SURFACE WATER SUPPLY OF NEW MEXICO

1888-1917

JAMES A. FRENCH, STATE ENGINEER

SURFACE WATER SUPPLY OF NEW MEXICO

1888 - 1917

JAMES A. FRENCH
STATE ENGINEER


PRINTERS
ALBRIGHT & ANDERSON
BINDERS
ALBUQUERQUE
NEW MEXICO
UNION LABEL

CONTENTS

OFFICE OF THE STATE ENGINEER
Santa Fe, New Mexico

July 25, 1918.

Hon. W. E. Lindsey,
Governor of New Mexico.

Sir:

I have the honor to submit herewith a report containing the compilation of monthly discharge records on all streams in New Mexico where same have been computed, from all available reliable sources, from 1888, the date of the establishment of the Hydrographic Instruction Camp at Embudo (10th Annual Report U. S. G. S., part 2, page 79) to December 31, 1917.

Respectfully yours,
James A. French,
State Engineer.

SURFACE WATER SUPPLY
OF NEW MEXICO
1888 - 1917

INTRODUCTION

This compilation of the monthly discharge of all streams in New Mexico, where same have been computed, is published to fill a long felt want for such a book of reference; as it is a difficult and at times an impossible matter for the average engineer or other person interested to get to a complete set of Water Supply Papers, Bulletins and Annual Reports of the U. S. G. S. and the records of hydrographic surveys made by the Territorial or State Engineer.

REFERENCES

The references given at the foot of the description of each station are for the benefit of those who may be interested in the daily gage heights and discharges. In some cases prior to 1903, the references are not given where the data published consists of gage heights, measurements or descriptive matter only; but anyone who desires to make a detailed study of any station will find a complete index of the publications of the U. S. G. S. prior to 1903, in Water Supply Paper 119.

ACKNOWLEDGMENTS

In compiling this book, we have used the Annual Reports of the U. S. G. S., the Water Supply Papers and Bulletins of the U. S. G. S., the Reports of the U. S. R. S., the papers published by the Department of State, in reference to Equitable Distribution of the Waters of the Rio Grande, the reports of the State Engineer of Colorado and of the Territorial and State Engineers of New Mexico.

REVISIONS

In some cases the U. S. G. S. have revised estimates originally published, in later years upon discovery of mistakes in rating, gage heights or interpretation of data; in most instances the revised figures are published in this book, and, where they were not, suitable explanatory notes are given. Where revisions of original figures have been made simply to conform to a standard method of computation with reference to the number of significant figures, the revisions have been disregarded and the figures printed as originally published.

The most notable cases of revision are the earlier winter records of

the Rio Grande at Del Norte and Lobatos, and we have printed the revised figures with explanatory notes. These revisions were necessary owing to the fact that in the earlier years the men who did stream gaging work did not take into account the variation of gage heights during the winter months caused by either ice cover or freezing on the surface or in the bottom of the channel.

It is not unlikely that some day the winter records for streams in the San Juan River Basin for the earlier years will be revised for the same reason.

A few mistakes made in printing have been discovered in the 1912 and 1915 reports of this office and are referred to at the proper place in explanatory notes.

DIVISION OF WORK

The various reports from which the information contained in this book were taken have been gathered together in this office at various times since the writer was appointed State Engineer in 1912; but the manuscript was assembled, checked and edited, and this report printed under the direction of Robt. L. Cooper, Assistant Engineer in charge of the stream gaging and hydrographic survey work.

ALAMOGORDO BASIN

RIO TULAROSA NEAR TULAROSA, N. MEX.

Location.—Three miles above Tularosa, half a mile above the headgate of the Tularosa Irrigation Ditch, in Sec. 21, T. 14 S., R. 10 E.

Records available.—December 2, 1912, to July 31, 1917.

References.—U. S. Geological Survey Water-Supply Papers 328 p. 111, 358 p. 666; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 143, 1913 p. 13, 1914 p. 125, 1916 p. 124, 1917 p. 127.

Monthly discharge of Rio Tularosa near Tularosa, N. Mex., for 1912–1914.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
December	14	8	11.4	701
1913				
January	18	9.2	13.5	830
February	20	10	15.2	844
March	19	6.2	14.3	879
April	30	7.7	14.4	857
May	14	3.5	9.78	601
June	56	4.5	12.2	726
July	29	2.5	9.54	587
August	116	3.5	26.8	1,650
September	35	5.8	11 7	696
October	10	4.5	7.31	449
November	15	6.6	10.5	625
December	14	12	13.6	836
The year	116	2.5	13.2	9,580
1914				
January	21	13	14.5	892
February	16	8.8	13.4	744
March	16	4.2	11.7	719
April	16	5.8	12.4	738
May	17	4.2	11.3	695
June	325	4.8	24.4	1,450
July (1 and 17-31)	135	8.0	43.6	1,380
August	260	6.3	23.0	1,410
September	22	5.8	12.5	744
October	27	6.6	12.9	793
November	19	14	14.6	869
December	22	16	18.1	1,110
The period	325	4.2	16.6	11,500

Monthly discharge of Rio Tularosa near Tularosa, N. Mex., for 1916, 1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
October (26-31)	.....	.....	19.0	226
November	22	19	21.1	1,250
December	23	17	20.6	1,260
The period	.....	.....	20.6	2,740
1917				
January	36	18	27.8	1,710
February	38	28	31.4	1,740
March	34	5.8	21.2	1,300
April	18	7.5	11.8	699
May	23	6.5	12.0	736
June	22	5.0	11.4	677
July	86	11	21.7	1,330
The period	86	5.0	19.5	8,190

Records at the following five stations in Rio La Luz Basin were secured during a hydrographic survey made by the State Engineer in 1911–1912.

Water for irrigation was diverted at many points along Rio La Luz and Rio Fresnal during the time covered by the records. For details see State Engineer's Report on the Fresnal Hydrographic Survey.

RIO LA LUZ ON COGLAN'S RANCH, NEAR LA LUZ, N. MEX.

Location.—On the Patrick Coglan Ranch near the northwest corner of Sec. 30, T. 15 S., R. 12 E.

Records available.—August 1, 1911, to August 31, 1912.

Reference.—Weirs No. 27 and 28, Sheet No. 21, Fresnal Hydrographic Survey.

Monthly discharge of Rio La Luz on Coglan's Ranch near La Luz, N. Mex, for 1912.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
March	.....	.....	1.752	.....
April	.....	.....	1.776	.....
May	.....	.....	1.688	.....
June	.....	.....	1.452	.....
July	.....	.....	a1.287	.....
August	.....	.....	a1.034	.....
The period	.....	.....	.....	546.97

a Measurements at the above station were made by means of weirs and do not show flood discharges which occurred in July and August beyond the capacity of the weirs.

RIO LA LUZ NEAR LA LUZ, N. MEX.

Location.—Two miles southeast of La Luz, 100 yards above the juncture of Rio La Luz and Rio Fresnal, in Sec. 30, T. 15 S., R. 11 E.
Records available.—July 9, 1911, to August 24, 1912.
Drainage area.—30 square miles.
References.—U. S. Geological Survey Water-Supply Papers 358 p. 667; State Engineer's Report on the Surface Water Supply of New Mexico for 1911-12 p. 144; State Engineer's Report on the Fresnal Hydrographic Survey, by S. S. Carroll, page 34.

Monthly discharge of Rio La Luz near La Luz, N. Mex., for 1912.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
March	.....	.....	3.93	241.6
April	.....	.....	3.04	180.66
May	.....	.....	2.70	166.13
June	.....	.....	1.84	109.30
July	.....	.....	2.00	123.2
August	.....	.....	2.17	133.63
The period	.....	.....	.....	954.52

RIO LA LUZ AT LA LUZ, N. MEX.

Location.—Three-quarters of a mile above La Luz, in Sec. 30, T. 15 S., R. 11 E., half a mile below the mouth of Rio Fresnal.
Records available—August 13, 1910, to April 4, 1913.
Drainage area—74 square miles.
References.—U. S. Geological Survey Water-Supply Paper 358 p. 669; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 147, 1913 p. 16; State Engineer's Report on the Fresnal Hydrographic Survey, by S. S. Carroll, page 34.

Monthly discharge of Rio La Luz at La Luz, N. Mex., for 1912.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
March	.....	.....	8.89	546.6
April	.....	.....	6.67	396.7
May	.....	.....	3.93	241.8
June	.....	.....	2.99	178
July	.....	.....	4.30	264.7
August	.....	.....	5.29	325.75
The period	.....	.....	.....	1,953.55

RIO FRESNAL AT MOUNTAIN PARK, N. MEX.

Location.—About 300 yards above the head of Fresnal box cañon, in the northwest quarter of Sec. 5, T. 16 S., R. 11 W.

Records available.—March 1 to August 31, 1912.

Reference.—Weir No. 46, sheet No. 22, Fresnal Hydrographic Survey.

Monthly discharge of Rio Fresnal at Mountain Park, N. Mex., for 1912.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
March	.....	.....	4.488	.....
April	.....	.....	3.335	.....
May	.....	.....	.632	.....
June	.....	.....	.715	.....
July	.....	.....	a1.361	.....
August	.....	.....	a2.112	.....
The period	.....	.....	.....	769.34

a Measurements at the above station were made by means of a weir and do not show flood discharges which occurred in July and August beyond the capacity of the weir.

RIO FRESNAL NEAR MOUNTAIN PARK, N. MEX.

Location.—Five miles east of Mountain Park, one mile below the mouth of Fresnal box cañon, a quarter of a mile below the mouth of Salado Creek, the nearest tributary, in Sec. 1, T. 16 S., R. 10 E.

Records available.—August 7, 1911, to August 23, 1912.

Drainage area.—44 square miles.

References.—U. S. Geological Survey Water-Supply Paper 358 p. 671; State Engineer's Report on the Surface Water Supply of New Mexico for 1911-12 p. 149; State Engineer's Report on the Fresnal Hydrographic Survey, by S. S. Carroll, page 34.

Monthly discharge of Rio Fresnal near Mountain Park, N. Mex., for 1912.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
March	.....	.....	5.21	320
April	.....	.....	3.67	218.45
May	.....	.....	1.27	78.31
June	.....	.....	1.27	75.63
July	.....	.....	2.72	167.43
August	.....	.....	3.10	190.83
The period	.....	.....	.....	1,050.65

CANADIAN RIVER BASIN

CANADIAN RIVER NEAR SANCHEZ, N. MEX.

Location.—One mile below the old Sanchez ruins, two miles north of Sanchez post office, 30 miles northwest of Bell Ranch post office, about five miles south of the mouth of Mora River, one and one-half miles below the mouth of Cañon Largo, in Sec. 8, T. 17 N., R. 24 E.

Records available.—May 15, 1912, to July 28, 1915.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 198, 1913 p. 27, 1914 p. 11, 1915 p. 8.

Monthly discharge of Canadian River near Sanchez, N. Mex., for 1912–1914.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
May (15-31)	2,670	644	1,390	46,900
June	2,240	221	552	32,800
July	269	26	145	8,920
August	386	6	63.1	3,880
September	62	17	31.8	1,890
October	38	14	26.1	1,600
November	43	18	34.5	2,050
December	35	8	25.6	1,570
The period	....	.....	.....	99,600
1913				
January	39	28	36.4	2,240
February	99	31	58.6	3,250
March	64	4	35.6	2,190
April	129	2	30.4	1,810
May	15	2	5.16	317
June	50,000	4	3,780	225,000
July	485	110	239	14,709
August	555	24	96.1	5,910
September	131	38	56.7	3,370
October	740	50	149	9,160
November	56	28	44.2	2,630
December	76	38	57.1	3,510
The year	50,000	2	378	274,000
1914				
January	508	50	180	11,100
February	76	38	56.9	3,160
March	50	12	37.0	2,280
April	282	12	146	8,690
May	8,380	835	1,990	122,000
June	1,380	131	545	32,400
July	2,180	710	1,130	69,500
August	1,640	176	778	47,800
September	445	28	104	6,190
October	605	20	138	8,480
November	164	.....	a115	6,840
December	131	.....	93.1	5,720
The year	8,380	12	448	324,000

a.—Estimated.

Daily discharge, in second-feet, of Canadian River near Sanchez, N. Mex., for 1915.

Day.	Jan.	Feb.	Mar.	Apr.	Day.	Jan.	Feb.	Mar.	Apr.
1	80	.....	.....	.....	16	.....	.....	.....	.....
2	90	.....	.....	.....	17	.....	.....	.....	.....
3	.....	.....	122	.....	18	.....	240	.....	.....
4	.....	.....	.....	.....	19	.....	.....	.....	.....
5	.....	.....	.....	.....	20	.....	.....	.....	.....
6	.....	.....	.....	.....	21	.....	290	110	.....
7	.....	50	.....	.....	22	.....	.....	.....	.....
8	.....	.....	65	.....	23	.....	.....	.....	.....
9	.....	.....	.....	.....	24	.....	.....	.....	.....
10	.....	.....	.....	.....	25	.....	.....	.....	.....
11	.....	.....	.....	.....	26	.....	.....	.....	.....
12	.....	122	.....	.....	27	.....	122	320	.....
13	.....	.....	.....	.....	28	.....	.....	.....	2,870
14	.....	.....	.....	.....	29	.....	.....	.....	.....
15	.....	.....	.....	.....	30	.....	.....	.....	.....
					31	.....	.....	.....	.....

CANADIAN RIVER NEAR BELL RANCH, N. MEX.

Location.—Twenty-one miles southwest of Medio station on the El Paso and Southwestern Railroad, 9 miles southwest of Bell Ranch headquarters, and half a mile below the crossing of the road from Las Vegas to Bell Ranch. This station was established to take the place of the station near Sanchez, 17 miles above.

Records available.—July 28, 1915, to July 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 9, 1916 p. 9, 1917 p. 10.

Monthly discharge of Canadian River near Bell Ranch, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915.				
July (26-31)	.....	.....	988	11,800
August	1,380	120	435	26,700
September	405	5	82.8	4,930
October	125	35	65.8	4,050
November	60	20	38.8	2,310
December	.....	.....	.....	.....
The period	1,380	5	196	49,800
1916.				
January	.....	.....	a35.0	2,150
February	.....	.....	a75.0	4,310
March	.....	.....	b33.9	2,080
April	490	49	212	12,600
May	688	41	355	21,800
June	240	4.6	66.0	3,930
July	63	0.8	4.23	260
August	1,920	93	475	29,200
September	198	11	41.9	2,490
October	68	8.0	33.1	2,030
November	46	33	40.2	2,390
December	83	33	46.8	2,880
The year	1,920	0.8	119	86,100

Monthly discharge of Canadian River near Bell Ranch, N. Mex., for 1915–1917. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917.				
January	63	32	48.7	2,990
February	55	34	45.5	2,530
March	34	1.5	17.7	1,090
April	0.7	0 0	0.20	12
May	94	0.6	37.6	2,310
June	52	0.0	24.5	1,460
July	121	2.5	48.3	2,970
The period	121	0.0	31.8	13,400

a—Estimated.
b—Estimated 1-14.

CANADIAN RIVER AT LOGAN, N. MEX.

Location—This station was established June 29, 1904, at the bridge of the Chicago, Rock Island and Pacific Railroad one mile west of the depot at Logan. After the flood of October, 1904, the gage was moved to a temporary highway bridge about 750 feet below the old gage. It was discontinued February 26, 1905, and re-established at the original location December 22, 1908. Automatic recording gage was installed August 5, 1910, at a point three-quarters of a mile above the bridge.

Records available.—June 29, 1904, to February 26, 1905; December 22, 1908, to May 20, 1914.

Drainage area.—About 12,000 square miles.

References—U S. Geological Survey Water-Supply Papers 131 p. 160, 173 p. 60, 247 p. 118, 267 p. 57, 287 p. 56; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 201, 1913 p. 31, 1914 p. 13.

Estimated monthly discharge of Canadian River at Logan, N. Mex., for 1904, 1905

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1904.				
July	.....	.....	.....	22,691
August	.....	.....	.....	53,880
September	.....	.....	.....	290.806
October	.....	.....	.....	1,150,358
November	.....	.....	.....	23,485
December	.....	.....	.....	17,167
The period	.....	.....	.....	1,558,387
1905.				
January	.....	.....	.....	22,137
February	.....	.....	.....	18,167
The period	.....	.....	.....	40,304

NOTE—Taken from Bulletin No. 3, Department of Territorial Engineer, Page 5.

Monthly discharge of Canadian River at Logan, N. Mex., for 1908–1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908.				
December (25-31)	58	20	39.4	547
The period	58	20	39.4	547
1909.				
January	35	14	20.9	1,290
February	14	.0	3.63	202
March	0	.0	0	0
April	8	.0	.11	7
May	480	.0	43.9	2,700
June	5,150	1.0	1,540	91,600
July	980	2	207	12,700
August	7,300	38	831	51,100
September (1-15)	53,200	.0	6,660	198,000
October	.....	.....	.....	.....
November	.....	.....	.....	.....
December (4-31)	.. 330 ..	69	250	13,900
The period	.....	.....	.....	371,000
1910.				
January	1,340	84	790	48,600
February	92	48	70.8	3,930
March (1-14)	108	48	64.4	1,790
April	230	32	149	8,870
May	375	84	177	10,900
June	10,800	42	778	46,300
July	3,400	10	340	20,900
The period	.....	.....	.....	141,000

Monthly discharge of Canadian River at Logan, N. Mex., for 1912–1914.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912.				
January	190	30	84.9	5,220
February	115	73	79.1	4,550
March	1,480	73	274	16,800
April	1,920	70	588	35,000
May	3,280	512	1,240	76,200
June	7,500	256	998	59,400
July	2,080	15	142	8,730
August	16,000	12	935	57,500
September	390	1	38.3	2,280
October	1	0	.19	12
November	10	0	3.65	217
December	12	6	9.0	553
The year	16,000	0	367	266,000

Monthly discharge of Canadian River at Logan, N. Mex., 1912–1914.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913.				
January	39	6	16.3	1,000
February	103	15	38.6	2,140
March	93	.0	24.7	1,520
April	935	.0	179	10,700
May	51	.0	6.31	388
June	56,500	.0	4,870	290,000
July	990	112	319	19,600
August	650	6.8	110	6,760
September	248	21	89.4	5,320
October	771	25	120	7,380
November	48	25	31.8	1,890
December	112	16	47.6	2,930
The year	56,500	.0	483	350,000
1914.				
January	624	48	177	10,900
February	110	31	54.0	3,000
March	42	.0	19.8	1,220
April	900	.0	192	11,400
The period	900	.0	112	26,500

CHICO RICO CREEK NEAR RATON, N. MEX.

Location.—Ten miles southwest of Raton, a mile above the mouth of Raton Creek, four miles above the mouth of Uña del Gato Creek, two hundred yards above the St. Louis, Rocky Mountain and Pacific Railway bridge, in Sec. 28, T. 30 N., R. 24 E.

Records available.—July 29, 1910, to December 31, 1917.

Drainage area.—89 square miles.

References.—U. S. Geological Survey Water-Supply Paper 287 p. 58; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 204, 1913 p. 34, 1914 p. 14, 1915 p. 11, 1916 p. 11, 1917 p. 12.

Note—Above is description of location after June 8, 1914. Prior to that date the gage was attached to the St. Louis, Rocky Mountain and Pacific Railway bridge.

Monthly discharge of Chico Rico Creek near Raton, N. Mex., for 1913–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913.				
January	.....	.....	a0.20	12
February	.....	.....	a .20	11
March	.....	.....	a .20	12
April	16	.0	1.60	95
May	6.0	.3	1.96	121
June	4,020	1.8	482	28,700
July	9.5	.0	2.37	146
August	40	.0	4.31	265
September	12	.0	2 59	154
October	38	.0	2.90	178
November	.8	.4	.62	37
December	.....	.....	a .60	37
The year	4,020	.0	41.1	29,800

Monthly discharge of Chico Rico Creek near Raton, N. Mex., for 1913–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
January	.....	.....	a .80	49
February	4.0	.6	2.09	116
March	69	1.8	21.3	1,310
April	104	28	58.3	3,470
May	540	17	132	8,120
June	37	1.0	9.44	562
July	238	.6	50.9	3,130
August	86	5.5	27.9	1,720
September	5.2	2.2	2.95	176
October	3.8	1.0	1.91	117
November	4.0	2.2	2.75	164
December	4.3	.....	2.17	133
The year	540	.....	26.3	19,100
1915.				
January	.....	.....	a 1.7	105
February	.....	.....	a 1.1	61
March	60	0.2	6.05	372
April	.....	.....	a142	8,450
May	400	15	106	6,520
June	.....	.....	a 63	3,750
July	.....	.....	a 15	922
August	20	3.4	5.96	366
September	4	2.8	3.03	181
October	.....	.....	a 2.5	154
November	.....	.....	1.02	61
December	.....	.....	a .7	43
The year	.....	.....	.....	21,000
a Estimated.				
1916.				
March (a)	0.5	0.5	0.50	31
April	0.4	0.3	0.36	21
May	0.3	0.1	0.22	14
June	7.5	0.1	0.91	54
July	0.2	0.0	0.16	10
August	44	0.2	2.76	170
September	0.2	0.2	0.20	12
October	0.3	0.2	0.24	15
November	0.4	0.3	0.34	20
December	0.3	0.2	0.26	16
The period	44	0.0	0.60	363
1917				
January	0.3	0.2	0.22	13
February	0.5	0.3	0.46	26
March	0.5	0.3	0.45	28
April	0.8	0.0	0.25	15
May	20	0.0	4.24	261
June	20	0.0	2.42	144
July	0.2	0.0	0.12	7.5
August	9.9	0 0	0.92	57
September	13	0.0	1.37	82
October	1.2	0.1	0.57	35
November	17	0 0	0.78	46
December	0.9	0.0	0.57	35
The year	20	0.0	1 03	750

a—Estimated 1-12.

UÑA DEL GATO CREEK NEAR RATON, N. MEX.

Location.—In Sec. 13, T. 30 N., R. 25 E., about two miles northeast of Meloche's Ranch headquarters, and 18 miles southeast of Raton.
Records available.—May 3, 1910, to August 2, 1913.
Drainage area.—About 80 square miles.
References.—U. S. Geological Survey Water-Supply Paper 287 p. 58; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 206, 1913 p. 37.

Monthly discharge of Uña del Gato Creek near Raton, N. Mex., for 1912.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
March (26-31)	47	42	43.7	520
April	140	.2	53.4	3,180
May	104	.0	30.0	1,840
June	16	.3	1.79	107
July	11	.3	2.13	131
August	9.1	.0	1.35	83
September	.8	.1	.37	22
October	.3	.0	.09	6
November	.3	.0	.16	10
December	.0	.0	.00	0
The period	.....	.....	.....	5,900

VERMEJO RIVER NEAR DAWSON, N. MEX.

Location—Three miles above Dawson and one mile above Loretta.
Records available.—October 26, 1915, to December 31, 1917.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 17, 1916 p. 13, 1917 p. 14.

Monthly discharge of Vermejo River near Dawson, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915.				
October (26-31)	11	8.4	9.5	113
November	14	8.4	10.1	604
December	25	9.4	15.7	967
The period	25	8.4	12.7	1,680
1916.				
January	12	5.8	8.38	515
February	17	7.3	11.6	665
March	9.3	6.1	7.36	152
April	54	5.7	13.8	819
May	83	12	44.4	2,730
June	13	6.9	8.38	498
July	66	4.9	15.6	961
August	250	25	83.0	5,100
September	48	8.6	21.3	1,270
October	17	7.7	13.0	796
November	8.6	6.9	7.83	466
December	6.9	5.9	6.40	393
The year	250	4.9	20.0	14,700

Monthly discharge of Vermejo River near Dawson, N. Mex., for 1915–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917.				
January	6.4	5.5	5.81	357
February	6.7	4.0	5.61	311
March	3.9	3.0	3.46	212
April	12	2.9	6.52	388
May	276	9.6	93.7	5,760
June	76	29	39.1	2,330
July	76	12	29.7	1,820
August	34	1.3	10.7	659
September	100	4.7	9.26	551
October	7.2	3.3	5.20	320
November	6.1	3.7	5.19	308
December	4.7	2.5	3.75	231
The year	276	1.3	18.3	13,200

CIMARRON RIVER AT UTE PARK, N. MEX.

Location.—At a highway bridge at Ute Park, half a mile below the mouth of Ute Creek, in Sec. 19, T. 27 N., R. 18 E.

Records available.—July 14, 1907, to December 31, 1917.

Drainage area.—235 square miles (measured on Land Office map).

References.—U. S. Geological Survey Water-Supply Papers 247 p. 66, 267 p. 60, 287 p. 59; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 210, 1913 p. 38, 1914 p. 16, 1915 p. 14, 1916 p. 15, 1917 p. 16.

Monthly discharge of Cimarron River at Ute Park, N. Mex., for 1907–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907.				
July (14-31)	44	22	25.4	907
August	44	14	27.9	1,720
September	59	14	21.0	1,250
October	32	14	15.7	965
November	32	9	15.9	946
December	14	9	12.2	750
The period	.....	.....	.....	6,538
1908.				
January	22	14	14.8	910
February	22	9	15.2	874
March	32	14	23.5	1,450
April	196	22	96.0	5,710
May	117	77	91.4	5,620
June	77	9	30.0	1,790
July	22	9	16.4	1,010
August	22	14	18.4	1,130
September	14	6	8.73	519
October	14	6	7.16	440
November	22	5	10.5	620
December	15	4	9.52	580
The year	196	4	28.5	20,700

Monthly discharge of Cimarron River at Ute Park, N. Mex., for 1907–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909.				
January	19	7.2	11.6	713
February	20	10	16.0	889
March	64	13	28.5	1,750
April	151	31	70.7	4,210
May	182	36	126	7,750
June	104	7	32.8	1,950
July	12	6	8.39	516
August	102	6	32.8	2,020
September	130	16	33.3	1,980
October	22	10	16.9	1,040
November	10	6.5	9.88	588
December	16	10	14.8	910
The year	182	6	33.5	24,300
1910.				
January	16	13	15.7	965
February	16	8	13.1	728
March	154	16	88.4	5,440
April	226	54	122	7,260
May (4-15 and 29-31)	125	24	70.4	2,100
June	31	8.4	15.3	910
July	11	2.8	6.30	387
August	16	3.3	9.97	613
September	11	4.6	7.63	454
October	16	3.3	8.36	514
November	26	4.6	11.5	684
December	26	2.8	7.94	488
The period	.....	.....	.....	20,500
1911.				
January	48	8.4	15.9	978
February	52	2.0	23.6	1,310
March	99	2.0	34.6	2,130
April	102	40	60.3	3,590
May	108	40	65.2	4,010
June	87	8.4	24.0	1,430
July	117	11	23.7	1,460
August	48	13	21.1	1,300
September	28	6.9	13.7	815
October	74	11	34.6	2,130
November	44	18	30.9	1,840
December	32	11	19.5	1,200
The year	117	2.0	30.6	22,200
1912.				
January	32	13	17.7	1,090
February	29	13	18.6	1,070
March	371	13	67.6	4.160
April	211	76	139	8,270
May	379	197	273	16,800
June	231	64	122	7,260
July	58	13	25.6	1,570
August	39	10	17.7	1,090
September	17	8	12.0	714
October	36	11	13.9	855
November	15	5	10.7	637
December	15	5	8.1	498
The year	379	5	60.6	44,000

Monthly discharge of Cimarron River at Ute Park, N. Mex., for 1907–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913.				
January	.....	.....	a9.00	553
February	.....	.....	a8.00	444
March	61	8.0	15.4	947
April	130	42	90.7	5,400
May	91	19	40.8	2,510
June	78	17	29.9	1,780
July	36	3.0	11.2	689
August	18	1.2	7.66	471
September	26	9.4	14.3	851
October	30	16	18.8	1,160
November	22	9.4	15.7	934
December	.....	.....	a12.0	738
The year	130	1.2	22.7	16,500
1914.				
January	.....	.....	a 14.0	861
February	.....	.....	a 15.0	833
March	91	18	37.4	2,300
April	199	36	114	6,780
May	422	101	224	13,800
June	94	8.5	38.7	2,300
July	93	8.5	54.3	3,340
August	69	24	45.1	2,770
September	51	6.8	20.2	1,200
October	.....	11	18.4	1,130
November	22	7.0	12.9	768
December	.....	.....	9.47	582
The year	422	.....	50.6	36,700
1915.				
January	18	12	13.6	833
February	22	13	15.8	875
March	33	13	16.9	1,040
April	327	22	146	8,660
May	347	127	219	13,400
June	201	24	92.0	5,470
July	38	14	20.5	1,260
August	31	13	19.4	1,190
September	16	10	12.3	730
October	18	13	16.6	1,020
November	18	10	14.9	885
December	16	11	14.7	904
The year	347	10	50.1	36,300
1916.				
January	.....	.....	a20 0	1,230
February	.....	.....	b26.0	1,500
March	132	19	74.1	4,560
April	538	75	183	10,900
May	747	107	388	23,900
June	102	7.0	44.3	2,640
July	57	6.0	19.2	1,180
August	40	15	26.6	1,640
September	28	8.0	14.4	859
October	20	8.0	14.6	900
November	21	11	17.0	1,010
December	16	7.0	11.0	674
The year	747	6.0	70.2	51,000

a—Estimated on days of missing gage heights.
b—Estimated 1-3.

Monthly discharge of Cimarron River at Ute Park, N. Mex., for 1907–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917.				
January	19	11	15.4	948
February	21	11	14.8	823
March	32	13	21.3	1,310
April	48	21	30.9	1,840
May	250	32	111	6,820
June	78	9.0	33.5	2,000
July	21	6.9	10.6	651
August	34	2.8	9.07	557
September	4.5	1.9	3.07	183
October	6.5	2.6	4.06	250
November	5.8	4.5	4.84	288
December	5.4	3.7	4.45	274
The year	250	1.9	22.0	15,900

CIMARRON RIVER AT SPRINGER, N. M.

Location.—At the highway bridge which crosses the Cimarron about half a mile above the Atchison, Topeka and Santa Fe railway bridge at Springer, N. Mex., 6 miles below the mouth of the Rayado and 6 miles above the junction of the Cimarron and the upper Canadian.

Records available.—July 13, 1907, to December 31, 1909.

Drainage area.—About 1,000 square miles.

References.—U. S. Geological Survey Water-Supply Papers 247 p. 69, 267 p. 63.

Monthly discharge of Cimarron River at Springer, N. Mex., for 1907–1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907.				
August (12-31)	166	5.3	31.9	1,270
September	66	3.4	16.0	952
October	4.9	3.1	3.31	204
November	6.6	2.7	3.39	202
December	2.7	2.5	2.55	157
The period	.....	.....	.....	2,785
1908.				
January	17	.....	7.6	467
February	64	10	27.6	1,590
March	58	19	26.3	1,620
April	265	5.2	110	6,550
May	200	19	95.7	5,880
June	12	1.4	2.87	171
July	25	.9	2.41	148
August	232	1.4	11.3	695
September	2.9	1.0	1.30	83
October	16	1.1	4.49	276
November	17	2.6	9.21	548
December	26	1.6	6.16	379
The year	265	.9	25.4	18,400

Monthly discharge of Cimarron River at Springer, N. Mex., for 1907–1909.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909.				
January	12	2.0	4.01	247
February	8.0	1.4	2.79	155
March	8.0	1.4	2.77	170
April	51	1.4	13.2	786
May	110	8.0	29.5	1,810
June	51	2.8	6.24	371
July	6.6	.8	2.26	139
August	12	.6	1.57	97
September	a800	.9	86.6	5,150
October	6.6	3.3	4.76	293
November	6.6	3.3	4.63	276
December	.....	.....	5.0	307
The period	.....	.....	13.6	9,800

a—Estimated.

PONIL CREEK NEAR CIMARRON, N. MEX.

Location.—Five miles northwest of Cimarron, on the road to Ponil Park, one mile above the Chase Ranch and above all diversions.
Records available.—October 29, 1915, to December 31, 1917.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 16, 1916 p. 17, 1917 p. 18.

Monthly discharge of Ponil Creek near Cimarron, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915.				
November	8.6	0.6	2.99	178
December	9.2	1.0	3.81	234
The period	9.2	0.6	3.41	412
1916.				
January	7.0	4.9	5.32	327
February	16	4.6	7.98	459
March	20	5.9	12.9	794
April	96	15	43.8	2,610
May	117	17	71.4	4,390
June	17	2.9	8.90	529
July	11	2.0	4.27	263
August	69	13	25.7	1,580
September	14	2.5	5.69	338
October	3.9	2.4	3.17	195
November	6.6	3.6	4.84	288
December	6.2	3.7	4.43	272
The year	117	2.0	16.6	12,000

Monthly discharge of Ponil Creek near Cimarron, N. Mex., for 1915–1917.—continued.

Month	Discharge in second feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917.				
January	3.7	3.0	3.26	200
February	3.6	3.4	3.57	198
March	6.4	3.6	4.88	300
April	28	5.2	15.7	936
May	114	22	61.7	3,790
June	60	6.9	32.0	1,900
July	21	3.0	7.50	461
August	5.2	1.9	2.85	175
September	6.4	1.1	2.75	163
October	1.9	0.5	0.93	57
November	2.4	0.6	1.24	74
December	2.2	1.1	1.44	88
The year	114	0.5	11.5	8,340

RAYADO RIVER NEAR CIMARRON, N. MEX.

Location.—Just above the head of a box cañon, in Sec. 23, T. 25 N., R. 17 E., 20 miles southwest of Cimarron. The nearest tributary, Agua Fria Creek, enters one-fourth mile above.

Records available.—May 8 to October 7, 1911; May 25 to September 17, 1913; and June 1 to September 11, 1914.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 213, 1913 p. 41, 1914 p. 20.

Monthly discharge of Rayado River near Cimarron, N. Mex., for 1911, 1913, 1914.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911.				
May (8-31)	26	10	16.2	757
June	20	5.4	9.01	536
July	26	5.4	9.05	556
August	10	4.8	6.00	369
September	7	2.7	3.81	227
October (1-7)	106	4.0	42.9	596
The period	.....	.....	.....	3,040
1913.				
May (25-31)	18	14	15.4	214
June	339	14	43.1	2,560
July	15	6.2	10.0	615
August	22	4.0	7.79	478
September (1-17)	6.2	4.8	5.64	190
The period	.....	.....	.....	4,060
1914.				
June	48	12	23.5	1,400
July	70	12	29.5	1,810
August	80	16	38.4	2,360
September (1-11)	18	12	13.5	294
The period	80	12	28.7	5,860

RAYADO RIVER NEAR ABREU'S RANCH, NEAR CIMARRON, N. MEX.

Location.—Fifteen miles southwest of Cimarron, six miles above the Abreu Ranch house and 100 yards above the ranch house of Ramon Abreu.

Records available.—May 4, 1911, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 215, 1913 p. 43, 1914 p. 21, 1915 p. 18, 1916 p. 19, 1917 p. 20.

Monthly discharge of Rayado River near Abreu's Ranch near Cimarron, N. Mex., for 1911–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911.				
May (4-31)	30	10	18.7	1,040
June	21	4.2	8.96	533
July	16	4.2	8.26	508
August	7.9	4.2	5.62	346
September	12	2.4	3.80	226
October	111	3.3	17.8	1,090
November	16	.....	a7.94	472
December	.....	.....	a2.0	a123
The period	.....	.....	.....	4,340
a—Estimated.				
1912.				
January	3.3	2.0	2.58	159
February	4.2	2.8	3.44	198
March	17	2.8	6.86	422
April	69	11	35.6	2,120
May	122	69	90.4	5,560
June	62	21	31.6	1,880
July	22	8.5	12.8	787
August	12	5.1	6.82	419
September	8.5	3.1	4.54	270
October	8.7	3.7	4.47	275
November	6.5	1.5	3.56	212
December	2.4	1.0	1.69	104
The year	122	1.0	17.1	12,400
1913.				
January	.....	.....	a2.00	123
February	.....	.....	a4.00	222
March	.....	.....	a4.00	246
April	37	6.5	20.6	1,230
May	25	9.5	16.9	1,040
June (1-9 and 13-30)	80	10	35.2	1,880
July	22	9.2	12.8	787
August	13	4.5	9.72	598
September	22	2.5	8.24	490
October	16	3.3	8.91	548
November	5.9	1.0	3.70	220
December	.....	.....	a3.00	184
The period	.....	.....	10.4	7,570

Monthly discharge of Rayado River near Abreu's Ranch near Cimarron, N. Mex., for 1911–1917.
—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914.				
January	.....	.....	a 5.0	307
February	.....	.....	a 5.0	278
March	.....	.....	a 10.0	615
April	158	18	43.2	2,570
May	186	36	93.7	5,760
June	58	14	21.8	1,300
July	48	12	21.7	1,330
August	50	17	32.0	1,970
September	15	6.8	10.6	631
October	16	6.4	9.62	592
November	11	4.2	6.98	415
December	.....	.....	a5.00	307
The year	186	.....	22.2	16,100
a—Estimated.				
1915.				
January	.....	.....	a4.32	266
February	.....	.....	a4.68	258
March (1-13)	.....	.....	a5.50	142
May (7-18)	.....	.....	74.2	1,770
December (14-31)	.....	.....	a5.18	185
The period	.....	.....	.....	.....
1916.				
January	4.8	3.7	4.17	257
February	5.8	4.4	5.08	292
March	32	4.5	16.2	994
April	83	14	34.9	2,080
May	110	30	68.7	4,230
June	33	7.0	18.1	1,080
July	18	7.0	10.4	642
August	86	6.5	30.2	1,860
September	45	5.4	14.7	876
October	16	3.8	7.11	437
November	6.5	2.3	4.75	283
December	5.8	5.0	5.41	333
The year	110	2.3	18.4	13,400
1917.				
January	5.0	3.8	4.51	277
February	4.5	3.3	3.80	211
March	13	4.5	7.13	438
April	17	9.0	12.2	728
May	50	14	27.8	1,710
June	19	8.5	12.8	760
July	12	4.0	7.22	444
August	17	3.0	5.66	348
September	7.0	2.6	4.41	262
October (1-28)	.....	.....	2.66	148
November (5-30)	.....	.....	4.62	238
December	4.8	1.6	3.29	202
The period	.....	.....	8.12	5,770

RAYADO RIVER AT ABREU'S RANCH, NEAR CIMARRON, N. MEX.

Location.—Three-fourths of a mile up-stream from Abreu's Ranch, 20 miles west of Springer, and 12 miles southwest of Cimarron.
Records available.—August 10, 1908, to August 31, 1910.
References.—U. S. Geological Survey Water-Supply Papers 267 p. 67, 287 p. 61.

Monthly discharge of Rayado River at Abreu's Ranch near Cimarron, N. Mex., for 1909, 1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909.				
January	5.2	3.2	3.98	245
February	6.7	3.8	5.05	280
March	6.7	5.2	6.12	376
April	52	6.7	18.4	1,090
May	39	16	24.9	1,530
June	18	5.2	9.78	582
July	21	3.8	6.17	379
August	38	3.8	11.1	682
September	66	3.3	17.3	1,030
October	8.8	3.8	6.25	384
November	6.7	5.5	6.39	380
December	12.7	6	8.40	516
The year	66	3.2	10.3	7,470
1910.				
January	.....	.....	12.2	750
February (1-22)	.....	.....	7.5	327
April (1-18)	28	.0	12.1	432
May (4-23)	52	.0	11.0	436
June (14-30)	8	1.7	5.38	182
July	8	1.7	3.61	222
August	39	3	6.68	411

RAYADO RIVER BELOW ABREU'S RANCH, NEAR CIMARRON, N. MEX.

Location.—Twelve miles south of Cimarron, one-half mile east of Abreu's Ranch house, one-fourth mile above the headgate of the ditch of the Farmer's Development Co., in Sec. 28, T. 25 N., R. 19 E.
Records available.—September 10, 1912, to September 4, 1913.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 218, 1913 p. 46.

Monthly discharge of Rayado River below Abreu's Ranch, near Cimarron, N. Mex., for 1912, 1913.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912.				
September (10-30)	2.8	0.1	1.39	58
October	4.1	.6	2.11	130
November	6.1	.4	2.32	138
December	.....	.....	a1.00	61
The period	.....	.....	.....	387

Monthly discharge of Rayado River below Abreu's Ranch, near Cimarron, N. Mex., for 1912, 1913.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913.				
January	4.8	2.0	3.07	189
February	10	.....	a5.00	278
March	6.0	1.9	4.36	268
April	39	7.0	21.5	1,280
May	32	2.7	12.7	781
June (1-9 and 16-30)	62	6.0	20.5	976
The period	.....	.....	.....	3,770

a—Estimated.

RAYADO RIVER NEAR SPRINGER, N. MEX.

Location.—At the site of the proposed reservoir dam of the Farmer's Development Company, half a mile north of Miami, six miles above the junction of Rayado and Cimarron rivers and 12 miles west of Springer.

Records available.—July 9, 1907, to October, 1909.

References.—U. S. Geological Survey Water-Supply Papers 247 p. 70, 267 p. 69.

Monthly discharge of Rayado River near Springer, N. Mex., for 1907–1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907.				
July (12-31)	0.4	0.2	0.33	13.1
August	17.0	.4	2.91	179
September	17.0	.8	3.73	222
October	1.8	.4	.96	59.0
November	.4	.4	.40	23.8
December	.4	.4	.40	24.6
The period	.....	.....	.....	522
1908.				
January	0.4	0.4	0.40	24.6
February	1.8	.4	.49	28.2
March	5.8	.4	.93	57.2
April	25.0	.8	9.54	568
May	12.0	.8	6.07	373
June	17.0	.4	3.03	180
July	1.8	.4	.45	27.7
August	1.8	.2	.34	20.9
September	.4	.2	.22	13.1
October	.4	.2	.26	16.0
November	.4	.4	.40	23.8
December	.4	.4	.40	24.6
The year	25.0	.2	1.88	1,360
1909				
January	0.4	0.4	0.4	25
February	.4	.4	.4	22
March	2.3	.4	.75	46
April	26	1.8	9.26	551
May	12	.7	6.14	378
June	2.6	.4	.84	50
July	1.8	.3	.42	26
August	.6	.3	.45	28
The period	.....	.....	.....	1,130

URRACA CREEK NEAR CIMARRON, N. MEX.

Location.—Eight miles southwest of Cimarron, 5 miles upstream from Urraca Ranch, near Sec. 35, T. 26 N., R. 18 E.
Records available.—November 25, 1912, to April 4, 1915.
Drainage area.—6.3 square miles.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 220, 1913 p. 48, 1914 p. 18, 1915 p. 20.

Monthly discharge of Urraca Creek near Cimarron, N. Mex., for 1912–1915.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912.				
November (25-30)	1.3	0.9	1.10	13
December	1.4	.5	.73	45
The period	.....	.....	.....	58
1913.				
January	.....	.....	a0.40	25
February	1.6	.....	.88	49
March	2.7	1.0	1.43	88
April	5.2	2.7	3.82	227
May	3.8	1.3	2.31	142
June	26	1.4	6.91	411
July	3.9	.8	2.02	124
August	5.2	.5	1.71	105
September	1.8	.6	1.12	67
October	1.4	.6	.89	55
November	.9	.6	.69	41
December	.....	.....	a .60	37
The year	26	.....	1.89	1,370
a—Estimated.				
1914.				
January	0.6	0.3	0.45	28
February	1.9	.5	.90	50
March	5.8	1.2	2.36	145
April	24	2.0	4.00	238
May	22	5.4	9.50	584
June	5.6	1.4	3.11	185
July	25	1.7	7.10	437
August	9.2	1.2	4.43	272
September	1.2	.8	1.10	65
October	2.8	1.1	1.62	100
November	2.2	1.2	1.52	90
December	.....	.....	a1.00	61
The year	25	0.3	3.12	2,260
1915.				
January	.....	.....	a0.71	43.4
February	.....	.....	a0.62	34.5
March	2.7	0.6	1.30	79.7
April (1-4)	3.0	2.0	2.40	19.0
The period	.....	.....	.....	177

a—Estimated.

OCATE RIVER AT OCATE, N. MEX.

Location.—Just below the juncture of the east and west forks of the Ocate, one-fourth mile below the town of Ocate, three miles above the point of diversion of the Lake Charette Irrigation Company's canal, in the southwest quarter of Sec. 1, T. 22 N., R. 18 E.

Records available.—March 15 to August 17, 1914.

Reference.—State Engineer's Report on the Surface Water Supply of New Mexico for 1914, p. 23.

Discharge measurements of Ocate River at Ocate, N. Mex., in 1914.

Date.	Hydrographer.	Gage height Feet.	Discharge Sec-ft.
Mar. 15	J. E. Powers	0.73	a0.8
April 24	..... do	.75	3.5
June 22	..... do	.60	4.4
Aug. 5	..... do	.50	23.4

a—Estimated.

WEST FORK OF OCATE RIVER AT OCATE, N. MEX.

Location.—About 400 feet above the junction of the east and west forks of Ocate River, in the southeast quarter of Sec. 2, T. 22 N., R. 18 E.

Records available.—September 28, 1914, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1914 p. 24, 1915 p. 21, 1916 p. 21, 1917 p. 22.

Monthly discharge of West Fork of Ocate River at Ocate, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	0.2	0.2	0.2	12.3
February	17	.0	4.89	272
March	20	.1	3.81	234
April	80	.2	30.63	1,820
May	30	.4	10.23	629
June	3	.0	1.14	68
July	13	.0	1.25	77
August	15	1.0	2.57	158
September	35	.0	2.66	158
October	.7	.4	0.61	37
November	1.3	.5	.79	47
December	1.3	.4	.76	47
The year	80	0.0	4.91	3,600
1916.				
January	1.1	0.4	0.65	40
February	0.7	0.3	0.36	21
March	0.4	0.3	0.31	19
April	0.9	0.3	0.43	26
May	0.6	0.3	0.44	27
June	0.6	0.3	0.33	19
July	0.3	0.2	0.21	13
August	73	0.3	2.84	174
September	0.7	0.5	0.55	32
October	0.7	0.5	0.58	36
November	1.2	0.5	0.65	38
December	0.8	0.5	0.60	37
The year	73	0.2	0.66	482

Monthly discharge of West Fork of Ocate River at Ocate, N. Mex., for 1915–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917.				
January	1.5	0.5	0.79	49
February	2.6	0.6	1.44	80
March	6.0	1.4	2.86	176
April	2.6	0.4	0.89	53
May	10	0.9	1.92	118
June	1.2	0.1	0.38	23
July	18	0.1	0.68	42
August	0.4	0.1	0.11	6.7
September	1.5	0.1	0.15	8.9
October	0.1	0.1	0.10	6.2
November	3.9	0.1	0.29	17
December	0.3	0.1	0.14	8.5
The year	18	0.1	0.81	588

EAST FORK OF OCATE RIVER AT OCATE, N. MEX.

Location.—About 500 feet above the juncture of the east and west forks of Ocate River, in the southeast quarter of Sec. 2, T. 22 N., R. 18 E.

Records available.—September 28, 1914, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1914 p. 25, 1915 p. 23, 1916 p. 23, 1917 p. 24.

Monthly discharge of East Fork of Ocate River at Ocate, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915.				
January	2.2	1.1	1.72	106
February	15	1.0	4.75	264
March	3.6	.1	1.60	99
April	87	.3	27.27	1,620
May	59	19	41.48	2,550
June	20	1.7	7.37	439
July	20	.1	3.52	216
August	12	2.7	4.90	301
September	18	2.7	4.63	276
October	5.3	2.4	3.74	230
November	4.2	1.7	2.64	157
December	4.1	.7	1.62	99
The year	87	0.1	8.79	6,400
1916				
January	4.7	1.2	2.21	136
February	8.0	1.4	4.44	256
March	4.4	0.7	1.65	102
April	24	1.4	12.2	728
May	23	0.7	7.64	470
June	10	0.4	1.30	78
July	20	0.7	2.19	135
August	75	3.2	24 5	1,510
September	17	2.1	5.89	350
October	21	3.9	7.78	478
November	8.0	1.4	3.10	184
December	7.5	0.7	4.10	252
The year	75	0.4	6.44	4,680

Monthly discharge of East Fork of Ocate River at Ocate, N. Mex., for 1915–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	5.7	3.6	4.73	290
February	3.5	1.1	2.74	151
March	2.3	0.5	1.42	87
April	2.3	0.5	1.19	71
May	22	1.1	5.64	346
June	3.1	0.5	1.05	62
July	11	0.0	0.89	55
August	16	0.0	1.61	99
September	11	0.0	1.77	106
October	0.4	0.2	0.31	19
November	8.9	0.0	1.76	104
December	2.6	0.2	2.32	143
The year	22	0.0	2.12	1,530

SWEETWATER CREEK NEAR COLMOR, N. MEX.

Location.—One hundred feet upstream from the highway bridge on the Springer-Ocate road, 15 miles southwest of Springer, 8 miles west of Colmor, in the northeast quarter of Sec. 10, T. 23 N., R. 20 E., about 5 miles below the point of diversion of the Lake Charette Irrigation Company's canal.

Records available.—March 17, 1914, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1914 p. 26, 1915 p. 25, 1916 p. 25, 1917 p. 26.

