



Figure 19. Location of surface-water stations in the Duwamish River Basin.

12105800 HOWARD A. HANSON RESERVOIR NEAR PALMER, WA

LOCATION.--Lat 47°16'38", long 121°47'03", in NE¼SE¼, sec.28, T.21 N., R.8 E., King County, Hydrologic Unit 17110013, near left bank on outlet gate structure, just upstream from Howard A. Hanson Dam on Green River, 1.4 mi upstream from Bear Creek, 5.1 mi southeast of Palmer, and at mile 64.5.

DRAINAGE AREA.--220 mi², approximately.

PERIOD OF RECORD.--December 1961 to current year.

REVISED RECORDS.--WDR WA-96-1: 1985-95 maximum and minimum contents.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929, supplementary adjustment of 1947.

REMARKS.--Reservoir is formed by earth-fill dam; completed Mar. 31, 1962; storage began Dec. 5, 1961. Capacity, 105,463 acre-ft between elevations 1,035 ft, invert of outlet tunnel, and 1,206 ft, top of spillway gates. Retained during initial flood conditions, storage is released as soon as possible after a flood to attenuate flows downstream and to maintain reservoir capacity for possible future floods. Storage is used during summer months to augment the natural river flow.

COOPERATION.--Elevations and capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 68,811 acre-ft, Feb. 10, 1996, elevation, 1,182.0 ft; minimum contents observed, 34 acre-ft, Nov. 2, 1962, elevation, 1,037.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 30,300 acre-ft, May 29, elevation, 1,147.0 ft; minimum contents, 1,420 acre-ft, Jan. 29, elevation, 1,071.9 ft.

CAPACITY TABLE
(Based on conic method by Corps of Engineers in 1984)

Elevation (feet)	Contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Elevation (feet)	Contents (acre-feet)
1,045	13	1,080	2,422	1,140	24,622
1,050	64	1,090	4,081	1,150	32,982
1,055	201	1,100	6,313	1,160	42,804
1,060	439	1,110	9,271	1,170	53,902
1,065	777	1,120	13,140	1,180	66,186
1,070	1,220	1,130	18,126	1,190	79,912

RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9,340	4,480	3,420	2,460	7,750	2,380	11,600	25,400	28,400	22,800	19,000	21,100
2	9,000	4,240	2,840	2,390	4,440	2,300	11,600	25,500	27,100	22,500	19,000	20,800
3	8,610	3,930	2,540	2,390	2,490	2,170	11,900	25,700	26,500	22,400	18,900	20,800
4	8,300	3,670	2,160	2,350	2,060	2,170	12,100	26,000	26,100	22,300	18,800	20,700
5	7,930	3,460	2,190	2,210	1,930	2,300	12,500	26,500	25,800	22,100	18,600	20,600
6	7,600	3,370	2,120	2,230	2,060	2,740	12,800	26,800	25,800	21,900	18,600	20,400
7	7,280	3,220	1,810	2,210	2,020	2,950	13,300	26,900	25,600	21,800	18,600	20,300
8	6,980	3,090	2,020	2,210	1,920	3,200	13,900	27,200	24,800	21,700	18,500	20,000
9	6,780	2,990	2,080	2,300	2,020	4,080	14,300	27,500	24,800	21,500	18,500	19,800
10	6,630	2,870	2,070	1,980	2,000	4,730	14,800	27,800	24,400	21,400	18,400	19,500
11	6,600	3,420	2,070	1,920	1,970	5,210	15,400	28,000	24,300	21,300	18,200	19,700
12	6,570	5,960	2,060	1,880	1,980	5,670	16,400	28,000	24,200	21,100	18,100	20,200
13	6,780	4,200	2,230	1,920	2,040	6,310	17,100	28,000	24,100	21,000	18,000	20,300
14	6,920	2,780	2,710	1,930	2,150	6,700	17,600	28,100	24,300	20,800	17,900	20,700
15	6,840	2,270	2,590	2,240	2,230	6,920	18,000	28,100	24,300	20,700	17,800	20,600
16	6,520	1,780	2,120	2,240	2,230	7,250	18,400	28,200	24,300	20,600	17,700	20,300
17	7,250	2,160	2,020	3,250	2,230	7,630	18,800	28,200	24,400	20,500	17,500	19,600
18	6,630	2,490	1,880	2,550	2,190	7,930	19,200	28,100	24,400	20,400	17,400	18,400
19	5,960	2,030	1,930	2,240	2,310	7,870	19,400	27,900	24,400	20,300	17,200	17,500
20	5,280	1,630	2,240	2,160	2,580	7,930	19,600	27,800	24,400	20,300	17,100	16,500
21	6,630	1,710	2,640	2,130	2,620	7,870	19,900	27,600	24,300	20,100	17,000	15,700
22	5,990	1,930	3,060	2,030	2,550	7,780	20,200	27,300	24,300	20,100	16,900	15,300
23	4,900	1,700	2,650	1,880	2,390	8,170	20,800	27,300	24,200	20,000	17,000	15,300
24	4,380	1,650	2,270	2,410	1,790	8,550	21,400	27,300	24,200	19,900	17,000	14,900
25	4,340	1,760	2,510	2,930	1,770	8,840	22,100	27,000	24,000	19,800	18,000	14,700
26	4,200	1,790	2,700	2,300	1,830	9,140	22,600	26,900	23,900	19,700	19,400	14,400
27	3,950	1,830	2,780	1,810	1,930	9,370	23,500	27,800	23,700	19,600	20,800	14,000
28	3,690	1,760	2,760	1,650	2,060	9,830	24,400	28,200	23,500	19,500	21,500	13,500
29	4,080	4,730	2,670	1,580	2,210	10,400	24,900	29,400	23,300	19,400	21,700	13,000
30	4,460	5,960	2,490	8,330	---	10,400	25,300	30,000	23,000	19,300	21,700	12,500
31	4,580	---	2,490	10,000	---	11,300	---	29,500	---	19,200	21,400	---
MEAN	6,290	2,960	2,390	2,650	2,410	6,450	17,800	27,500	24,700	20,800	18,600	18,000
MAX	9,340	5,960	3,420	10,000	7,750	11,300	25,300	30,000	28,400	22,800	21,700	21,100
MIN	3,690	1,630	1,810	1,580	1,770	2,170	11,600	25,400	23,000	19,200	16,900	12,500
††	1,092.2	1,091.5	1,080.4	1,108.4	1,079.3	1,116.0	1,141.0	1,145.3	1,137.6	1,131.7	1,135.1	1,117.8
†	4,519	4,377	2,478	8,741	2,324	11,470	25,375	28,844	22,893	19,103	21,209	12,199
‡	-4,957	-142	-1,899	+6,263	-6,417	+9,146	+13,905	+3,469	-5,951	-3,790	+2,106	-9,010
CAL YR	2003	MEAN	13,900	MAX	30,800	MIN	439	AC-FT‡	+56			
WTR YR	2004	MEAN	12,600	MAX	30,000	MIN	1,580	AC-FT‡	+2,723			

†† Monthend elevation, in feet, at 2400 hours.
† Monthend contents, in acre-feet.
‡ Change in Contents, in acre-feet.

12105900 GREEN RIVER BELOW HOWARD A. HANSON RESERVOIR, WA

LOCATION.--Lat 47°17'02", long 121°47'48", in NE $\frac{1}{4}$ NW $\frac{1}{4}$, sec.28, T.21 N., R.8 E., King County, Hydrologic Unit 17110013, on right bank 0.7 mi upstream from Bear Creek, 0.7 mi downstream from Howard A. Hanson Dam, 5.0 mi southeast of Palmer, and at mile 63.8.

DRAINAGE AREA.--221 mi².

PERIOD OF RECORD.--October 1960 (monthly discharge only), November 1960 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 990 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Howard A. Hanson Reservoir (station 12105800) for flood control and during summer months to augment the natural river flow.

