

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 mi².

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 7 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.--83 years (water years 1914-16, 1931-2010), 117,600 ft³/s, 85,210,000 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 flood-marks at Wenatchee.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 237,000 ft³/s, June 22; minimum daily discharge, 33,200 ft³/s, Oct. 4.

12462600 COLUMBIA RIVER BELOW ROCK ISLAND DAM, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES
 [$\times 10^6$, million]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	61,600	52,800	87,700	59,100	83,400	69,500	48,100	87,900	139,000	195,000	60,400	65,300
2	56,500	82,600	102,000	66,800	84,600	79,200	70,400	84,200	142,000	182,000	99,900	58,100
3	47,600	84,200	112,000	70,300	67,100	81,600	54,700	131,000	122,000	155,000	106,000	61,200
4	33,200	90,200	106,000	100,000	71,600	71,100	42,300	112,000	114,000	120,000	109,000	46,600
5	55,900	70,200	85,000	84,000	63,000	72,100	71,900	116,000	88,100	142,000	102,000	39,900
6	58,100	89,600	77,900	83,400	45,100	56,400	66,600	113,000	108,000	147,000	97,600	53,500
7	69,800	75,400	117,000	92,600	45,200	33,700	72,300	126,000	126,000	122,000	79,600	60,900
8	67,000	78,300	121,000	94,200	83,400	74,800	49,400	105,000	165,000	147,000	65,400	53,400
9	52,600	86,600	104,000	76,900	95,200	83,700	44,600	94,100	192,000	162,000	94,200	44,000
10	50,500	75,200	115,000	65,900	93,800	84,000	52,500	122,000	194,000	141,000	105,000	44,100
11	49,500	81,600	120,000	97,300	79,400	83,100	37,000	131,000	208,000	132,000	95,300	47,800
12	75,100	76,200	117,000	88,400	71,000	74,200	64,600	143,000	177,000	128,000	87,900	44,400
13	64,000	92,900	101,000	63,800	67,300	63,700	56,700	132,000	174,000	138,000	95,100	70,300
14	55,700	78,400	107,000	70,200	45,800	60,100	73,800	130,000	183,000	149,000	86,200	47,000
15	51,000	62,500	126,000	72,700	74,800	62,100	73,400	108,000	204,000	146,000	71,400	53,300
16	60,200	81,200	89,900	62,100	72,600	72,600	57,100	112,000	211,000	116,000	98,800	52,200
17	43,500	103,000	83,600	37,900	91,400	54,200	51,500	140,000	209,000	113,000	112,000	50,600
18	42,600	101,000	77,800	66,300	85,000	83,200	62,000	123,000	212,000	100,000	92,900	47,300
19	65,000	98,900	73,000	67,700	91,400	69,600	77,800	131,000	201,000	114,000	77,600	42,300
20	71,300	78,500	61,600	74,500	68,200	53,400	84,400	137,000	185,000	115,000	92,500	56,900
21	54,400	71,100	67,100	73,700	67,500	38,800	98,600	136,000	204,000	120,000	61,200	68,500
22	62,400	56,700	88,400	79,200	94,600	55,700	92,400	112,000	237,000	123,000	49,200	61,100
23	63,900	77,100	101,000	46,700	95,200	83,600	101,000	116,000	222,000	111,000	96,500	60,600
24	58,800	88,700	87,900	56,700	71,000	78,400	79,400	142,000	225,000	103,000	87,600	67,800
25	52,400	92,100	85,100	87,800	70,600	55,100	91,200	128,000	217,000	89,000	99,100	58,700
26	58,700	66,200	100,000	95,400	68,700	56,700	112,000	134,000	210,000	107,000	84,300	53,100
27	73,500	75,800	101,000	88,500	66,100	59,500	97,300	127,000	210,000	112,000	77,500	76,200
28	61,100	84,100	108,000	78,600	59,000	55,600	99,500	122,000	212,000	110,000	66,100	67,800
29	79,700	70,100	118,000	78,600	---	75,700	103,000	118,000	208,000	102,000	55,300	74,900
30	61,800	90,700	102,000	66,300	---	63,000	81,600	104,000	203,000	97,600	75,000	67,300
31	44,500	---	110,000	41,300	---	59,500	---	108,000	---	81,500	83,200	---
Total	1,801,900	2,411,900	3,053,000	2,286,900	2,072,000	2,063,900	2,167,100	3,725,200	5,502,100	3,920,100	2,663,800	1,695,100
Mean	58,130	80,400	98,480	73,770	74,000	66,580	72,240	120,200	183,400	126,500	85,930	56,500
Max	79,700	103,000	126,000	100,000	95,200	84,000	112,000	143,000	237,000	195,000	112,000	76,200
Min	33,200	52,800	61,600	37,900	45,100	33,700	37,000	84,200	88,100	81,500	49,200	39,900
Ac-ft	3,574,000	4,784,000	6,056,000	4,536,000	4,110,000	4,094,000	4,298,000	7,389,000	10.91 $\times 10^6$	7,776,000	5,284,000	3,362,000

	Calendar Year 2009	Water Year 2010
Total	34,195,400	33,363,000
Mean	93,690	91,410
Max	187,000	237,000
Min	32,100	33,200
Ac-ft	67,830,000	66,180,000

12462600 COLUMBIA RIVER BELOW ROCK ISLAND DAM, WA—Continued

