	1970	2230	5660	7700	8780	10400	925	702	317	440	50974
1952	4290	3190	1530	4090	10700	11200	10200	11700	4350	2320	3440	3060	70070
1953	4320	2040	1730	4730	8680	5720	9670	9060	6820	2690	2700	538	58698
1954	3250	2010	9140	4430	4290	300	2070	3070	198	1470	2840	433	21640
1955	533	283	176	4770	55.7	35.5	4250	1200	2430	38.1	183	272	14226
1956	234	112	164	6950	360	74.6	967	37.5	516	151	229	206	10001
1957	220	136	81.9	2260	25.2	2820	9800	13800	6070	18.0	167	440	35838
1958	405	358	149	5380	13900	13600	12900	14600	23900	3040	14.7	81.1	88328
1959	2110	31.3	4470	10900	10900	11700	12600	18800	4570	120	80.5	13.1	76295
1960	970	328	2260	8630	11900	11200	12400	15000	5370	282	11.9	1690	70042
1961	5810	346	1380	9220	11100	9460	13500	11900	1190	36.5	13.9	971	64427
1962	5010	1240	813	12190	12620	10040	17500	11670	12730	66.2	37.7	669	84586
1963	6070	3190	4130	10530	10700	11110	8840	92.2	53.8	99.6	65.7	229	55110
1964	3270	99.6	207	5030	82.5	56.5	979	969	157	54.9	36.7	163	11105
1965	491	122	97.4	5380	129	8060	11800	11290	7010	63.9	13.7	951	45408
1966	903	150	11000	11970	9870	14080	7600	12550	1150	86.1	96.0	30.7	69486
1967	209	2330	10250	11020	8010	3540	2880	4560	3150	24.6	64.5	1870	47908
1968	2496	680	22800	16530	11000	27600	33180	26600	10860	3110	64.5	237	155152
1969	3141	2160	4250	10830	9200	8980	13250	14650	8320	63.1	43.6	31.9	71810
1970	2320	150	2630	11980	10020	12640	15060	13140	1340	102	65.5	61.5	69509
1971	75.2	55.5	2940	12410	9310	9170	5540	6880	2720	204	42.0	0	49347
1972	568	523	2680	8090	1700	0	3880	747	4150	3830	531	613	27312
1973	156	84.9	1700	12490	7830	10440	13600	13600	7930	140	105	0	68076
1974	0	0	3410	11710	9330	11820	14590	13620	3890	3850	7030	637	79887
1975	345	921	1040	11700	8350	11760	11600	13280	9370	41.3	543	20.0	68970
MAX	12000	32800	22800	74500	300000	250000	155000	114000	124000	19000	8700	7760	1093553
MIN	0	0	61.9	2230	25.2	0	967	37.5	53.8	18.0	11.9	0	10001
MEAN	4252	2371	3421	10200	17044	16203	15139	13832	10723	1975	1370	959	97489
NO.	37	37	37	37	37	37	38	38	38	38	38	38	37
DISTR													
OF MEAN	4.4%	2.4%	3.5%	10.5%	17.5%	16.6%	15.5%	14.2%	11.0%	2.0%	1.4%	1.0%	100%

RIO GRANDE BASIN

08365540 Northgate Reservoir at El Paso, Texas

LOCATION: Lat 31°52'32", long 106°28'37", El Paso County, on top of the dam directly over the outlet tunnel, and 1.0 mi (1.6 km) northwest of the intersection of Dyer Street (U.S. Highway 54) and Hondo Pass Road in El Paso.

DRAINAGE AREA: 6.89 mi² (17.85 km²), of which 3.42 mi² (8.86 km²) is upstream from Transmountain Reservoir.

PERIOD OF RECORD: March 1973 to September 1975.

GAGE: Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES: No outflow or significant inflow during the period of record

REMARKS: Records good. The reservoir is formed by a rolled earthen dam 3,500 ft (1,067 m) long. The dam was completed in 1972. The uncontrolled emergency spillway is a 150-foot wide (46-m) excavated channel cut through natural ground and located near the left end of the dam. The service outlet structure is a 3.0- by 6.5-foot (0.9- by 2.0-m) concrete drop inlet that is connected to a 27-inch (686-millimeter) concrete conduit. The top of the drop-inlet structure is closed. There are two ports on each side of the structure that are 6.5 by 2.5 ft (2.0 by 0.8 m) and are protected by a trash guard. Both side ports are at elevation 4,018.93 ft (1,224.970 m). In addition, there are three ports, 2.25 by 0.50 ft (0.69 by 0.15 m), located on the front of the structure at elevations 4,015.9, 4,012.43, and 4,008.89 ft (1,224.05, 1,222.989, and 1,221.910 m).

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1973	-	-	0	0	0	0	0	0	0	0	0	0	-
1974	0	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	-	-	-	-
MAX	0	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0	-
NO.	2	2	3	3	3	3	3	3	3	2	2	2	1
DISTR OF MEAN	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	1003

RIO GRANDE BASIN

08365545 Range Reservoir at El Paso, Texas

LOCATION: Lat 31°52'56", long 100°25'27", El Paso County, on top of the dam directly over the outlet tunnel, and 0.4 mi (0.6 km) north of the intersection of Range Road and Dyer Street (U.S. Highway 54) in El Paso.

DRAINAGE AREA: 11.89 mi² (30.80 km²), of which 6.89 mi² (17.85 km²) is upstream from Northgate Reservoir.

PERIOD OF RECORD: March 1973 to September 1975.

GAGE: Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES: Period of record (1973-75): Maximum inflow, 906 ft³/s (25.7 m³/s), average for 15-minute interval, July 10, 1974, computed from the change in the pool contents and adjusted for outflow and rainfall on the pool surface during times of peak inflow; no inflow for most of the time each year.

REMARKS: Records good. The reservoir is formed by a rolled earthfill dam 7,405 ft (2,257 m) long. The dam was completed in 1972. The uncontrolled emergency spillway is a 150-foot wide (46-m) excavated channel cut through natural ground with a concrete crest and located near the right end of the dam. The service outlet structure is a 3.0- by 0.5-foot (0.9- by 2.0-m) concrete drop-inlet structure connected to a 27-inch diameter (686-millimeter) concrete outlet pipe. The drop-inlet structure has two ports on the front that are 2.25-foot (0.69-m) wide by 0.50-foot (0.15-m) high and two ports on each side that are 6.5-foot (2.0-m) wide by 2.5-foot (0.8-m) high with a trash guard protecting each side port.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1973	-	-	0	0	0	0	15.1	17.9	0	0	0	0	-
1974	0	0	0	0	0	0	103	14.7	68.6	84.8	1.90	1.40	274
1975	0	2.70	0	0	0	0	9.7	0	46.0	-	-	-	-
MAX	0	2.70	0	0	0	0	103	17.9	68.6	84.8	1.90	1.40	274
MIN	0	0	0	0	0	0	9.7	0	0	0	0	0	274
MEAN	0	1.35	0	0	0	0	42.6	10.9	38.2	42.4	.95	.70	137
NO.	2	2	3	3	3	3	3	3	3	2	2	2	1
DISTR OF MEAN	.0%	1.0%	.0%	.0%	.0%	.0%	31.1%	7.9%	27.9%	30.9%	.7%	.5%	100%

RIO GRANDE BASIN

0835550 Franklin Canal at El Paso, Texas

LOCATION: Lat 31°44'56", Long 108°28'52", El Paso County, in the center of the canal between the Southern-Pacific Railroad Co. bridge and the Rio Grande, and at the south end of Kansas and Campbell Street in El Paso.

PERIOD OF RECORD: October 1968 to September 1972

GAGE: Water-stage recorder. Datum of gage not published.

AVERAGE DISCHARGE: 5 years, 88,122 ac-ft/yr (108.6 hm³/yr).

EXTREMES: Period of record (1968-72): Maximum discharge, 292 ft³/s (8.3 m³/s) August 4, 1969 (gage height, 5.77 ft or 1.8 m); no flow at times.

REMARKS: Records good. The station is above all diversions. The canal diverts water from the lower end of the American Canal for irrigation in the El Paso Valley.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1968	-	-	-	-	-	-	-	-	-	2390	4080	1790	-
1969	1350	268	11260	12520	12210	14590	16210	16050	13070	3010	2020	206	102784
1970	1900	3220	13340	14690	15070	14730	15120	13760	15220	1770	3510	1760	114090
1971	960	740	12830	12360	11350	11810	11050	11740	6750	1610	733	1050	82983
1972	1190	549	8000	6160	4780	2960	7860	8690	4170	-	-	-	-
MAX	1900	3220	13340	14690	15070	14730	16210	16050	15220	3010	4080	1790	114090
MIN	960	268	8000	6160	4780	2960	7860	8690	4170	1610	733	206	82983
MEAN	1350	1199	11358	11433	10853	11023	12560	12560	9803	2195	2586	1202	88122
NO.	4	4	4	4	4	4	4	4	4	4	4	4	3
DISCH OF MEAN	1.5%	1.4%	12.9%	13.0%	12.3%	12.5%	14.3%	14.3%	11.1%	2.5%	2.9%	1.4%	100%

RIO GRANDE BASIN

08365600 McKelligon Canyon at El Paso, Texas

LOCATION: Lat 31°49'17", long 106°28'03", El Paso County, 120 ft (37 m) south of McKelligon Canyon Drive, 0.1 mi (0.2 km) west of Alabama Avenue, 0.5 mi (0.8 km) south of the crest of Sugarloaf Mountain, and 4.4 mi (7.1 km) north of the El Paso County Courthouse.

DRAINAGE AREA: 2.3 mi² (6.0 km²).

PERIOD OF RECORD: October 1957 to December 1975.

GAGE: Water-stage recorder and small earthfill dam with an uncontrolled concrete outlet tower. Datum of gage is 4,257.33 ft (1,297.63 m) above mean sea level.

AVERAGE DISCHARGE: 19 years, 8.5 ac-ft/yr (0.01 hm³/yr).

EXTREMES: Period of record (1957-75): Maximum discharge, 306 ft³/s (8.67 m³/s) July 14, 1973 (gage height, 5.06 ft or 1.725 m); no flow except Sept. 11, 12, 1958 and July 14-18, 1973.

REMARKS: The floodflow is controlled by four small reservoirs upstream with a capacity of about 05 ac-ft (0.117 hm³).

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1957	-	-	-	-	-	-	-	-	-	0	0	0	-
1958	0	0	0	0	0	0	0	0	30.0	0	0	0	30.0
1959	0	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	114	0	0	0	0	0	114
1974	0	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	114	0	30.0	0	0	0	114
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	6.33	0	1.67	0	0	0	8.50
NO.	18	18	18	18	18	18	18	18	18	19	19	19	18
DISTR OF MEAN	.0%	.0%	.0%	.0%	.0%	.0%	79.2%	.0%	20.8%	.0%	.0%	.0%	100%

RIO GRANDE BASIN

08365700 Inlet to Fort Bliss Sump Area at El Paso, Texas

LOCATION: Lat 31°50'20", Long 106°25'23", El Paso County, at the culvert on Southern-Pacific Railroad at the northeast corner of the El Paso Golf Course, and 1 mi (1.6 km) east of U.S. Highway 54.

DRAINAGE AREA: 3.5 mi² (9.1 km²).

PERIOD OF RECORD: July 1958 to November 1961.

GAGE: Water-stage recorder. Datum of gage is 3,868.47 ft (1,179.1 m) above mean sea level, datum of 1929.

EXTREMES: Period of record (1958-61): Maximum discharge, 675 ft³/s (19.1 m³/s) September 11, 1958 (gage height, 4.94 ft or 1.5 m); no flow most of the time.

REMARKS: Records poor.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1958	-	-	-	-	-	-	50.0	6.00	448	1.20	0	0	-
1959	0	0	0	0	.40	0	1.60	51.0	0	0	0	0	53.0
1960	0	0	0	0	0	137	0	-4.0	0	5.60	0	3.20	146
1961	1.80	0	0	0	0	4.00	67.0	.20	31.0	0	63.0	-	-
MAX	1.80	0	0	0	.40	137	67.0	51.0	448	5.60	63.0	3.20	146
MIN	0	0	0	0	0	0	0	-2.0	0	0	0	0	53.0
MEAN	.60	0	0	0	.13	47.0	29.6	14.4	120	1.70	15.7	1.07	230
NO.	3	3	3	3	3	3	4	4	4	4	4	3	2
DISTR OF MEAN	.31	.01	.01	.01	.11	20.41	12.91	6.31	52.01	.71	6.81	.51	1001

RIO GRANDE BASIN

08365800 Government Ditch at El Paso, Texas

LOCATION: Lat 31°47'02", long 106°26'41", El Paso County, at the intersection of Montana and Houston Streets, and 2 mi (3 km) northeast of the business center of El Paso.

DRAINAGE AREA: 6.4 mi² (16.6 km²).

PERIOD OF RECORD: July 1958 to December 1975.

GAGE: Water-stage recorder and concrete control. Datum of gage is 3,740 ft (1,140 m) above mean sea level, datum of 1928.

AVERAGE DISCHARGE: 18 years, 162 ac-ft/yr (0.20 hm³/yr).

EXTREMES: Period of record (1958-75): Maximum discharge, 550 ft³/s (15.6 m³/s) Sept. 11, 1958 (gage height, 2.64 ft or 0.805 m); no flow most of the time each year.

REMARKS: Records good.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1958	-	-	-	-	-	-	25.0	5.40	238	16.0	.20	0	-
1959	.20	0	0	0	0	7.70	.80	32.0	0	.60	0	.20	41.7
1960	3.80	.20	1.40	0	0	4.00	37.0	2.20	0	9.9	0	5.20	63.7
1961	2.60	0	0	0	0	.40	32.0	9.9	40.0	0	9.5	4.20	98.6
1962	4.60	6.70	0	0	0	0	6.60	0	161	2.80	.20	.60	182
1963	0	.20	0	0	1.80	0	1.60	6.00	.80	9.1	5.60	0	25.1
1964	0	0	15.0	0	0	0	.20	9.7	44.0	0	0	1.00	69.9
1965	0	1.00	0	0	.20	1.20	.60	6.40	36.0	.60	2.80	2.50	51.3
1966	.70	4.00	0	22.0	0	43.0	2.90	72.0	16.0	0	.20	.40	161
1967	0	0	.04	0	.40	26.0	31.0	10.0	7.20	.20	.30	1.40	76.5
1968	.30	8.80	13.0	.10	0	.10	15.4	23.0	.20	.30	5.80	2.90	208
1969	0	0	.08	0	5.50	.50	19.0	2.90	14.0	.90	1.00	4.20	48.1
1970	0	0	2.70	0	.50	1.60	38.0	1.10	15.0	3.40	0	0	62.3
1971	0	0	0	4.30	0	0	143	14.0	56.0	14.0	2.00	0	233
1972	0	0	0	0	0	31.0	26.0	116	26.0	25.0	1.00	1.70	227
1973	11.0	36.0	24.0	0	14.0	15.0	182	9.1	0	.50	.30	0	292
1974	2.10	0	5.00	0	0	5.50	80.0	15.0	400	138	9.2	4.90	660
1975	10.0	17.0	.02	0	.06	0	12.0	4.60	54.0	5.10	0	5.00	108
MAX	11.0	36.0	24.0	22.0	14.0	43.0	182	116	400	138	9.5	5.20	660
MIN	0	0	0	0	0	0	.20	0	0	0	0	0	25.1
MEAN	2.08	4.35	3.60	1.55	1.32	6.00	44.0	18.8	61.6	12.6	2.12	1.90	162
NO.	17	17	17	17	17	17	18	18	18	18	18	18	17
DISTR													
OF MEAN	1.31	2.73	2.23	1.01	.83	4.93	27.23	11.63	38.03	7.83	1.33	1.23	1003

RIO GRANDE BASIN

08366000 Rio Grande at Juarez, Chihuahua

LOCATION: Lat 31°45'16", long 106°28'06", El Paso County, 2.9 mi (4.7 km) below El Paso, and 7.0 mi (11.3 km) downstream from the American Dam.

DRAINAGE AREA: 29,350 mi² (76,016.5 km²).

PERIOD OF RECORD: April 1938 to May 1956.

GAGE: Water-stage recorder and cableway, Datum of gage is 3,683.88 ft (1,122.88 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 19 years, 288,311 ac-ft/yr (367.8 hm³/yr).

EXTREMES: Period of record (1938-56): Maximum discharge, 7,630 ft³/s (216.1 m³/s) July 21, 1955, gage height, 9.88 ft (3.01 m); minimum discharge, 2.5 ft³/s (0.07 m³/s) August 3, 1955, gage height, 2.03 ft (0.62 m).

REMARKS: Records good. Reservoirs, diversions, and drainage returns modify the flow of this station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1938	-	-	-	33420	28010	44280	49350	40000	42470	13050	12140	9930	-
1939	10130	8130	22020	35060	29330	36140	42390	44060	38330	17900	13170	10270	303930
1940	12230	9090	21650	30940	23380	40070	42730	38670	22280	11630	9360	7510	269540
1941	9440	4730	14140	40350	31650	32140	44900	58480	48970	18600	13350	12750	329500
1942	13270	42690	45790	111500	325100	272400	162500	127300	143800	45390	8640	17510	1315890
1943	13270	11900	35650	52440	48090	50610	53470	55170	35470	15640	9700	7910	388720
1944	12130	10740	33200	50610	39590	41620	57540	62180	50770	20290	12900	9740	401310
1945	11980	6740	31670	45660	32720	34480	45050	50240	31850	32020	13670	18060	356140
1946	12060	4960	26030	56260	31600	29740	40830	46770	23170	18880	7960	9120	292380
1947	10050	6840	26130	41120	19590	34050	42020	49140	20400	8610	4910	2820	265680
1948	7660	5540	17830	31830	21960	36370	44210	39850	15850	8900	3570	9280	243050
1949	11350	7250	20600	31240	23850	30220	43790	36890	29630	13570	7590	8700	264380
1950	4580	6000	32800	31720	25940	31810	51580	36270	20920	11510	6820	5870	272820
1951	7390	4320	17750	15610	4620	14710	20100	20120	6880	3920	3660	3660	122740
1952	3610	2640	6640	12880	11530	21620	23440	28140	17870	4440	3680	3410	139900
1953	3750	2110	23950	14720	7180	14770	16200	19260	13030	3210	3010	2480	123670
1954	3260	2590	3710	7670	3440	4410	1730	7660	1350	1940	1320	1470	40550
1955	1360	1140	1590	1110	1240	1310	7100	1900	4050	1360	1030	1150	24360
1956	1130	1210	6720	2400	1280	-	-	-	-	-	-	-	-
MAX	13270	42690	45790	111500	325100	272400	162500	127300	143800	45390	13670	18060	1315890
MIN	1130	1140	1590	1110	1240	1310	1730	1900	1350	1360	1030	1150	24360
MEAN	8543	8201	21515	32965	37374	42819	43829	42339	31338	13937	7582	7869	298311
NO. OF	18	18	18	19	19	18	18	18	18	18	18	18	17
DISTR													
OF MEAN	2.9%	2.7%	7.2%	11.1%	12.5%	14.4%	14.7%	14.2%	10.5%	4.7%	2.5%	2.6%	100%

RIO GRANDE BASIN

08366400 Riverside Canal near Socorro, Texas

LOCATION: Lat 31°09'30", long 106°19'32", El Paso County, 0.2 mi (0.3 km) downstream from the headgates of the canal, and 1.5 mi (2.4 km) west of Socorro.

PERIOD OF RECORD: October 1968 to September 1972.

GAGE: Water-stage recorder. Datum of gage is 3,656.79 ft (1,114.6 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 5 years, 161,261 ac-ft/yr (198.8 hm³/yr).

EXTREMES: Period of record (1968-72): Maximum discharge, 1,160 ft³/s (32.8 m³/s) July 20, 1970 (gage height, 7.08 ft or 2.2 m); no flow at times.

REMARKS: Records fair. The canal diverts water from the left bank of the Rio Grande for irrigation in the lower El Paso Valley.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1968	-	-	-	-	-	-	-	-	-	2440	2830	2520	-
1969	2960	2220	29000	14010	14230	30160	38150	41460	21200	5410	4430	6830	210060
1970	2640	984	31660	15280	19180	20740	35870	29020	19840	8380	4440	4120	192154
1971	4960	2470	39070	13670	14960	19210	24780	18860	8660	3330	3700	2050	155720
1972	1230	2890	21560	4120	3090	2620	14560	18990	10250	-	-	-	-
MAX	4960	2890	39070	15280	19180	30160	38150	41460	21200	8380	4440	6830	210060
MIN	1230	984	21560	4120	3090	2620	14560	18860	8660	2440	2830	2050	155720
MEAN	2946	2141	30323	11770	12865	18183	28340	27083	14988	4890	3850	3880	161261
NO.	4	4	4	4	4	4	4	4	4	4	4	4	3
DISTR OF MEAN	1.8%	1.3%	18.8%	7.3%	8.0%	11.3%	17.6%	16.8%	9.3%	3.0%	2.4%	2.4%	100%

RIO GRANDE BASIN

08366500 Rio Grande at Island Station near Clint, Texas

LOCATION: Lat 31°32'00", long 106°14'35", El Paso County, 0.6 mi (0.96 km) downstream from the Riverside Canal Wasteway No. 2, 4.0 mi (6.4 km) south-southwest of Clint, and 27.7 mi (44.6 km) below the American Dam.

