

Water-Data Report 2011

06306250 PRAIRIE DOG CREEK NEAR ACME, WY

Tongue Basin
Upper Tongue Subbasin

LOCATION.--Lat 44°59'02", long 106°50'21" referenced to North American Datum of 1927, in NE ¼ SW ¼ SW ¼ sec.23, T.58 N., R.83 W., Sheridan County, WY, Hydrologic Unit 10090101, on right bank 600 ft upstream from county bridge, 0.9 mi upstream from mouth, 2.8 mi downstream from Coutant Creek, and 7.6 mi northeast of Acme.

DRAINAGE AREA.--358 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1970 to September 1979, June 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,450 ft above NGVD of 1929, from topographic map. U.S. Geological Survey data collection platform with satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversions for irrigation upstream and downstream from station. Flow supplemented by transbasin diversions from North Piney Creek via Prairie Dog Creek Ditch, Piney-Cruise Ditch, and Meade and Coffeen Ditch.

06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	21	15	e15	e11	e12	e17	66	35	244	40	14	22
2	20	14	e14	e13	e12	e20	75	35	165	55	13	22
3	20	13	e14	e12	e13	e18	66	33	124	56	13	25
4	23	12	e13	e12	e11	e16	55	30	102	49	14	31
5	22	13	e13	e13	e12	e18	47	28	84	43	13	31
6	20	13	e12	e14	e13	e18	42	26	76	40	11	32
7	19	13	e13	e13	e14	e26	40	25	68	38	10	33
8	17	13	e14	e13	e12	e35	39	25	60	38	12	31
9	18	14	e13	e12	e13	e50	36	25	57	42	14	31
10	18	14	e13	e10	e13	e32	36	37	58	44	22	32
11	17	14	e12	e11	e12	e38	34	46	61	39	27	30
12	17	14	e13	e12	e13	e43	34	57	54	54	28	30
13	17	e14	e14	e12	e15	e40	32	46	50	56	30	28
14	16	15	e13	e13	e18	e38	29	41	49	49	27	26
15	16	15	e13	e12	e30	e38	28	36	46	47	30	29
16	15	16	e12	e13	e41	e37	27	33	41	42	25	32
17	15	e15	e12	e12	e45	e40	27	32	42	38	21	32
18	15	e17	e11	e12	e36	e43	27	32	43	35	28	33
19	15	e17	e13	e11	e31	e42	29	35	45	30	32	33
20	15	e16	e12	e12	e26	41	33	59	39	26	26	36
21	16	e16	e13	e12	e21	43	32	134	39	32	21	39
22	16	e15	e13	e12	e20	42	31	192	37	32	22	37
23	16	e14	e13	e13	e18	39	29	253	38	31	17	34
24	14	e13	e15	e11	e16	36	28	210	40	25	e13	30
25	16	e15	e14	e12	e15	32	26	191	41	19	e12	26
26	15	e17	e15	e12	e17	30	26	377	42	21	e10	23
27	15	e15	e16	e13	e19	31	27	208	46	20	e11	24
28	15	e15	e15	e12	e17	32	34	138	47	19	e10	24
29	15	e14	e15	e13	---	31	40	116	45	18	e14	22
30	15	e13	e14	e14	---	33	35	147	38	16	17	21
31	15	---	e12	e13	---	43	---	256	---	14	22	---
Total	524	434	414	380	535	1,042	1,110	2,938	1,921	1,108	579	879
Mean	16.9	14.5	13.4	12.3	19.1	33.6	37.0	94.8	64.0	35.7	18.7	29.3
Max	23	17	16	14	45	50	75	377	244	56	32	39
Min	14	12	11	10	11	16	26	25	37	14	10	21
Ac-ft	1,040	861	821	754	1,060	2,070	2,200	5,830	3,810	2,200	1,150	1,740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	33.7	25.2	19.2	15.8	26.2	59.7	48.9	69.0	41.1	20.0	24.0	34.9
Max	59.5	43.6	32.3	26.7	82.7	167	101	384	86.2	45.0	45.7	79.0
(WY)	(1974)	(1974)	(1976)	(1974)	(1974)	(1972)	(1971)	(1978)	(1978)	(1975)	(1978)	(1973)
Min	15.5	12.3	10.9	8.55	9.49	14.1	11.6	5.75	3.09	1.04	0.92	13.4
(WY)	(2002)	(2002)	(2002)	(2002)	(2003)	(2005)	(2006)	(2004)	(2002)	(2006)	(2006)	(2001)

