Water-Data Report 2006

12116500 CEDAR RIVER AT CEDAR FALLS, WA

Puget Sound Basin
Lake Washington Subbasin

LOCATION.--Lat 47°25′02″, long 121°47′27″ referenced to North American Datum of 1927, in SW ¼ SE ¼ sec.4, T.22 N., R.8 E., King County, WA, Hydrologic Unit 17110012, Snoqualmie National Forest, on right bank 0.5 mi downstream from Seattle municipal powerplant at town of Cedar Falls, 4.0 mi downstream from Chester Morse Lake, and at mile 33.2.

DRAINAGE AREA.--84.2 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1914 to current year.

REVISED RECORDS.--WSP 722: 1930. WSP 1286: 1934(M), drainage area. WDR-WA-96-1: 1991(M).

GAGE.--Water-stage recorder. Datum of gage is 902.1 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. All diversions are returned to river upstream from station. Flow regulated by Chester Morse Lake (station 12115900) and Cedar Lake (station 12116060). U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--92 years (water years 1915-2006), 317 ft^3/s, 229,800 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,120 ft^3/s, Nov. 24, 1990, gage height, 14.00 ft, from flood mark, from rating curve extended above 5,000 ft^3/s; no flow part or all of each day Nov. 25, 1917, Aug. 18, 1923, Sept. 30 to Oct. 5, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,070 ft^3/s, Jan 13, gage height, 8.73 ft; minimum discharge, 35 ft^3/s, Aug. 11, 12, 15-17, Sept. 16-21, gage height, 5.21 ft.

12116500 CEDAR RIVER AT CEDAR FALLS, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	94	116	147	653	423	179	160	74	600	134	123	36
2	76	207	123	643	419	184	162	73	468	134	124	36
3	80	100	95	687	415	184	156	72	458	134	76	36
4	96	136	94	776	416	181	161	74	461	134	63	36
5	108	194	115	725	558	176	162	89	458	147	62	36
6	147	199	139	396	738	182	176	99	457	156	62	37
7	222	119	154	435	725	186	190	101	455	127	55	39
8	222	187	155	489	766	191	192	123	451	121	38	39
9	222	822	173	570	834	239	195	153	409	119	37	39
10	222	1,020	195	740	910	385	195	177	318	119	36	39
11	224	955	195	1,340	875	441	193	199	241	119	36	39
12	226	882	195	1,580	707	431	193	121	162	119	35	39
13	218	881	196	1,870	580	316	195	48	156	118	37	37
14	192	800	194	1,920	430	227	216	41	154	115	36	38
15	194	1,030	193	1,650	318	147	216	43	156	116	36	36
16	194	1,080	194	1,160	214	142	148	135	155	114	35	35
17	206	992	195	1,470	178	112	140	629	153	114	36	36
18	242	726	175	1,400	179	112	136	551	154	113	39	36
19	245	492	201	1,300	179	109	132	546	154	87	39	36
20	287	483	232	1,270	174	107	132	554	153	85	39	35
21	312	460	261	1,270	106	107	139	583	138	84	39	42
22	334	383	256	1,290	113	107	134	598	106	86	39	50
23	335	384	184	1,230	123	107	113	739	97	86	39	59
24	338	386	175	1,030	121	108	112	867	97	86	39	59
25	339	391	176	823	114	109	90	785	97	85	39	72
26	341	393	399	738	112	113	69	655	97	117	39	78
27	339	390	421	730	114	107	72	563	96	149	39	77
28	340	361	426	735	155	112	73	613	96	132	39	78
29	340	239	427	592	---	111	78	640	103	127	39	80
30	320	152	431	445	---	114	77	714	134	124	39	79
31	201	---	503	434	---	131	---	760	---	124	38	---
Total	7,256	14,960	7,019	30,391	10,996	5,457	4,407	11,419	7,234	3,625	1,472	1,414
Mean	234	499	226	980	393	176	147	368	241	117	47.5	47.1
Max	341	1,080	503	1,920	910	441	216	867	600	156	124	80
Min	76	100	94	396	106	107	69	41	96	84	35	35
Ac-ft	14,390	29,670	13,920	60,280	21,810	10,820	8,740	22,650	14,350	7,190	2,920	2,800