Monthly discharge of Sweetwater Creek near Colmor, N. Mex., for 1914–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914.				
March (17-31)	0.4	0.0	0.27	8
April	.4	.2	.26	15
May	10	.1	1.09	67
June	1.2	.1	.29	17
July	12	.1	2.18	134
August	.5	.1	.26	16
September	.3	.2	.22	13
October	3.0	.2	.53	33
November	.2	.2	.20	12
December	.2	.2	.20	12
The period	12	0.0	.57	327
1915.				
January	0.2	0.2	0.2	1.59
February	.4	.4	.31	6.74
April	3.5	.7	1.47	26.2
May	1.2	.2	.51	31.3
June	.3	.0	.12	7.14
July	1.6	.0	.39	23.8
August	.4	.2	.35	21.2
October	.8	.4	.61	37.3
November	.7	.1	.43	25.8
December	.3	.1	.17	10.7

Monthly discharge of Sweetwater Creek near Colmor, N. Mex., for 1914–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916.				
January	0.4	0.3	0.36	22
February	0.4	0.3	0.31	18
March	0.3	0.2	0.21	13
April	0.2	0.2	0.20	12
May	0.2	0.2	0.20	12
June	0.2	0.2	0.20	12
July	0.2	0.2	0.20	12
August	0 2	0.2	0.20	12
September	2.7	0.2	0.73	44
October	3.1	0.1	1.77	109
November	0.9	0.1	0.31	18
December	0.9	0.2	0.35	21
The year	3.1	0.1	0.42	305
1917.				
January	0.5	0.2	0.29	18
February	0.3	0.3	0.30	17
March	0.3	0 2	0.28	17
April	0.2	0.1	0.16	9.3
May	0 3	0.1	0.18	11
June	0.3	0.0	0.14	8.5
July	0.2	0.1	0.11	6.7
August	0.3	0.1	0.13	7.9
September	0.1	0.0	0.10	5 8
October	0.1	0.1	0.10	6.2
November	0.1	0.1	0.10	6.0
December	0.1	0.1	0.10	6.2
The year	0.5	0.0	0.17	120

MORA RIVER AT LA CUEVA, N. MEX.

Location.—At the highway bridge at La Cueva, above the mouth of the Cebolla, a short distance down stream from the intake, and below the wasteway of La Cueva Canal.

Records available.—August 25, 1903, to July 31, 1911, when the station was discontinued.

References.—U. S. Geological Survey Water-Supply Papers 173 p. 63, 209 p. 42, 247 p. 76, 267 p. 74, 287 p. 66; State Engineer's Report on the Surface Water Supply of New Mexico for 1911-12 p. 223.

Monthly discharge of Mora River at La Cueva, N. Mex., for 1905–1911.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1905.				
February (22-28)	18	14	15.7	218
March	60	17	28.2	1,734
April	292	21	87.1	5,183
May	310	115	175	10,760
June (25 days)	193	27	72.6	3,600
July	27	21	22.8	1,402
August	77	21	35.0	2,152
September	30	17	23.2	1,380
October	30	18	25.4	1,562
November	34	27	27.8	1,654
December (1-22)	32	26	27.5	1,200
The period	.....	.....	.....	30,840

Monthly discharge of Mora River at La Cueva, N. Mex., for 1905–1911.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1906.				
April (13-30)	150	40	93.4	3,330
May	150	89	117	7,190
June	150	4	71.6	4,260
July	125	6	65.4	4.020
August	68	4	30.2	1,860
September	74	6	22.2	1,320
October	50	17	34.5	2,120
November	45	17	28.4	1,690
December	300	11	39.4	2,420
The period	.....	.....	.....	28,200
1907.				
January	35	16	21.9	1,350
February	29	20	25.5	1,420
March	54	17	32.5	2,000
April	73	8	41.6	2,480
May	96	62	77.7	4,780
June	214	54	110	6,550
July	45	11	25	1,540
August	167	13	49.7	3,060
September	104	4	32.5	1,930
October	20	3	14.3	879
November	17	2	13.4	797
December (1-21)	32	4	12.2	508
The period	.....	.....	.....	27,300
1908.				
February (12-29)	16	3.5	8.81	315
March	6.5	.5	3.36	207
April	26	.5	9.00	536
May	61	1.6	18.0	1,110
June	48	.2	17.6	1,050
July	27	.3	6.87	422
August	92	23	46.8	2,880
September	23	3.5	8.68	516
October	16	5.0	11.8	726
November	16	1.5	9.38	558
December	19	6.5	12.7	781
The period	.....	.....	.....	9,100
1909.				
January	22	0.0	10.3	633
February	22	5.5	11.5	639
March	15	2.0	11.3	695
April	29	2.0	11.8	702
May	57	15	35.4	2,180
June	103	5.5	39.1	2,330
July	91	2.0	24.7	1,520
August	234	.9	84.7	5,210
September	320	18	76.2	4,530
October	29	12	21.6	1,330
November	18	2.5	12.6	750
December	18	.....	11.5	707
The year	320	0.0	29.2	21,200

Monthly discharge of Mora River at La Cueva, N. Mex., for 1905–1911.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910.				
January	29	.....	13.4	824
February	24	.....	12.8	711
March	39	8	22.3	1,370
April	128	16	73.3	4,360
May	115	28	63.6	3,910
June	46	3	16.2	964
July	186	.0	9.05	556
August	94	.8	16.9	1,040
September	9	.8	3.10	184
October	12	.5	5.04	310
November	12	.8	5.33	317
December	9	.....	2.76	170
The year	186	0.0	20.3	14,700
1911.				
January	9.0	.....	2.05	126
February	22	1.5	6.04	335
March	16	1.5	10.0	615
April	16	2.5	4.94	294
May	158	4.0	52.9	3,250
June	149	2.0	39.1	2,330
July	406	16	142	8,730
The period	.....	.....	.....	15,700

LA CUEVA, OR MORA, CANAL AT LA CUEVA, N. MEX.

Location.—On a foot bridge a short distance below the canal wasteway, which discharges into the Mora River above the Mora River gage.

Records available.—August 25, 1903, to July 31, 1911, when the station was discontinued.

References.—U. S. Geological Survey Water-Supply Papers 173 p. 60, 209 p. 42, 247 p. 72, 267 p. 71, 287 p. 64; State Engineer's Report on the Surface Water Supply of New Mexico for 1911-1912 p. 221.

Monthly discharge of La Cueva or Mora Canal at La Cueva, N. Mex., for 1906–1911.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1906.				
April (9 days)	21	4.0	11.6	207
May	27	5.5	15.5	953
June	27	4.6	18.2	1,080
July (14 days)	18	2.6	8.0	222
August	15	2.3	7.6	467
September (28 days)	15	.4	5.5	305
October (12 days)	15	.4	4.2	100
December (9 days)	6.4	2.0	4.5	80
The period	.....	.....	.....	3,420

Monthly discharge of La Cueva or Mora Canal at La Cueva, N. Mex., for 1906–1911.
—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907.				
January	7.4	0.0	0.77	47
February	2.3	0.0	.56	31
March	5.8	1.0	3.41	210
April	15	4.4	10.7	637
May	15	0.0	10.8	664
June	21	7.4	12.5	744
July	14	2.8	11.3	695
August	13	0.0	3.21	197
September	21	0.0	9.60	571
October	15	0.0	3.49	215
November	18	0.0	3.10	184
December	13	0.0	2.63	162
The year	21	0.0	6.01	4,360
1908.				
January	0.0	0.0	0.00	0
February	15	0	4.87	280
March	19	3.8	11.3	695
April	19	2.8	11.0	655
May	19	0.0	16.5	1,010
June	22	13.0	18.3	1,090
July	22	5.8	13.6	836
August	20	0.0	12.3	756
September	24	5.8	14.6	869
October	26	0.0	7.81	480
November	18	0.0	4.98	296
December	7.2	0.0	.71	44
The year	26	0.0	9.66	7,010
1909.				
January	8.6	0.0	2.09	129
February	2.4	0.0	0.70	39
March	6.5	0.0	1.59	98
April	21	2.4	10.4	619
May	17	4.5	10.6	652
June	18	3.3	12.6	750
July	23	0.0	10.0	615
August	16.7	0.0	6.32	389
September	14.3	0.0	7.30	434
October	17.9	0.5	4.96	305
November	9.9	0.1	4.04	240
December	6.1	0.0	0.82	50
The year	23	0.0	5.95	4,320
1910.				
February	7.0	0.0	0.72	40
March	8.0	0.0	3.70	228
April	10.5	2.8	7.19	428
May	15	6	11.2	689
June	18	0.0	10.4	619
July	15	0.0	5.88	362
August	17	0.0	10.3	633
September	17	2.0	10.1	601
October	11	0.0	4.98	306
November	8.5	0.0	4.22	251
December	8.0	0.0	5.37	330
The period	.....	.....	.....	4,490

Monthly discharge of La Cueva or Mora Canal at La Cueva, N. Mex., for 1906–1911.
—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911.				
January	9.8	0.0	5.23	322
February	9.8	0.0	3.39	188
March	14.9	0.0	6.89	424
April	17.0	5.5	11.3	672
May	18.1	0.0	9.85	606
June	20.4	8.5	14.2	845
July	21.5	0.0	12.3	756
The period	.....	.....	.....	3,810

MORA RIVER NEAR GOLONDRINOS, N. MEX.

Location.—Four miles southeast of La Cueva, two miles above Golondrinos and 300 yards below the mouth of Cebolla Creek.
Records available.—March 10, 1915, to December 31, 1917.
Drainage area.—About 230 square miles.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 27, 1916 p. 27, 1917 p. 28.

Monthly discharge of Mora River near Golondrinos, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915.				
March (10-31)	140	21	52.45	2,290
April	1,130	67	297.87	17,700
May	325	173	224.32	13,800
June	215	54	138.43	8,240
July	260	4.2	41.77	2,570
August	114	11	40.77	2,510
September	62	14	28.17	1,680
October	28	18	22.16	1,360
November	25	20	21.70	1,290
December	29	17	23.13	1,420
The period	1,130	4.2	89.75	52,900
1916				
January	49	13	33.1	2,030
February	36	15	25.7	1,480
March	28	10	19.5	1,200
April	198	39	95.3	5,670
May	230	63	140	8,630
June	69	12	30.3	1,800
July	119	1.7	14.2	872
August	170	43	80.8	4,970
September	55	15	33.5	1,990
October	106	15	42.1	2,590
November	46	20	29.9	1,780
December	34	17	24.8	1,530
The year	230	1.7	47.6	34,500

Monthly discharge of Mora River near Golondrinos, N. Mex., for 1915–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	40	19	25.1	1,540
February	36	13	18.6	1,040
March	21	5.0	10.3	634
April	6.0	0.5	3.49	207
May	158	0.0	55.9	3,430
June	64	2.6	32.1	1,910
July	6.4	0.4	2.31	142
August	20	0.0	3.46	213
September	11	2.6	4.44	264
October	8.2	2.8	5.11	314
November	14	3.1	8.62	513
December	14	3.7	8.49	522
The year	158	0.0	14.8	10,700

MORA RIVER NEAR SHOEMAKER, N. MEX.

Location.—At head of a box cañon, 8 miles east of Shoemaker, 20 miles above the mouth of the river, and below all important tributaries.

Records available.—October 1, 1914, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1914 p. 28, 1915 p. 29, 1916 p. 29, 1917 p. 30.

Monthly discharge of Mora River near Shoemaker, N. Mex., for 1914–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
October	187	15	58.1	3,570
November	85	55	63.1	3,750
December	97	.....	50.5	3,110
	.....	.....	.....	.....
1915				
January	88	26	38.06	2,340
February	105	35	53.93	3,000
March	315	27	138.42	8,510
April	3,670	352	948.33	56,400
May	878	253	531.29	32,700
June	321	68	172.63	10,300
July	66	5	28.89	1,090
October	54	33	40.39	1,840
November	40	10	25.30	1,000
December	33	26	29.53	879
	.....	.....	.....	.....

Monthly discharge of Mora River near Shoemaker, N. Mex., for 1914–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	28	14	20.5	1,260
February	37	13	20.4	1,170
March	22	3.2	7.72	475
April	390	20	168	10,000
May	481	30	244	15,000
June	.....	.....	19.6	1,170
July	.....	.....	13.2	811
August	275	42	96.4	5,920
September	47	12	21.2	1,260
October	110	31	79.3	4,870
November	.....	.....	38.5	2,290
December	.....	.....	23.0	1,410
The year	.....	.....	62.9	45,600
1917				
January	64	20	40.5	2,490
February	77	35	60.0	3,330
March	45	2.5	14.9	915
April	2.7	2.0	2.24	133
May	165	2.2	43.9	2,700
June	24	15	21.2	1,260
July	24	1.2	10.9	672
August	7.0	1.7	4.06	250
September	13	2.7	5.31	316
October	8.5	3.1	5.76	354
November	4.0	0.5	2.44	145
December	19	1.3	9.54	586
The year	165	0.5	18.2	13,200

SAPELLO RIVER AT SAPELLO, N. MEX.

Location.—About 70 yards above the bridge at the crossing of the road from Las Vegas to Mora, three-eighths of a mile below Sapello and half a mile below the mouth of Manuelitos Creek.

Records available.—August 12, 1903, to March 31, 1904; May 9, 1915, to December 31, 1917.

Drainage area.—About 70 square miles.

References.—U. S. Geological Survey Water-Supply Papers 99 p. 250, 131 p. 165; State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 31, 1916 p. 31, 1917 p. 32.

Monthly discharge of Sapello River at Sapello, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
May (9-31)	140	71	95.09	4,340
June	76	20	43.40	2,580
July	530	3.9	98.42	6,050
August	240	39	89.58	5,510
September	96	6	24.40	1,450
October	6	2.5	3.66	225
November	68	2	20.32	1,210
December	68	2	22.52	1,380
The period	530	2	48.40	22,700

Monthly discharge of Mora River near Shoemaker, N. Mex., for 1914–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	33	10	19.2	1,180
February	44	5.5	13.2	759
March	10	1.8	6.99	430
April	170	5.5	52.0	3,100
May	77	9.6	34.6	2,130
June	20	2.0	10.3	615
July	186	0.0	9.56	588
August	120	6.0	25.7	1,580
September	15	0.0	3.74	222
October	27	0.0	8.86	545
November	35	6.0	13.5	806
December	46	6.0	18.3	1,120
The year	186	0.0	18.0	13,100
1917				
January	18	8.4	11.3	695
February	19	8.5	13.0	720
March	32	8.6	12.1	746
April	12	3.2	6.74	401
May	100	4.9	40.2	2,470
June	24	2.0	8.42	501
July	22	0.0	4.17	257
August	14	0.0	1.94	119
September	21	0.0	2.06	122
October	1.2	0.8	0.99	61
November	1.4	0.8	0.96	57
December	7.2	1.4	2.43	150
The year	100	0.0	8.70	6,300

SAPELLO RIVER AT LOS ALAMOS, N. MEX.

Location.—At Los Alamos post office, near Sec. 28, T. 18 N., R. 16 E. No important tributary enters between this station and the mouth of the Sapello.

Records available.—August 22, 1903, to May 31, 1911, when the station was discontinued.

Drainage area.—144 square miles.

References.—U. S. Geological Survey Water-Supply Papers 99 p. 249, 131 p. 166, 173 p. 63, 209 p. 44, 247 p. 79, 267 p. 75, 287 p. 67, 307 p. 57; State Engineer's Report on the Surface Water Supply of New Mexico for 1911-1912 p. 226.

Monthly discharge of Sapello River at Los Alamos, N. Mex., for 1905–1911.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1905				
February (3-28)	160	32	60.7	3,130
March	545	54	120	7,380
April	1,100	111	289	17,200
May	457	91	187	11,500
June	101	10	42.3	2,520
July	82	5	9.47	582
August	74	6	17.0	1,050
September	29	6	7.55	449
October	6	6	6.00	369
November	220	6	18.1	1,080
December	26	14	15.5	953
The period	.....	.....	.....	46,200

Monthly discharge of Sapello River at Los Alamos, N. Mex., for 1905–1911.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1906				
January	86	4	31 5	1,940
February	20	15	15.5	861
March	38	11	16.5	1,010
April	194	38	54.2	3,230
May	172	23	64.3	3,950
June	86	3.5	25.0	1,490
July	80	3.5	18.6	1,140
August	15	2.4	7.95	489
September	46	1.8	7 30	434
October	13	2.8	8.88	546
November	16	10	12.0	714
December	1,170	16	120	7,380
The year	1,170	1.8	31.8	23,200
1907				
January	37	23	26.6	1,640
February	39	21	31.6	1,760
March	35	4.6	19.7	1,210
April	59	2.8	14.8	881
May	172	37	64.2	3,950
June	148	11	48.7	2,900
July	95	4.6	15.1	928
August	80	3.5	19.2	1,180
September	50	1.0	6.62	394
October	2.2	1.5	1.57	96.5
November	1.8	1.4	1.54	91.6
December	1.5	1.5	1.50	92.2
The year	172	1.0	20.9	15,100
1908				
January	1.5	1.5	1.50	92 2
February	6.5	1.5	2.69	155
March	6.5	1.5	2.60	160
April	44	1.5	15.6	928
May	6.5	1.5	2.23	137
June	2.2	1.0	1.72	102
July	3.0	.5	.96	59.0
August	85	3.0	28.0	1,720
September	34	2.0	4.71	280
October	2.5	2.0	2.11	130
November	2.0	2.0	2.00	119
December	2.0	1.5	1.69	104
The year	85	0.5	5.49	3,990
1909				
January	2.8	0.7	1.56	96
February	1.3	.3	.84	47
March	1.9	8	1.19	73
April	2.1	1.1	1.68	100
May	1.8	1.0	1.54	95
June	1.3	.7	1.11	66
July	95	.7	7.01	431
August	29	1.5	4.65	286
September	159	2.1	16.2	964
October	3.4	1.2	1.91	117
November	1.7	1.6	1.65	98
December	1.6	0.6	1.45	89
The year	159	.3	3.40	2,460

Monthly discharge of Sapello River at Los Alamos, N. Mex., for 1905–1911.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
January	3.2	1.5	2.09	129
February	1.5	.6	1.32	73
March	6.3	1	2	123
April	14.8	2 4	6.68	397
May	7.4	3.8	6.09	374
June	46	1.2	3.55	211
July (1-13)	2.8	1.2	1.45	37
August (12-31)	112	1.2	8.76	348
September	2.4	.6	.89	53
October	1	.6	.75	46
November	2	.6	1.32	79
December	3.8	1.2	2.85	175
The period	.....	.....	.....	2,050
1911				
January	1.5	.....	1.37	84
February	3.5	1.5	2.30	128
March	8.2	1.5	5.05	311
April	10	1.5	6.82	406
May	54	1.5	14.2	873
The period	.....	.....	.....	1,800

PAJARITO CREEK NEAR HANLEY, N. MEX.

Location.—In Sec. 26, T. 11 N., R. 28 E., 2 miles north of Hanley and one-fourth mile above the mouth of Vigil Creek, the nearest tributary.
Records available.—August 30, 1911, to May 20, 1912.
Drainage area.—310 square miles.
References.—State Engineer's Report on the Surface Water Supply of New Mexico for 1911-12 p. 228.

NOTE—Owing to the possibility of shift and the fact that the upper portion of the rating curve is determined by floats and slope measurements, no estimates of discharge have been made.

PAJARITO CREEK BELOW MOUTH OF VIGIL CREEK, NEAR HANLEY, N. MEX.

Location.—In Sec. 21, T. 11 N., R. 29 E., 2 miles below the mouth of Vigil Creek, about a mile above the mouth of Alamo Draw, 9 miles west of Tucumcari and three miles northeast of Hanley, the nearest post office.
Records available.—May 21, 1912, to December 5, 1913.
Drainage area.—About 350 square miles.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 230, 1913 p. 51.

NOTE.—On account of the erratic flow of the stream, sufficient data have not been collected to allow daily estimates of the discharge made.

UTE CREEK NEAR LOGAN, N. MEX.

Location.—Four miles above the mouth of Ute Creek, in the northeast corner of T. 13 N., R. 32 E.

Records available.—August 12, 1904, to June 30, 1906; April 13, 1909, to May 23, 1914.

References.—U. S. Geological Survey Water-Supply Papers 131 p. 170, 173 p. 64, 209 p. 45, 267 p. 78, 287 p 70, 307 p. 59; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-1912 p. 231, 1913 p. 52, 1914 p. 29.

NOTE.—The finding of an error in obtaining the cross section of the stream necessitated the revision of the back data which are published in Water Supply Paper 307, and the revised figures are published in this report.

Monthly discharge of Ute Creek near Logan, N. Mex., for 1904–1906.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1904				
August (14-31)	6,400	0	423	15,100
September	19,000	0	1,200	71,400
October	700	0	63	3,870
November	0	0	0	0
December	2	0	.032	2
The period	....	....	....	90,400
1905				
January	3.9	0	1.40	86
February	166	.2	18.5	1,030
March	26	.2	10.9	670
April	2,400	.2	395	23,500
May	18,000	0	1,550	95,300
June	150	0	14.2	845
July	5,000	7	353	21,700
August	4,300	0	489	30,100
September	900	0	90.8	5,400
October	2	0	.26	16
November	750	0	85.1	5,060
December	65	0	16.3	1,000
The year	18,000	0	255	185,000
1906				
January	31	5	13.3	818
February	19	2	5.57	309
March	2	0	.065	4
April	65	0	6.8	405
May	300	0	21.2	1,300
June	3,200	0	124	7,380
The period	.....	.....	.....	90,400

Monthly discharge of Ute Creek near Logan, N. Mex., for 1909–1911.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909				
May	67	0	2.60	160
June	1,330	0	121	7,200
July	0	0	0	0
August	1,260	0	120	7,380
September	12,500	0	521	31,000
October	310	0	71	4,370
November	2	0	.067	3.98
December	13	1	5.52	339
The period	.....	.....	.....	50,500
1910				
January	2,100	.2	126	7,750
February	.2	.1	.14	7.8
March	.1	.1	.10	6.2
April	.0	.0	.0	0
May	.0	.0	.0	0
June	88	.0	6.33	377
July	8,020	.0	1,090	67,000
August	3,600	.0	465	28,600
September	6	.0	.2	12.3
October	.0	.0	.0	0
November	.0	.0	.0	0
December	.0	.0	.0	0
The year	8,020	.0	143	104,000
1911				
January	0	0	.00	0
February	.....	0	.25	14
March	0	0	.00	0
April	0	0	.00	0
May	7,100	0	420	25,800
June	55	0	6.3	375
July	5,900	0	355	21,800
August	2,600	0	153	9,410
September	1,080	0	62.1	3,700
October	14	0	1.88	116
November	3	0	.59	35
December	8	2	3.4	209
The year	7,100	0	85.0	61,500

ESTANCIA VALLEY

CAÑON DE LOS GALLEGOS NEAR MORIARTY, N. MEX.

Location.—At the Martinez ranch, about 8 miles west of Moriarty.
Records available.—August 10, 1915, to December 31, 1917.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 34, 1916 p. 33, 1917 p. 34.

Monthly discharge of Cañon de los Gallegos near Moriarty, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
November (7-30)	0.6	0.4	0.51	24.0
December	.6	.4	.52	32.0
The period	0.6	0.4	0.52	56.0
1916				
January	1.8	0.1	0.62	38
February	2.5	0.3	1.66	61
March	0.9	0.4	0.57	35
April	4.6	0.7	2.42	144
May (1-6 and 13)	.....	.....	2 84	40
June	.....	.....	.....	.....
July (21-31)	.....	.....	1.09	24
August	1.9	0.4	0.84	52
September	0.4	0.0	0.30	18
October	16	0.1	1.07	66
November	1.6	0.1	0.41	24
December	24	0.0	1.44	88
The period	.....	.....	1.02	590
1917				
January	1.0	0.4	0.66	41
February	0.4	0.2	0.25	14
March	0.2	0.1	0.16	9.7
April	0.2	0.1	0.16	9.5
May	1.2	0.2	0.32	20
June	1.0	0.0	0.23	14
July	7.1	0.0	0 68	42
August	2.0	0.0	0.32	20
September	3.4	0.0	0.46	28
October	0.1	0.0	0.02	1.2
November	0.6	0.1	0.12	7.1
December	0.1	0.0	0.01	0.8
The year	7.1	0.0	0.28	207

TAJIQUE CREEK AT TAJIQUE, N. MEX.

Location.—Three-quarters of a mile above Tajique.
Records available—July 19, 1915, to December 31, 1917.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 35, 1916 p. 35, 1917 p. 36.

Monthly discharge of Tajique Creek at Tajique, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
August (5-21)	14	3.2	7.91	267
November (4-30)	0.2	0 1	0.15	8
December	0.4	0.2	0.23	14
1916				
January	4.6	0.1	1.76	108
February	10	4.8	7.76	446
March	13	9.1	9.85	606
April	114	13	53 4	3,180
May	41	13	26.2	1,610
June	13	6.1	9.96	592
July	6.0	1.0	2.77	170
August	1.6	0.6	0.84	52
September	1.2	0 0	0.46	27
October	50	0.0	5.83	358
November	4.0	0.9	2.16	128
December	1.7	0.3	0 93	57
The year	114	0.0	10.1	7,330
1917				
January	0.3	0.1	0.12	7.1
February	0.2	0.1	0.10	5.8
March	2.0	0.3	1.05	65
April	2.5	0.7	1.63	97
May	3.0	1.3	1.82	112
June	1.3	0.3	0.92	55
July	1.3	0.3	0.56	34
August	0.7	0.4	0.51	31
September	3.2	0.0	0.41	24
October	0.6	0.0	0.14	8.9
November	0.0	0.0	0.0	0 0
December	0.0	0.0	0.0	0.0
The year	3.2	0.0	0.61	440

TORREON CREEK NEAR TORREON, N. MEX.

Location.—On the ranch of A. E. Gallegos, 2 miles above Torreon.
Records available.—July 17, 1915, to December 31, 1917.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 36, 1916 p. 37, 1917 p. 38.

Monthly discharge of Torreon Creek near Torreon, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
July (17-31)	582	1.0	2.08	6.200
August	138	12	31.5	1,900
September (1-25)	22	8	12.8	633
November (4-30)	3	2	2.89	155
December	2	1	1.39	86

Monthly discharge of Torreon Creek near Torreon, N. Mex., for 1915–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	26	0.8	10.2	627
February	26	3.0	9.44	543
March	26	9.8	17.0	1,040
April	178	20	102	6,050
May	183	14	59.1	3,630
June	14	0.4	7.92	471
July	14	0.1	1.89	116
August	200	2.0	30.9	1,900
September	14	0.2	3.86	230
October	319	0.2	52.4	3,220
November	5.3	0.9	2.56	152
December	0.9	0.4	0.43	27
The year	319	0.1	24.8	18,000
1917				
January	0.2	0.2	0.20	12
February	3.2	0 2	0.55	31
March	3.2	1 6	2.72	167
April	8.4	1.1	3.42	203
May	9.6	1.8	5.47	336
June	4.4	0.7	2.11	126
July	65	0.7	8.05	495
August	52	0.2	5.39	331
September	71	0 2	5.29	314
October	0.5	0.1	0.30	18
November	0.3	0.1	0.17	9.9
December	0.2	0.1	0.14	8.3
The year	71	0 1	2.84	2,050

CAÑON NUEVO AT MANZANO, N. MEX.

Location.—About one-fourth mile north of Manzano.
Records available.—July 17, 1915, to December 31, 1917.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 37, 1916 p. 39, 1917 p. 40.

Monthly discharge of Cañon Nuevo at Manzano, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
August (6-28)	3.3	1.3	2.03	93.0
November (14-27)	0.0	0.0	0.0	0.0
December (5-31)	.0	.0	.0	.0
1916				
January	5 3	0.0	2.00	123
February	4.8	1.4	3.54	204
March	13	0 2	1.94	119
April	29	16	24.4	1,450
May	27	0.3	11.7	721
June	0 3	0.0	0.12	6.9
July	0.0	0.0	0.00	0.0
August	0.0	0.0	0.00	0.0
September	0.0	0.0	0.00	0 0
October	2.8	0.0	0.45	28
November	0.3	0.0	0.08	4.6
December	0.0	0.0	0.00	0.0
The year	29.	0.0	3.66	2,660

Monthly discharge of Cañon Nuevo at Manzano, N. Mex., for 1915–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	0 0	0.0	0.00	0.0
February	0 0	0.0	0.00	0.0
March	0 0	0.0	0.00	0.0
April	0 0	0.0	0.00	0.0
May	0.3	0.0	0.11	6.5
June	0.0	0.0	0.00	0.0
July	0.0	0.0	0.00	0.0
August	0.4	0.0	0.03	1.6
September	0.0	0.0	0.00	0.0
October	0 0	0.0	0.00	0.0
November	0.0	0.0	0.00	0.0
December	0.0	0.0	0.00	0.0
The year	0.4	0.0	0.01	8.1

ARROYO DEL OJO AT MANZANO, N. MEX.

The source of the water passing this stat'on is a spring situated in the southwestern part of the town. The water rises in the bottom of a large, enclosed basin, whence it escapes through a subterranean fissure about 400 feet in length, appearing finally at the surface near the center of the town. The amount of the flow varies considerably with the seasons, and from year to year. Sometimes it exceeds the capacity of the underground outlet, in which case, after rising to a depth of thirty feet or more, it flows over a low place in the rim of the basin and reaches the arroyo a short distance above the gage.

Location.—In the southwestern part of the town of Manzano.
Records available.—July 17, 1915, to December 31, 1917.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 38, 1916 p. 41. 1917 p. 42.

Monthly discharge of Arroyo del Ojo at Manzano, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
August (9-28)	12	5.6	9.73	386
November (3-30)	2.8	0 6	1.49	83
December	.6	.6	.60	37
1916				
January	5.0	0.6	2.23	137
February	8.5	4.5	5.32	306
March	11	5.7	8.24	507
April	20	11	15.9	944
May	23	8.3	12.6	777
June	8.3	2.7	4.17	248
July	2.7	0.2	1.26	78
August	0.2	0.2	0.20	12
September	0.2	0.0	0.07	4.4
October	2.1	0.1	0.62	38
November	1.6	0.2	0.95	57
December	0.2	0.1	0.19	12
The year	23	0.0	4.30	3,120

Monthly discharge of Arroyo del Ojo at Manzano, N. Mex., for 1915–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	0.4	0.3	0.32	19
February	0.5	0.4	0.42	24
March	3.3	0.5	3.21	197
April	3 3	3.3	3.30	196
May	3.2	1.2	1.90	117
June	1.1	0.4	0.74	44
July	0.8	0.4	0.49	30
August	0.5	0.2	0.38	23
September	0.3	0.2	0.28	17
October	0.2	0.1	0.19	12
November	0.1	0.1	0.10	6.0
December	0.1	0.1	0.10	6.2
The year	3.3	0 1	0.96	691

ARROYO DE LOS PINOS REALES AT MANZANO, N. MEX.

Location.—In the southern part of the town, about 50 feet below the ford on the main road to Torreon.

Records available.—July 17, 1915, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 39, 1916 p. 43, 1917 p. 44.

Monthly discharge of Arroyo de los Pinos Reales at Manzano, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
August (6-31)	1.9	0.0	0.70	32.1
November (21-30)	.0	.0	.00	0.0
December	0.0	0.0	0 00	0.0
1916				
January	0.0	0.0	0.00	0.0
February	1 2	0.0	0.42	24
March	3.5	0.8	2.54	156
April	8.1	3.6	6.87	408
May	15	4.2	9.63	592
June	4.2	0.0	2.30	137
July	0.0	0.0	0.00	0.0
August	0.0	0.0	0.00	0.0
September	0.0	0.0	0.00	0.0
October	0 5	0.0	0.27	17
November	0.5	0.0	0.02	1.0
December	0.0	0.0	0.00	0.0
The year	15	0.0	1.84	1,340

Monthly discharge of Arroyo de los Pinos Reales at Manzano, N. Mex., for 1915–1917.—continued

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	0.0	0.0	0.00	0.0
February	0.0	0.0	0.00	0.0
March	0.0	0.0	0.00	0.0
April	0.0	0.0	0.00	0.0
May	0.0	0.0	0.00	0.0
June	0.0	0.0	0.00	0.0
July	0.0	0.0	0.00	0.0
August	5.2	0.0	0.29	18
September	0.0	0.0	0.00	0.0
October	0.0	0.0	0.00	0.0
November	0.0	0.0	0.00	0.0
December	0.0	0.0	0.00	0.0
The year	5.2	0.0	0.02	18

ARROYO COLORADO NEAR MANZANO, N. MEX.

Location.—Three and one-half miles southeast of Manzano and 100 yards south of the J. B. Kelly ranch house.

Records available.—July 16, 1915, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 40, 1916 p. 45, 1917 p. 46.

Monthly discharge of Arroyo Colorado near Manzano, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
July (16-31)	1,220	0.6	136	4,320
November (5-30)	0.4	0.1	0.37	19
December	.1	.0	.01	0.8
1916				
January	2.0	0.0	0.54	33
February	2.0	0.0	0.79	46
March	1.0	0.3	0.48	30
April (12-30)	.....	.....	25.0	902
May	55	0 5	8.33	512
June	1.0	0.5	0.72	43
July	12	0 3	0.76	46
August	2.0	0.2	0.37	23
September	0.4	0.1	0.23	14
October (1-3 and 10-31)	.....	.....	11.7	578
November	0.1	0.0	0.01	0.8
December	0.0	0.0	0.00	0.0
The period	.....	.....	3.22	2,230
1917				
January	0.0	0.0	0.00	0.0
February	0.0	0.0	0.00	0.0
March	0.0	0.0	0.00	0.0
April	0.0	0.0	0.00	0.0
May	0.0	0.0	0.00	0.0
June	0.0	0.0	0.00	0.0
July	0.0	0.0	0.00	0.0
August	19	0.0	1.23	75
September	0.0	0.0	0.00	0.0
October	0.0	0.0	0.00	0.0
November	0.0	0.0	0.00	0.0
December	0.0	0.0	0.00	0.0
The year	19	0.0	0.10	75

BARRANCA CAÑON NEAR MOUNTAINAIR, N. MEX.

Location.—On the Harry Owen Ranch, about four and one-half miles west of Mountainair.

Records available.—November 20, 1915, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 41, 1916 p. 47, 1917 p. 48.

NOTE.—The stream was dry during the period covered by the record in 1915; in 1916 there was some discharge February 9-16, April 3-10 and 14-21, May 3-6, July 15, and October 12-15; in 1917 there was discharge July 15, August 17, 23 and 24, and September 20, but no measurements have been made when there was water running.

GILA RIVER BASIN

GILA RIVER NEAR SILVER CITY, N. MEX.

Location.—Forty-five miles northeast of Silver City, 2½ miles below Lyon's Hunting Lodge, one mile below the XSX Ranch house, 500 feet below the confluence of the East and West forks of the Gila River, in the northwest corner of T. 13 S., R. 13 W.

Records available.—June 20, 1912, to December 31, 1917.

References.—State Engineer's Repor s on the Surface Water Supply of New Mexico for 1911-12 p. 65, 1913 p. 54, 1914 p. 31, 1915 p. 43, 1916 p. 48, 1917 p. 49.

Monthly discharge of Gila River near Silver City, N. Mex., for 1912–1917

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
June (20-30)	72	52	58.7	1,280
July	109	28	67.2	4,130
August	160	52	88.4	5,440
September	147	45	71.2	4,240
October	70	48	56.3	3,460
November	54	42	47.9	2,850
December	54	39	45.1	2,770
The period	.....	.....	.....	24,200
1913				
January	56	40	49.0	3,010
February	70	45	54.5	3,030
March	241	50	91.8	5,640
April	400	136	260	15,500
May	194	63	96.8	5,950
June	74	28	51.6	3,070
July	42	26	31.7	1,950
August	138	28	54.2	3,330
September	112	37	55.6	3,310
October	99	40	54.5	3,350
November	353	40	86.9	5,170
December	95	56	68.6	4,220
The year	400	26	79.4	57,500
1914				
January	90	53	66 2	4,070
February	194	58	85.5	4,750
March	158	83	105	6,460
April	138	86	111	6,600
May	157	50	74.9	4,610
June	74	37	51.8	3,080
July	1,340	55	406	25,000
August	558	148	300	18,400
September	286	107	162	9,640
October	3,530	104	353	21,700
November	396	64	117	6,960
December	2,880	41	627	38,600
The year	3,530	37	207	150,000

Monthly discharge of Gila River near Silver City, N. Mex., for 1912–1917 —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	6,670	115	a 523	32,100
February	1,450	314	517	28,700
March	2,450	288	980	60,300
April	2,000	522	1,030	61,600
May	627	285	431	26,500
June	275	61	148	8,810
July	403	46	111	6,830
August	147	66	104	6,410
September	75	48	57.6	3,430
October	53	47	a 49.7	3,060
November	60	47	51.1	3,040
December	57	47	50.8	3,130
The year	6,670	46	337	244,000
NOTE—a Estimated.				
1916				
January (1-16 and 24-31)	.....	.....	259	12,300
February	615	234	406	23,400
March	680	365	464	28,500
April	327	190	249	14,800
May	352	105	187	11,500
June	99	30	64.4	3,830
July	266	28	79.4	4,880
August	465	74	175	10,800
September	177	66	110	6,520
October	9,620	65	697	42,800
November	225	80	130	7,730
December	92	52	65.7	4,040
The period	9,620	28	240	171,000
1917				
January	1,300	28	205	12,600
February	550	125	221	12,300
March	465	150	272	16,700
April	395	230	276	16,400
May	250	132	182	11,200
June	140	61	85.8	5,110
July	112	50	62.0	3,810
August	108	44	63.6	3,910
September	50	31	40.8	2,420
October	42	38	40.1	2,460
November	43	35	40.2	2,390
December	44	41	42.1	2,590
The year	1,300	28	127	91,900

GILA RIVER NEAR GILA, N. MEX.

Location.—In the Gila National Forest, in the northeast quarter of Sec. 21, T. 14 S., R. 16 W., about ¼ mile below the mouth of Turkey Creek and 9 miles northeast of Gila. Mogollon Creek enters about 5 miles below the gage.
Records available.—April 8 to December 17, 1914.
Reference.—State Engineer's Report on the Surface Water Supply of New Mexico for 1914 p. 33.

Monthly discharge of Gila River near Gila, N. Mex., for 1914.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
April (8-30)	210	104	158	7,210
May	150	62	85.2	5,240
June	92	35	59.5	3,540
July	.....	54	668	41,100
August	.....	.....	a 405	24,900
September	443	124	218	13,000
October	3,240	120	473	29,100
November	900	100	201	12,000
December (1-11)	147	80	104	3,510
The period	.....	.....	.....	140,000

NOTE—a Estimated.

GILA RIVER NEAR CLIFF, N. MEX.

Location.—One-half mile below the mouth of Mancos River, 9 miles below post office and 40 miles northwest of Silver City.
Records available.—September 9, 1904, to December 31, 1907.
Drainage area.—About 2,450 Square miles.
References.—U. S. Geological Survey Water Supply Papers 133 p. 198, 175 p. 159, 211 p. 122, 249 p. 176.

Monthly discharge of Gila River near Cliff, N. Mex., for 1905, 1906.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1905				
May (22-31)	648	390	516	10,230
June	458	99	272	16,180
July	436	72	133	8,178
August	436	65	182	11,190
September	602	68	192	11,420
October	268	120	149	9,162
November	13,640	127	1,392	82,830
December	3,190	342	665	40,890
The period	.....	.....	.....	190,100

Monthly discharge of Gila River near Cliff, N. Mex., for 1905, 1906. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1906				
January	437	186	236	14,500
February	1,140	193	574	31,900
March	4,850	359	1,060	65,200
April	860	391	590	35,100
May	382	125	238	14,600
June	112	32.0	69.4	4,130
July	141	32 0	89.1	5,480
August	5,250	88.0	461	28,300
September	189	60.0	90.3	5,370
October	107	76.0	83.3	5,120
November	118	90.0	98.5	5,860
December	4,180	36.0	459	28,200
The year	5,250	32.0	337	244,000

GILA RIVER NEAR REDROCK, N. MEX.

Location.—Four miles northeast of Redrock post office and ¼ mile above the mouth of Middle Box Cañon.

Records available.—May 14, 1908, to December 31, 1917.

References.—U. S. Geological Survey Water-Supply Papers 249 p. 176, 269 p. 219, 289 p. 200; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 68, 1913 p. 57, 1914 p. 35, 1915 p. 45, 1916 p. 50, 1917 p. 51.

Monthly discharge of Gila River near Redrock, N. Mex., for 1908–1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
November (16-30)	395	53	119	3,540
December	97	40	59.9	3,680
1909				
January	116	33	50.9	3,130
February	380	59	181	10,100
March	1,230	174	686	42,200
April	730	195	341	20,300
May	288	178	212	13,000
June	142	16	48.2	2,870
July	233	25	118	7,260
August	710	152	308	18,900
September	1,120	72	255	15,200
October	109	68	91.3	5,610
November	109	90	98.3	5,850
December	193	103	148	9,100
The year	1,230	16	211	154,000

Monthly discharge of Gila River near Redrock, N. Mex., for 1908–1910.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
January	185	114	162	9,960
February	114	96	105	5,830
March	120	67	87.0	5,350
April	118	57	87.3	5,190
May	71	49	56.0	3,440
June	80	32	44.4	2,640
July	164	27	39.5	2,430
August	240	28	44.5	2,740
September	73	36	44.7	2,660
October	63	49	56.6	3,480
November	87	60	75.6	4,500
December	108	80	93.4	5,740
The year	240	27	74.6	54,000

Monthly discharge of Gila River near Redrock, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
August	144	69	99.2	6,100
September	144	74	93.2	5,550
October	98	62	86.8	5,340
November	97	84	86.1	5,120
December	83	82	82.3	5,060
The period	.....	.....	.....	27,200
1913				
January	.....	.....	a 80.0	4,920
February	.....	.....	a 85.0	4,720
March	414	.....	289	17,800
April	578	188	379	22,600
May	202	125	158	9,720
June	120	25	70.4	4,190
July	226	18	48.9	3,010
August	418	35	134	8,240
September	665	40	138	8,210
October	663	111	194	11,900
November	665	84	244	14,500
December	268	126	156	9,590
The year	665	18	165	119,000
1914				
January	252	138	175	10,800
February	528	142	240	13,300
March	332	217	267	16,400
April	250	147	200	11,900
May	201	102	130	7,990
June	123	55	81.6	4,860
July	.....	63	790	48,600
August	748	288	442	27,200
September	452	149	282	16,800
October	3,620	118	484	29,800
November	1,750	.....	406	24,200
December	5,120	131	1,270	78,100
The year	5,120	55	428	290,000

Monthly discharge of Gila River near Redrock, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	.....	.....	.....	.....
February	1,760	340	a 618	34,300
March	2,860	430	1,260	77,500
April	2,340	615	1,360	81,200
May	810	350	549	33,800
June	350	160	226	13,400
July	3,250	140	469	28,900
August	1,670	195	370	22,700
September	355	165	203	12,100
October	175	125	150	9,250
November	120	105	115	6,840
December	145	100	134	8,220
The period	3,250	100	495	328,000
1916				
January (15, 17 and 26)	.....	.....	1,750	10,400
February (7-29)	.....	.....	601	27,400
March (1-24)	.....	.....	584	27,800
April (2–4 and 16–30)	.....	.....	514	5,090
May	.....	.....	.....	.....
June (3, 5, 8, 12, 15, 19, 22, 26, 30)	.....	.....	181	3,230
July (1-10, 16, 23 and 30))	.....	.....	94.9	2,450
August	2,020	203	554	34,000
September	1,720	572	850	50,600
October (1-13 and 22-31)	.....	.....	543	24,800
November	185	157	167	9,920
December	176	122	150	9,240
The period	.....	.....	463	205,000
1917				
January (1-14 and 30-31)	.....	.....	179	5,670
February	1,120	226	354	19,600
March	820	420	535	32,900
April	595	259	404	24,000
May	295	149	220	13,500
June	148	81	111	6,600
July	115	50	79.9	4,910
August	142	33	76.0	4,670
September	93	25	59.7	3,550
October	73	32	56.4	3,470
November	66	47	56.8	3,380
December	76	48	64.7	3,980
The period	.....	25	182	126,000

NOTE—a Estimated.

MIMBRES RIVER BASIN

MIMBRES RIVER NEAR FAYWOOD, N. MEX.

Location.—At a point about 6 miles northeast of Faywood Hot Springs and 10 miles from Faywood station on the Silver City branch of the Santa Fe Railway. It is about 400 feet below the proposed Rio Mimbres reservoir dam site.

Records available.—April 23, 1908, to December 31, 1917.

Drainage area.—About 450 square miles.

References.—U. S. Geological Survey Water-Supply Papers 248 p. 109, 268 p. 75, 288 p. 100, 358 p. 643; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 152, 1913 p. 68, 1914 p. 37, 1915 p. 47, 1916 p. 52, 1917 p. 53.

Monthly discharge of Mimbres River near Faywood, N. Mex., for 1908–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
May	25	6.3	11.6	713
June	15.8	7.8	9.70	577
July	630	10.1	126	7,750
August	1,000	24	124	7,620
September	520	41	63.0	3,750
October	61	28	50.3	3,090
November	44	16	23.9	1,420
December	65	16	30.3	1,860
The period	.....	.....	.....	26,800
1909				
January	46	4.4	17.2	1,060
February	21	4.0	9.54	530
March	25	4.8	8.91	548
April	5 0	1.6	3.15	187
May	3.2	.7	2.21	136
June	4.2	.2	1.25	74
July	93	.1	5.92	364
August	108	1.0	11.4	701
September	18	.5	3.57	212
October	7.0	2.0	4.47	275
November	8.5	5.0	6.90	411
December	4.0	1.5	2.26	139
The year	108	.1	6.40	4,640
1910				
January	8	3	5.11	314
February	10	2	4.41	245
March	2.5	2	2.34	144
April	2.5	1.6	2.20	131
May	2.5	1.6	1.80	111
June	12.5	.5	2.47	147
July	57	0	5.92	364
August	196	.....	2.69	1,650
September	25	0	2.60	155
October	0	0	0	0
November	5	0	.17	10 1
December	0	0	0	0
The year	196	0	2.47	3,270

Monthly discharge of Mimbres River near Faywood, N. Mex., for 1908–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911				
January	0	0	.0	0
1912				
May	10	8	9.0	553
June	38	6	8.1	482
July	150	7	35.6	2,190
August	100	19	42.9	2,640
September	160	12	36.2	2,150
October	16	11	11 5	707
November	11	11	11.0	655
December	19	10	10.0	615
The period	.....	.....	.....	9,990
1913				
January	21	10	12.9	793
February	10	.2	2.56	142
March	21	1.4	7.61	468
April	98	7.6	57.2	3,400
May	10	1.4	4 01	247
June	32	1.6	3.40	202
July	21	1.9	3.14	193
August	63	1.7	8.91	548
September	36	1.3	5.91	352
October	6.8	1 4	2.16	133
November	46	1.4	7.79	464
December	34	15	20.7	1,270
The year	98	.2	11.3	8,210
1914				
January	25	13	19.4	1,190
February	14	1.6	6.01	334
March	6.4	2.6	3.96	243
April	11	1.6	3.97	236
May	11	1.3	3.70	228
June	70	.9	11.0	655
July	2,200	4.2	355	21,800
August	223	29	86.2	5,300
September	44	12	26.7	1,590
October	610	14	63.3	3,890
November	26	16	21.9	1,300
December	1,420	11	200	12,300
The year	2,200	.9	67.9	49,100
1915				
January	396	30	a 66.0	4,060
February	278	15	59.9	3,320
March	400	27	157	9,680
April	376	151	248	14,800
May	151	56	94.8	5,830
June	52	29	33 6	2,000
July	664	18	124	7,610
August	372	125	260	16,000
September	209	52	152	9,020
October	84	52	67.6	4,160
November	50	19	31.6	1,880
December	54	17	32.7	2,010
The year	664	15	111	80,400

Monthly discharge of Mimbres River near Faywood, N. Mex., for 1908–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	188	32	80.1	4,930
February	105	70	81.2	4,670
March	89	48	68.5	4,210
April	60	2.9	18 3	1,090
May	18	3.2	7.32	450
June	5.0	2.6	4.27	254
July	13	2.0	3.08	189
August	316	1 2	62.0	3,810
September	248	6.8	114	6,800
October	394	2.2	71.6	4,400
November	53	24	34.0	2,020
December	27	18	22.6	1,390
The year	394	1.2	47.1	34,200
1917				
January	233	2.5	37.3	2,290
February	52	8.8	23.9	1,320
March	52	8.3	20.7	1,270
April	35	12	22.0	1,310
May	31	2.9	14.4	885
June	7.0	2.5	3.10	185
July	42	2.1	3.97	244
August	40	2.5	10.4	638
September	12	2.3	3.09	184
October	2.6	1.0	1.47	91
November	5.0	1.2	3 82	227
December	3.2	2.1	2.93	180
The year	233	1.0	12.2	8,820

NOTE—a Estimated.

LAMPBRIGHT DRAW NEAR SANTA RITA, N. MEX.

Location.—Five and a half miles southeast of Santa Rita, at the mouth of a box cañon, in Sec. 19, T. 18 S., R. 11 W., 2 miles below the mouth of Rustler Cañon and 3½ miles above the mouth of Martin Cañon.

Records available.—August 20, 1912, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911 12 p. 157, 1913 p. 73, 1914 p. 39, 1915 p. 49. 1916 p. 54, 1917 p. 55; U. S. Geological Survey Water-Supply Paper 358 p. 651.

