

## OKANOGAN RIVER BASIN

12442500 SIMILKAMEEN RIVER NEAR NIGHTHAWK, WA  
(International gaging station)

LOCATION.--Lat 48°59'05", long 119°37'02", in NW 1/4 sec.7, T.40 N., R.26 E., Okanogan County, Hydrologic Unit 17020007, on left bank 1,000 ft upstream from Oroville-Tonasket Irrigation District canal intake, 1.6 mi northeast of Nighthawk, 3.8 mi downstream from Palmer Creek, and at mile 15.8.

DRAINAGE AREA.--3,550 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--May 1911 to current year (prior to September 1928, mean monthly discharge included Oroville-Tonasket Irrigation District canal). Published as "near Oroville" 1911-28.

REVISED RECORDS.--WSP 1183: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,137.70 ft NGVD of 1929. Prior to Sept. 11, 1928, staff gages at sites 7 mi downstream (below Oroville-Tonasket Irrigation District canal) at various datums.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow at high stages regulated by natural diversion into and release from Palmer Lake of about 6,000 acre-feet. Several small diversions upstream from station for irrigation of about 2,900 acres in the United States in 1946 and approximately 10,500 acres in Canada in 1957. National Weather Service satellite telemeter at station. Water temperature April 1986 to September 1987.

COOPERATION.--This station is maintained by the United States under agreement with Canada.

AVERAGE DISCHARGE.--91 years (water years 1912-2002), 2,291 ft<sup>3</sup>/s, 1,660,000 acre-ft/yr.  
74 years (water years 1929-2002), 2,319 ft<sup>3</sup>/s, 1,680,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,800 ft<sup>3</sup>/s June 1, 1972; maximum gage height, 18.78 ft May 31, 1972; minimum discharge, 65 ft<sup>3</sup>/s Jan. 3, 1974; minimum gage height, 1.55 ft Jan. 31, 1988, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,900 ft<sup>3</sup>/s May 30, gage height, 12.23 ft; minimum daily discharge, 211 ft<sup>3</sup>/s Oct. 3,6,10.

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	238	356	458	411	567	835	569	3940	16500	7290	1260	426
2	230	376	442	410	602	778	599	5130	14900	6470	1180	414
3	223	394	505	408	604	738	584	6040	14500	5790	1090	405
4	217	400	496	395	597	713	578	5750	14400	5380	1040	400
5	214	404	456	380	567	700	599	5180	14400	5070	1020	410
6	215	391	433	379	530	639	653	4790	14900	4640	981	413
7	215	390	418	376	525	590	787	4420	13700	4370	985	419
8	218	372	428	388	550	570	925	4100	11500	4640	1000	435
9	220	342	442	2230	529	604	924	3820	10200	6100	949	439
10	219	331	444	2030	507	604	932	3590	9650	5180	889	428
11	224	338	433	1660	484	610	967	3440	10000	4840	837	409
12	235	337	423	1460	476	639	1110	3530	11100	4760	808	393
13	243	351	404	1310	445	641	1310	4000	12400	4470	773	378
14	258	360	400	1170	430	606	2190	4890	13900	4130	723	365
15	300	516	400	1030	463	592	3890	5370	15100	3890	683	353
16	308	1360	393	882	463	584	3780	5260	15900	3560	657	345
17	296	1660	425	815	444	556	3400	5370	15200	3240	634	340
18	290	1240	449	817	450	535	3030	6160	13500	3040	608	333
19	307	941	440	762	455	519	2780	6460	12400	2820	585	333
20	308	829	404	765	447	509	2680	7020	10900	2630	566	336
21	325	837	373	777	442	505	2750	11000	10200	2420	554	328
22	367	829	e340	725	438	495	2910	11800	10400	2220	550	328
23	348	762	e330	658	612	500	3010	12000	10700	2070	541	329
24	342	709	357	661	1080	508	2990	11700	10400	1950	510	324
25	376	648	337	709	1050	521	2870	11200	9780	1850	486	315
26	363	588	320	695	940	545	2800	11300	9500	1770	504	308
27	348	577	e305	635	893	563	2750	12300	9650	1680	544	309
28	339	553	327	521	884	568	2710	13900	9440	1580	518	312
29	376	543	359	e420	---	549	2760	16100	8690	1460	485	320
30	381	495	386	438	---	554	3070	17400	8180	1390	463	322
31	365	---	407	505	---	549	---	17600	---	1330	440	---
TOTAL	8908	18229	12534	24822	16474	18419	60907	244560	361990	112030	22863	10969
MEAN	287	608	404	801	588	594	2030	7889	12070	3614	738	366
MAX	381	1660	505	2230	1080	835	3890	17600	16500	7290	1260	439
MIN	214	331	305	376	430	495	569	3440	8180	1330	440	308
AC-FT	17670	36160	24860	49230	32680	36530	120800	485100	718000	222200	45350	21760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

	689	936	794	645	672	735	2065	7921	8760	3029	936	600
MEAN	689	936	794	645	672	735	2065	7921	8760	3029	936	600
MAX	2265	4531	3480	2067	2235	2206	13510	15360	24910	8495	2625	1614
(WY)	1960	1991	1996	1981	1935	1934	1934	1972	1972	1972	1948	1954
MIN	239	254	231	215	217	341	427	2788	2508	665	295	216
(WY)	1988	1988	1988	1930	1929	1988	1929	1984	1992	1940	1940	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1929 - 2002

ANNUAL TOTAL		375985		912705								
ANNUAL MEAN		1030		2501						2319		
HIGHEST ANNUAL MEAN										4831		1972
LOWEST ANNUAL MEAN										1038		2001
HIGHEST DAILY MEAN			8110	May 25		17600	May 31		44800	Jun 1	1972	
LOWEST DAILY MEAN			186	Sep 20		214	Oct 5		120	Jan 4	1988	
ANNUAL SEVEN-DAY MINIMUM			188	Sep 19		217	Oct 4		141	Jan 5	1974	
ANNUAL RUNOFF (AC-FT)		745800		1810000					1680000			
10 PERCENT EXCEEDS		3150		9650					6800			
50 PERCENT EXCEEDS		401		604					794			
90 PERCENT EXCEEDS		239		332					371			

e Estimated