

Water-Data Report 2007

**14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR**

Lower Columbia Basin  
Lower Columbia-Clatskanie Subbasin

LOCATION.--Lat 46°10'53", long 123°10'56" referenced to North American Datum of 1927, in NE ¼ sec.16, T.8 N., R.4 W., Columbia County, OR, Hydrologic Unit 17080003, on left bank, 0.7 mi downstream from Crims Island, 3.0 mi northwest of Quincy and at mile 53.8.

DRAINAGE AREA.--256,900 mi<sup>2</sup>, approximately.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--May 1968 to June 1970, June 1991 to current year.

GAGE.--Water-stage and velocity index recorder. Datum of gage is Columbia River Datum, subtract 1.00 ft to correct to NGVD of 1929. May 1968 to June 1970, water-stage recorder with auxiliary water-stage recorder 5.6 miles downstream, at datum 10.00 ft lower; June 1991 to September 30, 2004, at present site, at datum 1.52 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by many reservoirs on Columbia River and in tributary basins. Flows affected by tide which can cause reverse direction during tidal cycle when mean daily flows are less than 250,000 ft<sup>3</sup>/s. Mean discharge values since water year 2006 have been filtered to remove daily tidal cycle. Estimated daily discharges are determined by flow routing.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--17 years (water years 1969, 1992-2007), 231,200 ft<sup>3</sup>/s, 167,500,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 864,000 ft<sup>3</sup>/s Feb. 10, 1996; minimum daily discharge, 63,600 ft<sup>3</sup>/s Sept. 9, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 428,000 ft<sup>3</sup>/s Nov. 8; maximum gage height, 11.02 ft Nov. 7; minimum daily discharge, 87,400 ft<sup>3</sup>/s Sept. 24.

## 14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**  
**DAILY MEAN VALUES**

[e, estimated;  $\times 10^6$ , million]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	95,600	156,000	258,000	252,000	182,000	252,000	338,000	291,000	265,000	211,000	187,000	148,000
2	99,700	143,000	232,000	234,000	185,000	262,000	331,000	303,000	260,000	178,000	196,000	131,000
3	109,000	134,000	223,000	274,000	192,000	265,000	322,000	313,000	254,000	172,000	199,000	116,000
4	120,000	134,000	213,000	337,000	185,000	257,000	322,000	321,000	258,000	186,000	170,000	117,000
5	121,000	164,000	206,000	357,000	177,000	246,000	325,000	335,000	265,000	186,000	154,000	120,000
6	115,000	238,000	208,000	366,000	175,000	237,000	331,000	338,000	269,000	200,000	156,000	122,000
7	117,000	362,000	212,000	367,000	176,000	230,000	313,000	329,000	281,000	202,000	155,000	117,000
8	126,000	428,000	207,000	362,000	181,000	242,000	298,000	311,000	280,000	192,000	151,000	103,000
9	134,000	402,000	203,000	343,000	183,000	264,000	294,000	311,000	289,000	192,000	158,000	96,100
10	137,000	364,000	200,000	331,000	180,000	260,000	306,000	317,000	297,000	197,000	166,000	90,200
11	133,000	345,000	207,000	320,000	179,000	247,000	307,000	317,000	289,000	188,000	169,000	92,500
12	136,000	331,000	235,000	306,000	184,000	253,000	292,000	318,000	284,000	199,000	174,000	108,000
13	145,000	333,000	258,000	301,000	186,000	278,000	284,000	313,000	277,000	215,000	157,000	112,000
14	138,000	341,000	304,000	295,000	182,000	298,000	286,000	315,000	273,000	220,000	155,000	107,000
15	114,000	311,000	382,000	284,000	198,000	304,000	290,000	322,000	271,000	222,000	173,000	105,000
16	121,000	297,000	412,000	285,000	251,000	300,000	282,000	320,000	269,000	228,000	177,000	95,400
17	126,000	289,000	355,000	284,000	267,000	287,000	279,000	313,000	250,000	234,000	168,000	94,800
18	109,000	269,000	313,000	271,000	260,000	273,000	286,000	309,000	237,000	216,000	151,000	101,000
19	106,000	240,000	303,000	258,000	248,000	265,000	280,000	314,000	252,000	197,000	136,000	100,000
20	117,000	233,000	294,000	254,000	262,000	281,000	283,000	315,000	250,000	190,000	130,000	102,000
21	127,000	233,000	280,000	242,000	279,000	313,000	284,000	311,000	236,000	186,000	129,000	97,300
22	122,000	247,000	278,000	230,000	264,000	327,000	287,000	320,000	235,000	189,000	139,000	97,200
23	119,000	261,000	272,000	235,000	241,000	311,000	293,000	319,000	238,000	200,000	145,000	94,100
24	127,000	290,000	266,000	229,000	229,000	300,000	287,000	309,000	229,000	200,000	143,000	87,400
25	137,000	310,000	272,000	227,000	235,000	336,000	273,000	307,000	209,000	182,000	139,000	87,600
26	141,000	304,000	286,000	233,000	252,000	364,000	275,000	298,000	198,000	174,000	126,000	93,600
27	138,000	307,000	e322,000	233,000	252,000	365,000	276,000	280,000	203,000	180,000	124,000	95,000
28	129,000	304,000	e327,000	215,000	248,000	352,000	277,000	278,000	196,000	186,000	129,000	94,300
29	114,000	294,000	e342,000	190,000	---	338,000	281,000	290,000	197,000	179,000	139,000	93,200
30	129,000	277,000	e316,000	188,000	---	332,000	282,000	280,000	214,000	176,000	148,000	90,300
31	157,000	---	e276,000	182,000	---	334,000	---	270,000	---	186,000	157,000	---
<b>Total</b>	3,859,300	8,341,000	8,462,000	8,485,000	6,033,000	8,973,000	8,864,000	9,587,000	7,525,000	6,063,000	4,800,000	3,108,000
<b>Mean</b>	124,500	278,000	273,000	273,700	215,500	289,500	295,500	309,300	250,800	195,600	154,800	103,600
<b>Max</b>	157,000	428,000	412,000	367,000	279,000	365,000	338,000	338,000	297,000	234,000	199,000	148,000
<b>Min</b>	95,600	134,000	200,000	182,000	175,000	230,000	273,000	270,000	196,000	172,000	124,000	87,400
<b>Ac-ft</b>	7,655,000	16.54 $\times 10^6$	16.78 $\times 10^6$	16.83 $\times 10^6$	11.97 $\times 10^6$	17.80 $\times 10^6$	17.58 $\times 10^6$	19.02 $\times 10^6$	14.93 $\times 10^6$	12.03 $\times 10^6$	9,521,000	6,165,000

