

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 four 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.--85 years (water years 1914-16, 1931-2012), 118,200 ft³/s, 85,636,000 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, 323,000 ft³/s, June 26; minimum daily discharge, 43,000 ft³/s, Jan. 29.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
 [$\times 10^6$, million]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	61,900	88,600	93,800	66,600	83,100	95,100	126,000	233,000	195,000	298,000	198,000	87,200
2	60,800	107,000	94,300	92,500	89,800	95,300	145,000	243,000	164,000	288,000	189,000	66,800
3	82,000	73,000	96,100	94,500	84,500	72,800	162,000	240,000	166,000	292,000	180,000	91,500
4	73,600	75,300	104,000	83,700	71,300	61,400	154,000	239,000	183,000	286,000	187,000	119,000
5	75,400	86,600	114,000	78,900	66,700	89,300	162,000	225,000	144,000	293,000	188,000	109,000
6	68,700	88,600	107,000	95,200	88,400	104,000	166,000	228,000	219,000	287,000	181,000	86,800
7	65,800	96,200	110,000	100,000	110,000	120,000	163,000	218,000	234,000	264,000	181,000	99,100
8	83,500	97,300	111,000	93,500	103,000	125,000	156,000	219,000	241,000	263,000	182,000	87,300
9	72,400	94,900	106,000	106,000	96,400	113,000	172,000	229,000	226,000	268,000	167,000	54,000
10	81,300	105,000	107,000	103,000	104,000	83,700	174,000	238,000	222,000	266,000	186,000	77,100
11	76,200	97,600	101,000	105,000	76,600	97,000	158,000	214,000	226,000	260,000	164,000	94,700
12	96,900	87,800	125,000	114,000	76,000	122,000	168,000	193,000	230,000	255,000	175,000	77,400
13	106,000	83,300	114,000	111,000	111,000	101,000	169,000	186,000	227,000	263,000	164,000	92,800
14	86,600	110,000	97,500	93,700	92,500	122,000	146,000	205,000	219,000	268,000	162,000	97,100
15	65,800	98,100	85,400	98,300	103,000	118,000	169,000	212,000	225,000	265,000	145,000	78,200
16	57,100	102,000	90,100	108,000	105,000	116,000	162,000	193,000	220,000	262,000	157,000	61,200
17	94,500	89,900	96,900	115,000	101,000	93,500	181,000	216,000	222,000	255,000	157,000	87,900
18	97,800	93,800	77,000	127,000	76,600	90,000	171,000	220,000	226,000	248,000	150,000	91,500
19	89,100	113,000	108,000	114,000	64,100	104,000	184,000	226,000	220,000	265,000	168,000	81,000
20	71,700	89,500	92,000	110,000	105,000	123,000	191,000	229,000	261,000	273,000	152,000	100,000
21	77,200	106,000	112,000	77,700	92,200	141,000	183,000	226,000	252,000	273,000	152,000	89,400
22	51,200	82,500	113,000	83,900	79,300	138,000	192,000	216,000	261,000	266,000	154,000	68,800
23	63,700	78,400	125,000	99,200	63,700	143,000	195,000	203,000	230,000	264,000	151,000	63,000
24	93,800	86,000	107,000	108,000	83,000	142,000	209,000	224,000	264,000	250,000	145,000	90,800
25	101,000	75,400	92,000	86,200	61,800	145,000	188,000	220,000	309,000	239,000	139,000	78,600
26	95,900	93,400	98,000	92,000	60,800	144,000	167,000	228,000	323,000	219,000	126,000	78,600
27	92,800	76,900	87,600	112,000	92,200	151,000	188,000	193,000	303,000	219,000	120,000	82,900
28	87,000	101,000	83,700	92,600	93,100	162,000	160,000	187,000	319,000	214,000	135,000	80,200
29	60,800	104,000	93,500	43,000	92,000	157,000	200,000	203,000	307,000	196,000	138,000	53,600
30	60,600	90,900	62,400	78,000	---	167,000	232,000	199,000	311,000	205,000	147,000	52,300
31	83,700	---	97,200	94,600	---	177,000	---	196,000	---	199,000	139,000	---
Total	2,434,800	2,772,000	3,101,500	2,977,100	2,526,100	3,713,100	5,193,000	6,701,000	7,149,000	7,963,000	4,979,000	2,477,800
Mean	78,540	92,400	100,000	96,040	87,110	119,800	173,100	216,200	238,300	256,900	160,600	82,590
Max	106,000	113,000	125,000	127,000	111,000	177,000	232,000	243,000	323,000	298,000	198,000	119,000
Min	51,200	73,000	62,400	43,000	60,800	61,400	126,000	186,000	144,000	196,000	120,000	52,300
Ac-ft	4,829,000	5,498,000	6,152,000	5,905,000	5,011,000	7,365,000	10.30 $\times 10^6$	13.29 $\times 10^6$	14.18 $\times 10^6$	15.79 $\times 10^6$	9,876,000	4,915,000

	Calendar Year 2011	Water Year 2012
Total	52,325,900	51,987,400
Mean	143,400	142,000
Max	317,000	323,000
Min	46,800	43,000
Ac-ft	103,800,000	103,100,000

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