

Water-Data Report 2007

06639000 SWEETWATER RIVER NEAR ALCOVA, WY

North Platte Basin
Sweetwater Subbasin

LOCATION.--Lat 42°29'24", long 107°08'00" referenced to North American Datum of 1927, in SE ¼ NE ¼ NE ¼ sec.16, T.29 N., R.86 W., Natrona County, WY, Hydrologic Unit 10180006, on left bank 270 ft upstream from State Highway 220, 0.2 mi southwest of Independence Rock, 7 mi upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft, and 22 mi southwest of Alcova.

DRAINAGE AREA.--2,338 mi² of which 93 mi² probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1913 to September 1924, October 1938 to current year (no winter records during 1974, 1975, 1977-81, and since 1983). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1921, 1923-24. WSP 1710: Drainage area.

GAGE.--Water-stage recorder and sharp-crested weir. Elevation of gage is 5,890 ft above NGVD of 1929, from topographic map. August 28, 1913 to September 30, 1924, nonrecording gages at site 7.0 mi upstream from station at different datums. October 1, 1938 to March 31, 1992, at site 6.6 mi upstream from station at different datum. Wyoming State Engineer's Office data collection platform with satellite telemetry at station.

COOPERATION.--Station operated and record provided by the Wyoming State Engineer's Office; record reviewed by U.S. Geological Survey.

REMARKS.--Records good except those for April 1 to July 9, which are fair. Several small reservoirs upstream from station, combined capacity, about 5,000 acre-ft, for irrigation. Diversions for irrigation of about 24,000 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,290 ft³/s, April 13, 1924; maximum gage height, 9.90 ft, April 27, 1983; minimum daily discharge, 0.50 ft³/s, July 30, 1940.

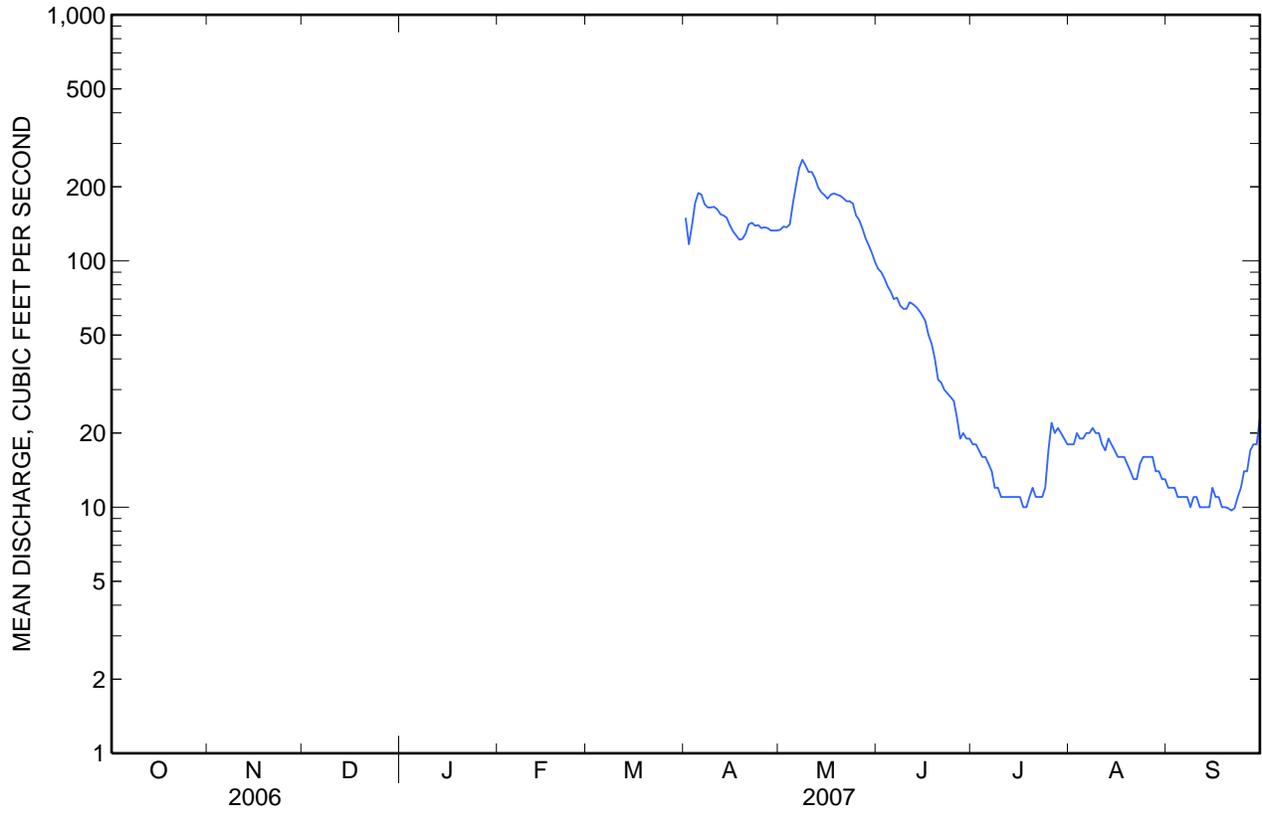
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 263 ft³/s, May 7, gage height, 2.85 ft; minimum daily discharge, 9.7 ft³/s, September 21.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	---	149	134	93	18	18	12
2	---	---	---	---	---	---	117	138	90	18	18	12
3	---	---	---	---	---	---	139	137	85	17	20	12
4	---	---	---	---	---	---	172	141	79	16	19	11
5	---	---	---	---	---	---	189	171	75	16	19	11
6	---	---	---	---	---	---	186	203	70	15	20	11
7	---	---	---	---	---	---	170	239	71	14	20	11
8	---	---	---	---	---	---	165	258	66	12	21	10
9	---	---	---	---	---	---	165	244	64	12	20	11
10	---	---	---	---	---	---	166	230	64	11	20	11
11	---	---	---	---	---	---	162	230	68	11	18	10
12	---	---	---	---	---	---	155	217	67	11	17	10
13	---	---	---	---	---	---	153	199	65	11	19	10
14	---	---	---	---	---	---	150	190	63	11	18	10
15	---	---	---	---	---	---	140	185	60	11	17	12
16	---	---	---	---	---	---	132	179	57	11	16	11
17	---	---	---	---	---	---	127	186	50	10	16	11
18	---	---	---	---	---	---	122	188	46	10	16	10
19	---	---	---	---	---	---	123	186	40	11	15	10
20	---	---	---	---	---	---	129	184	33	12	14	9.9
21	---	---	---	---	---	---	141	180	32	11	13	9.7
22	---	---	---	---	---	---	143	175	30	11	13	9.9
23	---	---	---	---	---	---	139	175	29	11	15	11
24	---	---	---	---	---	---	140	171	28	12	16	12
25	---	---	---	---	---	---	136	153	27	17	16	14
26	---	---	---	---	---	---	137	147	23	22	16	14
27	---	---	---	---	---	---	136	136	19	20	16	17
28	---	---	---	---	---	---	133	124	20	21	14	18
29	---	---	---	---	---	---	133	116	19	20	14	18
30	---	---	---	---	---	---	133	108	19	19	13	23
31	---	---	---	---	---	---	---	99	---	18	13	---
Total	---	---	---	---	---	---	4,382	5,423	1,552	440	520	362.5
Mean	---	---	---	---	---	---	146	175	51.7	14.2	16.8	12.1
Max	---	---	---	---	---	---	189	258	93	22	21	23
Min	---	---	---	---	---	---	117	99	19	10	13	9.7
Ac-ft	---	---	---	---	---	---	8,690	10,760	3,080	873	1,030	719

