12086500 NISQUALLY RIVER AT LA GRANDE, WA

LOCATION.--Lat 46°50'25", long 122°19'38", in NW 1/4 SE 1/4 sec.29, T.16 N., R.4 E., Pierce County, Hydrologic Unit 17110015, on right bank 0.4 mi downstream from Tacoma Public Utilities powerplant, 0.6 mi northwest of La Grande, 0.8 mi upstream from Mashel River, and at mile 40.4.

DRAINAGE AREA.--292 mi^2.

PERIOD OF RECORD.--September 1906 to October 1911, November to December 1911 (gage heights only), October 1919 to September 1931, October 1943 to current year. Monthly discharge only for some periods, published in WSP 1316. Published as "below Little Nisqually River, near La Grande" September 1906 to October 1911, and as "near La Grande" November to December 1911 and October 1919 to September 1931.

REVISED RECORDS.--WSP 1216: Drainage area. WSP 1316: 1927-28(M), 1949-50. WRD WA-74: 1956(M), 1959-61(M), 1965.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 490 ft above sea level, from river-profile map. See WSP 1932 for history of changes prior to Feb. 8, 1945.

REMARKS.--Records good. Flow regulated by Tacoma Public Utilities powerplant at La Grande since December 1943, by Alder Reservoir (station 12085000) since November 1944, and by La Grande Reservoir (station 12085500) since February 1945. All diversions returned to river upstream from gage. U.S. Geological Survey satellite telemeter at station. Chemical analyses October 1972 to September 1985. Water temperatures October 1965 to September 1982.

AVERAGE DISCHARGE.--75 years (water years 1907-11, 1920-31, 1944-2001), 1,433 ft^3/s, 66.64 in/yr, 1,038,000 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,500 ft^3/s, Feb. 8, 1996, gage height, 15.30 ft, from rating curve extended above 5,300 ft^3/s and computed flow over dam as provided by Tacoma Public Utilities; practically no flow on many occasions at site "near La Grande" (which excluded diversion between 1920 and 1930) as a result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,210 ft^3/s, July 16, gage height, 4.28 ft; minimum discharge, 412 ft^3/s; minimum daily discharge, 695 ft^3/s, Jan. 12.

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	1120	1110	710	708	720	731	720	728	713	908	1030	1020
2	1110	1110	763	708	722	710	720	728	713	941	1020	1030
3	1110	1110	717	708	715	703	722	726	713	964	1020	1020
4	1110	1110	716	710	719	702	722	724	714	965	1020	1020
5	1110	1110	e715	715	718	705	721	722	716	967	1020	1020
6	1130	1070	e715	709	719	716	730	722	714	964	1020	1030
7	1130	990	e710	708	714	717	745	721	713	960	1010	1030
8	1150	953	704	709	714	716	716	723	712	959	1010	1030
9	1150	930	704	706	715	717	716	721	713	960	1010	1030
10	1150	933	704	704	716	735	727	721	713	963	1010	1010
11	1150	961	704	703	716	738	737	721	715	961	1010	997
12	1150	987	703	695	716	738	730	722	713	960	1010	996
13	1150	948	701	715	717	735	731	719	711	968	1010	997
14	1160	915	703	716	721	724	715	723	713	996	1010	998
15	1160	895	701	714	723	721	713	721	710	978	1010	998
16	1150	874	709	716	722	737	715	723	710	1080	1010	999
17	1160	855	716	716	729	712	714	721	708	1110	1010	999
18	1160	958	715	712	731	717	720	720	801	1110	1020	1000
19	1150	893	703	716	730	719	724	719	925	1110	1010	1000
20	1160	817	701	717	730	718	723	722	912	1110	1010	998
21	1170	742	704	717	736	714	723	726	911	1100	1010	999
22	1170	712	703	721	735	715	722	727	911	1100	1000	996
23	1170	716	701	722	738	715	723	724	909	1110	1020	998
24	1170	716	701	723	736	717	723	724	910	1110	1020	983
25	1170	716	701	727	738	718	723	724	909	1110	1020	992
26	1170	716	704	725	731	719	723	725	911	1110	1020	997
27	1170	717	700	725	725	721	723	725	914	1110	1020	998
28	1170	716	700	722	735	719	725	726	930	1110	1020	998
29	1170	714	703	723	---	717	722	721	919	1110	1020	995
30	1170	710	709	725	---	718	725	712	911	1120	1030	1010
31	1140	---	708	721	---	722	---	714	---	1120	1030	---
TOTAL	35660	26704	21948	22156	20281	22306	21693	22395	23887	32144	31490	30188
MEAN	1150	890	708	715	724	720	723	722	796	1037	1016	1006
MAX	1170	1110	763	727	738	738	745	728	930	1120	1030	1030
MIN	1110	710	700	695	714	702	713	712	708	908	1000	983
AC-FT	70730	52970	43530	43950	40230	44240	43030	44420	47380	63760	62460	59880
MEAN†	602	549	802	793	900	998	1198	1573	1054	691	603	458
CFSM†	2.06	1.88	2.75	2.72	3.08	3.42	4.10	5.39	3.61	2.37	2.07	1.57
IN.†	2.38	2.10	3.17	3.13	3.21	3.94	4.58	6.21	4.02	2.73	2.38	1.75
AC-FT†	37040	32660	49320	48770	49950	61380	71260	96750	62680	42480	37070	27250

CAL YR 2000 TOTAL 437272 MEAN 1195 MAX 2320 MIN 700 AC-FT 867300 MEAN† 1062 CFSM† 3.64 IN.† 49.51 AC-FT† 771000
WTR YR 2001 TOTAL 310852 MEAN 852 MAX 1170 MIN 695 AC-FT 616600 MEAN† 852 CFSM† 2.92 IN.† 39.59 AC-FT† 616600

† Adjusted for change in contents in Alder and La Grande Reservoirs.