12201500 SAMISH RIVER NEAR BURLINGTON, WA

Puget Sound Basin
Strait of Georgia Subbasin

LOCATION.--Lat 48°32′46″, long 122°20′13″ referenced to North American Datum of 1927, in SE ¼ SE ¼ sec.6, T.35 N., R.4 E., Skagit County, WA, Hydrologic Unit 17110002, on left bank, 0.5 mi downstream from Friday Creek, 300 ft downstream from bridge on U.S. Highway 99, 5.0 mi north of Burlington, and at mile 10.3.

DRAINAGE AREA.--87.8 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1943 to September 1971, annual maximum water years 1972-83, miscellaneous discharge measurements 1972-74, 1976-96, October 1996 to current year.

REVISED RECORDS.--WSP 1216: Drainage area. WSP 1286: 1944(M), 1945.

GAGE.--Water-stage recorder. Elevation of gage is 45 ft above NGVD of 1929, from topographic map. Prior to Dec. 1, 1948, at site 500 ft upstream at datum 0.75 ft higher. Dec. 1, 1948, to Jan. 7, 1949, nonrecording gage 200 ft upstream at datum 3.14 ft higher than present datum.

REMARKS.--Records fair, except for estimated daily discharges which are poor. State fish hatchery on Friday Creek diverts about 4 ft^3/s, which is returned upstream from station. Slight regulation and there may be some pumping for irrigation. Chemical analyses 1959-70, 1973-74, 1977 to June 1980. Water temperatures March 1973 to April 1974.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--43 years (water years 1944-71, 1997-2011), 246 ft^3/s, 38.13 in/yr, 178,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,870 ft^3/s, Jan. 8, 2009, gage height, 14.01 ft; minimum discharge, 11 ft^3/s, Jul. 10, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	0500	*5,700	*11.95
Jan 17	1100	4,110	11.00
Jan 21	1515	1,910	9.30
Mar 31	0815	3,550	10.48
Apr 4	2300	1,270	8.12
May 12	0130	1,150	7.93

Minimum discharge, 29 ft^3/s, Sept. 16, gage height, 4.66 ft.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 12201500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/12201500.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	e180	407	335	201	283	210	1,570	363	212	103	59	37
2	e150	441	285	189	255	254	1,120	408	198	97	57	37
3	e120	329	255	178	248	243	789	499	192	96	55	36
4	e112	255	226	171	342	216	906	426	183	93	54	36
5	76	213	207	200	309	224	1,050	390	176	88	53	35
6	71	194	193	456	293	214	994	399	165	84	52	35
7	67	236	189	823	379	197	787	721	180	81	51	35
8	63	433	250	744	330	198	632	660	187	81	50	35
9	75	364	658	525	281	219	538	501	164	81	49	34
10	180	289	812	403	250	302	484	423	154	78	48	34
11	169	248	625	340	228	332	523	494	145	76	47	35
12	141	265	2,530	369	217	361	456	902	136	74	46	35
13	126	241	4,480	601	223	380	424	625	133	79	45	36
14	133	256	2,050	844	222	332	480	488	130	133	44	38
15	122	386	1,170	911	207	300	492	487	128	110	44	38
16	112	548	820	1,460	192	417	477	731	124	92	43	37
17	103	429	627	3,220	181	389	424	647	118	97	42	36
18	99	438	520	1,990	169	320	396	490	127	90	42	37
19	95	375	458	940	157	335	362	401	130	81	41	38
20	90	339	400	659	146	281	308	345	125	78	41	36
21	84	290	354	1,240	143	248	308	310	118	106	41	36
22	81	254	320	1,030	160	237	289	286	114	107	42	45
23	80	213	294	684	157	217	274	259	110	90	46	44
24	92	200	275	644	146	202	262	239	106	82	43	41
25	147	187	262	634	128	188	308	230	102	77	42	41
26	228	200	265	512	121	177	377	343	98	80	41	46
27	189	234	265	424	122	172	367	321	97	73	39	53
28	160	233	269	367	212	180	504	318	95	68	39	50
29	142	217	265	378	---	184	462	260	102	65	38	45
30	134	241	243	397	---	1,120	407	231	111	62	39	43
31	209	---	218	325	---	2,740	---	216	---	60	38	---
Total	3,830	8,955	20,120	21,859	6,101	11,389	16,770	13,413	4,160	2,662	1,411	1,164
Mean	124	298	649	705	218	367	559	433	139	85.9	45.5	38.8
Max	228	548	4,480	3,220	379	2,740	1,570	902	212	133	59	53
Min	63	187	189	171	121	172	262	216	95	60	38	34
Ac-ft	7,600	17,760	39,910	43,360	12,100	22,590	33,260	26,600	8,250	5,280	2,800	2,310
Cfsm	1.41	3.40	7.39	8.03	2.48	4.18	6.37	4.93	1.58	0.98	0.52	0.44
In.	1.62	3.79	8.52	9.26	2.58	4.83	7.11	5.68	1.76	1.13	0.60	0.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	142	340	441	532	431	346	288	187	113	58.1	39.5	47.0
Max	497	695	893	1,368	988	698	559	433	289	156	84.4	134
(WY)	(1957)	(2005)	(2000)	(2009)	(1961)	(1950)	(2011)	(2011)	(2010)	(1999)	(2004)	(1959)
Min	25.5	30.4	89.2	203	180	167	132	84.3	41.2	23.0	18.9	17.6
(WY)	(1953)	(1953)	(1953)	(1949)	(2010)	(2005)	(2004)	(1958)	(1958)	(1958)	(2003)	(2003)

