

COLUMBIA RIVER MAIN STEM

12462600 COLUMBIA RIVER BELOW ROCK ISLAND DAM, WA

LOCATION.--Lat 47°19'57", long 120°04'48", in NE 1/4 NW 1/4 sec.9, T.21 N., R.22 E., Douglas County, Hydrologic Unit 17020010, on left bank 1.0 mi downstream from Rock Island Dam, 2.0 mi downstream from Rock Island Creek, 12 mi southeast of Wenatchee, and at mile 452.4.

DRAINAGE AREA.--89,400 mi², approximately.

PERIOD OF RECORD.--January to December 1910 (gage heights only), May 1913 to December 1916, October 1930 to current year. Published as "at Wenatchee" January 1910 to December 1916, and as "at Trinidad" October 1930 to May 1961.

GAGE.--Daily discharge determined from flow through turbines plus spillway flow when present. Datum of gage is NGVD of 1929. Prior to Jan. 1, 1916, nonrecording gage 1.2 mi upstream from highway bridge at Wenatchee, at mile 466.3, at datum 583 ft above NGVD of 1929. Jan. 1 to Dec. 31, 1916, nonrecording gage on pier of highway bridge at Wenatchee, at mile 465.1, at datum 579.30 ft above NGVD of 1929. Oct. 1, 1930, to May 31, 1961, water-stage recorder 0.5 mi southwest of Trinidad, at mile 441.7, at datum 499.3 ft above NGVD of 1929 (river-profile survey). June 1, 1961, to July 22, 1988, water-stage recorder at present site and datum; May 21, 1963, to July 22, 1988, auxiliary water-stage recorder 2.0 mi downstream at same datum.

REMARKS.--Flow regulated by numerous reservoirs. Feeder Canal diversion (station 12435500) for Columbia Basin project is used to irrigate approximately 600,000 acres in the United States. An additional 66,500 acres in Canada are irrigated by other diversions.

COOPERATION.--Discharge records provided by Public Utility District No. 1 of Chelan County at Rock Island Dam through the Corps of Engineers, North Pacific Division, Reservoir Control Center. The U.S. Geological Survey made 6 discharge measurements at this site during the year.

AVERAGE DISCHARGE.--75 years (water years 1914-16, 1931-2002), 119,300 ft³/s, 86,430,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 692,600 ft³/s June 12, 1948, gage height, 59.35 ft, site and datum then in use; minimum discharge, 4,120 ft³/s Feb. 10, 1932, gage height, 11.40 ft, site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 7, 1894, reached a discharge of about 740,000 ft³/s, from floodmarks at Wenatchee.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 251,000 ft³/s June 20; minimum daily discharge, 31,300 ft³/s Mar. 31.

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	71400	57400	55600	80300	106000	91500	60200	132000	158000	242000	138000	51600
2	47800	51100	48900	92600	88200	81900	69700	136000	164000	250000	144000	66400
3	57600	49800	94500	113000	78000	56700	65000	136000	198000	250000	120000	93200
4	65300	52700	100000	121000	136000	76600	54800	129000	242000	218000	93400	68200
5	40100	73000	101000	102000	104000	70900	58900	114000	242000	191000	118000	72300
6	46200	80800	77200	71500	113000	87600	43100	157000	228000	188000	119000	71300
7	38400	79700	80900	80900	94800	97400	40200	158000	241000	163000	141000	54500
8	59900	79600	53200	84100	108000	105000	59600	129000	238000	144000	149000	50800
9	56000	68800	58300	75900	97000	66200	64600	152000	207000	177000	134000	93700
10	57300	55900	97700	69400	91100	60400	55100	138000	229000	207000	121000	72400
11	62000	60600	109000	77600	130000	92300	105000	114000	209000	205000	97300	64600
12	63500	72500	99000	78600	115000	89800	127000	105000	217000	210000	124000	77900
13	49400	62300	99200	70700	106000	79200	107000	142000	198000	205000	126000	76900
14	43100	69400	86800	111000	94900	74400	120000	140000	204000	168000	126000	53800
15	70700	81400	69800	119000	121000	86600	146000	134000	199000	161000	125000	45800
16	73600	89200	53200	113000	106000	71000	175000	146000	183000	210000	104000	79100
17	74900	58600	88500	117000	71600	63200	187000	136000	200000	185000	77300	74900
18	62200	69000	105000	110000	99300	91300	189000	125000	215000	179000	83900	75800
19	66300	89200	107000	99800	101000	79700	187000	125000	236000	200000	117000	96300
20	50400	89100	113000	72800	97400	102000	184000	144000	251000	182000	116000	95600
21	46300	93500	108000	110000	91500	90000	160000	133000	236000	164000	114000	88400
22	65000	60600	83000	119000	73100	52100	187000	149000	201000	169000	128000	73500
23	59800	70800	68800	116000	85200	33000	168000	157000	172000	170000	122000	99100
24	73100	76100	91900	92900	74200	42400	162000	156000	181000	156000	96000	99500
25	64500	69200	61200	117000	86400	47700	159000	131000	216000	145000	71400	96600
26	56400	90700	106000	83200	92200	68700	148000	149000	212000	125000	114000	90300
27	44300	106000	103000	77000	99100	59800	126000	170000	239000	103000	112000	58800
28	52300	108000	96200	115000	86900	52500	116000	167000	249000	108000	119000	64700
29	74100	103000	80400	127000	---	55200	153000	172000	227000	127000	113000	41100
30	63700	86900	59600	130000	---	37600	148000	174000	202000	142000	106000	86100
31	49100	---	90400	132000	---	31300	---	172000	---	148000	96900	---
TOTAL	1804700	2254900	2646300	3079300	2746900	2194000	3625200	4422000	6394000	5492000	3566200	2233200
MEAN	58220	75160	85360	99330	98100	70770	120800	142600	213100	177200	115000	74440
MAX	74900	108000	113000	132000	136000	105000	189000	174000	251000	250000	149000	99500
MIN	38400	49800	48900	69400	71600	31300	40200	105000	158000	103000	71400	41100
AC-FT	3580000	4473000	5249000	6108000	5448000	4352000	7191000	8771000	12680000	10890000	7074000	4430000
CAL YR 2001	TOTAL 26897900	MEAN 73690	MAX 126000	MIN 29700	AC-FT 53350000							
WTR YR 2002	TOTAL 40458700	MEAN 110800	MAX 251000	MIN 31300	AC-FT 80250000							