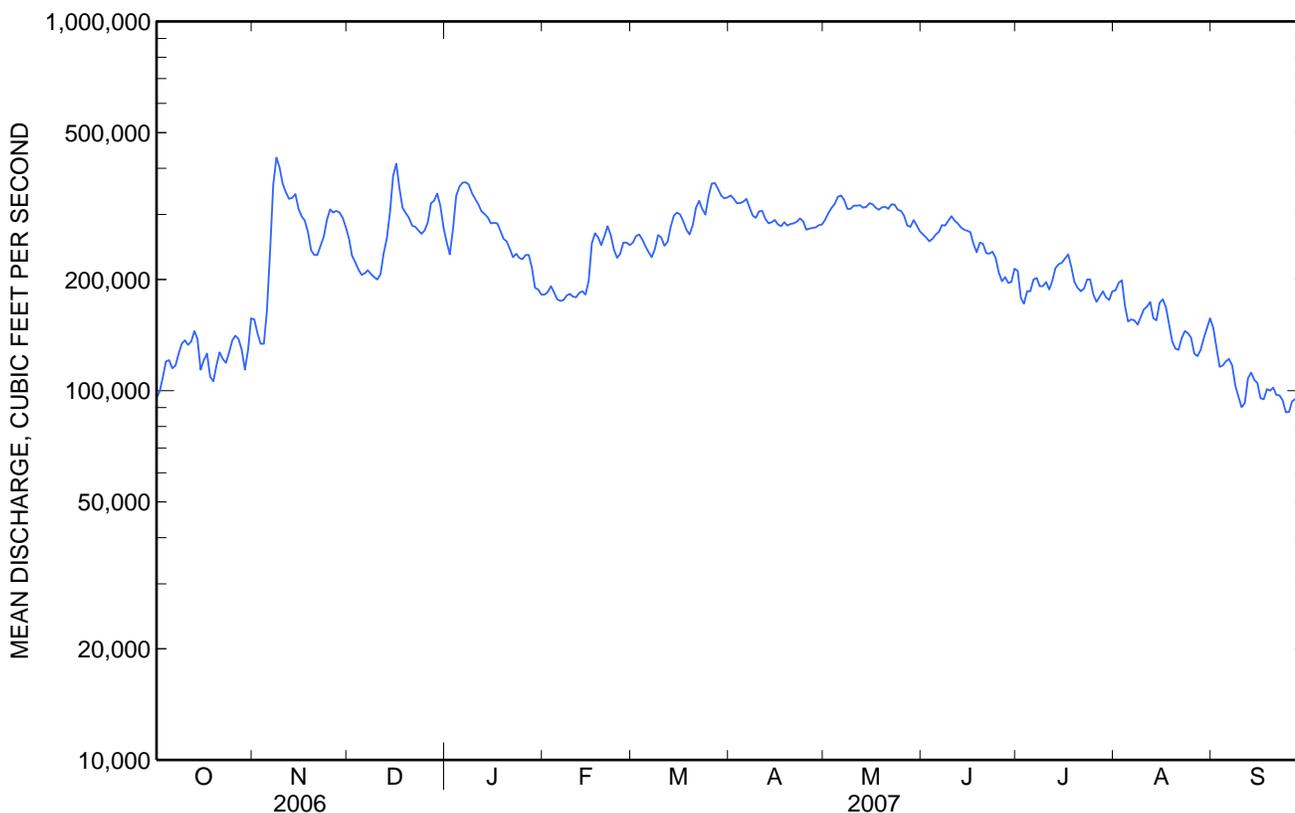
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	140,500	192,700	256,300	281,400	264,900	247,700	273,500	327,100	309,100	204,100	154,500	124,100
<b>Max</b>	212,300	278,000	430,800	444,300	543,400	388,700	406,500	507,500	514,500	279,300	223,000	177,300
<b>(WY)</b>	(1998)	(2007)	(1996)	(1997)	(1996)	(1997)	(1969)	(1997)	(1997)	(1997)	(1999)	(1997)
<b>Min</b>	98,380	136,100	175,400	153,400	141,500	142,100	150,500	174,700	151,700	98,390	106,300	90,080
<b>(WY)</b>	(2002)	(1994)	(1994)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1969 - 2007	
<b>Annual total</b>	93,088,500		84,100,300			
<b>Annual mean</b>	255,000		230,400		231,200	
<b>Highest annual mean</b>					338,200	1997
<b>Lowest annual mean</b>					140,000	2001
<b>Highest daily mean</b>	489,000	Jan 11	428,000	Nov 8	864,000	Feb 10, 1996
<b>Lowest daily mean</b>	89,900	Sep 27	87,400	Sep 24	63,600	Sep 9, 2001
<b>Annual seven-day minimum</b>	102,000	Sep 25	91,600	Sep 24	78,700	Sep 5, 2001
<b>Annual runoff (ac-ft)</b>	184,600,000		166,800,000		167,500,000	
<b>10 percent exceeds</b>	407,000		322,000		371,000	
<b>50 percent exceeds</b>	235,000		238,000		209,000	
<b>90 percent exceeds</b>	122,000		118,000		123,000	