Monthly discharge of Lampbright Draw near Santa Rita, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
August (20-31)	5.8	0.4	1.17	28
September	16	1.1	1.84	109
October	1 7	.7	1.11	68
November	1.3	.8	1.05	62
December	1.1	.7	.78	48
The period				315

Monthly discharge of Lampbright Draw near Santa Rita, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	0.7	0.3	0.49	30
February	1.2	.4	.57	32
March	.9	.7	.75	46
April	.7	.4	.62	37
May	.5	.4	.43	26
June	.5	.3	.43	26
July	.4	.1	.23	14
August	5.3	.2	1.34	82
September	4.2	1.2	2.68	159
October	4.2	.6	1 36	84
November	3.1	.1	.73	43
December	3.1	.4	.94	58
The year	5.3	.1	.88	637
1914				
January	2.0	.7	0.82	50
February	.8	.5	.62	34
March	.4	.3	.33	20
April	.3	.3	.30	18
May	.6	.2	.28	17
June	.6	.1	.24	14
July	500	.1	69.1	4,250
August	45	.2	6.93	426
September	.7	.3	.43	26
October	28	.2	1.64	101
November	16	.2	1.03	61
December	157	.3	17.5	1,080
The year	500	.1	8.41	6,100
1915				
January	27	0.3	2.22	137
February	15	.1	2.87	159
March	17	.8	4.74	292
April	2.4	1.1	1.60	95.2
May	2.2	1.0	1.56	96.0
June	1.0	.6	.86	51.2
July	290	.6	a 19.7	1,210
August	1.8	.7	1.16	71.2
September	280	.8	b 10.9	651
October	2.5	1.7	2.02	124
November	1.7	1.1	1.35	80.1
December	2.3	.8	.99	60.7
The year	290	0.?	4.?4	3,030
1916				
January	6.4	0.7	1.36	84
February	2.4	1.0	1.43	82
March	2.4	1.3	1.60	98
April	1.4	1.0	1.27	75
May	1.7	1.0	1.22	75
June	1.4	0.5	0.90	54
July	2.5	0.4	0.72	44
August	1.5	0.6	0.90	55
September	1.7	1.0	1.27	76
October	35	1.0	4.03	248
November	1 7	1.2	1.49	89
December	1.2	1.1	1.19	73
The year	35	0.4	1.45	1,050

Monthly discharge of Lampbright Draw near Santa Rita, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	9.3	0.8	1.59	98
February	2.2	1.2	1.51	84
March	4.7	1.2	1.77	109
April	1.1	0.8	0.98	58
May	0.9	0.4	0.62	38
June	0.6	0.2	0.30	18
July	1.5	0.2	0.44	27
August	0.4	0.3	0.37	23
September	0.4	0.3	0.39	23
October	0.4	0.3	0.35	22
November	0.4	0.4	0.40	24
December	0.5	0.3	0.36	22
The year	9.3	0.2	0.75	546

a Estimated July 26-28.
b Estimated September 16.

WHITEWATER CREEK AT HURLEY, N. MEX.

Location.—About the center of Sec 30, T. 18 S., R 12 W., at the "B" Ranch pumping station of the Chino Copper Company, ½ mile northeast of Hurley. A small draw enters from the east below the station.

Records available.—June 2, 1913, to December 31, 1914.

Drainage area.—About 35 square miles

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1913 p. 76, 1914 p. 41; U. S. Geological Survey Water-Supply Paper 358 p. 654.

Floods on Whitewater Creek at Hurley, N. Mex., in 1913–1914

Date	Duration, hours	Maximum gage height, feet	Date	Duration, hours	Maximum gage height, feet
1913			1914		
Oct. 2.....	8.0	2.30	July 19.....	6.0	2.70
Nov. 16.....	24.0	....	20.....	8.0	1.50
17.....	4.0	2.20	20.....	9.0	5.00
20.....	9.5	1.90	21.....	18.0	3.50
24.....	14.0	2.00	22.....	7.0	1.60
1914			26.....	4.5	2.50
July 1.....	4.0	4.00	27.....	8 5	5.00
2.....	10.5	4.00	29.....	22.0	4.70
12.....	3.0	1.20	Aug. 5.....	8.0	4.70
14.....	4.0	1.80	7.....	7.0	2.90
15.....	8 5	2.80	20.....	4.0	3.00
16.....	5.5	1.70	21.....	5.0	2.50
17.....	17.0	4.90	24.....	9.5	5.70
18.....	23.0	5.20	30.....	24 0	4.70
19.....	18.0	1.50	Sep. 10.....	3.5	2.70

RIO DE ARENA NEAR HURLEY, N. MEX.

Location.—In Sec. 21, T. 18 S., R. 13 W., 4 miles northwest of Hurley, 150 feet southwest of the pumping station of the Chino Copper Company, just above a small concrete dam, about half a mile above the mouth of a small stream coming from the north. (Note.)

Records available.—July 2, 1913, to December 31, 1914.

References.—State Engineer's Repor's on the Surface Water Supply of New Mexico for 1913 p. 80, 1914 p. 42; U. S. Geological Survey Water-Supply Paper 358 p. 662.

Note.—This description applies to gage established August 12, 1914; for description of original gage see State Engineer's Report on Surface Water Supply of New Mexico, 1913.

Floods on Rio de Arena near Hurley, N. Mex., in 1913-1914.

Date	Maximum gage height of flood, feet	Estimated discharge at maximum gage height, second-feet	Duration, hours	Mean gage height of flood, feet	Mean discharge, second-feet	Run-off, acre-feet
1913						
July 15.....	1.20	8	2	0.92	1.0	0.2
21.....	1.40	20	2.5	1.00	2.0	.4
Aug. 5.....	2.20	105	1.75	1.17	7.0	1.0
13.....	2.20	105	2	1.85	60	10
14.....	5.40	1,020	5.5	2 24	110	50
Sept. 6.....	2.90	260	3.5	1.94	68	20
7.....	1.10	3	2.5	.77	.5	.1
8.....	2.00	79	4.0	1.54	30	10
9.....	3.00	285	2.5	2 02	80	17
Oct. 3.....	1.80	55	1.0	1.60	35	3.0
Total.....	....	....	....	....	....	111.7

NOTE.—From July 1 to December 31, the stream was dry on days of missing data.

Floods on Rio de Arena near Hurley, N. Mex., in 1913–1914—continued.

Date	Maximum gage height of flood, feet	Estimated discharge at maximum gage height, second-feet	Duration, hours	Mean gage height of flood, feet	Mean discharge, second-feet	Run-off, acre-feet
1914						
July 1.....	3.60	440	4.0	2 30	124	41
2.....	1.20	8	2.0	.65	....	....
3.....	2.50	164	4.0	1.90	64	21
8.....	5.20	950	4.0	2.65	196	65
10.....	1.60	35	1.5	1 25	11	1
11.....	.50	....	.5	.30	....	....
13.....	1.50	28	2.5	0.85	2	....
13.....	1.50	28	2.5	0.85	2	....
14.....	2.20	105	1.5	1.90	64	8
16.....	10.10	2,660	3.5	4.60	750	217
17.....	1.10	....	4.0	.60	....	....
18.....	11.00	....	24.0	5.70	....	....
21.....	3.00	....	3.0	1.45	....	....
26.....	2.5	....	3.5	1 20	....	....
27.....	2.5	....	2.0	1.15	....	....
29.....	3.5	....	3.5	1.85	....	....
Aug. 7.....	2.6	....	2.0	1.85	....	....
20.....	1.1	....	1 5	.90	....	....
30.....	1.9	....	4.0	1.15	....	....
Oct. 3.....	2.00	....	12.5	1.25	....	....
Dec. 22.....	1.00	....	24.0	.40	....	....
23.....	1.00	....	12.0	.50	....	....

NOTE.—The stream was dry on days of missing data.

CAMERON CREEK AT FORT BAYARD, N. MEX.

Location.—Near the pumping plant at Fort Bayard, in sec. 25, T. 17 S., R. 13 W., one mile below the mouth of the nearest tributary, Beartooth Creek, an intermittent stream.

Records available.—January 17, 1907, to September 11, 1911, and August 6, 1912, to December 31, 1914.

References.—U. S. Geological Survey Water-Supply Papers 248 p. 110, 268 p. 78, 288 p. 102, 358 p. 654; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-1912 p. 158, 1913 p. 77, 1914 p. 43.

Monthly discharge of Cameron Creek at Fort Bayard, N. Mex., for 1907–1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907				
January (19-31)	.....	.....	2.54	65.5
February	.....	.....	1.02	56.6
March	.....	.....	1.00	61.5
April	.....	.....	1.00	59.5
May	.....	.....	1.00	61 5
June	.....	.....	1.00	59.5
July	.....	.....	1.31	80.6
August	.....	.....	2.35	144
September	.....	.....	.50	29.8
October	.....	.....	.50	30.7
November	.....	.....	.50	29 8
December	.....	.....	.50	30.7
The period	.....	.....	.....	710

Monthly discharge of Cameron Creek at Fort Bayard, N. Mex., for 1907–1910.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
January	.....	.....	0.50	30.7
February	.....	.....	.52	29.9
March	.....	.....	.50	30.7
April	.....	.....	.50	29.8
May	.....	.....	.50	30.7
June	.....	.....	.50	29.8
July	.....	.....	1.06	65.2
August	.....	.....	2.05	126
September	.....	.....	.50	29.8
October	.....	.....	.50	30.7
November	.....	.....	.50	29.8
December	.....	.....	.50	30.7
The year	.....	.....	.68	494
1909				
January	0.5	0.5	0.5	31
February	.5	.5	.5	28
March	.5	.5	.5	31
April	.5	.5	.5	30
May	.5	.5	.5	31
June	.5	.5	.5	30
July	8.0	.5	.77	47
August	96	.2	6.27	404
September	.2	.2	.2	12
October	.2	.2	.2	12
November	.2	.2	.2	12
December	.2	.2	.2	12
The year	96	.2	.93	680
1910				
January	.....	.....	0.2	12.3
February	.....	.....	.2	11.1
March	.....	.....	.2	12.3
April	.....	.....	.2	11.9
May	.....	.....	.2	12 3
June	.....	.....	.22	13.1
July	.....	.....	.61	37.5
August	.....	.....	.23	14.1
September	.....	.....	.13	7.7
October	.....	.....	0	0
November	.....	.....	.067	4 0
December	.....	.....	.0	0
The year	.....	.....	.183	136

Floods on Cameron Creek at Fort Bayard, N. Mex., in 1913.

Date	Hour	Duration in hours	Maximum gage height in feet
March 13	1:15 p. m.	1.00	1.40
15	1:00 p. m.	1 00	1.55
July 14	5:30 a. m.	6.5	2.50
Aug. 5	3:00 p. m	3.00	3.00
13	12:30 p. m.	2.5	2.50
14	2:15 p. m.	3.5	8.50

NOTE.—In other parts of the year the flow comes from springs and amounts to less than 1 second-foot.

Floods on Cameron Creek at Fort Bayard, N. Mex., in 1914.

Date	Maximum gage height of flood, feet	Estimated discharge at maximum gage height, second-feet	Duration, hours	Mean gage height of flood, feet	Mean discharge, second-feet	Run-off, acre-feet
July 17.....	3.00	1,270	7	2.50	770	445
20.....	3.00	430	2	2.15	40	7
Aug. 3.....	2.10	100	4	1.70	30	10
5.....	2.60	500	1	2.20	160	13
11.....	3.00	500	9	2.50	107	80
24.....	3.00	1,300	4	2.05	355	117
Total.....	....	....	....	....	....	672

NOTE.—During the remainder of the period from January 1 to September 30, the flow comes from springs and amounts to less than 1 second-foot.

CAMERON CREEK NEAR HURLEY, N. MEX.

Location.—In Section 27, T. 18 S., R. 13 W., 2 miles northwest of Hurley, ¼ mile below the concrete dam of the Chino Copper Company. Two small draws enter just above the station from the northwest.

Records available.—July 2, 1913, to December 31, 1914.

Drainage area—46 square miles.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1913 p. 78, 1914 p. 44; U. S. Geological Survey Water-Supply Paper 358 p. 657.

Floods on Cameron Creek near Hurley, N. Mex., in 1913, 1914.

Date	Maximum gage height of flood, feet	Estimated discharge at maximum gage height, second-feet	Duration, hours	Mean gage height of flood, feet	Mean discharge, second-feet	Run-off, acre-feet
1913						
July 14.....	2.50	1,450	8.5	1.30	400	282
22.....	2.30	1,250	9.5	1.20	340	268
Aug. 5.....	.60	100	6.0	.50	70	35
11.....	1.00	230	6.0	.90	200	100
12.....	.30	20	1.5	.20	10	1
13.....	1.30	400	7.5	1.20	340	212
14.....	5.50	5,490	12.0	2.40	1,370	1,360
Sept. 8.....	1.20	340	5.0	.55	85	35
9.....	3.30	2,350	4.5	.90	200	75
Nov. 17.....	.50	70	4.0	.35	35	12
Total.....	....	....	....	....	....	2,380

Floods on Cameron Creek near Hurley, N. Mex., in 1913, 1914—continued.

Date	Maximum gage height of flood, feet	Estimated discharge at maximum gage height, second-feet	Duration, hours	Mean gage height of flood, feet	Mean discharge, second-feet	Run-off, acre-feet
1914						
June 6	0.40	21	1.0	0.30	8	1
July 1	1.80	825	8.0	.70	108	71
1	.40	21	8.0	.20	3	2
3	.80	150	8.5	.45	32	22
8	.20	3	2.5	.10	1	....
10	.30	8	2.5	.45	32	7
11	.20	3	2.0	0.10	1	....
12	1.80	825	5.0	1.20	375	155
13	.40	21	5.5	.25	6	3
15	.90	200	6.5	.95	228	122
16	2.50	1,480	7.0	1.35	475	275
17	1.90	910	14.0	.95	228	264
18	3.00	2,000	22.0	1.40	510	927
19	.30	8	1.5	.15	2	....
20	1.20	375	7.0	.70	108	62
26	.80	150	3.0	.55	57	14
27	.70	108	15.5	.45	32	41
28	.70	108	10.5	.45	32	28
Aug. 4	.70	108	13.0	.50	42	45
5	1.50	585	13.0	.85	175	188
7	.90	200	11.5	.55	57	54
11	1.40	510	13.0	.85	175	188
21	1.20	375	9.0	.85	175	130
23	.30	8	3.5	.15	2	1
24	2.80	1,790	8.0	1.25	408	270
26	.80	150	20.0	.45	32	53
Sept. 6	.40	21	4.0	.30	8	3
7	1.70	745	2.5	1.10	315	65
Oct. 4	2.40	1,380	7.75	1.15	345	221
Dec. 19	1.30	401	5.0	.60	54	22
20	1.10	279	24.0	.85	146	290
21	1.50	540	24.0	.80	125	248
22	1.30	401	24.0	1.10	279	553
23	1.30	401	24.0	1.15	321	637
24	1.20	339	24.0	1.10	279	553
25	.90	170	24.0	.85	146	290
26	.70	86	24.0	.65	69	137
27	.50	29	24.0	.50	29	58
28	.50	29	24.0	.50	29	58
29	.30	5	24.0	.30	5	10
30	.30	5	24.0	.25	2	4
31	.20	1	24.0	.20	1	2
Total	....	....	....	....	....	6,070

NOTE.—From July 2 to December 31, 1913, there was no flow on days for which data are missing. The stream was dry in 1914 during the periods for which data are missing.

STEVENS CREEK NEAR FORT BAYARD, N. MEX.

Location.—About 3½ miles north of Fort Bayard, 2 miles above the mouth of the creek, in Sec. 12, T. 17 S., R. 13 W. There is no tributary below the station.

Records available.—Fragmentary records January 17, 1907, to December 31, 1914.

References.—U. S. Geological Survey Water-Supply Papers 248 p. 112, 268 p. 80, 288 p. 104, 358 p. 658; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 159, 1913 p. 79, 1914 p. 46.

Floods on Stevens Creek near Fort Bayard, N. Mex., 1912–1914.

Date	Duration, hours	Maximum gage height, feet	Date	Duration, hours	Maximum gage height, feet
1912			Aug. 5.....	1.5	.1
Aug. 15.....	1.5	0.5	14.....	2.0	2.9
16.....	1.5	.2	1914		
19.....	1.5	.1	July 1.....	1.0	0.0
30.....	4.0	1.1	17.....	3.5	1.1
31.....	2.0	.5	20.....	2.5	1.1
Sept. 2.....	2.5	.4	Aug. 1.....	1.5	1.1
1913			22.....	1.0	0.9
July 14.....	1.0	0.0	23.....	2.0	1.4
18.....	1.5	.3	30.....	1.5	1.1

NOTE.—The creek was dry Aug. 6-14, 17, 18, 20-29, Sept. 1, and Sept. 3 to Dec. 31, 1912. The creek was dry in 1913 during parts of the year not shown. The creek was dry in 1914 on all days not shown except Dec. 19-31, when there was an average flow of 1 second-foot.

PECOS RIVER BASIN

PECOS RIVER NEAR COWLES, N. MEX.

Location.—At a highway bridge in Sec. 28, T. 18 N., R. 12 E., 5 miles below Cowles post office, midway between Cañon Espiritu Santo and Mora Creek, and half a mile below the mouth of Willow Creek.

Records available.—March 9, 1910, to December 31, 1917.

References.—U. S. Geological Survey Water-Supply Papers 288 p. 112, 358 p. 455; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 164, 1913 p. 161, 1914 p. 47, 1915 p. 51, 1916 p. 56, 1917 p. 57.

Monthly discharge of Pecos River near Cowles, N. Mex., for 1910–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
March (9-31)	107	62	78.0	3,560
April	384	62	147	8,750
May	370	172	280	17,200
June	172	62	106	6,310
July	79	55	58.9	3,620
August	117	30	58.5	3,600
September	36	30	32.2	1,920
October	42	25	31.7	1,950
November	36	20	26.8	1,590
December	30	....	20.5	1,260
The period	....	....	....	49,800
1911				
January	25	13	19.5	1,200
February	70	11	27.1	1,500
March	79	20	36.2	2,230
April	172	42	89.9	5,300
May	520	149	327	20,100
June	433	75	174	10,400
July	560	112	296	18,200
August	338	45	110	6,760
September	75	45	47.9	2,850
October	523	63	125	7,690
November	110	56	85.8	5,110
December	99	....	58.5	3,600
The year	560	11	117	85,000
1912				
January	....	....	a 20.0	1,230
February	....	....	a 25.0	1,440
March	60	22	32.2	1,980
April	271	29	110	6,550
May	1,800	299	778	47,800
June	1,380	98	547	32,500
July	168	30	96.2	5,920
The period	....	....	....	97,400

Monthly discharge of Pecos River near Cowles, N. Mex., for 1910–1917. —continued.

1913				
January	....	....	a 25.0	1,540
February	....	....	a 20.0	1,110
March	....	....	a 40.0	2,460
April	160	44	89.1	5,300
May	300	170	205	12,600
June	724	138	248	14,800
July	160	91	121	7,440
August	214	71	98.4	6,050
September	136	60	77.9	4,640
October	170	71	106	6,520
November	65	47	49.4	2,940
December	54	25	30.7	1,890
The year	724	....	92.9	67,300
1914				
January	....	....	26.6	1,640
February	....	....	32.0	1,780
March	71	21	36.9	2,270
April	....	50	126	7,500
May	663	229	466	28,700
June	637	....	315	18,700
July	566	....	356	21,900
August	369	171	247	15,200
September	....	57	85.4	5,080
October	150	43	61.3	3,770
November	65	38	53.7	3,200
December	....	....	31.0	1,910
The year	663	....	154	112,000
1915				
January	35	29	a 31.8	1,960
February	29	23	a 30.6	1,500
March	54	18	30.5	1,880
April	391	51	181	10,800
May	700	180	416	25,600
June	670	227	470	28,000
July	300	77	137	8,440
August	124	55	77.6	4,770
September	102	41	60.7	3,610
October	39	31	34.1	2,100
November	35	29	30.7	1,830
December	35	24	32.1	1,980
The year	700	18	128	92,500

Monthly discharge of Pecos River near Cowles, N. Mex., for 1910–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	50	21	26.8	1,650
February	35	21	27.1	1,560
March	145	24	83.1	5,110
April	360	84	145	8,650
May	804	187	520	32,000
June	575	140	387	23,000
July	218	96	118	7,230
August	240	82	144	8,850
September	87	41	55.4	3,300
October	164	42	96.1	5,910
November	87	56	70.5	4,200
December	56	21	31.7	1,950
The year	804	21	142	103,000
1917				
January	42	21	28.4	1,740
February	58	21	33.8	1,870
March	58	21	35.3	2,170
April	129	21	65.5	3,890
May	183	70	108	6,620
June	284	136	211	12,500
July	160	81	111	6,820
August	86	37	57.7	3,550
September	52	29	40.0	2,380
October	32	15	24.8	1,530
November	31	16	21.1	1,260
December	32	16	21.6	1,330
The year	284	15	63.1	45,700

Note.—a estimated.

PECOS RIVER NEAR ANTON CHICO, N. MEX.

Location.—Three miles northwest of Anton Chico, one mile below the settlement of Tecolotito, and one and one-fourth miles below the mouth of Tecolote Creek.

Records available.—April 28, 1910, to December 31, 1917.

References.—U. S. Geological Survey Water-Supply Papers 288 p. 114, 358 p. for 1911-12 p. 167, 1913 p. 164, 1914 p. 49, 1915 p. 53, 1916 p. 58, 1917 p. 59.

Monthly discharge of Pecos River near Anton Chico, N. Mex., for 1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
April (25-30)	292	292	292	3,480
May	....	116	254	15,600
June	138	....	69.7	4,150
August	342	....	66.6	4,100
September	35	....	26.2	1,560
October	35	20	26.6	1,640
November	28	20	22.9	1,360
December	23	17.5	20.0	1,230
The period	....	....	....	33,120

Monthly discharge of Pecos River near Anton Chico, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
January	....	....	a 25.0	1,540
February	17	12	14.6	840
March	375	16	119	7,320
April	466	141	302	18,000
May	1,150	445	757	46,500
June	1,040	340	744	44,300
July	305	68	154	9,470
August	238	2	54.3	3,340
September	42	9	16.3	970
October	42	19	27.5	1,690
November	33	17	21.8	1,300
December	....	....	a 19.0	1.170
The year	1,150	2	188	136,000
1913				
January	....	....	a 25	1,540
February	....	....	a 20	1,110
March	24	12	20.9	1,290
April	180	31	88.9	5,290
May	208	92	139	8,550
June	3,980	63	566	33,700
July	307	63	117	7,190
August	356	35	119	7,320
September	213	31	71.6	4,260
October	149	24	54.2	3,330
November	47	24	33.2	1,980
December	60	28	50.3	3,090
The year	3,980	....	109	78,600
1914				
January	81	40	53.1	3,260
February	....	21	31.1	1,730
March	144	21	62.5	3,840
April	290	53	187	11,100
May	724	254	476	29,300
June	534	60	221	13,200
July	1,060	137	378	23,200
August	....	133	272	16,700
September	180	86	133	8,180
October	180	40	77.1	4,740
November	98	60	80.7	4,800
December	60	....	43.8	2,690
The year	1,060	21	169	123,000
1915				
January	47	42	a 45.0	2,760
February	88	35	64.6	3,590
March	254	23	89.3	5,490
April	2,400	193	742	44,100
May	1,060	229	589	36,200
June	810	264	543	32,300
July	1,900	30	301	18,500
August	550	115	243	15,000
September	410	93	144	8,550
October	125	48	69.6	4,280
November	84	36	53.6	3,190
December	36	14	25.1	1,540
The year	2,400	14	242	176,000

Monthly discharge of Pecos River near Anton Chico, N. Mex., for 1912–1917. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	84	20	47.8	2,940
February	198	84	150	8,630
March	475	170	331	20,400
April	1,210	300	682	40,600
May	1,640	650	1,000	61,700
June (1-24)	....	....	454	21,600
July (15-31)	....	....	221	7,470
August (1-13)	....	....	236	6,090
September (7-30)	....	....	63.8	3,030
October	444	24	184	11,300
November	158	62	148	8,820
December	59	20	36.5	2,240
The period	....	....	305	195,000
1917				
January	56	24	36.9	2,270
February	54	24	38.4	2,130
March	29	24	25.8	1,590
April	133	29	50.9	3,030
May	450	98	258	15,900
June	280	87	170	10,100
July	80	20	41.3	2,540
August	160	10	41.2	2,530
September	120	12	44.8	2,660
October	23	11	15.7	968
November	22	12	17.5	1,040
December	48	1.0	11.9	730
The year	450	1.0	62.9	45,500

NOTE—a Estimated.

PECOS RIVER AT SANTA ROSA, N. MEX.

Location.—At the highway bridge at Santa Rosa, one mile above the mouth of Rio Agua Negra Chiquita and six miles above the mouth of Cañon Pintada.

Records available.—May 5, 1903, to December 31, 1906; February 1, 1910, to July 31, 1911; September 21, 1912, to December 31, 1917.

Drainage area.—2,780 square miles.

References.—U. S. Geological Survey Water-Supply Papers 99 p. 363, 132 p. 97, 174 p. 93, 210 p. 78, 288 p. 116, 358 p. 465; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 171, 1913 p. 167, 1914 p. 51, 1915 p. 55, 1916 p. 60, 1917 p. 61.

Monthly discharge of Pecos River at Santa Rosa, N. Mex., for 1906.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
January	14	14	14	861
February	14	10	13.3	739
March	85	10	15.1	928
April	620	250	374	22,300
May	830	423	544	33,400
June	2,470	6	399	23,700
July	1,370	12	377	23,200
August	1,750	13	179	11,000
September	88	13	22.4	1,330
October	160	13	43.9	2,700
November	88	13	53.9	3,210
December	810	13	132	8,120
The year	2,470	6	181	131,000

Monthly discharge of Pecos River at Santa Rosa, N. Mex., for 1910–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
February	30	13	19.8	1,100
March	60	10	22.6	1,390
April	160	5	53.6	3,190
May	340	100	214.0	1,320
June	1,010	10	141.0	8,390
July	120	10	31.7	1,950
August	4,300	13	782.0	48,100
September	192	6	39.8	2,370
October	23	6	11.8	726
November	16	8	12.4	738
December	23	8	13.3	818
The period	....	....	....	70,100
1911				
January	29	11.0	15.5	953
February	25	8.8	13.8	766
March	20	10.0	13.3	818
April	200	10.0	47.0	2,800
May	1,960	62.0	454	27,900
June	1,840	46.0	349	20,800
July	6,080	127	902	55,500
The period	....	....	....	109,000

Monthly discharge of Pecos River at Santa Rosa, N. Mex., for 1910–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
September (21-30)	16	14	14.4	286
October	16	14	14.8	910
November	15	14	14.7	875
December	14	13	13.8	848
The period	....	....	....	2,920
1913				
January	17	6.2	13.2	812
February	23	9.8	13.4	744
March	19	7.1	12.3	756
April	162	5.9	36	2,140
May	301	132	200	12,300
June	2,930	126	649	38,600
July	270	10	67.9	4,180
August	171	10	37.2	2,290
September	98	15	32.1	1,910
October	76	14	35.8	2,200
November	24	12	14.2	845
December	19	10	11.9	732
The year	2,930	5.9	93.3	67,500
1914				
January	12	7.0	10.2	627
February	14	9.4	11.2	622
March	63	10	22.7	1,400
April	112	25	68.3	4,060
May	800	174	273	16,800
June	320	46	186	11,100
July	2,540	142	584	35,900
August	1,360	120	371	22,800
September	118	24	51.1	3,040
October	159	22	48.8	3,000
November	74	16	36.6	2,180
December	27	13	19.9	1,220
The year	2,540	7.0	142	103,000
1915				
January	39	13	19.5	1,200
February	40	14	19.0	1,050
March	140	18	a46.7	2,870
May (26-31)	815	360	524	6,240
June	930	150	a423	25,200
July	2,300	13	a440	27,000
August (1-25)	670	50	a266	13,200
October (6-31)	143	17	28.3	1,460
November	22	13	17.5	1,040
December	16	12	13.4	821
1916				
January	11	9.9	10.1	619
February	15	10	11.4	656
March	565	10	251	15,400
April	1,450	270	930	55,300
May	1,900	300	1,010	62,200
June	565	12	302	18,000
July	520	11	53.2	3,270
August	950	14	423	26,000
September	285	10	38.2	2,270
October	610	11	228	14,000
November	170	16	39.1	2,330
December	145	23	44.1	2,710
The year	1,900	9.9	279	203,000

a Estimated March 26-31; June 19-30; July 3, 26-29, 31; August 10, 11, 20,

Monthly discharge of Pecos River at Santa Rosa, N. Mex., for 1910–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	140	13	44.6	2,740
February	54	18	31.3	1,740
March	20	13	17.6	1,080
April	27	15	19.5	1,160
May	770	14	225	13,800
June	378	12	126	7,470
July	1,010	11	69.0	4,240
August	3,500	10	259	15,900
September	508	12	72.1	4,290
October	23	16	18.7	1,150
November	18	12	13.8	821
December	20	13	15.8	974
The year	3,500	10	76.6	55,400

PECOS RIVER NEAR GUADALUPE, N. MEX.

Location.—Seventeen miles northwest of Fort Sumner, 8 miles above Guadalupe post office, 500 feet below the mouth of Alamogordo Creek, and one-half mile above the Alamo dam site.

Records available.—October 11, 1912, to December 31, 1917.

References.—U. S. Geological Survey Water-Supply Paper 358, p. 473; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 174, 1913 p. 170, 1914 p. 53, 1915 p. 57, 1916 p. 62, 1917 p. 63.

Monthly discharge of Pecos River near Guadalupe, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
October (11-31)	81	74	77.3	3,220
November	84	80	82.1	4,890
December	.....	.....	a80	4,920
The period	.....	.....	.....	13,000
1913				
January	95	79	85.8	5,280
February	92	68	84.4	4,690
March	77	62	68.4	4,210
April	362	66	111	6,600
May	195	101	144	8,850
June	5,120	110	1,110	66,000
July	656	59	198	12,200
August	260	57	107	6,580
September	203	78	107	6,370
October	634	75	136	8,360
November	101	81	87.6	5,210
December	199	83	113	6,950
The year	5,120	57	195	141,000

a Estimated.

Monthly discharge of Pecos River near Guadalupe, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
January	106	85	94.7	5,820
February	114	76	86.6	4,810
March	94	73	80.5	4,950
April	1,540	75	166	9,880
May	26,200	264	1,640	101,000
June	1,170	180	449	26,700
July	3,860	379	1,310	80,600
August	1,550	191	628	38,600
September	172	80	101	6,010
October	606	85	174	10,700
November	159	88	107	6,370
December	141	92	112	6,890
The year	26,200	73	417	302,000
1915				
January	150	95	99.4	6,110
February	147	76	95.3	5,290
March	415	80	134	8,260
April	17,800	240	2,270	135,000
May	935	310	629	38,700
June	860	235	468	27,900
July	3,000	40	469	28,800
August	695	155	332	20,400
September	730	90	184	10,900
October	151	82	105	6,450
November	111	85	102	6,060
December	125	85	100	6,180
The year	17,800	40	415	300,000
1916				
January	105	71	79.0	4,860
February	95	78	86.5	4,970
March	400	95	234	14,400
April	940	218	536	31,900
May	1,700	500	956	58,700
June	512	100	309	18,400
July	270	95	112	6,910
August	640	164	348	21,400
September	5,230	98	468	27,900
October	405	97	197	12,100
November	152	100	113	6,750
December	98	72	84.9	5,220
The year	5,230	71	294	214,000
1917				
January	146	62	86.6	5,330
February	116	79	96.7	5,370
March	89	67	76.2	4,680
April	85	67	76.3	4,540
May	430	82	198	12,200
June	204	81	141	8,370
July	226	68	90.1	5,540
August (1-11 and 18-31)	....	....	416	20,600
September	385	80	165	9,790
October	98	84	91.5	5,620
November	112	94	102	6,080
December	119	93	103	6,310
The period	....	....	133	94,400

PECOS RIVER NEAR FORT SUMNER, N. MEX.

Location.—Four miles northwest of Fort Sumner, three and one-half miles above the Atchison, Topeka and Santa Fe Railway bridge, in Sec. 12, T. 3 N, R. 25 E., about 10 miles below the mouth of Arroyo Salado.

Records available.—June 12, 1904, to February 28, 1910, and September 16, 1912, to December 31, 1913.

References.—U. S. Geological Survey Water-Supply Papers 132 p. 98, 174 p. 95, 210 p. 79, 248 p. 116, 268 p. 83, 288 p. 118, 358 p. 475; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 176, 1913 p. 173.

Monthly discharge of Pecos River near Fort Sumner, N. Mex., for 1904–1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1904				
June (12-30)	3,940	72	487	18,350
July	5,670	61	643	39,540
August (1-11)	2,050	100	749	16,340
The period	....	....	....	74,230
1905				
July (5-31)	420	85	138	7,391
August	550	85	191	11,740
September	1,250	85	151	8,985
October	160	90	98.4	6,050
November	825	95	183	10,890
December	600	95	235	14,450
The period	....	....	....	59,510
1906				
January	2,050	100	548	33,700
February	210	68	140	7,780
March	220	40	99.2	6,100
April	630	198	357	21,200
May	1,000	240	578	35,500
June	1,100	115	393	23,400
July	3,600	70	619	38,100
August	1,470	120	342	21,000
September	1,440	100	194	11,500
October	360	50	130	7,990
November	180	60	106	6,310
December	1,000	106	240	14,800
The year	3,600	40	312	227,000
1907				
January	1,120	40	121	7,440
February	125	60	80.9	4,490
March	350	95	171	10,500
April	520	160	310	18,400
May	940	420	590	36,300
June	1,070	300	561	33,400
July	3,800	100	402	24,700
August	980	60	261	16,000
September	330	60	158	9,400
October	1,200	60	164	10,100
November	210	60	116	6,900
December	190	120	140	8,610
The year	3,800	40	251	183,000

Monthly discharge of Pecos River near Fort Sumner, N. Mex., for 1904–1910.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
January	240	25	96.5	5,930
February	145	30	83.5	4,800
March	160	75	121	7,440
April	440	115	203	12,100
May	960	167	247	15,200
June	245	52	132	7,860
July	950	65	271	16,700
August	a6,500	45	814	50,100
September	385	38	85.2	5,070
October	105	58	79.3	4,880
November	125	78	93.8	5,580
December	185	87	131	8,060
The year	a6,500	25	196	144,000
a Estimated.				
1909				
January	310	91	141	8,670
February	290	118	149	8,280
March	250	65	108	6,640
April	190	55	105	6,250
May	280	60	112	6,890
June	280	65	112	6,660
July	1,620	72	294	18,100
August	1,860	168	579	35,600
September	1,480	64	351	20,900
October	127	48	77.5	4,770
November	58	12	29.5	1,760
December	120	7	39.3	2,420
The year	1,860	7	175	127,000
1910				
January	750	11	91.7	5,640
February	480	66	240	13,300
The period	....	....	....	18,940

Monthly discharge of Pecos River near Fort Sumner, N. Mex., for 1912, 1913.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
September (16-30)	114	72	92.3	2,750
October	100	80	85.5	5,260
November	94	68	80.7	4,800
December	100	70	81.2	4,990
The period	....	....	....	17,800

Monthly discharge of Pecos River near Fort Sumner, N. Mex., for 1912, 1913.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	292	62	100	6,150
February	148	76	89.1	4,950
March	114	73	89.8	5,520
April	305	62	113	6,720
May	193	96	140	8,610
June	3,900	102	1,080	64,300
July	900	62	213	13,100
August	266	59	103	6,330
September	171	70	98.0	5,830
October	618	74	129	7,930
November	110	80	88.4	5,260
December	194	78	102	6,270
The year	3,900	59	195	141,000

PECOS RIVER NEAR ROSWELL, N. MEX.

Location.—At the highway bridge 8 miles southeast of Roswell and about 200 feet below the mouth of Hondo River.

Records available.—April 24, 1903, to June 30, 1906.

References.—U. S. Geological Survey Water-Supply Papers 99 p. 360, 132 p. 101, 174 p. 97, 210 p. 81, 358 p. 485.

Monthly discharge of Pecos River near Roswell, N. Mex., for 1906.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
January	500	275	343	21,100
February	335	220	297	16,500
March	220	69	123	7,560
April	830	94	406	24,200
May	1,380	325	585	36,000
June	1,600	110	385	22,900
The period	....	....	....	128,000

PECOS RIVER NEAR DAYTON, N. MEX.

Location.—Three miles east of Dayton, in Sec. 13, T. 18 S., R. 26 E., half a mile above the mouth of Penasco River.

Records available—March 24, 1905, to December 31, 1917.

References.—U. S. Geological Survey Water-Supply Papers 147 p. 99, 210 p. 83, 248 p. 119, 268 p. 86, 288 p 120, 358 p. 488; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 179, 1913 p. 176, 1914 p. 55, 1915 p. 59, 1916 p. 64, 1917 p. 65.

Monthly discharge of Pecos River near Dayton, N. Mex., for 1905–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1905				
March (24-31)	550	475	502	7,970
April	3,600	475	1,040	61,900
May	3,670	920	1,740	107,000
June	3,000	190	1,150	68,400
July	50,300	85	4,350	267,000
August	1,820	80	675	41,500
September	1,540	125	421	25,100
October	250	150	214	13,200
November	2,720	175	648	38,600
December	950	370	657	40,400
The period	....	....	....	671,000
1906				
January	750	325	439	27,000
February	365	295	342	19,000
March	290	131	194	11,900
April	830	145	530	31,500
May	1,000	310	626	38,500
June	1,000	165	308	18,300
July	3,000	140	643	39,500
August	760	112	270	16,600
September	217	77	117	6,960
October	268	140	190	11,700
November	760	195	391	23,300
December	1,230	325	599	36,800
The year	3,000	77	387	281,000
1907				
January	630	315	469	28,800
February	835	185	395	21,900
March	315	90	139	8,500
April	380	110	210	12,500
May	540	210	352	21,600
June	1,260	210	562	33,400
July	3,700	73	464	28,500
August	1,450	80	335	20,600
September	910	80	271	16,100
October	3,450	80	446	27,400
November	830	270	419	24,900
December	2,000	270	425	26,100
The year	3,700	80	374	270,000

Monthly discharge of Pecos River near Dayton, N. Mex., for 1905–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
January	530	235	373	22,900
February	430	120	277	15,900
March	150	60	78.7	4,840
April	130	75	109	6,490
May	330	65	138	8,480
June	220	40	91.5	5,440
July	1,950	45	478	29,400
August	7,300	50	1,560	95,900
September	1,520	45	271	16,100
October	260	28	45.4	2,790
November	300	85	155	9,220
December	750	260	362	22,300
The year	7,300	28	328	240,000
1909				
January	1,080	230	345	21,200
February	340	85	186	10,300
March	260	70	109	6,700
April	115	30	49.3	2,930
May	151	30	55.6	3,420
June	360	36	107	6,370
July (1-25)	1,290	36	203	10,100
August (3-31)	530	67	181	10,400
September	4,200	90	476	28,300
October	167	82	111	6,820
November	420	100	133	7,910
December	1,440	135	362	22,300
The period	....	....	....	137,000
1910				
January	590	207	298	18,300
February	255	167	230	12,800
March	135	91	109	6,700
April	100	67	81.6	4,860
May	388	38	170	10,500
June	1,080	42	185	11.000
July	159	32	63.2	3,890
August	9,100	70	1,430	87,900
September	540	74	141	8,390
October	122	74	93.3	5,740
November	230	100	151	8,980
December	255	207	234	14,400
The year	9,100	32	267	193,460
1911				
January	570	244	312	19,200
February	372	178	254	14,100
March	270	145	180	11,100
April	460	110	163	9,700
May	2,470	105	406	25,000
June	740	60	184	10,900
July	a11,000	55	1,470	90,400
August	1,000	112	354	21,800
September	561	154	201	12,000
October	1,370	170	358	22,000
November	680	250	328	19,500
December	398	a150	308	18,900
The year	a11,000	55	379	275,000

a Estimated.

Monthly discharge of Pecos River near Dayton, N. Mex., for 1905–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
January	375	200	270	16,600
February	290	180	240	13,800
March	290	100	168	10,300
April	265	100	168	10,000
May	990	b 90	496	30,500
June	3,000	345	882	52,500
July	460	44	159	9,780
August	540	65	158	9,720
September	660	73	206	12,300
October	320	103	159	9,780
November	175	91	126	7,500
December	355	175	248	15,200
The year	3,000	44	273	198,000

NOTE.—b Printed 30 in State Engineer's Report on the Surface Water Supply of New Mexico for 1911-1912 in error.

1913				
January	637	250	344	21,100
February	422	174	302	16,800
March	264	106	141	8,670
April	546	72	145	8,630
May	150	56	96.1	5,910
June	11,100	47	1,350	80,300
July	2,020	124	293	18,000
August	217	58	87.0	5,350
September	238	80	117	6,960
October	714	120	216	13,300
November	278	150	196	11,700
December	510	208	307	18,900
The year	11,100	47	298	216,000
1914				
January	354	238	273	16,800
February	280	225	254	14,100
March	225	120	160	9,840
April	280	108	162	9,640
May	20,300	108	1,660	102,000
June	1,840	171	753	44,800
July	6,300	238	1,320	81,200
August	1,360	184	476	29,300
September	242	94	123	7,320
October	1,460	74	301	18,500
November	478	218	302	18,000
December	....	310	362	22,300
The year	20,300	74	516	374,000
1915				
January	469	362	395	24,300
February	464	324	377	20,900
March	416	180	330	20,300
April	42,000	198	3,696	219,900
May	1,090	242	661	40,600
June	2,000	205	532	31,700
July	3,434	79	688	42,300
August	1,956	138	566	34,800
September	345	83	223	13,300
October	771	144	280	17,200
November	256	133	191	10,400
December	310	197	269	17,500
The year	42,000	79	681	493,200

Monthly discharge of Pecos River near Dayton, N. Mex., for 1905–1917. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	....	....	331	20,300
February	....	....	290	16,700
March	....	....	242	14 900
April	....	....	443	26,400
May	....	....	809	49,700
June	....	....	222	13,200
July	....	....	44.7	2,700
August	....	....	786	48,300
September	....	....	367	21,900
October	....	....	280	17,200
November	....	....	260	15,500
December	....	....	297	18,300
The year	....	....	365	265,000
1917				
January	575	275	350	21,500
February	314	164	256	14,200
March	187	115	147	9,040
April	122	73	88.5	5,270
May	251	65	129	7 930
June	143	41	77.7	4,620
July	59	30	37.2	2,290
August	2,910	28	424	26,100
September	880	157	355	21,100
October	143	68	86.4	5,310
November	158	88	125	7 440
December	229	158	190	11,700
The year	2,910	28	189	136,500

PECOS RIVER NEAR LAKEWOOD, N. MEX.

Location.—Three miles southeast of Lakewood, half a mile below the McMillan Reservoir dam, in Sec. 11, T. 20 S., R. 26 E. No tributary enters the Pecos between the station and the reservoir.

Records available.—January 11, 1906, to December 16, 1911.

References.—U. S. Geological Survey Water-Supply Papers 210 p. 85, 248 p. 122, 268 p. 88, 288 p. 122, 358 p. 501; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 183.

Monthly discharge of Pecos River near Lakewood, N. Mex., for 1906–1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1906				
February (8-28)	620	355	500	20,800
March	400	5	62.9	3 870
April	1,160	2	351	20,900
May	1,030	30	370	22,800
June	1,000	25	216	12,900
July	1,840	15	560	34,400
August	1,540	20	314	19,300
September	20	20	20.0	1,190
October	20	20	20.0	1,230
November	1,320	20	153	9,100
December	1,900	10	582	35 800
The period	....	....	....	182,000

Monthly discharge of Pecos River near Lakewood, N. Mex., for 1906–1909.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907				
January	1,290	5	364	22,400
February	810	14	169	9,390
March	577	14	56.9	3,500
April	68	14	24.2	1,440
May	465	14	168	10,300
June	1,430	95	417	24,800
July	1,840	105	212	13,000
August	945	155	268	16,500
September	698	36	153	9,100
October	2,420	36	354	21,800
November	1,840	245	430	25,600
December	390	320	342	21,000
The year	2,420	5	247	179,000
1908				
January	320	290	305	18,800
February	290	5	80.4	4,620
March	5	5	5.0	307
The period	....	....	....	23,700
1909				
January	0.0	0.0	0.0	0.0
February	178	0.0	31.8	1,770
March	178	64	160	9,840
April	64	50	58.6	3,490
May	136	50	81.1	4,990
June	136	24	37.5	2,230
July	1,280	43	173	10,600
August	290	68	140	8,610
September	1,520	84	365	21,700
October	1,280	0.0	110	6,760
November	0.0	0.0	0.0	0.0
December	0.0	0.0	0.0	0.0
The year	1,520	0 0	96.4	70,000

PECOS RIVER AT AVALON, N. MEX.

Location.—Half a mile below the headquarters of the main canal of the Carlsbad Project, half a mile below the Avalon dam, six miles north of Carlsbad.
Records available.—June 18 to October 10, 1891; April 1 to November 30, 1895; January 1, 1899, to December 31, 1903; January 6, 1906 to March 16, 1907.
References.—U. S. Geological Survey Water-Supply Papers 210 p. 88, 248 p. 124, 358 p. 507; Fourth Annual Report of the United States Reclamation Service p. 271.

Monthly discharge of Pecos River at Avalon, N. Mex., for 1906, 1907.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1906				
January (6-31)	635	458	522	26,900
February	490	365	450	25,000
March	365	90	165	10,100
April	1,430	150	487	29,000
May	1,210	138	535	32,900
June	1,660	165	408	24,300
July	5,650	180	751	46,200
August (9-31)	1,770	150	573	26,100
September (1-15)	490	105	219	6,520
The period	....	....	....	227,000
1907				
January (11-31)	1,540	150	648	27,000
February	1,430	150	344	19,100
March (1-16)	1,100	180	286	9,080
The period	....	....	....	55,200

Estimated Monthly discharge, in acre-feet, of Pecos River at Avalon Dam.

[From U. S. Reclamation Service Fourth Annual Report, p. 271]

Month	1891	1895	a1899	1900
January	.....	.....	13,527	15,739
February	.....	.....	16,697	9,099
March	.....	d.....	8,641	7,993
April	.....	8,985	10,240	10,155
May	.....	9,897	14,777	35,428
June	e15,755	20,513	12,323	26,589
July	26,925	141,997	21,908	14,901
August	13,280	89,440	21,829	24,491
September	51,290	23,496	14,064	67,169
October	f49,100	7,155	4,781	25,725
November	.....	9,080	2,338	14,765
December	.....	.....	14,952	5,534
The year or period	156,350	310,563	151,076	266,588

Estimated Monthly discharge, in acre-feet, of Pecos River at Avalon Dam. —continued.

Month	1901	1902	1903	1904	1905
January	9,636	12,977	b17,321	.....	g 20,201
February	10,955	7,734	15,521	c 4,762	g 41,814
March	7,425	11,907	8,424	c 8,724	g 73,811
April	14,161	9,828	4,688	c11,310	g 57,748
May	15,853	23,766	9,934	c 9,290	g 90,562
June	17,417	20,823	79,072	c 5,534	g 69,506
July	38,678	19,171	11,331	16,540	g310,790
August	8,868	43,449	12,513	c14,794	
September	10,837	31,387	4,236	.....	
October	4,663	14,559	6,118	.....	
November	5,203	83,967	3,068	.....	
December	9,947	15,212	1,488	.....	
The year or period	153,643	294,880	173,714	70,954	

a No record of spillage for the years 1896, 1897 and 1898 was kept, except during 1898 when 106,270 acre-feet were spilled at Lake Avalon.
b Gates closed at McMillan and Avalon. During month Lake McMillan gained about 8,500 acre-feet.
c This water is used for irrigation. No record of spillage, if any.
d There was water either passing through gates or over spillway during March, for reservoir fell steadily, as did Lake McMillan.
e June 18-30, 13 days.
f October 1-10, 10 days.
g Estimated by deducting 80 second-feet from flow at Carlsbad.

PECOS RIVER AT CARLSBAD, N. MEX.

Location.—At the Green street bridge in Carlsbad. There are no important tributaries within several miles.

Records available.—May 20, 1903, to March 31, 1908; May 18, 1914, to December 31, 1917.

References.—U S. Geological Survey Water Supply Papers 99 p. 358, 132 p. 103, 174 p. 102, 210 p. 90, 248 p. 125, 358 p. 510; State Engineer's Reports on the Surface Water Supply of New Mexico for 1914 p. 57, 1915 p. 61, 1916 p. 66, 1917 p. 67.

Monthly discharge of Pecos River at Carlsbad, N. Mex., for 1903–1906.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1903				
June b	15,640	119	1,959	116,600
July	390	110	164	10,080
August	110	82	92.7	5,700
September	85	82	82.8	4,927
October	82	80	81.5	5,011
November	82	80	81.7	4,862
December	82	80	80.3	4,938
The period	....	....	....	152,100

b The rating table used is not strictly applicable June 13 to 22, 1903, owing to a considerable change in the high-water section during flood of October, 1904.

