Water-Data Report 2013

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO

South Platte Basin
Lower South Platte Subbasin

LOCATION.--Lat 40°58′30″, long 102°15′05″ (channel no. 2) referenced to North American Datum of 1927, in NW ¼ NE ¼ and NE ¼ SE ¼ (three channels) sec.33, T.12 N., R.44 W., Sedgwick County, CO, Hydrologic Unit 10190018, on right bank of channel no. 2, 5 ft downstream from southeast side of bridge on U.S. Highway 385, on left bank of channel no. 1, 5 ft downstream from northeast side of bridge on U.S. Highway 385, and on left bank of channel no. 4 (left channel), 215 ft downstream from bridge, 0.9 mi southeast of Julesburg, 3.0 mi upstream from Colorado-Nebraska State line, and 8 mi downstream from Lodgepole Creek.

DRAINAGE AREA.–22,824 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.–April 1902 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as “near Julesburg” 1903-8, 1915-16, and as “at Ovid” 1922-24.

REVISED RECORDS.–WSP 1310: 1902, 1906-7, 1948 (P). WSP 1440: 1903-4. WDR-US-2011: Drainage area.

GAGE.–Three water-stage recorders with satellite telemetry. Datum of channels nos. 1 and 2 gages is 3,449.80 ft above NAVD of 1988. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1956. Since Oct. 1, 1956, water-stage recorders on channels nos. 2 and 4. Channel no. 2: Oct. 1, 1956 to Sept. 22, 1965, at site 300 ft downstream at present datum. Channel no. 4: Oct. 1, 1956 to Dec. 10, 1958, at site 135 ft downstream at present datum. Since May 11, 1973, supplementary water-stage recorder on channel no. 2 at bridge 800 ft upstream at same datum. Since Aug. 16, 1996, water-stage recorder on channel no. 1; satellite telemetry installed Oct. 24, 1996.

COOPERATION.–Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

REMARKS.–Records good except for estimated daily discharges, which are poor. Records also include Town of Julesburg effluent and water from the Stateline Ditch. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, groundwater withdrawals and diversions for irrigation of about 1,200,000 acres upstream from station, and return flow from irrigated areas.

