

Water-Data Report 2013

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM

Upper San Juan Basin
Upper San Juan Subbasin

LOCATION.--Lat 36°48'06.80", long 107°41'55.10" referenced to North American Datum of 1983, San Juan County, NM, Hydrologic Unit 14080101, on left bank 0.5 mi upstream from Gobernador Canyon, 0.8 mi northeast of Archuleta, 7.2 mi downstream from Navajo Dam, and at mile 291.4.

DRAINAGE AREA.--3,260 mi², approximately.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--December 1954 to current year.

REVISED RECORDS.--The annual runoff for water year 1958, as published in table 2, WSP 1733, was 455,000 acre-ft. The correct value is 1,455,000 acre-ft.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 5,653 ft above NGVD of 1929, from river-profile survey. Prior to Dec. 29, 1959, at site 5.0 mi upstream at elevation 55 ft higher. Dec. 29, 1959, to Nov. 15, 1964, at site 0.4 mi upstream at elevation 5 ft higher. Prior to Nov. 28, 1966, at elevation 2.0 ft higher.

REMARKS.--Discharge records good except for estimated daily discharges, which are poor. Flow completely regulated by Navajo Reservoir (station 09355100) 7.0 mi upstream except for minor in flow from 30-mi² intervening drainage area. High-water diversions through Azotea tunnel (station 08284160) into Rio Grande Basin began in Mar. 1971. Diversions for irrigation of about 47,000 acres upstream from station.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	766	548	421	346	264	346	499	510	257	1,030	816	681
2	773	549	421	345	262	346	499	446	257	1,010	773	681
3	771	552	410	346	262	345	498	392	257	1,000	799	680
4	771	552	398	348	262	346	497	397	255	e976	808	685
5	773	555	398	347	375	345	493	396	254	e991	788	571
6	770	459	369	345	489	345	494	399	254	e1,060	757	518
7	772	369	349	375	418	345	497	348	254	e1,070	673	567
8	771	359	351	392	354	350	498	292	254	e1,060	546	580
9	702	364	350	383	354	350	513	293	254	1,080	511	558
10	668	368	352	380	355	354	504	292	253	1,080	512	508
11	658	363	354	380	354	353	505	291	251	1,060	512	514
12	657	364	354	379	352	308	507	291	251	1,040	509	455
13	660	366	354	376	351	263	505	291	251	1,050	506	381
14	659	366	358	371	355	263	504	291	332	1,050	507	370
15	667	367	347	364	368	263	503	291	492	1,050	587	368
16	667	366	346	364	367	263	490	292	506	897	648	369
17	667	366	345	364	367	265	478	292	532	794	747	369
18	665	369	345	364	365	312	542	292	807	624	816	378
19	667	374	350	360	364	348	568	291	862	492	810	369
20	670	371	347	359	371	327	654	289	929	518	807	370
21	676	373	348	359	371	328	655	278	928	558	812	373
22	678	380	350	358	358	328	698	266	929	552	812	392
23	578	382	349	310	345	327	758	265	927	549	761	376
24	526	383	352	267	345	328	823	265	922	543	687	334
25	531	383	353	266	345	410	806	263	920	547	689	262
26	539	384	351	275	345	498	794	262	890	558	692	259
27	539	385	349	274	345	499	793	262	922	563	585	262
28	542	390	349	273	345	495	795	261	995	562	506	261
29	542	417	348	266	---	496	755	261	1,030	605	623	263
30	541	420	347	265	---	498	577	259	1,040	858	681	260
31	545	---	348	265	---	499	---	257	---	883	683	---
Total	20,411	12,244	11,163	10,466	9,808	11,143	17,702	9,575	17,265	25,710	20,963	13,014
Mean	658	408	360	338	350	359	590	309	576	829	676	434
Max	773	555	421	392	489	499	823	510	1,040	1,080	816	685
Min	526	359	345	265	262	263	478	257	251	492	506	259
Ac-ft	40,490	24,290	22,140	20,760	19,450	22,100	35,110	18,990	34,250	51,000	41,580	25,810

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	787	771	852	892	923	1,018	1,199	1,682	1,807	1,096	930	887
Max	2,131	3,018	2,886	2,768	2,382	4,216	4,768	4,962	5,169	5,126	3,508	3,241
(WY)	(1966)	(1966)	(1966)	(1986)	(1987)	(1993)	(1979)	(1985)	(1979)	(1979)	(1973)	(1999)
Min	298	240	162	115	149	207	244	279	300	320	353	338
(WY)	(1963)	(1963)	(1963)	(1963)	(1963)	(1964)	(1964)	(1967)	(1967)	(1967)	(1963)	(1963)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1963 - 2013	
Annual total	260,991		179,464			
Annual mean	713		492		^a 1,070	
Highest annual mean					2,686	1987
Lowest annual mean					280	1963
Highest daily mean	5,170	May 24	1,080	Jul 9	6,420	Jun 21, 1965
Lowest daily mean	345	Dec 17	251	Jun 11	30	Mar 12, 1964
Annual seven-day minimum	347	Dec 15	253	Jun 7	108	Jan 10, 1963
Maximum peak flow			1,080	Jul 10	^b 18,900	Jul 27, 1957
Maximum peak stage			3.95	Jul 10	^c 11.00	Jul 27, 1957
Instantaneous low flow			199	Jun 17	8.0	Feb 28, 1963
Annual runoff (ac-ft)	517,700		356,000		775,500	
10 percent exceeds	995		809		2,440	
50 percent exceeds	508		385		619	
90 percent exceeds	369		265		359	

^a Average discharge for 7 years (water years 1956-62), 1,304 ft³/s, 944,700 acre-ft/yr, prior to closure of Navajo Dam.

^b Site and datum then in use.

^c Maximum discharge since construction of Navajo Dam in 1962, 6,500 ft³/s, June 20, 1965, gage height, 4.75 ft.