## 14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1993 to September 2003.

WATER TEMPERATURE: August 1967 to September 1970. October 1993 to September 2003.

TURBIDITY: February 2001 to September 2007 (discontinued).

INSTRUMENTATION.--Water-quality monitor. Any use of trade, product, or firm names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Government.

REMARKS.--Since February 1994, specific conductance and temperature sensors located near right bank. Prior to that time, sensors were located near left bank. It was determined that daily record collected prior to February 1994 is not representative of the cross section due to a seasonal influence from several upstream sloughs. Additional specific conductance and temperature data for the period October 1992 to September 1993 available in the files of the Portland Field Office. Boron values less than 16 UG/L have been designated as estimated due to a change in the minimum reporting level effective December 22, 1997.

TURBIDITY: Records fair. Data collected using an Analite NEP195 or 395 turbidity sensor. Manufacturer's stated precision is +/- 1 percent of reading at 25°C. Formazin Nephelometric Unit values below 10 are reported to nearest 0.1 FNU. Negative recorded values are reported as 0.0 FNU.

## EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 188 microsiemens Feb. 5, 1994, but may have been higher during periods of missing record; minimum recorded, 73 microsiemens Feb. 9, 1996, but may have been lower during periods of missing record.

WATER TEMPERATURE: Maximum, 24.0°C July 28, 1998; minimum, 0.0°C Jan. 31, Feb. 1, 1969.

TURBIDITY: Maximum, >400 FNU Nov. 6-9, 2006; minimum, <1 FNU Mar. 2, 2001, Oct. 3, 2003, on many days during July, August 2005.

## EXTREMES FOR CURRENT YEAR.--

TURBIDITY: Maximum, >400 FNU Nov. 6-9; minimum recorded, 1.0 FNU Aug. 29, 30, Sept. 2, but may have been lower during periods of missing record.

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 1 of 11

[Remark codes: &lt;, less than; E, estimated.]

Date	Time	Dis-charge, cfs (00060)	Turb-idity, IR LED light, det ang 90 deg, FNU (63680)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif-ic conduc-tance, wat unf µS/cm 25 degC (00095)	Temper-ature, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)
<b>Oct</b>													
<b>12...</b>	1410	136,000	2.5	761	10.1	103	7.9	143	16.0	58	16.1	4.26	1.13
<b>Nov</b>													
<b>09...</b>	1220	402,000	280	764	10.8	100	7.6	90	12.0	33	9.12	2.57	.94
<b>Dec</b>													
<b>13...</b>	1320	258,000	26	762	12.1	98	7.3	141	6.6	54	14.5	4.29	1.17
<b>Feb</b>													
<b>22...</b>	1350	264,000	24	755	12.9	104	7.4	124	6.0	52	14.2	4.11	1.06
<b>Apr</b>													
<b>18...</b>	1310	286,000	11	759	12.7	111	8.1	132	9.3	58	15.8	4.46	1.05
<b>Jun</b>													
<b>20...</b>	1330	250,000	11	762	10.8	112	8.2	113	16.9	49	13.6	3.57	.91
<b>Aug</b>													
<b>23...</b>	1420	145,000	4.0	761	9.6	108	7.9	145	21.1	59	16.2	4.55	1.06

## 14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

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[Remark codes: &lt;, less than; E, estimated.]

