Water-Data Report 2011

14105700 COLUMBIA RIVER AT THE DALLES, OR

Middle Columbia Basin
Middle Columbia-Hood Subbasin

LOCATION.--Lat 45°36′27″, long 121°10′20″ referenced to North American Datum of 1927, in SW ¼ SW ¼ sec.34, T.2 N., R.13 E., Wasco County, OR, Hydrologic Unit 17070105, U.S. Army Corps of Engineers land, on left bank, 0.3 mi downstream from Mill Creek, 2.6 mi downstream from The Dalles Dam and at mile 188.9.

DRAINAGE AREA.--237,000 mi^2, approximately.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1857 to September 1877 (annual maximum only, at Lower Cascades Landing, published in WSP 1318), June 1878 to current year. Published as "near The Dalles" 1936-56.

REVISED RECORDS.--WSP 534: 1920(m). SP 1094: 1894. WSP 1248: 1866, 1888, 1899, 1909. WSP 1518: 1876(M).

GAGE.--Ultrasonic velocity meter (UVM) with water-stage and velocity-index recorder. Datum of gage is NGVD of 1929. See WSP 1738 for history of changes prior to Mar. 16, 1957. Mar. 16, 1957 to Sept 30, 1968, water-stage recorder at site 0.4 mi upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation by many large reservoirs. Diurnal fluctuations caused by powerplant and gates at The Dalles Dam. Many diversions for irrigation upstream from station. Continuous water-quality records for period October 1957 to February 1985 have been collected at this location.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--133 years (water years 1879-2011), 189,700 ft^3/s, 137,500,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge since 1858, 1,240,000 ft^3/s June 6, 1894, gage height, 106.5 ft; minimum discharge since 1878, 12,100 ft^3/s Apr. 16, 1968 (result of closure of John Day Dam, recorded by UVM).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 564,000 ft^3/s June 3; maximum gage height, 85.34 ft June 11, 16; minimum discharge, 41,500 ft^3/s Mar. 7.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 14105700, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/14105700.2011.pdf