AVERAGE DISCHARGE.--44 years (water years 1961-2004), 992 ft³/s, 60.96 in/yr, 718,700 acre-ft/yr, adjusted for storage in Howard A. Hanson Reservoir since December 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s, Feb. 21, 1961, gage height, 14.40 ft; minimum discharge, 87 ft³/s, Dec. 29, 1961, gage height, 3.49 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,970 ft³/s, Jan. 29, gage height, 11.42 ft; minimum discharge, 204 ft³/s, Aug. 15-24, gage height, 4.09 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP							
1	281	651	2,910	573	4,120	682	1,190	1,080	2,380	458	213	526							
2	280	643	2,000	534	3,240	721	1,040	1,080	1,900	414	213	502							
3	278	596	1,710	510	1,990	754	1,040	1,000	1,350	394	213	432							
4	276	515	1,480	522	1,510	899	1,040	881	1,140	394	213	395							
5	274	428	1,450	437	1,170	1,010	1,060	881	1,080	393	213	394							
6	272	387	1,620	352	1,080	998	953	846	1,080	376	214	393							
7	271	364	1,320	351	1,120	1,010	879	758	1,270	365	213	393							
8	269	347	1,130	443	1,010	1,060	924	704	1,130	363	213	392							
9	268	343	1,050	568	941	1,540	951	705	1,080	356	213	391							
10	252	487	955	561	915	1,730	957	705	990	342	213	391							
11	231	778	876	558	852	1,440	965	756	881	342	209	470							
12	232	1,720	822	557	791	1,180	1,140	771	831	341	207	524							
13	232	1,910	920	600	741	1,070	1,250	682	785	339	207	525							
14	274	1,160	1,130	689	713	1,080	1,200	653	766	302	207	752							
15	375	898	1,190	1,390	718	1,030	1,070	653	740	269	206	1,190							
16	479	781	1,050	2,050	718	945	923	653	692	279	206	1,400							
17	1,050	1,330	933	1,890	715	1,010	840	652	645	279	205	1,630							
18	775	4,130	859	1,650	714	1,200	842	651	608	279	205	1,640							
19	758	3,470	714	1,370	724	1,230	823	653	589	271	204	1,500							
20	746	2,260	683	1,210	780	1,040	762	677	589	252	204	1,350							
21	1,610	1,520	705	1,100	811	1,040	679	710	538	237	204	1,070							
22	1,830	1,250	979	1,050	806	953	594	710	488	231	205	812							
23	1,200	1,140	1,050	1,250	898	1,020	551	708	487	231	204	731							
24	761	979	802	1,600	830	1,190	589	707	485	231	208	711							
25	571	911	702	2,010	592	1,170	589	683	484	232	209	681							
26	566	915	711	1,830	597	1,070	592	805	484	232	249	679							
27	544	862	713	1,530	603	1,080	689	1,140	484	231	443	675							
28	505	1,020	711	1,830	610	1,090	861	1,250	484	231	524	670							
29	567	3,090	703	4,770	619	1,130	843	1,730	484	229	526	667							
30	616	4,270	624	4,640	---	1,300	893	2,560	473	222	526	632							
31	639	---	573	4,400	---	1,330	---	2,550	---	213	525	---							
TOTAL	17,282	39,155	33,075	42,825	30,928	34,002	26,729	28,994	25,417	9,328	8,014	22,518							
MEAN	557	1,305	1,067	1,381	1,066	1,097	891	935	847	301	259	751							
MAX	1,830	4,270	2,910	4,770	4,120	1,730	1,250	2,560	2,380	458	526	1,640							
MIN	231	343	573	351	592	682	551	651	473	213	204	391							
AC-FT	34,280	77,660	65,600	84,940	61,350	67,440	53,020	57,510	50,410	18,500	15,900	44,660							
MEAN†	477	1,303	1,036	1,483	955	1,245	1,125	992	747	239	293	599							
CFSM†	2.16	5.90	4.69	6.71	4.32	5.63	5.09	4.49	3.38	1.08	1.33	2.71							
IN.†	2.49	6.58	5.40	7.74	4.66	6.50	5.68	5.17	3.77	1.25	1.53	3.02							
AC-FT†	29,320	77,520	63,700	91,200	54,930	76,590	66,920	60,980	44,460	14,710	18,010	35,650							
CAL YR	2003	TOTAL	331,279	MEAN	908	MAX	6,030	MIN	198	AC-FT	657,100	MEAN†	908	CFSM†	4.11	IN.†	55.76	AC-FT†	657,200
WTR YR	2004	TOTAL	318,267	MEAN	870	MAX	4,770	MIN	204	AC-FT	631,300	MEAN†	874	CFSM†	3.95	IN.†	53.79	AC-FT†	634,000

† Adjusted for change in contents in Howard A. Hanson Reservoir.

12106700 GREEN RIVER AT PURIFICATION PLANT, NEAR PALMER, WA

LOCATION.--Lat 47°18'19", long 121°50'58", in NE¼SE¼, sec.13, T.21 N., R.7 E., King County, Hydrologic Unit 17110013, on left bank at City of Tacoma purification plant, 0.7 mi downstream from diversion dam, 2 mi southeast of Palmer, and at mile 60.3.

DRAINAGE AREA.--231 mi².

PERIOD OF RECORD.--July 1963 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 859.53 ft above NGVD of 1929. Prior to Oct. 1, 1987, water-stage recorder at site 0.1 mi upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Since Dec. 5, 1961, flow regulated by Howard A. Hanson Reservoir (station 12105800), 4.1 mi upstream for flood control and during summer months to augment the natural river flow. City of Tacoma diverted an average daily discharge of about 75 ft³/s upstream from station for municipal supply, of which a small amount is returned to the river 300 ft upstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--41 years (water years 1964-2004), 948 ft³/s, 636,800 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft³/s, Feb. 12, 1981, gage height, 12.05 ft, at site then in use; minimum discharge, 20 ft³/s, part or all of each day Oct. 26, 27, Nov. 3, 4, 6, 1974, gage height, 3.90 ft, at site then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 23, 1959, had a discharge of 27,800 ft³/s, on basis of slope-area measurement at site 0.5 mi downstream from present gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,030 ft³/s, Jan. 29, gage height, 9.59 ft; minimum discharge, 110 ft³/s, Aug. 11, 12, 15, gage height, 2.99 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	214	568	2,890	497	4,000	611	1,160	982	2,320	346	120	517
2	211	559	1,980	460	3,220	653	992	984	1,860	303	120	477
3	208	528	1,710	431	2,040	692	990	912	1,300	286	119	390
4	206	517	1,520	426	1,590	919	993	783	1,070	284	116	335
5	203	429	1,510	341	1,230	1,080	1,010	778	1,020	285	116	350
6	201	380	1,650	359	1,100	1,040	906	744	1,030	281	120	e355
7	201	327	1,330	380	1,120	996	830	656	1,210	271	122	e309
8	202	250	1,100	430	1,000	1,030	862	593	1,080	269	118	e295
9	203	248	1,010	524	905	1,520	881	594	1,000	271	116	e297
10	191	404	909	498	872	1,750	885	602	933	271	116	e312
11	157	756	821	467	803	1,440	897	670	804	269	113	e380
12	167	1,670	774	479	743	1,150	1,050	691	756	268	112	e431
13	165	1,880	953	534	689	1,030	1,160	593	719	268	114	e468
14	213	1,100	1,180	646	658	1,030	1,130	550	693	236	117	e710
15	336	858	1,170	1,540	659	978	986	542	657	184	113	e1,140
16	534	789	1,030	2,210	660	893	840	541	610	194	114	e1,310
17	1,120	1,300	894	1,930	658	954	755	600	553	193	115	e1,540
18	678	4,000	817	1,660	672	1,150	756	635	517	192	116	e1,550
19	630	3,470	663	1,380	696	1,190	749	536	492	193	e118	e1,420
20	747	2,320	630	1,200	743	994	698	557	488	190	e117	e1,260
21	2,210	1,560	657	1,070	769	989	612	592	438	167	e118	e984
22	1,950	1,190	917	1,010	758	906	522	600	383	165	e118	756
23	1,270	1,090	1,020	1,280	836	953	471	594	384	154	e119	637
24	786	948	764	1,750	801	1,140	509	592	381	143	e142	605
25	542	870	644	2,040	568	1,130	509	572	415	139	e131	e595
26	515	884	649	1,840	542	1,030	506	783	374	157	e201	e593
27	477	811	648	1,550	536	1,040	598	1,150	373	176	e382	e593
28	437	999	644	1,870	546	1,050	774	1,310	370	170	e438	e604
29	496	3,150	634	4,960	556	1,090	751	1,780	370	148	458	559
30	548	4,130	558	4,660	---	1,260	786	2,540	359	143	480	e573
31	565	---	501	4,280	---	1,300	---	2,520	---	131	530	---
TOTAL	16,583	37,985	32,177	42,702	29,970	32,988	24,568	26,576	22,959	6,747	5,449	20,345
MEAN	535	1,266	1,038	1,377	1,033	1,064	819	857	765	218	176	678
MAX	2,210	4,130	2,890	4,960	4,000	1,750	1,160	2,540	2,320	346	530	1,550
MIN	157	248	501	341	536	611	471	536	359	131	112	295
AC-FT	32,890	75,340	63,820	84,700	59,450	65,430	48,730	52,710	45,540	13,380	10,810	40,350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