DRAINAGE AREA: 29,743 mi² (77,034.4 km²).

PERIOD OF RECORD: September 1938 to December 1975.

GAGE: Water-stage recorder, cableway, and gravity well. Datum of gage is 3,608.99 ft (1,100.0 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 38 years, 61,090 ac-ft/yr (75.3 hm³/yr).

EXTREMES: Period of record (1938-75): Maximum discharge, 7,050 ft³/s (199.6 m³/s) September 14, 1958, gage height, 15.80 ft (4.8 m); no flow at times.

REMARKS: Records good. The flow is partly regulated by reservoirs, diversions, and drainage returns above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1938	-	-	-	-	-	-	-	-	29400	1620	2220	2480	-
1939	8800	2930	876	2160	1050	1310	4840	10300	12000	1780	296	3300	49642
1940	8900	4070	954	1190	1570	10500	5800	5500	1760	2660	11.5	1050	43966
1941	7900	4260	3700	5470	7260	2620	7290	26400	28400	11100	1950	6920	113270
1942	11400	37000	21000	70500	299800	241000	118500	99400	119200	42800	5840	12900	1079340
1943	11900	9650	10300	8520	11300	12300	22500	4990	10700	6130	2130	1260	111680
1944	10000	6010	4100	9810	6150	6400	12700	21000	18000	3220	1090	4510	102990
1945	10300	3350	3590	6110	1400	1200	6000	4660	1640	25800	7270	7890	79210
1946	9960	3980	4740	2130	3370	1200	3870	2460	3010	6490	804	4500	46514
1947	7920	4470	1840	3040	3050	3060	2100	14700	1090	2010	1450	1150	45880
1948	5990	4020	1470	1500	1320	4780	4270	3360	2960	1170	2300	2290	35430
1949	8990	6560	2500	2520	1770	1330	8560	2220	16200	3580	446	2010	56686
1950	6760	3580	4060	905	1480	1050	21300	3190	5720	4690	711	972	54418
1951	5340	996	904	455	175	114	240	563	97.0	0	0	0	8884
1952	2020	161	20.2	5.00	21.0	158	81.1	1680	431	289	73.2	769	5708
1953	2510	1120	2750	394	58.9	62.7	2590	277	272	0	0	64.9	10099
1954	2090	1140	84.9	201	1.40	0	0	2480	0	6.90	286	4.60	6291
1955	874	73.0	0	0	0	0	2220	100	4.80	0	0	0	3272
1956	221	4.20	3.20	9.7	0	0	0	0	0	0	0	0	238
1957	0	0	0	0	0	0	2520	2890	1070	0	0	0	6480
1958	723	112	600	181	43.2	53.0	3870	8720	24600	10000	532	1480	50914
1959	3090	688	2720	481	524	1480	1160	7530	901	258	3510	2520	24862
1960	4310	313	1220	686	627	647	10300	1340	970	3150	4460	3020	31043
1961	5020	1670	584	272	156	165	1210	1680	1320	128	397	3410	16012
1962	3860	617	470	454	239	329	6230	882	14710	1260	2240	2690	33981
1963	4130	606	476	308	85.1	70.6	855	100	321	138	246	1750	9086
1964	3100	158	14.9	0	0	0	0	0	5.60	0	0	0	3278
1965	884	45.0	0	0	0	69.4	0	64.9	3250	0	0	267	4580
1966	1590	0	1730	806	8.10	3850	2480	11330	1620	137	63.1	895	24509
1967	47.8	16.5	578	75.6	39.1	1470	275	2180	322	53.8	166	187	5411
1968	42.6	0	711	488	62.7	153	12270	4500	549	432	777	2300	22285
1969	1350	914	558	318	336	1700	7180	5370	6750	935	894	517	26822
1970	1060	1440	913	502	509	793	8250	1470	1420	1250	410	2460	20477
1971	1240	423	626	292	204	462	2270	419	389	264	106	1000	7695
1972	1570	65.3	318	8.50	0	477	0	14680	1060	859	202	231	19471
1973	180	250	155	26.4	212	3.60	14850	1420	1190	332	143	131	18893
1974	155	124	1640	424	269	122	7480	3940	8870	14350	2570	155	40099
1975	7.96	609	1350	742	0	29.2	1100	3080	13270	602	131	19.6	20941
MAX	11900	37000	21000	70500	299800	241000	118500	99400	119200	42800	7270	12900	1079340
MIN	0	0	0	0	0	0	0	0	0	0	0	0	238
MEAN	4169	2741	2096	3270	9273	8080	8248	7429	8776	3881	1151	1976	61090
NO.	37	37	37	37	37	37	37	37	38	38	38	38	37
DIS TR OF MEAN	6.8%	4.5%	3.4%	5.4%	15.2%	13.2%	13.5%	12.2%	14.4%	6.4%	1.9%	3.2%	100%

RIO GRANDE BASIN

08367000 Rio Grande at Tornillo Bridge near Fabens, Texas

LOCATION: Lat 31°25'48", long 106°08'31". El Paso County, 2.0 mi (3.2 km) west of Tornillo, and 3.7 mi (5.9 km) north of Guadalupe, Chihuahua.

DRAINAGE AREA: 29,745 mi² (77,039.6 km²).

PERIOD OF RECORD: January 1924 to December 1937.

GAGE: Water-stage recorder and cableway. Datum of gage is 3,578.63 ft (1,090.77 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 14 years, 187,977 ac-ft/yr (231.8 hm³/yr).

EXTREMES: Period of record (1924-37): Maximum discharge, 6,500 ft³/s (184.1 m³/s) September 5, 1925; no flow at times.

REMARKS: Records good. The flow is largely regulated by reservoirs and diversions above this gage. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1924	11700	36000	31600	35100	57600	36000	61900	39200	40600	24700	11000	18800	394200
1925	11800	7730	7370	10000	11300	13600	10900	54500	43700	13600	7000	6330	197830
1926	11800	3310	8710	15600	23000	25800	40500	9980	26700	17700	7150	11600	201850
1927	12900	13700	13900	14500	20000	24900	31300	51900	46700	12200	17900	16100	276000
1928	8240	10900	8120	28000	26700	13600	22100	59200	27600	13900	16800	10700	245360
1929	8150	3540	4670	10200	25500	5090	21300	59600	10300	12700	9640	7350	178040
1930	8640	4420	9160	10100	9750	19800	24500	27500	10600	10300	7680	11100	153550
1931	8300	6830	8920	20100	12200	8690	20330	40840	17770	10350	12440	9460	176230
1932	7100	10470	7100	6960	12530	14490	17640	27070	23300	33360	12950	15510	168480
1933	10590	12250	5520	15520	11800	31010	24490	28110	22640	17430	9250	14300	202910
1934	10100	20400	13600	3470	6060	2570	9180	7040	8040	6680	3150	4040	94330
1935	6810	2060	457	640	609	1520	1620	21700	44100	7000	5200	8020	99736
1936	9160	5670	3100	2100	4980	5200	8820	14000	26200	7590	5660	8680	101160
1937	8670	4750	2630	3740	13500	14000	7150	12700	24400	8600	8250	13600	121990
MAX	12900	36000	31600	35100	57600	36000	61900	59600	46700	33360	17900	18800	394200
MIN	6810	2060	457	640	609	1520	1620	7040	8040	6680	3150	4040	94330
MEAN	9569	10109	8918	12574	16824	15448	21552	32381	26618	13294	9576	11114	187977
NO.	14	14	14	14	14	14	14	14	14	14	14	14	14
DISYR													
OF MEAN	5.1%	5.4%	4.7%	6.7%	8.9%	8.2%	11.5%	17.2%	14.2%	7.1%	5.1%	5.9%	100%

RIO GRANDE BASIN

08368000 Tornillo Drain at Mouth near Tornillo, Texas

LOCATION: Lat 31°24'01", long 106°01'34", El Paso County, just downstream from the confluence of Tornillo and Alamo Alto drains, 1.2 mi (1.9 km) upstream from the Hudspeth regulating reservoir, and 5 mi (8.0 km) southeast of Tornillo.

PERIOD OF RECORD: October 1968 to September 1972.

GAGE: Water-stage recorder. Datum of gage not published.

AVERAGE DISCHARGE: 5 years, 26,594 ac-ft/yr (32.8 hm³/yr).

EXTREMES: Period of record (1968-72): Maximum discharge, 98.0 ft³/s (2.8 m³/s) September 8, 1970; minimum discharge, 11.0 ft³/s (0.3 m³/s) June 25, July 27, 28, and August 1, 2, 1972.

REMARKS: Records good. The discharge past this station is the return flow from irrigation in the El Paso Valley.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1968	-	-	-	-	-	-	-	-	-	1980	1620	1340	-
1969	1230	972	1530	2070	1770	2210	3500	4070	3720	2760	2030	1640	27502
1970	1520	1320	2220	2740	2830	3120	4230	4370	4780	3560	2490	2360	35540
1971	1950	1590	2580	2710	2620	2500	3460	2830	2390	1850	1560	1290	27330
1972	1340	1260	1660	1510	1440	778	817	976	1250	-	-	-	-
5 YR	1950	1590	2580	2740	2830	3120	4230	4370	4780	3560	2490	2360	35540
MIN	1230	972	1530	1510	1440	778	817	976	1250	1850	1560	1290	27330
MEAN	1510	1266	2003	2258	2165	2152	3002	3062	3035	2538	1925	1658	26594
NO.	4	4	4	4	4	4	4	4	4	4	4	4	3
DISTR													
CF FEAN	5.7%	4.8%	7.5%	8.5%	8.1%	8.1%	11.3%	11.5%	11.4%	9.5%	7.2%	6.2%	100%

RIO GRANOE BASIN

08368300 Tornillo Canal near Tornillo, Texas

LOCATION: Lat 31°24'05", long 106°01'13", El Paso County, 300 ft (91.4 m) downstream from the check gates on the canal, and 5.2 mi (8.4 km) southeast of Tornillo.

PERIOD OF RECORD: October 1968 to September 1972.

GAGE: Water-stage recorder. Datum of gage not published.

AVERAGE DISCHARGE: 5 years, 18,126 ac-ft/yr (22.3 hm³/yr).

EXTREMES: Period of record (1968-72): Maximum discharge, 228.0 ft³/s (6.4 m³/s) June 8, 1970; maximum gage height, 3.31 ft (1.0 m) October 7, 1970; no flow at times each year.

REMARKS: Records poor. The canal diverts water from the Riverside Canal extension and the Franklin Canal for irrigation in Hudspeth County.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1968	-	-	-	-	-	-	-	-	-	347	251	53.0	-
1969	114	44.0	210	905	357	2410	3260	1740	5340	2700	4070	2260	23410
1970	744	242	2110	1970	1060	3140	4000	5840	3640	4750	3350	2070	32916
1971	1380	170	974	596	168	162	638	67.0	38.0	1470	3490	2920	12073
1972	759	53.0	58.0	3.00	0	0	41.0	795	1740	-	-	-	-
MAX	1380	242	2110	1970	1060	3140	4000	5840	5340	4750	4070	2920	32916
MIN	114	44.0	58.0	3.00	0	0	41.0	67.0	38.0	347	251	53.0	12073
MEAN	749	127	838	869	396	1428	1985	2111	2690	2317	2790	1826	18126
NO.	4	4	4	4	4	4	4	4	4	4	4	4	3
DISTR OF MEAN	4.1%	.7%	4.6%	4.8%	2.2%	7.9%	10.9%	11.6%	14.8%	12.8%	15.4%	10.1%	100%

RIO GRANDE BASIN

08368900 Hudspeth Feeder Canal near Tornillo, Texas

LOCATION: Lat 31°24'29", long 106°05'27", El Paso County, on the Rio Grande Levee Road, 2.5 mi (4.0 km) southeast of Tornillo, and 5.3 mi (8.5 km) upstream from the Hudspeth regulating reservoir.

PERIOD OF RECORD: October 1968 to September 1972.

GAGE: Water-stage recorder. Datum of gage is 3,570.36 ft (108.9 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 5 years, 33,351 ac-ft/yr (41.1 km³/yr).

EXTREMES: Period of record (1968-72): Maximum discharge, 206.0 ft³/s (5.8 m³/s) September 5, 1972 (gage height, 5.45 ft or 1.7 m); no flow at times.

REMARKS: Records good. The flow is partially regulated by the headgates of the Fabens waste channel at Fabens, Texas.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1968	-	-	-	-	-	-	-	-	-	755	1800	1500	-
1969	2340	310	2660	3310	3820	4990	6940	6460	5360	3870	2340	5140	47540
1970	4160	1490	3880	4490	4290	4750	6090	4890	6670	4880	3450	2860	51900
1971	2360	875	3620	3920	2270	1320	2960	1550	855	962	503	869	22064
1972	684	457	422	376	2400	6300	207	1620	3990	-	-	-	-
MAX	4160	1490	3880	4490	4290	4990	6940	6460	6670	4880	3450	5140	51900
MIN	684	310	422	376	2400	6300	207	1550	855	755	503	869	22064
MEAN	2386	783	2646	3024	2601	2781	4049	3630	4219	2617	2023	2592	33351
NO.	4	4	4	4	4	4	4	4	4	4	4	4	3
DISTR													
OF MEAN	7.2%	2.3%	7.9%	9.1%	7.8%	8.3%	12.1%	10.9%	12.6%	7.8%	6.1%	7.8%	100%

RIO GRANDE BASIN

08369500 Rio Grande at County Line Station near Acala, Texas

LOCATION: Lat 31°22'50", long 105°59'10", Hudspeth County, 0.8 mi (1.3 km) downstream from the El Paso-Hudspeth County line, 5.5 mi (8.8 km) northwest of Acala, and 47.9 mi (77.1 km) downstream from the American Dam.

DRAINAGE AREA: 30,487 mi² (78,961.3 km²).

PERIOD OF RECORD: January 1938 to December 1975.

GAGE: Water-stage recorder, cableway, and gravity well. Datum of gage is 3,547.59 ft (1,081.3 m) above mean sea level, U.S.C & G.S. datum.

AVERAGE DISCHARGE: 38 years, 94,252 ac-ft/yr (116.2 hm³/yr).

EXTREMES: Period of record (1938-75): Maximum discharge, 6,340 ft³/s (179.5 m³/s) May 19, 1942, gage height, 8.68 ft (2.6 m); no flow at times.

REMARKS: Records good. The flow is partly regulated by reservoirs, diversions, and drainage returns above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1938	16500	17200	15200	15800	13900	27500	42400	15800	46600	13300	12800	13900	250900
1939	14500	9270	6370	9570	7460	6870	11400	19000	23900	15500	13500	12900	150240
1940	15100	8800	7840	7870	6980	17000	14100	15500	8290	11200	8230	8770	129680
1941	11300	7360	9870	17700	22600	17750	24300	46800	45400	31400	17400	20800	272680
1942	20000	47900	38900	84200	303000	239000	140000	123000	140000	61400	20400	29700	1247500
1943	18700	18400	21400	23100	21800	22300	37900	18000	24100	21000	17900	17200	261800
1944	14600	10500	11100	21700	19600	17000	29800	44700	37700	18100	14600	16800	256200
1945	17600	11900	15100	22300	15500	12400	16400	19800	16100	39700	19200	23700	229700
1946	19100	11500	12700	13000	14900	10100	13000	10200	11000	15800	12000	15100	158400
1947	12300	9160	5510	8940	6990	7840	1320	20900	3220	1590	7980	9140	94890
1948	9730	3430	360	290	200	4240	2340	2130	5420	9620	10100	12300	60160
1949	12700	9440	2310	1020	3170	2320	2600	182	21700	13500	12200	8180	89322
1950	10100	5950	3070	1340	1120	1880	17100	2090	3380	5820	7690	3440	62980
1951	5570	181	27.6	0	0	16.7	0	0	0	0	0	0	5795
1952	0	0	0	0	0	7.30	0	0	5.00	0	290	45.2	347
1953	180	21.4	151	0	0	0	1520	0	0	0	0	8.70	1881
1954	0	0	0	0	0	0	0	349	0	0	0	0	349
1955	0	0	0	0	0	0	359	4.60	0	0	0	0	364
1956	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	817	240	2190	0	0	0	3247
1958	0	0	0	0	0	0	25.6	2280	19700	3130	0	0	25136
1959	0	0	159	0	0	0	0	3360	57.5	179	93.8	520	4369
1960	0	0	16.9	932	412	1270	12600	1440	3220	4880	3180	5140	33091
1961	2880	1200	0	0	0	0	385	486	1020	0	0	829	6800
1962	0	0	0	463	0	0	4530	651	21360	11140	5690	4760	48594
1963	3870	41.9	87.3	757	21.6	0	0	0	964	442	0	0	6184
1964	0	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	2110	0	0	0	2110
1966	0	0	111	173	0	3180	1870	6780	1390	0	4.00	206	13714
1967	2.80	0	63.3	0	0	877	2.00	617	0	0	0	77.4	1639
1968	8.30	0	14.5	123	0	0	7740	2450	47.0	0	525	2500	13408
1969	503	0	47.4	0	38.1	240	5690	1770	7510	1180	514	181	17673
1970	180	428	643	292	21.0	1210	8630	6180	2860	2450	308	1030	24232
1971	262	0	165	36.7	0	0	900	0	0	0	0	3.80	1367
1972	213	11.7	0	0	0	0	257	12130	7600	3280	201	0	23693
1973	3.60	5.60	0	61.9	57.1	13.1	11200	1170	1030	81.3	81.7	3.60	13708
1974	0	0	523	280	193	0	6310	5210	22580	15870	1550	601	53117
1975	123	1370	49.0	0	0	0	0	59.7	11840	912	623	1370	16347
MAX	20000	47900	38900	84200	303000	239000	140000	123000	140000	61400	20400	29700	1247500
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	5422	4581	3994	6051	11525	10342	10934	10086	12955	7934	4923	5505	94252
NO.	38	38	38	38	38	38	38	38	38	38	38	38	38
DISTR													
OF MEAN	5.8%	4.9%	4.2%	6.4%	12.2%	11.0%	11.6%	10.7%	13.7%	8.4%	5.2%	5.8%	100%

RIO GRANDE BASIN

08370000 Rio Grande near Fort Hancock, Texas

LOCATION: Lat 31°17'04", long 105°51'55", Hudspeth County, and 1.5 mi (2.4 km) southwest of Fort Hancock.

DRAINAGE AREA: Unknown.

PERIOD OF RECORD: April 1900 to June 1903.

GAGE: Datum of gage not published.

REMARKS: No data on diversions or regulation above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FeET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1900	-	-	-	0	18050	57350	0	0	3870	2640	0	0	-
1901	0	0	0	0	107100	60400	4130	38200	14300	5750	12480	7740	250100
1902	6880	3150	0	0	0	0	1590	2920	7240	1060	0	0	22840
1903	0	0	8150	25960	134100	324800	-	-	-	-	-	-	-
MAX	6880	3150	8150	25960	134100	324800	4130	38200	14300	5750	12480	7740	250100
MIN	0	0	0	0	0	0	0	0	3870	1060	0	0	22840
MEAN	2293	1050	2717	6490	64813	110638	1907	13707	8470	3150	4160	2580	221975
NO. OF MEAN	3	3	3	4	4	4	3	3	3	3	3	3	2
DISTR OF MEAN	1.0%	.5%	1.2%	2.9%	29.2%	49.8%	.9%	6.2%	3.8%	1.4%	1.9%	1.2%	100%

RIO GRANDE BASIN

D8370500 Rio Grande at Fort Quitman, Texas

LOCATION: Lat 31°05'05", long 105°36'25", Hudspeth County, 1.5 mi (2.4 km) downstream from Old Fort Quitman, 9.0 mi (14.5 km) southeast of Esperanza, and 81.7 mi (131.4 km) downstream from the American Dam.

DRAINAGE AREA: 31,944 mi² (82,735.0 km²).

PERIOD OF RECORD: January 1889 to December 1975.

GAGE: Water-stage recorder, cableway, and gravity well. Datum of gage is 3,450.57 ft (1,051.7 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 87 years, 289,030 ac-ft/yr (356.4 hm³/yr).

EXTREMES: Period of record (1889-1975): Maximum discharge, 10,600 ft³/s (300.2 m³/s) October 5, 1946, gage height, 10.00 ft (3.0 m); no flow at times.

