

GRANDE RONDE RIVER BASIN

13333000 GRANDE RONDE RIVER AT TROY, OR

LOCATION.--Lat 45°56'45", long 117°27'00", in NE 1/4 NW 1/4 sec.4, T.5 N., R.43 E., Wallowa County, Hydrologic Unit 17060106, on left bank, on upstream side of bridge at Troy, 100 ft downstream from Wenaha River, and at mile 45.3.

DRAINAGE AREA.--3,275 mi².

PERIOD OF RECORD.--August 1944 to current year. Monthly discharge only August 1944, published in WSP 1317.

REVISED RECORDS.--WSP 1397: 1946(M), 1948-50.

GAGE.--Water-stage recorder. Datum of gage is 1,585.98 ft above NGVD of 1929. Aug. 17, 1944, to Sept. 30, 1949, nonrecording gage at datum 10.85 ft lower. Oct. 1, 1949, to Sept. 5, 1963, water-stage recorder at datum 1.15 ft higher. Sept. 6, 1963 to Oct. 19, 1994, water-stage recorder at site 500 ft downstream, at present datum.

REMARKS.--No estimated daily discharges. Records fair. Flow slightly regulated by Wallowa Lake and small reservoirs. Diversions for irrigation upstream from station, chiefly in vicinity of LaGrande, Enterprise, and Wallowa; transbasin diversions for irrigation from Big Sheep Creek and tributaries in Imnaha River Basin to Wallowa River Basin, and from South Fork Catherine Creek to the Powder River Basin. U.S. Geological Survey satellite telemeter and National Weather Service telemeter at station.

AVERAGE DISCHARGE.--58 years (water years 1945-2002), 3,068 ft³/s, 2,222,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,800 ft³/s Feb. 9, 1996, gage height, 13.76 ft, from rating curve extended above 20,000 ft³; minimum discharge, 321 ft³/s Nov. 25, 1993; result of freezeup, but may have been less during period of ice effect that day.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 14	1730	*22,600	*10.44	May 30	1030	11,200	8.01
Minimum discharge, 438 ft ³ /s Oct. 1.							

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	443	1200	922	902	1300	2020	6390	6280	8530	4000	644	622
2	460	1020	894	903	1240	1820	6100	6770	8140	3340	619	614
3	480	971	923	991	1220	1670	5870	6970	7430	2950	591	615
4	481	900	922	1020	1180	1620	5950	6710	7010	2790	599	604
5	480	852	930	1010	1130	1600	6440	6340	7000	2550	626	585
6	489	824	939	1020	1130	1660	7150	5780	7070	2360	695	572
7	485	800	957	1470	1170	2150	7560	5260	6550	2300	685	580
8	492	773	939	3480	1210	2100	7320	4760	5660	2430	690	586
9	517	761	945	3960	1170	1940	7260	4210	4950	2330	691	589
10	524	750	911	3100	1160	1860	8390	3790	4610	2030	667	593
11	679	736	888	2570	1180	2030	9080	3500	4180	1860	646	595
12	714	740	888	2300	1150	4210	10300	3460	3910	1750	634	596
13	622	738	982	2190	1140	4310	11600	3730	3850	1680	613	585
14	638	833	1240	2040	1180	3670	19100	4370	4250	1640	593	557
15	636	907	1330	1880	1190	3170	17200	4660	5040	1530	590	540
16	638	866	1220	1730	1200	2850	13300	4620	6040	1410	572	536
17	607	843	1220	1620	1270	2610	10900	4740	6620	1290	568	554
18	591	834	1220	1540	1320	2370	9260	4930	6390	1210	549	596
19	586	805	1110	1510	1410	2340	8020	6050	6160	1090	526	584
20	584	796	1100	1460	1600	2730	7270	8130	5200	1040	535	537
21	578	883	1070	1510	1700	3020	6650	7960	4890	967	541	520
22	620	990	1050	1500	2010	3170	6540	6670	4810	895	621	525
23	784	1450	923	1430	2680	3480	6680	5860	4880	868	641	517
24	835	1230	880	1390	3900	4970	6030	5230	4970	844	631	524
25	705	1100	934	1480	3550	6640	5750	4920	5160	835	615	519
26	690	1020	1080	1600	2830	6330	5750	4970	5230	790	634	502
27	674	958	1040	1580	2420	6250	5730	5610	5540	745	631	503
28	692	976	1030	1400	2220	5810	5630	7200	5450	724	623	519
29	684	926	979	1240	---	5310	5670	8970	5160	714	627	514
30	712	876	918	1330	---	5250	5870	10700	4850	703	634	546
31	1120	---	888	1310	---	5710	---	9510	---	667	631	---
TOTAL	19240	27358	31272	52466	45860	104670	244760	182660	169530	50332	19162	16829
MEAN	621	912	1009	1692	1638	3376	8159	5892	5651	1624	618	561
MAX	1120	1450	1330	3960	3900	6640	19100	10700	8530	4000	695	622
MIN	443	736	880	902	1130	1600	5630	3460	3850	667	526	502
AC-FT	38160	54260	62030	104100	90960	207600	485500	362300	336300	99830	38010	33380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2002, BY WATER YEAR (WY)

	877	1239	1984	2189	3193	4300	6333	7351	5652	2155	842	764
MEAN	877	1239	1984	2189	3193	4300	6333	7351	5652	2155	842	764
MAX	2559	3766	7212	6280	14390	11520	11390	13820	11610	4951	1385	1291
(WY)	1960	1996	1996	1974	1996	1972	1997	1948	1974	1975	1984	1984
MIN	528	618	685	702	769	888	2257	2368	1501	520	438	409
(WY)	1988	1988	1945	1979	1977	1977	1968	1977	1992	1977	1992	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1945 - 2002

ANNUAL TOTAL	582663	964139	
ANNUAL MEAN	1596	2641	
HIGHEST ANNUAL MEAN			3068
LOWEST ANNUAL MEAN			5253
HIGHEST DAILY MEAN	7460	May 15	19100
LOWEST DAILY MEAN	385	Sep 1	443
ANNUAL SEVEN-DAY MINIMUM	389	Sep 7	474
ANNUAL RUNOFF (AC-FT)	1156000		1912000
10 PERCENT EXCEEDS	4180		6540
50 PERCENT EXCEEDS	894		1220
90 PERCENT EXCEEDS	434		585
			7440
			1630
			694
			1136
			1977
			42200
			344
			361
			Aug 18 1977
			Feb 9 1996
			Aug 20 1977