MEAN	468	1,242	1,526	1,588	1,456	1,165	1,310	1,239	699	317	161	238
MAX	1,198	4,074	4,591	3,225	3,481	3,801	2,376	2,605	2,514	809	306	757
(WY)	(1996)	(1991)	(1976)	(1984)	(1982)	(1972)	(1985)	(1972)	(1974)	(1972)	(1974)	(1968)
MIN	66.2	82.7	251	399	367	432	286	381	129	118	98.6	109
(WY)	(1975)	(1988)	(2003)	(1979)	(1969)	(1981)	(1992)	(1994)	(1987)	(1965)	(1969)	(1979)

DUWAMISH RIVER BASIN

12106700 GREEN RIVER AT PURIFICATION PLANT, NEAR PALMER, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL TOTAL	320,725		299,049			
ANNUAL MEAN	879		817		948	
HIGHEST ANNUAL MEAN					1,562	1972
LOWEST ANNUAL MEAN					573	2001
HIGHEST DAILY MEAN	6,100	Jan 31	4,960	Jan 29	10,900	Dec 5, 1977
LOWEST DAILY MEAN	98	Sep 14	112	Aug 12	20	Nov 4, 1974
ANNUAL SEVEN-DAY MINIMUM	108	Sep 9	114	Aug 11	22	Oct 21, 1974
ANNUAL RUNOFF (AC-FT)	636,200		593,200		686,800	
10 PERCENT EXCEEDS	1,950		1,540		2,040	
50 PERCENT EXCEEDS	665		651		612	
90 PERCENT EXCEEDS	131		167		133	

e Estimated

12108500 NEWAUKUM CREEK NEAR BLACK DIAMOND, WA

LOCATION.--Lat 47°16'33", long 122°03'30", in NW¼SW¼, sec.28, T.21 N., R.6 E., King County, Hydrologic Unit 17110013, on right bank 0.1 mi downstream from West Whitney Hill bridge, 0.8 mi upstream from mouth, and 3.5 mi southwest of Black Diamond.

DRAINAGE AREA.--27.4 mi².

PERIOD OF RECORD.--July 1944 to November 1950, water years 1951-52 (annual maximum), September 1952 to current year.

REVISED RECORDS.--WSP 1396: 1946(M), 1949(P). WSP 1932: Drainage area. WDR WA-74-1: 1973(M). WDR WA-76-1: 1975. WDR WA-00-1: 1999 (m).

GAGE.--Water-stage recorder. Elevation of gage is 310 ft above NGVD of 1929, from topographic map. November 1950 to September 1952 stilling well with nonrecording gage only.

REMARKS.--Records good, except for those above 80 ft³/s, which are fair, and those above 200 ft³/s and estimated daily discharges, which are poor. Many small diversions upstream from station for irrigation and domestic use. No regulation.

AVERAGE DISCHARGE.--58 years (water years 1945-50, 1953-2004), 59.1 ft³/s, 29.30 in/yr, 42,810 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft³/s, Feb. 8, 1996, gage height, 3.95 ft, from rating curve extended above 1,260 ft³/s; minimum discharge, 8.0 ft³/s, Oct. 13, 14, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 29	1800	*350	*2.75				

Minimum discharge, 9.0 ft³/s, Oct. 1, 2, gage height, 1.56 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	15	79	42	162	50	43	23	60	19	11	19
2	9.4	15	69	40	130	47	40	22	48	19	11	21
3	9.8	14	84	40	107	60	38	22	40	21	11	18
4	9.8	14	64	38	110	84	36	24	36	20	11	16
5	11	14	92	36	97	94	35	27	38	19	12	16
6	11	13	98	37	89	80	35	24	60	19	14	15
7	13	13	79	88	89	66	34	24	46	19	19	14
8	13	13	70	118	96	58	32	26	40	19	14	14
9	15	13	62	146	84	57	31	28	36	18	13	15
10	16	14	59	146	77	56	31	26	34	18	13	14
11	14	19	62	113	73	50	30	37	32	18	13	38
12	20	15	74	88	66	48	29	30	30	17	12	24
13	21	14	108	78	62	46	28	26	35	16	12	24
14	14	14	131	84	71	43	29	24	32	15	12	20
15	16	15	96	127	65	42	33	24	29	15	12	19
16	36	25	76	116	71	41	32	25	27	15	12	18
17	23	30	67	92	80	41	33	24	25	15	12	20
18	14	48	59	91	75	43	30	23	24	14	12	26
19	13	75	55	91	75	44	29	22	23	14	e12	22
20	32	80	57	78	66	41	32	22	22	14	e12	26
21	125	72	58	70	61	38	30	21	22	14	e12	18
22	73	57	53	65	57	37	29	24	21	13	e25	16
23	53	52	50	107	52	37	28	27	21	13	e40	16
24	33	65	48	180	51	45	27	22	22	12	e100	16
25	26	56	49	142	48	49	25	22	22	12	e80	14
26	22	48	45	116	48	54	25	65	21	12	e60	13
27	18	42	45	100	63	58	25	102	20	12	e50	13
28	17	55	45	106	58	49	31	120	20	12	e37	12
29	17	130	43	254	55	44	25	119	19	12	e27	12
30	16	108	41	298	---	46	24	95	19	12	e19	13
31	15	---	41	217	---	48	---	79	---	12	17	---
TOTAL	735.0	1,158	2,059	3,344	2,238	1,596	929	1,199	924	480	717	542
MEAN	23.7	38.6	66.4	108	77.2	51.5	31.0	38.7	30.8	15.5	23.1	18.1
MAX	125	130	131	298	162	94	43	120	60	21	100	38
MIN	9.0	13	41	36	48	37	24	21	19	12	11	12
AC-FT	1,460	2,300	4,080	6,630	4,440	3,170	1,840	2,380	1,830	952	1,420	1,080
CFSM	0.87	1.41	2.42	3.94	2.82	1.88	1.13	1.41	1.12	0.57	0.84	0.66
IN.	1.00	1.57	2.80	4.54	3.04	2.17	1.26	1.63	1.25	0.65	0.97	0.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	24.6	65.0	95.7	114	103	87.9	68.8	48.2	39.0	25.9	19.9	19.5
MAX	58.9	215	225	252	267	215	134	97.0	98.1	48.6	32.2	39.2
(WY)	(1956)	(1991)	(1956)	(1975)	(1996)	(1950)	(1991)	(1984)	(1990)	(1997)	(1976)	(1959)
MIN	9.42	9.99	11.2	37.4	34.4	40.7	31.0	31.0	20.7	15.2	11.1	10.5
(WY)	(1953)	(1953)	(1953)	(1977)	(1977)	(1992)	(2004)	(1992)	(1992)	(2003)	(2003)	(2003)

DUWAMISH RIVER BASIN

12108500 NEWAUKUM CREEK NEAR BLACK DIAMOND, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	16,047.9		15,921.0			
ANNUAL MEAN	44.0		43.5		59.1	
HIGHEST ANNUAL MEAN					85.9	
LOWEST ANNUAL MEAN					33.7	
HIGHEST DAILY MEAN	207	Mar 10	298	Jan 30	1,670	Feb 9, 1996
LOWEST DAILY MEAN	9.0	Sep 5	9.0	Oct 1	8.3	Oct 11, 1952
ANNUAL SEVEN-DAY MINIMUM	9.0	Sep 25	10	Oct 1	8.3	Oct 11, 1952
ANNUAL RUNOFF (AC-FT)	31,830		31,580		42,810	
ANNUAL RUNOFF (CFSM)	1.60		1.59		2.16	
ANNUAL RUNOFF (INCHES)	21.79		21.62		29.30	
10 PERCENT EXCEEDS	92		91		116	
50 PERCENT EXCEEDS	33		30		40	
90 PERCENT EXCEEDS	11		13		16	

e Estimated

12112600 BIG SOOS CREEK ABOVE HATCHERY, NEAR AUBURN, WA

LOCATION.--Lat 47°18'45", long 122°09'51", on west line NW¹/₄, sec.15, T.21 N., R.5 E., King County, Hydrologic Unit 17110013, on left bank 0.2 mi upstream from fish hatchery, 2.7 mi east of Auburn, and at mile 0.9.