14105700 COLUMBIA RIVER AT THE DALLES, OR—Continued

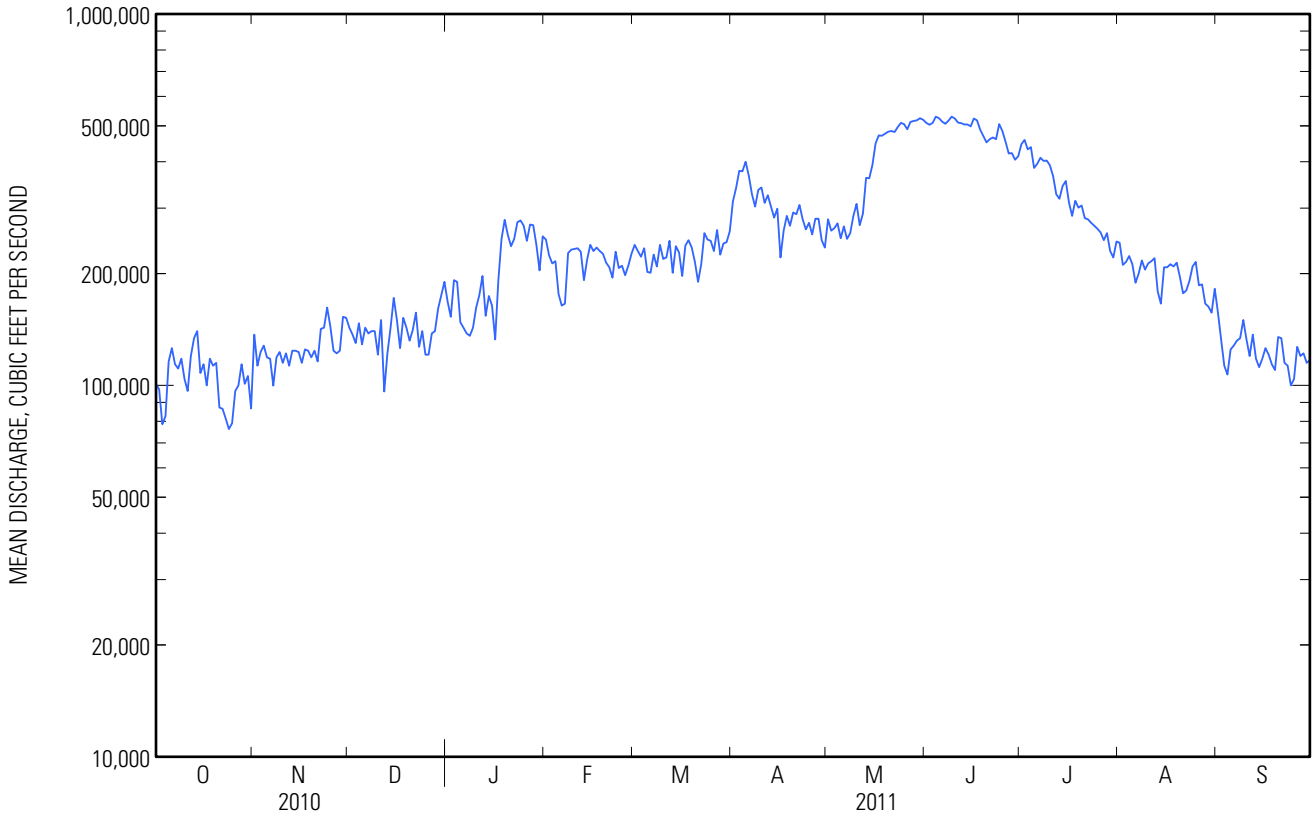
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[$\times 10^6$, million]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	101,000	137,000	143,000	168,000	247,000	239,000	313,000	280,000	509,000	446,000	242,000	157,000
2	97,500	113,000	137,000	153,000	224,000	230,000	340,000	261,000	503,000	458,000	211,000	133,000
3	78,600	123,000	130,000	192,000	213,000	222,000	378,000	265,000	509,000	432,000	215,000	113,000
4	82,700	128,000	147,000	190,000	216,000	234,000	377,000	273,000	529,000	438,000	223,000	107,000
5	116,000	119,000	129,000	148,000	176,000	202,000	400,000	249,000	524,000	385,000	212,000	125,000
6	126,000	118,000	143,000	143,000	164,000	201,000	367,000	268,000	513,000	395,000	189,000	128,000
7	114,000	99,900	138,000	138,000	166,000	225,000	327,000	248,000	506,000	410,000	200,000	132,000
8	111,000	119,000	140,000	136,000	227,000	209,000	303,000	257,000	516,000	402,000	217,000	134,000
9	118,000	123,000	140,000	143,000	232,000	239,000	336,000	286,000	529,000	403,000	205,000	150,000
10	104,000	115,000	121,000	162,000	233,000	219,000	341,000	308,000	523,000	391,000	213,000	133,000
11	96,600	122,000	150,000	175,000	234,000	221,000	310,000	270,000	510,000	366,000	216,000	120,000
12	120,000	113,000	96,300	197,000	229,000	245,000	325,000	290,000	508,000	327,000	220,000	137,000
13	134,000	124,000	122,000	154,000	192,000	201,000	303,000	362,000	504,000	318,000	179,000	118,000
14	140,000	124,000	143,000	174,000	218,000	237,000	283,000	361,000	504,000	344,000	166,000	112,000
15	108,000	123,000	172,000	164,000	239,000	228,000	299,000	392,000	498,000	355,000	208,000	118,000
16	114,000	115,000	150,000	133,000	230,000	197,000	221,000	448,000	523,000	311,000	208,000	126,000
17	100,000	125,000	126,000	192,000	235,000	238,000	261,000	471,000	517,000	286,000	212,000	121,000
18	118,000	124,000	152,000	248,000	230,000	246,000	286,000	470,000	488,000	314,000	209,000	114,000
19	113,000	119,000	143,000	279,000	226,000	235,000	269,000	476,000	469,000	301,000	214,000	110,000
20	115,000	124,000	132,000	254,000	214,000	215,000	292,000	482,000	451,000	305,000	196,000	135,000
21	87,200	116,000	141,000	237,000	208,000	190,000	289,000	484,000	460,000	282,000	177,000	134,000
22	86,500	142,000	157,000	248,000	195,000	212,000	306,000	481,000	465,000	280,000	180,000	115,000
23	81,400	143,000	127,000	275,000	229,000	257,000	280,000	496,000	460,000	274,000	191,000	113,000