REMARKS: Records good. The flow is partly regulated by reservoirs, diversions, and drainage returns above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1889	12200	8200	14200	41200	92500	88000	3000	100	1080	150	150	0	260780
1890	7350	7350	7500	88500	285000	212000	26000	10100	7000	340	6200	21200	678540
1891	22400	20900	82200	162000	420000	335000	70000	2250	0	77200	9900	12200	1214050
1892	17600	19000	24500	124000	318000	125000	4750	0	0	0	0	350	633200
1893	3100	3400	390	7880	170000	2500	2580	3470	1740	2250	1600	1150	200060
1894	5900	4500	4750	13000	51000	45000	8500	550	880	8380	3800	3300	149560
1895	15500	14100	19200	68000	238000	161000	45000	7200	11500	36000	23000	15200	653700
1896	5700	2650	500	5000	30000	33000	12200	860	1750	10900	2200	1600	106360
1897	12800	5400	200	73100	260000	359000	49000	3410	28000	71200	24800	34900	921810
1898	27300	24600	14100	72900	120000	59000	113000	7400	260	2000	5000	1900	440530
1899	8450	6450	3750	3000	5500	540	8250	570	670	7000	540	350	38140
1900	5100	3000	0	0	10700	50800	3020	886	7560	1230	196	1500	82507
1901	221	1070	874	469	63400	47200	2440	27000	16600	2060	6230	4120	171684
1902	5760	3060	780	2320	1680	1080	4100	2700	7500	733	706	250	30689
1903	200	350	8260	28700	131000	315000	162000	1240	2030	420	346	810	650356
1904	1580	1580	1730	2040	1510	4410	1440	2080	8300	233000	28000	26200	311870
1905	28200	30200	181000	145000	349000	720000	37400	2540	5550	1640	10700	39000	1550230
1906	21400	28600	19200	68000	291000	233000	37400	11900	1550	11400	41800	66800	832050
1907	59800	44800	40800	148000	217000	385000	293000	69300	162000	29400	47200	34600	1530900
1908	31600	27000	31600	60600	84400	25400	2480	15400	7100	3400	707	7740	294061
1909	13800	9700	11200	27600	193000	171000	11000	241	105000	13900	6710	13800	576951
1910	29900	14300	52800	89600	256000	56400	0	0	2840	2200	1500	1140	455920
1911	3790	4120	12900	4900	173000	186000	349000	16300	3580	200000	74300	53600	1081490
1912	49800	28100	33500	90000	247000	476000	78000	16800	21400	444	6550	22800	1070394
1913	10600	26700	9650	16600	55200	18700	1170	548	607	592	3550	10100	154017
1914	10500	8050	20000	47800	197000	185000	98000	34900	1140	39500	38400	69200	749490
1915	24700	22000	14700	13600	55200	71200	50300	51200	46300	18300	1910	6280	375890
1916	8440	9770	12800	20900	30300	44400	13400	26100	15300	30800	3740	35900	251850
1917	34800	36200	28200	19700	23600	24000	93900	55600	52700	51200	33600	41000	494500
1918	11100	18100	21200	15500	18100	7720	4050	19000	4750	26200	24900	11600	182220
1919	9680	11600	20300	20800	36100	25900	34800	26500	45700	13600	12200	5120	262300
1920	12000	6740	13600	16400	23600	33800	27000	47000	41300	51400	24900	22900	320640
1921	9410	14900	27100	17700	30500	32500	39500	64000	68500	67400	52600	28000	452110
1922	14300	28900	28000	32900	25300	24100	21500	49100	46100	35500	29100	22600	357400
1923	14700	21700	22400	17900	21900	25000	29700	59400	39300	38100	18900	23400	332400
1924	19200	30400	28500	31600	50700	31000	61800	29200	41900	17600	12900	19000	373800
1925	13800	15800	18300	13500	14700	18700	8880	58100	59500	20800	13200	12600	267880
1926	13900	8650	11300	22800	31100	27300	48300	19700	26400	30000	17400	19400	276250
1927	13500	14100	7720	11300	13500	19500	14000	45300	42200	21200	20200	18400	240920
1928	12500	13100	7440	21000	25400	9670	12300	66400	36700	24000	20900	14400	263810
1929	10600	8660	9220	7560	22000	7140	14400	62100	15600	24400	17100	13000	211780
1930	11500	9330	10800	11500	11600	25500	22000	25500	10000	22900	12300	15100	188030
1931	9410	10200	10100	34700	21700	8750	17200	36600	17640	14300	16480	14550	211650
1932	8130	12140	11560	7130	9180	9410	13940	24910	27410	45720	20620	20970	211120
1933	12810	15620	12200	12630	10760	29010	20530	19090	28910	21950	13030	17250	213790
1934	12500	20500	16600	7770	7340	4480	4600	4430	9050	4520	4990	5640	102420
1935	5370	3510	1090	1200	880	3630	4300	24300	57200	20700	10500	12700	145380
1936	11400	7990	5750	4650	7710	7960	6630	11000	37400	20200	13700	15200	149590
1937	9850	6550	4290	5300	12100	19500	10700	12300	33900	25500	17600	20700	178290
1938	14600	14900	17500	15000	14500	22500	60900	8540	58700	15200	18300	15600	276240

RIO GRANDE BASIN

08370500 Rio Grande at Fort Quitman, Texas--Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	12200	11800	6610	6670	7910	5080	8210	22900	21800	19000	14900	15100	152180
1940	15300	10600	6510	3210	5600	13600	10900	21100	6980	10500	10100	9920	124320
1941	9260	6380	7650	10400	19700	34900	22000	53100	70600	45800	24500	26200	330490
1942	20100	50100	38900	77000	309000	240000	140000	127000	147000	66500	23800	31000	1270400
1943	20900	17000	20100	14900	18000	20100	35900	5690	23400	24800	17300	15200	233290
1944	17200	14500	11600	13700	16600	22400	28400	41800	41000	23900	19700	20100	272900
1945	18600	14400	9970	19100	10400	4220	6340	9160	7820	58500	22300	26900	207710
1946	17600	11300	8610	4910	12000	4160	3110	2490	13000	29900	10700	13600	131360
1947	15200	11200	4060	4490	5710	5540	2000	16500	5480	5500	7500	7600	90780
1948	8330	5020	2060	1530	2130	7550	3880	5080	6160	10700	11800	11100	75340
1949	12000	7470	4580	3870	5580	5820	7900	7010	29600	19500	17200	13300	134030
1950	10800	5980	4300	4320	6670	7100	32800	10500	11600	10000	10800	8660	123530
1951	5300	2940	1710	478	18.6	20.2	973	7900	1280	1360	1630	2080	25690
1952	1650	1040	332	0	0	384	2280	185	260	848	1510	2640	11129
1953	1440	566	402	226	36.9	98.2	14700	2270	262	51.6	143	131	20329
1954	165	164	140	124	1650	584	1240	8570	108	2030	67.6	43.2	14686
1955	32.7	20.0	9.9	0	.60	3.80	1480	714	680	2900	23.2	23.8	5888
1956	24.6	23.0	4.20	0	65.1	0	235	5600	0	58.0	0	0	6010
1957	0	0	0	0	738	0	532	1530	693	1150	0	0	4843
1958	0	0	0	381	1300	70.2	929	681	19300	11900	1290	301	36152
1959	32.1	11.7	1.00	0	1650	156	1250	6120	245	1010	1270	1460	13226
1960	345	82.9	67.8	236	205	476	18900	2940	4410	12400	4820	6210	51093
1961	3710	1520	565	496	829	333	101	16.7	619	1770	4280	2760	17220
1962	1770	488	402	943	1260	817	6510	3400	28620	13440	8150	7710	73710
1963	3660	1110	570	2060	1510	460	975	2340	2090	2770	3550	2270	23365
1964	890	431	220	136	74.6	285	110	730	252	0	0	0	3129
1965	0	0	0	0	905	561	3.80	129	62.7	0	.80	0	1662
1966	0	0	0	26.4	2.60	2440	854	16230	10460	1020	429	318	31780
1967	115	198	94.8	366	2.20	1510	556	452	67.8	7.90	.80	155	3525
1968	190	27.0	12.3	25.8	6.00	0	5840	6120	1580	837	1650	2470	18958
1969	1550	275	213	419	635	416	3960	1830	14550	5540	5960	7670	43018
1970	4170	1250	1850	2690	2060	7400	11370	18200	15050	13820	7950	7870	93680
1971	5040	1570	1560	2480	1000	737	1040	1120	673	482	1270	2180	19152
1972	1080	538	432	249	1.60	858	105	13150	12620	2130	1460	600	33424
1973	944	647	479	200	119	40.3	21670	2220	2560	2110	2180	1730	34899
1974	1660	653	2060	1910	901	241	9820	11900	37630	33620	19400	16660	138455
1975	9950	6710	2860	3740	2030	2100	3840	8210	26530	7980	8150	12520	94620
MAX	59800	50100	181000	162000	420000	720000	349000	127000	162000	233000	74300	69200	1550230
MIN	0	0	0	0	0	0	0	0	0	0	0	0	1662
MEAN	10919	10282	12588	22468	59965	59395	28369	17563	21082	21246	11910	13243	269030
NO.	87	87	87	87	87	87	87	87	87	87	87	87	87
DISTR													
OF MEAN	3.8%	3.6%	4.4%	7.8%	20.7%	20.5%	9.6%	6.1%	7.3%	7.4%	4.1%	4.6%	100%

RIO GRANDE BASIN

08371000 Rio Grande at La Nutria, Texas

LOCATION: Lat 30°14'49", Long 104°43'08". Presidio County, 9.5 mi (15.3 km) upstream from Candelaria, and 207.9 mi (334.5 km) downstream from the American Dam.

DRAINAGE AREA: 33,672 mi² (87,210.5 km²).

PERIOD OF RECORD January 1935 to December 1941.

GAGE: Water-stage recorder. Datum of gage is 2,871.42 ft (875.21 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 7 years, 210,826 ac-ft/yr (259.9 hm³/yr).

EXTREMES: Period of record (1935-41); Maximum discharge, 7,480 ft³/s (211.8 m³/s) August 31, 1935; no flow at times.

REMARKS: Records fair. Reservoirs, diversions, and drainage returns greatly modify the flow of this station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1935	3000	2500	500	0	0	5290	2780	40300	62700	24400	11100	13500	166070
1936	11000	7810	4940	3080	4670	5510	6260	12200	55500	20400	12400	13800	157570
1937	9070	6380	3650	3460	10900	13900	6730	13300	35300	42700	15400	17600	178390
1938	15000	14400	13600	13000	10500	14000	57900	10500	71800	13500	12700	13100	260000
1939	13100	9690	8030	4570	6890	7360	7210	21800	15200	16900	13800	15800	140350
1940	14800	10800	7360	1500	7060	10600	6330	27900	13100	12000	10300	10400	132150
1941	9850	7540	8160	10900	21100	37900	34200	76600	105600	79300	27700	22400	441250
MAX	15000	14400	13600	13000	21100	37900	57900	76600	105600	79300	27700	22400	441250
MIN	3000	2500	500	0	0	5290	2780	10500	13100	12000	10300	10400	132150
MEAN	10831	8446	6606	5216	8731	13509	17344	28943	51314	29866	14771	15229	210826
NO.	7	7	7	7	7	7	7	7	7	7	7	7	7
DISTR													
OF MEAN	5.1%	4.0%	3.1%	2.5%	4.1%	6.4%	8.2%	13.7%	24.3%	14.2%	7.0%	7.2%	100%

RIO GRANDE BASIN

08371200 Rio Grande near Candelaria, Texas

LOCATION: Lat 30°10'30", long 104°41'10", Presidio County, 3.3 mi (5.3 km) north of Candelaria, 0.2 mi (0.3 km) downstream from Walker Creek, and 214.7 mi (345.5 km) downstream from the American Dam.

DRAINAGE AREA: 33,690 mi² (87,257.1 km²).

PERIOD OF RECORD: December 1975.

GAGE: Digital water-stage recorder, cableway, and gravity well. Datum of gage not published.

REMARKS: Records good. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1975	-	-	-	-	-	-	-	-	-	-	-	55 85	-
MAX	-	-	-	-	-	-	-	-	-	-	-	55 85	-
MIN	-	-	-	-	-	-	-	-	-	-	-	55 85	-
MEAN	-	-	-	-	-	-	-	-	-	-	-	55 85	55 85
NO.	0	0	0	0	0	0	0	0	0	0	0	1	0
DISTR OF MEAN	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	***%	100%

RIO GRANDE BASIN

08371500 Rio Grande above Rio Conchos near Presidio, Texas

LOCATION: Lat 29°38'07", long 104°30'36", Presidio County, 6.5 mi (10.4 km) northwest of the International Bridge between Presidio and Ojinaga, Chihuahua, 7.8 mi (12.6 km) upstream from the Rio Conchos, and 286.3 mi (460.6 km) downstream from the American Dam.

DRAINAGE AREA: 34,966 mi² (90,561.9 km²).

PERIOD OF RECORD: January 1889 to December 1975.

GAGE: Water-stage recorder, cableway, and gravity well. Datum of gage is 2,576.66 ft (785.4 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 87 years, 274,020 ac-ft/yr (337.9 hm³/yr).

EXTREMES: Period of record (1889-1975): Maximum discharge, 14,000 ft³/s (396.5 m³/s) June 14, 1905; no flow at times.

REMARKS: Records good. The flow is partly regulated by reservoirs, diversions, and drainage returns above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1889	11000	6610	13100	32600	72800	75600	20400	6290	15300	3990	681	0	258371
1890	4940	4460	3630	66600	223000	189000	58100	47400	23400	12000	6870	18900	658320
1891	20200	17300	64700	127000	340000	289000	80600	18700	4980	55800	9500	13500	1041280
1892	14700	15500	20000	95700	251000	114000	24200	17300	1270	0	0	495	554165
1893	928	1660	0	2320	146000	12600	29700	43900	22000	12400	2680	1040	275228
1894	6980	3340	2430	7460	41900	36700	12700	23300	13800	14100	3420	2560	168690
1895	13600	12300	15100	55400	203000	145000	86600	53400	29400	51900	24200	14500	704400
1896	6990	2690	0	473	22100	26900	43400	19600	18600	39000	4020	1410	187183
1897	12200	4000	0	53600	206000	304000	103000	66200	52800	83200	26400	33500	944900
1898	24400	20400	11400	56400	95300	60800	110000	38500	13600	0	0	2950	433750
1899	6180	4260	1060	2830	3380	3420	37500	16800	10000	1750	1470	216	68866
1900	3870	1950	711	0	3930	46800	9830	2500	12100	11100	0	0	92791
1901	0	0	0	0	43100	41600	8450	28400	26900	11400	9320	4980	174150
1902	4740	1610	0	0	0	159	34900	6290	12200	198	1680	496	62273
1903	0	0	3040	16600	74800	103000	167000	16100	4720	317	0	0	385577
1904	0	0	0	0	0	11800	300	40.0	17400	209000	51800	29000	319140
1905	23600	23400	136000	115000	262000	604000	143000	32200	22600	4630	9510	36600	1412740
1906	22800	28700	21600	40000	228000	231000	72500	61100	12500	15500	40800	62600	837300
1907	51300	42800	36000	113000	162000	320000	272000	104000	173000	60600	57800	35100	1427600
1908	30500	26100	29900	49900	84400	33200	11500	41500	29400	0	0	2560	334960
1909	8250	5250	4340	11000	147000	153000	49500	4360	81800	14000	6660	10000	495160
1910	18700	12400	33600	67100	223000	21900	2340	0	248	0	0	0	379488
1911	0	982	1330	1550	139000	157000	292000	89200	9040	138000	81800	52600	962502
1912	51300	26700	24700	66300	159000	427000	121000	61000	43300	8380	3850	22400	1016930
1913	7930	19800	11300	6810	48500	24300	5540	883	5770	1530	535	8150	141048
1914	5440	2140	12000	38300	160000	195000	137000	82600	22600	56000	38300	64700	814080
1915	27400	20600	18000	12200	48700	57900	58400	62200	61700	25000	1980	5160	399240
1916	6280	7010	9120	14400	23200	34800	10000	40200	16700	32200	3470	30800	228180
1917	29100	30200	22200	12200	17400	16200	64800	77700	59900	45200	29100	34700	438700
1918	10200	14500	16900	8700	14100	7350	12500	40300	6400	23800	25200	11300	191250
1919	6440	9500	19300	16000	31900	27100	46200	36300	66100	30300	10700	2400	304240
1920	7440	1780	5290	11000	18500	37600	25500	78700	45000	55600	23400	19800	329610
1921	6620	12000	21100	10500	23700	34700	50100	70700	65500	55700	46200	23800	420620
1922	10700	23500	21700	26700	21000	19700	22400	43700	37600	29200	25300	18100	299600
1923	10700	19100	19600	10400	13400	19600	28500	82600	44400	46300	18400	21700	334700
1924	17100	27000	24200	23600	40400	19300	73900	37100	42400	19200	11600	16300	352100
1925	10700	12300	12900	6640	14400	14400	18800	74300	62400	33400	13300	11400	284940
1926	12500	7400	11700	18400	29300	23200	66400	34100	40600	44000	17600	16800	324000
1927	10500	10100	6120	4930	6400	11700	3230	38300	45400	32100	26800	19000	214580
1928	11600	12000	5270	13200	26500	3240	2640	75200	29800	21400	25900	18600	245350
1929	10480	8820	8660	4070	14990	5610	9600	62580	19050	39460	23930	13170	220420
1930	12190	10030	6690	6300	5770	28610	12290	41340	6650	43900	13310	13620	200700
1931	10090	10170	7740	26830	23440	3430	17380	31450	17780	14900	10240	10280	183730
1932	8860	10040	10160	1520	2170	830	6700	34000	36000	61480	22220	21330	215310
1933	14300	13940	11890	3850	4340	14590	20000	11810	32670	22870	17290	14790	182340
1934	11700	15600	14500	4090	1800	928	13.3	2170	3140	0	0	374	54315
1935	644	1420	285	0	0	9780	3420	13600	68500	22800	6920	9310	136679
1936	9690	6740	4560	201	1400	965	2810	12000	66000	25200	11300	12900	153766
1937	8330	5060	1830	307	132	13800	7350	9800	38600	36400	15900	15400	152909
1938	13100	12200	9990	7800	4880	9460	63900	10900	59200	12000	10500	9840	223770

RIO GRANDE BASIN

08371500 Rio Grande above Rio Conchos near Presidio, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	11500	9780	6350	1500	2530	2490	2070	27700	13400	12600	11100	12500	113520
1940	12400	10000	4070	647	1420	9230	5140	31900	14400	8730	7600	7600	113137
1941	8350	6830	4150	8450	38500	40000	42700	69800	76600	105000	34500	28900	963780
1942	21800	40800	39100	41600	240000	216000	156000	133000	151000	79200	27300	30900	1176700
1943	24400	19200	22600	9420	13000	18800	42200	2790	12400	25200	16000	20600	226610
1944	19800	15400	14600	5060	7780	16800	22100	39900	36100	26600	19600	19400	243140
1945	17000	13400	8230	14800	2110	1940	32000	1090	602	55800	19500	22200	188672
1946	19900	12000	8040	895	2640	446	6990	128	20800	39100	10100	12400	133439
1947	14800	10300	3940	405	5320	218	13.1	7270	7420	604	552	3880	54722
1948	4630	2570	288	81.5	3.60	3680	648	2540	2900	3760	4850	5780	31731
1949	11200	7480	1410	312	1500	592	2720	12800	34900	13200	12100	10300	108514
1950	9450	3640	463	69.4	0	4710	25100	12100	14100	19700	6370	5510	101212
1951	3350	1010	91.2	18.0	296	574	4610	1700	5600	.60	0	0	17250
1952	0	0	0	257	.60	2430	9990	120	0	0	0	0	12798
1953	0	0	0	0	0	348	4920	3220	438	159	0	0	9085
1954	0	0	0	289	1650	6360	3650	24100	3960	9340	.60	0	49350
1955	42.2	0	0	18.6	0	226	2240	4030	6830	10900	5.00	0	24292
1956	0	0	0	0	0	0	49.4	2350	0	115	0	0	2514
1957	0	0	0	186	1120	1580	108	29.4	692	2480	0	0	6195
1958	0	233	0	0	3.80	106	306	3110	19300	13900	609	36.3	37604
1959	0	0	0	0	91.2	1220	1580	3190	410	729	0	0	7220
1960	0	0	0	0	0	0	8540	9080	1950	5990	3390	4180	33130
1961	3400	1140	1.80	0	2930	3870	744	3120	370	713	.60	0	16289
1962	0	0	0	0	0	69.0	2930	3380	11850	8600	4160	4480	35469
1963	1760	107	0	0	322	0	47.4	6090	8520	286	664	364	18160
1964	0	0	0	0	146	71.0	1.80	0	733	0	0	0	952
1965	0	0	0	0	0	7.10	0	282	2070	0	0	0	2359
1966	0	0	0	0	0	1200	814	5590	24570	2850	133	29.4	35186
1967	4.80	0	0	0	0	374	333	964	1570	146	0	0	3392
1968	0	0	0	1.00	0	0	8410	2830	4210	445	106	178	16180
1969	.80	0	0	0	20.0	851	861	33.3	766	1.40	61.7	1110	3705
1970	883	1.00	0	0	0	1060	344	8650	7270	16400	5170	4700	44478
1971	3240	307	17.1	0	0	953	1360	2440	1750	13400	291	6.69	24427
1972	240	7.50	0	0	198	3130	4080	8470	56580	3820	1890	9.61	79377
1973	1050	1010	342	5.20	0	0	863	2820	504	0	0	13.5	6608
1974	394	.60	233	0	3.40	0	0	914	21380	46370	21490	10600	101385
1975	8000	5950	2310	1130	53.2	32.5	429	1520	6780	3320	2320	3330	35175
MAX	51300	42800	136000	127000	340000	604000	292000	133000	173000	209000	81800	64700	1427600
MIN	0	0	0	0	0	0	0	0	0	0	0	0	952
MEAN	9504	8581	9796	15597	46536	50379	33961	26916	25507	24215	11514	11514	274020
NO.	87	87	87	87	87	87	87	87	87	87	87	87	87
Q15TR													
OF MEAN	3.5%	3.1%	3.6%	5.7%	17.0%	18.4%	12.4%	9.8%	9.3%	8.8%	4.2%	4.2%	100%

RIO GRANDE BASIN

08373200 Cibolo Creek near Presidio, Texas

LOCATION: Lat 29°34'50", long 104°21'55", Presidio County, at the bridge on U.S. Highway 67, 1.5 mi (2.4 km) north of Presidio, and 2.5 mi (4.0 km) upstream from the mouth.