DRAINAGE AREA.--66.7 mi², excludes 3.67 mi² in vicinity of Youngs Lake (flow from which has been diverted to Cedar River since about 1935).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 77.2 ft above NGVD of 1929.

REMARKS.--Records good. City of Seattle diverts probably less than 2 ft³/s from Youngs Lake into Little Soos Creek, a tributary, during low flows. Prior to October 1966, fish hatchery 0.5 mi upstream from station diverted up to 19 ft³/s which was returned downstream from the station. U.S Geological Survey satellite telemeter at station. Chemical analyses October 1962 to September 1971, at site 1.0 mi upstream.

AVERAGE DISCHARGE.--38 years (water years 1967-2004), 123 ft³/s, 25.10 in/yr, 89,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,200 ft³/s, Feb. 9, 1996, gage height, 8.88 ft, estimated from slope-area measurement of peak flow; minimum discharge, 11 ft³/s, Sept. 5, 1963, gage height, 1.07 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 440 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 21	0415	500	5.01	Jan 30	1245	*594	*5.25

Minimum discharge, 19 ft³/s, Oct. 1, 2, 4, gage height, 2.35 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	67	195	111	464	153	103	56	97	38	29	32
2	19	66	176	109	398	143	98	55	85	38	28	32
3	21	63	186	109	346	146	95	53	81	39	26	30
4	21	59	166	103	326	163	92	52	77	39	26	31
5	23	57	197	95	300	178	89	54	76	38	26	31
6	23	56	242	93	286	170	86	51	81	38	30	30
7	24	55	220	122	277	160	84	52	79	36	37	29
8	24	55	202	196	257	156	81	53	74	36	33	28
9	26	54	184	251	238	150	79	56	73	36	30	30
10	29	52	174	277	224	146	78	54	69	38	26	28
11	28	50	172	244	216	137	77	66	65	38	25	50
12	32	50	196	211	205	131	74	58	64	37	25	46
13	31	48	231	197	195	125	72	54	69	34	24	46
14	27	50	247	195	203	121	72	52	67	32	26	40
15	29	53	218	228	201	117	77	50	61	33	27	38
16	51	62	195	218	213	113	73	50	58	33	26	39
17	46	67	177	192	229	111	73	48	56	33	23	56
18	37	136	162	185	222	111	71	45	54	34	23	69
19	34	247	149	177	206	110	70	44	50	33	23	56
20	124	263	158	161	194	105	69	44	49	31	24	47
21	438	219	153	146	182	101	68	44	47	30	25	40
22	275	172	144	136	173	99	66	46	46	29	32	39
23	191	148	135	173	167	98	65	46	45	29	33	39
24	137	149	133	260	163	106	66	45	45	30	52	38
25	107	141	134	235	161	123	64	42	45	31	65	38
26	92	128	126	211	162	147	62	69	46	30	53	38
27	83	114	123	194	180	139	60	83	45	27	45	36
28	76	144	121	194	178	123	64	99	43	26	40	34
29	71	260	115	365	164	113	59	135	40	26	36	35
30	68	231	108	565	---	109	57	129	39	26	34	37
31	67	---	108	527	---	108	---	111	---	28	31	---
TOTAL	2,274	3,316	5,247	6,480	6,730	4,012	2,244	1,896	1,826	1,026	983	1,162
MEAN	73.4	111	169	209	232	129	74.8	61.2	60.9	33.1	31.7	38.7
MAX	438	263	247	565	464	178	103	135	97	39	65	69
MIN	19	48	108	93	161	98	57	42	39	26	23	28
AC-FT	4,510	6,580	10,410	12,850	13,350	7,960	4,450	3,760	3,620	2,040	1,950	2,300
CFSM	1.10	1.66	2.54	3.13	3.48	1.94	1.12	0.92	0.91	0.50	0.48	0.58
IN.	1.27	1.85	2.93	3.61	3.75	2.24	1.25	1.06	1.02	0.57	0.55	0.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004, BY WATER YEAR (WY)

MEAN	43.1	110	210	248	240	206	152	95.6	70.5	43.8	32.6	33.1
MAX	90.9	433	401	535	555	453	343	174	150	78.6	46.8	57.9
(WY)	(1998)	(1991)	(1976)	(1997)	(1996)	(1972)	(1991)	(1984)	(1990)	(1997)	(1976)	(1978)
MIN	24.6	32.6	58.0	84.3	73.6	102	74.8	57.0	34.7	26.4	22.4	20.4
(WY)	(2003)	(2003)	(1977)	(1977)	(1977)	(2001)	(2004)	(1985)	(1992)	(1985)	(2003)	(1995)

DUWAMISH RIVER BASIN

12112600 BIG SOOS CREEK ABOVE HATCHERY, NEAR AUBURN, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004	
ANNUAL TOTAL	37,576		37,196			
ANNUAL MEAN	103		102		123	
HIGHEST ANNUAL MEAN					195	
LOWEST ANNUAL MEAN					63.5	
HIGHEST DAILY MEAN	438	Oct 21	565	Jan 30	3,580	Feb 9, 1996
LOWEST DAILY MEAN	19	Sep 3	19	Oct 2	18	Sep 16, 1995
ANNUAL SEVEN-DAY MINIMUM	20	Aug 31	22	Oct 1	18	Sep 18, 1995
ANNUAL RUNOFF (AC-FT)	74,530		73,780		89,260	
ANNUAL RUNOFF (CFSM)	1.54		1.52		1.85	
ANNUAL RUNOFF (INCHES)	20.96		20.74		25.10	
10 PERCENT EXCEEDS	208		212		272	
50 PERCENT EXCEEDS	81		68		80	
90 PERCENT EXCEEDS	22		29		30	

12113000 GREEN RIVER NEAR AUBURN, WA

LOCATION.--Lat 47°18'45", long 122°12'10", in NW¹/₄NW¹/₄, sec.17, T.21 N., R.5 E., King County, Hydrologic Unit 17110013, on left bank 1.2 mi east of Auburn, 1.8 mi downstream from Big Soos Creek, and at mile 32.0.

DRAINAGE AREA.--399 mi², excludes 3.67 mi² in the vicinity of Youngs Lake, flow from which has been diverted to Cedar River basin since about 1935.

PERIOD OF RECORD.--August 1936 to current year.

REVISED RECORDS.--WSP 1932: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Oct. 19, 1936, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Since Dec. 5, 1961, flow regulated by Howard A. Hanson Reservoir (station 12105800), 32.5 mi upstream from station, for flood control and during summer months, to augment the natural river flow. City of Tacoma diverted an average daily discharge of about 75 ft³/s from river at headworks near Palmer, 29 mi upstream from station, for municipal use. Minor diversions on upstream tributaries for domestic use. U.S. Geological Survey satellite telemeter at station. Water temperatures March 1952 to September 1986.

