Water-Data Report CO-2005

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO

PLATTE RIVER BASIN

LOCATION (REVISED).--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, 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.—22,821 mi^2.

WATER-DISCHARGE 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 CO-03-1: Drainage area.

GAGE.--Three water-stage recorders with satellite telemetry. Datum of channels nos. 1 and 2 gages is 3,449.80 ft (revised) 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.

REMARKS.--Records good except for periods Nov. 29-Dec. 4, Dec. 14-15, Jan. 12-13, July 16-20, and July 29-Aug. 8, which are fair, and for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 1,200,000 acres upstream from station, and return flow from irrigated areas.

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

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	83	35	34	179	100	28	26	143	58	196	53	62
2	76	32	36	225	96	26	34	150	105	174	64	60
3	82	30	39	100	88	26	39	156	107	151	62	58
4	88	29	48	36	79	26	47	146	111	155	62	58
5	92	29	57	55	63	23	62	138	223	140	60	59
6	96	29	75	74	48	23	80	126	338	e134	59	58
7	102	29	120	89	45	24	97	125	248	e131	60	60
8	104	29	167	105	50	26	110	120	203	e122	55	59
9	103	30	179	114	71	25	123	135	1,410	e109	53	58
10	100	32	156	109	67	29	132	141	1,600	96	54	57
11	113	30	126	103	59	32	153	140	1,750	91	58	55
12	119	29	110	115	43	33	160	165	1,790	84	69	55
13	109	28	98	125	42	36	166	155	2,040	80	80	55
14	109	27	83	132	39	40	188	146	2,460	77	81	55
15	138	27	70	151	39	42	145	141	3,000	73	81	55
16	130	26	e62	171	37	29	123	135	2,880	71	73	57
17	96	26	e63	178	36	28	119	126	2,560	67	69	58
18	78	28	e65	154	33	25	115	111	2,180	64	68	58
19	58	27	e63	164	34	25	115	98	1,870	63	76	66
20	45	27	e61	188	32	25	124	85	1,650	60	95	71
21	40	27	e53	216	32	25	154	67	1,470	58	107	75
22	39	27	e52	179	30	26	183	56	1,270	55	114	85
23	38	27	e52	150	30	25	182	44	1,030	52	104	78
24	40	23	e52	140	32	25	177	39	842	50	96	87
25	35	23	e62	124	31	29	156	36	707	51	87	94
26	34	23	e84	115	31	24	150	32	589	e95	80	98
27	34	22	e109	110	31	24	144	29	489	e83	77	101
28	34	25	e121	106	29	24	151	29	406	e66	71	109
29	33	30	e121	103	---	24	158	27	298	e61	69	116
30	31	33	e117	101	---	23	148	29	229	58	66	126
31	35	---	147	102	---	23	---	47	---	54	63	---
Total	2,314	839	2,682	4,013	1,347	843	3,761	3,117	33,913	2,821	2,266	2,143
Mean	74.6	28.0	86.5	129	48.1	27.2	125	101	1,130	91.0	73.1	71.4
Max	138	35	179	225	100	42	188	165	3,000	196	114	126
Min	31	22	34	36	29	23	26	27	58	50	53	55
Ac-ft	4,590	1,660	5,320	7,960	2,670	1,670	7,460	6,180	67,270	5,600	4,490	4,250

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1902 - 2005, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	308	346	408	522	599	540	536	1,034	1,456	298	183	243
Max	2,427	2,358	1,371	1,571	1,864	2,200	2,808	9,922	12,200	5,059	1,882	1,964
(WY)	(1985)	(1985)	(1985)	(1998)	(1930)	(1939)	(1983)	(1980)	(1983)	(1983)	(1997)	(1984)
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)