DRAINAGE AREA: 276 mi² (715 km²).

PERIOD OF RECORD: August 1971 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 2,645.87 ft (806.461 m) above mean sea level, datum of 1920.

AVERAGE DISCHARGE: 5 years, 7,224 ac-ft/yr (8.9 hm³/yr).

EXTREMES: Period of record (1971-75): Maximum discharge, 18,500 ft³/s (524 m³/s) Sept. 21, 1974 (gage height, 6.40 ft or 1.951 m); no flow most of the time each year.

Maximum stage since about 1900, 12 ft (3.7 m) in 1944, from information by a local resident and the Texas Highway Department.

REMARKS: Records poor.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1971	-	-	-	-	-	-	-	0	655	395	0	0	-
1972	0	0	0	0	0	70.0	33.0	32.0	1820	0	0	0	1955
1973	0	0	0	0	0	0	209	270	63.0	0	0	0	542
1974	0	0	47.0	102	9.7	6.70	6.90	653	31410	68.0	5.80	1.80	32311
1975	0	0	0	0	0	34.0	5.00	40.0	54.0	0	0	0	133
MAX	0	0	47.0	102	9.7	70.0	209	653	31410	395	5.80	1.80	32311
MIN	0	0	0	0	0	0	5.00	0	54.0	0	0	0	133
MEAN	0	0	11.7	25.5	2.43	27.7	63.5	199	6800	92.6	1.16	.16	7224
NO.	4	4	4	4	4	4	4	5	5	5	5	5	4
DISTR													
OF MEAN	.0%	.0%	.2%	.4%	.0%	.4%	.9%	2.8%	94.1%	1.3%	.0%	.0%	100%

RIO GRANDE BASIN

08373500 Rio Grande below Rio Conchos (above Alamito Creek) near Presidio, Texas

LOCATION: Lat 29°24'33", long 104°24'17", Presidio County, 1.7 mi (2.7 km) above the International Bridge between Presidio and Ojinaga, Chihuahua, 2.0 mi (3.2 km) downstream from its confluence with the Rio Conchos, and 295.5 mi (475.4 km) downstream from the American Dam.

DRAINAGE AREA: 64,285 mi² (166,498.2 km²).

PERIOD OF RECORD: January 1896 to December 1954.

GAGE: Water-stage recorder and cableway. Datum of gage is 2,556.42 ft (779.20 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 80 years, 1,245,799 ac-ft/yr (1,536.1 hm³/yr).

EXTREMES: Period of record (1896-1954): Maximum discharge, 162,000 ft³/s (4,587.8 m³/s); no flow several times in 1953.

REMARKS: Records good. Reservoirs, diversions, and drainage returns modify the flow at this station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1896	53900	49100	43200	37700	77500	111700	148500	239700	384700	178100	74500	67400	1466000
1897	119300	108500	95600	83300	171400	246900	328300	529900	850400	393700	164600	149100	3241000
1898	59700	54300	47600	41700	65800	123600	164300	265200	425600	197000	82400	74600	1622000
1899	29600	27000	23600	20700	42600	61300	81500	131600	211200	97800	40900	37000	805000
1900	31600	36600	23000	8110	16800	62900	281000	381000	173000	106000	24400	14600	1159000
1901	11100	17400	12200	2420	44300	45400	61400	110000	131000	75200	35300	18500	564220
1902	15900	7840	3610	1450	674	2870	364000	351000	640000	80200	35100	30300	1532944
1903	22000	64000	30100	24100	80300	151000	193000	112000	149000	120000	23200	15500	984200
1904	11000	6810	4670	1520	5230	50800	38200	57100	148000	609000	157000	127000	2548330
1905	68200	66600	160000	143000	283000	658000	336000	440000	469000	290000	261000	298000	3492800
1906	112000	216000	101000	64600	241000	255000	630000	1140000	446000	128000	86900	106000	3526500
1907	89500	64800	47600	116000	172000	345000	336000	240000	527000	143000	315000	281000	2676900
1908	70400	49200	40000	51000	68300	41100	85200	389000	414000	33600	24800	32400	1339000
1909	39100	31000	16800	20800	167000	182000	361000	406000	449000	72200	33900	70000	1848800
1910	91400	46600	50900	85200	224000	69000	132000	44000	126000	32000	14800	5140	921040
1911	2230	10600	7780	12600	193000	376000	522000	241000	260000	303000	188000	113000	2230610
1912	68700	54300	43400	73200	167000	434000	136000	367000	638000	182000	45900	55300	2284800
1913	26200	87900	107000	17500	61400	61900	31900	66600	149000	23100	4570	12900	651970
1914	13600	9260	18500	42000	277000	639000	562000	570000	555000	452000	191000	176000	3505360
1915	144000	96900	72100	15800	129000	143000	119000	89600	280000	171000	69800	70500	1400700
1916	10300	15800	13200	17900	27000	38600	32200	145000	238600	139000	33300	39300	749600
1917	51100	39000	26200	15600	21100	19900	67900	95500	1300000	251000	47300	38800	1973400
1918	14200	16600	21000	11900	17600	29500	15300	303000	104000	146000	55900	44700	781700
1919	91700	16300	23400	19200	35400	30700	266000	795000	783000	314000	56000	25800	2458500
1920	53100	15500	9340	14200	46900	98600	73300	1014000	1138000	138000	61500	32900	2699340
1921	45500	52800	64900	18900	27200	87100	91700	74000	272000	266000	58800	42300	1101200
1922	26600	27600	25800	29800	32700	93900	65700	60900	41600	53300	51000	36400	547300
1923	44100	60700	51000	132000	30500	55500	47800	196000	794000	202000	94400	114000	1822000
1924	164000	84100	66700	53500	67500	52600	88500	47600	121000	125000	61500	62400	994600
1925	67400	61000	69000	79100	162000	86800	231000	675000	668000	312000	123000	102000	2636300
1926	109000	87000	79900	68100	82600	75600	120000	309000	335000	260000	124000	112000	1762200
1927	98000	66600	86100	84100	74000	85900	89600	145000	152000	119000	98700	107000	1226000
1928	101000	99700	79900	74800	90500	75900	108000	252000	116000	117000	126000	116000	1356800
1929	95800	90100	89400	81400	97100	83100	96300	168000	151000	128000	96300	80900	1257400
1930	78300	50600	30900	22300	22800	51600	62600	196000	17000	91200	42300	42300	707900
1931	30400	39300	54200	77000	72200	60200	98700	118000	77000	80900	65400	69900	843200
1932	59800	62100	54900	30700	19900	10100	34400	170000	542000	859000	64800	72200	1999900
1933	65000	53200	55400	51500	39800	106000	80100	96400	566000	223000	90500	84200	1511100
1934	76200	77900	73600	53000	49700	58700	60800	45200	41800	41000	45500	44500	667900
1935	45200	33900	21200	4460	3660	62300	45300	73500	318000	139000	51900	35900	834320
1936	33800	38500	28800	11000	12300	9250	23900	50900	395000	125000	63400	73000	864850
1937	56500	51700	37200	11200	19900	49300	43800	38000	204000	107000	46400	64000	729000
1938	74400	52200	37600	15600	18100	83800	564000	256000	1200000	183000	97600	69500	2651800
1939	69200	70000	55000	18400	15800	19400	45600	212000	56800	71200	70400	55700	759500
1940	62300	53100	31600	12700	33200	58700	85700	124000	88800	43400	37800	31400	662700
1941	35800	58200	38100	57200	177000	89500	183000	304000	518000	864000	141000	96300	2566100
1942	83300	84400	87000	65000	270000	267000	204000	517000	1324000	320000	136000	109000	3466700
1943	87000	78000	87100	33100	40900	65500	226000	29300	87100	164000	53000	74900	1025900
1944	79500	51600	53700	27800	24300	31900	63800	63400	410000	136000	57300	55000	1054300
1945	71100	54100	40300	29100	10500	15200	230000	31500	7370	252000	80200	44400	865770

RIO GRANDE BASIN

08373500 Rio Grande below Rio Conchos (above Alamito Creek) near Presidio, Texas—Continued

DISCHARGE IN ACRL-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1946	63600	48500	48100	28500	20100	21800	53800	18400	235000	203000	63200	55200	859200
1947	71400	58300	37700	8430	19300	13100	8910	131000	196000	33800	60400	54300	692620
1948	43800	45800	47000	12200	15500	22800	32900	24600	30200	39400	49600	37700	401500
1949	47600	68600	52400	14800	18000	13700	73500	144000	132000	93500	75900	56100	790100
1950	61600	52200	49300	17600	19200	45700	126000	78900	113000	93500	48200	43500	748700
1951	34700	53900	39200	16200	31600	37700	52900	26100	26100	20100	20700	19500	378700
1952	17700	13600	9790	2930	4530	49600	211000	18400	12100	12000	10600	11600	373850
1953	14300	11300	8170	464	1760	4540	17600	10200	23900	6050	9510	9940	117734
1954	11600	10700	5400	1250	4110	7210	19200	158000	55200	37900	15700	12000	338270
1955	14900	13300	7710	309	219	2600	79900	163000	94900	142000	31100	21600	571538
1956	17400	18700	12900	3070	7130	9870	7120	29500	31000	24000	23000	22100	205790
1957	22900	26700	14200	8100	31800	23000	15500	50800	23500	80300	24100	22200	343100
1958	18000	14800	9300	1450	2530	9100	4680	20600	582000	1051000	111100	51700	1876260
1959	37200	22900	20100	18200	25800	23100	61200	127000	127000	30600	30600	31400	555100
1960	53900	75700	50700	22400	16300	20100	148000	212000	120000	43600	56700	70700	890100
1961	66200	43800	32200	12400	23900	63000	66500	76000	49300	50000	30800	29300	543400
1962	29646	21561	20184	9282	8571	21882	73630	20121	135662	79945	38613	38506	498003
1963	32642	19716	15793	10366	23259	28547	52936	71747	94103	36032	32819	26219	446179
1964	23467	25962	26206	11921	23068	66907	26702	37252	51702	36796	30371	30459	392813
1965	32506	32267	26269	11713	13410	22955	12650	52880	70232	32412	35282	27126	369702
1966	23302	19206	12966	5602	16389	56434	43213	230284	550520	86966	40457	31177	1116536
1967	31591	24722	24228	12899	18881	69123	56782	47656	143724	57186	44863	31464	563119
1968	20968	4745	4583	10984	12147	5927	107399	117205	469832	170280	113407	33027	1070504
1969	116947	110937	116352	72088	28154	50514	87032	30365	46085	40618	32758	31918	763768
1970	27265	23015	16768	10907	13234	25121	25764	44948	102051	154769	89894	52176	585912
1971	31674	26700	24454	16822	17772	22901	31432	92549	67609	108512	8741	46477	495643
1972	86525	25224	41220	36165	44882	57408	69374	106385	319696	76046	28288	25839	917052
1973	24149	17595	9869	7244	20221	35839	124713	270367	212329	24823	23966	19890	791005
1974	24186	19551	26009	43980	124046	89211	39687	39905	359974	335405	92335	44067	1238356
1975	18654	48881	112810	45226	16697	14040	23202	28689	23203	13429	12792	13304	370927
MAX	164000	216000	180000	143000	283000	658000	630000	1140000	1480000	1051000	315000	298000	3526500
MIN	2230	4745	3610	309	219	2600	4680	10200	7370	6050	4570	5140	117734
MEAN	52544	47140	42292	31952	59900	86882	126394	190709	316531	164636	67626	59193	1245799
NO.	80	80	80	80	80	80	80	80	80	80	80	80	80
DISTR OF MEAN	4.2%	3.8%	3.4%	2.6%	4.8%	7.0%	10.1%	15.3%	25.4%	13.2%	5.4%	4.8%	100%

RIO GRANDE BASIN

08374000 Alamito Creek near Presidio, Texas

LOCATION: Lat 29°31'15", long 104°17'40", Presidio County, 300 ft (91.4 m) upstream from the highway bridge on Farm-to-Market Road 170, 5.0 mi (9.6 km) southeast of Presidio, and 2,000 ft (609.6 m) above its confluence with the Rio Grande.

DRAINAGE AREA: 1,504 mi² (3,895.4 km²).

PERIOD OF RECORD: January 1932 to December 1975.

GAGE: Water-stage recorder and gravity well. Datum of gage is 2,541.61 ft (774.7 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 44 years, 17,776 ac-ft/yr (21.9 hm³/yr).

EXTREMES: Period of record (1932-75): Maximum discharge, 56,400 ft³/s (1,597.2 m³/s) September 2, 1962, gage height, 13.54 ft (4.13 m); minimum discharge, 0.1 ft³/s (0.003 m³/s) July 25, 1953 and for several days in August 1958.

REMARKS: Records good. The flow is slightly regulated by San Esteban Lake located 10.5 mi (16.9 km) south of Marfa and by irrigation diversions below the lake. When the flow in the Rio Grande exceeds 35,000 ft³/s (991.2 m³/s), the station is affected by backwater from the Rio Grande. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1932	154	173	185	179	200	5220	3750	16330	5310	157	166	207	32031
1933	159	167	183	168	189	477	249	1380	3340	518	319	240	7389
1934	184	167	184	191	612	206	359	3900	179	165	119	131	8397
1935	123	111	123	119	613	6360	6650	4310	10400	2900	226	234	32169
1936	234	219	226	159	8520	882	5700	3630	19600	310	238	246	39964
1937	273	225	210	208	216	256	2980	7100	2200	2200	524	184	16576
1938	184	167	164	188	207	1150	6000	378	3810	184	179	207	12818
1939	246	234	270	519	365	2570	1790	2150	833	246	238	246	9707
1940	246	230	246	238	1190	1940	1660	3190	250	6160	128	117	15595
1941	186	180	210	743	7140	4680	2250	4230	424	19200	807	394	40444
1942	216	171	184	179	184	1190	3120	2820	3630	550	238	408	12890
1943	226	194	215	179	2070	1160	1390	216	305	207	194	215	6573
1944	219	201	215	208	1570	3750	3690	5060	13000	504	209	215	28841
1945	215	194	215	214	242	214	4640	925	208	2590	208	215	10080
1946	215	194	215	208	331	288	571	256	1440	6680	208	215	10821
1947	215	194	215	208	249	229	232	4540	793	371	208	246	7702
1948	215	201	215	250	216	514	3460	305	591	246	179	184	6576
1949	184	167	184	193	197	1590	2020	1520	854	323	179	184	7595
1950	185	168	184	382	696	726	2010	466	2640	2270	80.1	84.3	9891
1951	78.5	79.5	82.9	72.4	88.3	50.8	122	520	1790	86.3	62.3	76.2	3109
1952	79.9	72.4	71.4	117	322	5930	18500	73.0	175	88.9	72.8	90.4	25593
1953	67.6	64.3	200	57.9	130	109	2440	2190	970	36.9	35.7	39.3	6341
1954	46.4	41.5	46.4	1070	135	3430	473	5600	128	172	63.9	74.2	11283
1955	69.6	59.5	73.6	289	101	1620	5460	2100	4610	2910	99.0	108	16900
1956	116	98.2	96.8	78.5	1600	258	46.8	1340	134	2320	53.4	59.5	6201
1957	59.9	3120	76.2	948	951	884	1790	1960	2660	527	98.6	113	13188
1958	116	112	96.0	66.2	116	3470	2320	2630	24900	1520	108	93.2	35547
1959	88.3	77.8	78.1	55.9	1070	4690	4800	2930	1270	266	78.1	76.4	15481
1960	105	90.6	88.5	62.5	34.7	322	4880	5430	197	172	94.0	110	11586
1961	119	84.5	81.1	70.8	1520	3610	6640	1880	135	875	87.3	97.6	15203
1962	92.6	92.0	83.9	70.4	51.6	3070	5550	56.9	19800	459	150	155	29631
1963	142	123	122	107	3820	353	668	2800	2320	625	99.4	114	11293
1964	118	101	104	95.6	4560	1160	705	561	3960	98.2	102	105	11670
1965	112	92.6	91.6	75.2	763	2280	1990	4080	1920	73.0	73.6	92.4	11643
1966	105	89.5	105	69.2	1770	1290	200	14820	2930	2040	107	88.3	23614
1967	101	88.1	254	61.3	45.0	12650	4320	405	186	84.1	85.3	88.7	18368
1968	88.7	83.1	84.9	74.8	35.5	49.2	12000	225	5440	2880	2550	147	23658
1969	124	116	104	118	73.4	3340	3780	417	1370	276	171	61.5	9951
1970	79.3	84.1	102	83.7	170	3330	2230	1480	715	4350	76.0	85.5	12786
1971	88.3	75.2	80.1	67.2	56.9	56.9	1120	10570	8440	16450	116	123	37244
1972	103	82.9	88.9	56.1	989	680	2380	13340	1020	832	93.0	118	19783
1973	111	84.1	86.9	73.6	63.1	39.1	11570	5200	6660	61.7	61.5	87.5	24098
1974	81.9	68.0	1020	1140	40.7	24.2	629	6860	59380	708	193	131	70276
1975	114	102	90.6	71.4	142	122	193	1310	1210	91.2	103	113	3662
MAX	273	3120	1020	1140	8520	12650	18500	16330	59380	19200	2550	408	70276
MIN	46.4	41.5	46.4	55.9	34.7	24.2	46.8	56.9	128	36.9	35.7	39.3	3109
MEAN	143	199	165	222	992	1960	3348	3443	5035	1904	215	150	17776
NO.	44	44	44	44	44	44	44	44	44	44	44	44	44
CISTR OF MEAN	.84	1.14	.94	1.34	5.64	11.04	18.84	19.44	28.34	10.74	1.24	.84	1004

RIO GRANDE BASIN

08374200 Rio Grande below Rio Conchos (below Alamito Creek) near Presidio, Texas

LOCATION: Lat 29°31'05", long 104°17'35", Presidio County, 0.4 mi (0.6 km) below Alamito Creek, 10.1 mi (16.2 km) below the Presidio-Ojinaga, Chihuahua, International Bridge, and 307.9 mi (495.4 km) below the American Dam.

DRAINAGE AREA: 63,339 mi² (164,048.0 km²).

PERIOD OF RECORD: January 1955 to December 1975.

GAGE: Water-stage recorders (graphic and digital), cableway, and concrete control weir. Datum of gage is 2,536.00 ft (772.97 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 21 years, 713,265 ac-ft/yr (879.4 hm³/yr).

EXTREMES: Period of record (1955-75): Maximum discharge, 54,300 ft³/s (1,537.8 m³/s) October 1, 1958, gage height, 20.37 ft (6.2 m); minimum discharge, 0.2 ft³/s (0.0057 m³/s) for several days in July 1955 and on June 30, 1958.

REMARKS: Records good. The flow is partly regulated by reservoirs, diversions, and drainage returns above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1955	14900	13300	7710	309	219	2600	79900	163000	94900	142000	31100	21600	571538
1956	17400	18700	12900	3070	7130	9870	7120	29500	31000	24000	23000	22100	205790
1957	22900	26700	14200	8100	31800	23000	15500	50800	23500	80300	24100	22200	343100
1958	18000	14800	9300	1450	2530	9100	4680	20600	582000	1051000	111100	51700	1876260
1959	37200	22900	20100	18200	25800	23100	61200	127000	127000	30600	30600	31400	555100
1960	53900	75700	50700	22400	16300	20100	148000	212000	120000	43600	56700	70700	890100
1961	66200	43800	32200	12400	23900	63000	66500	76000	49300	50000	30800	29300	543400
1962	29850	21560	20180	9280	8570	21880	73630	20120	135900	79940	38610	38510	498030
1963	32640	19720	15790	10370	23260	28550	52940	71750	94100	36030	32820	28220	446190
1964	23470	25960	26210	11920	23070	68910	26700	37250	51700	36800	30370	30460	392820
1965	32510	32270	26270	11710	13410	22960	12650	52880	70230	32410	35280	27130	369710
1966	23300	19210	12970	5600	16390	56430	43210	230300	550500	86990	40460	31180	1116540
1967	31590	24720	24230	12900	18880	69120	56780	47660	143700	57190	44860	31460	563090
1968	20970	4740	4580	10980	12150	5930	107400	117200	469800	170300	113400	33030	1070480
1969	117000	110900	116400	72090	28150	50510	87030	30360	46080	40620	32760	31920	763820
1970	27260	23020	16770	10910	13230	25120	24760	44950	102000	164800	89890	52180	594890
1971	31670	26700	24450	16820	17770	22900	31430	92550	67610	108500	8740	46480	495620
1972	86520	25220	41220	36160	44880	57410	69370	106400	319700	76050	28290	25840	917060
1973	24150	17600	9870	7240	20220	35840	124700	270400	212300	24820	23970	19890	791000
1974	24190	19550	26010	43980	124000	89210	39690	39900	360000	335400	92340	44070	1238340
1975	37000	96950	223800	89700	33120	27850	46020	56900	46020	26640	25370	26340	735710
MAX	117000	110900	223800	89700	124000	89210	148000	270400	582000	1051000	113400	70700	1876260
MIN	14900	4740	4580	309	219	2600	4680	20120	23500	24000	8740	19890	205790
MEAN	36791	32572	35041	19790	24037	34923	56153	90358	176064	128476	44979	34081	713265
NO.	21	21	21	21	21	21	21	21	21	21	21	21	21
DISTR													
OF MEAN	5.2%	4.6%	4.9%	2.8%	3.4%	4.9%	7.9%	12.7%	24.7%	18.0%	6.3%	4.8%	100%

RIO GRANDE BASIN

08374500 Terlingua Creek near Terlingua, Texas

LOCATION: Lat 29°12'00", long 100°36'15", Brewster County, 8.5 mi (13.7 km) south of Terlingua, and 2.6 mi (4.2 km) above the confluence with the Rio Grande.