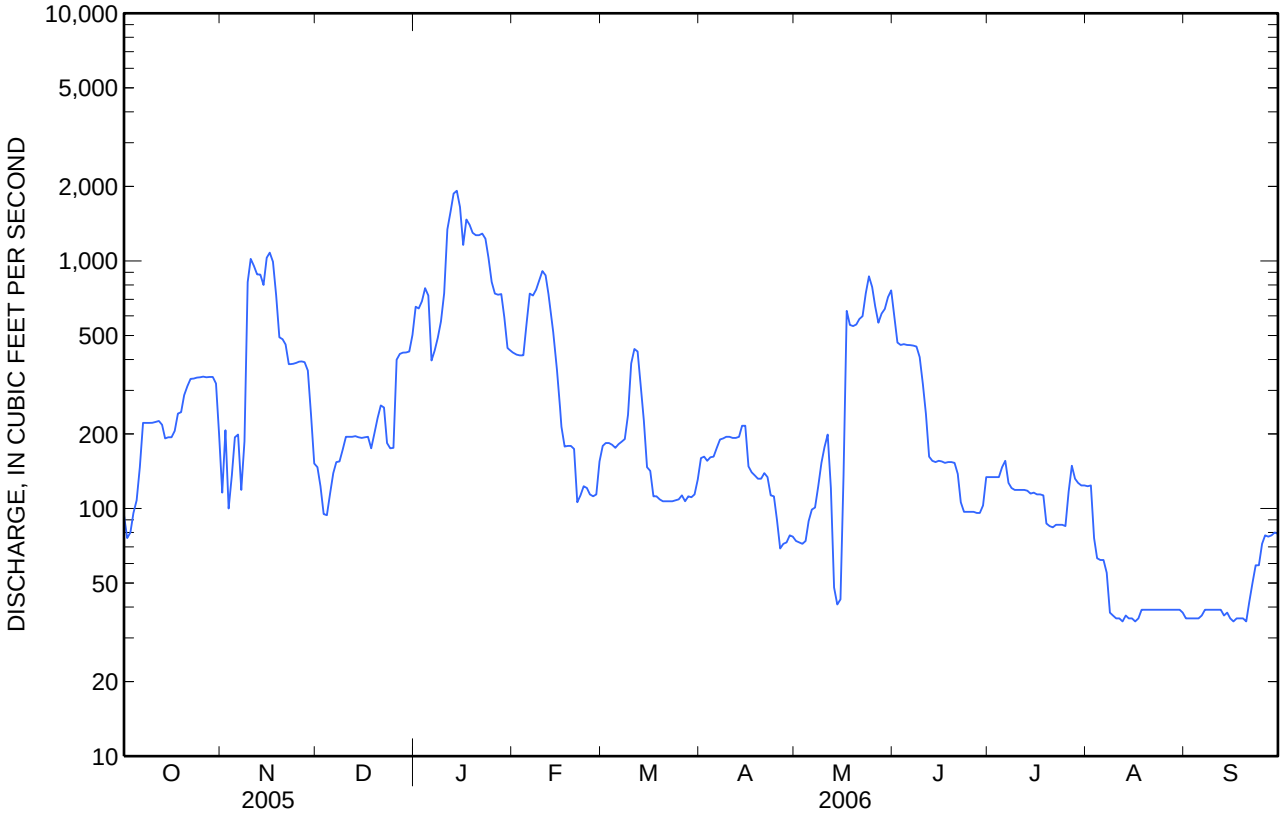
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	167	353	520	496	422	352	355	382	376	183	110	103
Max	547	1,780	2,197	1,393	1,256	1,324	767	868	1,419	814	424	324
(WY)	(1960)	(1991)	(1918)	(1918)	(1982)	(1972)	(2002)	(1997)	(1917)	(1917)	(1954)	(1959)
Min	34.7	24.9	47.7	133	95.0	89.0	46.5	59.5	46.3	24.5	20.2	28.3
(WY)	(1953)	(1953)	(1953)	(1952)	(1988)	(1941)	(2005)	(1992)	(1963)	(1926)	(2001)	(1957)

12116500 CEDAR RIVER AT CEDAR FALLS, WA—Continued

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1914 - 2006	
Annual total	59,874		105,650			
Annual mean	164		289		317	
Highest annual mean					567	1918
Lowest annual mean					93.0	1941
Highest daily mean	1,240	Jan 22	1,920	Jan 14	7,440	Nov 25, 1990
Lowest daily mean	26	Sep 19	35	Aug 12	0.00	Sep 30, 1987
Annual seven-day minimum	29	Sep 14	36	Aug 10	0.04	Sep 29, 1987
Annual runoff (ac-ft)	118,800		209,600		229,800	
10 percent exceeds	351		736		692	
50 percent exceeds	85		156		223	
90 percent exceeds	37		39		60	



WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1999 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: March 1999 to current year.