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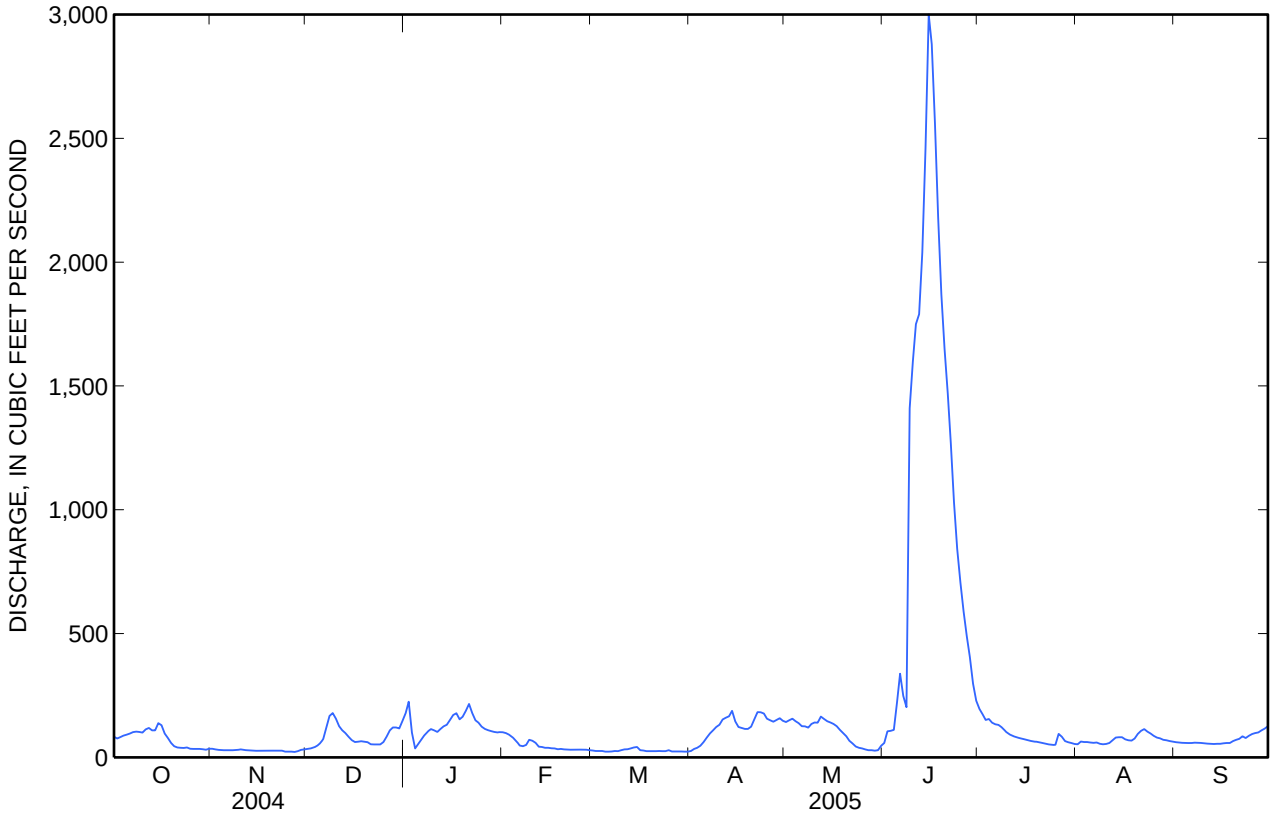
SUMMARY STATISTICS

	Calendar Year 2004		Water Year 2005		Water Years 1902 - 2005	
Annual total	16,839		60,059			
Annual mean	46.0		165		542	
Highest annual mean					2,882	1983
Lowest annual mean					39.4	2004
Highest daily mean	179	Dec 9	3,000	Jun 15	30,800	Jun 16, 1921
Lowest daily mean	16	Mar 30	22	Nov 27	[a]0.00	Aug 18, 1902
Annual seven-day minimum	17	Mar 26	24	Mar 26	0.00	Jul 25, 1903
Maximum peak flow			3,070	Jun 15	37,600	Jun 20, 1965
Maximum peak stage			[b]7.43	Jun 15	[c]10.44	Jun 20, 1965
Annual runoff (ac-ft)	33,400		119,100		392,800	
10 percent exceeds	83		178		1,160	
50 percent exceeds	38		71		216	
90 percent exceeds	23		27		28	

[a] Also occurred Aug 19-20, 1902, and Jul 25 to Aug 7, 1903.
[b] Gage height recorded for channel no. 1.
[c] From floodmarks in gage well.