Date	Sodium adsorption ratio (00931)	Sodium fraction of cations percent (00932)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	Residue on evap. at 180degC wat flt mg/L (70300)
Oct 12...	.3	18	6.08	54	66	.2	4.01	.13	9.51	9.59	84	.12	90
Nov 09...	.3	22	4.47	33	40	.0	2.87	.12	9.85	6.15	57	.08	61
Dec 13...	.4	21	6.84	48	58	.0	4.03	.11	11.6	10.3	84	.12	87
Feb 22...	.4	20	6.32	44	54	.1	4.01	E.10	11.9	8.72	79	.11	82
Apr 18...	.3	15	4.73	54	65	.2	2.86	E.07	10.5	9.10		.13	95
Jun 20...	.3	17	4.55	44	53	.2	2.54	E.09	7.79	7.27	67	.10	73
Aug 23...	.3	17	5.84	54	65	.4	4.10	.13	8.34	9.95	83	.13	98

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 3 of 11

[Remark codes: &lt;, less than; E, estimated.]

Date	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Phosphorus, suspnd total, percent (30292)	Total carbon, suspnd total, percent (30244)	Total carbon, suspnd total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
Oct 12...	E.08	.14	.027	.177	.003	.019	.019	.032	--	--	.171	<.12	.168
Nov 09...	.22	.29	E.015	.364	.004	.013	.019	.41	.09	.6	2.81	<.12	2.81
Dec 13...	.24	.18	.039	.393	.005	.018	.025	.069	--	--	.234	<.12	.234
Feb 22...	.12	.22	E.015	.459	.004	.013	.013	.071	--	--	.547	<.12	.547
Apr 18...	.11	.22	<.02	.273	.002	.008	.008	.046	--	--	.474	<.12	.472
Jun 20...	.11	.22	<.02	.040	.005	E.004	E.005	.035	--	--	.523	<.12	.523
Aug 23...	.11	.16	.022	.124	.003	.015	.017	.028	--	--	.191	<.12	.191

## 14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 4 of 11

[Remark codes: &lt;, less than; E, estimated.]

Date	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, suspnd sediment, percent (50465)	Aluminum, water, fltrd, µg/L (01106)	Anti-mony, water, fltrd, µg/L (01095)	Arsenic, water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryllium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium, water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Cobalt, water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)
Oct 12...	1.5	--	2.2	.1	1.0	23.3	<.06	21	E.02	E.08	E.02	.76	8
Nov 09...	2.1	.5	16.5	.07	.5	6.5	<.06	9	E.03	<.1	.05	1.83	18
Dec 13...	1.7	--	6.9	.1	.9	16.0	<.06	15	<.04	E.09	E.03	.80	10
Feb 22...	1.7	--	5.8	.08	.6	15.3	<.06	11	<.04	E.1	E.03	1.19	11
Apr 18...	1.6	--	3.1	.1	.6	18.2	<.06	E8	<.04	E.1	E.02	.66	7
Jun 20...	--	--	3.3	.1	.7	17.0	<.06	8	<.04	.1	.04	.74	8
Aug 23...	1.4	--	2.5	.1	.9	25.5	<.06	11	<.04	E.06	E.02	.73	<6

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 5 of 11

[Remark codes: &lt;, less than; E, estimated.]

Date	Lead, water, fltrd, µg/L (01049)	Lithium, water, fltrd, µg/L (01130)	Manganese, water, fltrd, µg/L (01056)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Strontium, water, fltrd, µg/L (01080)	Vanadium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)	Aluminum, suspnd sediment total, percent (30221)	Anti-mony, suspnd sediment total, ug/g (29816)	Arsenic, suspnd sediment total, ug/g (29818)
Oct 12...	<.12	2.5	.8	.8	.49	.2	<.1	93.5	1.94	.7	--	--	--
Nov 09...	.18	1.4	6.7	.4	1.13	E.07	<.1	50.6	1.51	2.7	9	.2	2.6
Dec 13...	<.12	3.2	3.3	.8	.37	.1	<.1	85.0	1.70	.9	--	--	--
Feb 22...	E.08	2.2	2.4	.5	.62	.1	<.1	69.3	1.45	1.8	--	--	--
Apr 18...	<.12	1.8	1.6	.6	.44	.08	<.1	84.5	1.26	1.1	--	--	--
Jun 20...	<.12	1.8	.5	.6	.27	.1	<.1	71.1	1.27	E.3	--	--	--
Aug 23...	<.12	2.4	.3	.7	.33	.2	<.1	87.1	1.65	E.5	--	--	--

## 14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

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[Remark codes: &lt;, less than; E, estimated.]