AVERAGE DISCHARGE.--43 years (water years 1962-2004), 1,324 ft³/s, 959,300 acre-ft/yr, regulated. 25 years (water years 1937-61), 1,346 ft³/s, 974,500 acre-ft/yr, unregulated.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,100 ft³/s, Nov. 23, 1959, elevation, 69.75 ft; minimum discharge, 81 ft³/s, Sept. 23, 1952; minimum elevation, 52.76 ft, Oct. 22, 29-31, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Elevation (ft)	Date	Time	Discharge (ft ³ /s)	Elevation (ft)
Nov 18	2215	6,060	59.59	Jan 30	0430	*8,420	*61.27

Minimum discharge, 219 ft³/s, Aug. 17-21, elevation, 52.99 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298	759	4,260	876	5,800	1,040	1,610	1,210	2,950	574	248	732
2	296	752	2,710	858	5,040	1,100	1,360	1,230	2,540	552	245	710
3	298	728	2,340	805	3,370	1,130	1,340	1,220	1,820	512	241	646
4	297	707	2,160	781	2,680	1,330	1,330	1,040	1,500	502	242	544
5	299	650	2,020	749	2,200	1,650	1,350	1,040	1,400	494	243	533
6	297	563	2,370	638	1,920	1,600	1,280	1,020	1,450	489	264	522
7	299	548	2,100	800	1,930	1,520	1,160	944	1,500	465	292	511
8	297	441	1,710	948	1,830	1,500	1,160	867	1,600	456	261	454
9	302	415	1,590	1,250	1,630	1,770	1,190	861	1,290	451	248	450
10	308	413	1,470	1,260	1,570	2,290	1,200	854	1,360	455	240	442
11	278	803	1,360	1,160	1,480	2,000	1,200	925	1,150	456	240	607
12	285	1,310	1,350	1,080	1,390	1,670	1,270	993	1,110	442	233	674
13	287	2,290	1,480	1,070	1,310	1,470	1,450	874	1,060	433	229	682
14	269	1,490	1,950	1,150	1,280	1,460	1,470	804	1,040	429	229	740
15	339	1,070	1,790	1,720	1,260	1,440	1,350	785	970	362	234	1,220
16	546	1,060	1,710	2,980	1,290	1,300	1,200	787	942	362	227	1,540
17	1,050	1,200	1,440	2,620	1,320	1,310	1,070	796	847	361	223	1,720
18	917	3,650	1,370	2,380	1,300	1,450	1,050	883	819	359	221	2,000
19	844	4,920	1,190	2,040	1,300	1,670	1,050	797	761	356	220	1,740
20	1,050	3,400	1,120	1,790	1,280	1,390	1,020	771	753	338	219	1,640
21	2,590	2,360	1,130	1,610	1,320	1,370	933	821	737	315	224	1,370
22	2,760	1,680	1,220	1,520	1,290	1,340	844	840	649	296	277	1,070
23	1,900	1,560	1,480	1,770	1,260	1,220	734	845	632	285	293	904
24	1,310	1,420	1,300	2,430	1,420	1,500	773	830	631	281	359	879
25	866	1,250	1,080	2,870	1,070	1,590	768	828	659	281	503	823
26	788	1,280	1,060	2,650	1,060	1,500	757	957	628	280	424	811
27	727	1,160	1,050	2,310	1,070	1,490	776	1,550	615	277	735	799
28	666	1,230	1,040	2,320	1,060	1,460	1,000	1,750	607	285	736	793
29	657	3,120	1,020	5,540	1,040	1,460	1,030	2,110	599	273	671	798
30	738	5,240	984	7,440	---	1,590	942	3,090	591	257	661	779
31	739	---	887	6,250	---	1,700	---	3,140	---	255	701	---
TOTAL	22,597	47,469	49,741	63,665	51,770	46,310	33,667	35,462	33,210	11,933	10,383	27,133
MEAN	729	1,582	1,605	2,054	1,785	1,494	1,122	1,144	1,107	385	335	904
MAX	2,760	5,240	4,260	7,440	5,800	2,290	1,610	3,140	2,950	574	736	2,000
MIN	269	413	887	638	1,040	1,040	734	771	591	255	219	442
AC-FT	44,820	94,150	98,660	126,300	102,700	91,860	66,780	70,340	65,870	23,670	20,590	53,820

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

MEAN	625	1,563	2,103	2,273	2,114	1,711	1,791	1,572	980	522	311	378
MAX	1,364	5,045	5,654	3,908	4,969	4,994	3,023	2,896	2,849	1,069	514	955
(WY)	(1996)	(1991)	(1976)	(1975)	(1996)	(1972)	(1989)	(1972)	(1974)	(1972)	(1974)	(1968)
MIN	173	194	403	703	720	891	601	603	330	253	227	210
(WY)	(1988)	(1988)	(2003)	(1988)	(1977)	(1963)	(1992)	(1994)	(1987)	(2003)	(1989)	(1989)

DUWAMISH RIVER BASIN

12113000 GREEN RIVER NEAR AUBURN, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	451,011		433,340			
ANNUAL MEAN	1,236		1,184		1,324	
HIGHEST ANNUAL MEAN					2,071	
LOWEST ANNUAL MEAN					785	
HIGHEST DAILY MEAN	8,180	Feb 1	7,440	Jan 30	11,600	Dec 3, 1975
LOWEST DAILY MEAN	204	Sep 1	219	Aug 20	152	Oct 30, 1987
ANNUAL SEVEN-DAY MINIMUM	206	Aug 30	224	Aug 15	157	Oct 20, 1987
ANNUAL RUNOFF (AC-FT)	894,600		859,500		959,300	
10 PERCENT EXCEEDS	2,620		2,100		2,670	
50 PERCENT EXCEEDS	1,050		1,040		972	
90 PERCENT EXCEEDS	233		295		267	

12113346 SPRING BROOK CREEK NEAR ORILLIA, WA

LOCATION.--Lat 47°25'53", long 122°13'35", in SW $\frac{1}{4}$ SW $\frac{1}{4}$, sec.31, T.23 N., R.5 E., King County, Hydrologic Unit 17110013, on right bank 50 ft upstream from 84th Avenue South (East Valley Highway), 1.2 mi upstream from confluence with Mill Creek, and 1.0 mi southeast of Orillia.

DRAINAGE AREA.--8.44 mi².

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is NGVD of 1929 (City of Kent benchmark). U.S. Geological Survey satellite telemeter at station.

REMARKS.--Records poor. Natural flow affected by urbanization and construction of flood-control catchments.

AVERAGE DISCHARGE.--11 years (water years 1994-2004), 10.3 ft³/s, 16.66 in/yr, 7,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 450 ft³/s, Feb. 9, 1996, elevation, 19.55 ft; minimum discharge, 0.52 ft³/s, Sept. 30, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 351 ft³/s, Oct. 20, gage height, 19.52 ft; minimum discharge, 0.60 ft³/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.73	6.5	11	8.3	18	5.6	4.6	3.0	2.9	2.2	1.7	4.6
2	0.89	9.3	11	12	18	5.2	4.3	2.9	2.5	2.3	1.6	2.0
3	0.99	6.7	17	8.1	12	9.9	4.3	2.9	2.3	2.3	1.6	1.3
4	1.0	6.4	11	6.0	15	15	4.1	3.0	2.1	2.2	1.6	1.2
5	e1.1	6.5	28	5.3	9.8	14	4.0	3.3	3.6	2.3	1.7	1.2
6	e4.2	6.4	22	5.6	18	7.4	4.1	3.0	3.5	2.3	1.5	1.1
7	8.6	6.5	15	31	11	13	3.9	5.4	4.6	2.4	1.9	1.1
8	7.8	6.6	17	40	8.4	7.2	3.8	8.2	3.3	2.4	3.8	1.4
9	10	6.2	9.1	26	7.5	9.1	3.8	5.7	6.3	2.4	2.4	1.9
10	11	6.1	13	19	7.0	6.4	3.7	4.3	3.1	2.3	2.0	1.4
11	4.3	5.7	11	12	6.8	5.6	3.7	10	2.4	2.2	1.9	4.9
12	14	5.4	23	12	6.5	5.3	3.5	4.0	2.5	2.0	2.0	4.6
13	7.4	5.5	23	12	6.5	5.0	3.5	3.5	9.7	2.1	1.7	2.6
14	4.1	5.6	15	24	14	4.8	7.0	3.2	3.4	1.9	1.5	7.7
15	19	8.9	9.0	23	12	4.7	4.6	3.3	2.2	1.9	1.5	5.3
16	45	20	9.0	13	23	4.5	4.5	3.4	2.1	2.0	1.5	5.7
17	22	14	7.3	9.4	15	4.8	4.6	3.3	2.1	2.0	1.6	2.4
18	6.0	81	6.5	14	13	5.6	3.7	3.2	2.1	1.9	1.5	3.5
19	6.4	81	6.4	9.7	8.3	5.2	5.7	3.2	2.0	2.0	1.7	9.7
20	168	e50	20	7.8	7.3	4.3	5.5	4.9	2.1	2.0	1.6	4.2
21	121	e25	11	7.0	7.1	4.3	3.9	4.4	2.1	1.7	2.7	2.6
22	28	9.8	7.6	6.6	7.3	5.7	3.3	3.9	2.2	1.6	4.8	4.7
23	19	13	6.8	28	6.6	4.9	3.9	3.9	2.2	1.8	2.5	4.5
24	9.1	12	12	23	6.5	13	4.0	3.4	2.4	1.6	5.2	2.7
25	7.3	13	8.7	11	7.4	21	3.2	5.2	2.4	1.7	3.6	2.4
26	6.7	7.1	6.2	8.8	10	14	3.1	41	2.3	1.8	1.9	2.2
27	6.5	5.4	10	7.9	17	10	3.9	24	2.2	1.7	3.8	2.1
28	6.6	38	7.2	17	7.2	6.0	5.9	32	2.2	1.6	1.7	2.1
29	11	33	6.1	60	6.1	5.4	3.5	45	2.8	1.6	1.3	2.1
30	9.2	14	5.6	45	---	7.1	3.2	8.1	2.1	1.6	1.2	2.1
31	6.7	---	8.9	24	---	5.5	---	4.3	---	1.7	1.2	---
TOTAL	573.61	514.6	374.4	536.5	312.3	239.5	124.8	258.9	87.7	61.5	258.8	257.3
MEAN	18.5	17.2	12.1	17.3	10.8	7.73	4.16	8.35	2.92	1.98	8.35	8.58
MAX	168	81	28	60	23	21	7.0	45	9.7	2.4	52	49
MIN	0.73	5.4	5.6	5.3	6.1	4.3	3.1	2.9	2.0	1.6	1.2	1.1
AC-FT	1,140	1,020	743	1,060	619	475	248	514	174	122	513	510
CFSM	2.19	2.03	1.43	2.05	1.28	0.92	0.49	0.99	0.35	0.24	0.99	1.02
IN.	2.53	2.27	1.65	2.36	1.38	1.06	0.55	1.14	0.39	0.27	1.14	1.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

