

Water-Data Report 2006

06131000 BIG DRY CREEK NEAR VAN NORMAN, MT

Fort Peck Lake Basin
Big Dry Subbasin

LOCATION.--Lat 47°20'58", long 106°21'26" referenced to North American Datum of 1927, in NE ¼ SW ¼ NW ¼ sec.3, T.18 N., R.42 E., Garfield County, Hydrologic Unit 10040105, on left bank 1100 ft. downstream from Little Dry Creek, 3.2 mi northeast of Van Norman Post Office, 26 mi east of Jordan, and at river mile 55.1.

DRAINAGE AREA.--2,554 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1939 to July 1969, July 1970 to current year (discharge measurements only, October 1947 to March 1949). Prior to July 1970, published as "Dry Creek near Van Norman."

REVISED RECORDS. --Water Supply Paper (WSP) 1309: 1947, maximum discharge (M). WSP 1559: 1944(M), 1947. WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,330 ft, referenced to National Geodetic Vertical Datum of 1929. Prior to July 24, 1978, at site 400 ft upstream at same elevation.

REMARKS.--Records are fair except those for estimated daily discharges, which are poor. Few small diversions for irrigation of hay meadows occur upstream from station. U.S. Army Corps of Engineers satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.68	2.2	e2.0	e3.5	e2.5	5.7	4.6	3.7	1.8	0.44	0.00	0.00
2	0.65	2.1	e2.0	e3.5	e2.5	15	5.7	4.1	1.6	4.4	0.00	0.00
3	0.74	2.4	e2.0	e3.5	e2.5	13	5.2	3.8	1.5	4.9	0.00	0.00
4	1.3	2.5	e2.0	e3.5	e2.5	4.7	5.1	3.5	1.5	1.6	0.00	0.00
5	2.0	2.5	e2.0	e3.0	e3.0	3.9	7.2	3.6	1.9	3.1	0.00	0.00
6	1.9	2.4	e2.5	e2.5	e3.5	4.1	54	3.4	1.2	1.3	0.00	0.00
7	2.3	2.4	e2.5	e2.5	e4.0	3.8	54	3.3	0.85	0.62	0.00	0.00
8	2.4	2.4	e3.0	e2.5	e4.0	5.4	186	2.7	0.69	0.43	0.00	0.00
9	2.6	2.4	e3.0	e2.5	e4.0	3.9	132	2.1	1.4	0.34	5.7	0.00
10	3.3	2.3	e3.0	e2.5	5.2	4.5	90	2.2	5.4	0.28	12	0.00
11	14	2.4	e7.5	e3.0	5.5	4.2	66	2.3	5.0	0.22	0.31	0.00
12	16	2.5	e2.5	e3.5	4.4	3.8	24	2.2	4.6	0.19	0.19	0.00
13	13	2.4	e3.0	e3.5	4.2	3.5	11	1.9	2.9	0.13	0.15	0.00
14	9.0	2.2	e3.0	e3.0	4.0	3.4	7.6	1.8	3.8	0.12	0.06	0.00
15	6.2	2.1	e3.0	e2.5	e3.5	3.5	6.0	1.5	3.1	0.12	0.03	0.00
16	4.8	2.8	e2.5	e2.5	e3.0	3.5	5.5	1.4	1.8	0.10	0.01	0.02
17	4.2	2.3	e2.0	e2.5	e4.0	3.6	20	1.3	1.1	0.06	0.09	0.45
18	3.7	2.4	e2.5	e2.5	e4.0	3.6	27	1.1	0.75	0.05	1.2	0.28
19	3.3	2.5	e2.5	e2.5	e3.0	3.6	12	0.96	0.61	0.06	0.26	0.25
20	3.1	2.4	e3.0	e2.5	e4.0	4.1	8.0	0.98	0.92	0.05	0.10	0.16
21	3.1	2.4	e3.0	e2.5	5.0	4.1	7.6	1.00	1.2	0.08	0.02	0.07
22	2.8	2.4	e3.0	e2.5	4.8	4.3	6.6	0.96	0.94	0.07	0.02	7.6
23	2.7	2.4	e3.0	e2.5	4.8	3.8	7.9	0.94	4.2	0.04	0.01	8.3
24	2.5	2.4	e3.0	e2.5	4.5	3.7	6.7	1.7	5.4	0.01	0.01	1.7
25	2.5	2.3	e3.0	e2.5	4.4	3.7	5.2	1.5	2.6	0.00	0.01	0.41
26	2.5	e2.0	e3.0	e2.5	4.4	3.6	5.0	1.5	1.1	0.00	0.02	0.26
27	2.4	e1.5	e2.5	e2.5	4.0	4.1	4.9	1.6	0.67	0.00	0.01	0.20
28	2.4	e2.0	e3.0	e2.5	3.7	4.3	5.0	2.6	0.53	0.00	0.01	0.19
29	2.3	e2.0	e3.5	e2.5	---	4.2	4.3	2.9	0.40	0.00	0.00	0.14
30	2.2	e2.0	e4.0	e2.5	---	4.7	4.0	2.5	0.32	0.00	0.00	0.08
31	2.2	---	e3.5	e2.5	---	4.8	---	2.2	---	0.00	0.00	---
Total	122.77	69.0	90.0	85.0	108.9	146.1	788.1	67.24	59.78	18.71	20.21	20.11
Mean	3.96	2.30	2.90	2.74	3.89	4.71	26.3	2.17	1.99	0.60	0.65	0.67
Max	16	2.8	7.5	3.5	5.5	15	186	4.1	5.4	4.9	12	8.3
Min	0.65	1.5	2.0	2.5	2.5	3.4	4.0	0.94	0.32	0.00	0.00	0.00
Ac-ft	244	137	179	169	216	290	1,560	133	119	37	40	40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2006, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	6.11	2.94	2.64	6.34	69.6	246	80.6	27.8	58.2	42.4	15.5	15.7
Max	97.5	14.2	33.7	192	1,004	1,760	2,043	300	552	458	367	391
(WY)	(1987)	(1987)	(1976)	(1997)	(1997)	(1959)	(1952)	(1975)	(1944)	(1993)	(1954)	(1986)
Min	0.00	0.00	0.00	0.00	0.00	2.75	1.05	0.21	0.07	0.00	0.00	0.00
(WY)	(1940)	(1961)	(1961)	(1940)	(1940)	(1961)	(1961)	(1958)	(1988)	(1961)	(1959)	(1940)