Date	Barium, suspnd sedimnt total, ug/g (29820)	Beryll- ium, suspnd sedimnt total, ug/g (29822)	Cadmium suspnd sedimnt total, ug/g (29826)	Chrom- ium, suspnd sedimnt total, ug/g (29829)	Cobalt, suspnd sedimnt total, ug/g (35031)	Copper, suspnd sedimnt total, ug/g (29832)	Iron, suspnd sedimnt total, percent (30269)	Lead, suspnd sedimnt total, ug/g (29836)	Lithium suspnd sedimnt total, ug/g (35050)	Mangan- ese, suspnd sedimnt total, ug/g (29839)	Mercury suspnd sedimnt total, ug/g (29841)	Molyb- denum, suspnd sedimnt total, ug/g (29843)	Nickel, suspnd sedimnt total, ug/g (29845)
Oct 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
Nov 09...	400	1.4	.1	22	12	55	3.3	9	21	590	.04	1	16
Dec 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
Feb 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
Apr 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
Jun 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
Aug 23...	--	--	--	--	--	--	--	--	--	--	--	--	--

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 7 of 11

[Remark codes: &lt;, less than; E, estimated.]

Date	Selen- ium, suspnd sedimnt total, ug/g (29847)	Silver, suspnd sedimnt total, ug/g (29850)	Stront- ium, suspnd sedimnt total, ug/g (35040)	Titan- ium, suspnd sedimnt total, percent (30317)	Vanad- ium, suspnd sedimnt total, ug/g (29853)	Zinc, suspnd sedimnt total, ug/g (29855)	2,6-Di- ethyl- aniline water, fltrd 0.7u GF µg/L (82660)	CIAT, water, fltrd, µg/L (04040)	Aceto- chlor, water, fltrd, µg/L (49260)	Ala- chlor, water, fltrd, µg/L (46342)	alpha- HCH, water, fltrd, µg/L (34253)	Atra- zine, water, fltrd, µg/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF µg/L (82686)
Oct 12...	--	--	--	--	--	--	<.002	<.014	<.006	<.005	<.002	<.007	<.08
Nov 09...	.2	<.5	420	.4	72	69	<.002	<.014	<.006	<.005	<.002	E.004	<.08
Dec 13...	--	--	--	--	--	--	<.002	<.014	<.006	<.005	<.002	<.007	<.08
Feb 22...	--	--	--	--	--	--	<.002	<.014	<.006	<.005	<.002	.014	<.08
Apr 18...	--	--	--	--	--	--	<.002	<.014	<.006	<.005	<.002	E.005	<.08
Jun 20...	--	--	--	--	--	--	<.002	<.014	<.006	<.005	<.002	<.007	<.08
Aug 23...	--	--	--	--	--	--	<.002	<.014	<.006	<.005	<.002	<.007	<.08

## 14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 8 of 11

[Remark codes: &lt;, less than; E, estimated.]

Date	Ben- flur- alin, water, fltrd 0.7u GF µg/L (82673)	Butyl- ate, water, fltrd, µg/L (04028)	Car- baryl, water, fltrd, 0.7u GF µg/L (82680)	Carbo- furan, water, fltrd 0.7u GF µg/L (82674)	Chlor- pyrifos water, fltrd, µg/L (38933)	cis- Per- methrin water fltrd 0.7u GF µg/L (82687)	Cyana- zine, water, fltrd, µg/L (04041)	DCPA, water, fltrd 0.7u GF µg/L (82682)	Diazi- non, water, fltrd, µg/L (39572)	Diel- drin, water, fltrd, µg/L (39381)	Disul- foton, water, fltrd 0.7u GF µg/L (82677)	EPTC, water, fltrd 0.7u GF µg/L (82668)	Ethal- flur- alin, water, fltrd 0.7u GF µg/L (82663)
Oct 12...	<.006	<.002	<.06	<.02	<.005	<.01	<.018	<.003	<.005	<.009	<.02	<.002	<.009
Nov 09...	<.006	<.002	<.06	<.02	<.005	<.01	<.018	<.003	<.005	<.009	<.02	<.002	<.009
Dec 13...	<.006	<.002	<.06	<.02	<.005	<.01	<.018	<.003	<.005	<.009	<.02	<.002	<.009
Feb 22...	<.006	<.002	<.06	<.02	<.005	<.01	<.018	<.003	<.005	<.009	<.02	<.002	<.009
Apr 18...	<.006	<.002	<.06	<.02	<.005	<.01	<.018	<.003	<.005	<.009	<.02	<.013	<.009
Jun 20...	<.006	<.002	<.06	<.02	<.005	<.01	<.018	<.003	<.005	<.009	<.02	.002	<.009
Aug 23...	<.006	<.002	<.06	<.02	<.005	<.01	<.018	<.003	<.005	<.009	<.02	<.002	<.009

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 9 of 11

[Remark codes: &lt;, less than; E, estimated.]