24	76,300	162,000	140,000	278,000	207,000	247,000	263,000	509,000	505,000	269,000	209,000	100,000
25	79,100	144,000	121,000	269,000	210,000	245,000	274,000	505,000	484,000	264,000	215,000	104,000
26	96,600	124,000	121,000	245,000	198,000	230,000	255,000	489,000	453,000	258,000	186,000	127,000
27	100,000	122,000	138,000	271,000	210,000	262,000	281,000	512,000	421,000	246,000	187,000	120,000
28	114,000	124,000	140,000	270,000	226,000	225,000	281,000	515,000	422,000	257,000	166,000	122,000
29	101,000	153,000	161,000	239,000	---	241,000	246,000	517,000	405,000	230,000	163,000	115,000
30	106,000	152,000	175,000	204,000	---	243,000	235,000	524,000	414,000	221,000	157,000	117,000
31	86,700	---	190,000	252,000	---	260,000	---	519,000	---	244,000	182,000	---
Total	3,222,200	3,789,900	4,365,300	6,331,000	6,028,000	7,095,000	9,041,000	12.26×10^6	14.62×10^6	10.21×10^6	6,168,000	3,690,000
Mean	103,900	126,300	140,800	204,200	215,300	228,900	301,400	395,700	487,400	329,400	199,000	123,000
Max	140,000	162,000	190,000	279,000	247,000	262,000	400,000	524,000	529,000	458,000	242,000	157,000
Min	76,300	99,900	96,300	133,000	164,000	190,000	221,000	248,000	405,000	221,000	157,000	100,000
Ac-ft	6,391,000	7,517,000	8,659,000	12.56×10^6	11.96×10^6	14.07×10^6	17.93×10^6	24.33×10^6	29.00×10^6	20.26×10^6	12.23×10^6	7,319,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1879 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	104,300	109,200	117,500	121,700	130,400	147,700	204,600	334,000	426,500	290,500	169,900	118,300
Max	174,800	200,800	258,300	275,000	340,400	345,000	386,400	624,400	1,002,000	793,300	385,700	198,200
(WY)	(1960)	(1928)	(1996)	(1997)	(1996)	(1983)	(1881)	(1897)	(1894)	(1880)	(1880)	(1880)
Min	69,430	57,830	52,380	42,430	51,420	69,820	98,350	136,100	123,700	86,780	91,970	75,760
(WY)	(1930)	(1937)	(1937)	(1937)	(1937)	(1937)	(1944)	(1977)	(1977)	(2001)	(1994)	(1994)

14105700 COLUMBIA RIVER AT THE DALLES, OR—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1879 - 2011	
Annual total	54,787,500		86,832,400			
Annual mean	150,100		237,900		189,700	
Highest annual mean					313,600	1894
Lowest annual mean					117,600	2001
Highest daily mean	419,000	Jun 11	529,000	Jun 4	1,230,000	Jun 6, 1894
Lowest daily mean	66,500	Sep 20	76,300	Oct 24	36,000	Jan 12, 1937
Annual seven-day minimum	80,600	Sep 4	86,700	Oct 21	38,200	Jan 7, 1937
Annual runoff (ac-ft)	108,700,000		172,200,000		137,500,000	
10 percent exceeds	233,000		467,000		372,000	
50 percent exceeds	124,000		214,000		142,000	
90 percent exceeds	97,000		115,000		81,800