* During period of operation (1940-47, 1949-68, 1970 to current year).

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SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1940 - 2006*	
Annual total	7,370.25		1,595.92			
Annual mean	20.2		4.37		^a 47.9	
Highest annual mean					243	1978
Lowest annual mean					1.18	1985
Highest daily mean	1,930	Jun 29	186	Apr 8	21,300	Mar 22, 1947
Lowest daily mean	0.47	Sep 10	0.00	Jul 25	0.00	Oct 1, 1939
Annual seven-day minimum	0.50	Sep 6	0.00	Jul 25	0.00	Oct 1, 1939
Maximum peak flow			226	Apr 8	^b 24,600	Mar 21, 1947
Maximum peak stage			3.46	Apr 8	^c 15.26	Mar 21, 1947
Instantaneous low flow			0.00	Jul 25	^d 0.00	Oct 1, 1940
Annual runoff (ac-ft)	14,620		3,170		34,710	
10 percent exceeds	22		5.4		40	
50 percent exceeds	3.4		2.5		2.5	
90 percent exceeds	0.85		0.01		0.00	

* During period of operation (1940-47, 1949-68, 1970 to current year).

^a Median of yearly mean discharges, 27.0 ft³/s.

^b Gage height, 13.39 ft, at different site and datum.

^c Backwater from ice.

^d No flow at times most years.