MEAN	9.65	18.2	18.8	18.0	15.2	12.0	8.76	6.01	5.27	3.76	4.53	4.18
MAX	18.5	43.5	30.9	25.0	35.8	17.3	15.0	8.35	10.5	5.92	8.35	8.58
(WY)	(2004)	(2000)	(1999)	(1996)	(1996)	(2003)	(1996)	(2004)	(2001)	(1997)	(2004)	(2004)
MIN	4.32	5.08	9.55	7.46	6.97	6.41	4.16	3.34	2.92	1.98	2.14	1.71
(WY)	(2003)	(1994)	(2001)	(1994)	(1997)	(1996)	(2004)	(1995)	(2004)	(2004)	(1994)	(1999)

DUWAMISH RIVER BASIN

12113346 SPRING BROOK CREEK NEAR ORILLIA, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1994 - 2004	
ANNUAL TOTAL	3,749.36		3,599.91			
ANNUAL MEAN	10.3		9.84		10.3	
HIGHEST ANNUAL MEAN					14.5	1996
LOWEST ANNUAL MEAN					6.22	1994
HIGHEST DAILY MEAN	168	Oct 20	168	Oct 20	303	Feb 8, 1996
LOWEST DAILY MEAN	0.66	Sep 27	0.73	Oct 1	0.66	Sep 27, 2003
ANNUAL SEVEN-DAY MINIMUM	0.75	Sep 25	1.3	Sep 3	0.75	Sep 25, 2003
ANNUAL RUNOFF (AC-FT)	7,440		7,140		7,500	
ANNUAL RUNOFF (CFSM)	1.22		1.17		1.23	
ANNUAL RUNOFF (INCHES)	16.53		15.87		16.66	
10 PERCENT EXCEEDS	22		23		23	
50 PERCENT EXCEEDS	6.2		5.6		5.3	
90 PERCENT EXCEEDS	2.1		1.7		2.2	

e Estimated

12113347 MILL CREEK AT EARTHWORKS PARK, AT KENT, WA

LOCATION.--Lat 47°23'00", long 122°13'25", in SW¹/₄NW¹/₄, sec.19, T.22 N., R.5 E., King County, Hydrologic Unit 17110013, at control-manhole of flood-detention basin in Earthworks Park, 250 ft upstream from Titus St., and 0.6 mi east of Kent City Hall.

DRAINAGE AREA.--2.49 mi².

PERIOD OF RECORD.--January 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is NGVD of 1929 (City of Kent benchmark).

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Natural flow affected by urbanization and construction of flood-control catchments. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--10 years (water year 1995-2004), 3.98 ft³/s, 21.72 in/yr, 2,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined Feb. 9, 1996, elevation, 47.52 ft, affected by backwater from debris caught on downstream culvert grates; maximum elevation, 48.05 ft, May 13, 1996, affected by backwater from debris caught on downstream culvert grates; minimum discharge, 0.31 ft³/s, July 5, 1995, Aug. 12, 1997, but may have been lower during periods of culvert maintenance.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58 ft³/s, Oct. 20, gage height, 45.04 ft; minimum daily discharge, 0.54 ft³/s, Oct. 1, 3

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.54	0.90	6.5	2.4	11	2.5	1.6	1.0	1.2	0.73	0.66	1.7
2	0.56	1.4	5.1	3.1	8.9	2.4	1.4	0.96	1.1	0.73	0.66	0.73
3	0.54	0.91	5.7	2.3	6.1	3.5	1.4	0.97	0.97	0.72	0.66	0.70
4	0.56	0.80	4.5	1.9	5.2	3.5	1.3	0.99	0.89	0.72	0.66	0.70
5	0.58	0.72	9.4	1.8	3.8	4.1	1.3	1.1	1.2	0.72	0.62	0.68
6	1.2	0.75	8.6	2.0	6.2	2.6	1.2	0.94	1.3	e0.73	3.1	0.68
7	0.92	0.75	6.4	8.6	4.4	3.9	1.2	1.5	1.6	e0.73	1.8	0.67
8	1.5	0.75	4.8	13	3.4	2.6	1.3	2.5	1.1	e0.73	0.87	1.3
9	2.0	0.72	3.4	11	3.0	3.2	1.2	1.5	1.6	0.73	0.87	0.94
10	1.1	0.71	4.9	9.1	2.9	2.5	1.1	2.0	0.98	0.72	0.81	0.87
11	0.99	0.76	4.3	6.3	2.7	2.2	1.1	3.7	0.82	0.70	0.79	7.3
12	2.8	0.88	e8.4	5.0	2.5	2.1	1.1	1.4	0.85	0.70	0.93	6.5
13	0.76	1.1	9.0	4.4	2.4	2.0	1.0	1.2	2.5	0.69	0.74	4.4
14	0.61	1.4	7.5	8.0	5.3	1.9	2.0	1.1	0.96	0.70	0.74	1.6
15	3.8	1.9	5.0	8.5	4.6	1.8	1.3	1.1	0.82	0.70	0.74	2.0
16	7.4	e2.4	4.0	5.5	7.6	1.8	1.3	1.0	0.77	0.70	0.74	3.4
17	4.0	4.0	3.1	3.7	6.8	2.0	1.1	0.96	0.78	0.74	0.73	6.8
18	1.0	11	2.7	5.0	5.5	2.1	1.1	0.95	0.85	0.74	0.73	5.4
19	1.3	17	2.7	3.3	3.5	1.8	1.5	e0.92	0.78	0.71	0.71	2.1
20	29	12	6.2	2.7	3.0	1.7	1.5	e0.96	0.77	0.71	0.72	1.3
21	23	10	3.6	2.3	2.7	1.7	1.1	0.96	0.77	0.69	1.2	1.1
22	15	7.2	2.7	2.1	2.5	2.0	1.0	0.96	0.78	0.69	4.8	2.0
23	12	6.7	2.5	9.0	2.4	1.7	1.8	0.96	0.76	0.69	1.1	1.3
24	8.0	5.9	3.8	8.8	2.5	4.7	1.2	0.90	0.77	0.68	10	0.96
25	5.1	5.9	2.7	5.2	2.7	6.6	1.0	1.4	0.75	0.69	7.1	0.89
26	2.7	3.8	2.1	3.5	3.8	4.6	0.98	6.7	0.75	0.68	3.0	0.85
27	1.7	3.1	3.2	2.8	5.6	3.4	2.3	5.4	0.74	0.68	1.2	0.82
28	1.3	12	2.3	5.7	3.2	2.1	2.0	5.7	0.74	0.67	0.87	0.80
29	1.5	12	2.0	20	2.8	1.8	1.2	4.1	0.73	0.70	0.73	0.80
30	1.3	8.6	1.8	23	---	3.0	1.1	2.4	0.73	0.67	0.72	0.78
31	0.93	---	2.9	18	---	1.8	---	1.6	---	0.66	0.69	---
TOTAL	133.69	136.05	141.8	208.0	127.0	83.6	39.68	57.83	29.36	21.85	49.69	60.07
MEAN	4.31	4.54	4.57	6.71	4.38	2.70	1.32	1.87	0.98	0.70	1.60	2.00
MAX	29	17	9.4	23	11	6.6	2.3	6.7	2.5	0.74	10	7.3
MIN	0.54	0.71	1.8	1.8	2.4	1.7	0.98	0.90	0.73	0.66	0.62	0.67
AC-FT	265	270	281	413	252	166	79	115	58	43	99	119
CFSM	1.73	1.82	1.84	2.69	1.76	1.08	0.53	0.75	0.39	0.28	0.64	0.80
IN.	2.00	2.03	2.12	3.11	1.90	1.25	0.59	0.86	0.44	0.33	0.74	0.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

