

Water-Data Report 2010

## 13217500 NORTH FORK MALHEUR RIVER AT BEULAH, OR

Middle Snake-Boise Basin  
Upper Malheur Subbasin

LOCATION.--Lat 43°54'27", long 118°09'12" referenced to North American Datum of 1983, in NW ¼ NE ¼ sec.22, T.19 S., R.37 E., Malheur County, OR, Hydrologic Unit 17050116, on left bank, at Beulah, 0.3 mi downstream from Agency Valley Dam, 12 mi northwest of Juntura and at mile 14.5.

DRAINAGE AREA.--440 mi<sup>2</sup>, approximately.

### **SURFACE-WATER RECORDS**

PERIOD OF RECORD.--June 1926 to current year. Published as "near Beulah" June 1926 to September 1935.

REVISED RECORDS.--WSP 1397: 1927-32, 1934, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,261.20 ft above NGVD of 1929. Prior to Apr. 25, 1936, water-stage recorder at site 1 mi downstream at different datum. Apr. 25, 1936 to Sept. 30, 1949, nonrecording gage at site 20 ft downstream at datum 1.0 ft higher. Oct. 1, 1949 to June 30, 1964, at present site at datum 1.0 ft higher.

REMARKS.--Records good except for discharges below 20 ft<sup>3</sup>/s, which are poor. Flow regulated since 1935 by Beulah Reservoir (active capacity, 59,900 acre-ft). Diversions for irrigation upstream from station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--9 years (1927-35), 87.9 ft<sup>3</sup>/s, 2.71 in/yr, 63,710 acre-ft/yr. 83 years (water years 1927-68, 1970-2010), 137 ft<sup>3</sup>/s, 99,330 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,000 ft<sup>3</sup>/s May 7, 1942, gage height, 9.4 ft, present datum, from floodmark, caused by failure of gates at Agency Valley Dam, from rating curve extended above 1,100 ft<sup>3</sup>/s on basis of computation of peak flow over dam; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 462 ft<sup>3</sup>/s July 7, 8, gage height, 3.56 ft; minimum daily discharge, 0.02 ft<sup>3</sup>/s Dec. 8-20, Dec. 27 to Jan. 11.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**  
**DAILY MEAN VALUES**  
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	46	0.08	0.08	0.02	0.10	0.14	0.16	299	202	401	386	207
2	48	0.07	0.08	0.02	0.10	0.14	0.16	321	160	409	386	203
3	49	0.07	0.08	0.02	0.10	0.15	0.17	321	133	417	386	208
4	51	0.07	0.08	0.02	0.10	0.15	0.16	340	108	416	386	205
5	52	0.07	0.08	0.02	0.10	0.14	0.16	354	67	418	385	205
6	51	0.07	e0.05	0.02	0.10	0.14	0.16	356	58	420	382	204
7	50	0.07	e0.03	0.02	0.11	0.14	0.29	356	58	447	185	203
8	55	0.07	e0.02	0.02	0.11	0.14	0.87	356	45	460	44	200
9	54	0.07	e0.02	0.02	0.11	0.14	0.89	356	39	455	44	200
10	54	0.07	e0.02	0.02	0.11	0.14	0.84	356	55	451	44	200
11	55	0.07	e0.02	0.02	0.11	0.15	0.79	355	105	449	44	200
12	20	0.07	0.02	0.03	0.12	0.15	0.89	355	173	447	67	198
13	0.13	0.07	0.02	0.04	0.12	0.15	1.0	353	192	447	188	198
14	0.13	0.07	0.02	0.04	0.12	0.15	1.1	353	192	444	269	198
15	0.13	0.07	0.02	0.03	0.13	0.15	1.2	353	231	444	290	216
16	0.13	0.07	0.02	0.03	0.13	0.15	1.2	353	254	441	288	223
17	0.13	0.07	0.02	0.03	0.13	0.15	1.4	355	286	440	287	222
18	0.12	0.07	0.02	0.03	0.13	0.15	1.4	356	302	437	304	221
19	0.12	0.07	0.02	0.04	0.13	0.14	1.5	359	333	435	310	219
20	0.11	0.07	0.02	0.09	0.13	0.14	1.7	351	349	433	309	234
21	0.11	0.07	0.03	0.10	0.13	0.15	2.0	349	349	433	307	241
22	0.10	0.08	0.06	0.10	0.13	0.16	1.3	349	349	431	305	239
23	0.10	0.08	0.07	0.10	0.13	0.16	1.2	349	370	430	305	237
24	0.09	0.08	0.05	0.10	0.14	0.17	82	316	379	427	303	235
25	0.08	0.08	0.03	0.10	0.13	0.17	126	308	382	426	302	234
26	0.08	0.08	0.03	0.11	0.13	0.17	132	293	380	426	272	232
27	0.08	0.08	0.02	0.11	0.14	0.16	175	259	382	401	255	230
28	0.08	0.08	0.02	0.11	0.14	0.16	194	232	394	389	265	229
29	0.08	0.08	0.02	0.10	---	0.16	195	227	402	389	273	220
30	0.08	0.08	0.02	0.10	---	0.17	240	227	401	387	252	211
31	0.08	---	0.02	0.10	---	0.16	---	228	---	386	237	---
<b>Total</b>	586.96	2.20	1.11	1.71	3.36	4.69	1,164.54	10,095	7,130	13,236	8,060	6,472
<b>Mean</b>	18.9	0.07	0.04	0.06	0.12	0.15	38.8	326	238	427	260	216
<b>Max</b>	55	0.08	0.08	0.11	0.14	0.17	240	359	402	460	386	241
<b>Min</b>	0.08	0.07	0.02	0.02	0.10	0.14	0.16	227	39	386	44	198
<b>Ac-ft</b>	1,160	4.4	2.2	3.4	6.7	9.3	2,310	20,020	14,140	26,250	15,990	12,840

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2010, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	35.4	6.36	6.38	13.7	30.7	92.1	281	338	264	255	200	121
<b>Max</b>	134	79.1	66.0	287	478	936	999	810	510	427	399	341
<b>(WY)</b>	(1954)	(1928)	(1928)	(1943)	(1965)	(1983)	(2006)	(1983)	(1974)	(2010)	(1980)	(1945)
<b>Min</b>	0.09	0.00	0.00	0.00	0.00	0.00	2.29	28.7	26.7	20.5	14.5	17.7
<b>(WY)</b>	(1974)	(1938)	(1938)	(1936)	(1938)	(1938)	(1981)	(1934)	(1934)	(1934)	(1934)	(1931)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1927 - 2010	
<b>Annual total</b>	37,846.43		46,757.57			
<b>Annual mean</b>	104		128		137	
<b>Highest annual mean</b>					335	1983
<b>Lowest annual mean</b>					39.5	1934
<b>Highest daily mean</b>	411	Aug 15	460	Jul 8	3,700	May 7, 1942
<b>Lowest daily mean</b>	0.02	Apr 2	0.02	Dec 8	0.00	Dec 22, 1935
<b>Annual seven-day minimum</b>	0.02	Apr 2	0.02	Dec 8	0.00	Dec 22, 1935
<b>Annual runoff (ac-ft)</b>	75,070		92,740		99,330	
<b>10 percent exceeds</b>	342		386		358	
<b>50 percent exceeds</b>	0.12		1.0		45	
<b>90 percent exceeds</b>	0.03		0.03		0.09	

