Water-Data Report 2013

06227600 WIND RIVER NEAR KINNEAR, WY

Big Horn Basin
Upper Wind Subbasin

LOCATION.--Lat 43°08′34″, long 108°42′32″ referenced to North American Datum of 1983, in SE ¼ SE ¼ SW ¼ sec.13, T.2 N., R.1 E., Fremont County, WY, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank, upstream side of bridge on Wyoming State Secondary Highway 132 and 1.6 mi southwest of Kinnear.

DRAINAGE AREA.--2,194 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1974 to September 1979 (no winter records), April 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,280 ft above NGVD of 1929, from topographic map. April 1974 to September 1979 and March 28, 1991 to June 8, 1997, at site 200 ft upstream from bridge on right bank at same datum. June 9, 1997 to March 2007, at site downstream from bridge on right bank at same datum. March 2007 to June 2009, at site 100 ft downstream from bridge on left bank at same datum. June 2009 to present site upstream from bridge on right bank at same datum. U.S. Geological Survey data collection platform with satellite telemetry at station.

REMARKS.--Records fair, except those for discharges above 11,000 cfs, and those for estimated daily discharges, which are poor. Some regulation by Bull Lake beginning in 1938 and Pilot-Butte Reservoir beginning in 1926, combined capacity, 182,000 acre-ft. Diversions upstream from station for irrigation both upstream and downstream from station. The Wyoming Canal of the Riverton Project is the major diversion. This diversion began in 1926 and part of it can be returned to the river upstream from station through Pilot Wasteway. Additional wastewater returns to river downstream from station through Fivemile Creek and Muddy Creek.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 06227600, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/06227600.2013.pdf

06227600 WIND RIVER NEAR KINNEAR, WY—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	480	482	416	e230	e250	e290	318	109	574	590	378	331
2	407	484	417	e220	e240	e300	358	101	564	577	372	328
3	93	477	409	e200	e240	e320	396	100	562	695	379	328
4	77	454	377	e180	e250	e300	408	102	577	1,170	375	328
5	73	451	379	e200	e260	e300	389	100	567	1,550	375	328
6	72	450	426	e220	e275	e310	396	97	552	1,610	375	334
7	70	447	398	e235	e250	e330	383	96	543	1,480	376	336
8	68	444	400	e240	e250	e330	370	131	673	1,480	372	344
9	67	451	391	e250	e280	e327	370	172	1,050	1,170	375	338
10	66	477	274	e258	e260	e333	314	189	1,450	666	373	323
11	66	447	288	e225	e220	e331	310	312	2,010	531	374	e313
12	65	e380	e320	e215	e230	e316	356	398	1,750	452	375	e318
13	65	383	e360	e185	e250	313	301	620	1,440	417	377	309
14	63	437	e340	e185	e265	300	133	1,290	1,240	383	376	e305
15	61	436	e370	e210	e245	310	129	1,950	852	354	379	e305
16	64	407	e350	e240	e255	320	128	1,800	597	357	377	e310
17	64	398	e340	e245	e270	318	126	1,620	550	371	373	e305
18	58	424	e330	e250	e250	313	123	1,590	544	384	369	480
19	57	427	e300	e270	e255	288	115	1,390	542	386	367	562
20	57	424	282	e260	e265	296	113	991	540	383	371	1,120
21	56	425	e270	e240	e275	292	111	706	533	379	375	1,260
22	93	417	e261	e250	e290	302	116	661	541	375	e378	1,110
23	568	385	e250	e265	e265	276	114	880	540	387	e370	1,010
24	581	377	e250	e270	e300	276	112	1,480	536	385	e353	929
25	513	410	e310	e260	e270	260	110	1,290	532	394	e360	876
26	463	424	e290	e255	e290	276	108	976	540	394	e345	1,020
27	422	385	e295	e280	e260	286	105	857	551	394	339	1,200
28	458	363	e270	e290	e270	301	104	776	563	395	335	1,200
29	468	383	e230	e265	---	298	102	990	580	385	323	1,060
30	479	416	e250	e230	---	313	99	905	588	386	324	1,000
31	483	---	e240	e270	---	327	---	602	---	381	327	---
Total	6,677	12,765	10,083	7,393	7,280	9,452	6,617	23,281	22,681	19,261	11,317	18,310
Mean	215	426	325	238	260	305	221	751	756	621	365	610
Max	581	484	426	290	300	333	408	1,950	2,010	1,610	379	1,260
Min	56	363	230	180	220	260	99	96	532	354	323	305
Ac-ft	13,240	25,320	20,000	14,660	14,440	18,750	13,120	46,180	44,990	38,200	22,450	36,320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2013, BY WATER YEAR (WY)

