

Water-Data Report 2013

09330000 FREMONT RIVER NEAR BICKNELL, UT

Upper Colorado-Dirty Devil Basin
Fremont Subbasin

LOCATION.--Lat 38°18'25", long 111°31'05" referenced to North American Datum of 1927, in SW ¼ NE ¼ NW ¼ sec.7, T.29 S., R.4 E., Wayne County, UT, Hydrologic Unit 14070003, on left bank 150 ft upstream of county road bridge, 1.2 mi downstream of Pine Creek, and 2.9 mi southeast of Bicknell.

DRAINAGE AREA.--751 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1909 to December 1912 (published as "near Thurber") October 1937 to September 1958 (1944-46, fragmentary), October 1976 to current year.

REVISED RECORDS.--WDR UT-78-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,920 ft above NGVD of 1929, from topographic map. May 1909 to December 1912, staff gage near present site. October 1937 to June 28, 1949, staff gages on two canals and river station about 0.25 mi downstream. June 28, 1949 to April 29, 1958, water-stage recorders on river and canal site. April 29 to September 30, 1958, staff gage on river at site 600 ft downstream of water-stage recorder. Gages prior to 1976 at different datums. October 1, 1976 to April 2, 1990, water-stage recorder at site about 150 ft downstream at datum 3.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 10,600 acres upstream of station. Some regulation of flow by Fish Lake, Johnson, Forsyth, and Mill Meadow Reservoirs (combined capacity about 232,000 acre-ft).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft³/s, Apr 4, 1942, gage height, 5.8 ft, site and datum then in use, from floodmarks and rating curve extended above 700 ft³/s, maximum gage height, 7.59 ft Apr 24, 1998; minimum observed discharge, 18 ft³/s, Jun 2, 4, 13, 14, 15, 17, 18, 1912.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 166 ft³/s, Sep 28, gage height, 5.16 ft; minimum daily discharge, 30 ft³/s, Jul 18.

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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	70	84	82	e65	82	84	77	63	48	47	54	e70
2	69	84	84	66	82	89	74	68	50	47	71	87
3	68	84	e80	67	83	92	73	66	50	e42	69	94
4	66	83	e80	68	83	96	70	63	50	e45	57	83
5	64	81	e80	70	84	82	71	63	48	51	55	80
6	67	81	81	71	87	85	74	63	46	49	55	76
7	74	82	80	71	85	86	72	74	46	52	56	76
8	80	81	81	73	85	85	68	80	45	56	60	78
9	84	78	78	75	81	83	72	73	46	50	59	88
10	81	79	72	77	80	80	70	70	51	47	55	97
11	78	74	77	76	80	82	70	67	50	47	55	118
12	94	74	81	e70	e79	92	69	64	51	48	56	113
13	98	76	82	e65	81	96	68	62	49	47	55	91
14	79	78	86	e60	81	92	67	62	49	49	52	90
15	77	80	89	e65	80	93	67	64	50	53	51	101
16	75	85	83	69	82	91	70	63	51	54	50	91
17	73	86	83	72	83	85	70	64	50	54	50	85
18	73	85	85	73	81	78	67	64	51	e30	52	83
19	74	84	81	73	80	77	67	62	50	82	54	79
20	77	83	72	73	80	76	66	59	50	66	55	78
21	76	82	68	73	79	76	65	56	51	59	55	78
22	75	81	69	75	76	73	66	54	52	58	55	77
23	75	81	74	77	77	70	65	51	51	54	56	78
24	78	81	78	78	e75	72	68	51	53	53	60	77
25	80	81	e74	81	e75	73	67	50	51	62	61	77
26	82	e81	74	83	80	74	65	50	49	54	63	74
27	84	e80	76	85	76	74	65	49	49	56	70	75
28	84	80	73	84	78	74	66	50	48	64	73	78
29	85	83	71	e77	---	73	65	52	49	59	66	80
30	83	82	71	78	---	73	62	50	48	58	62	78
31	84	---	70	81	---	77	---	49	---	57	61	---
Total	2,407	2,434	2,415	2,271	2,255	2,533	2,056	1,876	1,482	1,650	1,803	2,530
Mean	77.6	81.1	77.9	73.3	80.5	81.7	68.5	60.5	49.4	53.2	58.2	84.3
Max	98	86	89	85	87	96	77	80	53	82	73	118
Min	64	74	68	60	75	70	62	49	45	30	50	70
Ac-ft	4,770	4,830	4,790	4,500	4,470	5,020	4,080	3,720	2,940	3,270	3,580	5,020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977-2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	82.4	87.1	83.5	85.8	92.3	107	112	81.2	66.7	64.4	70.5	74.4
Max	145	140	133	131	135	243	412	163	174	135	139	119
(WY)	(1985)	(1985)	(1985)	(1985)	(1984)	(1997)	(1987)	(1985)	(1984)	(1984)	(1984)	(1984)
Min	54.1	59.7	63.1	66.1	70.0	66.4	63.3	58.7	46.1	50.7	46.3	51.4
(WY)	(1980)	(1980)	(2010)	(1980)	(1980)	(1980)	(1980)	(1981)	(1980)	(1980)	(1980)	(1978)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1977-2013	
Annual total	30,315		25,712			
Annual mean	82.8		70.4		83.9	
Highest annual mean					138	1985
Lowest annual mean					60.2	1980
Highest daily mean	221	Mar 17	118	Sep 11	965	Mar 21, 1997
Lowest daily mean	51	Jun 27	30	Jul 18	30	Jul 18, 2013
Annual seven-day minimum	53	Jun 25	47	Jun 28	38	Jul 29, 1986
Annual runoff (ac-ft)	60,130		51,000		60,760	
10 percent exceeds	108		84		109	
50 percent exceeds	78		73		78	
90 percent exceeds	58		50		55	

