

NISQUALLY RIVER BASIN

12089500 NISQUALLY RIVER AT MCKENNA, WA

LOCATION.--Lat 46°56'01", long 122°33'35", in SE 1/4 NW 1/4 sec.28, T.17 N., R.2 E., Thurston County, Hydrologic Unit 17110015, on left bank at downstream side of State Highway 507 bridge at McKenna, and at mile 21.8.

DRAINAGE AREA.--517 mi².

PERIOD OF RECORD.--October 1947 to September 1968, May 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 285.47 ft above sea level. Oct.1, 1947 to Sept. 30, 1968, water-stage recorder at site 80 ft downstream at present datum, and Oct. 1, 1968 to Oct. 11, 1985, water-stage recorder at site 20 ft upstream at present datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Alder Reservoir (station 12085000) at mile 44.2 and La Grande Reservoir (station 12085500) at mile 42.5. Centralia Power Canal (station 12089208) diverts water 4.4 mi upstream from station, which is returned to river at powerplant 9.2 mi downstream from station. Centralia Power Canal was built in 1929 and put into operation in 1930. Minor diversions for irrigation upstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--45 years (water years 1948-68, 1978-2001), 1,307 ft³/s, 947,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft³/s Feb. 8 or 9, 1996, gage height, 17.13 ft, estimated based on comparison with upstream gaging stations; minimum discharge, 20 ft³/s Sept. 10, 11, 1965, Aug. 31, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft³/s Oct. 1, gage height, 2.73 ft; minimum discharge, 347 ft³/s Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1310	771	556	619	618	578	611	907	566	474	1010	372
2	1030	765	573	605	622	571	611	826	529	476	566	368
3	903	760	557	606	612	574	609	658	522	474	418	371
4	857	773	559	616	731	576	608	637	516	513	406	370
5	827	782	572	624	791	584	607	621	517	527	404	368
6	827	775	568	615	596	596	621	623	518	526	406	368
7	816	748	563	632	573	590	636	620	518	516	411	363
8	829	820	561	629	571	578	607	616	519	511	405	364
9	863	889	569	625	572	575	607	615	514	515	405	366
10	891	747	564	625	571	565	616	617	513	514	401	368
11	887	708	562	623	571	567	864	624	539	515	399	367
12	850	706	566	622	570	569	776	623	751	515	398	368
13	834	663	566	629	574	592	619	614	728	514	401	365
14	854	598	568	627	571	623	616	620	540	517	402	361
15	846	574	583	621	578	636	615	627	512	514	392	362
16	838	554	609	616	578	620	623	659	508	534	389	362
17	862	552	729	617	571	614	624	616	509	528	387	363
18	865	609	614	618	572	621	627	614	521	515	389	365
19	871	575	635	624	575	616	614	609	543	516	385	365
20	932	556	619	621	573	611	613	609	502	516	383	365
21	1130	566	614	625	575	611	614	612	496	519	383	364
22	986	562	618	627	570	609	611	612	491	519	388	361
23	941	564	621	623	583	609	616	622	492	519	390	361
24	854	567	614	618	588	621	613	618	491	526	383	361
25	798	566	610	617	574	629	612	619	482	513	382	363
26	784	582	615	614	574	624	612	619	480	519	381	364
27	779	586	619	612	574	602	613	617	477	518	381	371
28	850	555	614	611	576	629	615	611	478	523	380	386
29	838	554	610	619	---	613	615	612	476	520	379	388
30	808	556	615	615	---	612	642	604	477	882	379	499
31	809	---	614	622	---	614	---	615	---	1120	378	---
TOTAL	27369	19583	18457	19217	16604	18629	18887	19716	15725	16908	12961	11139
MEAN	883	653	595	620	593	601	630	636	524	545	418	371
MAX	1310	889	729	632	791	636	864	907	751	1120	1010	499
MIN	779	552	556	605	570	565	607	604	476	474	378	361
AC-FT	54290	38840	36610	38120	32930	36950	37460	39110	31190	33540	25710	22090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2001, BY WATER YEAR (WY)

	MEAN	842	1664	2337	2145	2228	1591	1335	1169	904	573	437	522
MAX	1693	4071	5516	4397	6198	3398	2714	2659	1894	1419	1104	1167	
(WY)	1956	1956	1978	1997	1996	1950	1991	1949	1950	1999	1999	1977	
MIN	298	272	595	620	593	405	553	499	254	85.5	137	148	
(WY)	1962	1953	2001	2001	2001	1962	1978	1978	1965	1965	1963	1965	

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1948 - 2001

ANNUAL TOTAL	328305	215195	
ANNUAL MEAN	897	590	1307
HIGHEST ANNUAL MEAN			2238
LOWEST ANNUAL MEAN			590
HIGHEST DAILY MEAN	2560	Jan 17	1310
LOWEST DAILY MEAN	378	Aug 8	361
ANNUAL SEVEN-DAY MINIMUM	382	Aug 4	363
ANNUAL RUNOFF (AC-FT)	651200		426800
10 PERCENT EXCEEDS	1600		802
50 PERCENT EXCEEDS	767		596
90 PERCENT EXCEEDS	484		383
			947000
			2310
			926
			385