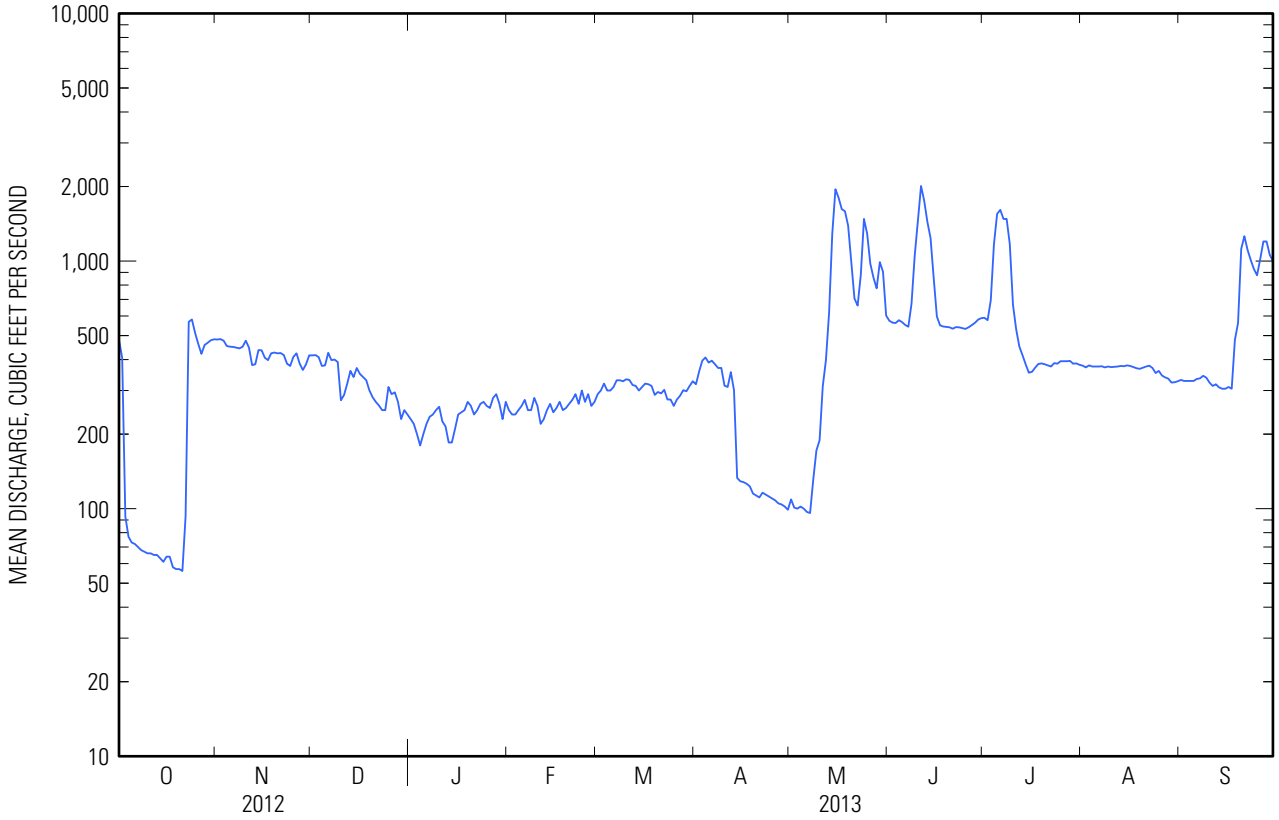
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	326	397	297	265	274	308	240	861	2,529	1,574	512	386
Max	850	625	380	360	378	418	758	2,356	6,611	5,529	1,230	610
(WY)	(1998)	(1998)	(1996)	(1996)	(1998)	(1996)	(1974)	(1999)	(1999)	(2011)	(1976)	(2013)
Min	141	119	199	130	161	194	72.9	283	338	346	323	216
(WY)	(2004)	(2002)	(2007)	(2007)	(2007)	(1992)	(1978)	(2002)	(2007)	(2001)	(2010)	(1977)