DRAINAGE AREA: 1,070 mi² (2,771.3 km²).

PERIOD OF RECORD: January 1932 to December 1975.

GAGE: Water-stage recorder, cableway, and gravity well. Datum of gage is 2,200.64 ft (670.8 m) above mean sea level, U.S.C. & G.S. datum

AVERAGE DISCHARGE: 44 years, 38,049 ac-ft/yr (48.0 hm³/yr).

EXTREMES: Period of record (1932-75): Maximum discharge, 34,900 ft³/s (988.4 m³/s) May 24, 1935, gage height, 17.59 ft (5.36 m³/s); minimum discharge, 0.1 ft³/s (0.0028 m³/s) on several days in June and July 1950.

REMARKS: Records good. There are several irrigation diversions above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1932	185	144	154	149	2220	988	1070	26680	18040	1390	160	160	51340
1933	184	167	164	216	215	431	621	1720	3890	7970	260	214	16072
1934	157	111	68.7	66.8	117	2300	1580	254	1590	50.8	64.9	90.0	6470
1935	82.7	91.0	74.4	55.1	3970	21000	10900	6740	24600	8100	233	115	75961
1936	91.0	90.6	400	232	26000	2390	5490	2270	22500	248	190	234	60136
1937	198	169	176	514	17400	54800	4200	4530	13600	6080	1100	3080	105847
1938	743	223	489	365	1760	10800	26800	1050	8120	144	141	119	50754
1939	163	116	140	1230	21300	15700	16800	9630	223	184	2980	117	68583
1940	92.2	113	131	120	826	407	966	1460	310	5420	119	123	10087
1941	170	73.4	111	15500	3390	4580	6790	1890	2510	1490	115	230	36849
1942	92.2	83.3	72.4	127	229	1350	1570	1390	2670	310	159	454	8507
1943	104	83.3	92.2	161	425	59.5	1190	323	1230	123	213	154	3958
1944	127	153	123	119	1450	956	1550	5310	1820	589	179	184	12560
1945	184	167	184	491	176	277	4900	831	1120	3400	178	173	12281
1946	461	267	267	307	3410	925	2000	327	1970	2250	169	388	12741
1947	230	161	197	195	1240	1230	1420	3490	233	158	185	188	8927
1948	212	165	159	135	1350	3830	12000	1330	1740	316	122	138	21497
1949	172	139	129	689	204	1870	11100	8500	7440	4530	191	213	35177
1950	169	155	202	854	732	10800	14100	7570	19300	5430	227	208	59747
1951	194	161	2410	155	4660	2250	13400	2170	4100	445	128	142	30215
1952	130	126	139	2570	3530	9720	28700	136	123	130	126	1350	46780
1953	122	128	196	116	603	1440	8800	1990	3280	624	89.9	91.0	17480
1954	92.2	63.3	92.2	6420	4700	8670	518	2300	388	131	114	111	23620
1955	115	108	119	554	7040	3840	10300	1080	11300	553	140	138	35287
1956	192	146	171	137	3410	2100	1870	2690	1430	4550	129	114	16939
1957	115	4400	135	634	4710	2860	5250	1630	2700	3760	97.4	91.8	26383
1958	145	281	92.2	60.1	3650	3910	18000	3620	42200	15400	210	95.4	87664
1959	67.5	90.8	112	106	4930	11600	15000	1080	2640	351	733	130	36860
1960	675	147	134	209	81.3	1080	19900	27900	594	5780	302	624	57626
1961	195	168	287	136	7210	7030	11500	4100	706	208	243	208	31991
1962	197	186	209	266	235	7220	16140	353	10230	1910	168	142	37260
1963	115	97.8	183	3190	5320	4280	19000	8320	5720	1300	127	127	47780
1964	144	116	335	175	4200	8110	3510	2880	13800	147	124	149	33690
1965	123	119	134	113	343	6970	1240	7960	5280	89.1	301	110	22782
1966	110	89.1	108	72.8	3450	25250	1320	33620	8670	17240	221	193	90344
1967	170	149	229	141	130	20080	4830	1850	1030	262	187	216	29274
1968	187	157	342	3700	294	1930	15850	7720	6220	1500	2820	178	40898
1969	154	130	137	416	1030	7190	6790	3120	1790	3480	1000	193	25430
1970	179	203	238	204	1410	5150	1690	10440	27560	7330	212	219	54835
1971	212	191	204	171	144	3080	12200	29750	7850	27900	258	223	82183
1972	220	195	249	178	6680	1900	7050	5750	15590	1080	189	197	39278
1973	190	219	187	183	163	608	12010	1510	5040	174	155	153	20592
1974	177	145	2140	366	1060	1150	3780	24020	68380	2050	356	372	103996
1975	200	162	177	150	775	1060	7300	5910	799	167	169	193	17062
MAX	875	4400	2410	15500	26000	54800	28700	33620	68380	27900	2980	3080	105847
MIN	82.7	73.4	72.4	55.1	81.3	59.5	518	123	123	50.8	64.9	90.0	3958
MEAN	192	243	276	953	3549	6436	8432	6295	8648	3290	354	281	38949
NO.	44	44	44	44	44	44	44	44	44	44	44	44	44
DISTR OF MEAN	.52	.62	.72	2.42	9.12	16.52	21.62	16.22	22.22	8.42	.92	.72	1002

RIO GRANDE BASIN

08375000 Rio Grande at Johnson Ranch near Castolon, Texas

LOCATION: Lat 29°02'05", long 103°23'26", Brewster County, 14.0 mi (22.5 km) downstream from Castolon, 2.0 mi (3.2 km) west-northwest of the old Johnson Ranch headquarters 9.5 mi (8.8 km) downstream from Smoky Creek, and 393.5 mi (633.1 km) downstream from the American Dam.

DRAINAGE AREA: 67,760 mi² (175,490.4 km²).

PERIOD OF RECORD: April 1936 to December 1975.

GAGE: Digital water-stage recorder, cableway, and gravity well. Datum of gage is 2,045.30 ft (623.41 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 40 years, 936,703 ac-ft/yr (1,155.0 hm³/yr).

EXTREMES: Period of record (1936-75): Maximum discharge, 61,900 ft³/s (1,753.0 m³/s) September 27, 1958, gage height, 24.70 ft (7.53 m); no flow at times.

Maximum known discharge, 97,000 ft³/s (2,747.0 m³/s) October 3, 1932, gage height, 24.6 ft (7.5 m).

REMARKS: Records good. The flow is partly regulated by reservoirs, diversions, and drainage returns above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FeET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1936	-	-	-	8990	61300	17700	51300	76100	508000	144000	65000	75400	-
1937	55800	52400	39600	12600	35800	111000	43900	52100	237000	131000	53900	75800	900900
1938	74900	49300	38300	12700	19900	127000	620000	288000	1144000	208000	101000	71900	2755000
1939	69500	72300	57600	20100	26100	42000	58100	228000	59800	75600	78500	56700	844300
1940	60300	53300	31100	11400	49200	62800	88000	136000	83800	95300	40500	29600	741300
1941	35900	52900	37600	79300	208000	129000	222000	326000	556000	929000	164000	107000	2846700
1942	83200	80900	80700	55600	240000	251000	200000	485000	1404000	337000	134000	110000	3461400
1943	86400	73700	85300	31400	53100	72100	229000	36000	82700	171000	55300	72000	1048000
1944	77600	54100	49200	25200	27900	46700	55900	82000	416000	146000	59900	54500	1095000
1945	67100	53400	38900	30400	8830	12600	273000	38000	20000	299000	81700	47400	970330
1946	65400	50600	48500	29100	40300	37000	61200	17000	269000	241000	69700	63800	992600
1947	75000	60900	39400	7940	22400	14400	10700	131000	228000	39200	54300	56200	739440
1948	41600	44600	45300	13400	15600	23600	43100	32300	29800	39900	49300	38000	416500
1949	43600	69800	51600	23900	22600	46400	85300	180000	137000	107000	78900	59400	905500
1950	63300	54900	52300	17600	20000	70400	148000	115000	164000	121000	51300	47400	925200
1951	36700	53200	45800	15000	31000	41800	62500	30600	35200	23100	21300	19600	415800
1952	17600	14300	10200	7790	11400	46000	300000	19500	9350	11700	9980	12200	470020
1953	13700	11200	9370	457	0	3270	25500	12300	21900	4940	8600	9510	120747
1954	11300	9460	4440	20300	11600	42700	20000	200000	62600	41100	16400	13000	452900
1955	15000	13700	7850	5570	24900	10900	88800	173000	128000	152000	32100	23300	675120
1956	18500	19300	12200	2540	7690	9800	5930	29900	33800	27800	21200	20800	209460
1957	22500	34400	14300	3520	56000	24100	14100	45900	24000	78600	23800	23000	364220
1958	18200	14900	8850	1640	3900	12900	21400	22300	603000	1157000	132000	63200	2059290
1959	45600	25700	21200	17000	31500	36900	79200	126000	140000	30700	31200	30600	615600
1960	49100	71400	50000	20600	14300	23000	175000	222000	133000	54300	57900	70800	941400
1961	65200	45100	34400	11800	35700	66000	76800	85200	51600	49300	31900	30100	585100
1962	30230	22540	19500	8200	6880	26200	86230	19620	145700	87730	39970	38960	531760
1963	31590	21240	16990	14540	31200	32230	63910	86000	101300	52130	30750	28890	512770
1964	24300	23460	27070	10380	27190	76980	28550	38130	73320	35820	28740	28980	422920
1965	31200	32130	26140	9440	23640	27380	9030	52560	76100	32380	34360	26490	380850
1966	23390	18990	13170	4190	17390	70830	45460	229200	611400	132300	43630	33410	1243360
1967	31490	26640	26200	12830	16160	103600	65180	45880	139900	58590	44930	32060	603460
1968	23830	7740	6070	13330	15510	5840	115900	120100	472100	189000	121200	34420	1125040
1969	118300	111900	115700	73920	31920	59510	89660	30690	45190	44150	33800	32880	787620
1970	27510	24440	17780	9030	14450	26090	29430	47710	152600	180100	88110	54060	671310
1971	32670	27850	24300	15610	16280	28680	45020	132700	81150	150800	13270	47000	615330
1972	84030	29440	38370	33420	56190	66250	82010	118400	313900	91020	30350	27550	970930
1973	24690	19140	10700	5910	17310	30080	133000	242500	218000	28010	25050	20510	774900
1974	25100	20100	28540	34490	116800	96470	45580	86070	405200	372000	102400	49410	1382160
1975	40020	84690	211700	98110	35010	29720	62760	72780	44710	28350	25790	27720	761360
MAX	118300	111900	211700	98110	240000	251000	620000	485000	1404000	1157000	1640000	1100000	3461400
MIN	11300	7740	4440	457	0	3270	5930	12300	9350	4940	8600	9510	120747
MEAN	45163	41181	38365	20731	37624	51573	99011	112839	236553	154923	54651	44089	936703
NO.	39	39	39	40	40	40	40	40	40	40	40	40	39
DISTR													
OF MEAN	4.8%	4.4%	4.1%	2.2%	4.0%	5.5%	10.6%	12.0%	25.3%	16.5%	5.8%	4.7%	100%

RIO GRANDE BASIN

08375500 Rio Grande at Boquillas, Texas

LOCATION: Lat. 29°10'45"; long 102°57'33"; Brewster County, 0.25 mi (0.40 km) southeast of Boquillas, 2.6 mi (4.2 km) downstream from its confluence with Tornillo Creek, and 447.7 mi (720.3 km) below the American Dam.

DRAINAGE AREA: 69,373 mi² (179,676.1 km²).

PERIOD OF RECORD: January 1924 to March 1936, February to May 1950.

GAGE: Water-stage recorder and cableway. Datum of gage is 1,802.73 ft (549.47 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 14 years (1924-36, 1950), 1,375,767 ac-ft/yr (1,696.3 km³/yr).

EXTREMES: Period of record (1924-36, 1950): Maximum discharge, 95,000 ft³/s (2,691.2 m³/s) October 4, 1932, gage height, 24.50 ft (7.47 m); minimum discharge, 86.4 ft³/s (2.4 m³/s) May 16, 1935, gage height, 0.00 ft.

Maximum known discharge, 158,000 ft³/s (4,474.6 m³/s) occurred in September 1904, gage height, 32.4 ft (9.88 m), reported by local residents.

REMARKS: Records good. The flow is greatly modified by reservoirs and diversions above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1924	224000	98200	91300	69500	80500	83500	102000	61200	152000	152000	72000	73800	1260000
1925	66300	55300	64400	75200	193000	92300	220000	642000	649000	289000	113000	94100	2553600
1926	109000	84700	79900	75900	105000	109000	130000	173000	366000	308000	124000	112000	1976500
1927	111000	96300	99300	86500	75700	98300	102000	135000	175000	125000	90400	109000	1303500
1928	102000	96900	87100	64800	95900	75300	116000	249000	136000	112000	121000	109000	1365000
1929	97200	87200	83600	73200	90400	87500	96500	156000	145000	113000	88700	78700	1197000
1930	68900	46200	29700	17800	17000	50600	49600	200000	16900	106000	37200	35400	675300
1931	30600	32600	43700	73200	79250	62500	100610	112060	57510	75180	69110	72950	809270
1932	57680	60560	52360	29850	27620	21280	47950	204980	725800	774060	87410	73930	2163460
1933	66610	53790	56510	51580	40260	97400	95500	98330	572200	291380	101020	83430	1608010
1934	81800	81000	78900	55200	66900	73700	74500	63300	43600	38900	43900	41500	743200
1935	44900	34900	27300	9980	30500	98500	66200	82600	362000	176000	72400	40800	1046080
1936	40100	43600	35600	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	55190	55550	22710	24450	-	-	-	-	-	-	-	-
MAX	224000	98200	99300	86500	193000	109000	220000	642000	725800	774060	124000	112000	2553600
MIN	30600	32600	27300	9980	17000	21280	47950	61200	16900	38900	37200	35400	675300
MEAN	84622	66174	63230	54263	71268	79157	100072	198123	283418	213377	85012	77051	1375767
NO.	13	14	14	13	13	12	12	12	12	12	12	12	12
DISTR OF MEAN	6.21	4.81	4.61	3.91	5.21	5.81	7.31	14.41	20.61	15.51	6.21	5.61	1001

RIO GRANDE BASIN

08376300 Sanderson Canyon at Sanderson, Texas

LOCATION: Lat 30°07'42", Long 102°23'04", Terrell County, at the bridge on U.S. Highway 80, 1.0 mi (1.6 km) south of Sanderson, 2.9 mi (4.7 km) downstream from Three Mile Draw, and 30 mi (48 km) upstream from the mouth.

DRAINAGE AREA: 185 mi² (505 km²).

PERIOD OF RECORD: March 1968 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 2,706.35 ft (824.895 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 8 years, 8,082 ac-ft/yr (10.0 hm³/yr).

EXTREMES: Period of record (1968-75); Maximum discharge, 32,600 ft³/s (923 m³/s) Sept. 18, 1969 (gage height, 9.18 ft or 2.798 m); maximum gage height, 9.44 ft (2.877 m) Apr. 30, 1974; no flow most of the time each year.

Maximum flood since at least 1935, 14.2 ft (4.33 m) June 11, 1965, discharge about 100,000 ft³/s (2,830 m³/s) by combining two slope-area measurements within 4 mi (6 km) upstream from the gage.

REMARKS: Records fair. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1968	-	-	0	0	0	0	0	0	0	0	0	0	-
1969	0	0	0	908	20.0	0	0	0	23230	0	0	0	24158
1970	0	0	0	0	0	758	0	0	486	0	0	0	1244
1971	0	0	0	0	0	1590	0	10080	0	1170	0	0	12840
1972	0	0	0	0	1750	1040	7.50	2110	1080	0	0	0	5988
1973	0	0	0	0	0	0	4910	0	496	0	0	0	5406
1974	0	0	9.00	10030	0	195	0	549	2730	619	0	0	14132
1975	0	0	0	0	0	0	0	0	889	0	0	0	889
MAX	0	0	9.00	10030	1750	1590	4910	10080	23230	1170	0	0	24158
MIN	0	0	0	0	0	0	0	0	0	0	0	0	889
MEAN	0	0	1.12	1367	221	448	615	1592	3614	224	0	0	8082
NO.	7	7	8	8	8	8	8	8	8	8	8	8	7
LISTED OF YEAR	.01	.01	.01	16.91	2.71	5.51	7.61	19.71	44.71	2.81	.01	.01	1001

RIO GRANDE BASIN
08376500 Rio Grande at Agua Verde, Texas

LOCATION: Lat 29°48'10", long 102°01'15", Terrell County, 17.5 mi (28.2 km) southeast of Dryden, and 571.7 mi (919.9 km) downstream from the American Dam.

DRAINAGE AREA: 82,232 mi² (212,980.9 km²).

PERIOD OF RECORD: April to August 1947, January to June 1948, March and April 1950, January 1953 to May 1956.

GAGE: Water-stage recorder and cableway. Datum of gage is 1,241.07 ft (378.28 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 7 years (1947-48, 1950, 1953-56), 621,990 ac-ft/yr (766.9 km³/yr).

EXTREMES: Period of record (1947, 1948, 1950, 1953-56). Maximum discharge, 26,900 ft³/s (761.8 m³/s) September 25, 1955, gage height, 24.10 ft (7.34 m), minimum discharge, 132 ft³/s (3.7 m³/s) April 29, 1953, gage height, 0.42 ft (0.13 m).

REMARKS: Records good. Diversions, reservoirs, and drainage returns modify the flow at this station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1947	-	-	-	23600	39900	29400	25300	117000	-	-	-	-	-
1948	51060	57220	55650	29130	35220	40050	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	66790	32460	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	24000	19900	22900	11900	11200	11400	34000	24700	32400	17600	17500	19100	246600
1954	20900	18800	15400	43000	46700	81900	36000	213000	86400	50900	27300	25000	665300
1955	26800	25300	21400	12800	59200	49600	108000	195000	181000	165000	47000	37300	928400
1956	33500	32500	25300	15800	18400	-	-	-	-	-	-	-	-
MAX	51060	57220	66790	43000	59200	81900	108000	213000	181000	165000	47000	37300	928400
MIN	20900	18800	15400	11900	11200	11400	25300	24700	32400	17600	17500	19100	246600
MEAN	31252	30744	34573	24099	35103	42470	50825	137425	99933	77833	30600	27133	621990
NO. OF DISTR	5	5	6	7	6	5	4	4	3	3	3	3	3
OF MEAN	5.0%	4.9%	5.6%	3.9%	5.6%	6.8%	8.2%	22.1%	16.1%	12.5%	4.9%	4.4%	100%

RIO GRANDE BASIN

08377000 Lozier Creek near Langtry, Texas

LOCATION: Lat 29°48'06", long 101°47'07", Val Verde County, 21.0 mi (33.8 km) west of Langtry, and 1.0 mi (1.6 km) above its confluence with the Rio Grande.

DRAINAGE AREA: 1,728 mi² (4,475.5 km²).

PERIOD OF RECORD: January 1932 to December 1935.

GAGE: Water-stage recorder and cableway. Datum of gage not published.

AVERAGE DISCHARGE: 4 years, 67,641 ac-ft/yr (83.4 km³/yr).

EXTREMES: Period of record (1932-35): Maximum discharge, 107,000 ft³/s (5,570.0 m³/s) September 4, 1935, gage height, 26.04 ft (8.12 m); no flow most of the time.

REMARKS: Records poor. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1932	0	0	0	0	1040	0	4540	2670	69360	805	0	0	78415
1933	0	0	0	1390	0	0	0	2220	2400	350	0	0	3962
1934	0	0	0	485	0	123	0	0	0	0	0	0	608
1935	0	0	0	446	29100	6190	0	4840	147000	0	0	0	187576
MAX	0	0	0	1390	29100	6190	4540	4840	147000	805	0	0	187576
MIN	0	0	0	0	0	0	0	0	0	0	0	0	608
MEAN	0	0	0	580	7535	1578	1135	2433	54091	289	0	0	67641
NO.	4	4	4	4	4	4	4	4	4	4	4	4	4
DISTR													
OF MEAN	.0%	.0%	.0%	.9%	11.1%	2.3%	1.7%	3.6%	80.0%	.4%	.0%	.0%	100%

RIO GRANDE BASIN

08377200 Rio Grande at Foster Ranch near Langtry, Texas

LOCATION: Lat 29°46'50", long 101°45'20", Val Verde County, 500 ft (152.4 m) downstream from the Terrell-Val Verde County line, 16.9 mi (27.2 km) upstream from Langtry, and 597.8 mi (961.9 km) downstream from the American Dam.

