

Water-Data Report 2009

## 12462600 COLUMBIA RIVER BELOW ROCK ISLAND DAM, WA

Upper Columbia Basin  
Upper Columbia-Entiat Subbasin

LOCATION.--Lat 47°19'57", long 120°04'48" referenced to North American Datum of 1927, in NE ¼ NW ¼ sec.9, T.21 N., R.22 E., Douglas County, WA, 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.

Auxiliary GAGE: Lat 47 18'15", long 120 05'00", in NE ¼ NW ¼ sec. 21, T. 21 N., R. 22 E., Douglas County, Hydrologic Unit 17020010, on left bank 2.0 mi downstream from the base gage, and at mile 450.4.

DRAINAGE AREA.--89,400 mi<sup>2</sup>.

### SURFACE-WATER RECORDS

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.

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.

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.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--82 years (water years 1914-16, 1931-2009), 117,900 ft<sup>3</sup>/s, 85,420,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 692,600 ft<sup>3</sup>/s, June 12, 1948, gage height, 59.35 ft, site and datum then in use; minimum discharge, 4,120 ft<sup>3</sup>/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 ft<sup>3</sup>/s, from flood-marks at Wenatchee.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 187,000 ft<sup>3</sup>/s, June 4; minimum daily discharge, 32,100 ft<sup>3</sup>/s, Sept. 19.

## 12462600 COLUMBIA RIVER BELOW ROCK ISLAND DAM, WA—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	65,800	65,200	85,100	70,500	66,400	59,400	92,000	123,000	153,000	78,500	86,600	58,700
2	70,300	50,700	96,500	92,100	92,200	64,500	47,800	109,000	155,000	97,600	60,000	64,400
3	52,600	77,400	115,000	106,000	103,000	57,400	44,900	59,400	182,000	80,500	85,100	50,400
4	43,400	73,900	121,000	117,000	84,300	62,700	56,500	125,000	187,000	77,400	89,800	58,600
5	34,000	74,300	105,000	123,000	84,600	65,000	38,000	101,000	178,000	75,300	95,800	47,000
6	64,400	79,700	67,800	108,000	75,900	76,600	62,500	77,800	155,000	107,000	98,400	51,100
7	51,800	83,600	66,700	102,000	54,800	37,600	69,700	82,600	160,000	146,000	82,500	46,800
8	63,200	76,700	90,200	94,800	74,600	54,600	79,900	124,000	177,000	122,000	57,200	61,800
9	68,400	74,500	94,500	93,900	92,500	81,300	90,300	128,000	172,000	133,000	52,900	47,700
10	58,200	74,800	78,400	86,000	115,000	90,700	109,000	104,000	170,000	134,000	83,900	49,900
11	48,600	95,900	94,100	72,600	114,000	73,200	95,900	121,000	158,000	127,000	89,100	37,800
12	49,500	97,100	86,600	102,000	79,400	53,900	124,000	129,000	156,000	106,000	68,700	43,200
13	69,400	98,000	90,200	106,000	102,000	66,000	91,400	132,000	144,000	126,000	64,400	35,800
14	75,600	44,400	89,800	127,000	66,500	49,400	129,000	123,000	115,000	121,000	59,300	41,600
15	88,900	51,200	118,000	139,000	57,500	55,600	126,000	138,000	104,000	110,000	49,100	50,300
16	95,200	48,900	100,000	139,000	79,600	88,600	130,000	113,000	110,000	102,000	47,600	45,600
17	75,000	82,000	117,000	127,000	74,900	84,300	132,000	119,000	137,000	105,000	82,300	57,800
18	37,500	78,000	117,000	109,000	79,200	85,500	139,000	126,000	157,000	85,800	87,700	62,000
19	44,100	97,700	117,000	130,000	80,000	74,300	115,000	131,000	157,000	78,700	90,900	32,100
20	75,000	97,400	103,000	130,000	93,600	55,000	124,000	119,000	148,000	101,000	86,800	44,700
21	73,300	87,000	104,000	135,000	92,000	54,600	136,000	128,000	147,000	105,000	78,000	60,600
22	63,500	72,000	115,000	125,000	74,700	37,900	130,000	128,000	164,000	89,100	64,500	66,400
23	70,600	69,500	121,000	128,000	91,200	73,400	139,000	140,000	164,000	82,900	48,800	76,100
24	74,800	101,000	99,900	99,800	93,200	70,400	157,000	144,000	156,000	88,600	86,300	66,700
25	55,100	101,000	86,400	111,000	89,000	88,400	133,000	134,000	148,000	83,400	85,000	55,900
26	44,200	104,000	102,000	145,000	90,700	91,200	146,000	151,000	148,000	90,500	82,400	55,100
27	66,600	78,100	87,000	132,000	47,600	91,400	150,000	164,000	146,000	115,000	75,500	50,600
28	88,700	76,300	75,700	117,000	53,500	107,000	152,000	167,000	148,000	118,000	66,600	62,000
29	75,800	76,700	101,000	117,000	---	76,400	146,000	167,000	160,000	113,000	58,800	55,400
30	80,400	83,400	91,200	119,000	---	87,700	138,000	155,000	115,000	109,000	58,000	51,800
31	64,900	---	70,200	90,500	---	113,000	---	150,000	---	109,000	70,600	---
<b>Total</b>	1,988,800	2,370,400	3,006,300	3,494,200	2,301,900	2,227,000	3,323,900	3,912,800	4,571,000	3,217,300	2,292,600	1,587,900
<b>Mean</b>	64,150	79,010	96,980	112,700	82,210	71,840	110,800	126,200	152,400	103,800	73,950	52,930
<b>Max</b>	95,200	104,000	121,000	145,000	115,000	113,000	157,000	167,000	187,000	146,000	98,400	76,100
<b>Min</b>	34,000	44,400	66,700	70,500	47,600	37,600	38,000	59,400	104,000	75,300	47,600	32,100
<b>Ac-ft</b>	3,945,000	4,702,000	5,963,000	6,931,000	4,566,000	4,417,000	6,593,000	7,761,000	9,067,000	6,382,000	4,547,000	3,150,000

	Calendar Year 2008	Water Year 2009
<b>Total</b>	38,473,100	34,294,100
<b>Mean</b>	105,100	93,960
<b>Max</b>	245,000	187,000
<b>Min</b>	34,000	32,100
<b>Ac-ft</b>	76,310,000	68,020,000

12462600 COLUMBIA RIVER BELOW ROCK ISLAND DAM, WA—Continued