06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

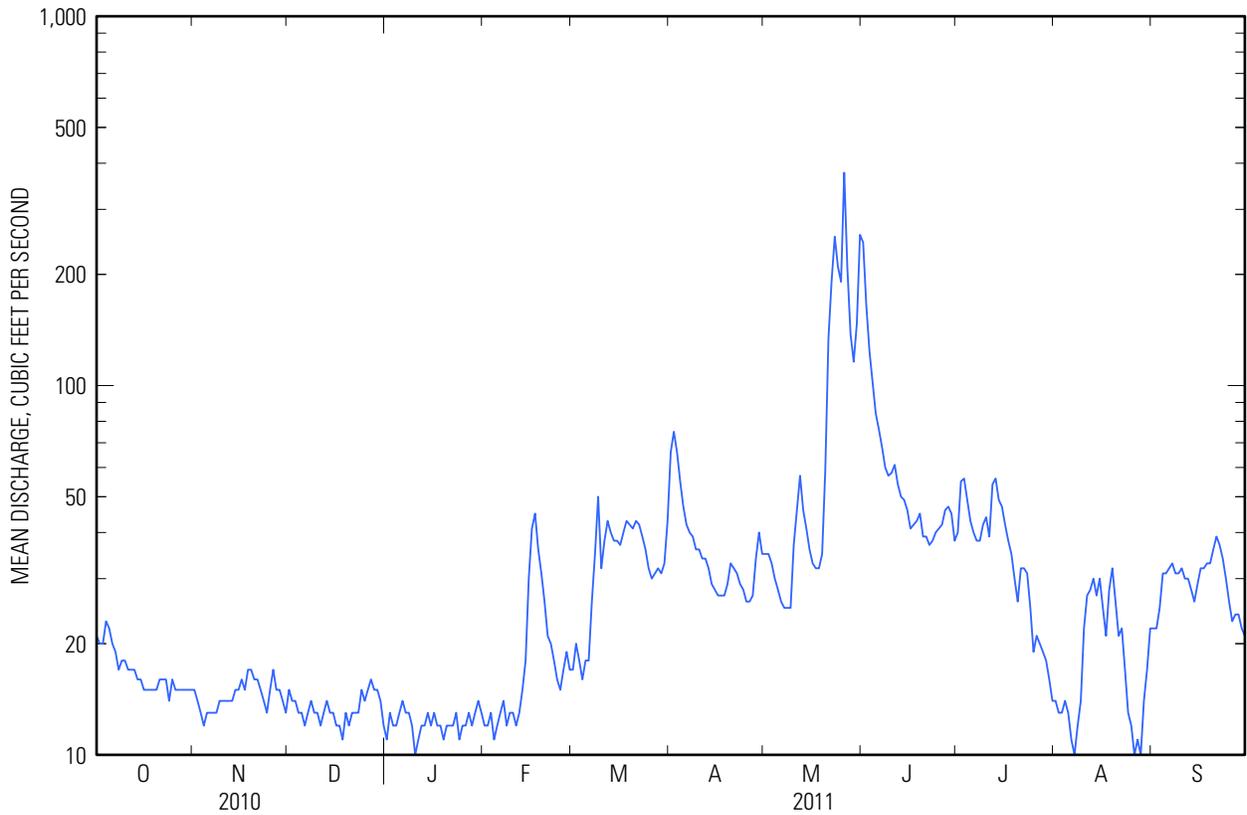
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1971 - 2011	
Annual total	8,788.3		11,864			
Annual mean	24.1		32.5		34.9	
Highest annual mean					72.8	1978
Lowest annual mean					14.2	2006
Highest daily mean	148	Jun 23	377	May 26	3,090	May 19, 1978
Lowest daily mean	3.8	Jul 30	10	Jan 10 ^a	0.11	Aug 30, 2006
Annual seven-day minimum	5.2	Jul 26	12	Jan 9	0.40	Jul 24, 2006
Maximum peak flow			481	May 26	^b 3,940	May 18, 1978
Maximum peak stage			5.73	May 26	^c 12.60	May 18, 1978
Annual runoff (ac-ft)	17,430		23,530		25,290	
10 percent exceeds	49		49		61	
50 percent exceeds	17		22		25	
90 percent exceeds	9.6		12		9.6	

^a Also, August 7, 26, 28.

^b Slope-area indirect measurement of peak flow.

^c From floodmarks.



06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-1992, April 2000 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 2004 to current year (seasonal).

INSTRUMENTATION.--Specific conductance probe installed April 20, 2004.