Monthly discharge of Pecos River at Carlsbad, N. Mex., for 1903–1906. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1904				
January	161	80	99.4	6,112
February	141	90	94.0	5,407
March	137	22	85.0	5,226
April	90	88	88.1	5,242
May	110	0.0	84.3	5,183
June	122	75	91.4	5,439
July	107	95	96.5	5,934
August	420	104	132	8,116
September	224	107	152	9,045
October (1-2 and 11-31)	30,200	1,190	4,269	194,800
November	1,530	255	695	41,360
December (1-24)	766	295	521	24,800
The period	....	....	....	316,700
1905				
January	790	322	392	24,100
February	1,360	734	838	46,540
March	3,204	295	1,266	77,840
April	3,534	338	1,079	64,210
May	3,480	338	1,574	96,780
June	3,220	255	1,256	74,740
July	47,600	206	5,236	321,900
August	4,287	305	1,164	71,570
September	1,700	206	486	28,920
October	568	246	308	18,940
November	1,800	305	739	43,970
December	1,118	518	742	45,620
The year	47,600	206	1,257	915,100
1906				
January	618	485	528	32,500
February	530	372	482	26,800
March	360	176	240	14,800
April	1,440	244	580	34,500
May	1,290	210	552	33,900
June	1,150	262	511	30,400
July	4,800	266	884	54,400
August	1,630	210	499	30,700
September	222	190	207	12,300
October	230	18	217	13,300
November	1,090	230	327	19,500
December	1,890	206	744	45,700
The year	4,800	18	481	349,000

Monthly discharge of Pecos River at Carlsbad, N. Mex., for 1914–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
May (18-31)	3,500	85	1,230	34,200
June	2,600	74	574	34,200
July	4,330	85	1,300	79,900
August	928	97	312	19,200
September	248	85	133	7,910
October	1,160	85	253	15,600
November	1,640	85	369	22,000
December	515	85	299	18,400
The period	....	....	....	231,000

Monthly discharge of Pecos River at Carlsbad, N. Mex., for 1914–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	5,190	50	414	25,500
February	2,150	68	367	20,400
March	2,340	85	355	21,800
April	18,800	74	3,880	231,000
May	1,890	101	630	38,700
June	1,570	93	205	12,200
July	2,020	50	223	13,700
August	1,720	67	318	19,500
September	3,993	67	961	57,000
October	1,400	245	390	24,000
November	400	50	111	6,600
December	270	50	113	7,000
The year	18,800	50	660	477,400
1916				
January	....	....	239	14,700
February	....	....	195	11,200
March	....	....	150	9,220
April	....	....	218	13,000
May	....	....	505	31,000
June	....	....	165	9,820
July	....	....	142	8,730
August	....	....	2,810	173,000
September	....	....	443	26,400
October	....	....	527	32,400
November	....	....	205	12,200
December	....	....	343	21,100
The year	....	....	....	363,000
1917				
January	1,770	270	551	33,900
February	476	111	297	16,500
March	174	99	111	6,820
April	107	91	102	6,070
May	111	43	82.5	5,070
June	213	52	74.5	4,430
July	182	26	116	7,130
August	121	77	93.2	5,730
September	113	83	100	5,950
October	87	75	78.6	4,830
November	110	50	75.0	4,460
December	285	30	94.5	5,810
The year	1,770	26	147	107,000

GALLINAS RIVER ABOVE HOT SPRINGS, NEAR LAS VEGAS, N. MEX.

Location.—Two miles and a half above Hot Springs, at the end of the Agua Pura ice house spur.

Records available.—March 9, 1915, to December 31, 1917. On account of backwater which reaches the gage from the Agua Pura Company's reservoir No. 9, observations are discontinued during time gage heights are affected by such backwater.

Drainage area.—86 square miles.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 66, 1916 p. 68, 1917 p. 69.

Monthly discharge of Gallinas River above Hot Springs, near Las Vegas, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
March (9-31)	76	7.0	28.7	1,310
April	492	42	173	10,300
May	179	68	111	6,800
June	70	15	39.0	2,320
July	695	7.5	64.6	3,970
August	75	21	33.8	2,080
September (1-18)	27	14	20.3	726
The period	695	7.0	71.5	27,500
1916				
May (17-31)	....	....	69.9	2,080
June (1, 11, 16 and 22-30)	....	....	24 8	589
July	310	10	22.6	1,390
August	162	20	58.8	3,610
September (1-28)	....	....	18.9	1,050
The period	....	....	37.6	8,720
1917				
February (11-28)	7.1	6.3	6.43	230
March	12	7.3	8.98	552
April	16	10	12.2	728
May	130	14	40.3	2,480
June	24	8.3	14.5	863
July	7.9	4.0	5.67	349
August	8.1	3.5	4.79	295
September (1-15)	6.0	3.0	3.96	118
The period	130	3.0	13.0	5,620

GALLINAS RIVER NEAR LAS VEGAS N. MEX.

Location.—At Las Vegas Hot Springs, six miles northwest of Las Vegas. There are no tributaries between the station and Las Vegas.

Records available.—August 13, 1903, to May 31, 1912, and December 1, 1912, to December 31, 1917.

Drainage area.—89 square miles.

References.—U. S. Geological Survey Water-Supply Papers 99 p. 253, 132 p. 116, 174 p. 115, 210 p. 97, 248 p. 134, 268 p. 93, 288 p. 125, 358 p. 561; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 184, 1913 p. 179, 1914 p. 63, 1915 p. 68, 1916 p. 70, 1917 p. 71.

NOTE.—The water supply for the town of Las Vegas is diverted about a mile and a half above the station. Beginning a short distance above the gage and extending upstream a distance of about two miles, is a series of nine reservoirs belonging to the Agua Pura Co., in which water is stored for the production of ice. These have no effect on the irrigating capacity of the stream, as the water, which is stored only between October and March, is comparatively small in quantity. The intake of the Sanguijuela reservoir project, the property of the town of Las Vegas, is about one-half mile below the station. There are diversions through small private ditches for the irrigation of about 1500 acres between the station and the mouth of the Gallinas.

Monthly discharge of Gallinas River near Las Vegas, N. Mex., for 1904–1917

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1904				
October (8-31)	210	2	32.6	1,551
November	57	4	13.7	815
December	20	2	10.2	627
1905				
January	12	12	12.0	738
February	178	12	40.1	2,227
March	210	57	93.3	5,737
April	380	75	177	10,530
May	380	121	206	12,670
June	163	20	63.4	3,773
July	75	12	17.1	1,051
August	75	12	26.7	1,642
September	57	6	14.0	833
October	12	2	3.5	215
November	308	2	32.1	1,910
December	30	12	18.7	1,150
The year	380	2	57.8	42,480
1906				
January	14	4	9.2	566
February	33	8	11.1	616
March	84	14	25.9	1,590
April	200	47	98.7	5,870
May	134	64	101	6,210
June	64	8	31.8	1,890
July	120	8	38.5	2,370
August	74	14	21.9	1,350
September	64	8	14.7	875
October	33	2	17.0	1,050
November	22	14	15.7	934
December	240	14	45.6	2,800
The year	240	2	35.9	26,100

Monthly discharge of Gallinas River near Las Vegas, N. Mex., for 1904–1917 —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907				
January	20	7	13.6	836
February	20	14	14.9	828
March	55	14	27.6	1,700
April	73	25	43.5	2,590
May	113	55	91.3	5,610
June	135	14	64.0	3,810
July	64	10.5	24.7	1,520
August	92	7.0	27.3	1,680
September	73	7.0	22.8	1,360
October	7.0	0.0	1.68	103
November	3.5	1.3	3.02	180
December	3.5	3.5	3.50	215
The year	135	0.0	28.2	20,400
1908				
January	3.5	1.3	2.97	183
February	39	1.3	5.62	323
March	20	3.5	7.07	435
April	92	3.5	29.4	1,750
May	41	20	27.5	1,690
June	35	4.0	10.7	637
July	124	4.0	15.6	959
August	158	29	64.8	3,980
September	29	5.0	12.2	726
October	5.0	0.0	0.74	46
November	5.0	0.3	1.34	80
December	5.0	5.0	5.00	307
The year	158	0.0	15.2	11,100
1909				
January	5.0	1.8	4.38	269
February	14.8	1.8	4.03	224
March	24	3.4	11.6	713
April	41	5.0	23.4	1,390
May	39	15	24.6	1,510
June	16	2.0	6.6	393
July	43	2.0	11.0	676
August	78	7.0	32.7	2,010
September	280	0.3	41.6	2,480
October	24	0.0	5.93	365
November	5.0	0.3	4.71	280
December	5.0	1.8	3.76	231
The year	280	0.0	14.5	10,500
1910				
January	10.5	1.8	4.99	307
February	5.0	1.8	4.26	237
March	55	5.0	21.4	1,320
April	41	10.5	30.5	1,810
May	41	5.0	21.8	1,340
June	7.8	0.3	2.07	123
July	41	0.3	4.92	303
August	55	1.8	12.3	756
September	10.5	0.3	2.28	136
October	1.0	0.3	0.32	19.7
November	0.3	0.3	0.30	17.9
December	0.3	0.3	0.30	18.4
The year	55	0.3	8.83	6,390

Monthly discharge of Gallinas River near Las Vegas, N. Mex., for 1904–1917 —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911				
January	1.8	0.3	0.44	27
February	1.8	0.3	1.34	74.4
March	44	1.8	12.7	781
April	31	14	18.6	1,110
May	126	12	32.9	2,020
June	30	3.0	7.8	463
July	358	9.5	92.1	5,660
August	71	3.0	14.9	916
September	7.0	0.5	2.15	128
October	260	1.0	30.8	1,890
November	19	3.0	14.1	839
December	7.0	1.0	4.1	252
The year	358	0.3	19.6	14,200
1912				
January	2.0	2.0	2.0	123
February	54	2.0	6.67	384
March	81	2.0	28.0	1,720
April	91	40	56.7	3,370
May	167	81	121	7,440
December	3.2	1.4	1.72	106
The period	....	....	....	13,100
1913				
January	19	1.3	2.25	138
February	16	1.3	3.72	207
March	2.8	1.0	1.85	114
April	14	2.5	5.87	349
May	14	1.3	6.58	405
June	598	2.8	76.7	4,560
July	43	4.1	12.2	750
August	26	1.3	6.39	393
September	46	1.3	6.24	371
October	13	0.9	4.34	267
November	9.0	2.3	4.87	290
December	4.5	2.1	3.42	210
The year	598	0 9	11.1	8,050
1914				
January	2.5	1.8	2.05	126
February	5.4	1.3	1.84	102
March	26	1.8	6.84	421
April	38	6.0	18.6	1,110
May	183	20	57.0	3,500
June	37	2.2	11.6	690
July	523	10	169	10,400
August	287	16	115	7,070
September	26	2.9	8.92	531
October	70	1.3	14.2	873
November	73	3.2	15.7	934
December	7.2	3.8	5.19	319
The year	523	1.3	36.0	26,100

Monthly discharge of Gallinas River near Las Vegas, N. Mex., for 1904–1917 —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	9.5	5.0	5.50	338
February	65	2.5	14.2	789
March	61	5.0	25.1	1,540
April	492	36	160	9,530
May	163	20	93.9	5,560
June	69	9.0	37.5	2,230
July	690	1.0	60.0	3,690
August	69	9.0	20.5	1,260
September	20	1.0	5.90	350
October	5.0	1.0	2.24	138
November	5.0	2.5	4.45	265
December	9.0	1.0	3.94	242
The year	690	1.0	36	25,900
1916				
January	10	1.6	3.23	199
February	29	4.0	10.6	612
March	95	7.0	30	1,840
April	835	0.5	421	25,000
May	750	56	284	17,500
June	194	4.0	42.5	2,530
July	452	2.5	22.8	1,400
August	164	14	62.6	3,850
September	59	3.4	16.5	982
October	77	2.6	21.4	1,320
November	13	2.5	8.09	481
December	8.0	4.2	5.84	359
The year	835	0.5	77.3	56,100
1917				
January	53	3.9	9.34	574
February	8.9	3.8	5.11	284
March	6.0	3.8	5.00	307
April	11	5.0	7.17	427
May	132	7.5	36.4	2,240
June	26	5.2	13.7	816
July	6.1	2.9	4.89	301
August	9.8	1.3	3.27	201
September	29	1.0	3.94	234
October	0.9	0.2	0.26	16
November	0.8	0.1	0.24	14
December	0.1	0.1	0.10	6.2
The year	132	0.1	7.49	5,420

SOUTH FORK OF GALLINAS RIVER NEAR PORVENIR, N. MEX.

Location.—At the planting station of the United States Forest Service, in the Santa Fe National Forest, one mile south of Porvenir post office and two and one-half miles above the junction of the north and south forks of the Gallinas.

Records available.—May 9, 1911, to December 31, 1917.

Drainage area.—25 square miles.

References.—U. S. Geological Survey Water-Supply Paper 358 p. 574; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 187. 1913 p. 182, 1914 p. 61, 1915 p. 63, 1916 p. 72, 1917 p. 73.

NOTE.—The U. S. Forest Service diverts water for irrigation and domestic use at the Gallinas planting station about 50 yards above the gage, and has filed an application in the State Engineer's office to appropriate 4.2 second-feet a short distance below. Between the station and the mouth of the north fork, 3 miles below, several small ditches divert nearly all the normal flow during the irrigation season.

Monthly discharge of South Fork of Gallinas River near Porvenir, N. Mex., for 1911–1917

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911				
May (9-31)	24	5.7	13.3	607
June	8.9	1.2	3.07	183
July	52	5.7	24.2	1,490
August	16	3.2	5.79	356
September	3.8	1.2	1.91	114
October	226	1.8	27.4	1,680
November	13	2.6	9.22	549
December	2.6	2.0	2.33	143
The period	226	....	10.9	5,120
1912				
January	....	....	a 2.00	123
February	....	....	a 2.00	115
March	35	2 0	10.9	270
April	34	13	20.5	1,220
May	59	29	42.8	2,630
June	34	10	22	1,310
July	8.6	3.4	4.99	307
August	13	2.4	4.81	296
September	3.6	1.9	2.53	151
October	6.4	2.4	2.84	175
November	3.4	1.4	2.36	140
December	2.5	1.7	2.15	132
The year	59	....	10.0	7,270
a Estimated.				
1913				
January	....	....	a 2.00	123
February	....	....	a 2.50	139
March	8.3	2.5	3.88	239
April	19	4.1	9.87	587
May	14	3.8	8.44	519
June	185	2.7	38.4	2,280
July	18	3.6	8.37	515
August	15	2.5	5.90	363
September	7.1	2.6	4.74	282
October	8.6	3.1	5 08	312
November	4.3	2.0	3.23	192
December	3.6	2.0	2.36	145
The year	185	....	7.80	5,700

a Estimated.

Monthly discharge of South Fork of Gallinas River near Porvenir, N. Mex., for 1911–1917—continued

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
January	....	....	a 3.00	184
February	4.0	1.6	2.65	147
March	7.2	2.5	4.07	250
April	19	5.0	11.2	666
May	26	11	18.6	1,140
June	16	2.0	8.16	486
July	71	10	35.	2,150
August	42	12	26.3	1,620
September	13	6.0	8.84	526
October	12	3.2	6.15	378
November	18	3.5	6.49	386
December	5.3	3.4	4.13	254
The year	71	1.6	16.0	8,190
a Estimated.				
1915				
January	5.6	4.9	5.25	323
February	8.5	5.8	7.01	390
March	33	7.3	13.5	831
April	113	29	54.1	3,220
May	55	29	38.7	2,380
June	32	6.5	16.1	960
July	540	1.3	58 9	3,620
August	215	9.9	28.5	1,750
September	11	6.6	7.97	474
October	7.7	5.8	6.17	367
December (19-31)	4.3	3.5	3.90	101
1916				
January	7.1	2.7	4.51	277
February	6 2	4.6	5.31	305
March	10	6.8	8.51	523
April	93	21	49.0	2,910
May	118	35	68.4	4,210
June	34	5.4	16 5	983
July	26	4.8	7.49	460
August	61	11	29.7	1,830
September	18	7.1	12.3	734
October	26	5.3	16.3	1,000
November	14	6.1	8.77	522
December	6.4	4.8	5.34	328
The year	118	2.7	19.4	14,100
1917				
January	5.2	3.4	4.27	262
February	7.8	5.3	6.64	368
March	10	7.9	8.93	549
April	11	9.8	10.0	598
May	62	9.8	22.8	1,400
June	18	4.9	10.1	603
July	7.2	1.0	4.17	257
August	5.6	0.2	2.00	123
September	6.7	0.4	2.77	165
October	2.7	1.0	1.56	96
November	5 9	2.0	3.98	237
December	5.2	0.8	3.72	229
The year	62	0.2	6.75	4,890

GALLINAS PLANTING STATION DITCH NEAR PORVENIR, N. MEX.

Location.—This ditch takes water from the river about 50 yards above the gage on the South Fork of the Gallinas River. Measurements were taken in a flume near the head of the ditch.

Reference.—State Engineer's Report on the Surface Water Supply of New Mexico for 1915 p. 65.

Monthly discharge of Gallinas Planting Station Ditch near Porvenir, N. Mex., for 1915.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
July (13-31)	0.20	0.00	0.10	3.84
August	0.08	0.01	0.03	1.84
September	0.12	0.01	0.04	2.50
October	0.09	0.01	0.07	3.92
The period	0.20	0.00	0.06	12.1

HONDO RIVER BASIN

Records at all stations in the Hondo River Basin, except those at Hondo Reservoir site and Roswell, were obtained during a hydrographic survey made under the direction of the Territorial Engineer in 1908-9. Water for irrigation was diverted at many points along the Hondo and its tributaries during the time covered by the following records. For details of the use of water see Second Biennial Report of the Territorial Engineer and sheets 1 to 8, Hondo hydrographic survey.

There are records on streams in this basin in a hydrographic survey made by W. W. Follett in 1913 and 1914 contained in his report to Messrs. Franklin and Hawkins.

HONDO RIVER AT PICACHO, N. MEX.

Location.—In the western part of section 15, T. 11 S., R. 18 E., N. M. P. M., about one mile above the town of Picacho.

Records available.—May 10, 1908, to August 31, 1909.

References.—Sheets 1 to 8, Rivers, Hondo Hydrographic Survey.

Monthly discharge of Hondo River at Picacho, N. Mex., for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
May (16-31)	86.4	46.0	....	2,073
June	37	12.75	....	1,146
July	300	16	....	4,908
August	102	81.6	....	5,616
September	90.69	27	....	3,082
October	41.5	22	....	2,458
November	41.06	34.71	....	2,263
December	43.69	40.84	....	2,546
The period	....	....	....	24,092

Monthly discharge of Hondo River at Picacho, N. Mex., for 1908, 1909. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909				
January	39.60	35.21	....	2,333
February	40	15.23	....	1,628
March	13.31	12.95	....	817
April	24.48	13.46	....	1,035
May	21.81	12.27	....	992.1
June	27.74	10.72	....	974.1
July	247.06	13.37	....	2,745
The period	....	....	....	10,524.2

NOTE.—Report on Hondo Hydrographic Survey gives run-off for August, 1909, as 5,000 acre-feet and for the period, 1909, as 15,524 acre-feet.

NOTE.—Discharge in second-feet is given for May 10, 1908, but run-off in acre-feet was not computed.

HONDO RIVER AT BORDER RANCH, N. MEX.

Location.—In the southwest quarter of section 30, T. 11 S., R. 20 E., N. M. P. M., just below the Border Ranch house.

Records available.—May 16, 1908, to August 31, 1909.

References.—Sheets 1 to 8, Rivers, Hondo Hydrographic Survey.

Monthly discharge of Hondo River at Border Ranch, N. Mex., for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
May (16-31)	60.4	24.6	....	1,410
June	24.6	5.0	....	795
July	300	13.4	....	3,537
August	80	21.8	....	3,744
September	60	17.2	....	2,542
October	39	17.2	....	1,578
November	39	30.8	....	1,895
December	40.09	30.8	....	2,377
The period	....	....	....	17,878
1909				
January	39.1	22.7	....	2,202
February	39.1	18	....	1,578
March	21.8	3.8	....	617
April	14.4	3.8	....	439
May	17.5	1.0	....	343.2
June	6.8	1.0	....	273.2
July	80	1.0	....	1,404
August	100	50	....	4,680
The period	....	....	....	11,536.4

NOTE.—The report on the Hondo Hydrographic Survey gives the run-off for March, 1909, as 677 acre-feet, and for the period, 1909, as 11,596 acre-feet.

HONDO RIVER AT DIAMOND "A" RANCH, N. MEX.

Location.—In the northeast quarter of section 20, T. 11 S., R. 21 E., N. M. P. M., about ½ mile below the Diamond "A" Ranch house.
Records available.—May 16, 1908, to August 31, 1909.
References.—Sheets 1 to 8, Rivers, Hondo Hydrographic Survey.

Monthly discharge of Hondo River at Diamond "A" Ranch, N. Mex., for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
May (16-31)	55.04	5.0	....	1,119
June	5.0	0.0	....	13
July	80	0.0	....	2,188
August	60	38.5	....	2,834
September	60	12.2	....	2,084
October	12.2	0.4	....	648
November	27	27	....	1,603
December	30	26.2	....	1,740
The period	....	....	....	12,229
1909				
January	26	10.8	....	1,316
February	19.2	1.0	....	653
March	14.4	0.0	....	143
April	7.1	0.0	....	13
May	0.0	0.0	....	0.0
June	....	0.0	....	100
July	70	0.0	....	917
August	100	20.7	....	2,932
The period	....	....	....	6,074

NOTE.—Report on the Hondo Hydrographic Survey gives run-off for May, 1908, as 1,196 acre-feet and for period, 1908, as 12,206 acre-feet.

INLET CANAL OF HONDO RESERVOIR, NEAR ROSWELL, N. MEX.

Location.—On Inlet Canal from Hondo River to Hondo Reservoir, about 12 miles southwest of Roswell.
Records available.—May 16, 1908, to August 31, 1909.
References.—Sheets 1 to 8, Rivers, Hondo Hydrographic Survey.

Monthly discharge of Inlet Canal of Hondo Reservoir near Roswell, N. Mex., for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
May (16-31)	0.0	0.0	....	0.0
June	0.0	0.0	....	0.0
July	100	0.0	....	588
August	60	0.0	....	1,572
September	45	0.0	....	873
October	10	0.0	....	112
November	9.0	0.0	....	100
December	9.0	5.0	....	380
The period	....	....	....	3,625

Monthly discharge of Inlet Canal of Hondo Reservoir near Roswell, N. Mex., for 1908, 1909.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909				
January	5.0	0.0	....	37
February	0.0	0.0	....	0.0
March	0.0	0.0	....	0.0
April	0.0	0.0	....	0.0
May	0.0	0.0	....	0.0
June	0.0	0.0	....	0.0
July	40	0.0	....	187
August	70	0.0	....	443
The period	....	....	....	667

NOTE.—Report on Hondo Hydrographic Survey gives run-off for October, 1908, as 0.0 acre-feet and for period as 3,513 acre-feet.

HONDO RIVER BELOW INLET TO HONDO RESERVOIR, NEAR ROSWELL, N. MEX.

Location.—Below head of Inlet Canal to Hondo Reservoir, about 12 miles southwest of Roswell.
Records available.—May 16, 1908, to August 31, 1909.
References.—Sheets 1 to 8, Rivers, Hondo Hydrographic Survey.

Monthly discharge of Hondo River below Inlet to Hondo Reservoir, near Roswell, N. Mex., for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
May (16-31)	21.92	0.0	....	460
June	0.0	0.0	....	0.0
July	22.84	0.0	....	528
August	30	0.0	....	423
September	0.0	0.0	....	0.0
October	0.0	0.0	....	0.0
November	7.0	0.0	....	53
December	0.0	0.0	....	0.0
The period	....	....	....	1,941
1909				
January	0.0	0.0	....	0.0
February	0.0	0.0	....	0.0
March	0.0	0.0	....	0.0
April	0.0	0.0	....	0.0
May	0.0	0.0	....	0.0
June	0.0	0.0	....	0.0
July	20	0.0	....	324
August	40	0.0	....	1,562
The period	....	....	....	1,886

NOTE.—The report on the Hondo Hydrographic Survey gives the run-off for May, 1908, as 400 acre-feet; November, 1908, 534 acre-feet; the period, 1908, as 1,945 acre-feet; August, 1909, as 156.2 acre-feet, and the period, 1909, as 480.2 acre-feet.

HONDO RIVER AT HONDO RESERVOIR SITE, NEAR ROSWELL, N. MEX.

Location.—At the first New Mexico Reservoir dam site, just below the diversion dam for the Hondo reservoir, in Sec. 34, T. 11 S., R. 22 E., 12 miles southwest of Roswell. No tributaries enter the Hondo within several miles of the station.

Records available.—April 25, 1903, to December 31, 1906.

References.—U. S. Geological Survey Water-Supply Papers 99 p. 362, 132 p. 119, 174 p. 118, 210 p. 100, 358 p. 579.

Monthly discharge of Hondo River at Hondo Reservoir Site, near Roswell, N. Mex., for 1906.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
January	200	19	67.4	4,140
February	34	7.0	21.6	1,200
March	10	0.0	3.10	191
April	44	1.0	24.4	1,450
May	3.0	0.0	0.10	6.1
June	0.0	0.0	0.00	0.0
July	5.0	0.0	0.32	19.7
August (8 days)	39	0.0	10.1	160
September	45	0.0	5.23	311
October	39	1.0	7.32	450
November	66	0.0	14.4	857
December	18	0.0	7.23	445
The period	....	....	....	9,230

HONDO RIVER AT ROSWELL, N. MEX.

Location.—At the intersection of Main and Vegas streets. Between Roswell and the mouth the Hondo receives North and South Spring rivers, which are fed by springs at their source.

Records available.—April 25, 1903, to March 2, 1906.

References.—U. S. Geological Survey Water-Supply Papers 99 p. 361, 132 p. 118, 174 p. 117, 210 p. 98, 358 p. 585.

Monthly discharge of Hondo River at Roswell, N. Mex., for 1906.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
January	38	8.0	27.3	1,680
February	23	0.2	5.5	305
The period	....	....	....	1,980

BONITO RIVER AT ANGUS, N. MEX.

Location.—At the Town of Angus in the northwest corner of section 15, T. 10 S., R. 13 E.
Records available.—July 1, 1908, to August 31, 1909.
References.—Sheets 2 to 8, Rivers, Hondo Hydrographic Survey.

Monthly discharge of Bonito River at Angus, N. Mex., for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
July	4.6	2.1	....	243.3
August	15	3.2	....	430.5
September	20.7	3.2	....	350
October	3.2	3.0	....	187
November	4.3	1.2	....	124
December	10.3	1.4	....	137
The period	....	....	....	1,471.8
1909				
January	4.3	1.4	....	112
February	7.2	1.7	....	105
March	10.6	1.7	....	287
April	27	7.2	....	599
May	12.8	0.8	....	305.7
June	14.6	1.5	....	243.5
July	23	1.0	....	349
August	25	1.5	....	561
The period	....	....	....	2,562.2

NOTE.—The report on the Hondo Hydrographic Survey gives the following run-off in acre-feet: July, 1908, 243; August, 1908, 430; the period, 1908, 1,471; May, 1909, 305; June, 1909, 243; period, 1909, 2,561.

BONITO RIVER BELOW FORT STANTON, N. MEX.

Location.—About 3¼ miles below Ft. Stanton Sanitarium and about ¾ miles above the east line of the reservation.
Records available.—May 21, 1908, to August 31, 1909.
References.—Sheets 1 to 8, Rivers, Hondo Hydrographic Survey.

Monthly discharge of Bonito River below Fort Stanton, N. Mex., for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
August	13.28	0.68	....	351.9
September	19.59	0.0	....	262
October	1.3	0.0	....	8
November	0.0	0.0	....	0.0
December	0.0	0.0	....	0.0
The period	....	....	....	621.9

Monthly discharge of Bonito River below Fort Stanton, N. Mex., for 1908, 1909.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909				
January	0.0	0.0	....	0.0
February	1.4	0.0	....	2
March	4.5	0.0	....	143
April	14.5	0.0	....	249
May	0.0	0.0	....	0.0
June	0.0	0.0	....	0.0
July	5.0	0.0	....	193
August	6.4	0.0	....	205
The period	....	....	....	792

NOTE.—The report on the Hondo Hydrographic Survey gives the following run-off in acre-feet: August, 1908, 351; September, 1908, 291; October, 1908, 7; and the period, 1908, 647.

NOTE.—Discharges in second-feet are given for May 21, July 22, 25, 31, 1908, but run-off in acre-feet was not computed.

BONITO RIVER AT GOVERNMENT SPRINGS, NEAR FORT STANTON, N. MEX.

Location.—About 4¼ miles below Fort Stanton, near the center of Section 15, T. 9 S., R. 15 E., N. M. P. M., about ¼ mile below the east line of Fort Stanton Military Reservation.

Records available.—July 1, 1908, to July 14, 1909.

References.—Sheets 1 to 8, Rivers, Hondo Hydrographic Survey.

Monthly discharge of Bonito River at Government Springs, near Fort Stanton, N. Mex., for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
August	21.2	4.32	....	711
September	20.92	2.6	....	320
October	2.6	2.2	....	138
November	3.0	2.2	....	156
December	3.0	2.4	....	176
The period	....	....	....	1,501
1909				
January	3.0	2.4	....	160
February	3.4	1.83	....	165
March	3.65	1.2	....	149
April	12.3	1.0	....	246
May	1.6	1.0	....	90
June	4.8	1.0	....	134
The period	....	....	....	944

NOTE.—The report on the Hondo Hydrographic Survey gives the following run-off in acre-feet: October, 1908, 187; November, 1908, 190; December, 1908, 212; the period, 1908, 589; January, 1909, 187.2; February, 1909, 171, March, 1909, 218; April, 1909, no record; May 1909, 180; June, 1909, 231; and the period, 1909, 987.2.

NOTE.—Discharge in second-feet is given for July 14, 1909, but run-off in acre-feet was not computed.

NOTE.—Acre-feet computed for October and December, 1908, and June, 1909. Acre-feet for the balance of this record computed by taking the mean discharge in second-feet of the days given as the monthly mean.

GOVERNMENT SPRINGS NEAR FORT STANTON, N. MEX.

Location.—About ¼ mile above the east line of Fort Stanton Military Reservation and 100 yards south of Bonito River, into which the springs empty.
Records available.—September 8, 1908, to July 14, 1909.
References.—Sheets 3 to 8, Rivers, Hondo Hydrographic Survey.

Monthly discharge of Government Springs near Fort Stanton, N. Mex, for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
October	3.1	2.1	....	187
November	3.6	2.7	....	190
December	3.7	2.9	....	212
The period	....	....	....	589
1909				
January	3.6	2.8	....	187
February	4.1	2.4	....	171
March	4.4	2.7	....	218
May	3.9	3.1	....	237.1
June	6.0	2.4	....	231.6
The period	....	....	....	1,044.7

NOTE.—The report on the Hondo Hydrographic Survey does not give record for this station.
NOTE.—Discharge in second-feet for September 8, 1908, April 1 to 8, 1909, and July 14, 1909, is given but run-off in acre-feet was not computed.

RIO RUIDOSO AT COE, N. MEX.

Location.—In the western part of section 25, T. 10 S., R. 15 E., N. M. P. M., about 300 feet below the mouth of Eagle Creek.
Records available.—June 16, 1908, to July 17, 1909.
References.—Sheets 1 to 8, Rivers, Hondo Hydrographic Survey.

Monthly discharge of Rio Ruidoso, at Coe, N. Mex., for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
July	38.0	5.0	....	2,102
August	38	26.4	....	2,071
September	90	12.02	....	1,966
October	100	11.2	....	2,059
November	30.4	14.08	....	1,289
The period	....	....	....	9,487
1909				
March	23.8	0.0	....	599
April	42.4	10.8	....	1,372
May	10.8	2.0	....	331.7
June	11.4	2.4	....	392
The period	....	....	....	2,694.7

NOTE.—The report on the Hondo Hydrographic Survey gives the following run-off in acre-feet: November, 1908, 1,287; the period, 1908, 11,485; May, 1909, 331; July, 1909, 324; the period, 1909, 3,018.

NOTE.—Discharges in second-feet are given for June 16, 22, 23, 26, 27, in 1908, and February 19 to 28, and July 17, in 1909; but run-off in acre-feet was not computed.

PEÑASCO RIVER NEAR DAYTON, N. MEX.

Location.—Two miles east and one mile north of Dayton and about one mile above the mouth of the Peñasco.
Records available.—September 12, 1905, to March 31, 1908.
Drainage area.—About 1,300 square miles.
References.—U. S. Geological Survey Water-Supply Papers 174 p. 121, 210 p. 103, 248 p. 139, 358 p. 592.

Monthly discharge of Peñasco River near Dayton, N. Mex., for 1905, 1906.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1905				
September (12-30)	77	1.0	9.3	351
October	7.0	5.0	6.8	418
November	150	7.0	28.3	1,684
December	180	26	75.3	4,630
The period	....	....	....	7,083
1906				
January (22-31)	53	23	46.4	920
February	73	35	53.1	2,950
March	53	7.0	20.2	1,240
April	53	7.0	28.3	1,680
May	13	0.0	2.2	135
June	0.0	0.0	0.0	0.0
The period	....	....	....	6,920

BLACK RIVER NEAR MALAGA, N. MEX.

Location.—At the highway bridge on the Malaga-Loving road, one mile north of Malaga, 400 feet downstream from the Atchison, Topeka and Santa Fe Railway bridge, about a mile and a half above the confluence of Black and Pecos rivers, in the N. W. ¼ of the N. E. ¼ of Sec. 10, T. 24 S., R. 28 E.
Records available.—May 1 to December 31, 1914.
Reference.—State Engineer's Report on the Surface Water Supply of New Mexico for 1914 p. 65.

Monthly discharge of Black River near Malaga, N. Mex., for 1914.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
May	230	4.0	20.4	1,250
June	108	5.0	27.4	1,630
July	108	4.4	28.1	1,730
August	54	4.4	16.4	1,010
September	128	6.6	30.4	1,810
October	58	4.0	15.2	935
November	28	19	23.7	1,410
December	33	22	22.5	1,380
The period	....	....	....	11,200

DELAWARE RIVER NEAR MALAGA, N. MEX.

Location.—About one-fourth mile south of the New Mexico-Texas state line, 20 miles southwest of Malaga, N. Mex., 5 miles above the mouth of Delaware river, in Sec. 33, T. 26 S., R. 28 E.

Records available.—April 20, 1912, to September 25, 1913.

References.—U. S. Geological Survey Water-Supply Paper 358 p. 595; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 193, 1913 p. 187.

Monthly discharge of Delaware River near Malaga, N. Mex., for 1912, 1913.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
April (20-30)	3.6	2.7	3.03	66
May	7.5	2.8	4.84	298
June	200	2.8	19.7	1,170
July	65	3.9	7.06	434
August	179	3.9	24.1	1,480
September	21	3.9	6.16	367
October	78	3.0	7.47	459
November	5.2	3.0	3.56	212
December	3.7	2.8	3.41	210
The period	....	....	....	4,700
1913				
January	3 9	3.2	3.72	229
February	4.6	3.2	3.82	212
March	5.2	3.2	3.95	243
April	8.0	3 5	4.34	258
May	568	2.2	25	1.540
June	376	4.8	55.8	3,320
July	10	3.5	4.24	261
August	4.7	3 6	3.93	242
September (1-25)	44	4.9	15.7	778
The period	568	2.2	13.3	7,080

RIO GRANDE BASIN

RIO GRANDE NEAR DEL NORTE, COLO.

Location.—At a highway bridge, about Sec 29, T. 40 N., R. 5 E, 6 miles west of Del Norte, a short distance below the mouth of Wolf Creek.

Records available.—April 16, 1908, to December 31, 1917. From July 1, 1889, to November 30, 1906, a station was maintained about 4 miles below the present station and just above Los Pinos Creek. The flow at the two points is not directly comparable, as a number of small streams contribute water during certain seasons, and a small amount of water is diverted for irrigation. The record for both stations, however, is given below under the head of "Rio Grande near Del Norte."

Drainage area.—Approximately 1,400 square miles.

References.—U. S. Geological Survey Annual Reports 11 p. 98, 12 p. 349, 13 p. 94, 14 p. 111, 18 p. 247, 19 p. 383, 20 p. 360, 21 p. 256, 22 p. 347; Water-Supply Papers 75 p. 153, 84 p. 194, 99 p. 400, 132 p. 52, 174 p. 36, 210 p. 48, 248 p. 34, 268 p. 36, 288 p 44, 358 p. 46; Sixteenth Biennial Report of the State Engineer of Colorado, p. 251; Seventeenth Biennial Report of the State Engineer of Colorado, p. 187; State Engineer's Reports on the Surface Water Supply of New Mexico for 1914 p. 69, 1915 p. 71, 1916 p. 74, 1917 p. 75.

Monthly discharge of Rio Grande near Del Norte, Colo., for 1889–1906.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1889				
October (11-31)	345	214	278	17,097
November	364	290	319	18,980
December	....	....	a 248	15,200
The period	....	....	....	51,277
1890				
January	....	....	a 220	13,500
February	....	....	a 200	11,100
March	....	....	a 445	27,400
April	1,380	404	913	54,323
May	5,930	1,990	4,331	266,356
June	5,555	2,550	3,807	226,516
July	2,260	862	1,515	93,172
August	930	450	612	37,638
September	450	326	383	22,800
October	862	307	470	28,900
November	404	....	a 340	20,200
December	....	....	a 300	18,400
The year	5,930	....	....	820,305
1891				
January	....	....	a 275	16,900
February	....	....	a 250	13,900
March	....	....	a 435	26,700
April	3,160	796	1,410	83,895
May	5,650	1,860	3,285	202,027
June	5,555	2,190	4,146	246,687
July	3,565	862	1,693	104,119
August	1,460	404	663	40,774
September	1,234	290	527	31,356
October	2,475	450	844	51,906
November	450	308	374	22,253
December	....	....	a 310	19,100
The year	5,650	....	....	859,617

a Estimated.

Monthly discharge of Rio Grande near Del Norte, Colo., for 1889–1906. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1892				
January	....	....	a 275	16,900
February	....	....	a 250	14,400
March	....	....	316	19,400
April	2,400	345	1,047	62,296
May	4,710	1,510	2,605	160,207
June	3,160	1,152	2,187	130,126
July	1,074	554	740	45,510
August	610	308	444	27,306
September	308	243	262	15,589
October	290	243	259	15,928
November	274	....	a 240	14,300
December	....	....	a 175	10,800
The year	4,710	....	....	532,762
1893				
January	....	....	a 160	9,840
February	....	....	a 175	9,720
March	....	....	a 250	15,400
April	1,037	326	533	31,714
May	3,320	732	1,944	119,556
June	2,850	670	1,749	104,066
July	640	290	395	24,292
August	450	258	324	19,926
September	345	228	270	16,065
October	308	243	263	16,175
November	....	....	a 240	14,300
December	....	....	a 175	10,800
The year	3,320	....	....	391,854
1894				
January	....	....	a 175	10,800
February	....	....	a 175	9,720
March	....	....	a 300	18,400
April	2,110	530	922	54,900
May	3,570	1,450	2,390	147,000
June	1,980	404	1,070	63,700
July	470	292	365	22,400
August	530	292	383	23,600
September	470	270	355	21,100
October	442	315	359	22,100
November	315	230	282	16,800
December	....	....	a 225	13,800
The year	3,570	....	....	424,320
1895				
January	....	....	a 200	12,300
February	....	....	a 190	10,600
March	....	....	a 435	26,700
April	3.060	642	2,000	119,000
May	3.030	1,670	2,290	141,000
June	3,690	1,290	2,330	139,000
July	1,500	810	1,050	64,600
August	1,060	554	735	45,200
September	604	365	448	26,700
October	470	385	419	25,800
November	385	315	342	20,400
December	....	....	a 300	18,400
The year	3,690	....	....	649,700

a Estimated.

Monthly discharge of Rio Grande near Del Norte, Colo., for 1889–1906.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1896				
January	....	....	a 275	16,900
February	....	....	a 270	15,500
March	....	....	a 500	30,700
April	3,000	578	1,530	91,000
May	3,510	1,430	2,450	151,000
June	2,140	395	867	51,600
July	669	306	395	24,300
August	385	230	268	16,500
September	1,550	262	499	29,700
October	566	395	454	27,900
November	375	262	305	18,100
December	....	....	a 225	13,800
The year	3,510	....	....	487,000
1897				
January	....	....	a 225	13,800
February	....	....	a 200	11,100
March	....	....	a 440	27,100
April	2,111	598	1,067	63,491
May	5,234	1,660	3,537	217,483
June	4,830	1,660	3,391	201,778
July	2,261	570	1,108	68,129
August	598	354	475	29,207
September	972	354	631	37,547
October	2,261	756	1,472	90,510
November	860	542	665	39,570
December	....	....	a 390	24,000
The year	5,234	....	....	823,715
1898				
January	....	....	a 325	20,000
February	....	....	a 300	16,700
March	....	....	a 450	27,700
April	3,406	890	1,912	113,772
May	4,382	2,152	2,722	167,369
June	5,266	2,824	4,390	261,223
July	2,664	708	1,643	101,024
August	614	384	509	31,297
September	398	260	319	18,982
October	328	220	259	15,925
November	....	....	a 220	13,100
December	....	....	a 180	11,100
The year	5,266	....	....	798,192
1899				
January	....	....	a 180	11,100
February	....	....	a 180	10,000
March	....	....	a 300	18,400
April	1,030	280	618	36,774
May	2,315	537	1,377	84,668
June	1,509	753	1,091	64,919
July	1,302	537	703	43,226
August	1,207	280	597	36,708
September	753	280	370	22,017
October	....	....	a 475	29,200
November	....	....	a 400	23,800
December	....	....	a 205	12,600
The year	2,315	....	....	393,412

a Estimated.

Monthly discharge of Rio Grande near Del Norte, Colo., for 1889–1906.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1900				
January	....	....	a 150	9,220
February	....	....	a 190	10,600
March	....	....	a 250	15,400
April	518	320	418	24,873
May	5,454	553	2,850	175,240
June	5,379	1,020	2,688	159,947
July	978	289	546	33,572
August	320	169	228	14,019
September	384	198	255	15,174
October	384	320	342	21,029
November	320	198	251	14,936
December	....	....	a 200	12,300
The year	5,454	....	....	506,310
1901				
January	....	....	a 200	12,300
February	....	....	a 175	9,720
March	....	....	a 225	13,800
April	1,734	289	710	42,248
May	4,479	1,463	2,570	158,023
June	2,754	1,149	1,782	116,036
July	1,063	384	594	36,524
August	660	320	464	28,530
September	895	258	446	26,539
October	320	228	262	16,110
November	....	....	283	16,840
December	....	....	a 175	10,800
The year	4,479	....	....	487,470
1902				
January	....	....	a 160	9,840
February	....	....	a 150	8,330
March	....	....	a 230	14,100
April	1,027	265	638	37,964
May	1,787	660	1,169	71,879
June	1,201	210	618	36,774
July	189	112	152	9,346
August	631	69	180	11,068
September	348	112	206	12,258
October	312	169	242	14,880
November	....	....	a 217	12,900
December (evidently in error)	....	....	a 200	9,840
The year	1,787	....	....	249,179
1903				
April	1,561	304	748	44,509
May	5,101	1,390	2,829	173,948
June	6,025	4,243	5,189	308,767
July	3,720	710	1,655	101,762
August	650	454	526	32,342
September	755	389	515	30,645
October	454	269	349	21,459
The period	6,025	269	....	713,432
1904				
April	1,450	195	652	38,800
May	2,040	535	1,158	71,200
June	1,050	465	716	42,600
July	479	245	336	20,660
August	1,050	500	689	42,360
September	1,410	465	692	41,180
October	3,100	675	1,449	89,090
The period	....	....	....	345,900

a Estimated.

Monthly discharge of Rio Grande near Del Norte, Colo., for 1889–1906.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1905				
April	1,760	318	760	45,220
May	7,460	1,135	3,411	209,700
June	10,030	2,745	6,090	362,400
July	2,390	630	1,091	67,080
August	905	355	578	35,540
September	1,227	290	376	22,370
October	860	355	430	26,440
November	330	220	296	17,610
December	....	....	a 200	12,300
The period	10,030	....	....	798,660
1906				
January	....	....	a 180	11,100
February	....	....	a 180	10,000
March	....	....	a 305	18,800
April	2,440	365	1,090	64,900
May	6,860	1,120	3,830	236,000
June	7,670	2,650	4,970	296,000
July	2,860	1,270	1,880	116,000
August	1,200	582	775	47,700
September	1,550	390	719	42,800
October	1,380	715	891	54,800
November	798	320	546	32,500
December	....	....	a 300	18,400
The year	7,670	....	....	949,000

a Estimated.

NOTE.—All mean discharges in winter months marked "a" were revised by the United States Geological Survey and are printed as published in Water Supply Paper 358. The entire figures for 1894, 1895 and 1896 were revised and are printed as published in same paper, the remainder of figures are taken from published records noted in description of station.

Monthly discharge of Rio Grande near Del Norte, Colo., for 1908–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
April (16-30)	1,320	840	1,060	31,600
May	3,440	1,020	1,690	104,000
June	4,130	2,040	2,930	174,000
July	1,770	660	1,070	65,800
August	1,420	580	931	57,200
September	505	255	345	20,500
October	310	230	271	16,700
November	255	160	205	12,200
The period	....	....	....	482,000
1909				
April (25-30)	1,620	965	1,310	15,600
May	4,530	1,060	3,180	196,000
June	6,870	2,420	4,770	284,000
July	2,880	875	1,520	93,500
August	1,320	672	864	53,100
September	5,050	710	1,660	98,800
October	965	458	661	40,600
November	490	295	418	24,900
December	458	350	397	24,400
The period	....	....	....	831,000

Monthly discharge of Rio Grande near Del Norte, Colo., for 1908–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
January	....	....	321	19,700
February	....	....	293	16,300
March	1,210	....	646	39,700
April	3,860	635	1,400	83,300
May	5,260	2,190	3,410	210,000
June	4,840	1,060	2,420	144,000
July	1,060	398	618	38,000
August	710	320	493	30,300
September	398	295	333	19,800
October	710	270	362	22,300
November	370	202	305	18,100
December	270	....	218	13,400
The year	5,260	....	905	655,000
1911				
January	287	200	248	15,275
February	270	200	239	13,281
March	672	225	336	20,666
April	1,900	560	958	56,995
May	4,620	1,260	3,318	204,020
June	6,450	3,280	4,816	286,592
July	4,480	1,710	2,795	171,868
August	1,520	636	967	59,480
September	1,000	555	668	39,774
October	14,000	720	2,451	150,732
November	678	450	543	32,309
December	450	350	407	25,021
The year	14,090	200	1,486	1,076,029
1912				
January	400	275	340	20,296
February	325	215	272	15,679
March	340	230	279	17,137
April	1,150	315	577	34,354
May	6,940	1,150	3,730	229,322
June	6,940	2,600	4,374	260,275
July	3,320	1,200	1,753	107,773
August	1,430	450	812	49,940
September	680	365	447	26,587
October	450	340	385	23,658
November	420	180	262	15,606
The period	6,940	180	1,206	801,257
1913				
January (discharge Jan. 25, was 165 second-feet)				
February (discharge Feb. 8 was 156 second-feet)				
March	....	....	....	....
April (12-30)	1,530	....	974	36,700
May	3,800	920	2,350	144,000
June	2,860	1,060	2,110	126,000
July	1,280	758	1,070	65,800
August	875	498	687	42,200
September	650	410	491	29,200
October	650	470	562	34,600
November	618	290	384	22,800
December	330	190	302	18,600
The period	....	....	....	519,900

Monthly discharge of Rio Grande near Del Norte, Colo., for 1908–1917. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
March (17-31)	300	275	286	8,530
April	935	300	314	18,700
May	4,990	780	2,790	172,000
June	5,820	1,960	3,870	230,000
July	2,740	1,900	2,090	129,000
August	1,830	730	1,080	66,700
September	1,330	460	816	48,600
October	2,520	500	881	54,200
November	460	160	277	16,500
The period	....	....	....	744,230
1915				
January	250	145	180	11,100
February	260	170	223	12,400
March	295	205	259	15,900
April	1,540	285	626	37,200
May	2,800	635	1,730	106,000
June	4,500	1,950	3,470	206,000
July	3,040	1,430	1,880	116,000
August	1,480	755	1,010	62,100
September	1,180	360	660	39,300
October	755	330	537	33,000
November	595	200	293	17,400
December	300	170	204	12,500
The year	4,500	145	923	669,000
1916				
January	530	200	276	17,000
February	560	245	289	16,600
March	1,060	265	554	34,100
April	2,120	490	949	56,500
May	4,690	1,460	2,940	181,000
June	4,160	2,340	3,300	196,000
July	2,490	1,590	2,010	124,000
August	2,640	725	1,610	99,000
September	1,120	430	640	38,100
October	2,880	460	1,630	100,000
November	1,400	460	804	47,800
The period	4,690	200	1,370	910,000
1917				
March (21-31)	585	259	374	8,150
April	1,500	320	637	37,900
May	3,720	695	1,850	114,000
June	8,250	1,880	6,040	359,000
July	6,260	1,500	2,990	184,000
August	1,380	735	1,060	65,200
September	780	395	568	33,800
October	520	320	410	25,200
November	520	132	296	17,600
December	205	132	176	10,800
The period	8,250	132	1,510	856,000

NOTE.—Records taken from U. S. Geological Survey Water Supply Papers until 1910; after which they are taken from records of the State Engineer of Colorado who maintained the station.

RIO GRANDE NEAR LOBATOS, COLO.

Location.—At the State bridge across the Rio Grande, at a point near the Colorado-New Mexico State line, and about 10 miles east of Lobatos, Colorado. Up to 1903, the station was called "Rio Grande at Cenicero, Colorado."

Records available.—June 28, 1899, to December 31, 1917.

Drainage area.—7,700 square miles.

References.—U. S. Geological Survey Annual Reports 21 p. 257, 22 p. 349; Water-Supply Papers 75 p. 153, 84 p. 192, 99 p. 395, 132 p. 55, 174 p. 39, 210 p. 51, 248 p. 37, 268 p. 38, 288 p. 47, 358 p. 79; Sixteenth Biennial Report of the State Engineer of Colorado, p. 255; Seventeenth Biennial Report of the State Engineer of Colorado, 1913-14, Part Two, p. 194; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 83, 1913 p. 87, 1914 p. 71, 1915 p. 73, 1916 p. 76, 1917 p. 77.