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO—Continued

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

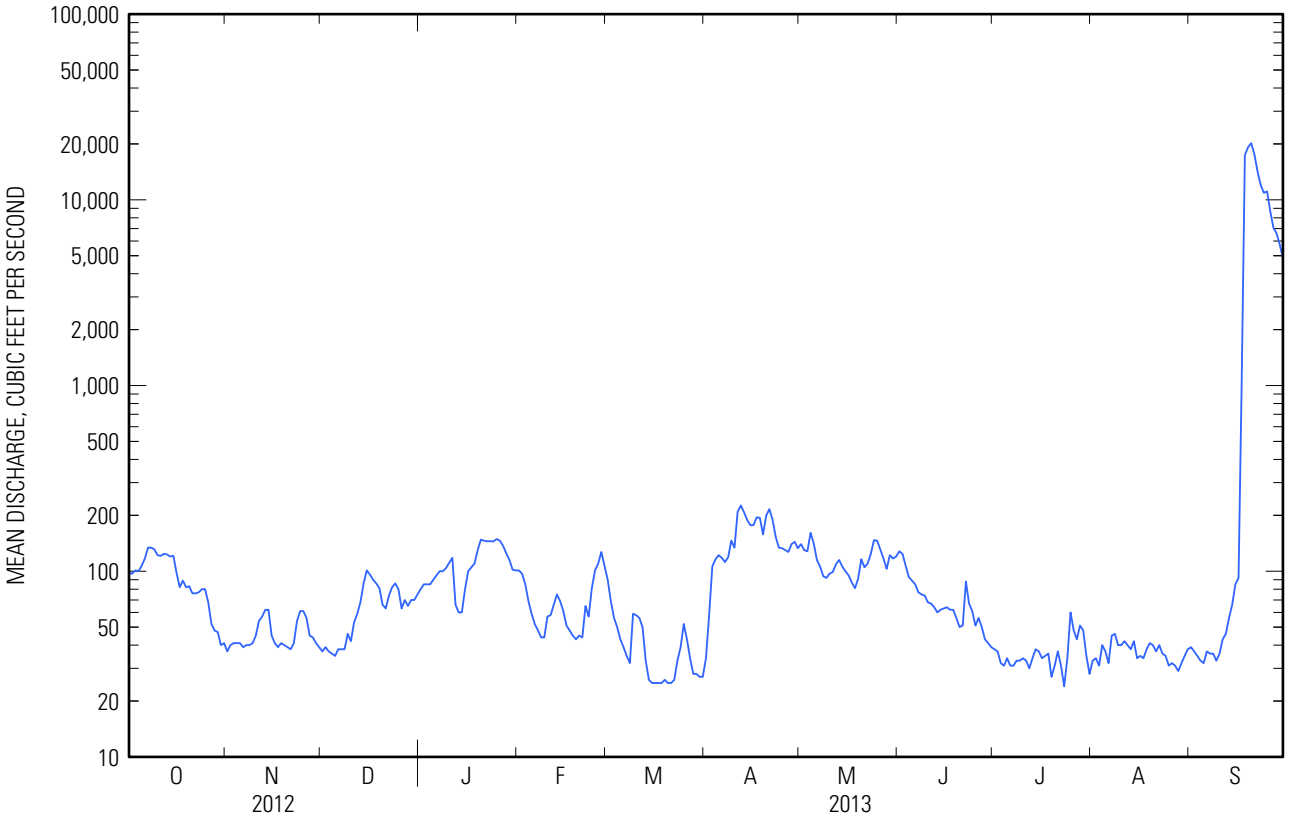
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	98	37	37	e80	101	90	34	140	128	38	33	39
2	97	40	39	e85	97	69	58	130	124	37	34	37
3	101	41	37	e85	85	56	106	128	107	32	31	35
4	100	41	36	e85	69	50	116	161	93	31	40	33
5	107	41	35	e90	59	43	122	141	89	34	37	32
6	117	39	38	e95	52	39	118	115	85	31	32	37
7	134	40	38	e100	48	35	112	106	77	31	45	36
8	134	40	38	e100	44	32	119	94	75	33	46	36
9	131	41	46	104	44	59	146	92	74	33	40	33
10	122	45	42	111	57	58	134	97	68	34	40	36
11	121	54	53	118	58	56	209	99	67	33	42	43
12	124	57	59	66	66	50	226	109	64	30	40	46
13	123	62	68	e60	75	33	208	115	60	34	38	56
14	120	62	86	e60	69	26	189	106	62	38	42	66
15	121	45	101	e80	61	25	177	100	63	37	34	85
16	98	41	96	e100	51	25	177	95	64	34	35	92
17	82	39	90	e105	48	25	e195	87	62	35	34	1,060
18	89	41	86	e110	45	25	194	81	62	36	38	17,400
19	82	40	81	e130	43	26	158	91	56	27	41	19,200
20	83	39	66	148	45	25	199	116	50	31	40	20,200
21	76	38	63	146	44	25	216	105	51	37	37	17,600
22	76	41	74	145	e65	26	190	110	88	31	40	14,200
23	77	54	82	145	57	33	153	124	67	24	36	12,000
24	80	61	86	145	81	39	134	147	61	34	35	10,900
25	80	61	80	149	101	52	133	146	51	60	31	11,100
26	68	56	63	146	110	43	130	131	56	48	32	8,690
27	52	45	e70	137	127	34	127	117	50	43	31	7,080
28	48	44	e65	125	107	28	140	103	43	51	29	6,590
29	47	41	e70	115	---	28	144	122	41	48	32	5,750
30	40	39	e70	102	---	27	133	117	39	35	35	4,850
31	41	---	e75	101	---	27	---	120	---	28	38	---
Total	2,869	1,365	1,970	3,368	1,909	1,209	4,497	3,545	2,077	1,108	1,138	157,362
Mean	92.5	45.5	63.5	109	68.2	39.0	150	114	69.2	35.7	36.7	5,245
Max	134	62	101	149	127	90	226	161	128	60	46	20,200
Min	40	37	35	60	43	25	34	81	39	24	29	32
Ac-ft	5,690	2,710	3,910	6,680	3,790	2,400	8,920	7,030	4,120	2,200	2,260	312,100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1902 – 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	299	335	401	512	579	512	514	994	1,426	311	178	284
Max	2,427	2,358	1,371	1,571	1,864	2,200	2,808	9,922	12,200	5,059	1,882	5,245
(WY)	(1985)	(1985)	(1985)	(1998)	(1930)	(1939)	(1983)	(1980)	(1983)	(1983)	(1997)	(2013)
Min	5.85	15.4	18.8	49.6	48.1	27.2	17.3	24.1	8.33	2.15	2.52	5.60
(WY)	(1904)	(2003)	(1912)	(2003)	(2005)	(2005)	(1904)	(1911)	(1910)	(1903)	(1902)	(1903)

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1902 – 2013	
Annual total	97,782		182,417			
Annual mean	267		500		531	
Highest annual mean					2,882	1983
Lowest annual mean					39.4	2004
Highest daily mean	1,310	Feb 13	20,200	Sep 20	30,800	Jun 16, 1921
Lowest daily mean	30	Sep 2	24	Jul 23	[a]0.00	Aug 18, 1902
Annual seven-day minimum	32	Aug 30	25	Mar 15	0.00	Jul 25, 1903
Maximum peak flow			21,800	Sep 18	37,600	Jun 20, 1965
Maximum peak stage			Not determined		[b]10.44	Jun 20, 1965
Annual runoff (ac-ft)	194,000		361,800		384,700	
10 percent exceeds	1,000		145		1,140	
50 percent exceeds	86		62		202	
90 percent exceeds	41		33		29	

[a] Also occurred Aug 19-20, 1902, and Jul 25 to Aug 7, 1903.
[b] From floodmarks in gage well.