Date	Etho- prop, water, fltrd 0.7u GF µg/L (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water, fltrd 0.7u GF µg/L (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl para- thion, water, fltrd 0.7u GF µg/L (82667)	Metola- chlor, water, fltrd, µg/L (39415)	Metri- buzin, water, fltrd, µg/L (82630)	Moli- nate, water, fltrd 0.7u GF µg/L (82671)	Naprop- amide, water, fltrd 0.7u GF µg/L (82684)	p,p'- DDE, water, fltrd, µg/L (34653)	Para- thion, water, fltrd, µg/L (39542)	Peb- ulate, water, fltrd 0.7u GF µg/L (82669)
Oct 12...	<.012	<.006	<.004	<.06	<.016	<.008	E.003	<.012	<.002	<.018	<.003	<.01	<.004
Nov 09...	<.012	<.006	<.004	<.06	<.016	<.008	E.008	<.012	<.002	.021	<.003	<.01	<.004
Dec 13...	<.012	<.006	<.004	<.06	<.016	<.008	E.005	E.006	<.002	<.018	<.003	<.01	<.004
Feb 22...	<.012	<.006	<.004	<.06	<.016	<.008	E.004	.016	<.002	<.018	<.003	<.01	<.004
Apr 18...	<.012	<.006	<.004	<.06	<.016	<.008	<.010	<.012	<.002	<.018	<.003	<.01	<.004
Jun 20...	<.012	<.006	<.004	<.06	<.016	<.008	<.010	<.012	<.002	<.018	<.003	<.01	<.004
Aug 23...	<.012	<.006	<.004	<.06	<.016	<.008	<.010	<.012	<.002	<.018	<.003	<.01	<.004

## 14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 10 of 11

[Remark codes: &lt;, less than; E, estimated.]

Date	Pendi- meth- alin, water, fltrd 0.7u GF µg/L (82683)	Phorate water, fltrd 0.7u GF µg/L (82664)	Prome- ton, water, fltrd, 0.7u GF µg/L (04037)	Propy- zamide, water, fltrd 0.7u GF µg/L (82676)	Propa- chlor, water, fltrd, 0.7u GF µg/L (04024)	Pro- panil, water, fltrd 0.7u GF µg/L (82679)	Propar- gite, water, fltrd 0.7u GF µg/L (82685)	Sima- zine, water, fltrd, 0.7u GF µg/L (04035)	Tebu- thiuron water, fltrd 0.7u GF µg/L (82670)	Terba- cil, water, fltrd 0.7u GF µg/L (82665)	Terbu- fos, water, fltrd 0.7u GF µg/L (82675)	Thio- bencarb water, fltrd 0.7u GF µg/L (82681)	Tri- allate, water, fltrd 0.7u GF µg/L (82678)
<b>Oct</b>													
12...	<.02	<.02	<.008	<.004	<.01	<.011	<.02	<.006	<.016	<.04	<.012	<.01	<.006
<b>Nov</b>													
09...	<.02	<.02	<.008	<.004	<.01	<.011	<.02	.008	<.016	<.04	<.012	<.01	<.006
<b>Dec</b>													
13...	<.02	<.02	<.008	<.004	<.01	<.011	<.02	<.006	<.016	<.04	<.012	<.01	<.006
<b>Feb</b>													
22...	<.02	<.02	<.008	<.004	<.01	<.011	<.02	E.005	<.016	<.04	<.012	<.01	<.006
<b>Apr</b>													
18...	<.02	<.02	<.008	<.004	<.01	<.011	<.02	<.006	<.016	<.04	<.012	<.01	<.006
<b>Jun</b>													
20...	<.02	<.02	<.008	<.004	<.01	<.011	<.02	<.006	<.016	<.04	<.012	<.01	<.006
<b>Aug</b>													
23...	<.02	<.02	<.008	<.004	<.01	<.011	<.02	<.006	<.016	<.04	<.012	<.01	<.006

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 11 of 11

[Remark codes: &lt;, less than; E, estimated.]