Monthly discharge of Rio Grande near Lobatos, Colo., for 1899–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1899				
July	170	12	42	2,582
August	129	20	53	3,259
September	423	31	102	6,069
October	170	65	117	7,194
November	297	170	259	15,412
December	....	....	a 255	15,700
The period	....	....	....	50,216
1900				
January	....	....	200	12,300
February	....	....	250	13,900
March	....	....	300	18,400
April	475	195	339	20,200
May	4,700	390	1,730	106,000
June	4,700	80	1,810	108,000
July	54	12	19.2	1,180
August	12	8.0	11.9	732
September	34	8.0	20.1	1,200
October	54	20	27.2	1,670
November	....	....	55.0	3,270
December	....	....	275	16,900
The year	....	....	....	303,752
1901				
January	....	....	250	15,400
February	....	....	250	13,900
March	760	112	362	22,300
April	1,080	112	283	16,800
May	3,620	1,310	2,010	124,000
June	2,270	250	1,110	66,000
July	250	12	80.8	4,970
August	150	12	55.4	3,410
September	54	34	43.3	2,580
October	80	34	47.9	2,950
November	....	....	35.0	2,080
December	....	....	150	9,220
The year	....	....	....	283,610

Monthly discharge of Rio Grande near Lobatos, Colo., for 1899–1917—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1902				
January	....	....	180	11,100
February	....	....	160	8,890
March	....	....	305	18,800
April	475	195	308	18,300
May	565	150	464	28,500
June	390	12	112	6,660
July	12	12	12.0	738
August	12	6.0	9.7	595
September	20	8.0	16.1	958
October	34	12	21.7	1,330
November	20	12	19.2	1,140
December	34	8.0	26.8	1,650
The year	....	....	....	98,661
1903				
January	25	25	25	1,537
February	25	25	25	1,388
March	184	25	34	2,091
April	462	236	314	18,684
May	3,840	556	2,012	123,713
June	12,780	2,385	6,375	379,339
July	4,460	144	1,178	72,432
August	112	14	47	2,890
September	112	60	90	5,355
October	84	60	64	3,935
November	....	....	a 140	8,330
December	....	....	a 120	7,380
The year	....	....	....	627,074
1904				
January	....	....	a 120	7,380
February	....	....	a 110	6,330
March	....	....	a 110	6,760
April	751	14	153	9,104
May	42	14	21.5	1,322
June	34	14	20.3	1,208
July	42	14	17.5	1,076
August	751	14	140	8,608
September	468	88	196	11,660
October	3,198	662	1,590	97,770
November	....	....	a 300	17,900
December	....	....	a 300	18,400
The year	....	....	....	187,518
1905				
January	....	....	a 350	21,500
February	....	....	a 325	18,000
March	....	....	898	55,200
April	1,840	405	773	46,000
May	11,700	1,840	5,690	350,000
June	13,100	1,470	7,220	430,000
July	1,350	90	272	16,700
August	290	90	163	10,000
September	90	45	64.4	3,830
October	195	45	102	6,270
November	405	120	229	13,600
December	....	....	a 250	15,400
The year	13,100	45	....	986,500

Monthly discharge of Rio Grande near Lobatos, Colo., for 1899–1917—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1906				
January	....	....	a 275	16,600
February	....	....	a 270	15,000
March	....	....	a 340	20,900
April	2,420	155	761	45,300
May	6,700	1,000	3,330	205,000
June	8,280	1,350	4,370	260,000
July	2,050	1,000	1,470	90,400
August	1,290	195	503	30,900
September	1,470	240	423	25,200
October	1,470	550	923	56,800
November (1-24)	1,230	....	954	45,400
December	....	....	a 500	30,700
The period	....	....	....	842,200
1907				
January	....	....	a 500	30,700
February	....	....	a 525	29,200
March	1,470	475	779	47,900
April	3,770	715	1,960	117,000
May	7,540	1,470	3,270	201,000
June	8,670	3,700	6,900	411,000
July	8,800	2,450	5,440	334,000
August	2,520	1,230	1,740	107,000
September	2,750	660	1,230	73,200
October	705	530	576	35,400
November	530	400	473	28,100
December	....	....	a 358	22,000
The year	....	....	....	1,436,500
1908				
March	900	495	678	41,700
April	900	400	629	37,400
May	1,410	495	765	47,000
June	2,150	615	1,150	68,400
July	1,060	63	316	19,400
August	1,230	63	624	38,400
September	615	205	306	18,200
October	430	250	289	17,800
November	400	125	250	14,900
December	....	....	a 240	14,800
The period	....	....	....	318,000
1909				
January	....	....	a 300	18,400
February	....	....	a 350	19,400
March	615	320	490	30,100
April	3,060	430	1,060	63,100
May	4,870	1,170	3,460	213,000
June	7,460	2,130	4,520	269,000
July	1,730	110	607	37,300
August	1,600	122	466	28,700
September	4,550	1,110	2,360	140,000
October	1,350	495	869	53,400
November	705	430	569	33,900
December	705	300	441	27,100
The year	7,460	....	....	933,400

Monthly discharge of Rio Grande near Lobatos, Colo., for 1899–1917—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
January	....	....	390	24,000
February	....	....	355	19,700
March	2,060	....	1,240	76,200
April	5,380	1,170	2,030	121,000
May	5,380	1,230	3,370	207,000
June	3,530	85	1,010	60,100
July	85	20	32.9	2,020
August	135	20	74.2	4,560
September	65	30	43.3	2,580
October	250	30	121	7,440
November	320	165	228	13,600
December	....	....	289	17,800
The year	5,380	....	769	556,000
1911				
January	450	250	370	22,758
February	450	330	380	21,086
March	530	320	375	23,070
April	1,520	135	461	27,441
May	4,000	900	2,090	128,509
June	5,750	2,195	4,086	243,134
July	5,110	2,065	3,604	221,623
August	2,195	65	579	35,581
September	1,050	460	699	41,621
October	7,510	1,200	3,143	193,230
November (1-6)	1,410	1,100	1,235	14,698
The period	7,510	65	1,582	972,751
1912				
January	530	450	497	30,575
February	530	430	486	17,977
March	850	460	597	36,738
April	1,520	460	840	50,004
May	8,680	1,050	4,259	261,901
June	8,140	2,880	5,141	305,905
July	3,550	122	805	49,490
August	660	110	282	17,320
September	295	135	196	11,693
October	345	228	283	17,393
November	400	205	364	21,636
The period	8,680	110	1,250	830,632
1913				
January (discharge Jan. 26 was 230 second-feet)				....
February (discharge Feb. 10 was 224 second-feet)				....
March (discharge Mar. 20 was 391 second-feet)				....
April	1,465	400	959	57,064
May	1,465	345	821	50,471
June	1,810	228	885	52,661
July	205	30	80	4,919
August	65	20	38	2,336
September	122	30	69	4,106
October	460	110	384	23,611
November	615	345	403	23,980
The period	1,810	20	453	219,158

NOTE.—The discharge and run-off figures for 1913 are printed as published and differ from those published in Seventeenth Biennial Report, State Engineer in State Engineer's Report on the Surface Water Supply of New Mexico for 1913 of Colorado, figures being carried further.

Monthly discharge of Rio Grande near Lobatos, Colo., for 1899–1917—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
March	715	310	514	31,600
April	850	545	647	38,500
May	3,210	545	1,660	102,000
June	4,580	470	2,610	155,000
July	1,810	185	787	48,400
August	1,810	247	710	43,700
September	1,200	435	817	48,600
October	1,910	310	734	45,100
November	545	375	429	25,500
The period	....	....	....	538,400
1915				
January	315	275	292	18,000
February	315	260	288	16,000
March	505	325	399	24,500
April	1,920	370	823	49,000
May	3,790	505	1,660	102,000
June	3,140	1,130	2,100	125,000
July	2,780	175	646	39,700
August	1,680	175	424	26,100
September	470	165	280	16,700
October	400	175	254	15,600
November	475	190	327	19,500
December	360	285	308	18,900
The year	3,790	165	650	471,000
1916				
January	640	315	368	22,600
February	710	370	456	26,200
March	1,320	465	778	47,800
April	2,190	428	865	51,500
May	5,910	1,270	2,660	164,000
June	2,760	858	1,920	114,000
July	1,060	250	613	37,700
August	2,310	320	1,360	83,600
September	720	250	428	25,500
October	2,900	160	1,530	94,100
November	1,540	810	1,100	65,500
The period	5,910	160	1,100	732,000
1917				
March (15-31)	875	450	549	18,500
April	2,110	415	938	55,800
May	4,980	450	1,880	116,000
June	7,750	1,450	4,980	296,000
July	5,830	565	2,560	157,000
August	488	180	287	17,600
September	200	120	160	9,520
October	245	180	196	12,100
November	450	320	376	22,400
December	430	300	357	22,000
The period	7,750	120	1,250	727,000

NOTE.—Winter estimates up to and including 1909 have been revised by the U. S. G. S. and all mean discharges marked "a" are printed as published in Water Supply Paper 358. Estimates for 1900, 1901 and 1902 have been revised completely and are printed as published in the same paper, the records are taken from U. S. G. S. Water Supply Papers up to and including 1910, after which time they are taken from records of the State Engineer of Colorado, who maintained the station.

RIO GRANDE AT EMBUDO, N. MEX.

Location.—About 300 feet east of the Denver and Rio Grande Railroad station at Embudo, gage used Mar. 1, 1889, to Dec. 31, 1903, was about 1,500 feet above gage installed Sept. 8, 1912.

Records available.—January 1, 1889a, to December 31, 1903, and September 8, 1912, to December 31, 1917.

Drainage area.—Approximately 10,100 square miles.

References.—U. S. Geological Survey Annual Reports 11, ii, p. 107; 12, ii, pp. 350, 360; 13, iii, p. 94; 14, ii p. 112; 18, iv, p. 251; 19, iv, p. 385; 20, iv, pp. 358, 364, 368; 21, iv, p. 258; 22, iv, p. 350; Bull. 140, p. 173; Water-Supply Papers 75 p. 154, 84 p. 189, 99 p. 391, 358 p. 98; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 86, 1913 p. 89, 1914 p. 73, 1915 p. 75, 1916 p. 78, 1917 p. 79.

NOTE.—Revised discharges at this station for the years 1900 and 1901 are printed as published in U. S. Geological Survey Water-Supply Paper 358.

a This station was established in the fall of 1888; but first monthly discharge estimates were made for 1889.

Monthly discharge of Rio Grande at Embudo, N. Mex., for 1889–1903.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1889				
January	495	379	431	26,506
February	576	420	473	26,251
March	1,042	537	784	48,216
April	4,420	970	2,261	134,530
May	5,075	2,443	3,430	210,945
June	5,660	1,390	2,922	173,859
July	1,105	236	471	28,966
August	253	181	206	12,669
September	264	184	212	12,614
October	324	243	283	17,404
November	507	253	366	21,777
December	610	364	542	33,333
The year	5,660	181	1,032	747,070
1890				
January	617	260	437	26,875
February	670	344	553	30,691
March	1,044	330	682	41,943
April	3,220	842	2,083	123,938
May	6,071	2,660	4,960	305,040
June	5,740	2,768	4,107	244,366
July	2,640	920	1,593	97,969
August	1,134	636	814	50,061
September	1,044	496	545	32,427
October	606	523	562	34,563
November	699	550	616	36,652
December	660	636	648	39,852
The year	6,071	260	1,467	1,064,377
1891				
January	666	550	586	36,039
February	1,000	550	616	34,182
March	1,450	735	917	56,395
April	5,690	735	2,370	141,015
May	8,550	4,520	5,965	366,847
June	6,340	4,325	5,040	299,880
July	4,130	1,250	2,356	144,894
August	1,805	320	933	57,379
September	2,025	320	469	27,905
October	3,350	225	1,681	103,381
November	970	515	778	46,291
December	880	340	553	34,009
The year	8,550	225	1,855	1,348,217

Monthly discharge of Rio Grande at Embudo, N. Mex., for 1889–1903. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1892				
January	615	440	497	30,565
February	700	490	596	34,270
March	1,550	700	1,051	64,636
April	4,910	860	2,979	177,250
May	6,665	4,130	4,890	300,735
June	4,715	1,550	3,146	187,187
July	1,400	280	538	33,087
August	300	152	191	11,746
September	165	140	152	9,044
October	260	165	202	12,423
November	400	243	317	18,861
December	490	165	324	19,926
The year	6,665	140	1,240	899,730
1893				
January	360	280	332	20,418
February	465	340	415	23,033
March	670	360	501	30,812
April	2,465	700	1,436	85,442
May	5,105	1,500	3,119	191,819
June	3,740	540	2,533	150,714
July	1,150	130	226	13,899
August	565	140	230	14,145
September	440	225	287	17,077
October	420	340	363	22,325
November	....	....	a 330	19,636
December	....	....	a 320	19,676
The year	5,105	130	841	608,996
a Estimated.				
1894				
January	340	300	318	19,600
February	360	300	330	18,300
October	1,400	261	679	41,800
November	340	261	299	17,800
December	465	300	338	20,800
1895				
January	552	432	475	29,207
February	672	420	503	27,935
March	1,410	640	759	46,546
April	4,290	592	2,541	151,200
May	4,290	1,573	2,679	164,725
June	4,985	790	3,021	179,762
July	2,530	612	1,335	82,086
August	2,016	652	1,080	66,407
September	1,146	480	636	37,845
October	572	460	494	30,375
November	700	540	611	36,357
December	580	420	534	32,834
The year	4,985	420	1,222	885,279

Monthly discharge of Rio Grande at Embudo, N. Mex., for 1889–1903.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1896				
January	660	460	532	32,712
February	640	480	551	31,694
March	2,100	580	957	58,844
April	2,720	1,200	1,797	106,929
May	2,980	850	1,598	98,259
June	990	210	367	21,838
July	1,380	210	299	18,385
August	310	210	249	15,310
September	580	210	228	13,570
October	1,090	275	349	21,459
November	660	210	395	23,504
December	500	380	414	25,456
The year	2,980	210	645	467,960
1897				
January	435	375	394	24,226
February	480	375	408	22,659
March	865	410	561	34,495
April	3,177	700	1,698	101,038
May	8,745	3,177	5,443	334,679
June	7,600	2,270	4,621	274,968
July	2,465	375	1,274	78,336
August	1,015	285	338	20,783
September	460	285	344	20,469
October	2,150	495	1,538	94,569
November	1,435	745	1,138	67,716
December	745	460	551	33,880
The year	8,745	285	1,497	1,107,818
1898				
January	605	385	488	30,006
February	660	425	471	26,159
March	912	537	695	42,733
April	3,540	660	2,240	133,289
May	3,467	1,515	2,149	132,137
June	4,410	2,400	3,480	207,074
July	4,700	800	2,566	157,777
August	987	310	478	29,391
September	385	310	338	20,112
October	345	265	283	17,401
November	425	285	357	21,243
December	385	265	339	20,844
The year	4,700	265	1,157	838,166
1899				
January	560	375	470	28,899
February	560	420	481	26,713
March	1,030	465	761	46,792
April	1,550	660	1,090	64,859
May	1,400	610	956	58,782
June	560	65	249	14,817
July	660	185	297	18,262
August	290	185	236	14,511
September	685	185	309	18,387
October	420	290	356	21,890
November	660	420	535	31,835
December	610	420	478	29,391
The year	1,550	65	518	375,138

Monthly discharge of Rio Grande at Embudo, N. Mex., for 1889–1903.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1900				
January	520	355	453	27,900
February	475	475	475	26,400
March	765	475	628	38,600
April	520	395	467	27,800
May	5,410	475	2,410	148,000
June	5,220	475	2,440	145,000
July	455	180	281	17,300
August	210	150	173	10,600
September	395	150	248	14,800
October	280	245	252	15,500
November	475	245	324	19,300
December	395	280	354	21,800
The year	5,410	150	709	513,000
1901				
January	400	280	343	21,100
February	650	350	466	25,900
March	680	350	518	31,900
April	2,110	350	652	38,800
May	5,410	1,880	3,130	192,000
June	3,530	539	1,720	102,000
July	2,110	220	407	24,800
August	1,040	300	451	27,700
September	500	300	359	21,400
October	480	300	331	20,400
November	460	340	357	21,200
December	500	360	425	26,100
The year	5,410	220	763	553,300
1902				
January	460	390	430	26,420
February	585	360	462	25,676
March	630	410	532	32,698
April	800	450	661	39,352
May	1,100	420	798	49,061
June	1,360	130	440	26,202
July	280	140	158	9,719
August	820	150	246	15,154
September	1,050	165	228	13,587
October	260	215	231	14,182
November	310	220	231	13,736
December	315	240	264	16,245
The year	1,360	130	390	282,032
1903				
January	375	270	317	19,468
February	455	290	375	20,836
March	1,900	380	788	48,436
April	2,010	610	987	58,711
May	4,080	1,680	2,574	158,241
June	15,860	2,490	8,974	533,970
July	5,450	670	1,506	92,608
August	672	170	334	20,537
September	370	390	348	20,707
October	370	320	323	19,860
November	590	390	434	25,825
December	535	35	283	17,401
The year	15,860	35	1,437	1,036,600

Monthly discharge of Rio Grande at Embudo, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
September (8-30)	434	309	373	17,000
October	562	420	484	29,800
November	620	428	564	33,600
December	562	390	440	27,100
The period	....	....	....	108,000
1913				
January	432	342	387	23,800
February	497	416	450	25,000
March	787	452	661	40,600
April	1,840	803	1,350	80,300
May	1,950	931	1,420	87,300
June	2,040	525	1,310	78,000
July	430	247	289	17,800
August	369	241	276	17,000
September	649	254	307	18,300
October	875	360	718	44,100
November	981	579	699	41,600
December	594	309	418	25,700
The year	2,040	241	690	500,000
1914				
January	610	401	474	29,100
February	686	477	552	30,700
March	940	604	763	46,900
April	1,650	913	1,280	76,200
May	5,230	1,640	3,180	196,000
June	7,000	1,140	3,830	228,000
July	3,050	599	1,510	92,800
August	2,260	520	1,190	73,200
September	1,500	749	1,150	68,400
October	2,200	582	1,090	67,000
November	873	604	690	41,100
December	674	401	498	30,600
The year	7,000	401	1,350	980,000
1915				
January	500	413	463	28,400
February	675	440	557	31,000
March	1,000	640	784	48,200
April	3,740	945	1,950	116,000
May	7,000	1,900	3,884	239,000
June	5,490	2,790	4,295	256,000
July	3,530	495	1,232	75,700
August	2,610	345	826	50,800
September	795	395	493	29,300
October	785	370	507	31,200
November	890	415	541	32,200
December	700	335	532	32,700
The year	7,000	335	1,340	970,000
1916				
January	810	515	559	34,400
February	890	550	686	39,500
March	1,950	695	1,150	70,800
April	3,970	1,100	1,650	98,400
May	9,790	2,800	5,040	310,000
June	4,850	1,410	3,330	198,000
July	1,540	710	1,060	65,200
August	7,550	765	1,910	117,000
September	895	620	740	44,000
October (7-14 and 21-31)	....	....	1,980	74,400
November	1,930	960	1,340	79,400
December	965	470	732	45,000
The period	....	....	1,680	1,180,000

Monthly discharge of Rio Grande at Embudo, N. Mex., for 1912–1917. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	664	562	611	37,600
February	736	510	610	33,900
March	885	526	755	46,400
April	2,360	837	1,230	73,400
May	5,020	970	2,490	153,000
June	7,050	2,460	5,000	298.000
July	5,800	898	3,090	190,000
August	898	415	553	34,000
September	432	330	388	23,100
October	432	400	418	25,700
November	646	400	598	35,600
December	658	510	570	35,100
The year	7,050	330	1,360	986,000

RIO GRANDE NEAR BUCKMAN, N. MEX.

[In earlier reports called "Rio Grande at Water Tank," "Rio Grande at Rio Grande," and "Rio Grande near San Ildefonso."]

Location.—At the Denver and Rio Grande Railroad Bridge, 4 miles above Buckman and 2 miles below the Indian village of San Idlefonso. The nearest tributaries are Tesuque Creek, which enters 3 miles above, Rito de Sena, which enters 200 feet below, and Pajarito Cañon, which enters 4 miles below the station.

Records available.—February 1, 1895, to December 31, 1905, and June 23, 1909, to December 31, 1917.

References.—U. S. Geological Survey Annual Reports 18, iv, p. 254; 19. iv, p. 386; 20. iv, p. 370; 21, iv, p. 259; 22, iv, p 351; Bull. 140, p. 177; Water-Supply Papers 75 p. 154, 84 p. 189. 99 p. 390, 132 p. 62, 174 p. 43, 268 p 43, 288 p. 51, 358 p 120; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 88, 1913 p. 93, 1914 p. 75, 1915 p. 77, 1916 p. 80, 1917 p. 81

Monthly discharge of Rio Grande near Buckman, N. Mex., for 1895–1905.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1895 b				
February	1,440	355	591	32,822
March	2,640	730	1,371	84,294
April	8,630	1,610	5,073	301,864
May	6,055	2.420	4,616	283,827
June	7,200	1,120	4,630	275,504
July	4,430	1,005	1,768	108,710
August	2,490	705	1,481	91,063
September	1,160	530	723	43,021
October	880	630	707	43.472
November	940	655	834	49,626
December	855	605	713	43,841
The period	....	....	....	1,358,044

NOTE.—b The discharge for 1895 and 1896 are printed as published in United States Geological Survey Bulletin 140 and Eighteenth Annual Report.

Monthly discharge of Rio Grande near Buckman, N. Mex., for 1895–1905. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1896b.				
January	....	....	a 600	36,893
February	....	....	a 600	34,512
March (4-31)	3,015	675	1,355	75,264
April	5,140	1,810	3,483	207,253
May	5,250	1,265	2,704	166,263
June	1,680	255	535	31,835
July	920	255	412	25,333
August	310	210	243	14,942
September	735	255	299	17,792
October	617	350	461	28,346
November	617	310	498	29,633
December	645	330	488	30,006
The period	....	....	....	698,072

NOTE.—a Estimated.
b The discharge for 1895 and 1896 are printed as published in United States Geological Survey Bulletin 140 and Eighteenth Annual Report.

Monthly discharge of Rio Grande near Buckman, N. Mex., for 1895–1905. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1897				
January	570	290	467	28,715
February	590	470	542	30,101
March	2,485	610	988	60,750
April	9,220	1,900	5,094	303.113
May	15,340	8,500	11,421	702,254
June	10 900	2,480	6.153	366,128
July	3,190	200	1,582	97,274
August	1.255	200	446	27,423
September	2,360	260	680	40,463
October	3,465	550	2,215	136,196
November	1,710	680	1,208	71,881
December	745	215	524	32,220
The year	15,340	200	2,610	1,896,518
1898				
January	475	290	353	21,705
February	630	320	449	24,936
March	790	400	544	33.449
April	8,020	425	4,468	265,864
May	7,060	1,750	3,258	200,328
June	5,140	1,910	3,764	223,973
July	6,580	530	2,628	161,590
August	2 450	255	637	39,168
September	750	230	324	19,279
October	710	250	356	21,890
November	1,150	360	598	35,583
December	1,090	450	637	39,168
The year	8,020	230	1,501	1,086,933

Monthly discharge of Rio Grande near Buckman, N. Mex., for 1895–1905.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1899				
January	610	295	423	26,009
February	890	485	641	35,599
March	1,990	775	1,320	81,164
April	5,620	935	2,965	176,430
May	3,550	810	1,914	117,687
June	740	190	399	23,742
July	4,450	135	596	36,647
August	2,160	100	361	22,197
September	8,260	95	893	53,137
October	560	310	432	26,563
November	980	535	756	44,985
December	775	360	621	38,184
The year	8,260	95	943	682,344
1900				
January	670	520	598	36,770
February	670	420	582	32,322
March	1,430	600	859	52,818
April	1,350	670	866	51,531
May	7,500	1,070	3,440	211,517
June	7,500	510	2,914	173,395
July	650	160	297	18,262
August	370	110	165	10,145
September	6,030	130	716	42,605
October	460	320	387	23,796
November	570	360	472	29.022
December	570	360	472	29,022
The year	7,500	110	977	707,472
1901				
January	610	255	397	24,410
February	1,360	420	658	36,543
March	1,275	390	742	45,624
April	4,940	420	1,402	83,425
May	8,400	4,000	5,194	319,367
June	4,740	815	2,199	130.850
July	2,930	280	729	44.824
August	3,450	200	827	50,850
September	2,295	280	580	34,512
October	1,870	320	491	30,190
November	580	380	462	27,491
December	640	260	463	28,468
The year	8,400	200	1,179	856,554
1902				
January	495	455	482	29,643
February	540	475	489	27,183
March	735	480	548	33,709
April	3,200	510	1,640	97,577
May	2,230	520	1,196	73,567
June	1,530	70	474	28,215
July.	2,200	60	272	16,730
August	2,300	105	556	34,165
September	6,460	85	484	28,790
October	345	255	279	17,157
November	420	250	309	18,386
December	440	200	313	19,220
The year	6,460	60	587	424,342

Monthly discharge of Rio Grande near Buckman, N. Mex., for 1895–1905.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1903				
January	470	290	376	23,127
February	810	290	445	24,724
March	3,750	380	1,223	75,193
April	9,450	1,260	2,896	172,324
May	10,900	4,290	6,613	406,612
June	19,300	5,870	11,923	709,468
July	7,260	630	2,225	136,780
August	995	340	432	26,563
September	645	300	375	22,314
October	370	340	355	21,828
November	520	355	423	25,170
December	500	300	384	23,611
The year	19,300	290	2,306	1,667,714
1904				
January	400	300	340	20,910
February	560	310	421	24,220
March	560	250	347	21,340
April	905	190	459	27,310
May	465	259	393	24,160
June	530	165	286	17,020
July	870	62	246	15,130
August	3,745	385	1,496	91,990
September	9,790	600	2,493	148,300
October	17,700	1,085	4,111	252,800
November	1,040	726	831	49,450
December	759	419	576	35,420
The year	17,700	62	1,000	728,000
1905				
January	792	540	707	43,470
February	1,889	614	929	51,590
March	3,472	1,757	2,571	158,100
April	7,682	1,757	3,679	218,900
May	19,500	6,330	12,770	785,200
June	17,400	2,530	9,625	572,700
July	2,290	410	874	53,740
August	1,430	40	629	38,680
September	560	330	389	23,150
October	560	370	422	25,950
November	1,200	460	638	37,960
December	680	460	617	37,940
The year	19,500	40	2,821	2,047,000

Monthly discharge of Rio Grande near Buckman, N. Mex., for 1909–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909				
June (23-30)	6,330	3,400	4,750	75,400
July	3,210	533	1,540	94,700
August	4,800	500	1,460	89,800
September	5,670	1,720	3,410	203,000
October	2,100	709	1,320	81,200
November	709	337	489	29,100
December	865	413	578	35,500
The period	....	....	....	609,000

Monthly discharge of Rio Grande near Buckman, N. Mex., for 1909–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
January	995	413	608	37,400
February	1,420	362	563	31,300
March	4,480	2,040	3,250	200,000
April	12,300	2,780	5,120	305,000
May	12,400	2,320	6,930	426,000
June	4,720	413	2,190	130,000
July	440	120	179	11,000
August	865	230	360	22,100
September (1-23)	636	158	259	11,800
October (25-31)	709	533	627	8,710
November	865	470	568	33,800
December	672	440	525	32,300
The period	....	....	....	1,250,000
1911				
January	1,510	480	775	47,700
February	1,130	602	748	41,500
March	3,440	775	1,490	91,600
April	5,350	1,380	2,520	150,000
May	10,800	4,540	6,630	408,000
June	7,300	3,240	5,720	340,000
July	8,150	3,240	5,690	350,000
August	3,900	540	1,130	69,500
September	2,040	816	1,080	64,300
October	15,600	3,030	5,470	336,000
November	3,010	1,550	2,220	132,000
December	1,510	1,010	1,260	77,500
The year	15,600	480	2,910	2,110,000
1912				
January	900	750	790	48,600
February	772	640	744	42,800
March	4,960	760	1,540	94,700
April	3,570	1,380	2,330	139,000
May	23,800	4,200	11,400	701,000
June (1-7)	14,800	13,100	14,000	194,000
July (4-31)	3,620	685	1,230	68,300
August	1,360	620	862	53,000
September	1,000	350	644	38,300
October	760	538	622	38,200
November	718	498	643	38,300
December	590	490	528	32,500
The period	....	....	....	1,488,700
1913				
January	674	439	549	33,800
February	707	592	646	35,900
March	976	608	796	48,900
April	4,140	1,270	2,460	146,000
May	4,440	1,880	2,920	180,000
June	3,600	1,000	1,880	112,000
July	987	288	614	37,800
August	424	139	273	16,800
September	1,120	237	434	25,800
October	1,230	715	811	49,900
November	1,250	742	829	49,300
December	790	480	572	35,200
The year	4,440	139	1,070	771,000

Monthly discharge of Rio Grande near Buckman, N. Mex., for 1909–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
January	852	550	665	40,900
February	1,760	530	770	42,800
March	2,290	1,010	1,470	90,400
April	4,020	1,340	2,860	170 000
May	8,410	3,360	6,060	373 000
June	8,000	1,290	4,360	259,000
July	....	914	2,280	140,000
August	3,460	819	1,910	117,000
September	1,760	868	1,400	83.300
October	2,560	884	1,420	87,300
November	1,180	746	941	56,000
December	819	428	592	36,400
The year	8,410	428	2,070	1,500,000
1915				
July	4,180	570	1,490	91,500
August	....	....	a1,160	71,200
September	956	591	729	43.400
October	903	555	649	39,900
November	920	472	597	35,500
December	750	510	629	38,700
The period	....	....	878	320,000
a Estimated.				
1916				
January	1,070	645	717	44,100
February	1,180	625	862	49,600
March	7,850	850	3,160	194.000
April	9,900	2,420	4,460	266,000
May	15,900	6,100	8.960	551.000
June	6,670	2,240	5,460	325,000
July	2,330	1,180	1,600	98,500
August	3,370	1,020	2,140	132,000
September	1,180	520	842	50,700
October (1-12)	....	....	1,330	31,600
November	2,430	1,130	1,590	94.800
December	1,150	630	905	55,600
The period	....	....	2,750	1,890,000
1917				
January	760	628	685	42,100
February	900	674	747	41,500
March	2,350	705	1,050	64,800
April	5.750	1,360	2.750	163.000
May	9.960	2,410	5,080	312,000
June	9,750	5,550	7,640	455,000
July	6,300	635	3,180	196,000
August	1,100	446	612	37,600
September	750	400	467	27,800
October	420	390	404	24.800
November	735	430	629	37,400
December	675	408	573	35,200
The year	9,960	390	1,990	1,440,000

RIO GRANDE NEAR SAN MARCIAL, N. MEX.

Location.—At the Atchison Topeka and Santa Fe Railway bridge one-half mile south of San Marcial.

Records available.—January 29, 1895, to December 31, 1917.

References.—U. S. Geological Survey Annual Reports 18, iv, p. 257; 19, iv, p. 388; 20, iv, p. 371; 21, iv, p. 261; 22, iv, p. 352; Water-Supply Papers 75 p. 155, 84 p. 183, 99 p. 386, 132 p. 67, 174 p. 48, 210 p. 55, 248 p. 45, 268 p. 45, 288 p. 54, 358 p. 141; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 92, 1913 p. 96, 1914 p. 77, 1915 p. 79, 1916 p. 82, 1917 p. 83.

NOTE.—A gage was installed here in 1889 and a measurement which gave a discharge of 19 second-feet was made on Aug. 8.

NOTE.—Up to and including January, 1901, the monthly and annual totals, given by the U. S. G. S., do not quite agree with figures published in paper printed by the Department of State, called "Silt in the Rio Grande" by W. W. Follett.

From January 1, 1901, to 1914, this station was maintained by the International Boundary Commission and the United States Section of the International Water Commission; since 1914 the record has been furnished by the U. S. Reclamation Service.

Monthly discharge of Rio Grande near San Marcial, N. Mex., for 1895–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1895 (see note)				
February	1,755	280	986	53,760
March	3,115	1,350	2,096	128,879
April	7,800	2,180	4,689	279,014
May	6,265	2,095	3,625	222,892
June	5,958	1,080	3,922	233,375
July	7,339	960	2,431	149,476
August	6,265	1,210	2,913	179,113
The period	....	....	....	1,246,509
1896 (see note)				
February	885	580	680	39,114
March	2,200	240	679	41,750
April	4,800	1,400	3,142	186,962
May	4,800	195	2,019	124,143
June	820	0.0	164	9,759
July	4,800	0.0	466	28,653
August	820	0.0	118	7,255
September	1,500	0.0	130	7,735
October	11,300	0.0	742	45,624
November	496	15	209	12,444
December	820	460	619	38,060
The period	....	....	....	541,499

NOTE.—The discharges for 1895 do not agree with those printed in Water Supply Paper 358. The discharges for 1896 are the same as those printed in Water Supply Paper 358 except that paper prints discharge and run-off January 22-31. The tables for 1895 and 1896 here printed are taken from the 18th Annual Report of the U. S. Geological Survey, part iv, page 257.

Monthly discharge of Rio Grande near San Marcial, N. Mex., for 1895–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1897				
January	600	200	318	19,553
February	600	350	438	24,325
March	1,350	350	663	40,767
April	7,025	900	3,572	212,548
May	21,750	6,150	12,282	755,196
June	11,088	1,775	6,158	366,426
July	2,025	270	1,073	65,977
August	365	5.0	100	6,149
September	6,050	5.0	1,919	114,188
October	15,500	650	4,581	281,677
November	3,500	2,100	2,953	175,715
December	3,100	2,400	2,484	152,736
The year	21,750	5.0	3,045	2,215,257
1898				
January	1,090	462	938	57,675
February	1,290	915	1,070	59,425
March	1,185	775	1,011	62,164
April	11,300	775	4,562	271,458
May	10,205	1,000	2,697	165,832
June	3,170	1,475	2,122	126,268
July	16,775	462	2,717	167,062
August	1,045	50	225	13,835
September	878	32	78	4,641
October	....	....	a 20	a 1,230
November (5-30)	372	27	197	11,722
December	915	170	380	23,365
The period	16,775	27	1,335	964,677

a Approximated.

1899				
January	580	400	453	27,854
February	670	75	443	24,603
March	620	350	448	27,546
April	2,220	160	909	54,089
May	1,610	156	570	35,048
June	130	0.0	16	952
July	4,655	0.0	462	28,407
August	1,295	0.0	104	6,395
September	690	0.0	49	2,916
October	60	0.0	11	676
November	252	72	160	9,521
December	690	246	355	21,828
The year	4,655	0.0	332	239,835
1900				
January	980	370	660	40,582
February	980	420	632	35,099
March	1,300	140	540	33,203
April	170	20	105	6,248
May	6,250	90	2,010	123,590
June	7,460	65	2,687	159,888
July	0.0	0.0	0.0	0.0
August	0.0	0.0	0.0	0.0
September (8-30)	8,500	15	1,230	73,190
October	0.0	0.0	0.0	0.0
November	80	10	41	2,440
December	280	30	164	10,084
The period	....	....	....	484,324

Monthly discharge of Rio Grande near San Marcial, N. Mex., for 1895–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1901				
January	450	30	341	20,967
February	1,000	290	458	25,468
March	480	30	246	15,114
April	3,560	0.0	398	23,683
May	5,570	2,880	4,165	256,126
June	4,740	60	1,616	96,178
July	6,600	0.0	964	59,286
August	5,865	120	1,066	65,534
September	6,210	0.0	632	37,607
October	2,320	0.0	277	17,018
November	1,460	160	337	20,053
December	460	230	313	19,240
The year	6,600	0.0	901	656,274
1902				
January	500	300	370	22,731
February	480	220	314	17,435
March	250	50	129	7,954
April	1,650	0.0	674	40,106
May	1,710	35	436	26,787
June	560	0.0	108	6,407
July	0.0	0.0	0.0	0.0
August	10,500	0.0	800	49,210
September	2,460	0.0	224	13,349
October	75	0.0	13	823
November	180	15	78	4,641
December	350	65	184	11,286
The year	10,500	0.0	278	200,729
1903				
January	475	75	280	17,197
February	580	280	395	21,927
March	2,410	320	761	46,790
April	5,500	680	1,681	100,007
May	8,950	2,720	5,178	318,367
June	18,880	2,860	14,100	660,476
July	3,600	240	1,266	77,841
August	245	5.0	50	3,064
September	360	0.0	24	1,438
October	75	0.0	9.0	545
November	275	0.0	93	5,534
December	335	260	307	18,883
The year	18,880	0.0	1,762	1,272,069
1904				
January	370	115	274	16,840
February	375	270	329	18,902
March	330	0.0	99	6,060
April	0.0	0.0	0.0	0.0
May	0.0	0.0	0.0	0.0
June	0.0	0.0	0.0	0.0
July	1,070	0.0	171	10,532
August	2,260	20	910	55,974
September	7,550	0.0	752	44,727
October	33,000	1,120	7,534	463,240
November	1,430	650	870	51,769
December	1,130	355	679	41,752
The year	33,000	0.0	968	709,796

Monthly discharge of Rio Grande near San Marcial, N. Mex., for 1895–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1905				
January	1,005	370	636	39,114
February	3,220	290	1,150	63,868
March	5,620	2,200	3,544	217,904
April	14,160	1,730	4,695	279,392
May	29,070	7,500	15,649	962,221
June	19,970	2,640	12,004	714,268
July	2,770	65	582	35,782
August	710	0.0	327	20,093
September	470	0.0	89	5,276
October	180	80	120	7,349
November	3,720	160	713	42,397
December	1,530	160	559	34,344
The year	29,070	0.0	3,339	2,422,098
1906				
January	1,390	125	594	36,496
February	875	615	715	39,689
March	2,450	520	925	56,866
April	6,000	1,110	2,742	163,140
May	10,800	4,210	8,143	500,707
June	8,530	2,310	5,799	345,064
July	2,640	1,070	1,924	118,314
August	1,940	105	703	43,210
September	9,070	0.0	429	25,527
October	1,430	880	1,152	70,830
November	1,650	720	1,307	77,752
December	4,500	685	1,401	86,142
The year	10,800	0.0	2,153	1,563,737
1907				
January	1,385	685	986	60,635
February	1,460	1,020	1,219	67,696
March	2,880	710	1,505	92,549
April	7,500	1,700	3,745	222,863
May	11,470	3,770	6,001	368,965
June	11,680	6,770	8,809	524,192
July	7,860	2,490	5,346	328,740
August	10,050	950	2,692	165,521
September	10,610	940	2,704	160,899
October	2,230	760	1,048	64,453
November	1,440	700	949	56,489
December	850	545	727	44,707
The year	11,680	545	2,961	2,157,709
1908				
January	935	580	710	43,636
February	1,640	510	834	47,970
March	2,010	935	1,258	77,375
April	4,070	635	2,083	123,927
May	4,000	1,580	2,688	165,263
June	2,250	535	1,521	90,516
July	2,390	230	796	48,952
August	2,860	540	1,556	95,663
September	875	0.0	163	9,709
October	285	0.0	45	2,757
November	810	355	503	29,931
December	820	500	625	38,410
The year	4,070	0.0	1,065	774,109

Monthly discharge of Rio Grande near San Marcial, N. Mex., for 1895–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909				
January	775	555	676	41,554
February	705	530	618	34,334
March	1,200	495	856	52,622
April	4,080	750	1,753	104,340
May	7,180	2,610	5,468	336,238
June	7,890	2,700	4,873	289,983
July	2,260	110	782	48,080
August	3,950	20	856	52,661
September	9,490	1,090	3,009	179,048
October	2,150	615	972	59,742
November	1,100	510	665	39,580
December	1,210	450	679	41,752
The year	9,490	20	1,767	1,279,934
1910				
January	1,730	275	997	61,329
February	1,370	525	757	42,019
March	3,300	1,400	2,336	143,663
April	7,560	1,900	3,192	189,917
May	8,420	1,310	5,019	308,628
June	3,100	35	1,060	63,094
July	160	0.0	17	1,061
August	1,220	0.0	119	7,339
September	785	0.0	50	2,995
October	45	0.0	9.0	575
November	310	40	150	8,915
December	465	310	377	23,157
The year	8,420	0.0	1,180	852,692
1911				
January	820	0.0	491	30,198
February	985	440	642	a 35,633
March	3,700	470	1,416	87,094
April	3,830	890	1,554	92,450
May	8,100	3,360	4,942	303,888
June	6,120	3,190	4,530	269,554
July	11,000	2,820	6,382	392,390
August	4,560	15	1,027	63,164
September	1,285	505	658	39,164
October	11,780	1,280	5,086	312,754
November	2,980	1,270	1,957	116,469
December	1,340	160	927	56,975
The year	11,780	0.0	2,490	1,799,733

a State Engineer's Report on the Surface Water Supply of New Mexico 1911-12 printed 35,663 but should have been 35,633.

Monthly discharge of Rio Grande near San Marcial, N. Mex., for 1895–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
January	1,230	195	818	50,311
February	970	585	772	44,430
March	3,460	570	1,258	77,375
April	3,320	990	1,980	117,798
May	15,270	2,150	8,161	501,779
June	14,820	4,650	8,438	502,096
July	4,570	560	1,850	113,772
August	2,380	95	371	22,830
September	955	0.0	128	7,646
October	265	0.0	146	9,005
November	585	260	463	27,580
December	555	145	406	24,992
The year	15,270	0.0	2,066	1,499,614
1913				
January	775	80	381	23,425
February	810	565	686	38,102
March	745	430	574	35,306
April	3,860	260	1,666	99,114
May	3,910	935	2,103	129,293
June	6,230	855	1,597	95,058
July	1,670	0.0	112	6,863
August	20	0.0	3.0	169
September	800	0.0	82	4,860
October	5,040	130	539	33,144
November	1,020	405	591	35,167
December	765	50	406	24,942
The year	6,230	0.0	726	525,443
1914				
January	1,170	430	620	38,122
February	2,050	450	722	40,086
March	1,910	680	1,071	65,862
April	2,860	1,000	1,946	115,720
May	6,005	2,140	4,335	266,562
June	5,875	1,375	3,566	212,225
July	7,925	500	2,600	159,850
August	5,475	295	1,403	86,243
September	1,120	230	556	33,085
October	2,605	715	1,260	77,515
November	935	485	726	43,206
December	1,150	410	651	40,017
The year	7,925	230	1,628	1,178,493
1915				
January	945	a 360	541	33,243
February	1,005	495	684	38,013
March	1,735	a 480	866	53,163
April	12,615	1,260	4,562	271,487
May	10,360	3,500	6,404	393,774
June	8,095	2,590	5,210	309,493
July	8,995	70	1,950	119,871
August	2,685	55	751	46,175
September	2,075	5	301	17,911
October	365	125	213	13,081
November	735	165	381	22,681
December	730	425	576	35,405
The year	12,615	5	1,870	1,350,000

a The minimum discharges for January and March were printed in error in the State Engineer's Report on the Surface Water Supply of New Mexico for 1915. In the 1915 report the discharge for June 8 was printed 7,795, should have been 7,075.

Monthly discharge of Rio Grande near San Marcial, N. Mex., for 1895–1917. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	1,670	430	777	47,782
February	1,125	580	818	47,070
March	7,110	750	2,675	164,459
April	8,210	2,505	3,926	233,214
May	15,145	4,405	8,081	496,909
June	4,860	1,370	3,461	205,583
July	1,419	352	743	45,651
August	2,535	295	1,592	97,884
September	760	175	325	19,329
October	11,390	135	2,640	162,327
November	2,238	1,004	1,479	88,005
December	1,063	497	796	48,959
The year	15,145	135	2,280	1,657,172
1917				
January	985	526	741	45,550
February	791	568	683	37,939
March	991	439	631	38,797
April	5,245	665	1,590	94,591
May	9,085	978	3,879	238,522
June	8,632	3,213	6,165	366,872
July	5,873	608	2,836	174,379
August	509	0.0	98.4	6,052
September	1,932	0.0	130	7,744
October	24	12	15.8	970
November	443	24	244	14,499
December	564	321	462	28,334
The year	9,085	0.0	1,456	1,054,241

COSTILLA CREEK NEAR MOUTH, N. MEX.

Location.—In Sec. 5, T. 1 S., R. 74 W., a mile or more above the mouth, on the Questa road, and seven miles from the state bridge.
Records available.—April 23, 1912, to September 30, 1913.
References.—U. S. Geological Survey Water-Supply Paper 358 p. 376.

Monthly discharge of Costilla Creek near Mouth, N. Mex., for 1912.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
April (27-30)	160	20	86.2	684
May	344	110	186	11,400
June	344	89	172	10,200
July (1-7)	69	0.3	32.7	454

NOTE.—No flow from May 1 to Sept. 30, 1913.
No flow after July 7, 1912.

RIO COLORADO ABOVE QUESTA, N. MEX.

[Locally called Red River]

Location.—Five miles above Questa, in Taos County, and about 5 miles above Cabresto Creek, the nearest tributary, near Sec. 2, T. 28 N., R. 13 E.
Records available.—April 5, 1910, to September 4, 1911, when the station was discontinued. No estimates were made.
Drainage area.—Not measured.
Gage.—Vertical staff; table of gage heights for 1910 refer to a gage at a different datum and location.
Channel.—Apparently permanent.
Discharge measurements.—Made by wading.
References.—U. S. Geological Survey Water Supply papers 288 p. 85, 358 p. 378; State Engineer's Report on the Surface Water Supply of New Mexico for 1911-12 p. 97.

RIO COLORADO NEAR QUESTA, N. MEX.

[Locally called Red River]

Location.—Two miles above Questa, ½ mile above Eagle Rock Ranger Station of the U. S Forest Service, 1¾ miles above the mouth of Cabresto Creek.
Records available.—October 6, 1912, to December 31, 1917.
Drainage area.—About 90 square miles.
References.—U. S. Geological Survey Water Supply Paper 358 p. 380; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 98, 1913 p. 100, 1914 p. 80, 1915 p. 82, 1916 p. 86, 1917 p. 85.

Monthly discharge of Rio Colorado near Questa, N. Mex., for 1912, 1913.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
October (6-31)	56	30	45.6	2,350
November	32	18	25.0	1,490
December	28	16	19.4	1,190
The period	....	....	....	5,030
1913				
January	....	....	a 20.0	1,230
February	....	....	a 20.0	1,110
March	....	....	a 22.0	1,350
April	72	23	45.5	2,710
May	155	67	102	6,270
June	133	77	103	6,130
July	77	40	50.6	3,110
August	37	26	29.3	1,800
September	41	22	26.2	1,560
October	35	22	27.4	1,680
November	24	22	23.1	1,370
December	....	....	a 12.0	738
The year	155	....	40.2	29,100

a Estimated.

Daily discharge, in second-feet, of Rio Colorado near Questa, N. Mex., for 1914.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	...	...	...	...	67	266	...	...	47	...	28	15
2	...	...	...	26	...	...	...	72	...	34	...	...
3	...	...	...	...	67	277	...	...	44	...	26	...
4	...	...	...	...	...	...	67	76	...	...	...	15
5	...	...	..	...	84	...	...	...	42	...	...	14
6	...	...	...	...	90	...	76	...	42	38	26	...
7	...	...	...	...	118	185	...	...	...	...	...	...
8	...	...	...	...	136	...	82	66	...	...	...	...
9	...	...	...	36	193	...	...	...	...	...	...	14
10	...	...	...	...	219	163	74	61	...	...	...	...
11	...	...	...	32	211	...	74	...	...	34	23	...
12	...	...	...	32	190	...	...	...	...	...	...	14
13	...	...	...	35	...	180	...	56	48	...	20	...
14	...	...	...	...	206	180	74	...	...	33	21	...
15	...	...	20	...	...	168	...	52	42	...	...	...
16	...	...	...	54	195	163	...	...	...	30	17	...
17	...	...	24	54	...	160	...	...	...	...	...	14
18	...	...	...	...	...	...	74	56	...	...	20	...
19	...	...	...	...	215	137	...	...	39	...	...	...
20	...	...	...	54	...	144	88	51	...	32	...	...
21	...	...	...	...	245	...	74	51	42	...	...	18
22	...	...	24	...	270	122	89	61	...	...	...	...
23	...	...	...	67	277	...	...	...	40	...	...	...
24	...	...	...	...	279	...	...	58	...	32	...	...
25	...	...	23	67	...	102	80	56	...	...	...	...
26	18	...	...	...	247	...	77	52	38	...	...	...
27	...	...	23	67	252	85	...	50	...	...	15	...
28	...	21	...	67	234	...	...	49	35	31	...	...
29	...	...	...	67	...	85	72	...	...	...	...	...
30	...	...	26	73	...	...	...	49	...	28	...	...
31	...	...	...	...	...	...	...	...	...	...	...	...

Monthly discharge of Rio Colorado near Questa, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	....	....	a 18.5	1,140
February	26	19	22.1	1,230
March	24	18	21.4	1,320
April	163	24	62.2	3,700
May	305	102	211	13,000
June	318	174	266	15,800
July	168	91	128	7,880
August	91	50	70.8	4,360
September	50	38	43.1	2,570
October	37	29	32.1	1,970
November	30	18	26.0	1,550
December	....	....	a 21.2	1,300
The year	....	....	....	55,800

a Estimated.