DRAINAGE AREA: 80,742 mi² (209,121.8 km²).

PERIOD OF RECORD: September 1961 to December 1975.

GAGE: Water-stage recorders (graphic and digital), cableway, and concrete control weir. Datum of gage is 1,167.17 ft (352.7 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 15 years, 1,012,071 ac-ft/yr (1,247.9 hm³/yr).

EXTREMES: Period of record (1961-75): Maximum discharge, 137,000 ft³/s (3,879.8 m³/s) September 20, 1974, gage height, 36.64 ft (11.17 m); minimum discharge, 188 ft³/s (5.3 m³/s) August 19, 1965.

REMARKS: Records good. The flow is partly regulated by reservoirs, diversions, and drainage returns above the station. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1961	-	-	-	-	-	-	-	-	77100	63700	46400	45200	-
1962	45770	37240	33300	23170	28360	56110	104300	37700	152000	126100	55560	52990	752600
1963	45760	34750	29980	27330	56130	64120	78260	102500	119300	65030	41900	45340	710400
1964	38360	33690	42890	43340	46600	102600	52930	63650	235900	57650	43220	44640	805470
1965	47620	49060	41140	22350	79770	164400	30270	67750	101300	52700	45450	38350	740160
1966	36150	30030	30130	42450	32120	107600	80350	227600	634300	195000	57590	47250	1520570
1967	45280	36740	38520	25610	26020	92780	138480	108700	168200	88690	56580	47450	873050
1968	40670	22440	19790	33770	41810	22460	141000	141500	432500	214400	129700	50260	1290300
1969	122100	115300	126300	102900	57610	86400	95810	45470	76940	61700	46970	45780	983280
1970	41900	35920	33740	21020	30110	63020	71520	69520	183800	196700	104000	71000	922250
1971	49550	40000	39330	30550	32600	56260	70490	188800	129200	210700	37160	58530	943170
1972	90350	55700	53690	49670	67850	95480	90810	137900	284500	124200	49390	45240	1144780
1973	42640	35670	29290	20200	28620	39960	140500	212800	222500	53890	40600	36910	903580
1974	40140	33680	64290	78820	120700	101500	51780	129800	590000	396600	121800	67720	1796830
1975	57590	84820	224800	129800	59410	51220	87240	112400	85190	46370	41890	43020	1023750
MAX	122100	115300	224800	129800	120700	164400	141000	227600	634300	396600	129700	71000	1796830
MIN	36150	22440	19790	20200	26020	22460	30270	37700	76940	46370	37160	36910	710400
MEAN	53134	46074	57656	46499	50551	78851	88124	117578	232849	130229	61214	49312	1012071
NO. OF MEAN	14	14	14	14	14	14	14	14	15	15	15	15	14
DIS7R													
OF MEAN	5.3%	4.6%	5.7%	4.6%	5.0%	7.8%	8.7%	11.6%	23.0%	12.9%	6.0%	4.9%	100%

RIO GRANDE BASIN

08377500 Río Grande at Langtry, Texas

LOCATION: Lat 29°48'00", long 101°33'52". Val Verde County, just below the confluence with Pump Canyon, 0.6 mi (1.0 km) southwest of Langtry, and 614.1 mi (988.1 km) downstream from the American Dam.

DRAINAGE AREA: 81,429 mi² (210,901.1 km²).

PERIOD OF RECORD: May 1900 to March 1914, September 1914, December 1919 to March 1920, January 1924 to August 1971.

GAGE: Water-stage recorder, cableway, and gravity well. Datum of gage is 1,091.69 ft (332.75 m) above mean sea level, U.S.C. & G.S. datum.

AVERAGE DISCHARGE: 65 years (1900-14, 1919-20, 1924-71), 1,582,146 ac-ft/yr (1,950.8 hm³/yr).

EXTREMES: Period of record (1900-14, 1919-20, 1924-71): Maximum discharge, 204,000 ft³/s (5,777.3 m³/s) June 17, 1922, gage height, 56.9 ft (17.3 m); minimum discharge, 208 ft³/s (5.9 m³/s) July 12, 1953.

REMARKS: Records good. The flow is largely regulated by reservoirs, diversions, and drainage returns above the station. The station was inundated by Amistad Reservoir on September 24, 1971. Records furnished by the International Boundary and Water Commission.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1900	-	-	-	-	62000	119000	323000	531000	230000	179000	53700	41700	-
1901	36900	33300	38600	25300	71500	87200	80800	142000	203000	117000	81300	42000	958900
1902	40800	30100	26700	36400	33500	44300	298000	349000	664000	120000	70800	56400	1770000
1903	43700	70900	59000	43900	92700	238000	208000	122000	174000	193000	48300	39500	1333000
1904	33800	27400	24900	21900	27200	167000	51300	59700	1520000	811000	241000	137000	3167700
1905	79300	65600	199000	159000	272000	724000	409000	555000	508000	365000	270000	321000	3926900
1906	131000	209000	126000	86600	224000	287000	660000	1353000	527000	170000	118000	142000	4033600
1907	122000	90600	80700	96900	179000	339000	356000	254000	583000	191000	321000	317000	2930200
1908	108000	76600	61400	69100	91100	86300	164000	602000	518000	69100	44000	41400	1931000
1909	42400	35700	31500	26200	149000	229000	465000	457000	457000	116000	61700	66000	2136500
1910	122000	58600	63000	90100	227000	111000	140000	52800	163000	56700	35000	34300	1153500
1911	29500	34600	32800	51700	336000	309000	520000	296000	272000	309000	221000	127000	2538600
1912	106000	72000	50900	96700	165000	436000	156000	377000	777000	242000	76700	91400	2646700
1913	67300	105000	130000	53000	91200	150000	72800	82200	245000	84300	40400	54700	1175900
1914	45560	33210	39050	-	-	-	-	-	635000	-	-	-	-
1915	-	-	-	-	-	-	-	-	-	-	-	-	-
1916	-	-	-	-	-	-	-	-	-	-	-	-	-
1917	-	-	-	-	-	-	-	-	-	-	-	-	-
1918	-	-	-	-	-	-	-	-	-	-	-	-	-
1919	-	-	-	-	-	-	-	-	-	-	-	81200	-
1920	94100	89200	65600	-	-	-	-	-	-	-	-	-	-
1921	-	-	-	-	-	-	-	-	-	-	-	-	-
1922	-	-	-	-	-	-	-	-	-	-	-	-	-
1923	-	-	-	-	-	-	-	-	-	-	-	-	-
1924	245000	117000	110000	87800	99000	102000	121000	79400	172000	172000	90400	92200	1487800
1925	92200	80000	90100	102000	233000	121000	263000	730000	738000	339000	144000	123000	3055300
1926	131000	106000	101000	96800	127000	131000	153000	407000	399000	339000	147000	134000	2271800
1927	130000	115000	118000	105000	94100	117000	121000	154000	195000	144000	109000	128000	1530100
1928	121000	116000	106000	83300	115000	94000	133000	334000	184000	138000	134000	131000	1689300
1929	119000	105000	106000	69800	103000	114000	106000	169000	160000	127000	108000	97200	1404000
1930	88500	62800	48800	36400	32300	72000	56100	220000	35700	120000	56600	49800	879000
1931	52300	48900	60100	94600	122000	83900	121790	132680	68840	90780	82300	90860	1049050
1932	71150	71070	69600	47820	72680	37310	80700	199380	1100130	856120	131070	103240	2840470
1933	92430	78490	80110	74580	60580	92960	123040	112040	628000	319720	114010	97750	1873710
1934	99700	94000	95000	72900	86700	101000	91600	78100	64400	55200	62100	59100	959800
1935	64800	54400	48100	30100	113000	146000	114000	110000	543000	204000	95000	61900	1584300
1936	61800	61900	62400	35200	96700	47300	62700	92800	542000	223000	88100	97900	1471800
1937	81900	72600	63700	38700	62400	160000	72300	94500	240000	190000	79300	90400	1245800
1938	102000	71400	62600	32800	42100	149000	719000	347000	1075000	276000	122000	96100	3095000
1939	87600	90000	74800	39900	62400	57500	84800	285000	88900	95200	99100	77400	1142600
1940	77700	71600	53600	34000	111000	91100	117000	179000	119000	141000	69500	53400	1117900
1941	54700	70200	59000	94400	271000	142000	294000	361000	538500	1063000	211000	130000	3288800
1942	107000	101000	108000	72500	267000	299000	226000	516000	1410000	442000	168000	135000	3851500
1943	107000	93700	107000	58400	95800	95000	270000	67700	64900	209000	78200	89200	1335900
1944	97400	73700	69900	43600	43000	77500	67200	110000	418000	181000	79100	71800	1332200
1945	82400	73100	56700	68800	26900	25400	376000	58900	43700	345000	102000	68900	1327800
1946	79300	67100	65100	55700	73100	78400	83500	33800	275000	291000	87800	78000	1267800
1947	86900	78700	63200	28500	62900	34600	31700	124000	267000	65400	67200	73600	983700
1948	56400	63600	60800	34600	36300	45200	58600	54900	44000	63300	62400	51800	633900
1949	54400	78800	70900	61200	48400	115000	103000	248000	202000	165000	99600	77700	1324000

RIO GRANDE BASIN
08377500 Rio Grande at Langtry, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1950	79400	69900	73800	39100	46200	96800	183000	155000	203000	135000	68700	65900	1215800
1951	56300	64700	69000	33800	83600	104000	77700	48400	57500	38600	38600	36000	708200
1952	33400	28000	25200	25900	34400	48000	325000	41100	19600	29900	24700	26300	661500
1953	30000	25300	29200	17800	16200	15800	38400	31100	51700	23200	22600	24800	326100
1954	27300	25000	23300	112000	74200	258000	46000	217000	99200	60000	31700	29700	1003400
1955	30700	28700	26000	16700	71500	75200	112000	219000	229000	175000	54000	42600	1080400
1956	38200	37200	30600	21200	28000	32400	20200	42100	43800	94800	35300	35800	459600
1957	37400	50600	33400	89000	192000	68200	34800	56700	49100	107000	43400	40100	801700
1958	35900	29100	28800	17100	27400	30900	34500	44400	513000	1335000	184000	83700	2363800
1959	66100	44100	39500	33700	68200	67300	145000	133000	191000	87600	50800	49300	975600
1960	67500	95300	77600	39800	29900	44600	226000	248000	188000	122000	80200	93100	1312000
1961	86600	67900	57200	27900	70600	153000	129000	117000	83200	68400	51000	50000	961800
1962	49330	41000	38090	28850	33300	60200	106100	41480	150800	137900	59320	57230	803600
1963	50450	38730	34060	30960	58240	74620	81110	107300	128600	70260	45770	49850	769950
1964	46910	37650	47020	58960	50180	110300	56750	66900	277700	64320	47940	48440	913070
1965	50880	50400	44980	26630	92540	174800	35630	73550	105000	56920	48790	43130	803250
1966	40570	33670	33250	46800	36180	112600	87510	228200	639100	193400	62040	52040	1505360
1967	49820	40930	42650	29670	30530	96760	154900	118400	171500	98480	62750	52330	948720
1968	46500	27430	25500	38580	46780	27310	153900	145300	437600	219600	135000	54880	1358580
1969	125800	120800	129300	108500	61790	90220	99260	51340	79110	67650	53820	49490	1037080
1970	43990	39330	37040	24320	35960	66000	73680	69220	184200	197800	105300	73060	949900
1971	51780	43310	42720	34710	37490	61510	79140	196900	-	-	-	-	-
MAX	245000	209000	199000	159000	336000	724000	719000	1353000	1520000	1335000	321000	321000	4033600
MIN	27300	25000	23300	16700	16200	15800	20200	31100	19600	23200	22600	24800	326100
MEAN	74457	66459	63941	55380	94375	126201	165379	209392	338613	214109	93040	80800	1582146
NO.	63	63	63	61	62	62	62	62	62	61	61	62	60
DISTR OF MEAN	4.7%	4.2%	4.0%	3.5%	6.0%	8.0%	10.5%	13.2%	21.4%	13.5%	5.9%	5.1%	100%

RIO GRANDE BASIN

08407500 Pecos River at Red Bluff, New Mexico

LOCATION: Lat 32°04'30", long 104°02'21", in SW1/4NW1/4NE1/4 sec. 1, T. 26 S., R. 28 E., Eddy County, at Red Bluff, New Mexico, 0.2 mi (0.3 km) downstream from Red Bluff Draw, 1.6 mi (2.6 km) northwest of the El Paso Natural Gas (Pecos River) compressor station, 5.2 mi (8.4 km) north of the New Mexico-Texas State line, and 5.5 mi (8.8 km) upstream from the Delaware River.

DRAINAGE AREA: 19,540 mi² (50,610 km²).

PERIOD OF RECORD: October 1937 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 2,850.05 ft (868.695 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE: 39 years, 134,672 ac-ft/yr (166.0 hm³/yr).

EXTREMES: Period of record (1937-75): Maximum discharge, 111,000 ft³/s (3,140 m³/s) Aug. 23, 1966 (gage height, 33.32 ft or 10.156 m); minimum, 0.10 ft³/s (0.005 m³/s) Aug. 1, 1966.

The flood of Aug. 23, 1966 exceeded all known floods at this location.

REMARKS: Records good. The flow is regulated by storage in Lake Sumner, Lake McMillan, Lake Avalon, and by several small diversion dams that divert water for power or irrigation, all located in New Mexico. There are several diversions and ground-water withdrawals above the station for irrigation of about 202,000 acres (82,000 hm²).

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1937	-	-	-	-	-	-	-	-	-	16640	11420	12190	-
1938	11940	12290	9220	6760	6280	14960	12810	5270	11780	9420	11000	11330	123060
1939	11820	10380	8170	6660	8190	6990	7700	9100	6480	8320	9710	9580	103300
1940	9590	8040	6710	5470	12950	7860	6510	6970	6630	14360	7350	9270	101710
1941	9720	8650	9500	6550	427600	189300	782500	503600	388600	323100	82220	50000	1622650
1942	43000	29670	18140	40520	71140	14500	10860	10250	104300	25410	68980	30230	467000
1943	24620	15210	13130	8020	9810	10280	15050	6500	9740	10970	11490	13760	148580
1944	15230	14520	11070	7300	7730	6670	6170	7400	10000	9240	11680	12890	139900
1945	14840	10170	7430	6210	6890	5010	5750	8330	5400	7310	6630	8000	91970
1946	8270	8500	6340	3780	5690	3900	3770	5160	8180	15420	15670	9600	94280
1947	15570	10050	8160	5160	6950	4310	2400	2160	3660	3120	4300	5150	70990
1948	5350	5290	3760	1820	6900	46000	4260	4020	3000	5410	5060	4700	95570
1949	7500	7070	4640	2630	6110	11330	5430	4730	48070	23410	17150	15500	153770
1950	16810	8550	8630	5170	6910	4440	27960	11060	12520	28910	19160	13140	163260
1951	11800	7270	7980	5700	6600	4470	5560	3670	4140	4550	4610	4990	71340
1952	5460	4920	3630	2010	2740	2070	3270	1050	1690	3960	3750	4180	38730
1953	4370	3610	2800	1140	2160	1340	926	620	1230	8050	2650	2240	31136
1954	3300	2830	2550	4380	2770	1640	491	8480	1080	163300	8140	5180	204141
1955	6550	2390	1970	1790	1700	2150	3510	3060	11750	47150	6620	7270	95910
1956	5920	2990	3340	2570	2410	1790	2110	1870	1830	3240	2630	3980	34680
1957	4120	2240	1400	1140	3270	1530	1140	7520	1700	2680	3540	3860	34140
1958	4110	3640	3570	1520	26580	7440	3720	16600	23880	19050	13290	10380	133780
1959	7170	5230	2130	2660	8340	3510	2950	2670	3210	3980	4800	4220	50870
1960	4360	2630	1980	1980	1610	1880	48950	4690	2880	7260	8970	14910	102100
1961	11800	11450	3890	3070	3810	2890	2370	2200	2540	4200	3720	4400	56340
1962	4020	3540	1970	1820	1790	3320	3540	2270	2040	3030	4030	4310	35680
1963	4180	2270	1660	2370	1820	1430	1150	4980	4870	1820	2180	3110	31840
1964	2780	1860	1380	916	698	1370	375	313	2480	615	529	833	14149
1965	658	760	748	425	18500	8720	2080	570	4710	723	2230	1120	41244
1966	1060	938	688	2040	515	3210	157	259000	16630	3360	3080	4940	295818
1967	2120	1320	1300	954	718	4440	3750	1500	1070	1130	1830	2710	22842
1968	2640	2970	2120	1030	2430	674	4690	1510	1410	1990	2460	2490	26414
1969	2550	1710	1190	1280	1120	772	796	2350	4260	32570	7380	4730	60708
1970	4930	3060	4150	1460	1720	1370	1140	879	3310	2620	2460	3020	30119
1971	2880	1470	2060	921	486	302	890	4320	1810	1370	1100	2080	19669
1972	1920	1200	1290	842	566	398	2030	2110	24040	2860	2780	3150	43186
1973	2850	2140	3130	1870	42200	6810	3170	2940	3050	3360	3220	5150	77890
1974	2840	1800	1220	656	663	445	720	2020	81840	49440	14330	9710	165684
1975	8440	6070	5020	2950	2980	2180	2960	1890	2220	2010	3230	3670	43620
MAX	43000	29670	18140	40520	427600	189300	782500	259000	388000	323100	82220	50000	1622650
MIN	658	760	748	425	486	302	157	313	1070	615	529	833	14149
MEAN	8081	6003	4696	4041	18988	10308	7615	12379	21774	22445	10138	8204	134672
NO.	38	38	38	38	38	38	38	38	38	39	39	39	38
OF YEAR	6.0%	4.5%	3.5%	3.0%	14.1%	7.7%	5.7%	9.2%	16.2%	16.7%	7.5%	6.1%	100%

RIO GRANDE BASIN

08408500 Delaware River near Red Bluff, New Mexico

LOCATION: Lat 32°01'23", long 104°03'15", in NE¼SW¼SE¼ sec. 23, T. 26 S., R. 28 E., Eddy County, New Mexico, at the bridge on U.S. Highway 285, 2.1 mi (3.4 km) northwest of the New Mexico-Texas State line, 3.6 mi (5.8 km) southwest of Red Bluff, New Mexico, 3.7 mi (6.0 km) upstream from the mouth, and 14 mi (23 km) south of Malaga, New Mexico.

DRAINAGE AREA: 689 mi² (1,785 km²).

PERIOD OF RECORD: May 1912 to August 1913, August 1914 to March 1915, October 1937 to December 1975. Published as "near Malaga, New Mexico" 1912-13, and as "near Angeles, Texas" 1914-15.

GAGE: Water-stage recorder and concrete control. Datum of gage is 2,900.66 ft (884.121 m) above mean sea level, datum of 1929. Prior to May 1914, at site 3 mi (5 km) upstream at different datum. May 1914 to June 1915 at site 2.5 mi (4.0 km) downstream at different datum.

AVERAGE DISCHARGE: 43 years (1912-15, 1937-75), 9,635 ac-ft/yr (11.9 hm³/yr).

EXTREMES: Period of record (1912-15, 1937-75): Maximum discharge, 81,400 ft³/s (2,310 m³/s) Oct. 2, 1955 (gage height, 27.0 ft or 8.23 m, from floodmark); no flow for many days most years.

Maximum stage since at least 1911, that of Oct. 2, 1955.