Date	Tri- flur- alin, water, fltrd 0.7u GF µg/L (82661)	Uranium natural water, fltrd, µg/L (22703)	Uranium suspnd sedimnt total, ug/g (35046)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
<b>Oct</b>						
12...	<.006	.58	--	88	4	1,470
<b>Nov</b>						
09...	<.006	.17	<50	88	513	557,000
<b>Dec</b>						
13...	<.006	.69	--	89	40	27,900
<b>Feb</b>						
22...	<.006	.49	--	58	46	32,800
<b>Apr</b>						
18...	<.006	.56	--	53	32	24,700
<b>Jun</b>						
20...	<.006	.40	--	66	18	12,200
<b>Aug</b>						
23...	<.006	.54	--	98	5	1,960

## 14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS  
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

[&gt;, greater than]

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	October			November			December			January		
1	5.0	2.9	3.8	4.6	2.0	3.1	40	17	30	110	95	103
2	5.4	2.9	3.8	5.1	1.9	3.2	37	17	28	108	91	100
3	6.4	2.9	4.0	5.3	2.2	3.4	32	10	23	170	93	102
4	6.2	3.0	4.2	7.8	2.5	4.1	30	12	21	170	123	148
5	7.0	2.9	4.2	80	4.5	34	36	13	20	166	121	132
6	6.5	2.8	3.8	>400	54	138	31	13	23	146	115	132
7	8.2	2.8	3.8	>400	>400	>400	36	11	19	155	122	133
8	6.8	2.7	3.8	>400	226	>400	26	11	19	176	135	156
9	5.3	2.8	4.1	>400	150	278	26	12	18	158	127	137
10	8.8	2.9	4.1	285	127	180	28	12	19	150	125	134
11	6.3	2.9	3.9	358	231	312	33	13	19	147	121	129
12	9.2	2.6	3.5	280	91	147	70	20	32	142	109	123
13	4.6	2.2	3.1	147	70	107	75	24	50	145	---	---
14	7.2	2.0	2.9	145	76	108	88	43	66	---	---	---
15	4.8	2.1	3.0	113	50	90	218	44	120	---	---	---
16	6.7	2.2	3.0	129	44	89	234	134	189	---	---	---
17	7.0	1.8	3.1	123	42	86	191	148	171	---	---	---
18	8.1	2.4	3.6	86	32	65	186	143	162	---	---	---
19	9.8	2.5	4.4	79	32	50	169	110	128	---	---	---
20	8.9	2.9	4.7	82	29	47	131	94	114	---	---	---
21	7.0	2.7	4.4	78	32	50	184	92	107	---	---	---
22	6.7	3.1	3.9	78	35	58	129	96	109	---	---	---
23	5.5	2.9	3.7	74	32	47	122	84	98	---	---	---
24	9.0	2.5	3.8	66	31	51	116	84	100	---	---	---
25	5.2	2.6	3.6	75	29	50	117	87	96	---	---	---
26	4.9	2.5	3.5	68	26	45	165	96	114	---	---	---
27	6.3	2.2	3.5	59	27	41	136	97	115	---	---	---
28	5.6	2.5	3.3	54	26	39	133	104	121	---	---	---
29	4.5	2.3	3.1	47	24	34	124	100	113	---	---	---
30	4.6	2.3	3.1	46	21	31	118	94	107	---	---	---
31	4.5	2.0	3.2	---	---	---	116	91	106	---	---	---
Max	9.8	3.1	4.7	>400	>400	>400	234	148	189	---	---	---
Min	4.5	1.8	2.9	4.6	1.9	3.1	26	10	18	---	---	---

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS  
 WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007  
 [>, greater than]

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	---	---	---	---	---	---	20	12	16	22	10	14
2	---	---	---	---	---	---	18	12	15	---	---	---
3	---	---	---	---	---	---	19	8.8	14	---	---	---
4	---	---	---	---	---	---	15	8.3	12	---	---	---
5	---	---	---	---	---	---	14	7.5	11	---	---	---
6	---	---	---	---	---	---	17	8.2	11	---	---	---
7	---	---	---	---	---	---	13	6.8	10	---	---	---
8	---	---	---	---	---	---	15	5.5	9.3	8.2	3.8	6.2
9	---	---	---	---	---	---	12	6.2	9.3	9.3	4.9	6.5
10	---	---	---	---	---	---	14	7.3	9.9	8.3	4.5	6.5
11	---	---	---	---	---	---	12	7.1	9.8	13	4.1	7.3
12	---	---	---	---	---	---	12	6.1	8.3	10	4.1	7.0
13	---	---	---	---	---	---	11	5.6	8.5	---	---	---
14	---	---	---	49	---	---	9.9	4.5	8.0	---	---	---
15	---	---	---	40	18	28	16	4.3	8.2	---	---	---
16	---	---	---	27	13	21	11	3.6	7.5	---	---	---
17	---	---	---	25	10	20	10	3.0	6.9	---	---	---
18	---	---	---	22	6.2	17	9.5	2.3	6.9	---	---	---
19	---	---	---	20	7.2	16	9.4	2.9	6.8	---	---	---
20	---	---	---	21	7.4	15	10	3.2	6.7	---	---	---
21	---	---	---	24	7.4	18	9.7	2.2	6.6	---	---	---
22	---	---	---	19	10	16	8.1	3.0	6.3	---	---	---
23	---	---	---	23	7.4	15	11	3.7	6.3	---	---	---
24	---	---	---	20	5.9	16	8.8	4.4	6.9	---	---	---
25	---	---	---	88	15	29	13	3.8	6.4	---	---	---
26	---	---	---	73	32	55	9.6	2.7	5.8	---	---	---
27	---	---	---	53	31	37	11	3.5	5.7	---	---	---
28	---	---	---	35	27	31	9.5	2.0	6.2	---	---	---
29	---	---	---	29	20	25	11	2.3	7.8	---	---	---
30	---	---	---	23	18	20	42	6.9	23	7.4	2.4	4.5
31	---	---	---	23	14	19	---	---	---	9.4	2.2	4.3
Max	---	---	---	---	---	---	42	12	23	---	---	---
Min	---	---	---	---	---	---	8.1	2.0	5.7	---	---	---