REMARKS.--Daily specific conductance records are rated fair with the exception of those for April 1-5, May 15 to June 2, June 4-7, 12-20, June 24 to July 14, July 20-27, August 7-9, and October 2-6, which are rated poor. Maximum and minimum recorded values in the EXTREMES paragraphs may have occurred during days of partial record and may not appear in the daily values tables. Water quality continuous monitor record provided by the Montana Water Science Center. Quality of water data were collected and are available at <http://waterdata.usgs.gov/usa/nwis/qw>.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2,740 microsiemens per centimeter at 25°C ($\mu\text{S}/\text{cm}$), July 31, 2006; minimum recorded, 573 $\mu\text{S}/\text{cm}$, June 24, 2010.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2,270 $\mu\text{S}/\text{cm}$, April 1; minimum recorded, 998 $\mu\text{S}/\text{cm}$, September 23.

06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
CALENDAR YEAR JANUARY TO DECEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	January			February			March			April		
1	---	---	---	---	---	---	---	---	---	2,270	2,060	2,200
2	---	---	---	---	---	---	---	---	---	2,060	1,850	1,930
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	2,060	2,000	2,040
6	---	---	---	---	---	---	---	---	---	2,050	1,830	1,930
7	---	---	---	---	---	---	---	---	---	1,890	1,840	1,860
8	---	---	---	---	---	---	---	---	---	1,880	1,840	1,860
9	---	---	---	---	---	---	---	---	---	1,930	1,880	1,900
10	---	---	---	---	---	---	---	---	---	1,970	1,910	1,940
11	---	---	---	---	---	---	---	---	---	1,990	1,950	1,970
12	---	---	---	---	---	---	---	---	---	2,040	1,980	2,010
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	2,070	2,060	2,060
15	---	---	---	---	---	---	---	---	---	2,080	2,060	2,070
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	2,100	2,080	2,090
19	---	---	---	---	---	---	---	---	---	2,130	2,100	2,110
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	2,020	1,950	1,970
26	---	---	---	---	---	---	1,810	1,710	1,750	2,030	2,000	2,020
27	---	---	---	---	---	---	1,720	1,650	1,690	2,050	1,960	2,000
28	---	---	---	---	---	---	1,650	1,490	1,550	1,970	1,560	1,830
29	---	---	---	---	---	---	1,620	1,520	1,560	1,720	1,560	1,650
30	---	---	---	---	---	---	1,920	1,620	1,780	1,800	1,720	1,760
31	---	---	---	---	---	---	2,270	1,920	2,080	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
CALENDAR YEAR JANUARY TO DECEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	May			June			July			August		
1	1,820	1,780	1,810	1,750	1,560	1,660	1,650	1,470	1,590	2,080	2,010	2,050
2	1,800	1,760	1,780	1,760	1,490	1,650	1,470	1,100	1,270	2,110	2,040	2,070
3	1,820	1,780	1,800	1,650	1,510	1,560	1,120	1,090	1,100	2,080	2,020	2,070
4	1,800	1,760	1,780	1,750	1,650	1,690	1,150	1,100	1,120	2,040	1,920	1,980
5	---	---	---	1,880	1,700	1,750	1,190	1,140	1,150	1,990	1,950	1,970
6	1,830	1,800	1,810	1,880	1,730	1,800	1,190	1,160	1,180	2,110	1,990	2,080
7	1,840	1,800	1,820	1,960	1,620	1,870	1,240	1,150	1,180	2,210	2,110	2,180
8	1,870	1,830	1,850	1,620	1,540	1,550	1,240	1,200	1,230	2,230	2,120	2,180
9	---	---	---	1,630	1,560	1,590	1,200	1,060	1,120	2,120	1,870	2,030
10	---	---	---	1,600	1,550	1,570	1,060	1,000	1,050	1,870	1,430	1,690
11	---	---	---	1,550	1,530	1,550	1,120	1,010	1,060	1,430	1,300	1,360
12	---	---	---	1,650	1,550	1,590	1,120	1,060	1,090	1,320	1,290	1,310
13	---	---	---	1,720	1,640	1,680	1,270	1,060	1,170	1,290	1,230	1,250
14	---	---	---	1,780	1,720	1,750	1,150	1,030	1,080	1,350	1,230	1,290
15	---	---	---	1,830	1,760	1,800	1,140	1,100	1,130	1,330	1,260	1,310
16	---	---	---	1,900	1,820	1,860	1,160	1,100	1,130	1,310	1,260	1,280
17	---	---	---	1,970	1,900	1,930	1,200	1,110	1,160	1,420	1,310	1,380
18	---	---	---	2,040	1,950	1,990	1,300	1,200	1,250	1,380	1,220	1,300
19	---	---	---	2,000	1,900	1,920	1,420	1,270	1,310	1,220	1,120	1,160
20	---	---	---	2,080	1,930	2,000	1,590	1,420	1,520	1,280	1,120	1,200
21	---	---	---	2,080	1,960	2,010	1,470	1,240	1,340	1,380	1,280	1,330
22	1,500	1,320	1,400	2,180	2,070	2,120	1,250	1,210	1,220	1,430	1,380	1,400
23	1,570	1,380	1,440	2,160	1,950	2,040	1,320	1,220	1,250	1,600	1,430	1,520
24	1,660	1,570	1,640	1,950	1,740	1,860	1,450	1,300	1,370	---	---	---
25	1,690	1,280	1,600	1,850	1,770	1,820	---	---	---	---	---	---
26	1,390	1,160	1,290	1,830	1,590	1,760	---	---	---	---	---	---
27	1,410	1,310	1,340	1,790	1,580	1,720	---	---	---	---	---	---
28	1,530	1,410	1,460	1,700	1,490	1,580	1,740	1,670	1,710	---	---	---
29	1,710	1,530	1,620	1,500	1,430	1,450	1,760	1,690	1,730	---	---	---
30	1,780	1,710	1,740	1,660	1,500	1,570	1,910	1,730	1,820	1,780	1,640	1,740
31	1,740	1,560	1,660	---	---	---	2,010	1,910	1,970	---	---	---
Month	---	---	---	2,180	1,430	1,760	---	---	---	---	---	---