INSTRUMENTATION.--Temperature recorder since March 1999.

REMARKS.--Records are excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 21.6°C, Aug. 4, 2003; minimum, 0.5°C, Jan. 7, 2004.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 19.2°C, Aug. 7; minimum, 1.2°C, Dec. 18.

FROM DCP
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	13.4	12.4	13.1	10.1	8.9	9.4	4.7	4.0	4.5	3.8	3.7	3.8
2	12.9	12.3	12.7	9.7	9.2	9.5	4.3	3.6	4.1	3.7	3.6	3.7
3	13.0	12.4	12.7	9.3	8.4	8.8	4.5	4.1	4.3	3.7	3.5	3.6
4	13.0	12.3	12.6	8.9	8.6	8.8	4.3	3.9	4.1	3.6	3.5	3.6
5	13.2	12.7	12.9	8.8	8.4	8.7	4.2	4.1	4.2	3.7	3.6	3.6
6	13.1	12.9	13.0	8.5	8.2	8.4	4.2	3.9	4.1	4.1	3.7	4.0
7	13.1	12.8	12.9	8.3	7.9	8.1	3.9	3.4	3.7	4.2	4.0	4.1
8	12.9	12.7	12.8	8.3	7.9	8.1	3.4	3.1	3.2	4.1	4.0	4.0
9	12.9	12.6	12.7	8.3	8.1	8.2	3.1	2.9	3.0	4.4	4.0	4.2
10	12.7	12.5	12.6	8.2	8.0	8.1	3.0	2.8	2.9	4.7	4.4	4.5
11	12.8	12.4	12.6	8.0	7.8	7.9	3.0	2.9	2.9	4.4	4.2	4.3
12	12.6	12.3	12.4	7.8	7.6	7.7	3.0	2.7	2.9	4.2	4.1	4.2
13	12.6	12.3	12.4	7.8	7.4	7.6	3.3	3.0	3.1	4.2	4.1	4.1
14	12.6	12.2	12.4	7.4	7.1	7.2	3.0	2.5	2.8	4.2	3.8	4.1
15	12.5	12.3	12.4	7.3	7.1	7.2	3.0	2.6	2.8	3.9	3.8	3.8
16	12.3	12.2	12.3	7.3	7.2	7.3	2.6	2.5	2.6	4.0	3.8	3.8
17	12.5	12.3	12.4	7.4	7.2	7.3	2.5	1.6	2.1	4.0	3.9	3.9
18	12.7	12.3	12.4	7.2	7.1	7.2	2.1	1.2	1.5	4.0	3.9	4.0
19	12.5	12.4	12.4	7.4	7.1	7.3	1.6	1.3	1.5	4.1	4.0	4.1
20	12.4	12.1	12.2	7.3	7.1	7.2	1.9	1.6	1.7	4.1	4.0	4.0
21	12.4	12.0	12.2	7.2	7.0	7.1	2.0	1.6	1.8	4.0	3.9	4.0
22	12.2	11.9	12.1	7.0	6.8	6.9	3.0	2.0	2.4	4.1	4.0	4.0
23	12.1	11.9	12.0	6.8	6.4	6.6	4.3	3.0	3.4	4.1	4.0	4.0
24	12.2	11.9	12.0	6.4	6.2	6.3	4.9	4.3	4.7	4.2	4.0	4.1
25	12.1	11.8	12.0	6.2	6.0	6.0	5.0	4.1	4.7	4.1	4.0	4.0
26	11.8	11.4	11.7	6.0	5.8	5.9	4.2	4.0	4.2	4.0	4.0	4.0
27	11.5	11.1	11.3	5.8	5.6	5.7	4.4	4.1	4.3	4.0	3.8	3.9
28	11.1	10.6	10.8	5.6	5.0	5.3	4.3	4.1	4.2	3.8	3.7	3.8
29	10.6	10.4	10.6	5.0	4.8	4.9	4.1	3.9	4.0	4.0	3.7	3.7
30	10.6	10.3	10.4	5.1	4.7	5.0	3.9	3.8	3.9	4.2	4.0	4.2
31	10.4	10.1	10.2	---	---	---	4.0	3.8	3.9	4.1	3.9	4.0
Month	13.4	10.1	12.2	10.1	4.7	7.3	5.0	1.2	3.3	4.7	3.5	4.0