06227600 WIND RIVER NEAR KINNEAR, WY—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1974 - 2013	
Annual total	156,320		155,117			
Annual mean	427		425		640	
Highest annual mean					1,272	1999
Lowest annual mean					277	2001
Highest daily mean	3,150	Jun 6	2,010	Jun 11	12,600	Jul 1, 2011
Lowest daily mean	56	Oct 21	56	Oct 21	21	Oct 18, 2005
Annual seven-day minimum	60	Oct 15	60	Oct 15	24	Oct 13, 2005
Maximum peak flow			3,690	May 15	[a]16,600	Jul 1, 2011
Maximum peak stage			6.91	May 15	[b]9.92	Jul 1, 2011
Instantaneous low flow					99	Apr 18, 2012
Annual runoff (ac-ft)	310,100		307,700		463,600	
10 percent exceeds	579		865		940	
50 percent exceeds	378		344		340	
90 percent exceeds	220		114		163	

[a] From rating curve extended above 12,600 cfs.
[b] From floodmarks



06227600 WIND RIVER NEAR KINNEAR, WY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973, 1985-1993, 2000-2011.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: March 2010 to current year.

INSTRUMENTATION.--Water thermistor.

REMARKS.--Temperature record is considered excellent. Water temperature records represent water temperature at sensor within 0.2°C. 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.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 25.4°C, July 2, 2013; minimum recorded, -0.2°C, many days, most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 25.4°C, July 2; minimum recorded, -0.2°C, many days.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	15.9	11.9	14.0	7.8	6.0	7.0	3.3	1.0	2.2	-0.1	-0.1	-0.1
2	15.8	12.0	13.7	7.8	5.3	6.6	3.6	1.1	2.4	-0.1	-0.1	-0.1
3	13.3	10.0	11.6	6.8	4.0	5.6	3.4	0.6	2.0	-0.1	-0.1	-0.1
4	12.9	7.8	10	7.7	5.0	6.4	1.3	-0.1	0.5	-0.1	-0.1	-0.1
5	10.4	7.7	9.0	7.6	4.7	6.3	2.2	-0.1	1.1	-0.1	-0.1	-0.1
6	10.7	5.9	8.0	8.5	5.9	7.2	2.8	0.9	1.8	-0.1	-0.1	-0.1
7	10.8	4.5	7.5	7.8	5.1	6.6	1.3	-0.1	0.4	-0.1	-0.2	-0.2
8	10.8	5.0	7.7	7.4	5.0	6.2	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
9	9.8	5.7	7.6	5.8	3.7	4.5	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
10	11.3	4.8	7.9	3.7	1.2	2.7	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
11	12.8	7.2	9.8	1.2	-0.1	0.2	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
12	12.0	7.2	9.7	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	---	---	---
13	12.6	8.6	10.4	0.6	-0.1	0.0	-0.1	-0.1	-0.1	---	---	---
14	13.3	7.5	10.1	0.6	-0.1	0.1	-0.1	-0.1	-0.1	---	---	---
15	12.5	9.0	10.4	1.9	-0.1	0.7	-0.1	-0.1	-0.1	---	---	---
16	12.3	8.1	9.8	2.4	-0.1	1.2	-0.1	-0.1	-0.1	---	---	---
17	8.5	4.5	6.2	3.1	0.6	1.9	-0.1	-0.1	-0.1	---	---	---
18	8.3	2.6	5.2	3.9	1.1	2.6	-0.1	-0.1	-0.1	---	---	---
19	8.8	3.6	6.1	3.8	1.6	2.9	-0.1	-0.1	-0.1	---	---	---
20	11.2	5.8	8.1	4.2	2.1	3.2	-0.1	-0.1	-0.1	---	---	---
21	10.4	7.3	8.7	4.3	2.2	3.3	-0.1	-0.1	-0.1	---	---	---
22	10.7	7.6	8.8	3.4	1.3	2.4	-0.1	-0.1	-0.1	---	---	---
23	8.8	6.4	7.3	1.3	-0.1	0.3	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1
24	6.4	4.3	5.3	1.9	-0.1	0.6	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1
25	5.0	3.0	4.0	3.5	1.8	2.6	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
26	4.7	2.0	3.5	3.1	1.1	2.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
27	5.2	2.0	3.6	1.1	-0.1	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
28	6.9	3.2	4.9	2.4	-0.1	1.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
29	8.3	5.5	6.8	2.3	0.5	1.5	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
30	8.0	5.4	6.7	2.7	0.7	1.8	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
31	8.8	5.7	7.2	---	---	---	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Month	15.9	2.0	8.1	8.5	-0.1	2.9	3.6	-0.1	0.3	---	---	---