REMARKS: Records fair.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1912	-	-	-	-	298	1170	434	1480	367	459	212	210	-
1913	229	212	243	258	1540	3320	261	242	-	-	-	-	-
1914	-	-	-	-	-	-	-	756	251	207	457	145	-
1915	118	206	370	-	-	-	-	-	-	-	-	-	-
1916	-	-	-	-	-	-	-	-	-	-	-	-	-
1917	-	-	-	-	-	-	-	-	-	-	-	-	-
1918	-	-	-	-	-	-	-	-	-	-	-	-	-
1919	-	-	-	-	-	-	-	-	-	-	-	-	-
1920	-	-	-	-	-	-	-	-	-	-	-	-	-
1921	-	-	-	-	-	-	-	-	-	-	-	-	-
1922	-	-	-	-	-	-	-	-	-	-	-	-	-
1923	-	-	-	-	-	-	-	-	-	-	-	-	-
1924	-	-	-	-	-	-	-	-	-	-	-	-	-
1925	-	-	-	-	-	-	-	-	-	-	-	-	-
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	554	208	270	-
1938	301	231	168	116	58.0	16720	1690	160	4030	407	143	173	24197
1939	219	198	222	150	381	3340	711	1270	126	177	167	191	7152
1940	208	171	133	79.0	222	268	25.0	390	434	4160	164	143	6417
1941	141	119	156	1290	14300	1840	1950	1850	3720	1520	392	420	27698
1942	466	388	414	668	476	559	305	1660	1050	466	407	478	7337
1943	427	341	346	223	224	699	1116	93.0	129	204	263	331	4390
1944	335	296	249	192	142	524	153	1530	1570	234	265	289	5779
1945	288	222	208	166	241	25.0	633	994	109	202	135	167	3390
1946	190	146	136	89.0	43.0	35.0	343	227	2020	1190	157	175	4751
1947	172	137	157	114	108	14.0	0	39.0	12.0	39.0	102	137	1031
1948	137	123	101	64.0	1290	574	51.0	283	.80	29.0	79.0	121	2853
1949	189	123	113	224	1730	641	471	40.0	5620	313	97.0	112	9673
1950	103	87.0	79.0	39.0	.20	0	3880	108	2970	5720	139	135	13260
1951	126	127	128	92.0	62.0	0	838	3.80	95.0	0	55.0	111	1638
1952	108	91.0	79.0	585	16.0	45.0	10190	188	42.0	19.0	82.0	101	11546
1953	90.0	87.0	78.0	31.0	48.0	298	1530	140	0	2660	87.0	95.0	5164
1954	98.0	75.0	67.0	8040	907	965	263	6710	58.0	5610	96.0	110	22999
1955	118	91.0	82.0	45.0	432	36.0	2040	510	920	46000	181	150	50605
1956	149	144	113	76.0	373	365	208	251	0	244	105	110	2138
1957	105	119	165	155	313	54.0	905	10360	279	1340	609	163	14567
1958	177	136	145	104	1710	2770	1900	5040	1890	509	370	189	14940
1959	216	191	170	140	1130	241	645	326	248	67.0	129	158	3661
1960	166	143	145	75.0	98.0	110	2110	545	112	2780	135	163	6562
1961	157	124	119	75.0	252	8.70	565	131	0	18.0	73.6	94.0	1617

RIO GRANDE BASIN

08408500 Delaware River near Red Bluff, New Mexico—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1962	106	90.0	87.0	72.0	9.5	0	900	565	186	24.0	65.0	88.0	2193
1963	96.0	80.0	63.0	42.0	541	5820	928	992	1290	179	78.0	114	10223
1964	108	106	98.0	49.0	96.0	310	15.0	144	47.0	0	1.80	57.0	1032
1965	25.0	18.0	72.0	37.0	961	1890	2400	828	2650	36.0	420	11.0	9348
1966	56.0	6.50	41.0	1850	184	6070	74.0	20030	493	213	164	176	29358
1967	58.0	23.0	49.0	22.0	50.0	2930	492	293	484	141	172	199	4913
1968	237	214	47.0	14.0	2710	37.0	5450	960	437	133	158	209	10606
1969	228	171	59.0	163	38.0	148	204	251	2250	18720	455	361	23048
1970	330	296	268	248	173	1440	163	309	586	227	238	247	4525
1971	255	223	215	178	53.0	4.80	71.0	4970	1000	464	173	195	7802
1972	196	184	188	121	435	23.0	103	600	3320	159	150	156	5635
1973	178	176	145	161	99.0	14.0	104	227	291	57.0	92.0	139	1683
1974	155	131	131	86.0	41.0	0	16.0	2320	4100	442	234	229	7885
1975	204	204	211	180	168	120	1280	178	226	85.0	174	246	3276
MAX	466	388	414	8040	14300	16720	10190	20030	5620	46000	609	478	50605
MIN	25.0	6.50	41.0	14.0	.20	0	0	3.80	0	0	1.80	11.0	1031
MEAN	182	156	152	418	799	1336	1135	1658	1085	2342	192	180	9635
NO.	40	40	40	39	40	40	40	41	40	41	41	41	38
DISTR OF MEAN	1.9%	1.6%	1.6%	4.3%	8.3%	13.9%	11.8%	17.2%	11.3%	24.3%	2.0%	1.9%	100%

RIO GRANDE BASIN

08409500 Pecos River near Angeles, Texas

LOCATION: Lat 32°02', long 104°00', Eddy County, New Mexico, 2.0 mi (3.2 km) north of the Texas-New Mexico State line, 0.5 mi (0.8 km) below the mouth of the Delaware River, 8.5 mi (13.7 km) northwest of Angeles, and 17.9 mi (28.8 km) above Red Bluff Dam (completed in 1936).

DRAINAGE AREA: 20,540 mi² (53,198.6 km²).

PERIOD OF RECORD: June 1914 to September 1937.

GAGE: Water stage recorder. Datum of gage is 2,830.8 ft (862.8 m) above mean sea level, datum of 1929. Prior to June 8, 1934, datum of gage was 1.0 ft (0.3 m) higher.

AVERAGE DISCHARGE: 24 years, 278,881 ac-ft/yr (343.9 hm³/yr).

EXTREMES: Period of record (1914-37): Maximum gage height, 22.5 ft or 6.8 m (present datum) August 8, 1916 (discharge not determined); minimum discharge, 23 ft³/s (0.65 m³/s) August 20, 1934.

REMARKS: Records good. A large part of the natural flow above Carlsbad, New Mexico is diverted for irrigation and a considerable part of the diverted water is returned to the river by seepage.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1914	-	-	-	-	-	58500	79900	25300	23600	22300	29100	28800	-
1915	25600	23600	29200	308000	37100	20200	19100	28700	57700	31800	13900	13000	607900
1916	14100	10400	13400	13600	25400	10900	12000	219000	25200	29100	15400	20400	408900
1917	28200	13400	10700	11400	9900	7500	7930	9650	17700	9100	8930	10500	144913
1918	11600	10000	8980	8750	6210	7740	8240	9820	9460	9220	9880	11900	111800
1919	13000	11600	14400	86300	80600	105000	78700	25900	174000	67600	20900	21300	828900
1920	35500	30000	17900	11200	12700	31600	15200	15400	14900	16400	14400	15900	231100
1921	16700	13500	11600	9280	9840	218000	68200	72600	15400	17800	18000	18800	489120
1922	16200	15300	12000	19200	15700	16400	11600	7930	8450	9590	8810	7790	148970
1923	9110	9460	12700	6080	6480	8990	5990	9740	25000	85500	29400	35400	243850
1924	34600	23800	18600	8080	8740	9090	8960	8280	10600	11000	11000	9720	162670
1925	6440	7360	7890	5700	6870	4840	8760	81400	56100	19700	20500	18700	246260
1926	16000	10200	10500	6550	58300	39800	38600	13500	21500	27900	24500	22500	289850
1927	24400	17300	12100	7600	7300	6420	6200	5700	9210	9590	9160	9840	124220
1928	10400	10800	8480	6316	7620	6070	10800	49300	12600	25900	36400	25700	210380
1929	14800	10600	11300	7200	12900	6780	8550	9040	11200	20400	18300	19100	150170
1930	22600	10900	8550	7260	9640	10700	6040	6820	9160	78100	24100	17500	211570
1931	18800	16200	13700	18600	59200	13600	7260	12500	9580	13000	16500	19500	218440
1932	20400	17800	14600	7380	30300	20900	11200	10200	71400	130000	25200	24500	383880
1933	25100	19900	16700	7680	8480	5710	5550	6010	18400	12800	14700	14100	155130
1934	11000	6780	8650	6130	9160	6070	3360	3869	5350	7080	6190	6950	80780
1935	7080	4520	5210	3400	6890	32570	4600	4860	33530	13150	15850	16040	147500
1936	16570	11670	8010	4100	13520	5840	6590	4530	16500	9730	10380	10390	117830
1937	9720	8100	9240	5580	31090	421400	15580	17840	33280	-	-	-	-
MEAN	35500	30000	144000	308000	80600	421400	79900	219000	174000	130000	36400	35400	828900
MIN	7080	4520	5210	3400	6210	4840	3360	3860	5350	7080	6190	6950	80780
MEAN	17823	13626	17992	24990	20615	44776	18705	27412	28751	29424	17448	17319	278881
NO.	23	23	23	23	23	24	24	24	24	23	23	23	22
DISCH													
CF PER AN	6.41	4.91	6.51	9.01	7.41	16.11	6.71	9.81	10.31	10.61	6.31	6.21	1001

RIO GRANDE BASIN

08410000 Red Bluff Reservoir near Orla, Texas

LOCATION: Lat 31°54'06", long 103°54'42", Reeves County, at the right end of Red Bluff Dam on the Pecos River, 3 mi (5 km) upstream from Salt Creek, and 4.5 mi (7.2 km) north of Orla.

DRAINAGE AREA: 20,720 mi² (53,680 km²).

PERIOD OF RECORD: February 1937 to December 1975.

GAGE: Nonrecording gage. Datum of gage is 0.43 ft (0.131 m) below mean sea level, datum of 1929.

EXTREMES: Period of record (1937-75): Maximum contents, 352,000 ac-ft (434 hm³) Sept. 27, 28, 1941 (gage height, 2,848.2 ft or 867.52 m), observed on nonrecording gage at the service spillway (affected by variable drawdown due to the flow through the tainter gates); minimum contents, 11,080 ac-ft (13.7 hm³) May 13, 1948 (gage height, 2,781.4 ft or 847.77 m).

REMARKS: The reservoir is formed by a rock-faced earthfill dam 9,200 ft (2,800 m) long, with a capacity of 310,000 ac-ft (382.2 hm³). The dam was completed and storage began in September 1936. The dam and reservoir is owned and operated by the Red Bluff Water Power Control District. The water is used for power development and for irrigation from Mentone to Grandfalls. The uncontrolled emergency spillway is a cut through natural ground located to the right of the right end of the dam and is 790 ft (241 m) wide. The controlled service spillway is equipped with 12 tainter gates that are 25 by 15 ft (8 by 5 m) high. The inflow is partly regulated by storage in Alamogordo Reservoir, Lake McMillan, and Lake Avalon, all located in New Mexico (total combined capacity, 154,400 ac-ft or 190.4 hm³), and by several small diversion dams that divert water for power or irrigation.

END OF MONTH CONTENTS IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1937	-	42200	34600	17200	34800	296000	268000	251000	263000	266000	264000	262000
1938	261000	260000	248000	219000	199200	201000	190200	146800	145500	141600	144200	146200
1939	152700	156900	152000	123400	113900	101000	78200	66700	47000	46400	50000	58200
1940	65900	73100	70700	50900	57200	53700	33400	31300	28400	43000	49700	57200
1941	66300	73100	80900	53000	330000	319000	316000	317000	327000	320000	315000	312000
1942	313000	309000	308000	309000	310000	301000	272000	253000	302000	294000	301000	301000
1943	297000	300000	296000	272000	255000	243000	227000	183000	177000	184000	195000	208000
1944	224000	234000	227000	196000	173000	155000	125000	106000	116000	122000	131000	142000
1945	155000	156000	144000	124000	103000	77000	62000	39000	28000	38000	43000	49000
1946	57000	60000	57000	35000	28000	27000	14000	17000	29000	43250	56150	62800
1947	75950	82700	79550	49400	45500	38280	17670	11820	13400	17020	21100	25750
1948	30110	34400	36380	15080	16140	32930	21100	13700	16630	21800	24900	28220
1949	35660	40500	39000	24900	29160	32100	16500	13400	59300	75500	87650	98000
1950	110000	115000	104600	80450	66300	52400	55100	30300	40500	71100	85400	95000
1951	103000	101500	104000	83150	62500	55800	32100	25240	28590	31300	34400	37080
1952	41000	44000	40750	30900	29920	26260	27860	15190	14420	18840	21950	25750
1953	28780	31100	31900	30700	30500	28780	26960	24580	23300	33350	33770	34620
1954	36840	37080	24740	37080	36380	30800	20680	28220	18970	163500	162800	162000
1955	164200	162000	141600	115600	102500	80900	53000	25410	31700	94500	96500	100000
1956	102500	103000	99000	81600	74700	60000	40750	26960	23150	24740	25660	28400
1957	28900	12750	15540	16400	16380	18840	18970	27140	17400	22000	25240	28220
1958	31400	33980	35940	27140	50900	47000	38000	54750	72300	89000	99000	106200
1959	111200	113900	108400	96500	103000	94000	84500	68700	63150	65100	69100	70300
1960	73900	74700	75500	61400	54750	50900	96000	93000	85400	93000	99000	112800
1961	122800	131800	125800	116200	105100	94500	79100	59300	50000	49700	53000	57200
1962	60700	63500	60700	53700	49000	46700	38520	32720	30300	26600	18320	23300
1963	27320	28590	29350	30300	27500	29920	25240	24900	31100	30500	31300	33350
1964	35280	33980	32300	31300	25070	20140	18710	16380	18710	18710	18840	19360
1965	19750	20270	20400	20010	28780	49700	49700	48500	53000	51200	51800	51500
1966	51800	51800	50900	52700	51500	57200	43750	271000	272000	256000	246000	242000
1967	235000	227000	207300	172900	159800	148800	129400	106800	100500	98500	98500	100000
1968	102500	105100	101600	89500	89000	76400	73100	58950	52700	51500	53700	55800
1969	57900	58950	51800	50300	48800	43250	39000	32720	37320	91500	96500	99500
1970	103000	103000	104600	99000	87650	83600	74300	63900	58250	60000	61050	63150
1971	65100	65100	65100	56150	43500	38520	31900	41500	41750	42000	42250	43750
1972	45200	45500	45200	35720	33350	31300	23780	24740	44900	45800	47300	49100
1973	51500	53350	55450	49700	81800	75500	71900	58950	53350	54750	56500	56500
1974	57200	56500	50900	47300	37800	29350	26960	26260	109000	150700	159800	165800
1975	172100	176200	176200	168900	153400	146200	141000	133000	116800	112200	113400	115600
MAX	313000	309000	308000	309000	330000	319000	316000	317000	327000	320000	315000	312000
MIN	19750	12750	15540	15080	16140	18840	14000	11820	13400	17020	18320	19360
MEAN	99260	99271	95695	82653	85764	87020	76958	73560	77969	88684	91892	95555
NO.	38	39	39	39	39	39	39	39	39	39	39	39
DISTR OF MEAN	9.4%	9.4%	9.1%	7.8%	8.1%	8.3%	7.3%	7.0%	7.4%	8.4%	8.7%	9.1%

RIO GRANDE BASIN

08411500 Salt (Screwbean) Draw near Orla, Texas

LOCATION: Lat 31°52'40", long 103°56'50", Reeves County, at the bridge on U.S. Highway 285, 157 ft (47.8 m) upstream from the Panhandle and Santa Fe Railway Co. bridge, 4.1 mi (6.6 km) northwest of Orla, and 5 mi (8.0 km) upstream from the mouth.

DRAINAGE AREA: 464 mi² (1,201.8 km²).

PERIOD OF RECORD: September 1939 to December 1940, October 1943 to September 1957.

GAGE: Water-stage recorder. Datum of gage is 2,801.19 ft (853.8 m) above mean sea level, datum of 1929. August 16 to September 9, 1939, staff gage; September 10, 1939 to December 31, 1940, water-stage recorder; and October 1 to November 15, 1943, staff gage. Prior to October 1, 1955, at datum 3.0 ft (0.9 m) higher.

AVERAGE DISCHARGE: 17 years (1939-40, 1943-57), 3,280 ac-ft/yr (4.0 km³/yr).

EXTREMES: Period of record (1939-40, 1943-57): Maximum discharge, 40,600 ft³/s (1,149.8 m³/s) October 2, 1955 (gage height, 28.65 ft or 8.7 m, in gage well; 29.1 ft or 8.9 m, from floodmarks); no flow at times.

Maximum stage known, that of October 2, 1955.

REMARKS: Records poor. No diversion above station.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	-	-	-	0	110	0	0	-
1940	0	0	0	0	830	957	2,800	1530	22.0	876	7.30	6.10	4231
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	0	0	38.0	-
1944	35.0	20.0	8.30	1.00	0	103	0	3460	347	14.0	46.0	33.0	4067
1945	65.0	19.0	11.0	31.0	269	0	3110	356	12.0	36.0	13.0	30.0	3952
1946	47.0	13.0	8.90	1.00	0	0	68.0	0	1320	671	12.0	22.0	2163
1947	28.0	11.0	16.0	0	46.0	0	0	0	0	0	0	0	101
1948	0	1.00	0	0	174	445	2.60	90.0	86.0	.60	0	0	799
1949	23.0	5.60	.40	0	0	220	16.0	219	2070	195	5.00	.40	2754
1950	4.80	2.60	.20	0	0	0	2940	22.0	126	590	.20	11.0	3697
1951	15.0	12.0	11.0	3.60	16.0	0	160	6.90	0	0	0	0	224
1952	0	0	0	2340	0	324	7.70	7.10	0	0	0	0	2679
1953	0	0	0	0	0	0	17.0	74.0	0	1950	17.0	0	2058
1954	0	0	0	1660	235	125	0	4.00	0	49.0	0	0	2073
1955	0	0	0	.20	92.0	15.0	179	0	513	16760	0	0	17559
1956	0	0	0	58.0	1020	12.0	3.40	2.80	0	4.60	0	0	1101
1957	0	10.0	125	0	96.0	394	2570	16.0	0	-	-	-	-
MAX	65.0	20.0	125	2340	1020	957	3110	3460	2070	16760	46.0	38.0	17559
MIN	0	0	0	0	0	0	0	0	0	0	0	0	101
MEAN	14.5	6.28	12.1	273	185	173	605	386	281	1329	6.28	6.78	3280
NO.	15	15	15	15	15	15	15	15	16	16	16	16	14
DISTR													
OF MEAN	.41	.21	.41	8.31	5.61	5.31	18.41	11.81	6.61	40.51	.21	.31	1001

RIO GRANDE BASIN

08412500 Pecos River near Orla, Texas

LOCATION: Lat 31°52'21" Long 103°49'52". Loving-Reeves County line, at the bridge on Farm Road 652, 5.5 mi (8.8 km) downstream from Salt Creek (Screwbean Draw), 5.9 mi (9.5 km) northeast of Orla, and 8.5 mi (13.7 km) downstream from Red Bluff Reservoir.

DRAINAGE AREA: 21,210 mi² (54,930 km²).

PERIOD OF RECORD: June 1937 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 2,730.86 ft (832.366 m) above mean sea level, datum of 1929. Prior to Nov. 16, 1969, at site 6.0 mi (11.1 km) downstream at datum 12.81 ft (3,904 m) lower.

AVERAGE DISCHARGE: 39 years, 133,467 ac-ft/yr (104.6 hm³/yr).

EXTREMES: Period of record (1937-75): Maximum discharge, 23,700 ft³/s (671 m³/s) Sept. 29, 1941 (gage height, 20.74 ft or 6.322 m, site and datum then in use); no flow at times in 1946 and 1965.

REMARKS: Records fair. The flow is largely regulated by Red Bluff Reservoir (station 08410000) and reservoirs above Carlsbad, New Mexico. There are many diversions above Red Bluff Reservoir for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1937	-	-	-	-	-	107500	31290	34460	13800	10780	9390	9540	-
1938	10870	9880	15940	29080	21470	27030	25300	34050	14320	11280	5390	4870	209480
1939	4330	3760	11480	28680	17450	23680	30640	21130	22940	9090	6360	2230	181770
1940	1670	484	6980	22750	7380	10630	23310	9990	9300	3920	280	271	96965
1941	508	548	196	31980	167100	207200	87640	42160	387700	351500	87690	51550	1415772
1942	43760	34250	17010	35730	63590	18270	35610	27900	40560	27950	56160	29290	430080
1943	25240	9780	13250	29560	20650	18030	28430	40610	10900	2350	1390	936	201126
1944	848	3920	13450	31560	22470	21470	32820	28630	4060	1750	2270	1600	164848
1945	856	7960	17200	23940	24780	27880	21840	31810	14790	338	1790	2250	175436
1946	313	4820	8710	22660	11500	4070	15060	3390	1230	952	836	620	74161
1947	249	992	8960	31480	9990	9150	17660	6810	2950	109	530	319	89199
1948	392	198	409	19010	6090	30390	14550	10010	780	449	1250	547	84075
1949	649	488	4470	14670	3080	6330	18130	7320	6390	618	480	858	63483
1950	548	562	14000	24080	19040	15600	28020	32090	5170	2740	2100	776	144706
1951	673	6346	3210	22840	23820	8910	28750	9030	1160	407	484	1730	107354
1952	678	607	4650	12990	2670	4250	7780	10860	2240	284	214	313	47536
1953	376	663	922	516	516	1020	2460	1640	518	3090	855	867	13443
1954	629	1300	14140	2830	5520	8570	12820	8820	8810	867	1440	1720	67466
1955	1880	1630	17730	23730	12910	22440	32450	31160	9160	15380	1770	1970	172210
1956	1930	1800	4270	16900	8620	13400	18890	14500	4700	1540	1260	1370	89180
1957	2930	14700	632	474	2400	1480	4290	7110	9350	5810	780	664	50620
1958	662	552	694	8720	2560	11930	16990	8400	8610	452	265	244	60679
1959	229	233	4990	11880	612	16710	10590	16110	6480	897	820	2010	64823
1960	198	119	108	13380	7190	4780	10520	6560	6430	3420	234	364	53303
1961	379	287	7940	9360	12380	10710	15880	20880	11780	3690	101	109	93496
1962	128	630	3270	6810	4960	3540	11170	7410	4110	6240	12600	402	60703
1963	361	369	301	299	4300	4070	4470	9280	1340	1170	659	706	27325
1964	503	2440	3020	574	5310	6730	813	1520	1710	166	174	189	23149
1965	470	260	520	620	2040	2300	3070	450	3620	186	608	371	12427
1966	395	229	260	653	1850	9990	11400	13620	3440	9000	6720	5320	62877
1967	4590	3940	15600	29280	14870	16840	22220	19590	6320	666	820	564	135300
1968	498	374	5100	8360	7330	10130	10060	11800	6700	2900	526	455	64233
1969	391	308	7740	2280	1270	5320	3810	5120	9550	15340	817	690	52636
1970	734	2390	1780	3900	10570	10360	11840	9360	11880	916	825	811	65366
1971	684	1200	669	6510	10910	3170	8150	13740	8650	5110	1440	1130	61563
1972	916	831	734	7880	3190	2790	7290	6360	7370	1500	1290	882	41033
1973	598	662	622	7260	5310	11260	10670	13430	12140	5370	1030	2390	70742
1974	2280	1830	4850	2480	8240	7190	3220	6310	14050	1500	1100	996	54046
1975	996	847	1830	5780	15340	5660	5880	5980	15910	4560	990	766	64539
MAX	43760	34250	17730	35730	167100	207200	87640	42160	387700	351500	87690	51550	1415772
MIN	470	260	520	620	516	1020	813	450	518	109	820	109	12427
FLDN	2998	3194	6241	14496	14981	18584	17584	15102	18234	13187	5462	3402	133467
NC	38	38	38	38	38	39	39	39	39	39	39	39	38
DISTR													
OF MEAN	2.2%	2.4%	4.7%	10.9%	11.2%	13.9%	13.2%	11.3%	13.7%	9.9%	4.1%	2.5%	100%

RIO GRANDE BASIN

08414000 Pecos River near Mentone, Texas

LOCATION: Lat 31°40'07", long 103°37'34". Reeves-Loving County line, at the bridge on State Highway 302, and 3.0 mi (4.8 km) southwest of Mentone.