Monthly discharge of Rio Colorado near Questa, N. Mex., for 1915–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	32	26	30.2	1,850
February	30	27	28.3	1,630
March	48	26	39.4	2,420
April	253	42	80.0	4,760
May	685	188	420	25,800
June	451	174	399	20,200
July	160	80	110	6,790
August	188	55	80.7	4,960
September	57	33	44.7	2,660
October	67	31	41.3	2,540
November	38	28	33.7	2,000
December	28	13	20.1	1,240
The year	685	13	106	76,800
1917				
January	33	22	26.8	1,650
February	32	19	22.2	1,240
March	24	19	21.7	1,330
April	56	17	30.5	1,810
May	236	43	135	8,280
June	377	212	294	17,500
July	215	65	129	7,960
August	58	32	42.8	2,630
September	32	23	27.8	1,650
October	23	16	20.9	1,280
November	16	15	15.1	896
December	15	10	12.2	754
The year	377	10	64.9	47,000

RIO COLORADO BELOW QUESTA, N. MEX.

[Locally called Red River]

Location.—Two miles below Questa, at the head of the lower cañon, below all important tributaries, the nearest one above being Cabresto Creek.
Records available.—April 8, 1910, to December 31, 1917.
Drainage area.—About 110 square miles.
References.—U. S. Geological Survey Water Supply Papers 288 p. 86, 358 p. 382; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911 12 p. 100, 1913 p. 103, 1914 p. 81, 1915 p. 84, 1916 p. 88, 1917 p. 87.

Monthly discharge of Rio Colorado below Questa, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
January	54	33	45.3	2,790
February	43	23	35.8	2,060
March	54	28	39.0	2,400
April	96	33	59.3	3,530
May	....	....	....	....
June (13-30)	86	8.0	24.1	860
July	62	5.0	41.1	2,530
August	74	23	41.7	2,560
September	62	41	48.1	2,860
October	70	32	41.2	2,530
November	30	21	26.5	1,580
December	30	16	25.1	1,540
The period	....	....	....	25,240
1913				
January	32	18	25.5	1,570
February	28	17	22.6	1,260
March	29	17	25.8	1,540
April	95	29	58.8	3,500
May	132	96	117	7,190
June	127	73	102	6,070
July	68	31	42.0	2,580
August	33	16	24.4	1,500
September	45	14	22.4	1,330
October	33	22	27.9	1,720
November	29	16	22.6	1,340
December	32	6.0	18.0	1,110
The year	132	6.0	42.3	30,700
1914				
January	28	13	21.2	1,300
February	28	15	19.1	1,060
March	22	14	17.6	1,080
April	207	20	99.2	5,900
May	405	207	311	19,100
June	405	28	173	10,300
July	112	61	81.0	4,980
August	98	53	71.1	4,370
September	82	38	50.1	2,980
October	55	39	41.8	2,570
November	41	21	30.6	1,820
December	31	11	19.6	1,210
The year	405	11	78.3	56,700

Monthly discharge of Rio Colorado below Questa, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	31	22	26.3	1,620
February	29	20	26.1	1,450
March	31	23	27.7	1,700
April	209	31	80.2	4,770
May	563	147	276	17,000
June	635	240	427	25,400
July	260	98	168	10,300
August	108	55	71.2	4,380
September	58	42	49.7	2,960
October	46	40	42.4	2,610
November	43	21	35.0	2,080
December	40	19	29.5	1,810
The year	635	19	105	76,100
1916				
January	50	7.0	30.0	1,850
February	43	3.0	36.3	2,090
March	74	17	54.1	3,320
April	197	57	93.0	5,530
May	600	160	294	18,000
June	395	255	324	19,300
July	246	145	201	12,400
August	162	71	105	6,460
September	75	39	52.9	3,150
October	89	37	59.9	3,680
November	64	15	47.3	2,810
December	57	8.0	35.0	2,150
The year	600	3.0	111	80,700
1917				
January	38	22	31.7	1,950
February	38	25	33.3	1,850
March	36	23	29.5	1,820
April	125	27	54.0	3,210
May	395	75	197	12,100
June	410	215	305	18,100
July	215	77	140	8,610
August	70	43	53.4	3,290
September	45	37	42.0	2,500
October	38	24	31.3	1,920
November	21	25	28.0	1,670
December	29	14	21.3	1,310
The year	410	14	80.7	58,300

RIO HONDO AT VALDEZ, N. MEX.

[In 1915 Report called Rio Hondo, near Arroyo Seco.]

Location.—About a mile and a quarter north of Arroyo Seco and half a mile below the mouth of the main cañon.

Records available.—December 20, 1915, to December 31, 1917.

References.—State Engineer's Report on the Surface Water Supply of New Mexico for 1915 p. 86, 1916 p. 90, 1917 p. 89.

Monthly discharge of Rio Hondo at Valdez, N. Mex., for 1916, 1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	14	12	12.8	789
February	17	14	15.3	882
March	33	17	23.1	1,420
April	142	20	45.5	2,700
May	276	51	175	10,800
June	341	80	212	12,600
July (1-6)	....	....	75.5	898
August (23)	....	....	22.0	44
September	....	....	....	....
October (21-31)	....	....	27.0	589
November	26	22	23.3	1,390
December	23	10	14 8	910
The period	....	....	63.8	33,000
1917				
January	17	15	16.0	986
February	15	13	13.9	771
March	13	11	12.3	754
April	47	11	16.6	990
May	107	14	53.5	3,290
June (1-15 and 27-30)	....	....	126	4,760
July	129	25	62.1	3,820
August	20	11	13.6	835
September	53	6 0	12.0	712
October	6.6	1.8	4.01	246
November	13	1.8	5.68	338
December	25	4.5	9.76	600
The period	....	1.8	25.8	18,100

RIO HONDO NEAR ARROYO HONDO, N. MEX.

Location.—At the highway bridge at John Dunn's Ranch, 200 yards above the mouth of the stream, and below all tributaries and diversions. It is 15 miles from Servilleta, the nearest railroad point, and 14 miles from Taos.

Records available.—April 8, 1910, to December 31, 1917.

References.—U. S. Geological Survey Water Supply Papers 288 p 87, 358 p. 386; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 103, 1913 p. 106, 1914 p. 83, 1915 p. 86, 1916 p. 92, 1917 p. 91.

Monthly discharge of Rio Hondo near Arroyo Hondo, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
July	44	37	37.9	2,330
August	35	29	30 0	1,840
September	29	11	26.0	1,550
October	13	3.0	8.7	535
November	17	9.0	14.0	833
December	49	12	25.9	1,590
The period	....	....	....	8,680
1913				
January	22	8.0	11.5	707
February	15	10	12.3	683
March	15	11	12.3	756
April	32	8.9	19.6	1,170
May	77	25	44.7	2,750
June	55	21	43.2	2,570
July	75	4.8	23 0	1,410
August	50	4.8	7 86	483
September	37	5.4	9.09	541
October	12	8.0	9.92	610
November	17	9.2	13.6	809
December	....	....	11.7	719
The year	77	4.8	18.3	13,200
1914				
January	....	....	12.4	762
February	....	....	a 14.0	778
March	25	13	16.0	984
April	27	16	19.2	1,140
May	171	14	62.8	3,860
June	121	34	52.2	3,110
July	42	11	26.7	1,640
August	51	8 0	13.2	812
September	18	6.0	9.07	540
October	19	7.6	11.9	732
November	19	9.5	14.0	833
December	16	11	13.4	824
The year	171	6.0	22.1	16,000

a Estimated.

Monthly discharge of Rio Hondo near Arroyo Hondo, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	16	16	a 16.0	984
February	17	13	16.0	887
March	19	13	15.7	966
April	100	18	42.7	2,540
May	350	17	174	10,700
June	363	185	261	15,500
July	185	19	63.5	3,900
August	21	9.0	13.1	805
September	12	8.0	9.33	555
October	11	9.0	10.0	617
November	16	9.0	11.0	653
December	26	16	a 21.5	1,320
The year	363	8.0	54.5	39,400
a Estimated.				
1916				
January	28	25	26.1	1,610
February	46	26	28.4	1,640
March	64	26	41 5	2,550
April	220	36	80.3	4,780
May	381	82	244	15,000
June	308	72	219	13,000
July	78	29	45.3	2,780
August	34	25	28.4	1,750
September	30	25	26.4	1,570
October	32	25	27.8	1,710
November	28	25	26.8	1,600
December	32	24	28.1	1,730
The year	381	24	68.5	49,700
1917				
January	30	23	24.8	1,520
February	29	19	23.6	1,310
March	24	15	20.9	1,280
April	36	15	24.1	1,430
May	218	25	79 2	4,870
June	245	41	160	9,550
July	112	12	46.2	2,840
August (1)	....	....	16.0	32
September (23-30)	....	....	12.8	202
October	18	4.6	9.50	584
November	13	5.6	8.81	524
December	67	5.6	17.0	1,050
The period	....	....	40.6	25,200

RIO FERNANDO DE TAOS NEAR TAOS, N. MEX.

Location.—Two miles southeast of Taos, 200 yards upstream from the headgate of B. G. Randall's intake ditch, at the mouth of the cañon, in Sec. 21, T. 25 N., R. 13 E.

Records available.—April 6, 1910, to December 31, 1917.

References.—U. S. Geological Survey Water Supply Papers 288 p. 91, 308 p. 106, 328 p. 72, 358 p. 405; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911 12 p. 117, 1913 p. 109, 1914 p. 91, 1915 p. 92, 1916 p. 94, 1917 p. 93.

Monthly discharge of Rio Fernando de Taos near Taos, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
October	15	2.7	3.38	208
November	2.7	1.4	2.04	121
December	2.4	1.4	1.70	105
The period	....	....	....	434
1913				
January	1.4	0.4	0.68	42
February	1.9	0.6	0.89	49
March	22	2.0	4.38	269
April	44	12	22.5	1,340
May	26	7.0	15.0	922
June	26	5.4	11.3	672
July	8.0	1.7	3.54	218
August	12	0.2	2.16	133
September	10	0.7	1.86	111
October	7.0	2.2	3.82	235
November	7.0	1.3	2.97	177
December	2.2	0.6	1.08	66
The year	44	0.2	5.84	4,230
1914				
January	3.0	2.2	2.30	141
February	3.0	2.2	2.28	127
March	30	2.2	9.81	603
April	100	14	35.8	2,130
May	92	20	60.5	3,720
June	20	3.8	10.8	643
July	20	4.7	10.1	621
August	26	4.0	8.09	497
September	8.5	2.9	4.12	245
October	7.7	2.9	3.95	243
November	4.2	2.4	2.99	178
December	4.7	2.0	2.68	165
The year	100	2.0	12.9	9,310
1915				
January	3.3	2.5	2.96	182
February	3.1	2.4	2.89	160
March	16	3.1	4.93	303
April	103	10	45.6	2,710
May	110	67	84.6	5,200
June	76	16	39.2	2,330
July	16	7.8	10.4	639
August	29	5.3	7.48	460
September	6.8	3.3	4.37	260
October	3.9	1.8	3.25	200
November	4.5	2.3	3.06	182
December	2.9	2.0	2.32	143
The year	110	1.8	17.6	12,800

Monthly discharge of Rio Fernando de Taos near Taos, N. Mex., for 1912–1917 —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	5.5	2.1	3.77	232
February	11	4.0	6.76	389
March	31	2.1	15.7	967
April	84	20	37.0	2,200
May	104	20	69.4	4,260
June	19	7.7	11.9	706
July	14	3.3	4.92	303
August	9.7	4.4	6.45	396
September	6.4	1.3	4.18	249
October	7.7	1.2	4.17	256
November	4.1	0.8	2.38	142
December	2.2	0.6	1.49	91
The year	104	0.6	14.0	10,200
1917				
January	2.8	0.9	2.00	123
February	4.5	0.8	2.25	125
March	9.6	2.3	4.41	271
April	10	5.5	7.29	434
May	40	8.3	17.9	1,100
June	17	0.8	7.08	421
July	3.8	0.8	1.83	112
August	2.0	0.6	1.07	66
September	0.9	0.5	0.73	44
October	1.1	0.6	0.77	47
November	0.8	0.4	0.48	28
December	0.4	0.3	0.31	19
The year	40	0.3	3.86	2,790

RIO TAOS AT LOS CORDOVAS, N. MEX.

Location.—About 100 feet downstream from the mouth of Rio Grande del Rancho and Arroyo Seco, and about one mile below the mouth of Rio Lucero, just below A. G. Anderson's grist mill and a short distance northeast of Los Cordovas.

Records available—April 6, 1910, to December 31, 1917.

References.—U. S. Geological Survey Water Supply Papers 288 p. 89, 308 p. 68, 328 p 68, 358 p. 395; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 109, 1913 p. 112, 1914 p. 87, 1915 p. 89, 1916 p. 96, 1917 p. 95.

Monthly discharge of Rio Taos at Los Cordovas, N. Mex., for 1910–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
April (6-30)	315	67	160	7,930
May	300	28	152	9,350
June	59	1.5	11.6	690
July	6.8	1.5	2.20	135
August	4.5	1.5	3.92	241
September	4.5	1.5	4.35	259
October	15	4.5	9.23	568
November	15	15	15.0	893
December	23	18	18.8	1,160
The period	....	....	....	21,200

Monthly discharge of Rio Taos at Los Cordovas, N. Mex., for 1910–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911				
January	43	15	20.7	1,270
February	31	20	23.4	1,300
March	101	23	51.7	3,180
April	192	48	86.9	5,170
May	345	129	216	13,300
June	116	15	85.7	5,100
July	92	28	57.4	3,530
August	85	3.0	23.6	1,450
September	149	15	24.3	1,450
October	495	59	137	8,420
November	92	30	66.1	3,930
December	....	....	20.0	1,230
The year	345	3.0	68.1	49,300
1912				
January	30	16	26.2	1,610
February	59	23	37.6	2,160
March	159	46	70 0	4,300
April	216	59	137	8,150
May	670	315	442	27,200
June	492	78	233	13,900
July	71	3.0	21.8	1,340
August	14	6.0	8.5	523
September	25	8.0	11.9	708
October	31	18	24.4	1,500
November	35	19	31.4	1,870
December	46	28	37.5	2,310
The year	670	3.0	90.3	65,600
1913				
January	....	....	25.0	1,540
February	35	17	28.0	1,560
March	47	25	41.7	2,560
April	122	47	84.0	5,000
May	113	35	72.4	4,450
June	176	9.1	47.1	2,800
July	25	5.0	6.96	428
August	47	5.0	8.03	494
September	43	5.0	11.9	708
October	29	15	25.0	1,540
November	26	26	26 0	1,550
December	26	18	19.4	1,190
The year	176	5.0	32.9	23,800
1914				
January	40	20	31.0	1,910
February	40	18	27.2	1,510
March	52	30	38.6	2,370
April	190	52	115	6,840
May	588	255	406	25,000
June	420	11	113	6,720
July	66	22	39.8	2,450
August	46	17	27.9	1,720
September	23	14	18.3	1,090
October	34	18	24.6	1,510
November	28	21	24.9	1,480
December	36	16	21.5	1,320
The year	588	11	74.4	53,900

Monthly discharge of Rio Taos at Los Cordovas, N. Mex., for 1910–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	45	23	29.1	1,790
February	60	28	44.3	2,460
March	67	38	50.7	3,120
April	520	57	230	13,700
May	875	245	492	30,300
June	595	119	375	22,300
July	86	11	24.7	1,520
August	33	13	17.1	1,050
September	20	15	17.1	1,020
October	22	17	19.8	1,220
November	33	18	27.9	1,660
December	40	30	34.4	2,120
The year	875	11	114	82,300
1916				
January	75	35	45.0	2,760
February	76	40	56.7	3,260
March	131	48	89.2	5,480
April	322	95	152	9,070
May	498	200	287	17,600
June	205	24	136	8,100
July	58	16	28.3	1,740
August	55	22	30.2	1,850
September	32	20	22.8	1,360
October	95	20	47.1	2,900
November	52	15	33.3	1,980
December	52	25	37.4	2,300
The year	498	15	80.5	58,400
1917				
January	54	28	39.1	2,400
February	48	28	35.9	1,990
March	43	30	37.3	2,290
April	54	27	35.8	2,130
May	176	42	104	6,370
June	202	42	121	7,210
July	214	8.0	34.6	2,130
August	16	5.5	10.7	658
September	13	7.0	10.9	646
October	20	8.0	13.4	826
November	28	20	24.2	1,440
December	28	12	18.2	1,120
The year	214	5.5	40.4	29,200

RIO PUEBLO DE TAOS NEAR TAOS, N. MEX.

Location.—Two miles above the Taos Pueblo, 4½ miles northeast of Taos, at Glorieta Grove, near Sec. 2, T. 25 N., R. 13 E. A number of intermittent tributaries enter above and below the station.

Records available.—April 7, 1910, to December 9, 1916.

References.—U. S. Geological Survey Water Supply Papers 288 p. 89, 308 p. 66, 328 p. 66, 358 p 390, 438 p. 80; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911 12 p. 106, 1913 p. 115, 1914 p. 85, 1915 p. 88.

Monthly discharge of Rio Pueblo de Taos near Taos, N. Mex., for 1911–1916.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911				
January	....	....	a 7.0	430
February	16	8.0	12.9	716
March	38	11	21.5	1,320
April	133	26	55.8	3,320
May	285	81	147	9,040
June	111	26	60.5	3,600
July	30	20	24.8	1,520
August	28	12	19.0	1,170
September	40	11	16.8	1,000
October	215	20	44.9	2,760
November	52	20	24.3	1,450
December	67	....	a 19.6	1,210
The year..	285	....	38.1	27,500
1912				
March (8-31)	30	15	22.0	1,050
April	99	20	46.6	2,770
May (1-24)	440	127	229	10,900
June (17-30)	30	20	24.4	677
July	18	10	12.7	781
August	12	8.5	9.56	588
September	12	9.5	10.0	595
October	....	....	a 10.0	615
November	....	....	a 9.00	536
December	13	7.0	8.58	528
The period	....	....	....	19,040

a Estimated.

1913				
January	....	....	a 9.0	553
February	....	....	a 13.0	722
March	....	....	a 13.0	799
April	64	13	31.0	1,840
May	74	48	56.8	3,490
June	44	22	31.3	1,860
July	21	9.1	14.4	885
August	12	6.5	8.58	528
September	16	5.8	8.31	494
October	14	6.7	9.42	579
November	8.7	5.9	7.65	455
December	8.7	5.9	7.60	467
The year	74	....	17.5	12,700

a Estimated.

Monthly discharge of Rio Pueblo de Taos near Taos, N. Mex., for 1911–1916.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
January	8.5	5.0	6.40	394
February	8.5	5.5	7.25	403
March	27	7.4	16.1	990
April	....	....	....	....
May (20-31)	170	117	143	3,400
June	117	25	60.8	3,620
July	29	19	23.6	1,450
August	29	13	21.4	1,320
September	14	8.0	10.0	643
October	15	6.2	9.43	580
November	10	7.2	8.88	528
December	9.3	....	7.83	481
The period	....	....	....	....
1915				
January	8.4	6.1	7.34	451
February	11	5.0	8.08	449
March	25	9.6	13.7	842
April	174	23	68.4	4,070
May	260	72	142	8,730
June	201	60	137	8,150
July	56	19	30.4	1,870
August	31	12	17.5	1,080
September	14	9.6	12.2	726
October	14	7.4	11.6	713
November	12	4.8	8.4	500
December	12	6.4	9.4	578
The year	260	4.8	38.9	28,200
1916				
January	13	7.4	9.25	569
February	14	7.4	10.7	616
March	53	9.6	32.6	2,000
April	260	29	80.2	4,770
The period	....	....	....	....

RIO LUCERO NEAR TAOS, N. MEX.

Location.—A short distance above the head of the Seco ditch at the mouth of the cañon, 9 miles above Taos, in Sec. 11, T. 26 N., R. 13 E.
Records available.—April 7, 1910, to September 30, 1916.
Drainage area.—17 square miles.
References.—U. S Geological Survey Water Supply Papers 288 p. 90, 308 p. 71, 328 p. 70, 358 p. 400, 438 p. 82; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 113, 1913 p. 118, 1914 p. 89, 1915 p. 91.

Monthly discharge of Rio Lucero near Taos, N. Mex., for 1911–1915.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911				
January	8.0	5.0	5 8	357
February	13	6.0	7.1	394
March	31	6.5	10.6	652
April	40	13	24.7	1,470
May	94	31	71.6	4,400
June	100	66	79.6	4,740
July	71	45	57.9	3,560
August	60	21	39.3	2,420
September	50	18	26 5	1,580
October	158	18	43.5	2,670
November	31	20	23.0	1,370
December	....	....	a 15 0	922
The year	158	5.0	33.9	24,500
1912				
March (8-31)	12	6.8	9.33	444
April	36	9.0	17.5	1,040
May	144	31	77.2	4,750
June	144	60	96.2	5,720
July	72	24	40.5	2,490
August	24	12	17.2	1,060
September	14	10	12.4	738
October	12	7.0	9.0	553
November	8.0	7.0	7.59	452
December	8.0	5.0	7.26	446
The period	....	....	....	17,700

a Estimated.

1913				
January	....	....	a 7.00	430
February	....	....	a 7.50	417
March	....	....	a 6.50	400
April	37	10	21.2	1,260
May	71	20	47.6	2,930
June	62	33	43.5	2,590
July	35	16	21.3	1,310
August	19	13	15.3	941
September	18	6 0	13.3	791
October	31	11	19.1	1,170
November	18	7.0	13.6	809
December	13	11	11.5	707
The year	71	....	19 0	13,800

a Estimated.

Monthly discharge of Rio Lucero near Taos, N. Mex., for 1911–1915.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
January	10	7.0	7.85	483
February	8.6	5.0	6.03	335
March	22	8.0	12.5	769
April	....	....	a 28.0	1,670
May	149	44	77.3	4,750
June	168	42	91.4	5,440
July	41	20	32.7	2,010
August	38	15	25.8	1,590
September	18	13	15.1	898
October	23	11	15.7	965
November	13	8.2	10.6	631
December	....	....	7.82	481
The year	168	5.0	27.6	20,000
a Estimated.				
1915				
January	7.0	5.0	5.83	358
February	6.5	4.6	5.45	303
March	21	4.5	8.99	553
April	66	15	34.4	2,050
May	91	32	50.2	3,090
June	174	59	116	6,900
July	91	30	51.7	3,180
August	39	14	26.2	1,610
September	19	7.0	11.3	672
October	14	5.0	8.55	526
November	22	10	15.8	940
December	14	10	11.1	682
The year	174	4.5	28.8	20,900

CHAMA RIVER AT CHAMA, N. MEX.

Location.—At the Denver and Rio Grande Railroad bridge, about half a mile northeast of Chama, 2 miles above the mouth of Little Chama River, in Sec. 13, T. 31 N., R. 3 E.

Records available.—September 23, 1912, to May 26, 1914.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 119, 1913 p. 121, 1914 p. 93.

Monthly discharge of Chama River at Chama, N. Mex., for 1912–1914.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
September (23-30)	20	19	19.9	316
October	64	21	29.4	1,810
November	36	12	25.5	1,520
December	16	12	14.6	898
The period	....	....	....	4,540

Monthly discharge of Chama River at Chama, N. Mex., for 1912–1914.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	....	....	a 12.5	769
February	....	....	a 11.5	639
March	39	11	18.0	1,110
April	455	58	234	13,900
May	525	301	414	25,500
June	396	88	208	12,400
July	90	30	48.6	2,990
August	42	20	26.6	1,640
September	43	16	23.7	1,410
October	78	22	33.5	2,060
November	34	17	26.4	1,570
December	25	17	20.3	1,250
The year	525	....	90.0	65,200
NOTE.—a Estimated.				
1914				
January	....	....	a 12.0	738
February	....	....	a 16.0	889
March	119	21	61.9	3,810
April	1,360	80	314	18,700
May (1-26)	1,640	236	797	41,100
The period	1,640	....	225	65,200

a Estimated.

CHAMA RIVER NEAR CHAMA, N. MEX.

Location.—At the highway bridge on the main road from Chama to Tierra Amarilla, 2½ miles southeast of Chama and 200 feet above the mouth of Little Chama River. This station was installed to take the place of the station at Chama, which was discontinued May 26, 1914.

Records available.—May 27, 1914, to Sept. 30, 1916.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1914 p. 94, 1915 p. 94; U. S. Geological Survey Water Supply Paper 438 p. 84.

Monthly discharge of Chama River near Chama, N. Mex., for 1914–1916.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
May (27-31)	690	652	664	6,590
June	866	130	387	23,000
July	200	62	109	6,700
August	108	37	64 0	3,940
September	134	38	67.0	3,990
October	356	49	114	7,010
November	81	36	54.0	3,210
December	36	....	28.5	1,750
The period	866	....	129	56,200

Monthly discharge of Chama River near Chama, N. Mex., for 1914–1916.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	....	....	a 25.0	1,540
February	....	....	a 22.0	1,220
March	....	....	a 45.0	2,770
April	943	93	380	22,600
May	1,180	297	621	38,200
June	932	285	602	35,800
July	755	53	177	10,900
August	115	28	54.7	3,360
September	95	20	33.0	1.960
October	28	18	20.8	1,280
November (1-16)	23	15	18.2	578
The period	....	....	....	120,000
a Estimated.				
1916				
March (21-31)	423	123	205	4,470
April	1,500	110	491	29,200
May	2,020	599	1,010	62,100
June	787	381	577	34,300
July	370	110	187	11,500
August	191	53	88.9	5 470
September	152	38	53.1	3,160
The period	....	....	....	....

CHAMA RIVER AT PARK VIEW, N. MEX.

Location.—At the wagon bridge half a mile northwest of Park View, about 800 feet below the confluence of Brazos and Chama Rivers, in Sec. 7, T. 29 N., R. 4 E.

Records available.—November 25, 1912, to September 30, 1916.

References.—U. S Geological Survey Water Supply Papers 328 p. 74, 358 p. 410, 438 p. 85; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p 121, 1913 p. 124, 1914 p. 96, 1915 p. 96.

Monthly discharge of Chama River at Park View, N. Mex., for 1912–1915.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
November (25-30)	33	26	28.5	339
December	36	24	31.8	1,960
The period	....	....	....	2,300

Monthly discharge of Chama River at Park View, N. Mex., for 1912–1915.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	....	....	a 30.0	1,840
February	....	....	a 45 0	2,500
March	342	48	70.1	4,310
April	1,590	276	816	48 600
May	1,940	877	1,400	86,100
June	898	148	439	26,100
July	148	31	73.9	4,540
August	83	22	34.8	2,140
September	84	18	40.1	2,390
October	357	33	75.5	4,640
November	70	34	49.0	2,920
December	62	38	53.3	3,280
The year	1,940	....	264	189,000
a Estimated.				
1914				
January	....	....	a 50.0	3,070
February	....	....	a 55.0	3,050
March	249	65	148	9,100
April	1,400	201	854	50.800
May	3,010	902	2,170	133,000
June	2,070	209	816	48,600
July	312	122	210	12,900
August	152	83	118	7,260
September	240	79	118	7,020
October	418	103	198	12,200
November	184	71	107	6,370
December	....	....	66.1	4,060
The year	3,010	....	412	297,000
1915				
January	....	....	a 57.0	3,500
February	....	....	a 50.0	2,780
March	....	....	a 100	6,150
April	1,610	252	703	41,800
May	2,910	571	1,650	101,000
June	2,720	641	1,580	94,000
July	802	120	336	20,700
August	264	68	135	8,300
September	137	36	61.8	3.680
October	58	38	44.3	2,720
November	40	36	37.5	818
The period	....	....	....	285,000

a Estimated.

CHAMA RIVER NEAR TIERRA AMARILLA (AT EL VADO), N. MEX.

Location.—Fifteen miles southwest of Tierra Amarilla, one mile southeast of El Vado, at the mouth of the box cañon below El Vado Valley. Nutrias Creek, which is the south line of the Tierra Amarilla Land Grant, joins the Chama River from the north four miles below the station.

Records available.—September 28, 1913, to September 30, 1916.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1913 p. 127, 1914 p. 98, 1915 p. 98; U. S. Geological Survey Water-Supply Paper 438 p. 87.

Monthly discharge of Chama River near Tierra Amarilla (at El Vado), N. Mex., for 1913–1916.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
October	327	42	83.6	5,140
November	....	....	a 55.0	3,270
December	....	....	a 58 0	3,570
The period	....	....	65.5	11,980
1914				
January	....	....	a 55.0	3,380
February	....	....	a 65.0	3 610
March	....	....	a 152	9,350
April	1,490	207	919	54,700
May	3,100	897	2,150	132,000
June	2,030	174	901	53,600
July	413	....	231	14,200
August	183	72	122	7,500
September	497	41	128	7,620
October	876	84	238	14,600
November	185	68	107	6,370
December	....	....	71.6	4,400
The year	3,100	....	430	311 000
a Estimated.				
1915				
January	....	....	a 65.0	4,000
February	....	....	a 60.0	3.330
March	....	....	a 178	10 900
April	2,940	373	1,310	78,000
May	3,490	769	2,000	123,000
June	3,300	478	1,590	94.600
July	1,270	93	296	18,200
August	289	62	130	7,990
September	200	28	67.1	4,000
October	60	35	44.3	2,720
November	61	41	50.2	1,290
The period	....	....	....	348,000
a Estimated.				
1916				
April (9-30)	2,570	774	1,410	61,500
May	4.290	1,500	2,760	170,000
June	2,320	563	1,460	86,900
July	535	245	353	21,700
August	673	106	259	15,900
September	303	58	100	5,950

CHAMA RIVER AT ABIQUIU, N. MEX.

Location.—About 200 yards above Abiquiu. There is no important tributary near Abiquiu.
Records available.—June 21, 1895, to April 7, 1897.
Reference.—U. S. Geological Survey Water Supply Paper 358 p. 412.

NOTE.—Owing to the shifting channel and meager data, no estimates of discharge have been made.

CHAMA RIVER NEAR CHAMITA, N. MEX.

Location.—At the Denver and Rio Grande Railroad bridge and one mile south of Chamita, four miles above Española, half a mile above the mouth of the Chama, in Sec. 15, T. 21 N., R. 8 E.
Records available.—October 10, 1912, to December 31, 1917.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911 12 p. 122, 1913 p. 128, 1914 p. 100, 1915 p. 100, 1916 p. 98, 1917 p. 101.

Monthly discharge of Chama River near Chamita, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
November (5-30)	146	36	96 1	4,960
December	72	25	41.5	2,550
The period	....	....	....	7,510
1913				
January	....	....	a 45.0	2,770
February	....	....	a 70.0	3,890
March	212	96	150	9 220
April	2,280	428	1,230	73,200
May	2,360	832	1,630	100,000
June	2,540	164	706	42,000
July	530	0.6	174	10,700
August	610	0.0	78.0	4,800
September	821	2.7	166	9,880
October	705	45	151	9,280
November	491	60	132	7,860
December	130	45	88.3	5,430
The year	2,540	0.0	386	279,000
a Estimated.				
1914				
January	220	....	115	7.070
February	830	67	189	10,500
March	1,560	145	626	38,500
April	2,850	357	1,590	94,600
May	4,080	1,390	2,850	175.000
June	1,930	179	752	44,700
July	1,610	169	708	43,500
August	1,210	42	301	18.500
September	697	88	212	12,600
October	1,170	88	344	21,200
November	306	106	186	11,100
December	....	....	93.5	5,750
The year	4,080	42	667	483,000

Monthly discharge of Chama River near Chamita, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	....	....	a 68.0	4,180
February	190	50	a 107	5,940
March	1,040	140	397	24,400
April	4,500	510	2,260	134,000
May	5,620	2,100	3,470	213,000
June	5,730	1,140	3,680	219,000
July	1,810	250	494	30,400
August	705	14	227	14,000
September	565	7.0	120	7,140
October	110	20	32.1	1,970
November	96	22	61.1	3,630
December	240	54	125	7,700
The year	....	....	921	665,000
a Estimated.				
1916				
January	264	120	167	10,300
February	560	165	234	13,400
March	4 840	216	2,110	129,000
April	6,170	1,670	3,500	208,000
May	8,710	2,770	5,240	322,000
June	2,550	565	1,450	86,100
July	1,060	156	435	26,700
August	1,290	250	580	35,700
September	300	83	153	9,130
October	2.730	88	706	43,400
November	397	120	247	14,700
December	180	128	144	8,830
The year	8,710	83	1.250	907,000
1917				
January	186	108	146	9,010
February	240	166	181	10,100
March	1,470	192	376	23,100
April	3,220	420	1,470	87.200
May	4,380	1,140	2,370	146,000
June	3 550	998	2,370	141,000
July	950	190	657	40,400
August	265	52	132	8.140
September	209	38	63.7	3,790
October	50	34	39 7	2,440
November	73	48	58.2	3,460
December	102	46	81.3	5,000
The year	4,380	34	662	480,000

BRAZOS RIVER NEAR BRAZOS, N. MEX.

Location.—Fifteen miles southeast of Chama, N. Mex., 3 miles east of Brazos, at the mouth of the box cañon. The Little Brazos joins the Brazos from the north about 1½ miles below the station.

Records available.—September 18, 1913, to September 30, 1916.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1913 p. 131, 1914 p. 102, 1915 p. 102; U. S. Geological Survey Water Supply Paper 438 p. 88.

Monthly discharge of Brazos River near Brazos, N. Mex., for 1913–1916.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
October	92	18	37.7	2,320
November	32	20	24.7	1,470
December	35	18	23.0	1,410
The period	92	18	28.5	5,200
1914				
January	36	24	29.9	1,840
February	37	25	32.3	1,790
March	82	30	49.5	3,040
April	676	58	248	14,800
May	2,160	298	1,150	70,700
June	824	88	300	17,900
July	156	77	109	6,700
August	94	45	62.4	3,840
September	176	33	56.4	3,360
October	200	38	79.1	4,860
November	71	35	48.4	2,880
December	49	....	31.8	1,960
The year	2,100	24	185	134,000
1915				
January	....	....	a 30.0	1,840
February	....	....	a 27.0	1,500
March	....	....	a 38.0	2,340
April	930	48	272	16,200
May	2,380	197	923	56,800
June	1,800	156	652	38,800
July	195	53	91.8	5,640
August	84	35	50.3	3,090
September	60	27	34.9	2,080
October	24	16	19.2	1,180
November	17	12	15.1	479
The period	....	....	....	130,000
1916				
April (15-30)	729	80	281	8,920
May	2,080	617	1,530	94,100
June	1,500	315	809	48,100
July	335	74	174	10,700
August	211	54	99.3	6,110
September	180	24	43.6	2,590

a Estimated.

BRAZOS RIVER AT BRAZOS, N. MEX.

Location.—Three fourths of a mile southeast of Brazos, one mile above the confluence of Brazos and Chama Rivers, in Sec. 5, T. 29 N., R. 4 E.
Records available.—November 24, 1912, to September 6, 1913.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911 12 p. 123, 1913 p. 132.

Monthly discharge of Brazos River at Brazos, N. Mex., for 1912, 1913.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
November (24-30)	16	10	12.4	172
December	12	9.0	10.3	633
The period	....	....	....	805
1913				
January	....	....	a 10.0	615
February	....	....	a 10.0	555
March	45	10	19.5	1,200
April	1,200	42	323	19,200
May	1,340	306	720	44,300
June	318	43	158	9,400
July	30	2.6	8.22	505
August	11	2.0	4.83	297
September (1-6)	8.6	5 2	6.67	79
The period	1,340	2.0	154	76,200

a Estimated.

LITTLE BRAZOS RIVER NEAR BRAZOS, N. MEX.

Location.—In the Tierra Amarilla Land Grant, 1½ miles above the confluence of the Little Brazos with the Brazos. The wagon road from Brazos up the cañon crosses the Little Brazos about 200 feet below the gage.

Records available.—April 8, 1914, to June 12, 1915.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1914 p. 104, 1915 p. 104.

Daily discharge, in second-feet, of Little Brazos River, near Brazos, N. Mex., in 1914.

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	...	...	87	9.2	...	3.0	...	...	...
2	...	59	...	...	...	...	...	...	6.0
3	.	...	...	...	8.8	...	4.8	...	...
4	...	...	78	16	...	...	...	5.6	...
5	...	84	...	...	...	2.6	...	...	6.0
6	...	72	...	...	8.4	...	...	...	...
7	...	...	...	9.2	...	...	18	6.0	...
8	34	...	63	...	...	...	...	...	...
9	...	190	...	...	...	2.8	...	...	...
10	...	...	37	11	6.4	...	12	...	5.5
11	...	...	...	...	...	...	...	...	...
12	...	207	...	...	...	3.5	...	4.6	...
13	31	...	32	...	5.1	...	...	...	...
14	...	...	...	14	...	...	8.8	4.0	...
15	49	172	..	...	...	...	...	...	...
16	...	...	...	...	...	7.6	...	...	...
17	44	...	35	10	...	...	6.8	...	...
18	33	177	...	...	4.8	...	...	6.4	...
19	...	...	...	...	...	4.3	...	...	...
20	55	...	26	...	...	...	...	...	...
21	...	...	...	12	...	...	...	7.2	...
22	...	...	...	...	5.6	...	56	...	...
23	...	227	...	...	...	4.8	...	...	...
24	58	...	17	...	...	...	13	...	...
25	...	...	...	...	...	...	...	...	...
26	...	...	...	11	3.3	38	...	...	...
27	...	...	12	...	...	...	...	...	...
28	...	112	...	...	...	...	10	6.0	...
29	54	...	...	...	3.5	...	...	...	...
30	...	90	...	...	...	3.3	...	...	...
31	...	...	...	...	...	...	8.0	...	...

Daily discharge, in second-feet, of Little Brazos River, near Brozas, N. Mex., in 1915.

Day	Jan.	Apr.	May	June	Day	Jan.	Apr.	May	June
1	...	...	...	...	16	...	50	...	...
2	...	22	...	...	17	...	...	...	...
3	...	...	...	...	18	...	...	...	...
4	...	...	...	...	19	...	...	...	...
5	...	...	...	...	20	...	...	...	...
6	...	...	...	...	21	...	...	105	...
7	...	...	47	...	22	...	...	...	...
8	...	...	...	...	23	...	82	...	...
9	...	34	...	...	24	...	...	...	...
10	...	...	...	...	25	...	...	...	...
11	...	...	...	...	26	...	...	...	...
12	...	...	220	177	27	...	...	...	...
13	...	...	...	...	28	...	...	142	...
14	4.9	...	...	...	29	...	...	...	...
15	...	...	...	...	30	...	136	...	...
					31	...	...	...	...

NUTRITUS CREEK NEAR TIERRA AMARILLA, N. MEX.

Location.—At a highway bridge on the road from Tierra Amarilla to Canjilon, about 1½ miles south of Tierra Amarilla, in T. 29 N., R. 3 E. This station is located about 7 miles above the mouth of the Nutritus.

Records available.—May 24 to December 31, 1914.

References.—State Engineer's Report on the Surface Water Supply of New Mexico for 1914 p. 105; U. S. Geological Survey Water-Supply Paper 408 p. 73.

NOTE.—Data inadequate for determination of daily discharge.

NUTRIAS CREEK NEAR CEBOLLA, N. MEX.

Location.—At a highway bridge over Nutrias Creek on the road from Tierra Amarilla to Cebolla, 3 miles northwest of Cebolla, 13½ miles southeast of Tierra Amarilla and about 18 miles above the mouth of the Nutrias.

Records available.—April 9 to December 13, 1914.

Reference.—State Engineer's Report on the Surface Water Supply of New Mexico for 1914 p. 106.

Daily discharge, in second-feet, of Nutrias Creek near Cebolla, N. Mex., in 1914.

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	...	...	56	...	...	1.6	...	...	...
2	...	...	...	4.7	...	...	2.0	...	...
3	...	...	42	...	3.3	1.7	...	...	...
4	...	...	42	...	3.3	1.7	...	...	...
5	...	48	...	...	...	...	...	...	...
6	...	...	...	...	...	...	7.7	4.7	...
7	...	...	...	5.8	2.6	...	...	...	...
8	...	114	27	...	...	...	...	...	...
9	26	...	...	...	...	2.1	...	...	...
10	24	...	...	5.4	2.1	...	...	4.3	...
11	...	...	13	...	...	...	...	...	...
12	...	...	...	...	...	...	...	...	...
13	...	156	...	...	1.7	...	3.5	4.0	1.5
14	...	...	11	3.2	...	...	...	...	...
15	32	..	...	...	...	2.6	...	...	...
16	...	108	...	...	...	...	3.5	...	...
17	36	...	11	3.5	...	...	...	5.6	...
18	...	...	...	...	1.2	2.0	...	...	...
19	...	126	11	...	...	...	...	...	...
20	...	...	...	...	...	...	3.2	5.4	...
21	...	...	...	4.0	1.3	...	...	...	...
22	81	...	...	...	...	2.6	...	...	...
23	...	...	4.9	...	...	...	14	...	...
24	37	...	...	...	...	1.9	...	...	...
25	...	73	...	...	1.4	...	...	...	...
26	...	73	4.0	...	...	...	...	...	...
27	...	...	...	...	...	...	...	...	...
28	39	32	...	...	1.8	...	...	...	...
29	39	...	...	...	...	1.6	6.6	...	...
30	...	...	3.0	5.1	...	...	...	...	...
31	...	...	...	...	...	...	...	...	...

HORN RIVER (RIO CANJILON) NEAR CANJILON, N. MEX.

Location.—In the Carson National Forest at Canjilon ranger station, in Sec. 2, T. 26 N., R. 5 E., five miles northeast of Canjilon.
Records available.—June 19, 1911, to August 18, 1914.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 124, 1913 p. 135, 1914 p. 108.

Monthly discharge of Horn River (Rio Canjilon) near Canjilon, N. Mex., for 1913.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
January	....	....	a 1.00	61
February	....	....	a 1.00	56
March	....	....	a 5.00	307
April	168	10 0	29.0	1,730
May	172	5.6	59.1	3,630
June	60	1.1	6.53	389
July	54	0.3	2.53	156
August	2.0	0.1	0.41	25
September	4.4	0.1	0.62	37
October	4.6	0.6	1.09	67
November	1.4	0.6	1.12	67
December	....	....	a 1.00	61
The year	172	....	9.10	6,580

NOTE.—a Estimated.

Daily discharge, in second feet, of Horn River (Rio Canjilon) near Canjilon, N. Mex., in 1914.

Day	Apr.	May	June	July	Aug.	Day	Apr.	May	June	July	Aug.
1	...	222	2.8	...	...	16	...	62	...	1.3	...
2	...	62	...	...	...	17	75	...	5.8	...	4.6
3	...	62	...	...	...	18	44	32	...	...	1.6
4	...	...	...	...	...	19	...	78	...	...	...
5	...	126	8.8	...	...	20	187	...	4.6	...	...
6	...	...	6.2	1.5	...	21	241	...	...	...	...
7	...	110	...	...	...	22	...	110	4.6	...	...
8	...	...	5.2	1.5	...	23	65	110	...	...	...
9	75	110	...	1.3	...	24	225	...	...	...	...
10	44	...	4.3	1.5	...	25	58	68	2.5	...	...
11	30	...	5.0	1.3	...	26	...	...	1.9	...	...
12	...	...	...	...	...	27	...	...	1.9	...	...
13	123	...	5.6	1.3	...	28	50	44	...	...	...
14	139	...	...	1.3	...	29	...	44	1.6	...	...
15	...	...	16	...	...	30	350	12	1.3	...	...
						31	...	...	...	...	...

RIO VALLECITOS AT VALLECITOS, N. MEX.

Location.—At Vallecitos, in Sec. 17, T. 26 N., R. 8 E., in the Carson National Forest.

Records available.—June 17, 1911, to December 31, 1914.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 126, 1913 p. 138, 1914 p. 109.

Monthly discharge of Rio Vallecitos at Vallecitos, N. Mex., for 1911–1914.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911				
June (17-30)	28	8.2	15.5	430
July	442	8.4	37.6	2,310
August	18	4.0	7.90	486
September	17	5.8	8.37	498
October	137	9.0	33.6	2,070
November	26	16	22.1	1,320
December (1-5)	24	20	23.0	2-8
The period	....	....	....	7,340
1912				
April	590	8.2	106	6,310
May	970	232	535	32,900
June	222	18	82.4	4,900
July	61	3.7	11.4	701
August	9.3	3.7	4.65	286
September	4.2	3.8	4.00	238
October	7.2	4.0	5.32	327
November	5.0	3.6	4.14	246
December	....	....	a 5.00	307
The period	970	....	84.7	46,200
1913				
March	33	6.0	9.39	577
April	710	24	218	13,000
May	612	44	169	10,400
June	102	5.9	27.9	1,660
July	10	4.6	6.07	373
August	27	4.0	10.9	670
September	12	5.7	6.67	397
October	16	8.2	9.47	582
November	11	7.3	9.01	536
December	....	....	a 6.00	369
The period	710	....	47.0	28,600
1914				
January	....	....	a 6.00	369
February	....	....	a 7.00	389
March	38	10	21.1	1,300
April	480	31	194	11,500
May	564	111	305	18,800
June	116	2.9	39.3	2,340
July	51	2.9	15.8	972
August	95	3.2	36.5	2,240
September	4.6	2.3	3.00	179
October	40	3.0	28.3	1,740
November	23	15	19.1	1,140
December	15	....	a 9.00	553
The year	564	....	57.4	41,500

NOTE.—a Estimated.

RIO MEDIO ABOVE CUNDIYO, N. MEX.

Location.—Three-fourths of a mile above Cundiyo and five miles above Chimayo.
Records available.—September 10, 1915, to December 31, 1917.
Drainage area.—About 20 square miles.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 105, 1916 p. 100, 1917 p. 103.

Monthly discharge of Rio Medio, above Cundiyo, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
September (10-30)	15	9.6	11.1	463
October	15	8.8	10.1	622
November	17	8.0	9.81	584
December	11	4.8	7.38	454
The period	17	4.8	9.47	2,120
1916				
January	15	10	12.5	765
February	33	10	17.0	980
March	47	14	29.5	1,810
April	74	22	41.8	2,480
May	110	28	72.2	4,440
June	110	16	54.6	3,250
July (1-26 and 28-30)	....	....	44.5	2,560
August	55	24	33.4	2,050
September	27	14	19.0	1,130
October	20	8.5	12.1	742
November	18	12	15.2	904
December	12	10	11.3	694
The period	....	....	30.2	21,800
1917				
January	12	10	10.7	656
February	12	2.4	7.16	398
March	12	0.1	7.85	483
April	33	5.3	13.8	824
May	138	13	56.8	3,490
June	106	33	59.6	3,550
July	44	6.8	16.4	1,010
August	16	5.8	9.90	608
September	17	6.0	7.95	473
October	7.7	4.7	6.16	379
November	4.8	4.6	4.71	280
December	6.1	4.8	5.26	323
The year	138	0.1	17.2	12,500

RIO MEDIO AT CUNDIYO, N. MEX.

Location.—At Cundiyo, just below the junction of Rio Frijoles and Rio Medio, at the head of a box cañon and about 4 miles above Chimayo.
Records available.—September 10, 1915, to December 31, 1917.
Drainage area.—About 38 square miles.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 107, 1916 p. 102, 1917 p. 105.

Monthly discharge of Rio Medio, at Cundiyo, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
September (11-30)	26	15	17.2	682
October	16	11	13.8	849
November	17	4.0	11.3	670
December	16	10	13.0	801
The period	26	4.0	13.5	3,000
1916				
January	20	10	11.7	722
February	24	10	14.0	803
March	76	20	46.4	2,850
April	150	44	77.3	4,600
May	322	101	218	13,400
June	329	46	158	9,380
July (1-26 and 28-31)	....	....	70.5	4,190
August	134	9.0	47.6	2,930
September	47	28	34.7	2,070
October	28	19	23.1	1,420
November	24	20	21.8	1,300
December	24	16	20.1	1,240
The period	....	....	62.0	44,900
1917				
January	20	16	17.9	1,100
February	28	13	19.2	1,070
March	54	10	38.4	2,360
April	47	15	27.9	1,660
May	130	37	69.2	4,250
June	97	55	74.4	4,420
July	64	16	33.8	2,080
August	29	10	18.2	1,120
September	28	7.4	16.1	960
October	16	7.4	10.1	622
November	16	2.4	8 61	512
December	10	4 8	9.20	566
The year	130	2.4	28.6	20,700

RIO MEDIO AT CHIMAYO, N. MEX.

Location.—At Chimayo, about 100 feet above the junction of Rio Chiquito and Rio Medio.
Records available.—September 8, 1915, to December 31, 1917.
Drainage area.—About 42 square miles.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 108, 1916 p. 104, 1917 p. 107.

Monthly discharge of Rio Medio at Chimayo, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
September (8-30)	13	7.0	9.07	414
October	11	8.5	8.58	528
November	12	4.6	8.35	497
December	16	7.0	10.3	630
The period	16	4.6	9.07	2,070
1916				
January	16	9.0	12.2	748
February	20	11	14.6	841
March	65	16	44.0	2,700
April	200	60	106	6,330
May	310	170	214	13,200
June	221	60	140	8,340
July	378	34	88.3	5,430
November	20	16	18.2	1,080
December	18	14	15.6	962
The period	....	....	72.9	39,600
1917				
January	15	11	12.1	746
February	11	3.9	10.2	565
March	15	10	11.9	730
April	28	14	20.1	1,190
May	234	29	85.1	5,230
June	88	14	60.3	3,590
July	15	7.3	11.3	698
August	13	3.3	9.15	562
September (1-13 and 19-30)	....	....	4.80	238
October	6.3	1.0	4.98	306
November	2.8	1.0	1.60	95
December	8.5	0.8	5.17	318
The period	....	....	20.0	14,300

RIO FRIJOLES AT CUNDIYO, N. MEX.