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-90, October 2003 to current year.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 3

[Remark codes: <, less than; E, estimated.]

Date	Time	Instan- taneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd std units (00400)	Specif- ic conduc- tance, wat unf µS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)
Nov 28...	1130	27	608	11.3	97	8.5	430	-12.0	.0	150	44.6	8.24	5.64
Jan 29...	1145	22	629	10.4	86	7.9	518	-8.0	.0	170	51.4	10.3	6.64
Jun 27...	1115	16	619	8.5	89	8.3	453	17.0	8.0	140	39.2	9.32	6.68
Aug 30...	1150	13	621	9.0	122	8.3	493	25.0	20.0	140	37.0	10.6	7.18

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 3

[Remark codes: <, less than; E, estimated.]

Date	Sodium adsorp- tion ratio (00931)	Sodium frac- tion of cations percent (00932)	Sodium, water, fltrd, mg/L (00930)	Alka- linity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, dis- solved, tons/d (70302)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water fltrd, mg/L as N (00631)
Nov 28...	1.2	32	33.0	150	14.8	.33	34.1	57.3	288	.39	21.0	<.020	<.06
Jan 29...	1.3	33	40.4	172	19.4	.39	43.7	65.3	341	.46	19.8	<.020	.09
Jun 27...	1.4	36	37.6	147	18.2	.43	20.5	58.5	279	.38	12.0	E.011	<.06
Aug 30...	1.5	38	41.3	150	22.3	.44	34.7	65.6	309	.42	10.8	<.020	<.06

06639000 SWEETWATER RIVER NEAR ALCOVA, WY—Continued**WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 3 of 3

[Remark codes: <, less than; E, estimated.]

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
Nov 28...	<.002	.009	15	1.1
Jan 29...	E.001	.013	3	.17
Jun 27...	<.002	.008	5	.22
Aug 30...	<.002	.012	6	.21