06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
CALENDAR YEAR JANUARY TO DECEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	September			October			November			December		
1	---	---	---	1,430	1,380	1,400	---	---	---	---	---	---
2	---	---	---	1,380	1,340	1,360	---	---	---	---	---	---
3	---	---	---	1,420	1,360	1,390	---	---	---	---	---	---
4	1,300	1,120	1,190	1,460	1,410	1,430	---	---	---	---	---	---
5	1,210	1,140	1,170	1,500	1,440	1,470	---	---	---	---	---	---
6	1,140	1,120	1,130	1,610	1,400	1,470	---	---	---	---	---	---
7	1,130	1,100	1,120	1,860	1,270	1,550	---	---	---	---	---	---
8	1,150	1,100	1,130	1,330	1,260	1,300	---	---	---	---	---	---
9	1,170	1,130	1,160	1,300	1,210	1,250	---	---	---	---	---	---
10	1,170	1,150	1,160	1,410	1,300	1,340	---	---	---	---	---	---
11	1,190	1,150	1,170	1,620	1,410	1,530	---	---	---	---	---	---
12	1,200	1,180	1,190	1,630	1,620	1,620	---	---	---	---	---	---
13	1,240	1,190	1,210	1,620	1,550	1,610	---	---	---	---	---	---
14	1,480	1,240	1,330	1,560	1,520	1,540	---	---	---	---	---	---
15	1,480	1,390	1,420	1,590	1,530	1,560	---	---	---	---	---	---
16	1,390	1,330	1,360	1,650	1,590	1,620	---	---	---	---	---	---
17	1,360	1,320	1,340	1,670	1,650	1,660	---	---	---	---	---	---
18	1,370	1,300	1,330	1,670	1,650	1,660	---	---	---	---	---	---
19	1,360	1,320	1,340	1,660	1,650	1,660	---	---	---	---	---	---
20	1,320	1,200	1,240	1,700	1,660	1,670	---	---	---	---	---	---
21	1,200	1,080	1,150	1,700	1,610	1,680	---	---	---	---	---	---
22	1,080	1,000	1,030	1,610	1,600	1,610	---	---	---	---	---	---
23	1,090	998	1,040	1,600	1,590	1,590	---	---	---	---	---	---
24	1,220	1,090	1,150	1,620	1,590	1,600	---	---	---	---	---	---
25	1,360	1,200	1,260	1,640	1,610	1,620	---	---	---	---	---	---
26	1,360	1,280	1,310	1,670	1,630	1,650	---	---	---	---	---	---
27	1,290	1,280	1,280	1,680	1,660	1,670	---	---	---	---	---	---
28	1,380	1,290	1,320	1,690	1,670	1,680	---	---	---	---	---	---
29	1,400	1,380	1,390	---	---	---	---	---	---	---	---	---
30	1,440	1,400	1,420	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---