

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 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.--79 years (water years 1914-16, 1931-2006), 118,500 ft³/s, 85,850,000 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, 249,000 ft³/s, May 28; minimum daily discharge, 40,200 ft³/s, Sept. 23.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES
 [×10⁶, million]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	50,900	88,300	111,000	69,000	98,500	76,700	89,000	173,000	181,000	150,000	116,000	79,100
2	61,100	83,900	98,800	75,000	89,700	101,000	93,800	186,000	200,000	107,000	115,000	70,600
3	82,200	76,600	85,600	83,600	89,100	122,000	116,000	188,000	214,000	126,000	115,000	61,600
4	70,700	93,200	83,700	88,700	83,300	98,700	123,000	158,000	199,000	102,000	90,400	60,300
5	76,500	102,000	101,000	94,600	60,200	59,600	115,000	166,000	201,000	151,000	103,000	89,900
6	94,700	75,400	101,000	97,000	99,600	99,700	109,000	174,000	218,000	151,000	82,700	63,800
7	76,800	84,100	101,000	82,500	105,000	91,200	125,000	150,000	218,000	156,000	125,000	76,900
8	65,000	67,000	105,000	71,100	97,500	95,700	125,000	167,000	205,000	157,000	113,000	70,600
9	63,500	80,300	115,000	79,000	99,500	112,000	112,000	158,000	211,000	122,000	115,000	46,000
10	96,500	86,900	86,900	91,900	117,000	107,000	136,000	147,000	196,000	160,000	85,800	45,600
11	90,800	80,700	84,900	99,500	117,000	86,400	148,000	150,000	216,000	142,000	92,500	84,600
12	95,800	56,100	116,000	93,700	89,900	57,100	154,000	167,000	224,000	132,000	70,100	80,400
13	106,000	56,900	113,000	98,100	113,000	92,400	165,000	156,000	216,000	132,000	68,800	88,000
14	97,100	91,000	118,000	93,200	120,000	100,000	168,000	106,000	224,000	142,000	109,000	72,500
15	68,700	116,000	119,000	94,600	107,000	86,900	166,000	147,000	217,000	151,000	103,000	51,300
16	57,800	112,000	114,000	133,000	116,000	76,900	169,000	142,000	229,000	120,000	97,000	56,500
17	81,600	113,000	94,400	129,000	132,000	93,800	166,000	155,000	211,000	125,000	108,000	50,200
18	76,900	109,000	94,300	129,000	133,000	88,300	168,000	185,000	190,000	131,000	101,000	74,500
19	79,900	94,200	111,000	119,000	107,000	71,000	160,000	173,000	200,000	144,000	87,400	70,100
20	87,900	72,900	95,600	107,000	119,000	103,000	170,000	141,000	201,000	125,000	73,200	73,800
21	87,400	110,000	94,400	98,700	122,000	103,000	179,000	141,000	186,000	129,000	106,000	63,400
22	74,700	116,000	95,800	81,700	112,000	89,600	173,000	149,000	224,000	132,000	116,000	52,000
23	65,400	118,000	88,300	102,000	122,000	87,500	161,000	152,000	185,000	105,000	123,000	40,200
24	90,700	80,800	62,200	113,000	120,000	96,500	173,000	166,000	181,000	136,000	123,000	40,600
25	101,000	76,000	56,600	109,000	101,000	84,000	175,000	180,000	180,000	137,000	110,000	84,400
26	69,400	90,000	66,100	110,000	84,500	65,200	163,000	219,000	181,000	115,000	102,000	80,200
27	98,500	96,100	87,800	105,000	103,000	58,600	152,000	227,000	178,000	135,000	96,600	72,200
28	84,300	124,000	86,400	104,000	120,000	80,300	160,000	249,000	182,000	142,000	120,000	78,100
29	72,000	117,000	76,900	93,000	---	101,000	173,000	243,000	165,000	101,000	118,000	74,800
30	44,600	110,000	79,700	106,000	---	97,400	168,000	240,000	157,000	75,800	95,400	59,500
31	79,400	---	74,600	109,000	---	82,600	---	184,000	---	116,000	95,600	---
Total	2,447,800	2,777,400	2,918,000	3,059,900	2,977,800	2,765,100	4,454,800	5,339,000	5,990,000	4,049,800	3,176,500	2,011,700
Mean	78,960	92,580	94,130	98,710	106,400	89,200	148,500	172,200	199,700	130,600	102,500	67,060
Max	106,000	124,000	119,000	133,000	133,000	122,000	179,000	249,000	229,000	160,000	125,000	89,900
Min	44,600	56,100	56,600	69,000	60,200	57,100	89,000	106,000	157,000	75,800	68,800	40,200
Ac-ft	4,855,000	5,509,000	5,788,000	6,069,000	5,906,000	5,485,000	8,836,000	10.59×10 ⁶	11.88×10 ⁶	8,033,000	6,301,000	3,990,000

	Calendar Year 2005	Water Year 2006
Total	37,461,300	41,967,800
Mean	102,600	115,000
Max	181,000	249,000
Min	36,400	40,200
Ac-ft	74,300,000	83,240,000

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