

QUINALT RIVER BASIN

12039500 QUINALT RIVER AT QUINALT LAKE, WA

LOCATION.--Lat 47°27'28", long 123°53'17", in SW 1/4 NE 1/4 sec.25, T.23 N., R.10 W., Grays Harbor County, Hydrologic Unit 17100102, Quinalt Indian Reservation, on left bank at outlet of Quinalt Lake, 50 ft downstream from Olympic Highway bridge on U.S. Highway 101, 2.0 mi southwest of Quinalt, and at mile 33.4.

DRAINAGE AREA.--264 mi².

PERIOD OF RECORD.--October 1911 to current year. Monthly discharge for some months during the 1923-25, 1933 water years, published in WSP 1316.

REVISED RECORDS.--WSP 442: Drainage area. WSP 1286: 1915-16(M), 1934, 1936-39(M). WSP 1316: 1923, 1925, 1933. WSP 1635: 1917.

GAGE.--Water-stage recorder. Datum of gage is 178.44 ft above NGVD of 1929. Prior to Sept. 30, 1916, nonrecording gages at sites within 4 mi northeast of present site, at different datum. Oct. 1, 1916, to May 2, 1935, water-stage recorder at site 300 ft downstream from present site at datum 0.36 ft higher than present datum.

REMARKS.--No estimated daily discharges. Records good. Flow affected by natural storage in Quinalt Lake. No diversions upstream from station. Chemical analyses July 1959 to June 1960, October 1962 to September 1970 (partial-record station), October 1971 to September 1974. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--91 years (water years 1912-2002), 2,868 ft³/s, 147.62 in/yr, 2,078,000 acre-ft/yr. Includes mean discharges for water years 1923-25, 1933, which were estimated for WSP 1316.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,200 ft³/s Nov. 4, 1955, gage height, 20.51 ft; minimum daily discharge, 250 ft³/s Oct. 29, 30, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1909 reached a stage of approximately 22 ft, present datum, discharge, 52,600 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 15	1700	19,100	11.71	Jan. 08	0000	*39,700	*17.78
Nov. 21	1200	15,200	10.43	Feb. 22	1600	23,700	13.14
Dec. 17	0300	27,300	14.21	Apr. 14	1200	13,700	9.88

Minimum discharge, 402 ft³/s Sept. 30.

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	765	5090	5680	2580	2860	2970	1920	2330	4010	3840	1110	533
2	722	4910	7470	5160	2620	2630	1870	2550	3650	3250	1050	529
3	688	4210	6020	7170	2730	2380	1830	2600	3500	2860	1000	534
4	656	3550	4830	6510	2890	2180	1810	2500	3390	2620	982	528
5	625	3220	4070	5280	2800	2040	1900	2410	3410	2440	988	515
6	601	2860	3770	6290	3260	1920	2080	2320	3490	2280	972	498
7	582	2540	3720	26900	4240	1820	2280	2170	3290	2220	941	487
8	576	2280	3860	33800	4060	1730	2300	2010	2970	2250	903	499
9	572	2060	4620	20000	3600	1650	2340	1880	2680	2200	868	515
10	606	1890	4230	11800	3130	1750	3290	1780	2650	2170	853	505
11	740	1760	3690	8130	2860	3510	3940	1710	2780	2250	840	492
12	916	2080	3360	6950	2560	5600	4980	1690	3060	2290	825	478
13	1290	2870	5890	6270	2310	5230	7380	1860	3340	2240	813	469
14	1400	8500	11200	5270	2100	4460	12800	2100	3650	2200	805	459
15	1370	17100	8550	4480	1920	3800	10600	2150	3670	2080	796	453
16	1270	14600	15500	3920	1850	3350	7750	2100	3500	1960	784	533
17	1170	9210	23400	3500	1810	2910	6000	2120	3280	1890	760	669
18	1100	6320	13700	3170	1820	2590	4790	2150	3460	1810	737	669
19	1140	6040	8990	3050	2280	2430	4020	2140	3340	1740	710	639
20	1180	12000	6440	3180	2840	2470	3550	2200	3030	1660	687	610
21	1200	14800	5020	3300	5740	2480	3220	2350	2910	1600	665	574
22	1560	12600	4190	3170	21000	2440	2970	2410	3000	1550	645	542
23	3190	9690	3590	3000	17200	2420	2780	2390	3040	1520	626	512
24	3930	7190	3160	4540	10600	2400	2580	2330	2900	1520	615	490
25	4410	5600	2840	9030	7080	2340	2420	2350	2790	1500	606	470
26	4290	4580	2600	7430	5210	2290	2330	2510	2880	1470	598	454
27	4350	3890	2410	5440	4130	2290	2250	2770	3000	1410	590	438
28	3870	3670	2420	4180	3450	2300	2170	3430	3100	1340	576	425
29	3240	4300	2480	3410	---	2220	2110	5410	5040	1280	566	413
30	2800	4320	2410	3050	---	2110	2150	5450	4670	1230	556	404
31	4140	---	2420	3070	---	2000	---	4670	---	1170	545	---
TOTAL	54949	183730	182530	223030	128950	82710	112410	78840	99480	61840	24012	15336
MEAN	1773	6124	5888	7195	4605	2668	3747	2543	3316	1995	775	511
MAX	4410	17100	23400	33800	21000	5600	12800	5450	5040	3840	1110	669
MIN	572	1760	2410	2580	1810	1650	1810	1690	2650	1170	545	404
AC-FT	109000	364400	362000	442400	255800	164100	223000	156400	197300	122700	47630	30420
CFSM	6.71	23.2	22.3	27.3	17.4	10.1	14.2	9.63	12.6	7.56	2.93	1.94
IN.	7.74	25.89	25.72	31.43	18.17	11.65	15.84	11.11	14.02	8.71	3.38	2.16

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

	MEAN	2292	4220	4905	4295	3826	2952	2664	2837	2758	1805	944	1005
MAX	6703	11220	10390	11390	8244	7752	4484	4575	5116	3775	2491	3573	
(WY)	1922	1991	1980	1953	1961	1972	1943	1948	1956	1999	1999	1920	
MIN	266	410	1676	1177	673	1162	1182	1635	982	585	422	367	
(WY)	1988	1937	1986	1937	1929	1912	1912	1920	1992	1926	1944	1998	

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1912 - 2002

ANNUAL TOTAL		939147	1247817	
ANNUAL MEAN		2573	3419	2868
HIGHEST ANNUAL MEAN				4072
LOWEST ANNUAL MEAN				1785
HIGHEST DAILY MEAN		23400	Dec 17	33800
LOWEST DAILY MEAN		572	Oct 9	404
ANNUAL SEVEN-DAY MINIMUM		603	Oct 4	442
ANNUAL RUNOFF (AC-FT)		1863000		2475000
ANNUAL RUNOFF (CFSM)		9.75		12.9
ANNUAL RUNOFF (INCHES)		132.33		175.83
10 PERCENT EXCEEDS		4380		6300
50 PERCENT EXCEEDS		1950		2470
90 PERCENT EXCEEDS		809		604