

## METHOW RIVER BASIN

## 12448500 METHOW RIVER AT WINTHROP, WA

LOCATION.--Lat 48°28'25", long 120°10'34", in NE 1/4 SW 1/4 sec.2, T.34 N., R.21 E., Okanogan County, Hydrologic Unit 17020008, on left bank at Winthrop, 0.3 mi downstream from Chewuch River, and at mile 49.8.

DRAINAGE AREA.--1,007 mi<sup>2</sup>.

## WATER DISCHARGE RECORDS

PERIOD OF RECORD.--January to October 1912, August 1971 to June 1972 (destroyed by flood of May 31, 1972), November 1989 to current year. Published as "near Winthrop" January to October 1912.

GAGE.--Water-stage recorder. Datum of gage is 1,718.09 ft above NGVD of 1929. January to August 1912, nonrecording gage at site 0.6 mi downstream at different datum. August 1971 to June 1972, water-stage recorder at same site at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. No known regulation. Diversions for irrigation of about 1,170 acres upstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--12 years (water years 1991-2002), 1,197 ft<sup>3</sup>/s, 867,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft<sup>3</sup>/s May 31, 1972, gage height, 20.90 ft, from outside high-water mark; minimum discharge, 115 ft<sup>3</sup>/s Nov. 28, 2000, gage height, 9.44 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 21	1200	5,890	14.66	June 16	0430	--	(a) *16.56
May 30	0600	9,010	16.07	June 23	0545	5,550	14.48
June 16	0430	*9,190	16.15				

Minimum discharge, 149 ft<sup>3</sup>/s Jan. 29, but may have been less during periods of ice effect, gage height 9.61 ft.

(a) From crest-stage gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	193	199	210	188	189	244	471	2020	7040	3060	698	260
2	195	194	205	192	189	247	477	2550	6680	2640	646	257
3	193	191	204	187	189	247	466	2690	6560	2390	610	253
4	190	191	196	184	186	250	476	2470	6840	2320	579	248
5	190	189	189	186	186	254	525	2230	7390	2120	546	244
6	191	188	198	191	187	250	592	1990	7510	1970	528	242
7	191	186	192	196	188	251	666	1820	5980	1970	518	240
8	190	183	196	205	187	250	696	1640	4800	2700	490	238
9	189	184	186	206	184	246	707	1510	4040	2610	455	235
10	192	181	189	198	184	256	707	1380	3820	2320	445	230
11	196	181	191	196	183	263	749	1360	4290	2440	442	228
12	193	182	191	197	176	264	831	1460	5390	2480	427	217
13	191	185	192	193	179	257	1040	1840	6490	2250	408	208
14	191	215	195	192	187	255	1770	2360	7750	2210	399	203
15	192	220	181	e170	182	257	1840	2500	8290	2030	395	197
16	190	235	198	e160	182	262	1590	2420	8400	1780	383	193
17	188	238	206	e170	186	256	1400	2640	6790	1680	367	189
18	188	218	188	180	182	254	1250	2970	5620	1580	353	188
19	186	214	180	193	185	259	1160	2980	4600	1490	338	191
20	185	224	e170	195	185	257	1140	4120	4170	1370	326	190
21	186	226	e175	193	191	253	1190	5640	4310	1240	324	190
22	189	231	e185	173	195	252	1280	4950	4820	1160	317	189
23	195	225	194	173	243	255	1290	4140	5200	1100	304	189
24	193	213	194	194	242	268	1230	3760	4830	1070	290	e192
25	196	210	e185	201	210	291	1200	3820	4490	1040	294	e191
26	193	206	e180	191	224	304	1170	4130	4710	1030	330	e191
27	191	200	e170	e180	238	314	1130	4680	5150	981	315	e191
28	191	212	195	e170	252	321	1100	6340	4590	896	298	e191
29	187	205	192	e160	---	344	1170	8140	4220	839	288	e190
30	191	198	188	189	---	361	1450	8430	3720	799	277	e188
31	199	---	188	193	---	419	---	7880	---	755	271	---
TOTAL	5925	6124	5903	5796	5491	8461	30763	106860	168490	54320	12661	6353
MEAN	191	204	190	187	196	273	1025	3447	5616	1752	408	212
MAX	199	238	210	206	252	419	1840	8430	8400	3060	698	260
MIN	185	181	170	160	176	244	466	1360	3720	755	271	188
AC-FT	11750	12150	11710	11500	10890	16780	61020	212000	334200	107700	25110	12600

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2002, BY WATER YEAR (WY)

	280	409	334	255	251	423	1375	4242	4568	1661	541	275
MEAN	280	409	334	255	251	423	1375	4242	4568	1661	541	275
MAX	575	915	957	459	452	878	2475	7125	10110	3832	1208	418
(WY)	1998	1991	1996	1996	1996	1992	1996	1998	1972	1999	1999	1999
MIN	181	188	189	181	173	177	194	1629	1257	501	204	150
(WY)	1995	1995	1995	1995	1912	1912	2001	2001	2001	2001	2001	1994

## SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1912 - 2002	
ANNUAL TOTAL	154851		417147			
ANNUAL MEAN	424		1143		1197	
HIGHEST ANNUAL MEAN					1729	
LOWEST ANNUAL MEAN					430	
HIGHEST DAILY MEAN	3950	May 25	8430	May 30	21400	Jun 9 1972
LOWEST DAILY MEAN	138	Sep 18	160	Jan 16	134	Sep 21 1994
ANNUAL SEVEN-DAY MINIMUM	142	Sep 13	180	Jan 13	136	Sep 24 1994
ANNUAL RUNOFF (AC-FT)	307100		827400		867000	
10 PERCENT EXCEEDS	1100		4120		3320	
50 PERCENT EXCEEDS	191		250		354	
90 PERCENT EXCEEDS	167		186		190	

e Estimated