

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY

North Platte Basin
Lower Laramie Subbasin

LOCATION.--Lat 42°12'02", long 104°32'16" referenced to North American Datum of 1927, in NE ¼ SE ¼ NE ¼ sec.28, T.26 N., R.64 W., Goshen County, WY, Hydrologic Unit 10180011, on right bank 600 ft upstream from bridge on county road, 0.6 mi upstream from mouth, and 1.1 mi southwest of Fort Laramie.

DRAINAGE AREA.--4,564 mi² of which 631 mi² probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1915 to current year (no winter records prior to 1927). Monthly discharge only for some periods, published in WSP 1310.

Records for water years 1926-39, previously published including diversions to Gering-Fort Laramie Canal, were adjusted to exclude flow in the canal in WSP 1310. Prior to October 1931, published as "at Fort Laramie." No diversion to Gering-Fort Laramie Canal since 1956.

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,220 ft above NGVD of 1929, from topographic map. April 4, 1915 to March 31, 1925, nonrecording gage at site 0.1 mi downstream from station at different datum. April 1, 1925 to September 30, 1932, nonrecording gage and October 1, 1932 to August 20, 1935, water-stage recorder at site 4.3 mi upstream from station at different datum. August 21, 1935, to November 2, 1970, water-stage recorder at site 0.3 mi upstream from station at different datum. November 3, 1970 to May 9, 1973, water-stage recorder 0.1 mi downstream from station at different datum. May 10, 1973 to April 5, 1977, water-stage recorder 4.3 mi upstream from station at different datum. U.S. Army Corps of Engineers data collection platform with satellite telemetry at station.

COOPERATION.--Six discharge measurements provided by the Wyoming State Engineer's Office.

REMARKS.--Records good except those for May 15 to July 3, which are fair and those for estimated daily discharges, which are poor. Major regulation began after completion of Grey Rocks Reservoir in 1980. Diversion, at times, to Gering-Fort Laramie Canal, 5.4 mi upstream. Natural flow of stream affected by transbasin diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation of about 176,000 acres upstream from station, and return flow from irrigated areas.

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

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	22	20	e19	e17	e21	e21	38	36	48	43	23	21
2	20	20	e21	e19	e18	e22	42	38	47	42	23	21
3	19	20	e20	21	e20	e22	51	40	42	39	24	20
4	20	20	e20	21	e23	e21	58	45	46	32	24	20
5	21	20	21	e21	e25	e22	57	53	46	36	24	24
6	20	20	20	e19	25	22	59	47	46	40	23	23
7	20	21	19	e18	24	22	51	45	45	41	25	21
8	19	20	e19	e17	24	22	46	45	45	43	27	20
9	20	20	e20	e19	25	23	48	43	40	45	23	20
10	21	20	20	21	26	24	41	42	40	44	23	21
11	19	20	20	20	28	24	39	42	41	39	22	18
12	18	20	e19	e16	e26	23	37	43	42	39	23	16
13	18	20	21	e15	e24	23	37	42	38	38	24	16
14	18	20	20	e14	e24	23	37	40	33	38	24	16
15	18	19	20	e16	e20	23	35	40	34	37	25	16
16	18	19	20	e19	e26	23	37	39	38	39	25	15
17	18	19	e19	e21	e25	22	36	39	42	31	23	15
18	19	19	e18	e20	e24	22	35	39	41	25	24	15
19	18	20	e17	e20	e26	23	34	39	40	23	25	15
20	18	20	e20	e22	e26	23	34	43	39	22	25	14
21	19	20	e19	20	e23	23	35	43	41	21	24	13
22	19	20	e18	e20	23	23	35	40	45	21	24	13
23	19	20	e19	21	22	23	37	38	41	23	26	13
24	19	20	e19	22	22	24	42	33	40	22	26	13
25	19	e19	e18	23	e22	26	38	33	37	21	24	13
26	19	20	20	24	24	24	37	35	43	21	23	12
27	19	e19	20	e23	24	24	37	37	42	22	22	12
28	19	e18	20	e22	e23	24	36	36	43	23	22	11
29	19	e20	e18	e24	---	26	36	37	43	23	29	11
30	19	e16	e18	e21	---	26	36	39	43	23	23	12
31	19	---	e18	e23	---	26	---	46	---	23	22	---
Total	593	589	600	619	663	719	1,221	1,257	1,251	979	744	490
Mean	19.1	19.6	19.4	20.0	23.7	23.2	40.7	40.5	41.7	31.6	24.0	16.3
Max	22	21	21	24	28	26	59	53	48	45	29	24
Min	18	16	17	14	18	21	34	33	33	21	22	11
Ac-ft	1,180	1,170	1,190	1,230	1,320	1,430	2,420	2,490	2,480	1,940	1,480	972