12116500 CEDAR RIVER AT CEDAR FALLS, WA—Continued

FROM DCP
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	4.0	4.0	4.0	3.1	2.4	2.7	5.7	5.3	5.5	8.0	6.8	7.2
2	4.1	4.0	4.0	3.2	2.8	3.0	6.2	5.3	5.6	8.8	6.6	7.5
3	4.2	4.0	4.1	3.3	2.7	3.0	6.3	5.6	5.8	9.3	6.8	7.9
4	4.3	3.9	4.1	3.4	3.0	3.2	6.3	5.5	5.8	9.6	7.3	8.3
5	4.0	3.8	3.9	3.5	3.1	3.3	6.6	5.7	6.0	9.3	7.5	8.3
6	3.9	3.8	3.8	3.7	3.4	3.5	6.2	5.7	5.9	8.5	7.9	8.1
7	3.9	3.7	3.8	3.6	3.4	3.5	6.7	5.9	6.3	8.3	7.8	8.0
8	4.1	3.8	3.9	3.5	3.2	3.4	6.6	6.3	6.4	8.5	7.4	7.9
9	3.9	3.6	3.7	3.4	3.0	3.2	6.6	6.2	6.4	9.1	7.7	8.3
10	3.8	3.3	3.6	3.1	2.9	3.0	6.7	6.0	6.3	9.4	8.2	8.7
11	3.4	3.2	3.3	3.3	2.9	3.1	6.8	6.0	6.3	9.0	8.6	8.8
12	3.3	3.1	3.2	3.3	2.9	3.1	6.8	6.3	6.5	8.9	7.9	8.4
13	3.4	3.1	3.3	3.5	3.0	3.3	6.5	6.1	6.3	9.6	6.8	7.9
14	3.5	3.2	3.3	3.8	3.4	3.5	6.5	6.0	6.3	10.1	6.8	8.2
15	3.4	3.0	3.1	3.9	3.5	3.7	6.2	5.8	5.9	10.7	7.6	9.0
16	3.2	2.8	3.0	4.0	3.6	3.8	6.4	5.6	6.0	12.2	8.5	9.7
17	2.9	2.1	2.4	4.3	3.6	3.9	6.7	5.7	6.0	10.4	9.5	10.0
18	2.3	1.9	2.1	4.0	3.6	3.8	6.9	5.7	6.2	10.6	10.0	10.4
19	2.1	1.7	1.9	4.3	3.4	3.8	7.7	6.1	6.8	10.8	10.4	10.6
20	2.4	1.9	2.1	4.6	3.5	4.0	7.5	6.4	6.9	11.1	10.7	10.9
21	2.9	2.4	2.7	4.5	4.0	4.3	7.0	6.3	6.6	11.5	11.0	11.1
22	2.9	2.7	2.9	4.9	4.2	4.5	7.4	6.1	6.7	11.4	11.0	11.3
23	3.0	2.2	2.7	5.3	4.5	4.9	8.3	6.3	7.3	11.6	11.3	11.5
24	2.8	2.4	2.5	5.5	4.7	5.0	8.7	7.1	7.8	11.9	11.6	11.7
25	2.8	2.4	2.6	5.2	4.4	4.8	8.6	7.0	7.7	11.7	11.4	11.6
26	3.0	2.6	2.8	5.0	4.6	4.8	7.9	7.0	7.3	11.5	11.3	11.4
27	3.2	2.8	3.0	5.8	4.8	5.2	9.2	7.2	8.0	11.4	11.1	11.2
28	3.1	2.4	2.7	6.0	5.2	5.5	9.6	7.3	8.3	11.1	10.6	10.9
29	---	---	---	5.8	4.9	5.3	8.1	6.8	7.6	11.0	10.6	10.8
30	---	---	---	6.1	5.2	5.6	8.0	6.7	7.2	11.3	10.8	11.1
31	---	---	---	6.3	5.5	5.8	---	---	---	12.1	11.1	11.5
Month	4.3	1.7	3.2	6.3	2.4	4.0	9.6	5.3	6.6	12.2	6.6	9.6