Location.—About one mile above Cundiyo, and five miles above Chimayo.
Records available.—September 9, 1915, to December 31, 1917.
Drainage area.—About 13 square miles.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 109, 1916 p. 106, 1917 p. 109.

Monthly discharge of Rio Frijoles at Cundiyo, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
September (9-30)	6.8	3.3	3.79	165
October	3.3	1.7	2.59	159
November	3.3	0.5	1.33	79
December	6.3	0.5	3.16	194
The period	6.8	0.5	2.64	597
1916				
January	10	0.5	5.15	317
February	11	1.3	7.70	443
March	32	11	20.2	1,240
April	81	22	50.7	3,020
May	81	37	64.2	3,950
June	79	17	41.9	2,500
July (1-26 and 28-31)	....	....	23.1	1,420
August	21	4.1	9.24	568
September	5.3	3.6	4.26	253
October	11	3.3	5.80	356
November	20	2.8	8.15	485
December	12	4.3	6.36	391
The period	....	....	20.6	14,900
1917				
January	4.2	3.0	3.56	219
February	5.2	3.3	4.58	254
March	11	3.3	7.36	452
April	12	4.3	6.49	386
May	31	8.5	16.5	1,010
June	29	10	18.7	1,110
July	15	2.5	7.90	486
August	12	2.2	5.06	311
September	8.8	2.2	4.62	275
October	3.1	2.2	2.66	164
November	3.1	2.0	2.51	149
December	2.0	1.3	1.58	97
The year	31	1.3	6.80	4,910

RIO CHIQUITO AT CORDOVA, N. MEX.

Location.—About one mile above Cordova and five miles above Chimayo.
Records available.—September 6, 1915, to December 31, 1917.
Drainage area.—About 34 square miles.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p 110, 1916 p. 108, 1917 p. 111.

Monthly discharge of Rio Chiquito at Cordova, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
September (7-30)	6.7	2.6	4.22	201
October	3.0	1.7	2.70	164
November	5.0	1.7	4.20	250
December	5.2	3.0	4.94	304
The period	6.7	1.7	3.99	919
1916				
January	5.0	5.0	5.00	307
February	5.7	1.6	4.22	242
March	23	5.7	16.4	1,010
April (1-25)	....	....	36.1	1,790
May (18-31)	....	....	81.3	2,260
June	84	28	55.6	3 310
July	88	8.7	51.6	2,170
August	64	10	22.7	1,390
September	15	5.7	7.75	461
October	10	5.7	6.12	376
November	7.6	5.7	6.26	372
December	5.7	3.3	3.98	244
The period	....	....	21 9	14 900
1917				
January	3.9	2.9	3.30	203
February	5.3	3.9	4.60	255
March	7.0	5.3	6.04	371
April	14	1 8	5.94	354
May	50	2.4	13.1	802
June	54	2.4	16.6	985
July	225	1.1	27.8	1,710
August	165	1 1	11.0	678
September	13	0.6	4.16	248
October	7.1	1.9	3.70	227
November	2.8	1.8	2.31	137
December	1.8	1.0	1.36	84
The year	225	0.6	8.37	6,050

RIO CHIQUITO AT CHIMAYO, N. MEX.

Location.—At Chimayo, about 40 feet above the junction of Rio Medio and Rio Chiquito.
Records available.—September 7, 1915, to December 31, 1917.
Drainage area.—About 45 square miles.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1915 p. 111, 1916 p. 110, 1917 p. 113.

Monthly discharge of Rio Chiquito at Chimayo, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
September (7-30)	2.4	0.2	0.81	38.5
October	1.2	0.3	0.68	42.1
November	2.9	0.3	2.03	121
December	6.8	0.4	3.33	211
The period	6.8	0.2	1.79	413
1916				
January	3.1	1.1	2.36	145
February	3.1	1.1	1.54	89
March	5.0	0.2	1.87	115
April	38	0.7	14.2	844
May	45	11	24.6	1,520
June	31	0.2	9.66	575
July (1-30)	....	....	2.34	139
August	....	....	....	....
September	....	....	....	....
October (30-31)	....	....	3.8	15
November	12	0.8	2.21	131
December	38	0.8	3.92	241
The period	....	....	6.99	3,810
1917				
January	12	0.2	3.57	220
February	7.7	0.6	1.32	73
March	2.4	0.2	0.74	46
April	0.3	0.2	0.28	16
May	7.5	0.5	1.64	101
June	7.2	0.2	3.08	183
July (1-11 and 25)	....	....	0.40	9.5
August (6-31)	....	....	0.15	7.5
September (1-13)	....	....	0.69	18
October (4-31)	....	....	2.73	168
November	2.7	1.1	1.62	97
December	2.3	0.8	1.18	72
The period	....	....	1.59	1,010

SANTA FE CREEK AT MONUMENT ROCK, NEAR SANTA FE, N. MEX.

Location.—Nine miles above Santa Fe, at Monument Rock, a large conspicuous boulder near the creek, 4 miles above the station established May 12 1910, near the head of the Santa Fe Water and Light Company's ditch. No important tributaries enter between the stations.

Records available.—August 29, 1910, to August 7, 1911.

Drainage area.—About 11 square miles.

References.—U S Geological Survey Water Supply Papers 288 p. 93, 308 p. 74, 358 p. 425; State Engineer's Report on the Surface Water Supply of New Mexico for 1911 12 p. 128.

Monthly discharge of Santa Fe Creek at Monument Rock, near Santa Fe, N. Mex., for 1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
September	3.3	1.3	1.90	113
October	2.0	1.1	1.32	81.2
November	2.0	1.1	1.36	80.9
December	1 3	0.7	1.17	71.9
The period	....	....	....	....

SANTA FE CREEK, ABOVE RESERVOIR, NEAR SANTA FE, N. MEX.

Location.—Five miles east of Santa Fe, 1½ miles above the Santa Fe Water and Light Company's storage reservoir, and ¼ mile above the diversion of their supply ditch.

Records available.—January 1, 1913, to December 31, 1917. (See note.)

Drainage area.—About 22 square miles.

References.—U. S. Geological Survey Water Supply Paper 358 p. 426; State Engineer's Reports on the Surface Water Supply of New Mexico for 1913 p. 143, 1914 p. 111, 1915 p 112, 1916 p. 112 1917 p 115.

NOTE.—From May 12, 1910, to February 23, 1913, occasional readings were taken from a staff gage one mile below the location of this station. This was below the Santa Fe Water and Light Company's diversion. Estimates of the discharge at this station from January 1 to April 23 have been revised to represent the flow at the upper station.

Monthly discharge of Santa Fe Creek, above Reservoir, near Santa Fe, N. Mex., for 1913–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	....	....	a 1.00	61
February	....	....	a 1.50	83
March	4.8	1.0	2.05	126
April	19	5.0	9.66	575
May	20	13	16.5	1,010
June	64	13	23.9	1,420
July	27	5.8	10.7	658
August	11	4.8	7.10	437
September	8.5	3.2	5.16	307
October	7.6	2.9	5.32	327
November	7.4	3.3	4.14	246
December	6.6	3.1	4.89	301
The year	64	....	7.67	5.550

a Estimated.

Monthly discharge of Santa Fe Creek, above Reservoir, near Santa Fe, N. Mex., for 1913–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
January	4.0	1.7	2.92	180
February	8.1	2.0	3.69	205
March	16	5.3	8.40	516
April	29	7.2	18.3	1,090
May	43	17	29.8	1,830
June	38	8.5	16.8	1,000
July	44	10	25.9	1,590
August	26	11	16.8	1,030
September	10	3.6	6.09	362
October	13	3.6	6.91	425
November	7.2	3.8	5 87	349
December	7.6	2.6	3.60	221
The year	44	1.7	14.4	8,800
1915				
January	3.5	2.1	2 80	172
February	9.4	1.4	4.15	231
March	27	6.5	12.2	749
April	124	1.8	68.5	4,080
May	79	1.8	42.2	2,600
June	53	1.6	36.1	2,150
July	108	2.8	19.4	1,200
August	24	4.5	10.5	645
September	6 8	2.3	3.81	227
October	4.1	2 0	2.98	183
November	3.2	1.8	3.82	228
December	2 7	1.9	2.21	136
The year	124	1.4	17.4	12,600
1916				
January	12	2 8	5.75	353
February	18	8 3	14.2	816
March	59	7 4	30 0	1 840
April	56	26	40.9	2,430
May	91	28	55.3	3,400
June	44	17	30.6	1,820
July	36	5.7	12 6	774
August	19	4.4	7 74	476
September	5.4	3.0	4.37	260
October	24	3.1	9 73	598
November	6.4	3.2	4 54	270
December	3.4	2.2	2 77	170
The year	91	2.2	18.2	13,200
1917				
January	5.6	2.1	3.50	215
February	4.1	2.4	3.34	186
March	3.3	2 0	2.42	149
April	4.5	2.3	3.37	201
May	14	4.5	9.09	559
June	17	3.7	9.90	589
July	5.0	2.3	3.64	224
August	4.1	1.7	2.40	147
September	2.9	1.4	1.83	109
October	1.3	1.2	1.22	75
November	1.3	1.0	1.21	72
December	1.0	0.6	0.85	52
The year	17	0.6	3.56	2,580

SANTA FE CREEK AT SANTA FE, N. MEX.

Location.—At the Don Gaspar Avenue bridge in the town of Santa Fe.
Records available.—June 1, 1907, to November 12, 1911.
Drainage area.—About 40 square miles.
References.—U. S. Geological Survey Water Supply Papers 248 p. 107, 268 p. 69, 288 p. 94, 358 p. 429; State Engineer's Report on the Surface Water Supply of New Mexico for 1911-12 p. 129.

Monthly discharge of Santa Fe Creek at Santa Fe, N. Mex., for 1907–1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907				
June	22	1.0	13.7	815
July	1.0	0.5	0.56	34
August	85	0.5	4.53	279
September	34	0.5	6.71	399
October	1.0	0.5	0.54	33
November	3.5	1.0	1.54	92
December	8.6	1.3	4.80	295
The period	....	....	....	1,950
1908				
January	8.2	1.0	4.04	248
February	5.2	0.9	2.70	155
March	4.7	0.1	1.05	65
April	2.2	0.0	0.22	13
May	18	0.0	1.65	101
June	26	0.0	3.10	184
July (29 days)	14	0.0	3.53	203
August (27 days)	186	2.0	64.4	3,450
September	2.0	0.1	0.25	15
October	5.5	0.4	0.94	58
November	2.0	0.1	0.64	38
December	2.0	0.0	0.52	32
The period	....	....	....	4,560
1909				
January	2.6	0.1	1.45	89
February	2.0	0.1	0.81	45
March	2.0	0.2	0.90	55
April	2.6	0.1	0.59	35
May	14	0.4	3.36	207
June	5.5	0.1	1.45	86
July	6.0	0.0	0.34	21
August	15	0.0	3.24	199
September	72	0.0	20.5	1,220
October	2.0	0.2	0.72	44
November	4.0	0.2	0.57	34
December	0.2	0.2	0.20	12
The year	72	0.0	2.84	2,050
1910 (note)				
January	....	....	0.22	13.5
February	....	....	0.20	11.1
March	....	....	0.20	12.3
April	....	....	0.66	39.3
May (21 days)	....	....	9.30	387
June	6.0	0.4	1.61	95.8
July (1-16)	3.7	0.4	1.93	61
The period	....	....	....	620

NOTE.—Daily discharges for January to May 1 have been established from records taken at the old station. Practically no flow from April 1 to 18. Discharges for May 12 to July 16 were obtained from a fairly well defined rating curve based on measurements made at the station established May 12.

ARROYO HONDO NEAR SANTA FE, N. MEX.

Location.—Six miles southeast of Santa Fe, 2,000 feet upstream from the crossing of the Santa Fe Trail, one mile above the confluence of the two branches of Arroyo Hondo, in the northeast quarter of Sec. 17, T. 16 N., R. 10 E.
Records available.—February 21, 1913, to December 31, 1917.
Drainage area.—About 13½ square miles.
References.—U. S. Geological Survey Water-Supply Paper 358 p. 435; State Engineer's Reports on the Surface Water Supply of New Mexico for 1913 p. 146, 1914 p. 114, 1915 p. 114, 1916 p. 114, 1917 p. 117.

Monthly discharge of Arroyo Hondo near Santa Fe, N. Mex., for 1913–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
February (21-28)	....	....	0.20	3
March	2.8	0.2	0.78	48
April	2.6	0.6	1.41	84
May	0.5	0.2	0.23	14
June	3.2	0.2	0.65	39
July	1.2	0.2	0.74	46
August	1.1	0.0	0.20	12
September	1.0	0.0	0.06	4
October	0.7	0.0	0.19	12
November	0.8	0.0	0.05	3
December	0.0	0.0	0.00	0
The period	3.2	0.0	0.42	265
1914				
January	0.7	0.1	0.44	27
February	0.8	0.1	0.49	27
March	2.0	0.2	0.73	45
April	0.7	0.3	0.40	24
May	1.0	0.1	0.59	36
June	35	0.1	2.12	126
July	15	0.1	2.58	159
August	10	0.1	0.91	56
September	....	....	a 0.50	30
October	3.0	0.1	0.37	23
November	0.5	0.3	0.48	28
December	0.3	0.1	0.18	11
The year	35	0.1	0.82	592
NOTE.—a Estimated.				
1915				
January	0.0	0.0	0.00	0.0
February	1.4	0.0	0.62	34.3
March	5.4	1.3	2.45	151
April	52	3.6	15.0	892
May	7.5	3.9	5.39	331
June	....	....	a 2.33	139
July	50	0.0	7.71	474
August	8.7	0.0	1.66	102
September	4.5	0.0	0.93	55.5
October	1.3	0.0	0.17	10.7
November	1.7	0.1	0.74	44.0
December	0.1	0.1	0.10	6.15
The year	....	....	3.09	2,240

a Estimated.

Monthly discharge of Arroyo Hondo near Santa Fe, N. Mex., for 1913–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	....	....	a 0.20	12
February (11-29)	....	....	9.51	358
March	26	3.3	9.50	584
April	23	1.5	8.18	486
May	2.4	0.2	0.73	45
June	0.2	0.1	0.14	8.3
July	8.2	0.1	2.10	129
August (14-31)	....	....	0.31	10.9
September	0.2	0.1	0.15	8.7
October	8.7	0.1	4.24	260
November	7.2	0.1	1.25	74
December	0.3	0.2	0.25	15
The period	....	....	2.93	1,990

a Estimated.

1917				
January	0.2	0.06	0.14	8.6
February	0.4	0.04	0.19	10
March	0.4	0.2	0.25	16
April	0.4	0.1	0.19	12
May	0.2	0.0	0.08	4.7
June	0.05	0.0	0.01	0.7
July	0.4	0.0	0.01	0.8
August	0.2	0.0	0.01	0.6
September	0.0	0.0	0.00	0.0
October	0.0	0.0	0.00	0.0
November	0.0	0.0	0.00	0.0
December	0.0	0.0	0.00	0.0
The year	0.4	0.0	0.07	53

RIO PUERCO AT RIO PUERCO, N. MEX.

Location.—At the Atchison Topeka and Santa Fe Railway bridge between Dalies and Rio Puerco, in Sec. 3, T. 7 N., R. 1 W. The nearest tributary is a small stream entering from the west just below the station. The mouth of San Jose River is about 8 miles above.

Records available.—August 19, 1912, to December 31, 1917. Fragmentary records from September 7, 1910, to October 2, 1911.

Drainage area.—About 4,800 square miles.

References.—U. S. Geological Survey Water Supply Paper 358 p. 438; State Engineer's reports on the Surface Water Supply of New Mexico for 1911-12 p. 132, 1913 p. 149, 1914, p. 116, 1915 p. 116, 1916 p. 116, 1917 p. 119.

Monthly discharge of Rio Puerco at Rio Puerco, N Mex., for 1913–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	0.0	0.0	0.00	0
February	0.0	0.0	0.00	0
March	15	0.0	0.94	58
April	92	0.0	17.1	1,020
May	0.0	0.0	0.00	0
June	569	0.0	72.3	4,300
July	119	0.0	5.10	314
August	551	1.0	70.8	4,350
September	551	1.0	60.8	3,620
October	1,160	1.7	98.9	6,080
November	740	0.0	31.2	1,860
December	14	0.0	4.61	283
The year	1,160	0.0	30.2	21,900
1914				
January	289	0.5	30.5	1 880
February	2,380	1.0	292	16,200
March	397	11	75.0	4,610
April	110	8.5	60.6	3,610
May	478	0.8	62.2	3,820
June	152	0.0	14.8	881
July	2,770	0 0	845	52,000
August	3,010	0 0	305	18,800
September	612	0.0	54.1	3,220
October	1,230	0.0	194	11,900
November	6.0	1.0	4.13	246
December	....	2.0	27.4	1,680
The year	3,010	0.0	164	119,000
1915				
January	39	0.0	15.2	938
February	345	5.0	50.2	2,790
March	1,260	4.0	320	19,700
April	8,800	3.0	1,310	78,000
May	1,620	3.0	149	9,190
June	260	0.0	56.1	3,340
July	14,000	0 0	a 1,430	87,100
August	1,080	0.0	191	11,800
September	4,550	0 0	260	15,500
October	5.0	0.0	1.7	102
November	8.5	0.0	3.1	185
December	80	0.5	11.5	705
The year	14,000	0.0	317	229,000

a Estimated July 1-20 and 25-27.

Monthly discharge of Rio Puerco at Rio Puerco, N. Mex., for 1913–1917. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	370	1.0	70.4	4,330
February	547	28	118	6,810
March	955	45	348	21,400
April	265	13	108	6,440
May	302	0.0	78.9	4,850
June	0.1	0.0	0.01	0.4
July	2,320	0.0	319	19,600
August	3,380	25	785	48,300
September	77	0.0	12.7	758
October	4,120	0.0	452	27,800
November	7.5	0.1	3.42	203
December	95	0.0	22.3	1,370
The year	4,120	0.0	195	142,000
1917				
January	154	2.0	33.3	2,050
February	21	0.1	3.34	185
March	25	0.0	4.43	272
April	3.2	0.0	0.21	13
May	0.0	0.0	0.00	0.0
June	0.0	0.0	0.00	0.0
July	175	0.0	20.8	1,280
August	400	2.0	48.6	2,990
September	3,780	0.5	258	15,300
October	2.8	0.0	0.31	19
November	2.5	0.2	1.29	77
December	4.4	0.6	1.77	109
The year	3,780	0.0	30.8	22,300

RIO PUERCO NEAR LA JOYA, N. MEX.

Location.—At the Atchison Topeka and Santa Fe Railway bridge, 2 miles north of La Joya railway station, in Sec. 20, T. 2 N., R. 1 E., one-fourth of a mile above the mouth of the river, below all tributaries. There are no important tributaries for several miles above.

Records available.—Fragmentary records from September 10, 1910, to September 30, 1913.

References.—U. S. Geological Survey Water Supply Papers 288 p. 98, 358 p. 441; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 134, 1913 p. 152, 1914 p. 118.

NOTE.—No estimates of dicharge for this station. For gage heights and discharge measurements see references noted above.

BLUEWATER CREEK NEAR BLUEWATER, N. MEX.

Location.—About two and one-half miles northwest of Bluewater post office, one-fourth mile from the mouth of Bluewater Creek box cañon, 8 miles below the dam site of the Bluewater Development Company, near Sec. 8, T. 12 N., R. 11 W.

Records available.—May 29, 1912, to December 31, 1917.

Drainage area.—About 56 square miles.

References.—U. S. Geological Survey Water-Supply Papers 328 p. 81, 358 p. 443; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 136, 1913 p. 153, 1914 p. 121, 1915 p. 120, 1916 p. 118, 1917 p. 121.

Monthly discharge of Bluewater Creek near Bluewater N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
July (13-31)	406	0.3	64.9	2,450
August	43	0.8	5.53	340
September	11	0.4	1.20	71
October	7.5	0.8	1.56	96
November	1.5	0 3	0.68	40
December	0.9	0.0	0.25	15
The period	....	....	....	3,010
1913				
January	0.0	0.0	0.00	0.0
February	0.0	0.0	0 00	0.0
March	118	0.0	8.35	513
April	339	7.5	80.4	4,780
May	7.2	0.4	1.13	69
June	2.4	0.2	0.78	46
July	3.4	0.1	0.95	58
August	5.5	0.2	0.80	49
September	34	0.1	6.14	365
October	53	0.5	5.00	307
November	12	0.7	1.70	101
December	0.7	0.0	0.09	6
The year	339	0.0	8.70	6,290
1914				
January	0.0	0.0	0.00	0.0
February	....	....	12.5	694
March	207	20	98.2	6,040
April	108	7.5	33.4	1,990
May	6.6	1.0	2.88	177
June	2.0	0.0	0.50	30
July	58	0.5	14.7	904
August	38	1.1	6.33	389
September	15	1.0	3.22	192
October	30	1.0	3.08	189
November	2.3	0.9	1.42	84
December	....	....	a 1.00	61
The year	207	0.0	14.8	10,800

a Estimated.

Monthly discharge of Bluewater Creek near Bluewater, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	....	....	a 3.09	190
February	....	....	a 4.08	227
March	535	5.8	133	8,150
April	540	39	181	10,800
May	175	10	57.7	3,540
June	160	2.0	48.7	2,900
July	78	0.1	11.7	721
August	74	0.5	7.45	458
September	8.0	0.7	2.68	159
October	8.5	1.0	3.85	237
November	39	5.0	10.1	600
December	....	....	a 6.47	398
The year	....	....	39.2	28,400

a Estimated.

1916				
January (1, 12, 19, 22 and 29)	....	....	42.1	418
February	....	....	....	....
March (8-31)	....	....	521	24,800
April	547	6.0	128	7,620
May	5.0	1.2	2.34	144
June	2.1	1.2	1.80	107
July	121	1.1	15.3	943
August	98	19	27.7	1,700
September	25	6.0	11.7	694
October (1-28 and 31)	....	....	50.9	2,930
November	15	3.0	9.77	581
December	4.6	3.2	4.00	246
The period	....	....	67.1	40,200
1917				
January	3.8	3.2	3.51	216
February	4.2	3.9	4.12	229
March	53	4.1	14.6	898
April	52	8.0	17.5	1,040
May	100	2.9	13.0	800
June	3.1	0.1	1.00	60
July	7.2	0.1	1.77	109
August	4.5	0.0	0.67	41
September	5.2	0.0	0.89	53
October	0.4	0.0	0.24	14
November	0.4	0.3	0.34	20
December	0.4	0.1	0.13	7.7
The year	100	0.0	4.82	3,490

BLUEWATER CREEK AT GRANTS, N. MEX.

Location.—At the Atchison Topeka and Santa Fe Railroad bridge about 200 yards west of the depot at Grants.
Records available.—October 30, 1912, to December 31, 1917.
Drainage area.—About 383 square miles.
References.—U. S. Geological Survey Water Supply Papers 328 p. 82, 358 p. 446; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 138, 1913 p. 156, 1914 p. 123, 1915 p. 122, 1916 p. 120, 1917 p. 123.

Monthly discharge of Bluewater Creek at Grants, N. Mex., for 1913.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	0.0	0.0	0.00	0.0
February	0.0	0.0	0.00	0.0
March	16	0.0	0.67	41
April	145	0.0	32.7	1,950
May	0.0	0.0	0.00	0.0
June	0.0	0.0	0.00	0.0
July	9.5	0.0	0.31	19
August	0.0	0.0	0.00	0.0
September	11	0.0	0.37	22
October	108	0.0	5.04	310
November	0.2	0.0	0.07	4.0
December	0.0	0.0	0.00	0.0
The year	145	0.0	3.24	2,350

Monthly discharge of Bluewater Creek at Grants, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
February (25-28)	....	....	a 0.25	1.98
March (1-20)	....	....	a 8.13	323
April (14-30)	....	....	67.6	2,280
May	96	0.0	22.4	1,380
June	23	0.0	1.84	110
July	31	0.0	4.58	282
August	20	0.0	3.04	187
September	48	0.0	2.22	132
October	0.2	0.0	0.03	1.60
November	0.0	0.0	0.00	0.0
December	0.0	0.0	0.00	0.0
The period	....	....	....	....
a Estimated.				
1916				
January (17-31)	....	....	11.2	332
February	119	0.0	22.4	1,290
March	334	65	205	12,600
April	334	3.0	96.7	5,760
May	3.0	0.2	0.92	56
June	0.2	0.1	0.10	6.1
July	28	0.1	2.25	138
August	38	0.2	9.33	574
September	17	0.1	1.09	65
October	40	0.1	10.7	659
November	3.0	0.2	0.87	52
December	0.1	0.0	0.08	4.8
The period	....	....	31.1	21,500

Monthly discharge of Bluewater Creek at Grants, N. Mex., for 1915–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	0.0	0.0	0.00	0.0
February	0.7	0.0	0.20	11
March	1.1	0.3	0.65	40
April	0.3	0.2	0.21	13
May	31	0.2	2.22	136
June	0.4	0.2	0.35	21
July	0.2	0.2	0.20	12
August	0.4	0.2	0.22	13
September	0.2	0.2	0.20	12
October	0.2	0.2	0.20	12
November	0.2	0.1	0.16	9.3
December	0.1	0.0	0.08	5.2
The year	31	0.0	0.39	284

SAN JOSE RIVER NEAR SUWANEE, N. MEX.

Location.—Two miles east of Suwanee station and 6 miles above the mouth of the San Jose, near Sec. 29, T. 8 N., R. 2 W.

Records available.—August 30, 1910, to September 15, 1917, when the station was discontinued.

Drainage area.—About 550 square miles.

References.—U. S. Geological Survey Water-Supply Papers 288 p. 98, 308 p. 78, 328 p. 83, 358 p. 448; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 138, 1913 p. 158, 1914 p. 119, 1915 p. 118, 1916 p. 122, 1917 p. 125.

Monthly discharge of San Jose River near Suwanee, N. Mex., for 1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
September (7-30)	422	1.9	47.0	2,240
October	75	1.0	5.69	350
November	7.0	1.4	4.17	248
December (1-11)	5.0	0.9	2.07	45

Monthly discharge of San Jose River near Suwanee, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
January	24	2.2	8.28	509
February	3.6	2.4	2.73	157
March	60	0.0	14.5	892
June (16-30)	32	2.1	5.23	156
July (1-20)	6.8	4.0	4.22	167
August (18-28)	27	11	16.8	367
September (20-30)	6.8	6.8	6.80	148
October	112	6.8	18.2	1,120
November	6.8	4.0	6.10	363
December	5.7	0.0	2.35	144

Monthly discharge of San Jose River near Suwanee, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	....	....	a 3.00	184
February	....	....	a 4.50	250
March	9.0	5.0	8.05	495
April	120	3.3	32.5	1,930
May	4.8	2.9	3.57	220
June	134	4.1	29.4	1,750
July	15	3.0	4.23	260
August	44	2.8	9.24	568
September	97	3.2	11.9	708
October	181	5.5	19.0	1,170
November	24	4.0	6.76	402
December	12	4.0	4.78	294
The year	181	....	11.4	8,230
1914				
January	11	6.5	7.61	468
February	8.5	0.8	3.07	170
March	140	0.5	39.9	2,450
April	57	2.8	16.4	976
May	263	2.5	19.4	1,190
June	....	....	a 6.00	357
July	454	....	a 95.0	5,840
August	485	3.8	53.0	3,260
September	316	2.5	27.4	1,630
October	448	3.4	53.4	3,280
November	11	6.9	8.00	476
December	46	5.9	13.4	824
The year	485	0.5	28.9	20,900
a Estimated.				
1915				
January	26	5.5	10.4	639
February	38	5.2	19.0	1,060
March	240	4.0	50.0	3,080
April	396	22	159	9,470
May	200	2.5	a 42.7	2,620
June	9.0	2.5	5.57	330
July	1,540	7.2	b 185	11,400
August	146	5.0	34.6	2,130
September	146	5.2	33.1	1,970
October	6.5	2.0	2.70	166
November	3.3	1.7	2.55	152
December	6.5	2.0	3.76	231
The year	1,540	1.7	45.9	33,200
a Estimated May 12-31. b Estimated July 22-30.				
1916				
January	119	2.8	43.8	2,690
February	122	12	75.5	4,340
March	282	112	196	12,000
April	235	18	136	8,100
May	41	14	22.4	1,380
June	16	8.7	11.4	677
July	294	5.0	44.5	2,740
August (24-31)	....	....	31.8	505
September	8.5	2.8	5.05	300
October	317	3.8	97.5	5,990
November	15	3.9	10.6	628
December	18	3.9	9.14	562
The period	....	....	58.7	39,900

Monthly discharge of San Jose River near Suwanee, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	65	6.8	23.4	1,440
February	36	4.0	16.7	925
March	10	3.0	4.96	305
April	4.0	3.0	3.16	188
May	8.5	3.0	3.63	223
June	3.8	3.1	3.55	211
July	110	17	9.79	602
August	158	2.0	21.8	1,340
September (1-15)	2.8	2.6	2.70	80
The period	158	1.7	10.4	5,310

SAN FRANCISCO RIVER BASIN

SAN FRANCISCO RIVER AT ALMA, N. MEX.

Location.—About one-half mile south of Alma, 90 miles northwest of Silver City, 5 miles above the mouth of Whitewater Creek, and just below the mouth of Mineral Creek.

Records available.—From August 18, 1904, to December 31, 1907, and from January 1, 1909, to August 12, 1911, when the station was discontinued.

Drainage area.—1,670 square miles.

References.—U. S. Geological Survey Water Supply Papers 133 p. 206, 175 p. 166, 211 p. 125, 249 p. 177, 269 p. 222, 289 p. 205; State Engineer's Report on the Surface Water Supply of New Mexico for 1911-12 p. 70.

Monthly discharge of San Francisco River at Alma, N. Mex., for 1904–1907.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1904				
August (18-31)	690	60	161	4,470
September	470	10	43.2	2,571
October	2,000	10	138	8,485
November (1-18)	55	45	47.8	1,709
The period	....	....	....	17,235
1905				
January	3,162	10	282	17,340
February	5,060	80	790	43,870
March	3,410	110	1,289	79,260
April	2,048	602	1,224	72,830
May	618	58	269	16,540
June	52	6.0	21.8	1,297
July	205	4.0	23.8	1,463
August	425	8.0	56.7	3,486
September	1,575	16	170	10,120
October	115	25	45.6	2,804
November (1-26)	755	45	204	10,520
December (3-31)	215	25	65.7	3,779
The period	....	....	....	263,300
1906				
January	222	.23	47.6	2,930
February	438	52	222	12,300
March	2,040	170	520	32,000
April	405	105	234	13,900
May	113	8.0	42.4	2,610
June	11	1.0	3.8	226
July	116	2.0	30.4	1,870
August	181	21	61.3	3,770
September	232	4.0	54.1	3,220
October	23	7.0	11.8	726
November	36	15	22.8	1,360
December	4,340	38	600	36,900
The year	4,340	1.0	154	112,000

Monthly discharge of San Francisco River at Alma, N. Mex., for 1904–1907. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907				
January (1-19)	5,200	115	936	35,300
February	1,600	350	572	31,800
March	465	173	311	19,100
April	270	98	168	10,000
May	150	50	79.4	4,880
June	80	1.0	34.1	2,030
July	970	1.0	80.9	4,970
August	3,200	35	273	16,800
September	515	50	125	7,440
October	465	50	91.5	5,630
November	135	55	81.7	4,860
December	80	50	68.5	4,210
The period	5,200	1.0	235	147,000

Monthly discharge of San Francisco River at Alma, N. Mex., for 1909, 1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909				
January	1,050	31	104	6,400
February	355	52	84.7	4,760
March	1,200	52	399	24,500
April	840	52	324	19,300
May	52	11	27.3	1,680
June	11	4.0	6.90	411
July	1,200	3.0	64.1	3,940
August	690	12	95.6	5,880
September	1,140	16	70.0	4,170
October	39	3.0	12.6	775
November	30	6.0	12.0	714
December	34	22	29.7	1,830
The year	1,200	3.0	102	74,300
1910				
January	370	36	62.4	3,840
February	36	15	26.3	1,460
March	34	12	20.2	1,240
April	32	0.0	12.4	738
May	0.0	0 0	0.0	0.0
June	0.0	0.0	0.0	0.0
July	17	0 0	0.5	31
August	160	0 0	10.4	640
September	98	0.0	9.4	559
October	17	11	12.8	787
November	48	15	18.1	1,080
December	39	18	25	1,490
The year	370	0.0	16.5	11,900

SAN FRANCISCO RIVER NEAR ALMA, N. MEX.

Location.—At the mouth of a box cañon 1½ miles south of Alma, 90 miles northwest of Silver City, 1½ miles below the mouth of Mineral Creek, and 4½ miles above the mouth of Whitewater Creek.

Records available.—August 11, 1912, to February 24, 1914.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 72, 1913 p. 60, 1914 p. 127.

Monthly discharge of San Francisco River near Alma, N. Mex., for 1912–1914.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
August (11-31)	229	12	47.7	1,990
September	284	3.6	37.1	2,210
October	121	16	36.4	2,240
November	22	15	15.2	904
December	36	15	17.8	1,090
The period	....	....	....	8,430
1913				
January	32	16	18.5	1,140
February	53	16	26.9	1,490
March	114	27	53.3	3,280
April	151	22	63.2	3,760
May	22	0.0	8.08	497
June	0.0	0.0	0.00	0.0
July	63	0.0	9.19	565
August	415	0.0	59.3	3,650
September	170	5.8	24.8	1,480
October	130	10	28.4	1,750
November	76	16	30.3	1,800
December	32	14	24.5	1,510
The year	415	0.0	28.9	20,900
1914				
January	28	17	20.5	1,260
The period	....	....	....	....

SAN FRANCISCO RIVER AT CLIFTON, ARIZONA.

Location.—At the railroad bridge at Clifton in Sec. 19, T. 4 S., R. 30 E, one and three fourths miles below the diversion dam of the Arizona Copper Company and 5 miles above the junction with the Gila River.

Records available.—October 24, 1910, to January 14, 1911; January 24 to March 31, 1912; and August 5, 1912, to December 31, 1915.

References.—U. S. Geological Survey Water-Supply Papers 329 p. 214, 359 p. 224; State Engineer's Reports on the Surface Water Supply of New Mexico for 1914 p. 128, 1915 p. 125.

NOTE.—The records at this station for calendar years 1916 and 1917 will be found in the Water Supply Papers of the United States Geological Survey where they are published.

Monthly discharge of San Francisco River at Clifton, Arizona, for 1910–1915.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
October (23-31)	175	68	109	1,950
November	200	45	99.3	5,910
December	100	25	53.7	3,300
The period	....	....	....	....
1911				
January (1-10)	65	10	31.5	625
1912				
September	200	100	143	8,510
November (25-30)	55	55	55.0	655
December	200	10	118	7,260
The period	....	....	....	....
1913				
January	100	30	57.1	3,510
February	470	42	119	6,610
March	550	99	282	17,300
May	174	112	133	8,180
June	130	37	73.7	4,390
July	1,170	5.0	86.3	5,310
August	925	6.0	115	7,070
September	315	30	109	6,490
October	99	30	62.6	3,850
November	1,080	42	177	10,500
December	131	75	98 0	6,030
The period	....	....	....	....
1914				
January	115	50	74.7	4,590
February	155	50	67.0	3,720
March	180	135	152	9,350
April	70	35	48.3	2,870
May	50	35	41.1	2,530
June	40	30	37.7	2,240
July	1,280	100	494	30,400
August	410	155	292	18,000
September	335	70	196	11,700
October	8,200	75	537	33,000
November	2,800	125	429	25,500
December	22,000	135	2,640	162,000
The year	22,000	30	423	306,000

Monthly discharge of San Francisco River at Clifton, Arizona, for 1910–1915.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	14,600	225	1,120	68,900
February	4,400	530	1,260	70,000
March	4,750	870	2,135	131,000
April	4,500	1,150	2,250	134,000
May	850	290	515	31,700
June	285	30	161	9.580
July	9,300	40	656	40,300
August	385	90	228	14,000
September	295	50	139	8,270
October	100	75	91.6	5,630
November	130	80	79.7	4,740
December	95	80	87.4	5,380
The year	14,600	30	723	524,000

WHITEWATER CREEK NEAR MOGOLLON, N. MEX.

Location.—Three miles south of Mogollon, 90 miles northwest of Silver City, at the Socorro Mines Company's plant, 650 feet below the confluence of the north and south forks of Whitewater Creek, in Sec. 4, T. 11 S., R. 19 W.

Records available.—September, 1909, to December 31, 1917.

Drainage area.—34 square miles.

References.—U. S. Geological Survey Water Supply Papers 289 p. 208; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 73, 1913 p. 63, 1914 p. 130, 1915 p. 127, 1916 p. 126, 1917 p. 129.

NOTE.—This station was established in September, 1909, by the Socorro Mines Company, about half a mile above their power house, and about three miles from Mogollon. It was a weir at which daily readings were taken, and from these and three current meter discharge measurements taken in 1910, a hydrograph was constructed from which the following monthly discharges were taken up to May 30, 1911, when a staff gage was installed at the power plant, 500 feet below the confluence of the south and north forks of Whitewater Creek.

Monthly discharge of Whitewater Creek near Mogollon, N. Mex., for 1909–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1909				
October	4.4	3.3	3.73	229
November	5.6	3.3	3.44	205
December	5.1	2.5	3.57	220
The period	....	....	....	654

Monthly discharge of Whitewater Creek near Mogollon, N. Mex., for 1909–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
January	19.0	5.2	7.88	485
February	6.0	4.3	4.92	273
March	12.0	4.3	8.56	526
April	24.0	5.1	13.6	809
May	20.0	3.5	8.79	540
June	3.9	1.6	2.46	146
July	4.4	1.6	2.77	170
August	6.5	2.1	3.11	191
September	5.3	1.6	2.71	161
October	2.7	1.6	2.04	125
November	4.2	2.1	2.77	165
December	3.3	2.6	2.64	162
The year	24.0	1.6	5.18	3,750
1911				
January (1-10, 13-31)	42	1.1	14.7	846
March (14-22, 26-31)	37	32	33.9	1,010
April	36	14	21.5	1,280
May (1-5, 13-31)	20	8.8	13.6	647
June	12	1.9	4.9	292
July (1-9, 11-24, 29, 30)	20	2.3	10.2	505
August	10	2.0	3.9	240
September (1-27, 29, 30)	18	1.1	3.3	190
The period	....	....	..	5,010
1912				
January	2.2	1.6	2.14	132
February	1.6	1.0	1.29	74
March	34	1.6	8.85	544
April	5.4	3.1	3.33	198
May (1-10)	5.4	5.4	5.40	107
July (20-31)	3.1	1.7	2.92	69
August	17	2.4	5.48	337
September	15	2.9	6.32	376
October	5.4	2.9	5.13	315
November	4.9	3.9	4.08	243
December	6.5	3.5	4.49	276
The period	....	....	....	2,670
1913				
January	3.4	3.4	3.40	209
February	4.5	3.4	3.52	195
March	45	3.4	20.3	1,250
April	53	28	35.6	2,120
May	53	18	33.4	2,050
June	16	3.6	7.97	474
July	5.9	2.0	2.85	175
August	8.0	2.9	4.34	267
September	13	2.7	4.66	277
October	14	2.5	4.17	256
November	52	2.5	14.2	845
December	12	3.8	6.10	375
The year	53	2.0	11.7	8,490

Monthly discharge of Whitewater Creek near Mogollon, N. Mex., for 1909–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1914				
January	14	4.6	8.42	518
February	47	5.4	12.0	666
March	25	14	16.3	1,000
April	52	14	26.3	1,560
May	24	8.1	13.9	855
June	13	3.9	6.27	373
July	32	4.9	16.3	1,000
August	30	9.5	16.9	1,040
September	15	5.6	8.85	527
The period	52	3.9	13.9	7,540
1915				
January	86	5.0	21.4	1,320
February	58	24	37.5	2,080
March	147	20	63.3	3,900
April	232	95	146	8,720
May	251	61	133	8,160
June	128	10	53.7	3,200
July	114	5.8	25.5	1,570
August	76	12	24.6	1,520
September	106	82	18.1	1,080
October	14	3.5	7.02	432
November	19	3.6	6.28	374
December	12	1.7	6.74	414
The year	251	1.7	45.2	32,800
1916				
January	280	5.0	48.3	2,970
February	147	13	59.3	3,410
March	440	52	157	9,630
April	126	48	82.1	4,890
May	113	33	64.2	3,950
June	33	3.0	16.5	982
July	57	3.0	16.6	1,020
August	50	11	19.2	1,180
September	65	7.0	23.8	1,410
October	413	6.0	47.0	2,890
November	12	7.5	9.58	570
December	8.0	4.0	6.93	426
The year	440	3.0	45.9	33,300
1917				
January	248	6.0	21.6	1,330
February	60	8.0	19.2	1,070
March	60	17	31.3	1,920
April	73	28	45.6	2,710
May	55	22	35.6	2,190
June	30	4.7	16.1	956
July	12	3.0	4.74	292
August	8.2	2.2	3.65	224
September	5.4	2 6	3.08	183
October	2.6	2.3	2.50	154
November	2.6	2.6	2.60	155
December	2.6	2.2	2.56	157
The year	248	2.2	15.7	11,300

SAN JUAN RIVER BASIN

SAN JUAN RIVER AT ARBOLES, COLO.

Location.—About ¼ mile above the mouth of Piedra River.
Records available.—January 19, 1895, to September 30, 1899, and August 21, 1910, to December 31, 1917.
Drainage area.—1,394 square miles.
References.—U. S. Geological Survey Bulletin 140 p. 196; Annual Reports 18, iv, p. 281; 19, iv, p. 410; 20, iv, p. 401; 21, iv, p. 297; Water Supply Papers 269 p. 234, 289 p. 172; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 34, 1913 p. 190, 1914 p. 132, 1915 p. 129, 1916 p. 128, 1917 p. 131.

Monthly discharge of San Juan River at Arboles, Colo., for 1895–1899.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1895				
July	1,427	414	635	39,046
August	777	254	422	25,949
September	295	174	220	13,090
October	339	174	206	12,667
November	275	135	197	11,722
The period	....	....	....	102,474
1896				
April (12-30)	2,250	689	1,123	42,313
May	2,595	689	1,635	100,532
June	1,298	187	444	26,420
July	444	198	256	15,741
August	584	136	189	11,621
September	1,032	177	309	18,387
October	484	209	250	15,372
November	244	157	210	12,496
The period	....	....	....	242,882
1897				
January	....	....	a 200	12,298
February	....	....	a 200	11,107
March	....	....	a 300	18,446
April	3,464	478	1,987	118,234
May	4,423	2,431	3,393	208,629
June	3,759	1,020	2,311	137,513
July	1,328	340	685	42,119
August	404	182	303	18,631
September	1,998	182	607	36,119
October	2,210	478	1,019	62,656
November	534	300	396	23,564
December	....	....	a 300	18,446
The year	....	....	975	707,762
a Estimated.				
1898				
April	2,954	241	1,488	88,542
May	3,104	1,157	1,884	115,843
June	3,255	1,082	2,390	142,214
July	2,579	319	1,022	62,841
August	408	124	255	15,679
September	216	83	123	7,319
October	216	83	99	6,087
November	83	83	83	4,939
The period	....	....	....	444,324

Monthly discharge of San Juan River at Arboles, Colo., for 1895–1899. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1899				
April (23-30)	1,286	569	934	55,577
May	1,976	373	917	56,384
June	805	248	550	32,727
July	1,838	152	523	32,158
August	1,700	116	385	23,673
September	1,838	96	219	13,031
The period	....	....	....	213,561

Monthly discharge of San Juan River at Arboles, Colo., for 1910–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
August (21-31)	395	126	216	4,710
September	222	58	121	7,190
October	1,300	50	186	11,500
November	250	108	152	9,000
The period	....	....	....	32,400
1911				
January	135	100	121	7,450
February	230	125	151	8,400
March	2,450	230	1,430	88,000
April	2,970	1,080	1,980	118,000
May	4,690	2,030	3,150	194,000
June	5,030	2,250	3,660	218,000
July	5,880	1,560	2,830	174,000
August	2,900	420	864	53,100
September	3,120	290	775	46,100
October (1-4)	4,290	385	1,820	14,500
The period	....	....	....	921,000
1912				
January	.....	....	a 232	14,281
February	....	....	a 194	11,167
March	4,240	160	870	53,493
April	2,710	635	1,543	91,640
May	4,460	1,780	3,228	198,473
June	3,972	1,738	2,785	165,729
July	2,095	635	1,038	63,807
August	1,082	222	350	21,495
September	235	145	184	10,979
October	520	155	251	15,449
November	300	135	199	11,841
December	134	105	120	7,380
The year	4,460	....	920	666,000

a Estimated.

Monthly discharge of San Juan River at Arboles, Colo., for 1910–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	....	....	a 100	6,150
February	....	....	a 115	6,390
March	1,080	120	225	13,800
April	3,100	805	1,650	98,200
May	3,260	920	1,900	117,000
June	2,960	730	1,560	92,800
July	984	177	401	24,700
August	374	124	171	10,500
September	570	105	203	12,100
October	1,300	141	309	19,000
November	365	135	204	12,100
December	213	120	147	9,040
The year	3,260	....	582	422,000
a Estimated.				
1914				
January	....	....	a 140	8,610
February	244	....	a 190	10,600
March	1,500	178	726	44,600
April	1,780	960	1,410	83,900
May	4,590	1,200	2,680	165,000
June	6,030	1,100	2,830	168,000
July	1,790	494	1,000	61,500
August	1,760	270	580	35,700
September	1,650	306	659	39,200
October	5,220	337	855	52,600
November	456	199	283	16,800
December	241	101	172	10,600
The year	6,030	....	960	697,000
1915				
January	176	148	a 163	10,000
February	202	159	a 178	9,870
March	975	188	453	27,900
April	4,720	980	1,970	117,000
May	3,900	1,240	2,700	166,000
June	4,650	1,770	3,300	196,000
July	5,850	715	1,720	106,000
August	1,020	175	429	26,300
September	5,200	140	548	32,600
October	370	150	210	12,900
November	255	110	147	8,740
December	200	104	a 132	8,130
The year	5,850	104	997	721,000
a Estimated.				
1916				
January	274	102	177	10,900
February	930	280	516	29,600
March	5,460	330	2,050	126,000
April	3,150	1,270	1,980	118,000
May	3,850	1,800	2,400	148,000
June	4 070	1,870	2,920	174,000
July	2,370	820	1,400	85,800
August	2,990	930	1,490	91,900
September	800	330	537	31,900
October	5 000	470	1,300	80,200
November	625	240	389	23,100
December	370	210	250	15,400
The year	5,460	102	1,290	935,000

Monthly discharge of San Juan River at Arboles, Colo., for 1910–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	339	263	303	18,600
February	341	280	324	18,000
March	1,500	246	738	45,400
April	3,230	470	1,850	110,000
May	4,120	1,380	2,200	135,000
June	5,220	2,030	4,150	247,000
July	4,470	940	2,170	133,000
August	1,000	205	422	26,000
September	340	158	228	13,500
October	195	95	134	8,220
November	118	61	99.6	5,920
December	118	22	68.9	4,240
The year	5,220	22	1,060	765,000

SAN JUAN RIVER AT TURLEY, N. MEX.

Location.—One-fourth of a mile north of Turley post office and about 18 miles east of the Denver & Rio Grande Railroad at Aztec.

Records available.—June 6, 1907, to November 30, 1908, when the station was discontinued. The station at Blanco was established as a substitute for this station December 9, 1908.

Drainage area.—About 4,700 square miles.

References.—U. S. Geological Survey Water-Supply Papers 249 p. 154, 269 p. 191, 289 p. 174.

Monthly discharge of San Juan River at Turley, N. Mex., for 1907, 1908.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907				
June (6-30)	10,600	6,280	8,150	404,000
July	10,900	2,610	6,030	371,000
August	3,200	1,440	2,080	128,000
September	2,480	800	1,450	86,300
October	1,090	550	711	43,700
November	725	305	489	29,100
December	550	280	367	22,600
The period	....	....	....	1,080,000
1908				
January	520	330	395	24,300
February	2,610	258	766	44,100
March	3,600	760	1,920	118,000
April	4,420	1,770	2,930	174,000
May	4,320	2,110	2,910	179,000
June	5,680	2,750	4,020	239,000
July	3,120	1,510	1,990	122,000
August	11,400	1,320	2,550	157,000
September	1,090	430	627	37,300
October	690	490	592	36,400
November	585	115	337	20,100
The period	....	....	....	1,150,000

NOTE.—Discharge estimated for days in August and September, 1907, that the gage record is missing.

SAN JUAN RIVER AT BLANCO, N. MEX.

Location.—At the suspension bridge which crosses the San Juan at Blanco about 4 miles below Turley post office, 16 miles southeast of the Denver & Rio Grande Railroad at Aztec, N. Mex., one half mile above the mouth of Cañon Largo.

Records available.—December 9, 1908, to October 31, 1910, when the station was discontinued.

References.—U. S. Geological Survey Water Supply Papers 249 p. 157, 269 p. 191, 289 p. 174.

Monthly discharge of San Juan River at Blanco, N. Mex., for 1908, 1909.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1908				
December (9-31)	450	90	265	12,100
1909				
January	1,280	290	555	34,100
February	700	90	372	20,700
March	2,720	610	1,750	108,000
April	10,400	1,190	4,310	256,000
May	8,520	3,350	5,840	359,000
June	12,300	3,750	7,340	437,000
July	4,530	800	2,240	138,000
August	9,500	970	3,460	213,000
September	a13,000	950	6,050	360,000
October	3,400	670	1,090	67,000
November	620	380	494	29,400
December	580	420	483	29,700
The year	13,000	90	2,830	2,050,000

a Estimated.