06227600 WIND RIVER NEAR KINNEAR, WY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	12.0	6.5	9.4	11.8	5.3	8.3
2	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	12.9	7.6	10.2	15.2	5.7	10.2
3	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	10.6	7.2	9.0	14.2	8.0	11.2
4	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	11.9	6.5	9.2	14.5	9.8	11.7
5	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	10.9	7.5	9.2	16.5	9.8	13.1
6	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	10.3	6.2	8.2	18.6	9.9	14.2
7	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	9.7	6.2	8.0	19.2	11.8	15.4
8	-0.1	-0.1	-0.1	0.1	-0.1	-0.1	8.2	1.8	4.9	17.4	12.8	15.0
9	-0.1	-0.1	-0.1	0.1	-0.1	0.0	5.6	0.0	2.7	18.6	12.2	15.3
10	-0.1	-0.1	-0.1	0.3	-0.1	0.0	7.9	1.8	4.7	18.1	12.1	15.1
11	-0.1	-0.1	-0.1	0.5	-0.1	0.0	10.8	4.2	7.2	18.3	11.5	15.0
12	-0.1	-0.1	-0.1	0.6	-0.1	0.1	12.0	6.9	9.3	19.1	12.7	15.9
13	-0.1	-0.1	-0.1	3.7	0.0	1.8	10.6	7.1	9.0	19.3	13.6	16.5
14	-0.1	-0.1	-0.1	7.4	3.3	5.2	9.3	3.8	6.8	17.8	13.5	15.7
15	-0.1	-0.1	-0.1	10.0	4.4	7.1	6.9	3.9	5.2	15.7	12.1	13.8
16	-0.1	-0.1	-0.1	8.9	5.3	7.0	6.2	1.9	3.7	13.9	11.8	12.9
17	-0.1	-0.1	-0.1	6.5	2.8	5.1	5.1	1.4	3.1	15.9	11.4	13.3
18	-0.1	-0.1	-0.1	4.2	0.3	2.4	9.8	1.1	5.1	14.2	11.6	12.9
19	-0.1	-0.1	-0.1	5.5	0.3	2.8	10.8	4.7	7.4	12.3	9.6	10.9
20	-0.1	-0.1	-0.1	5.4	0.7	3.1	12.2	6.2	8.9	14.2	8.9	11.2
21	-0.1	-0.1	-0.1	5.1	2.6	3.7	13.0	6.4	9.6	17.7	10.7	14.0
22	-0.1	-0.1	-0.1	3.1	0.6	1.9	9.1	4.9	6.8	17.5	12.0	14.7
23	-0.1	-0.1	-0.1	3.1	-0.1	1.5	11.1	2.1	6.3	18.5	11.7	14.8
24	-0.1	-0.1	-0.1	3.4	-0.1	1.5	13.5	5.0	9.0	15.5	11.2	13.4
25	-0.1	-0.1	-0.1	5.0	-0.1	2.0	14.7	6.6	10.4	16.9	11.2	13.8
26	-0.1	-0.1	-0.1	6.3	0.8	3.5	16.5	7.5	11.7	18.4	12.2	15.1
27	-0.1	-0.1	-0.1	8.6	2.2	5.4	16.9	8.9	12.8	18.2	13.0	15.5
28	-0.1	-0.1	-0.1	10.5	4.0	7.1	14.9	10.8	12.9	16.0	12.8	14.5
29	---	---	---	10.0	6.2	8.2	13.8	8.6	11.1	14.0	10.9	12.5
30	---	---	---	11.2	6.2	8.5	13.2	7.7	9.9	13.8	9.1	11.2
31	---	---	---	11.7	5.8	8.8	---	---	---	13.8	8.5	11.3
Month	-0.1	-0.1	-0.1	11.7	-0.1	2.8	16.9	0.0	8.1	19.3	5.3	13.5