MEAN	2.32	7.04	7.82	8.37	6.96	4.90	3.08	1.97	1.62	1.05	1.09	1.17
MAX	4.44	13.2	12.6	15.1	20.0	8.34	8.03	3.09	3.45	1.66	1.60	2.00
(WY)	(1998)	(2000)	(1996)	(1997)	(1996)	(1999)	(1996)	(1996)	(1997)	(1997)	(2004)	(2004)
MIN	0.84	1.21	2.29	2.73	2.43	2.55	1.32	1.08	0.80	0.68	0.59	0.71
(WY)	(2003)	(2003)	(2001)	(2001)	(2001)	(2001)	(2004)	(1995)	(2003)	(2003)	(1994)	(2003)

DUWAMISH RIVER BASIN

12113347 MILL CREEK AT EARTHWORKS PARK, AT KENT, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1994 - 2004	
ANNUAL TOTAL	1,136.90		1,088.62			
ANNUAL MEAN	3.11		2.97		3.98	
HIGHEST ANNUAL MEAN					6.32 1996	
LOWEST ANNUAL MEAN					2.21 2001	
HIGHEST DAILY MEAN	32	Jan 3	29	Oct 20	124	Nov 14, 2001
LOWEST DAILY MEAN	0.53	Sep 14	0.54	Oct 1	0.44	Oct 24, 1994
ANNUAL SEVEN-DAY MINIMUM	0.55	Sep 27	0.66	Jul 30	0.47	Aug 26, 1994
ANNUAL RUNOFF (AC-FT)	2,260		2,160		2,880	
ANNUAL RUNOFF (CFSM)	1.25		1.19		1.60	
ANNUAL RUNOFF (INCHES)	16.99		16.26		21.72	
10 PERCENT EXCEEDS	7.8		6.9		9.4	
50 PERCENT EXCEEDS	1.6		1.6		1.8	
90 PERCENT EXCEEDS	0.66		0.71		0.75	

e Estimated

12113349 MILL CREEK NEAR MOUTH, AT ORILLIA, WA

LOCATION.--Lat 47°25'49", long 122°14'31", in NE¹/₄NW¹/₄, sec.1, T.22 N., R.4 E., King County, Hydrologic Unit 17110013, on right bank 100 ft upstream from Pedestrian bridge of Interurban Trail, in Orillia.

DRAINAGE AREA.--5.63 mi².

PERIOD OF RECORD.--February 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is NAVD of 1988 (levels by City of Kent). Prior to October 2003, recording gage 0.7 mi downstream above NGVD of 1929 (City of Kent benchmark).

REMARKS.--Records fair. Natural flow affected by Green River Natural Resource area located 1.75 mi upstream and urbanization. U.S. Geological satellite telemeter at station.

AVERAGE DISCHARGE.--10 years (water year 1995-2004), 16.0 ft³/s, 11,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 376 ft³/s, Feb. 9, 1996, from rating curve extended above 133 ft³/s, elevation, 18.77 ft; minimum discharge, 0.35 ft³/s, Aug. 12, 2001, result of construction upstream from station at datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 172 ft³/s, Oct. 20, gage height, 22.85 ft; minimum discharge, 0.43 ft³/s, Oct. 1, 4.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.68	5.7	26	11	42	7.7	5.8	3.2	5.5	1.7	1.5	8.2
2	0.68	8.9	21	17	38	7.3	5.4	3.1	3.9	1.7	1.4	4.7
3	0.73	5.5	30	10	26	13	5.3	3.0	3.1	1.7	1.5	e3.3
4	0.71	4.5	17	7.4	25	14	4.9	2.8	2.7	1.7	1.5	e2.7
5	0.76	4.2	42	6.8	16	15	4.4	2.8	3.9	1.7	1.5	e2.4
6	5.1	3.9	36	6.5	22	8.8	4.3	2.7	3.6	1.6	21	e2.2
7	12	3.8	25	48	e17	18	4.0	4.6	4.9	e1.6	21	e1.9
8	10	3.6	26	55	e14	8.6	3.8	7.7	3.7	e1.7	3.0	2.3
9	11	3.8	15	42	e11	12	3.8	6.3	8.3	e1.7	2.0	3.8
10	12	e3.8	20	37	e10	8.5	3.7	3.9	e2.7	e1.6	1.5	2.5
11	3.5	e3.8	18	25	e9.0	7.2	3.6	12	e2.2	e1.6	1.3	45
12	17	e4.0	35	22	e8.5	6.9	3.7	4.5	e2.2	e1.5	1.3	44
13	7.3	e4.1	35	22	7.7	6.5	3.5	3.5	13	e1.5	1.3	31
14	1.5	5.1	26	35	21	6.1	6.6	3.0	e3.0	e1.5	1.2	14
15	20	8.3	17	38	17	5.8	5.3	2.8	e2.2	e1.5	1.3	11
16	59	23	15	23	29	5.8	4.7	2.8	e2.1	e1.5	1.3	10
17	43	14	12	16	26	6.0	5.1	2.5	e2.1	e1.5	1.4	28
18	13	74	9.3	23	22	7.0	3.9	2.3	e2.0	e1.6	1.2	30
19	9.2	76	8.1	15	14	6.5	6.0	2.2	e2.0	e1.6	1.1	13
20	102	55	30	11	11	5.5	6.7	2.1	e1.8	1.6	1.1	6.3
21	134	49	15	9.0	9.7	5.3	4.2	2.1	e1.7	1.4	2.5	4.0
22	95	32	10	8.1	8.8	6.2	3.7	2.4	e1.7	1.4	38	6.2
23	78	31	8.4	37	8.2	6.2	4.8	2.5	e1.6	1.5	16	5.7
24	55	30	18	36	8.8	19	4.8	2.0	e1.6	1.3	51	e4.4
25	39	28	13	19	9.1	26	3.3	3.5	e1.7	1.3	41	e3.8
26	28	17	7.8	13	14	23	3.1	31	1.6	1.4	31	e3.5
27	18	12	16	10	24	17	4.2	31	1.6	1.4	11	e3.3
28	11	44	9.6	23	10	8.9	7.2	33	1.6	1.4	6.4	e3.2
29	13	52	7.1	64	8.4	7.1	3.8	47	1.6	1.4	e5.0	7.9
30	17	33	6.2	63	---	8.2	3.4	17	1.6	1.4	e4.1	9.2
31	7.5	---	11	49	---	6.7	---	9.2	---	1.5	e3.8	---
TOTAL	824.66	643.0	585.5	801.8	487.2	309.8	137.0	258.5	91.2	47.5	278.2	317.5
MEAN	26.6	21.4	18.9	25.9	16.8	9.99	4.57	8.34	3.04	1.53	8.97	10.6
MAX	134	76	42	64	42	26	7.2	47	13	1.7	51	45
MIN	0.68	3.6	6.2	6.5	7.7	5.3	3.1	2.0	1.6	1.3	1.1	1.9
AC-FT	1,640	1,280	1,160	1,590	966	614	272	513	181	94	552	630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