12116500 CEDAR RIVER AT CEDAR FALLS, WA—Continued

FROM DCP
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	11.5	11.4	11.4	13.8	12.3	12.8	18.8	17.8	18.3	17.5	15.4	16.2
2	11.6	11.2	11.4	13.9	12.4	13.0	19.0	18.0	18.4	18.1	15.7	16.7
3	11.3	11.0	11.1	14.0	12.7	13.1	18.7	17.3	17.8	17.4	15.8	16.7
4	11.5	11.1	11.2	14.0	12.9	13.2	18.5	16.8	17.5	17.9	16.2	16.9
5	11.5	11.2	11.3	13.1	12.0	12.8	18.9	16.8	17.6	17.8	15.6	16.5
6	11.6	11.2	11.4	13.1	12.6	12.9	18.8	17.0	17.8	17.8	15.5	16.5
7	11.6	11.2	11.4	14.4	12.5	13.3	19.2	16.5	17.7	17.6	15.7	16.5
8	11.6	11.3	11.4	14.9	12.8	13.7	17.6	15.5	16.5	17.4	15.6	16.4
9	11.7	11.4	11.5	15.3	13.4	14.2	17.8	16.3	16.7	16.9	16.0	16.4
10	11.8	11.4	11.5	14.5	13.8	14.1	16.6	15.8	16.2	17.2	15.4	16.3
11	12.2	11.3	11.7	15.1	13.6	14.3	16.1	15.4	15.7	17.4	15.4	16.3
12	11.9	11.4	11.6	14.8	14.0	14.4	17.7	15.1	16.1	17.5	15.4	16.4
13	11.6	11.4	11.5	15.2	14.4	14.8	18.0	15.2	16.4	16.6	15.3	16.0
14	11.6	11.3	11.4	16.6	15.2	15.7	18.4	15.7	16.9	15.6	14.7	15.0
15	11.7	11.3	11.5	16.1	15.3	15.7	17.5	15.7	16.4	15.3	14.5	14.8
16	11.9	11.4	11.5	16.8	15.3	15.9	16.2	15.5	15.9	15.5	14.4	14.9
17	11.8	11.3	11.5	16.9	15.6	16.0	17.6	15.6	16.4	15.8	14.5	15.2
18	11.8	11.2	11.5	16.7	15.7	16.0	18.2	15.8	16.9	16.1	15.2	15.4
19	12.0	11.3	11.5	16.6	15.0	15.7	18.5	16.0	17.1	15.2	14.6	14.9
20	11.8	11.3	11.6	17.2	15.4	16.2	18.5	15.9	17.1	14.7	14.5	14.6
21	11.7	11.3	11.5	18.0	15.8	16.7	18.4	16.3	17.2	14.5	13.4	14.0
22	12.2	11.1	11.5	17.6	16.5	16.9	17.4	16.1	16.6	14.9	13.4	14.0
23	12.8	11.0	11.7	18.3	16.5	17.2	17.0	15.9	16.4	15.3	13.9	14.5
24	13.2	11.2	12.0	18.2	16.6	17.1	16.6	16.1	16.4	15.7	14.4	15.0
25	13.6	11.6	12.4	18.0	16.5	17.0	18.2	16.1	16.9	15.8	14.7	15.2
26	13.9	11.9	12.6	18.4	16.4	17.4	18.5	16.1	17.1	15.8	14.8	15.2
27	13.8	12.0	12.6	18.7	17.6	18.0	18.5	16.0	17.1	16.0	15.0	15.4
28	13.4	11.6	12.3	18.4	17.4	17.8	18.6	16.3	17.3	16.1	15.1	15.5
29	13.2	11.7	12.3	18.1	17.5	17.8	16.9	15.7	16.2	16.0	15.1	15.4
30	13.6	12.2	12.7	18.4	17.6	17.9	16.4	15.4	15.9	15.4	14.9	15.1
31	---	---	---	18.7	17.7	18.1	17.2	15.1	16.0	---	---	---
Month	13.9	11.0	11.7	18.7	12.0	15.5	19.2	15.1	16.9	18.1	13.4	15.6
Year	19.2	1.2	9.2									