DRAINAGE AREA: 21,650 mi² (56,070 km²).

PERIOD OF RECORD: February 1922 to June 1926 (published as "near Porterville"), December 1968 to June 1973.

GAGE: Water-stage recorder. Datum of gage is 2,647.55 ft (806.97 m) above mean sea level, datum of 1929. Nonrecording gage prior to Dec. 10, 1968, and at different datum prior to Sept. 25, 1968.

AVERAGE DISCHARGE: 11 years (1922-26, 1968-73), 126,065 ac-ft/yr (155.4 hm³/yr).

EXTREMES: Period of record (1922-26, 1968-73): Maximum discharge, 5,690 ft³/s (161 m³/s) Aug. 12, 1925, gage height, 12.70 ft (3.87 m), datum then in use, minimum, 0.08 ft³/s (0.00226 m³/s) May 20, 1969.

REMARKS: Records poor. The flow is largely regulated by Red Bluff Reservoir (station 08410000) and reservoirs above Carlsbad, New Mexico. There are many diversions above Red Bluff Reservoir for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1922	-	15600	31100	16200	14900	13700	10300	6210	7410	9250	8490	8090	-
1923	8550	9320	10500	7020	5700	8340	5910	8640	28600	73000	33800	34700	234680
1924	31300	21400	18200	7450	7560	7840	8140	6780	9790	9840	9790	9370	147460
1925	8730	7990	7700	3740	6780	4140	4930	59500	42000	19500	20400	20000	205410
1926	19600	13100	11600	6620	46200	41800	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	-	-	-	-	-
1940	-	-	-	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-	-	-	-	-	-
1943	-	-	-	-	-	-	-	-	-	-	-	-	-
1944	-	-	-	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	-	-	-	-	-	-
1948	-	-	-	-	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-	-	-	260	-
1969	324	325	6480	2540	1350	5380	3630	4930	10930	14550	964	752	52155
1970	685	2400	1380	4000	10320	11070	12850	10560	10960	1180	620	639	66664
1971	571	822	536	5490	11740	5420	7310	17670	13750	5490	1230	1080	71109

RIO GRANDE BASIN
08414000 Pecos River near Mentone, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1972	895	774	550	7190	3990	3810	7730	11300	9280	1470	1240	885	49174
1973	548	656	525	6780	5260	10940	-	-	-	-	-	-	-
MAX	31300	21400	18200	16200	46200	41800	12650	59500	42000	73000	33800	34700	234080
MIN	324	325	525	2540	1350	3810	3630	4930	7910	1180	620	260	49174
MLAN	7911	7239	6857	6703	11380	11244	7600	15706	16653	16785	9567	6420	126065
NO.	9	10	10	10	10	10	8	8	8	8	8	9	7
DISTR OF MEAN	6.3%	5.7%	5.4%	5.3%	9.0%	8.9%	6.0%	12.5%	13.2%	13.3%	7.6%	6.7%	100%

RIO GRANDE BASIN

08414500 Reeves County Water Improvement District No. 2 Canal near Mentone, Texas

LOCATION: Lat 31°37'57", long 103°34'30", Reeves County, 173 ft (53 m) downstream from the headgate of the canal (at the Pecos River), 5.3 mi (8.5 km) south of Mentone, and 15 mi (24 km) northwest of Pecos.

PERIOD OF RECORD: February 1922 to July 1925, August 1939 to May 1941, March 1942 to September 1957, March 1964 to December 1975. Published as "Farmers Independent Canal near Porterville" 1922-25.

GAGE: Water-stage recorder. Concrete weir since Mar. 1, 1954. Datum of gage is 2,640 ft (805 m) above mean sea level, datum of 1929. Prior to July 22, 1925, at site 250 ft (76 m) downstream at different datum. Mar. 10, 1939 to Oct. 4, 1940, at site 2.5 mi (4.0 km) downstream at different datum. Oct. 5, 1940 to Feb. 19, 1943, at site 123 ft (37 m) upstream at datum 1.10 ft (0.335 m) higher. Feb. 20, 1943 to Mar. 1, 1954, at site 123 ft (37 m) upstream at present datum.

AVERAGE DISCHARGE: 35 years, 7,843 ac-ft/yr (9.7 hm³/yr).

EXTREMES: Period of record (1922-25, 1939-57, 1964-75): Maximum daily discharge, 160 ft³/s (4.53 m³/s) June 14, 1922; no flow at times each year.

REMARKS: Records good. Water is diverted from the right bank of the Pecos River and is used for irrigation between Mentone and Pecos.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1922	-	1290	1460	3010	3640	3510	3010	2430	2550	2880	2690	1390	-
1923	1410	2030	1670	1970	2170	2780	2030	2620	2550	2400	1420	97.2	23147
1924	9.9	0	1440	2630	2900	2450	2480	3490	2390	1560	1320	475	21145
1925	0	2470	2190	2060	1750	985	1880	-	-	-	-	-	-
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	1360	2940	1510	441	0	-
1940	0	0	240	1740	1250	0	1720	1530	1180	358	3.60	0	8022
1941	12.0	7.10	6.90	2060	906	-	-	-	-	-	-	-	-
1942	-	-	330	946	2580	2410	2710	1960	889	1710	1400	897	-
1943	724	462	741	2290	1790	1470	1450	3810	1650	679	322	0	15588
1944	0	115	551	1740	1810	1390	2950	2410	646	223	303	113	12251
1945	20	281	270	1770	1580	1650	1770	3060	2040	62.0	614	79.0	13176
1946	6.00	47.0	18.0	1340	2030	240	430	438	503	362	59.0	22.0	5495
1947	0	23.0	53.0	1470	1370	984	2080	530	57.0	37.0	50.0	29.0	6683
1948	50.0	99.0	133	1350	407	1090	132	1550	487	54.0	20.0	13.0	5385
1949	0	0	84.0	1030	402	496	1260	425	991	326	56.0	114	5204
1950	0	0	419	2620	1280	869	1710	1960	685	237	50.0	169	9999
1951	183	48.0	163	1380	1970	1070	1810	783	163	56.0	190	269	8085
1952	78.0	33.0	35.0	650	296	263	250	793	403	25.0	95.0	117	3038
1953	49.0	200	92.0	48.0	80.0	24.0	148	31.0	30.0	61.0	238	123	1124
1954	61.0	28.0	521	985	285	1010	492	592	504	272	748	582	6080
1955	73.0	0	0	1790	1600	1860	1390	2200	817	799	595	492	11616
1956	1330	1640	1310	705	344	631	663	716	908	998	498	736	10479
1957	449	436	204	207	958	363	1010	458	587	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	348	249	786	748	528	12.0	8.70	3.00	0	0	-
1965	0	0	0	0	469	582	291	0	0	0	0	0	1342
1966	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	559	452	387	889	755	1110	202	14.0	28.0	29.0	4425
1968	20.0	48.0	203	306	389	670	405	654	407	167	64.0	26.0	3359
1969	3.50	6.80	149	102	98.0	227	272	273	361	62.0	130	119	1803
1970	83.0	32.0	95.0	15.0	419	216	485	320	449	17.0	31.0	29.0	2191
1971	79.0	405	246	272	76.0	334	439	304	116	171	23.0	21.0	2486

RIO GRANDE BASIN

08414500 Reeves County Water Improvement District No. 2 Canal near Mentone, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1972	13.0	8.10	8.90	73.0	85.0	222	316	784	9.4	0	0	0	1519
1973	0	0	0	2.50	236	155	.90	260	287	32.0	0	30.0	1003
1974	1.20	1.20	1.20	83.0	96.0	120	144	173	103	.08	0	0	723
1975	1.10	0	0	139	575	451	429	253	438	332	44.0	.10	2662
MAX	1410	2470	2190	3010	3640	3510	3010	3810	2940	2880	2690	1390	23147
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	150	303	398	1044	1030	914	1075	1130	774	481	357	187	7843
NO.	31	32	34	34	34	33	33	33	33	32	32	32	28
DISTR OF MEAN	1.9%	3.9%	5.1%	13.3%	13.1%	11.7%	13.7%	14.4%	9.9%	6.1%	4.6%	2.4%	100%

RIO GRANDE BASIN

08415000 Ward County Water Improvement District No. 3 Canal near Barstow, Texas

LOCATION: Lat 31°34'28", long 103°30'04", Ward County, 96 ft (29 m) upstream from the concrete culvert that crosses the canal, 2 mi (3 km) downstream from the headgate of the canal, and 10.5 mi (16.9 km) northwest of Barstow.

PERIOD OF RECORD: August 1939 to May 1941, August to September 1941, December 1941 to September 1957, March 1964 to December 1975.

GAGE: Water-stage recorder. Datum of gage is 2,600 ft (792 m) above mean sea level, datum of 1929. Prior to Dec. 14, 1940, at site 1.75 mi (2.82 km) upstream at datum 2.98 ft (0.908 m) higher. Dec. 14, 1940 to May 26, 1941, at site 1.4 mi (2.3 km) upstream at datum 1.72 ft (0.524 m) higher.

AVERAGE DISCHARGE: 31 years, 7,040 ac-ft/yr (8.7 hm³/yr).

EXTREMES: Period of record (1939-57, 1964-75): Maximum discharge, 156 ft³/s (4.42 m³/s) Oct. 24, 1969; no flow at times each year.

REMARKS: Records good. Water is diverted from the left bank of the Pecos River and used for irrigation in the vicinity of Barstow.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1939	-	-	-	-	-	-	-	1470	2080	961	497	24.0	-
1940	60.0	59.0	840	1880	771	690	1950	1490	932	456	48.0	50.0	9226
1941	54.0	46.0	16.0	2910	396	-	-	3760	332	-	-	400	-
1942	921	829	3440	1520	2250	2620	3560	1690	1390	1330	2370	278	22198
1943	102	878	2000	2900	1120	2320	2880	3350	1340	23.0	90.0	3.00	17006
1944	0	140	1280	1960	1280	1310	3830	2620	380	165	333	177	13475
1945	6.70	1050	501	2800	1780	2280	2910	3050	1440	31.0	298	275	16422
1946	14.0	639	317	2860	658	286	709	32.0	206	149	0	0	5870
1947	0	0	0	3200	1190	266	1950	878	13.0	0	0	0	7497
1948	0	0	0	1850	0	2530	1250	0	260	.80	0	0	5891
1949	0	0	0	1250	0	256	1530	0	566	0	0	0	3602
1950	0	0	329	2660	1510	2340	1840	2510	12.0	1.60	0	0	11203
1951	0	0	99.0	2500	1340	50.0	2450	134	13.0	0	0	0	6586
1952	0	0	0	1100	2.80	401	234	900	4.60	0	0	0	2642
1953	0	0	0	0	0	0	0	0	0	374	0	0	374
1954	0	0	997	114	0	390	1130	752	858	0	0	0	4241
1955	0	107	1540	1380	683	1920	1810	1220	772	623	0	0	10055
1956	0	0	7.90	1100	68.0	1460	995	614	119	0	4.00	369	4737
1957	176	173	141	0	155	289	306	380	494	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	0	0	0	0	0	0	0	0	0	0	-
1965	0	0	0	0	0	156	698	29.0	0	0	0	0	883
1966	0	0	0	0	7.30	324	0	167	0	0	494	578	1570
1967	358	434	1260	1500	747	1140	1810	3000	434	0	0	0	10683
1968	0	0	337	1090	377	1150	1200	1830	113	.80	0	0	6098
1969	0	0	130	271	39.0	153	0	0	50.0	1200	10.0	0	1853
1970	12.0	0	30.0	433	234	488	325	679	181	0	0	0	2382
1971	0	0	0	838	7.10	302	690	959	698	1270	6.90	5.70	4777
1972	530	690	280	144	587	148	1400	1120	220	3.10	7.70	8.80	5139
1973	1.50	0	0	2.20	0	684	1620	1160	594	.90	0	0	4063
1974	85.0	598	103	1.80	4.10	148	373	792	1490	18.0	.50	0	3613
1975	0	0	2.30	2040	976	1120	2060	2010	1680	1800	430	678	12796
MAX	921	1050	3440	3200	2250	2620	3830	3760	2080	1800	2370	678	22198
MIN	0	0	0	0	0	0	0	0	0	0	0	0	374
MEAN	80.0	195	455	1277	539	870	1362	1181	538	290	158	94.9	7040
NO. OF EXCESS	29	29	30	30	30	29	29	31	31	29	29	30	27
OF MEAN	1.11	2.81	6.51	18.11	7.71	12.41	19.41	16.81	7.61	4.11	2.21	1.31	1001

RIO GRANDE BASIN

08416500 Pecos River (above Barstow Canal) above Barstow, Texas

LOCATION: Lat 31°35', long 103°30', Reeves County, 1.25 mi (2.0 km) above the headgate of the Barstow Irrigation Company, and 14 mi (22.5 km) northwest of Barstow.

DRAINAGE AREA: 21,800 mi² (56,462.0 km²).

PERIOD OF RECORD: March 1916 to September 1918, October 1918, August and November 1920, February, March 1921.

GAGE: Water-stage recorder. Datum of gage is 2,590 ft (789.4 m) above mean sea level.

AVERAGE DISCHARGE: 6 years, 151,927 ac-ft/yr (187.3 hm³/yr).

EXTREMES: Period of record (1916-21): Maximum stage, 12.1 ft (3.7 m) August 10, 1916 (discharge not determined); minimum discharge, 22.0 ft³/s (0.6 m³/s) June 24, 1917.

REMARKS: Records poor. There are several large diversions above the station for irrigation.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1916	-	-	10800	6430	19100	4950	4290	72600	-	20800	13700	19800	-
1917	36200	17200	9650	5620	5030	4120	3410	3670	8930	4710	5180	6760	110480
1918	6520	6890	4690	3890	3450	3170	2900	3330	3840	-	-	-	-
1919	-	-	-	-	-	-	-	-	-	82400	-	-	-
1920	-	-	-	-	-	-	-	10500	-	-	14100	-	-
1921	-	8390	8730	-	-	-	-	-	-	-	-	-	-
MAX	36200	17200	10800	6430	19100	4950	4290	72600	8930	82400	14100	19800	110480
MIN	6520	6890	4690	3890	3450	3170	2900	3330	3840	4710	5180	6760	110480
MEAN	21360	10827	8468	5313	9193	4080	3533	22525	6385	35970	10993	13280	151927
NO.	2	3	4	3	3	3	3	4	2	3	3	2	1
DISTR OF MEAN	14.1%	7.1%	5.6%	3.5%	6.1%	2.7%	2.3%	14.8%	4.2%	23.7%	7.2%	8.7%	100%

RIO GRANDE BASIN

08418000 Ward County Irrigation District No. 1 Canal near Barstow, Texas

LOCATION: Lat 31°32'26", long 103°29'42", Ward County, 0.6 mi (1.0 km) downstream from the headgate of the canal, and 7.9 mi (12.7 km) northwest of Barstow.

PERIOD OF RECORD: February 1922 to September 1925 (published as "Barstow Canal near Barstow"), August 1939 to May 1941, October 1941 to September 1957, March 1964 to December 1975.

GAGE: Water-stage recorder. Concrete weir since Nov. 20, 1968. Datum of gage is 2,600 ft (792 m) above mean sea level, datum of 1929. Prior to Aug. 15, 1939, at site about 3,000 ft (914 m) upstream at different datum.

AVERAGE DISCHARGE: 35 years, 22,989 ac-ft/yr (28.3 hm³/yr)

EXTREMES: Period of record (1922-25, 1939-57, 1964-75). Maximum daily discharge, 385 ft³/s (10.9 m³/s) Aug. 30, 1923; no flow at times each year.

REMARKS: Records good. Water is diverted from the left bank of Pecos River and is used for irrigation in the vicinity of Barstow.

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1922	-	2690	7990	4970	5550	4880	5150	2260	3490	4870	2560	3570	-
1923	1620	3120	5630	4120	2120	3700	1370	2390	8790	4470	2740	2470	42540
1924	3280	5750	5440	4000	5080	3980	3720	1580	5790	5770	4430	5570	54190
1925	4960	4240	4740	1560	1990	1490	962	10800	8450	-	-	-	-
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
1932	-	-	-	-	-	-	-	-	-	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	-	-	-	-
1934	-	-	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	-	-	-	-	-
1936	-	-	-	-	-	-	-	-	-	-	-	-	-
1937	-	-	-	-	-	-	-	-	-	-	-	-	-
1938	-	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	5640	8520	3300	2200	169	-
1940	526	217	252	6550	2670	3080	4320	2160	2150	1870	419	126	24340
1941	227	358	141	5890	1540	-	-	-	-	2440	4540	6120	-
1942	3470	4310	6000	4700	12270	9610	7280	5240	4200	3980	4170	2920	68150
1943	1690	5510	4590	8010	3980	4990	6400	10630	3540	1240	1010	1120	52710
1944	952	2680	1680	6540	5000	3540	9020	7180	1650	760	962	1110	41074
1945	532	2900	1590	5420	4780	5920	6330	8550	4460	463	725	1770	43440
1946	537	2480	574	4590	2880	2050	1280	1730	787	68.0	79.0	111	17166
1947	70.0	117	466	4300	2390	2630	2430	3840	1360	255	2.60	14.0	17875
1948	19.0	21.0	21.0	1560	2860	4530	3050	3890	729	0	95.0	42.0	16817
1949	41.0	29.0	32.0	1280	1170	1610	4570	1920	2290	269	61.0	1.32	13404
1950	68.0	0	650	3920	3810	3540	6260	5730	1600	1340	1510	66.0	28514
1951	148	1810	396	2750	3780	2770	5380	3840	349	0	0	5.60	21229
1952	0	0	3.20	1010	1190	1090	1080	2550	454	0	0	0	7377
1953	0	0	0	0	0	0	0	0	0	1650	0	0	1650
1954	0	0	3810	1130	15.0	1710	1180	2080	2200	1.60	0	1.80	12126
1955	4.00	0	1630	5480	3890	3650	4730	7220	3230	4140	1220	950	36124
1956	205	0	0	2920	1860	2850	3650	3180	857	142	15.0	0	15679
1957	.80	18.0	433	24.0	26.0	233	1220	1390	3450	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	15.0	0	12.0	2070	3.20	0	372	0	0	0	-
1965	0	0	0	0	255	538	955	739	1640	7.50	0	0	4135
1966	0	0	0	0	515	2160	819	1770	2620	2290	2910	932	14016
1967	1190	1650	2510	4200	1880	2100	4080	4120	2050	500	4.40	0	24284
1968	0	0	105	1260	1160	970	1250	2690	2520	1320	11.0	0	11286
1969	0	0	223	432	523	626	505	342	2500	1990	295	0	7436
1970	0	0	113	1100	700	2360	1050	1470	3170	211	1.80	0	10176
1971	0	0	0	709	411	390	275	3090	2420	1800	682	16.0	9793

RIO GRANDE BASIN

08418000 Ward County Irrigation District No. 1 Canal near Barstow, Texas—Continued

DISCHARGE IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1972	0	0	0	138	90.0	509	303	2450	1000	453	458	285	5686
1973	0	0	0	811	233	1050	1830	1080	1610	1360	139	0	8333
1974	46.0	356	376	1030	562	1520	230	1590	1980	1770	317	0	9777
1975	0	0	91.0	2110	756	1740	2050	1770	2130	2280	359	233	13519
MAX	4960	5750	7990	8010	12270	9610	9020	10800	8790	5770	4540	6120	68150
MIN	0	0	0	0	0	0	0	0	0	0	0	0	1650
MEAN	613	1159	1456	2721	2234	2541	2810	3380	2722	1546	967	840	22989
NO.	32	33	34	34	34	33	33	34	34	33	33	33	29
GISTR													
OF MEAN	2.7%	5.0%	6.3%	11.8%	9.7%	11.1%	12.2%	14.7%	11.8%	6.7%	4.2%	3.7%	100%