## 14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS  
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

[&gt;, greater than]

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	<b>June</b>			<b>July</b>			<b>August</b>			<b>September</b>		
<b>1</b>	6.8	1.6	4.3	14	3.4	5.9	24	4.5	6.3	4.2	1.3	2.2
<b>2</b>	11	1.8	4.0	12	2.0	5.4	29	4.0	7.1	7.4	1.0	1.8
<b>3</b>	6.7	1.5	3.6	12	3.3	5.7	---	---	---	5.1	1.1	2.2
<b>4</b>	5.3	1.4	3.5	9.4	2.8	5.5	---	---	---	6.1	1.4	2.1
<b>5</b>	6.0	1.6	3.6	13	2.3	4.5	---	---	---	4.3	1.5	2.2
<b>6</b>	6.9	1.7	3.6	12	2.5	4.7	---	---	---	4.3	1.9	2.4
<b>7</b>	15	2.3	4.0	7.8	1.7	3.6	---	---	---	5.7	2.0	2.4
<b>8</b>	7.1	1.5	4.3	8.7	2.0	3.4	---	---	---	7.2	2.1	2.5
<b>9</b>	8.3	1.9	4.2	12	2.5	5.1	---	---	---	6.0	2.1	2.5
<b>10</b>	12	2.6	4.1	12	4.1	7.7	---	---	---	10	2.3	3.1
<b>11</b>	12	2.5	4.3	15	4.1	7.4	12	3.8	5.6	5.0	2.4	3.0
<b>12</b>	9.5	2.5	4.3	32	4.0	13	32	3.7	6.4	5.4	2.5	3.1
<b>13</b>	8.8	1.7	4.4	28	2.2	10	25	2.2	3.3	9.0	2.6	3.7
<b>14</b>	6.8	2.2	4.6	24	4.9	13	7.1	2.4	3.3	6.1	2.5	3.5
<b>15</b>	33	4.1	14	15	1.8	3.9	13	2.5	7.4	8.8	2.6	3.1
<b>16</b>	46	15	24	7.5	1.7	3.7	20	2.9	7.5	5.1	2.5	3.5
<b>17</b>	44	3.0	5.4	6.7	1.5	3.6	16	7.1	8.8	5.1	2.6	3.5
<b>18</b>	8.9	2.6	4.5	5.3	1.6	3.7	17	6.4	9.6	5.5	2.5	3.4
<b>19</b>	10	2.8	5.1	6.7	1.9	3.7	14	5.9	8.0	4.7	2.6	3.5
<b>20</b>	7.6	2.3	4.6	6.7	2.0	3.7	23	5.9	11	5.7	2.6	3.4
<b>21</b>	11	2.3	4.2	6.5	1.9	3.4	18	9.6	12	8.9	2.6	3.7
<b>22</b>	13	2.9	4.6	5.1	2.0	3.3	29	2.5	24	13	2.8	3.9
<b>23</b>	11	2.6	4.6	22	2.0	3.8	14	2.4	4.4	10	2.6	3.7
<b>24</b>	10	2.9	4.3	5.6	2.1	3.3	7.5	3.0	3.9	12	2.6	3.7
<b>25</b>	7.9	2.3	4.2	13	2.0	3.4	16	2.7	4.5	11	2.5	3.9
<b>26</b>	12	2.4	4.8	9.1	2.0	3.7	22	2.4	5.5	6.0	2.5	3.2
<b>27</b>	14	3.4	5.2	13	2.2	4.0	12	1.9	3.8	3.7	2.2	3.0
<b>28</b>	13	2.5	5.1	14	2.2	4.0	8.1	1.4	2.8	5.1	2.3	3.2
<b>29</b>	13	2.7	5.3	8.6	2.1	3.6	8.2	1.0	2.8	12	2.3	3.5
<b>30</b>	8.4	2.3	5.5	16	2.2	4.2	4.9	1.0	2.5	9.3	2.0	2.4
<b>31</b>	---	---	---	19	2.9	4.8	5.6	1.1	2.5	---	---	---
<b>Max</b>	46	15	24	32	4.9	13	---	---	---	13	2.8	3.9
<b>Min</b>	5.3	1.4	3.5	5.1	1.5	3.3	---	---	---	3.7	1.0	1.8