SAN JUAN RIVER NEAR BLOOMFIELD, N. MEX.

Location.—At the suspension bridge about 1½ miles below Bloomfield and 11 miles below the station at Blanco.

Records available.—September 28, 1909, to October 6, 1911, when the station was discontinued.

Drainage area.—5,190 square miles.

References.—U. S. Geological Survey Water-Supply Papers 269 p. 191, 289 p. 175; State Engineer's Report on the Surface Water Supply of New Mexico for 1911 12 p. 37.

Monthly discharge of San Juan River near Bloomfield, N. Mex., for 1910, 1911.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
January	865	500	684	42,100
February (15 days)	4,520	405	903	26,900
March (15 days)	8,620	2,690	4,890	145,000
April (3-30)	7,180	1,740	3,460	192,000
May	6,520	1,460	3,940	242,000
June	6,110	900	2,440	145,000
July	1,150	170	480	29,500
August	1,830	210	500	30,700
September	370	110	226	13,400
October	4,000	210	724	44,500
November	800	400	616	36,700
December	400	255	329	20,200
The period	....	....	....	968,000
1911				
January (15-31)	2,350	450	835	28,200
February	910	412	530	29,400
March	7,360	615	2,510	154,000
April	5,780	2,350	4,260	253,000
May	10,600	2,780	7,080	435,000
June	10,200	2,600	6,720	400,000
July	12,200	900	4,640	285,000
August	5,250	1,120	1,800	111,000
September	3,750	1,320	1,960	117,000
The period	....	....	....	1,810,000

SAN JUAN RIVER AT FARMINGTON, N. MEX.

Location.—One-half mile southwest of Farmington, at the old bridge site near Bentley's Ferry, 1,500 feet below the confluence of the San Juan and Animas Rivers, in Sec. 17, T. 29 N., R. 13 W.

Records available.—September 19, 1912, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 39, 1913 p. 193, 1914 p. 134, 1915 p. 131, 1916 p. 130, 1917 p. 133.

Monthly discharge of San Juan River at Farmington, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
September (19-30)	833	505	657	15,600
October	1,970	502	945	58,100
November	1,450	621	1,090	64,900
December	796	240	498	30,600
The period	....	....	....	169,000
1913				
January	....	....	464	28,500
February	602	366	471	26,200
March	2,510	394	683	42,000
April	6,570	2,760	4,650	277,000
May	11,100	4,520	8,020	493,000
June	9,860	3,500	5,880	350,000
July	4,340	673	1,770	109,000
August	1,310	353	621	38,200
September	4,150	628	1,450	86,300
October	7,350	673	1,480	91,000
November	1,080	688	932	55,500
December	992	....	684	42,100
The year	11,100	....	2,260	1,640,000
1914				
January	....	501	597	36,700
February	6,520	580	1,870	104,000
March	4,900	2,470	3,460	213,000
April	5,360	3,430	4,480	267,000
May	15,100	3,540	7,940	488,000
June	20,400	4,540	9,900	589,000
July	8,620	2,680	4,260	262,000
August	3,310	866	2,020	124,000
September	4,380	887	1,610	95,800
October	12,600	887	3,080	189,000
November	2,120	939	1,340	79,700
December	992	650	801	49,300
The year	20,400	501	3,450	2,500,000
1915				
January	660	440	559	34,400
February	800	510	638	35,400
March	3,600	750	1,629	100,000
April	10,500	2,500	6,780	404,000
May	12,190	4,350	7,200	443,000
June	13,600	5,000	9,540	568,000
July	17,600	2,640	5,630	346,000
August	3,400	870	1,560	96,100
September	3,520	715	1,110	66,300
October	1,540	640	914	56,200
November	675	500	585	34,800
December	570	400	482	29,700
The year	17,600	400	3,060	2,210,000

Monthly discharge of San Juan River at Farmington, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	870	355	651	40,000
February	1,750	320	989	56,900
March	9,750	1,090	4,870	299,000
April	10,500	2,340	5,040	300,000
May	14,200	7,340	9,630	592,000
June	12,300	6,560	9,620	572,000
July	6,340	2,490	4,640	285,000
August	14,200	2,000	4,700	289,000
September	7,810	1,630	3,200	191,000
October	19,800	2,760	7,530	463,000
November	3,170	1,210	1,940	115,000
December	1,360	220	841	51,700
The year	19,800	220	4,480	3,250,000
1917				
January	1,310	943	1,040	63,700
February	2,360	943	1,120	62,400
March	5,900	905	1,890	116,000
April	8,900	1,800	4,890	291,000
May	14,600	3,770	7,370	453,000
June	22,500	6,200	17,500	1,040,000
July (1-29)	....	....	11,000	634,000
August (6-25)	....	....	2,120	83,900
September (15-30)	....	....	1,360	43,100
October (1-7)	....	....	809	11,200
November (8-30)	....	....	396	18,100
December	470	340	366	22,500
The period	....	....	4,660	2,840,000

SAN JUAN RIVER NEAR FARMINGTON, N. MEX.

Location.—At the suspension footbridge at the Methodist Indian school, about 3 miles south of Farmington and 2 miles below the mouth of the Animas River.

Records available.—June 19, 1904, to September 26, 1906, when the station was discontinued.

Drainage area.—About 6,920 square miles.

References.—U. S. Geological Survey Water Supply Papers 133 p. 180, 175 p. 132, 211 p. 100.

Monthly discharge of San Juan River near Farmington, N. Mex, for 1904, 1905.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1904				
June (19-30)	1,300	780	1,030	24,520
July	1,578	20	375	23,060
August	4,980	1,450	2,627	161,500
September	8,625	400	1,375	81,820
October	20,000	2,625	5,935	364,900
November	1,695	630	1,087	64,680
December	780	90	348	21,400
The period	....	....	....	741,900

Monthly discharge of San Juan River near Farmington, N. Mex., for 1904, 1905. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1905				
January	338	40	242	14,880
February	2,582	230	682	37,880
March	3,410	780	1,625	99,920
April	7,460	1,085	4,290	255,300
May	19,100	4,635	10,110	621,600
June	24,800	10,960	18,270	1,087,000
July	8,240	2,180	3,604	221,600
August	3,740	840	1,747	107,400
September	4,870	1,180	1,673	99,550
October	4,635	1,180	1,690	103,900
November	2,708	1,085	1,306	77,710
December	1,300	840	1,084	66,650
The year	24,800	40	3,860	2,793,000

SAN JUAN RIVER AT SHIPROCK, N. MEX.

Location.—At the highway bridge ¼ mile from the Shiprock Indian Agency, 5 miles below the mouth of Rio Chaco. (See note.)

Records available.—January 14 to Oc'ober 6, 1911, and November 17, 1915, to December 31, 1917.

Drainage area.—About 13,100 square miles.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 41, 1915 p. 133, 1916 p. 132, 1917 p. 135.

NOTE.—The station established November 17, 1915, bears no relation to the gage established in 1911, but the discharges should be the same.

Monthly discharge of San Juan River at Shiprock, N. Mex., for 1911.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
January (14-31)	2,800	850	1,400	50,000
February	1,450	600	979	54,400
March	9,920	1,050	4,390	270,000
April	9,920	4,250	7,090	422,000
May	15,000	7,100	10,700	658,000
June	14,300	6,000	10,600	631,000
July	20,400	3,200	10,000	615,000
August	4,950	325	1,140	70,100
September	4,250	300	872	51,900
October (1-6)	47,600	9,600	19,300	230,000
The period	....	....	....	3,050,000

Monthly discharge of San Juan River at Shiprock, N. Mex., for 1915–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
November (17-30)	553	543	548	15,200
December	542	519	530	32,600
The period	553	519	536	47,800
1916				
January	1,020	400	641	39,400
February	18,700	480	2,370	136,000
March	33,100	595	8,430	518,000
April	13,200	3,650	7,240	431,000
May	21,600	5,700	11,700	718,000
June	21 800	8,300	14,000	834,000
July	12,400	2,010	7,230	444,000
August	21,600	2,100	7,770	478,000
September	13,500	880	2,690	160,000
October	31,800	1,330	8,850	544,000
November	2,470	740	1,410	84,200
December	1,680	390	754	46,300
The year	33,100	390	6,110	4,430,000
1917				
January	1,160	520	768	47,200
February	2,850	680	1,100	61,300
March	7,450	630	1,920	118,000
April	11,500	900	6,710	399,000
May	20,300	5,400	9,260	569,000
June	27,800	3,400	17,300	1,030,000
July	24,100	3,500	8,010	492,000
August	4,040	470	1,510	92,800
September	1,340	445	815	48 500
October	850	550	646	39,700
November	575	405	482	28,700
December	460	380	413	25,400
The year	27,800	380	4,070	2,950,000

NAVAJO RIVER AT EDITH, COLO.

Location.—At a highway bridge on the road from Edith to Lumberton, N. Mex., a short distance north of the New Mexico-Colorado state line, ¼ mile east of Edith and 6 miles northeast of Lumberton. About five miles down stream from the confluence of the Navajo and Little Navajo Rivers.

Records available.—September 21, 1912, to December 31, 1917.

References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 43, 1913 p. 196, 1914 p. 136, 1915 p. 136, 1916 p. 134, 1917 p. 137.

Monthly discharge of Navajo River at Edith, Colo., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
September (21-30)	42	33	35.6	706
October	112	36	52.3	3,220
November	55	43	48.9	2,910
December	43	40	42.7	2,630
The period	....	....	....	9,470

Monthly discharge of Navajo River at Edith, Colo., for 1912–1917. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	....	....	a 35.0	2,150
February	....	....	a 30.0	1,670
March	....	....	a 60.0	3,690
April	427	130	271	16,100
May	401	253	328	20,200
June	368	162	251	14,900
July	152	50	86.5	5,320
August	122	34	45.9	2,820
September	66	32	41.3	2,460
October	184	40	63.9	3,930
November	53	40	45.5	2,710
December	45	40	41.6	2,560
The year	427	....	108	78,500
NOTE.—a Estimated.				
1914				
January	....	....	a 37.0	2,280
February	....	....	a 35.0	1,940
March	276	....	161	9,900
April	420	195	348	20,700
May	927	286	534	32,800
June (1-19)	1,120	380	649	24,500
October	535	69	142	8,730
November	95	43	62.1	3,700
December	....	....	a 40.0	2,460
The period	....	....	....	....
1915				
January	39	34	a 35.3	2,170
February	65	40	a 48.2	2,680
March	260	67	111	6,840
April	755	208	424	25,200
May	820	299	564	34,700
June	892	384	645	38,400
July	1,050	179	337	20,700
August	242	23	101	6,230
September	84	43	51.5	3,060
October	43	43	43.0	2,640
November	43	39	40.4	2,400
December	39	39	a 39.0	2,400
The year	1,050	23	204	147,000
NOTE.—a Estimated.				
1916				
January	45	39	41.1	2,530
February	85	50	66.3	3 820
March	681	85	346	21,200
April	798	365	541	32,200
May	775	497	590	36,300
June	681	430	561	33,400
July	451	264	328	20,200
August	460	78	208	12,800
September	432	22	77.9	4,640
October	656	38	196	12,100
November	98	38	56.1	3,340
December	58	41	52.1	3,200
The year	798	22	256	186,000

Monthly discharge of Navajo River at Edith, Colo., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	67	57	61.8	3,800
February	62	41	51.0	2,830
March	74	36	52.7	3,240
April	660	76	345	20,500
May	966	210	523	32,200
June	1,490	338	916	54,500
July (1-11)	....	....	646	14,100
August (12-31)	....	....	68.0	2,700
September	67	49	56.5	3,360
October	54	37	45.9	2,820
November	43	32	34.3	2,040
December	43	32	37.8	2,320
The period	....	....	218	144,000

PIEDRA RIVER AT ARBOLES, COLO.

Location.—At the Denver and Rio Grande Railroad bridge, ½ mile above the confluence of the Piedra and San Juan Rivers.

Records available.—June 19, 1895, to September 30, 1899, and August 21, 1910, to December 31, 1917.

Drainage area.—650 square miles.

References.—U. S Geological Survey Bulletin 140 p. 198; Annual Reports 18, iv, p. 283; 19, iv, p. 413; 20, iv, p. 402; 21, iv, p. 208; Water Supply Paper 289 p. 177; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 44, 1913 p. 199, 1914 p. 138, 1915 p. 138, 1916 p. 136, 1917 p. 139.

Monthly discharge of Piedra River at Arboles, Colo., for 1895–1899.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1895				
June (19-30)	602	303	432	25,706
July	670	233	346	21,275
August	342	141	200	12,298
September	185	87	115	6,843
October	185	87	125	7,686
November	156	60	93	5,534
December (1-7)	127	114	118	7,256
The period	....	....	....	....
1896				
April (12-30)	1,660	354	804	30,305
May	2,066	416	1,048	64,438
June	677	79	229	13,627
July	190	66	111	6,825
August	266	23	59	3,628
September	3,000	66	347	20,648
October	235	119	175	10,760
November	176	92	121	7,200
The period	....	....	....	157,431

Monthly discharge of Piedra River at Arboles, Colo., for 1895–1899.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1897				
January	....	....	a 150	9,223
February	....	....	a 150	8,331
March	....	....	a 200	12,298
April	2,190	344	1,460	86,876
May	2,398	1,703	2,025	124,513
June	2,051	487	1,189	70,750
July	585	152	296	18,200
August	168	68	106	6,518
September	799	68	399	23,742
October	1,772	364	840	51,650
November	364	183	241	14,340
December	....	....	a 200	12,298
The year	....	....	605	468,999
NOTE.—a Approximate.				
1898				
April	1,599	361	978	58,195
May	1,564	614	966	59,397
June	1,564	614	1,211	72,059
July	1,390	229	585	35,970
August	246	106	149	9,162
September	165	52	89	5,296
October	165	52	70	4,304
November	52	27	37	2,202
The period	....	....	....	246,585
1899				
April (23-30)	467	256	380	22,612
May	643	138	315	19,369
June	256	88	168	9,997
July	439	60	141	8,670
August	869	38	180	11,068
September	138	25	49	2,916
The period	....	....	....	74,632

Monthly discharge of Piedra River at Arboles, Colo., for 1910–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
August (21-31)	132	86	100	2,190
September	96	67	82.4	4,880
October	245	81	120	7,380
November	132	91	112	6,660
The period	....	....	....	....
1911				
January	600	100	192	11,800
February	215	105	133	7,370
March	1,450	130	728	44,800
April	2,320	1,280	1,840	109,000
May	2,960	1,140	1,920	118,000
June	2,240	1,280	1,810	107 000
July	2,400	655	1,380	84,900
August	808	175	401	24,700
September	1,710	175	344	20,500
The period	....	....	....	529,000

Monthly discharge of Piedra River at Arboles, Colo., for 1910–1917. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
March	970	58	403	24,800
April	2,002	558	1,125	67,000
May	2,668	1,260	2,279	140,000
June	2,570	714	1,501	89,000
July	1,284	229	568	34,900
August	626	112	242	14,900
September	151	85	111	6,600
October	321	85	146	8,980
November	272	80	153	9,100
December	98	40	54	3,320
The period	....	....	....	399,000
1913				
January	....	....	a 40.0	2,460
February	....	....	a 70.0	3,890
March	580	....	111	6,820
April	1,790	504	1,020	60,700
May	1,550	812	1,180	72,600
June	1,410	367	876	52,100
July	307	77	139	8,550
August	257	62	94.3	5,800
September	356	92	137	8,150
October	520	92	176	10,800
November	151	90	119	7,080
December	141	....	97.2	5,980
The year	1,790	....	338	245,000
a Estimated.				
1914				
January	....	....	a 70.0	4,300
February	....	....	a 85.0	4,720
March	1,030	137	520	32,000
April	1,310	697	1,030	61,300
May	2,880	785	1,570	96,500
June	3,660	641	1,520	90,400
July	1,800	427	762	46,900
August	497	137	266	16,400
September	670	140	262	15,600
October	3,360	205	662	40,700
November	337	149	226	13,400
December	159	....	130	7,990
The year	3,360	....	594	430,000
1915				
January	95	65	a 79.6	4,890
February	237	97	a 142	7,870
March	890	247	434	26,700
April	4,140	790	1,880	112,000
May	3,120	1,010	1,800	111,000
June	2,520	950	1,860	111,000
July	2,140	280	764	47,000
August	510	120	227	13,900
September	1,790	100	241	14,400
October	275	115	167	10,300
November	135	65	111	6,590
December	125	70	87.2	5,360
The year	4,140	65	649	471,000

a Estimated.

Monthly discharge of Piedra River at Arboles, Colo., for 1910–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	....	....	a 75.0	4,610
February (20-29)	....	....	234	4,650
March	3,420	218	1,460	89,600
April	2,590	950	1,710	102,000
May (1-6 and 26-31)	....	....	1,710	40,800
June	2,020	790	1,540	91,400
July	870	252	656	40,300
August	1,610	212	800	49,200
September	570	130	267	15,900
October	3,270	200	1,090	67,100
November	445	130	260	15,500
December	150	30	97.9	6,020
The period	....	....	810	527,000

a Estimated.

1917				
January	144	117	133	8,190
February	135	124	128	7,110
March	732	47	181	11,100
April	3,110	405	1,490	88,400
May	3,970	1,420	2,100	129,000
June	3,420	1,560	2,550	152,000
July	2,240	607	1,200	73,800
August	607	80	217	13,400
September	290	65	135	8,020
October	132	60	93.4	5,740
November	91	47	74.0	4,400
December	80	15	33.2	2,040
The year	3,970	15	695	503,000

LOS PINOS RIVER NEAR IGNACIO, COLO.

[Better known as Pine River]

Location.—At the highway bridge near the Southern Ute Indian Agency, near Sec. 8, T. 33 N., R. 7 W., and about 1 mile north of Ignacio.

Records available.—April 22, 1899, to October 31, 1903; September 1, 1910, to November 30, 1912; March 10, 1913, to December 31, 1917.

Drainage area.—450 square miles.

References.—U. S. Geological Survey Annual Reports 21, iv, p. 299; 22, iv, p. 393; U. S. Geological Survey Water Supply Papers 66 p. 95, 75 p. 176, 85 p. 39, 100 p. 59, 289 p. 179; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 48, 1913 p. 202, 1914 p. 140, 1915 p. 140, 1916 p. 138, 1917 p. 141.

Monthly discharge of Los Pinos River near Ignacio, Colo., for 1899–1903.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1899				
April (23-30)	....	....	499	29,693
May	947	180	530	32,588
June	605	264	469	27,907
July	662	124	289	17,770
August	1,346	49	349	21,459
September	264	36	62	3,689
October	292	36	127	78,088
November	124	89	103	6,129
December (1-21)	89	49	59	3,628
The period	....	....	....	220,951
1900				
January	101	61	82	5,042
February	61	61	61	3,388
March	141	61	94	5,780
April (1-7)	....	....	166	....
May (9-26)	1,326	785	998	61,365
The period	....	....	....	75,575
1901				
April	1,166	109	452	26,896
May	1,569	735	1,026	63,086
June	887	645	763	45,402
July	555	83	226	13,896
August	825	95	202	12,420
September (1-26)	....	....	186	9,592
The period	....	....	....	171,292
1902				
April	615	73	312	18,565
May	765	465	577	35,478
June (1-14)	....	....	341	9,469
The period	....	....	....	63,512
1903				
April (13-30)	1,364	489	840	29 990
May	2,606	950	1,685	103,607
June	2,744	1,778	2,267	134,896
July (1-19)	1,732	674	1,030	38,817
August	444	80	163	10.022
September	996	156	289	17,197
October	203	118	148	9,100
The period	2,744	80	....	343,629

Monthly discharge of Los Pinos River near Ignacio, Colo., for 1910–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
September	51	36	43.4	2,560
October	440	43	117	7,200
November	126	89	106	6,300
December	98	74	90.3	4,300
The period	....	....	....	20,360
1911				
January	248	65	124	7,640
February	170	85	118	6,540
March	910	120	429	26,400
April	1,320	560	976	58,100
May	2,620	1,030	1,830	113,000
June	3,500	1,120	2,360	141,000
July	2,780	445	1,290	79,100
August	380	60	174	10,700
September	1,160	145	279	16,600
October (1-4)	2,460	1,760	1,970	15,600
The period	....	....	....	474,000
1912				
January	150	125	136	8,331
February	130	110	120	6,922
March	510	105	222	13,636
April	805	230	493	29,314
May	1,632	768	1,148	70,613
June	1,590	594	1,002	59,656
July	820	438	556	34,166
August	576	58	220	13,514
September	96	32	48	2,882
October	330	41	131	8,035
November	289	138	202	12,012
The period	....	....	....	259,081
1913				
March (10-31)	349	48	95.9	4,180
April	966	351	692	41,200
May	1,500	856	1,230	75,600
June	1,230	509	826	49,200
July	420	2.0	111	6,820
August	146	0.1	18.8	1,160
September	635	28	154	9,160
October	458	71	185	11,400
November	164	96	125	7,440
December	150	85	113	6,950
The period	1,500	0.1	362	213,000
1914				
January	100	60	81.1	4,990
February	152	84	117	6,500
March	814	137	387	23,800
April	1,030	431	737	43,900
May	3,340	394	1,520	93,500
June	4,120	930	2,320	138,000
July	2,500	364	1,130	69,500
August	324	23	134	8,240
September	80	9.1	22.4	1,330
October	1,930	9.7	4.30	26,400
November	317	114	182	10,800
December	121	50	87.8	5,400
The year	4,120	9.1	597	432,000

Monthly discharge of Los Pinos River near Ignacio, Colo., for 1910–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1915				
January	82	37	a 54.6	3,360
February	146	62	a 91.0	5,050
March	440	153	259	15,900
April	1,760	355	930	55,400
May	2,080	650	1,310	80,300
June	2,640	920	1,950	116,000
July	1,480	315	738	45,400
August	330	16	72.7	4,470
September	1,120	15	117	6,970
October	250	32	89.4	5,500
November	89	34	68.0	4,040
December	83	56	73.5	4,520
The year	2,640	15	479	347,000
a Estimated.				
1916				
January	140	62	94.8	5,830
February	250	63	135	7,760
March	1,670	62	678	41,700
April	1,590	660	1,020	60,600
May	2,120	910	1,400	86,000
June	1,990	1,030	1,560	93,100
July	1,400	348	708	43,500
August	2,700	325	1,000	61,700
September	675	165	299	17,800
October	3,500	172	1,210	74,600
November	630	138	317	18,800
December	182	61	101	6,200
The year	3,500	61	713	518,000
1917				
January	173	89	119	7,310
February	175	105	141	7,800
March	460	56	122	7,490
April	1,220	202	637	37,900
May	1,940	685	1,110	68,400
June	2,860	940	2,180	129,006
July	2,290	315	1,090	66,900
August	255	8.0	99.5	6,120
September	160	5.0	58.8	3,500
October	120	29	61.6	3,790
November	36	16	26.8	1,590
December	97	23	58.0	3,570
The year	2,860	5.0	475	343,000

ANIMAS RIVER AT DURANGO, COLO.

Location.—At the footbridge at the foot of Fourteenth street in Durango, in the southwestern part of T. 35 N., R. 9 W. The nearest tributary is Lightner Creek which enters just above.

Records available.—June 20, 1895, to December 31, 1905, and August 22, 1910, to December 31, 1917.

Drainage area.—694 square miles.

References.—U. S. Geological Survey Annual Reports 18, iv, p. 285; 19, iv, p. 414; 20, iv, p. 379, 403; 21, iv, p. 301; 22, iv, p. 394; Water Supply Papers 85 p. 35, 100 p. 51, 133 p. 183, 175 p. 134, 289 p. 180; Fifteenth and Sixteenth Biennial Reports of State Engineer of Colorado; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 51, 1913 p. 205, 1914 p. 142, 1915 p. 142, 1916 p. 140, 1917 p. 143.

NOTE.—From June 20, 1895, to December 31, 1905, this station was maintained by the United States Geological Survey at the wagon bridge 200 feet above the Rio Grande Southern Railroad bridge. It was discontinued December 31, 1905, and re-established August 22, 1910, by the State Engineer of Colorado, this time on the Rio Grande Southern Railroad Bridge, where it was maintained until March 2, 1912, when the gage was transferred to its present location.

Monthly discharge of Animas River at Durango, Colo., for 1895–1900.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1895				
June (20-30)	836	574	646	14,091
July	574	278	388	23,857
August	990	208	510	31,359
September	512	278	363	21,600
October	379	259	307	18,870
November	296	224	246	14,638
December	316	208	251	15,433
The period	....	....	....	139,848
1896				
April (12-30)	3,776	869	1,634	61,579
May	4,042	956	2,326	143,021
June	1,902	334	875	52,066
July	508	272	349	21,459
August	292	138	199	12,236
September	7,800	218	1,004	59,742
October	826	334	475	29,206
November	334	203	274	16,304
December	252	188	216	13,280
The period	....	....	....	408,893
1897				
January	....	....	a 310	19,061
February	....	....	a 284	15,773
March	....	....	a 374	22,997
April	4,770	690	2,608	155,186
May	5,870	3,400	4,498	276,573
June	5,170	1,715	3,218	191,484
July	1,715	660	1,120	68,867
August	780	325	534	32,835
September	1,340	275	875	52,066
October	2,205	780	1,385	85,160
November	720	375	553	32,905
December	....	....	a 430	26,440
The year	....	....	1,349	979,347

a Estimated.

Monthly discharge of Animas River at Durango, Colo., for 1895–1900.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1898				
January	....	....	a 378	23,242
February	....	....	a 267	14,828
March	....	....	a 306	18 816
April	2,910	412	1,510	89,851
May	3,664	1,255	1,765	108,526
June	4,677	2,125	3,431	204,158
July	3,220	502	1,364	83,870
August	502	303	364	22,382
September	442	160	263	15,650
October	177	160	161	9,900
November	214	125	158	9,402
December	....	....	a 250	15,372
The year	....	....	851	615,997
a Approximate.				
1899				
April	1,256	138	584	34,750
May	3,240	532	1,730	106.374
June	2,855	923	1,797	106,929
July	1,108	402	668	41,074
August	2,049	315	691	42,488
September	379	201	276	16,423
October	357	201	297	18,262
November	315	201	267	15,888
December	275	168	212	13 035
The period	....	....	....	395 223
1900				
January	....	....	a 178	10,945
February	....	....	a 132	7,331
March	272	122	224	13,773
April	490	236	334	19,874
May	3,830	490	2,183	134,227
June	3,466	811	1,990	118,413
July	811	236	409	25,148
August	236	143	179	11,006
September	394	143	231	13,745
October	....	....	a 252	15,495
November	....	....	a 205	12,198
December	....	....	a 214	13,158
The year	....	....	544	395,313

NOTE.—a Estimated.

Monthly discharge of Animas River at Durango, Colo., for 1902–1905.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1902				
April	1,334	140	445	26,479
May	2,750	717	1,699	104 467
June	2,300	387	1,179	70,155
July	342	206	271	16,663
August	717	160	273	16,786
September	435	182	299	17,792
October	435	206	256	15,741
The period	....	....	....	268,083

Monthly discharge of Animas River at Durango, Colo., for 1902–1905. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1903				
May	4,560	1,935	3,241	199,281
June	4,745	3,685	4,129	245,692
July	3,997	761	2,446	150,399
August	854	429	554	34,064
September	672	362	542	32,251
October	429	257	347	21,336
The period	....	....	....	683,023
1904				
July (7-31)	672	306	453	22,460
August	1,395	586	903	55,520
September	1,615	429	738	43,910
October	3,630	761	1,679	103,200
November	761	362	511	30,410
December (1-17)	362	306	339	11,430
The period	....	....	....	266,900
1905				
April	2,980	550	1,465	87,170
May	6,850	1,230	3,894	239,400
June	8,470	2,930	6,297	374,700
July	2,930	1,160	1,825	112,200
August	1,730	470	816	50,170
September	2,930	350	534	31,780
October	1,160	350	522	32,100
November	350	240	290	17,260
December	290	240	243	14,940
The period	....	....	....	959,700

Monthly discharge of Animas River at Durango, Colo., for 1910–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
December	285	185	263	16,155
The period	....	....	....	....
1911				
January	370	170	234	14,396
February	180	160	165	9,144
March	1,350	160	466	28,642
April	2,490	1,250	1,720	102,368
May	4,290	2,490	3,096	190,396
June	4,670	2,890	3,981	236,889
July	4,670	1,950	3,267	200,909
August	1,950	555	896	55,102
September	930	555	576	34,285
October	11,000	1,102	3,024	173,951
November	965	400	628	37,350
December	400	290	307	18,903
The year	11,000	160	1,531	1,102,335

NOTE.—Discharge estimated Dec. 21, 1910—Feb. 28, 1911. Discharge Oct. 6, approximate.

Monthly discharge of Animas River at Durango, Colo., for 1910–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
January	290	275	279	17,147
February	260	235	246	14,152
March	355	235	289	17,800
April	1,060	332	631	37,531
May	6,990	1,100	3,630	223,202
June	6,770	1,640	3 562	211,924
July	3,055	1,295	1,749	107,524
August	1,385	465	706	43,426
September	622	270	370	21,991
October	410	270	305	18,724
November	310	200	280	16,681
The period	6,990	200	1,099	730,102
1913				
January	....	....	a 150	9 220
February	180	104	162	9,000
March	398	94	194	11,900
April	1,340	381	787	46,800
May	3,700	960	2,190	135,000
June	3,050	1,380	2,060	123,000
July	1,210	420	807	49,600
August	519	315	389	23,900
September	1,260	365	561	33,400
October	825	315	481	29 600
November	335	265	290	17.300
December	265	160	225	13,800
The year	3,700	94	692	503,000
a Estimated				
1914				
January	280	189	209	12 900
February	248	144	186	10,300
March	900	222	487	29,900
April	1,416	505	1,000	59,500
May	6,340	870	3,170	195,000
June	8,330	2,040	4,530	270,000
July	3,700	1,260	2,150	132,000
August	1,230	431	655	40 300
September	523	325	376	22,400
October	2,360	348	651	40,000
November	475	280	338	20,100
December	272	130	202	12,400
The year	8,330	130	1,170	845,000
1915				
January	220	180	200	12,300
February	190	155	169	9,400
March	600	165	290	17,800
April	3,130	560	1,200	71,400
May	3,760	1,120	2.250	138,000
June	4,430	1,700	3,420	204,000
July	3,020	930	1,700	105,000
August	910	330	549	33,700
September	1,090	260	374	22.200
October	560	280	329	20,200
November	350	220	268	16,000
December	285	135	213	13,100
The year	4,430	135	915	663,000

Monthly discharge of Animas River at Durango, Colo., for 1910–1917. —continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	242	150	201	12,400
February	293	190	236	13,600
March	1,700	220	844	51,900
April	3,160	810	1,400	83,400
May	5,400	1,600	2,940	181,000
June	6,140	2,760	4,290	255,000
July	3,000	1,110	1,850	114,000
August	2,840	590	1,400	85,800
September	550	390	469	27,900
October	4,400	360	1,670	103,000
November	810	415	547	32,600
December	390	268	326	20,000
The year	6,140	150	1,350	981,000
1917				
January	330	290	318	19,500
February	330	270	294	16,300
March	775	255	326	20,000
April	1,980	455	928	55,200
May	3,900	990	1,990	122,000
June	8,460	1,790	5,850	348,000
July	6,140	1,600	2,920	179,000
August	1,390	475	763	46,900
September	500	350	431	25,700
October	445	287	372	22,900
November	287	166	225	13,400
December	214	50	143	8,770
The year	8,460	50	1,210	878,000

ANIMAS RIVER AT AZTEC, N. MEX.

Location.—About ½ mile west of Aztec, 200 feet upstream from the suspension bridge on the main road to Farmington and La Plata in Sec. 9, T. 30 N., R. 11 W., 20 miles above the mouth of the river and below all important tributaries.

Records available.—June 21 to December 14, 1904, and June 8, 1907, to March 31, 1915, when the station was discontinued.

Drainage area.—Approximately 1,300 square miles.

References.—U. S. Geological Survey Water Supply Papers 133 p. 187, 249 p. 158, 269 p. 194, 289 p. 181; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 54, 1913 p. 208, 1914 p. 144, 1915 p. 144,

Estimated monthly discharge of Animas River at Aztec., N. Mex., for 1904.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
June (21-30)	810	435	606	12,020
July	435	130	235	14,450
August	1,940	510	917	56,380
September	1,620	290	689	41,000
October	5,540	370	1,720	105,800
November	570	152	318	18,920
December (1-14)	195	152	174	4,830
The period	....	....	....	253,400

Monthly discharge of Animas River at Aztec, N. Mex., for 1907–1915.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1907				
June (14-30)	5,500	3,040	4,370	147,000
July	5,500	1,720	3,540	218,000
August	2,520	800	1,300	79,900
September	1,890	570	903	53,700
October	510	400	472	29,000
November	400	270	337	20,100
December	270	270	270	16,600
The period	....	....	....	564,000
1908				
January	510	270	329	20,200
February	450	270	336	19,300
March	1,890	400	1,020	62,700
April	1,890	970	1,250	74,400
May	3,660	970	1,880	116,000
June	4,360	2,080	3,240	193,000
July	3,660	705	1,230	75,600
August	1,350	670	959	59,000
September	620	292	377	22,400
October	410	235	299	18,400
November	292	235	256	15,200
December	721	180	279	17,200
The year	4,360	180	955	693,000
1909				
January	440	130	239	14,700
February	292	235	279	15,500
March	930	350	697	42,900
April	4,180	788	1,660	98,800
May	4,490	1,400	3,030	186 000
June	8 920	1,860	6,150	366 000
July	3,690	858	2,000	123,000
August	3,590	788	1,380	84,800
September	12,500	700	3,000	179,000
October	1,420	620	992	61.000
November	830	310	398	23,700
December	440	260	333	20,500
The year	12,500	130	1,680	1,220,000
1910				
January	480	360	399	24,500
February	620	260	381	21,200
March	1,890	620	1,260	77,500
April	3,620	902	1,520	90,400
May	4,670	1,540	2,740	168,000
June	4,670	860	2,060	123,000
July	1,040	360	561	34.500
August	1,590	220	500	30.700
September	360	240	277	16,500
October	735	220	367	22,600
November	390	260	324	19,300
December	310	220	240	14,800
The year	4,670	220	888	643,000

Monthly discharge of Animas River at Aztec, N. Mex., for 1907–1915.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1911				
January	355	225	238	14,600
February	305	210	254	14,100
March	1,860	280	1,130	69,500
April	2,720	1,120	1,840	109 000
May	4,400	1,860	3,370	207,000
June	5,640	3,110	4,500	268,000
July	4,700	2,210	3,540	218,000
August	1,970	560	887	54,500
September	2,590	440	705	42,000
October	23,800	650	2,160	160,000
November	600	490	532	31,700
December	490	350	411	25,300
The year	23,800	210	1,680	1,210,000
1912				
January	440	360	390	24,000
February	420	380	399	23,000
March	760	380	467	28,700
April	960	470	654	38,900
May	5,850	960	2,860	176,000
September (16-30)	325	221	279	8,300
October	360	220	317	19 500
November	360	260	287	17,100
December	260	115	197	12,100
The period	....	....	....	347,600
1913				
January	300	160	230	14,100
February	330	150	233	12.900
March	900	150	289	17,800
April	1,960	555	1,120	66,600
May	5,000	995	2,780	171,000
June	4,500	1,660	2,850	170,000
July	1,560	178	842	51 800
August	475	60	205	12,600
September	948	150	391	23,300
October	1,040	265	477	29,300
November	438	265	304	18.100
December	298	178	223	13,700
The year	5,000	60	830	601,000
1914				
January	230	140	208	12,800
February	350	210	279	15,500
March	1,110	270	658	40,500
April	1,880	560	1,260	75,000
May	6.530	950	3,650	224,000
June	9,360	2,570	5,000	298 000
July	4,800	1,180	2,160	133,000
August	1,110	270	542	33,300
September	560	255	348	20,700
October	3,700	258	1,010	62 100
November	623	261	377	22,400
December	318	198	250	15,400
The year	9,360	140	1,310	953,000
1915				
January	265	160	224	13,800
February	250	180	213	11,800
March	2,440	160	530	32,600
The period	2,440	160	303	58,200

ANIMAS RIVER NEAR FARMINGTON, N. MEX.

Location.—At the highway bridge about one mile northeast of Farmington.
Records available.—June 20, 1904, to October 31, 1905, when the station was discontinued.
References.—U. S. Geological Survey Water-Supply Papers 133 p. 191, 175 p. 137.

Monthly discharge of Animas River near Farmington, N. Mex., for 1904, 1905.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1904				
June (20-30)	885	332	588	12,830
July	430	4.0	112	6,888
August	1,225	437	687	42,240
September	1,175	144	414	24 640
October	4,174	462	1,301	80 000
November	438	160	245	14,580
December	229	127	158	9,715
The period	....	....	....	190,900
1905				
January	239	135	176	10,820
February	358	95	186	10,330
March	988	402	695	42,730
April	2,670	595	1,338	79,620
May	7,468	1,666	3,962	243,600
June	11,250	4,273	7,655	455,500
July	3,901	669	1,448	89,030
August	1,574	119	534	32,830
September	2,265	83	275	16,360
October	2,100	278	576	35,420
The period	....	....	....	1,016,000

ANIMAS RIVER AT FARMINGTON, N. MEX.

Location.—About ¾ mile east of Farmington, ¼ mile above the confluence of the Animas and San Juan Rivers, in Sec. 15, T. 29 N., R. 13 W.
Records available.—September 17, 1912, to December 31, 1917.
References.—State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 59, 1913 p. 211, 1914 p. 146, 1915 p. 145, 1916 p. 142, 1917 p. 145.

Monthly discharge of Animas River at Farmington, N. Mex., for 1912–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
September (17-30)	336	280	305	8,470
October	534	276	386	23,700
November	445	316	363	21,600
December	336	170	237	14,600
The period	....	....	....	68,400

Monthly discharge of Animas River at Farmington, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	451	183	311	19,100
February	514	230	366	20,300
March	718	238	293	18,000
April	1,690	481	956	56,900
May	3,940	900	2,380	146,000
June	3,480	1,470	2,210	132,000
July	1,240	383	711	43,700
August	421	64	182	11,200
September	1,470	294	623	37,100
October	2,200	366	653	40,200
November	591	326	372	22,100
December	410	204	302	18,600
The year	3,940	64	781	565,000
1914				
January	547	212	323	19,900
February	804	242	368	20,400
March	1,550	411	875	53,800
April	1,870	768	1,410	83,900
May	6,670	960	3,610	222,000
June	9,040	2,560	4,990	297,000
July	3,880	1,540	2,500	154,000
August	1,490	268	606	37,300
September	551	255	360	21,400
October	3,760	255	982	60,400
November	628	388	469	27,900
December	378	215	309	19 000
The year	9,040	212	1,400	1,020,000
1915				
January	380	265	a 302	18,500
February	360	170	283	15,700
March	1,220	270	566	34,800
April	4,930	880	1,840	110,000
May	4,460	1,450	2,770	170,000
June	5,670	1,800	4.100	244,000
July	3,450	925	1,770	109,000
August	920	195	412	25,300
September	1,860	185	391	23,200
October	670	245	415	25,500
November	295	225	245	14,600
December	315	210	252	15,500
The year	5,670	170	1,110	806,000
a Estimated.				
1916				
January	335	200	274	16,900
February	490	203	339	19,500
March	2,900	375	1,440	88,300
April	2,900	1,410	1,990	118 000
May	4,300	1,930	2,720	167,000
June	4,430	2,770	3,590	213,000
July	2,800	1,120	1,930	119.000
August	3,240	680	1,720	106,000
September	1,270	525	723	43,000
October	4,820	530	2,160	133,000
November	1,120	530	768	45,700
December	650	370	524	32,200
The year	4,820	200	1,520	1,100,000

Monthly discharge of Animas River at Farmington, N. Mex., for 1912–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1917				
January	510	335	445	27,400
February	530	398	476	26,400
March	1,380	355	567	34,800
April	3,610	735	1,610	95,600
May	6,200	1,490	3,150	194,000
June	9,430	2,300	7,040	418,000
July	7,790	1,520	3,190	196 000
August	1,310	190	662	40,700
September	650	137	361	21,500
October	425	215	312	19,200
November	222	163	188	11,200
December	270	163	214	13,500
The year	9,430	137	1,520	1,100,000

FLORIDA RIVER NEAR DURANGO, COLO.

Location.—At wagon bridge 9 miles east of Durango on the Stewart ranch, from time established until discontinued in 1903. Re-established on the Cash ranch September 18, 1910, by the State Engineer of Colorado. Re established on wagon bridge near Cash ranch May 22, 1917, by the State Engineer of New Mexico co-operating with the State Engineer of Colorado.

Records available.—May 19, 1899, to July 31, 1899; April 1, 1901, to October 31, 1903; September 18, 1910, to November 30, 1912; May 22 to December 31, 1917.

Drainage area.—Not measured.

References.—U. S. Geological Survey Annual Reports 21, iv, p. 300; 22, iv, p. 392; U. S. Geological Survey Water Supply Papers 66 p. 96, 75 p. 176, 85 p. 37, 100 p. 56, 289 p. 183; Fifteenth and Sixteenth Biennial Reports of State Engineer of Colorado; State Engineer's Report on the Surface Water Supply of New Mexico for 1917 p. 147.

Estimated monthly discharge of Florida River near Durango, Colo., for 1899.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
May (21-31)	....	....	139	8,547
June	121	12	68	4,046
July	211	6.0	45	2,767
The period	....	....	....	15,360

Estimated monthly discharge of Florida River near Durango, Colo., for 1901–1903.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1901				
April	339	21	110	6,545
May	625	248	377	23,181
June	326	41	172	10,235
The period	....	....	....	39,961
1902				
April	287	11	63	3,749
May	313	24	134	8,239
June	86	9.0	19	1,131
July	17	9.0	11	676
August	146	7.0	21	1,291
September	134	5.0	23	1,369
October	19	7.0	13	799
The period	....	....	....	17,254
1903				
April	356	51	181	10,770
May	872	203	455	27,977
June	1,012	460	745	44,331
July	375	25	127	7,809
August	29	6.0	15	922
September	169	9.0	52	3,094
October	64	5.0	25	1,537
The period	....	....	....	96,440

Monthly discharge of Florida River near Durango, Colo., for 1910–1912.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
September (18-30)	38	19	26	678
October	55	16	34	2,060
November	38	22	32	1,886
December	29	16	23	1,390
The period	55	16	29	6,014
1911				
January	23	15	19	1,172
February	23	17	20	1.111
March	190	20	63	3,896
April	330	125	213	12,645
May	702	226	508	31,262
June	818	350	637	37,880
July	682	210	388	23,843
August	178	46	77	4.724
September	446	40	72	4,268
October (1-4)	727	167	376	2,979
The period	818	17	225	123,780

Monthly discharge of Florida River near Durango, Colo., for 1910–1912.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1912				
April (21-30)	244	122	164	3,249
May	648	221	377	16,453
June	556	158	271	15,060
July	247	83	131	8,639
August	115	45	68	4,187
September	55	15	28	1,642
October	60	15	32	1,958
November	45	21	30	1,763
The period	648	15	124	52,351

Monthly discharge of Florida River near Durango, Colo., for 1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
May (22-31)	450	270	318	6,320
June	1,680	219	1,190	70,700
July	1,320	145	428	26,300
August	132	21	70.7	4,350
September	70	21	34 8	2,070
October	44	13	20.3	1,250
November	13	7.0	11.7	698
December	7.0	7.0	7.00	430
The period	1,680	7.0	253	112,000

LA PLATA RIVER NEAR LA PLATA, N. MEX.

Location.—On a highway bridge about 16 miles northwest of Aztec, N. Mex., and one mile south of La Plata post office, about 15 miles above the mouth of the La Plata and below all tributaries and all principal diversions.

Records available.—May 25, 1905, to December 31, 1917.

Drainage area.—340 square miles.

References.—U. S. Geological Survey Water-Supply Papers 175 p. 142, 211 p. 103, 249 p. 161, 269 p. 196, 289 p. 186; State Engineer's Reports on the Surface Water Supply of New Mexico for 1911-12 p. 60, 1913 p. 214, 1914 p. 148, 1915 p. 147, 1916 p. 144, 1917 p. 151..

Monthly discharge of La Plata River near La Plata, N. Mex., for 1905–1910.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1905				
May (25-31)	565	165	337	4,680
June	817	95	358	21,300
July	107	....	7.8	480
August	0.0	....	0.00	0.0
September	970	....	64.0	3,810
October	800	....	79.7	4,900
November	8.0	....	1.2	71
December	5.0	4.0	4.2	258
The period	....	....	....	35,500

Monthly discharge of La Plata River near La Plata, N. Mex., for 1905–1910.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1906				
January	....	....	a 10.0	615
February	....	....	a 5.00	278
March	190	....	b 29.5	1,810
April	360	44	160	9,520
May	450	74	238	14,600
June	320	2.0	154	9,160
July	182	....	b 9.3	572
August	....	....	a 2.00	123
September (1-24)	....	....	a 2.00	95
The period	....	....	....	36,800

NOTE.—a Estimated. b partly estimated.

1907				
June (7-30)	260	46	139	6,620
July	750	0.5	45.7	2,810
August	1,280	0.5	123	7,560
September	246	1.0	38.7	2,300
October	....	....	a 0.5	31
November	....	....	a 0.5	30
December	....	....	a 0.6	37
The period	....	....	....	19,400
1908				
January	....	....	a 0.60	37
February	600	0.5	49.7	2,860
March	106	0.5	27.1	1,670
April	85	0.9	22.1	1,320
May	12.4	....	3.17	195
June	1.5	....	0.14	8
July	247	....	12.9	793
August	2,300	....	154	9,470
December	5.5	....	1.33	82
The period	....	....	....	16,400

a Estimated.

1909				
January	27	0.9	5.35	329
February	27	0.9	6.38	354
March	890	52	158	9,720
April	970	67	278	16,500
May	570	85	222	13,600
June	498	7.0	161	9,580
July	60	0.5	1.53	94
August	920	0.5	93.7	5,760
September	a5,000	23	336	20,000
October	23	3.0	9.6	590
November	3.0	....	1.36	81
December	2.5	0.1	0.49	30
The year	a5,000	....	....	76,600

a Estimated.

Monthly discharge of La Plata River near La Plata, N. Mex., for 1905–1910.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1910				
January	18	4.5	11.4	701
February	331	10.2	47.5	2,640
March	495	73	202	12,400
April	331	66	138	8,210
May	138	0.5	39.1	2,400
June	58	0.3	3.46	206
July	1.5	1.0	1.08	66
August	7,000	0.1	258	15,900
September	670	0.1	23.5	1,400
October	570	0.5	23.8	1,460
November	3.0	1.0	1.27	76
December	2.0	0.5	0.90	55
The year	7,000	0.1	62.8	45,500

Monthly discharge of La Plata River near La Plata, N. Mex., for 1913–1917.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1913				
January	....	....	a 2.00	123
February	5.7	0.5	3.41	189
March	21	0.5	8.79	540
April	404	3.5	90.6	5,390
May	84	0.0	22.6	1,390
June	0.5	0.0	0.20	12
July	104	0.0	3.48	214
August	84	0.0	5.53	340
September	134	0.0	7.19	428
October	97	0.5	5.65	347
November	44	0.5	4.97	296
December	2.0	2.0	2.00	123
The year	404	0.0	13.0	9,390
a Estimated.				
1914				
August	18 0	6.0	9.87	607
September	6.0	6.0	6.00	357
October	248	6.2	38.4	2,360
November	22.0	8.9	13.1	780
December	8 6	7.1	7.62	469
The period	248	6.0	15.1	4,570
1915				
January	18	14	15.5	956
February	36	14	22.6	1,250
March	83	14	29.1	1,790
April	442	51	148	8,800
May	368	150	198	12,200
June	195	1.0	40.6	2,420
July	994	1.0	46.7	2,870
August	74	1.0	4.13	254
September	716	1.0	47.8	2,840
October	12	2.0	a 2.55	157
November	6.0	2.0	a 3.12	185
December	7.5	4.5	6.06	373
The year	994	1.0	47.0	34,100

a Estimated.

Monthly discharge of La Plata River near La Plata, N. Mex., for 1913–1917.—continued.

Month	Discharge in second-feet			Run-off (total in acre-feet)
	Maximum	Minimum	Mean	
1916				
January	12	8.0	8.26	508
February	22	8.0	15.4	888
March	685	18	180	11,000
April	292	148	217	12,900
May	260	2.5	106	6,540
June	22	2.9	3.82	227
July	148	2.5	11.6	714
August	128	2.0	27.6	1,690
September	46	2.0	3.93	234
October	534	2.5	134	8,240
November	33	18	24.2	1,440
December	24	11	17.1	1,050
The year	685	2.0	62.7	45,400
1917				
January	19	7.3	14.2	872
February	30	15	20.7	1,150
March	50	7.3	22.7	1,400
April	190	7.3	63.4	3,770
May	250	44	115	7,090
June	295	0.7	107	6,350
July	700	0.6	47.0	2,890
August	15	0.6	1.15	71
September	0.7	0.7	0.70	42
October	0.7	0.7	0.70	43
November	0.7	0.5	0.59	35
December	0.8	0.6	0.74	46
The year	700	0.5	32.8	23,800