MEAN	10.9	25.7	30.9	32.1	28.1	21.3	13.4	8.07	6.18	3.35	3.81	3.99
MAX	26.6	50.7	51.8	50.8	64.8	38.5	27.2	12.5	13.3	6.66	8.97	10.6
(WY)	(2004)	(2000)	(1997)	(1997)	(1996)	(1997)	(1996)	(1996)	(2001)	(1997)	(2004)	(2004)
MIN	2.24	7.42	11.1	13.3	11.9	9.99	4.57	3.75	2.21	1.22	1.24	1.50
(WY)	(2003)	(2003)	(2001)	(2001)	(2001)	(2004)	(2004)	(1995)	(2003)	(2003)	(2002)	(2002)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1994 - 2004

ANNUAL TOTAL	5,596.51		4,781.86		
ANNUAL MEAN	15.3		13.1		15.7
HIGHEST ANNUAL MEAN					21.4
LOWEST ANNUAL MEAN					10.5
HIGHEST DAILY MEAN	141	Jan 26	134	Oct 21	323
LOWEST DAILY MEAN	0.66	Sep 27	0.68	Oct 1	0.66
ANNUAL SEVEN-DAY MINIMUM	0.68	Sep 26	1.2	Aug 14	0.68
ANNUAL RUNOFF (AC-FT)	11,100		9,480		11,390
10 PERCENT EXCEEDS	42		35		40
50 PERCENT EXCEEDS	7.3		6.6		7.5
90 PERCENT EXCEEDS	1.0		1.5		1.5

e Estimated

12113390 DUWAMISH RIVER AT GOLF COURSE, AT TUKWILA, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 47°28'45", long 122°15'27", in NE¹/₄SW¹/₄, sec.14, T.23 N., R.4 E., King County, Hydrologic Unit 17110012, on left bank at footbridge, 0.5 mi downstream from Black River confluence, at Tukwila, 10.4 mi upstream from mouth.

DRAINAGE AREA.--461 mi².

PERIOD OF RECORD.--March 1996 to September 2004 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1996 to September 1999.

WATER TEMPERATURE: March 1996 to September 1999.

REMARKS.--Sampling is timed to coincide with low tide to minimize tidal and salinity effects. However, during periods of low flow, river stage and water-quality parameters could be affected to an unknown degree by the daily tide cycle.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 386 microsiemens, Sept. 8, 1999, but may have been higher during periods of missing record; minimum, 34 microsiemens, Jan. 2, 1999, but may have been lower during periods of missing record.

TEMPERATURE: Maximum, 23.5°C, July 25, 1996; minimum, 1.0°C, Dec. 22-23, 1998.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat fltrd inc tit field, mg/L as CaCO ₃ (39086)	Bicarbonate, wat fltrd incm. titr., mg/L (00453)	Carbonate, wat fltrd incm. titr., mg/L (00452)	Chloride, water, fltrd, mg/L (00940)
NOV													
18...	1220	2,240	757	10.9	92	7.3	54	9.3	7.9	18	22	.0	1.96
DEC													
18...	1140	914	763	11.4	90	7.1	93	10.0	5.4	30	37	.0	4.43
JAN													
15...	1210	1,490	760	10.9	90	7.1	91	10.4	6.9	31	37	.0	4.03
FEB													
06...	1240	2,280	760	11.1	89	7.4	88	10.0	6.0	32	38	.0	3.48
MAR													
09...	1300	1,850	767	10.1	86	7.2	88	11.0	8.7	32	39	.0	3.69
APR													
06...	1330	1,500	765	10.6	93	7.3	98	15.4	9.5	36	44	.0	5.87
MAY													
04...	1250	1,200	758	9.8	93	7.3	74	15.6	12.9	28	34	.0	3.74
JUN													
01...	1240	3,290	763	10.5	95	7.3	52	19.8	11.1	21	25	.0	1.32
JUL													
14...	1110	553	760	8.3	90	7.6	148	21.7	19.0	48	59	.0	12.1
AUG													
11...	1000	327	780	6.9	75	7.8	179	22.8	20.1	56	68	.0	17.8
SEP													
15...	1310	1,220	756	9.2	92	7.6	74	17.6	14.7	29	35	.0	2.35

12113390 DUWAMISH RIVER AT GOLF COURSE, AT TUKWILA, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate 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, unfltrd mg/L (00665)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	2,6-Di-ethyl-aniline water fltrd 0.7u GF (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	alpha-HCH-d6, surrog, wat fltrd 0.7u GF percent recovery (91065)
NOV 18...	2.8	<.04	.20	E.004	.012	.098	.52	<.006	<.006	<.006	<.004	<.005	67.4
DEC 18...	4.4	E.03	.69	<.008	.014	.038	1.09	--	--	--	--	--	--
JAN 15...	4.8	<.04	.81	<.008	.019	.049	1.02	<.006	<.006	<.006	<.004	<.005	92.0
FEB 06...	4.8	<.04	.63	<.008	.018	.055	.82	--	--	--	--	--	--
MAR 09...	3.8	<.04	.44	<.008	.013	.045	.55	<.006	<.006	<.006	<.004	<.005	86.9
APR 06...	2.7	<.04	.27	<.008	.010	.039	.40	<.006	<.006	<.006	<.004	<.005	101
MAY 04...	2.3	<.04	.15	<.008	.010	.037	.26	<.006	<.006	<.006	<.004	<.005	95.3
JUN 01...	1.8	<.04	.12	<.008	.010	.088	.25	<.006	<.006	<.006	<.004	<.005	101
JUL 14...	3.8	E.02	.26	<.008	.014	.047	.43	<.006	<.006	<.006	<.004	<.005	99.5
AUG 11...	4.5	.05	.27	E.004	.027	.068	.54	<.006	<.006	<.006	<.005	<.005	85.1
SEP 15...	2.5	<.04	.22	<.008	.012	.21	.45	<.006	<.006	<.006	<.005	<.005	88.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF (82686)	Ben-flur-alin, water, fltrd 0.7u GF (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	Chlor-pyri-fos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF (82687)	Cyana-zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	Diazi-non-d10 surrog, wat fltrd 0.7u GF percent recovery (91063)
NOV 18...	E.006	<.050	<.010	<.002	E.006	<.020	<.005	<.006	<.018	<.003	<.004	<.005	99.1
DEC 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	<.007	<.050	<.010	<.002	E.006	<.020	<.005	<.006	<.018	<.003	<.004	<.005	113
FEB 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 09...	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	101
APR 06...	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	109
MAY 04...	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	110
JUN 01...	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	97.1
JUL 14...	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	106
AUG 11...	<.007	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	112
SEP 15...	<.007	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	91.9

12113390 DUWAMISH RIVER AT GOLF COURSE, AT TUKWILA, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)
NOV 18...	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
DEC 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
FEB 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 09...	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
APR 06...	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
MAY 04...	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
JUN 01...	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
JUL 14...	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
AUG 11...	<.009	<.02	<.045	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027
SEP 15...	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)
NOV 18...	<.006	E.009	<.006	<.002	<.007	<.003	<.010	<.004	E.012	<.011	E.01	<.004	<.010
DEC 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	<.006	E.006	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	E.01	<.004	<.010
FEB 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 09...	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010
APR 06...	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010
MAY 04...	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010
JUN 01...	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010
JUL 14...	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010
AUG 11...	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01	<.004	<.025
SEP 15...	<.015	E.003	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	M	<.004	<.025

DUWAMISH RIVER BASIN

12113390 DUWAMISH RIVER AT GOLF COURSE, AT TUKWILA, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Pro-panil, water, fltrd 0.7u GF (82679)	Propar-gite, water, fltrd 0.7u GF (82685)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd 0.7u GF (82670)	Terba-cil, water, fltrd 0.7u GF (82665)	Terbu-fos, water, fltrd 0.7u GF (82675)	Thio-bencarb water fltrd 0.7u GF (82681)	Tri-allate, water, fltrd 0.7u GF (82678)	Tri-flur-alin, water, fltrd 0.7u GF (82661)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment dis-charge, tons/d (80155)
NOV 18...	<.011	<.02	.011	<.02	<.034	<.02	<.005	<.002	E.005	42	254
DEC 18...	--	--	--	--	--	--	--	--	--	6	15
JAN 15...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	10	40
FEB 06...	--	--	--	--	--	--	--	--	--	19	117
MAR 09...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	14	70
APR 06...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	10	40
MAY 04...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	9	29
JUN 01...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	83	737
JUL 14...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	7	10
AUG 11...	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009	10	8.8
SEP 15...	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009	92	303