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	65.3	75.4	80.8	79.3	83.9	97.3	141	352	282	122	62.0	59.4
Max	350	388	464	360	418	425	1,056	3,145	2,967	1,925	390	245
(WY)	(1985)	(1985)	(1985)	(1985)	(1984)	(1984)	(1984)	(1973)	(1983)	(1983)	(1984)	(1973)
Min	13.9	10.3	6.35	6.32	17.3	18.9	37.5	25.3	17.3	23.1	8.73	15.0
(WY)	(1965)	(1981)	(1981)	(1981)	(1981)	(2004)	(1981)	(1963)	(1966)	(1966)	(1975)	(1964)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1957 - 2007	
Annual total	9,959		9,725			
Annual mean	27.3		26.6		125	
Highest annual mean					672	1983
Lowest annual mean					26.1	1981
Highest daily mean	66	Apr 1	59	Apr 6	5,810	May 10, 1973
Lowest daily mean	15	Feb 18 ^a	11	Sep 28 ^b	^c 2.0	Jan 23, 1981
Annual seven-day minimum	17	Jul 30	12	Sep 24	3.1	Jan 21, 1981
Maximum peak flow			^d 73	Aug 29	6,260	May 10, 1973 ^e
Maximum peak stage			^f 2.82	Jan 15	^g 9.40	May 10, 1973 ^e
Annual runoff (ac-ft)	19,750		19,290		90,650	
10 percent exceeds	41		42		201	
50 percent exceeds	24		23		55	
90 percent exceeds	19		18		24	

^a Also, August 5.

^b Also, September 29.

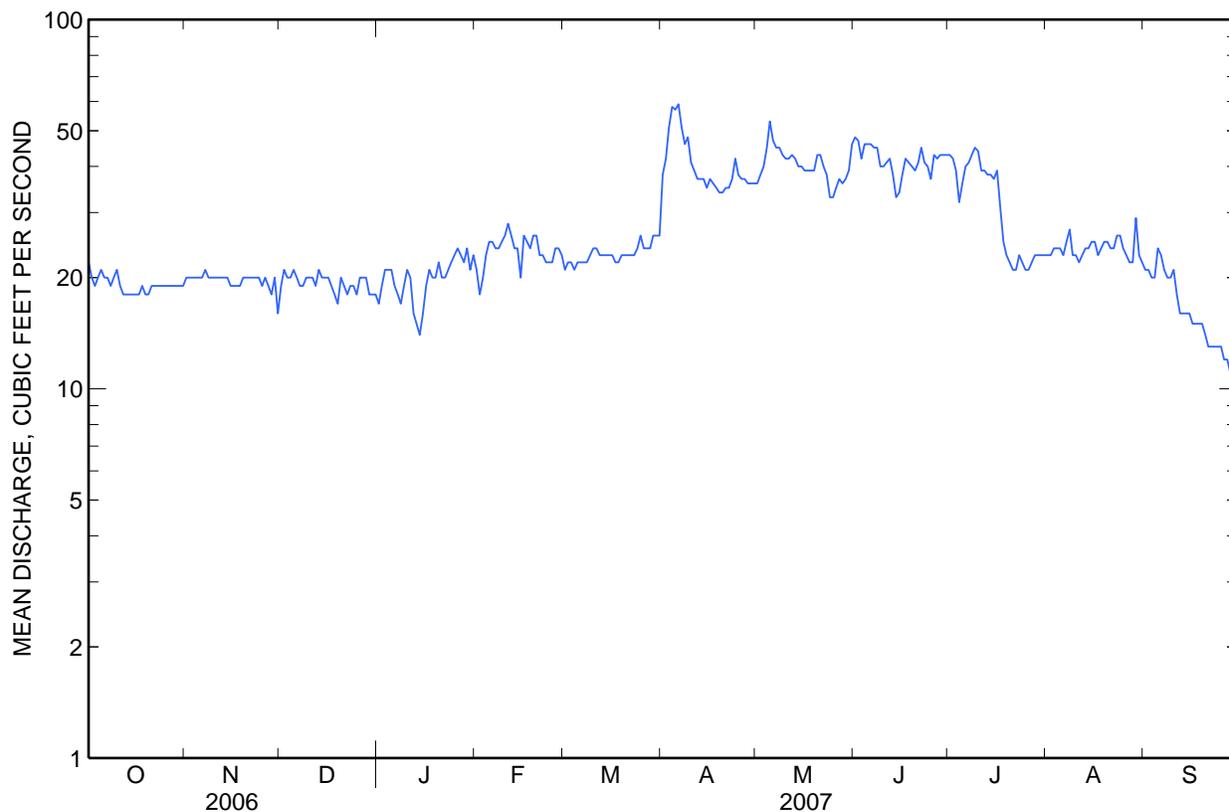
^c No flow January 31 to March 20, October 24 to December 17, 1926, March 1-26, April 14, 1938; all flows diverted to Gering-Fort Laramie Canal.

^d Gage height, 2.56 ft.

^e For period of record 1915-2007.

^f Backwater from ice.

^g Site and datum then in use.



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to July 1986, October 1986 to July 1988, October 2003 to current year.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 2

[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)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)
Dec 04...	1155	20	659	12.9	108	8.2	883	1.0	2.0	.048	.22	.008	.009
Feb 12...	1130	25	651	12.0	102	8.4	857	2.0	2.0	.049	.29	.007	.008
Jun 12...	1235	42	654	8.5	105	8.2	844	18.0	18.0	--	--	--	--
Aug 09...	1255	23	671	12.8	166	8.3	781	30.0	21.5	<.020	.11	.007	.013

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 2

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

Date	E coli, modif. m-TEC, water, col/ 100 mL (90902)	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
Dec 04...	E3	E4	57	3.1
Feb 12...	25	39	4	.27
Jun 12...	270	250	36	4.1
Aug 09...	E15	31	5	.31