06227600 WIND RIVER NEAR KINNEAR, WY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	17.6	10.5	13.9	24.3	18.0	21.0	23.2	15.8	19.3	22.1	16.4	19.5
2	19.8	12.2	16.0	25.4	18.1	21.7	23.4	17.5	20.6	21.6	17.2	19.5
3	18.6	13.7	16.1	23.2	18.9	20.7	23.4	16.2	20.2	23.2	17.4	20.3
4	17.0	12.0	14.6	21.3	17.6	19.1	23.6	17.3	20.6	23.9	18.5	21.3
5	19.2	11.4	15.3	20.0	16.0	18.1	23.1	17.7	20.2	23.1	18.7	21.1
6	20.4	13.4	16.9	20.7	16.2	18.4	22.4	15.8	19.0	21.5	17.9	19.9
7	20.7	14.7	17.8	20.4	15.7	18.1	---	---	---	23.0	17.3	20.1
8	20.6	14.6	17.7	20.3	15.2	17.6	---	---	---	---	---	---
9	19.8	14.2	17.2	22.1	15.5	18.6	---	---	---	20.4	15.1	18.8
10	18.7	15.5	17.2	23.6	17.1	20.4	---	---	---	20.0	16.9	18.5
11	17.8	13.8	15.9	22.6	17.8	20.4	---	---	---	---	---	---
12	19.1	13.4	16.1	22.1	18.2	20.0	---	---	---	---	---	---
13	18.8	14.7	16.8	21.5	16.8	19.3	---	---	---	---	---	---
14	17.3	13.0	15.0	23.9	17.0	20.4	---	---	---	---	---	---
15	19.3	12.4	15.5	24.4	18.6	21.5	---	---	---	---	---	---
16	20.2	13.3	16.7	24.4	19.1	21.6	21.9	15.6	18.9	---	---	---
17	21.7	14.5	18.0	24.3	18.2	21.3	22.0	16.1	19.4	---	---	---
18	20.4	15.7	18.2	24.9	19.5	22.3	22.6	17.4	20.3	---	---	---
19	21.6	14.7	17.9	25.2	19.2	22.2	22.7	16.8	20.0	14.8	10.4	13.0
20	19.8	12.8	16.4	24.4	18.3	21.3	20.7	17.0	19.0	14.5	10.8	12.9
21	21.1	13.6	17.2	23.8	17.7	20.9	---	---	---	15.6	11.6	13.6
22	19.4	15.3	17.2	23.3	17.5	20.5	---	---	---	15.0	13.0	14.1
23	20.7	13.1	16.9	23.1	16.5	19.8	---	---	---	14.0	11.2	12.6
24	20.9	15.9	18.4	22.6	17.2	20.0	---	---	---	14.3	10.3	12.3
25	21.4	14.9	18.2	21.3	17.2	19.3	---	---	---	13.1	11.3	12.2
26	22.0	16.0	19.1	22.4	16.1	19.4	---	---	---	11.3	7.0	9.0
27	23.8	16.8	20.3	20.5	17.0	18.7	---	---	---	8.2	5.8	7.0
28	25.2	18.2	21.7	21.9	15.8	18.8	23.2	17.4	20.2	9.4	6.2	7.6
29	24.4	19.1	21.6	19.7	15.7	17.9	23.5	17.5	20.5	10.0	6.8	8.4
30	24.1	17.7	20.7	20.9	15.4	18.2	22.4	17.5	20.1	12.2	9.4	10.6
31	---	---	---	20.8	15.1	18.1	22.0	16.6	19.5	---	---	---
Month	25.2	10.5	17.4	25.4	15.1	19.9	---	---	---	---	---	---