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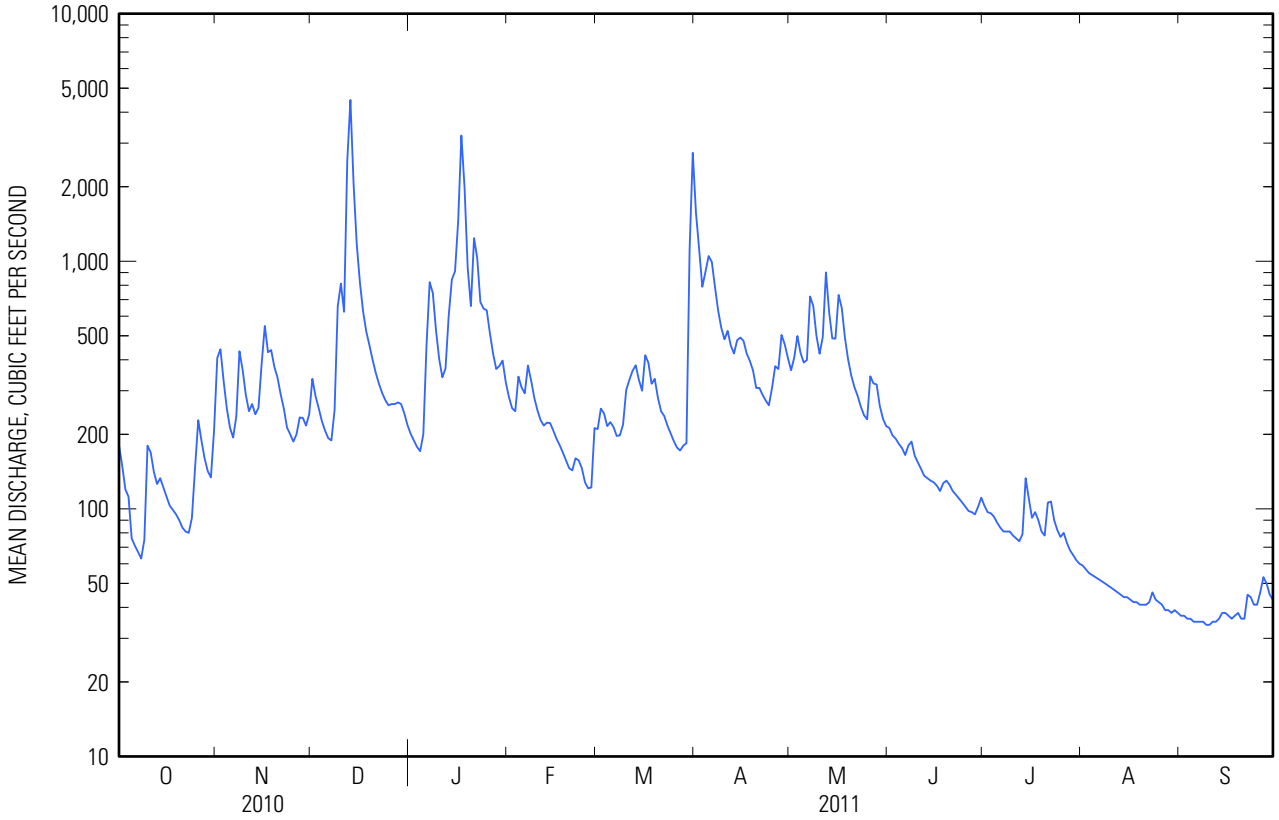
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1943 - 2011	
Annual total	87,233		111,834			
Annual mean	239		306		246	
Highest annual mean					340	1997
Lowest annual mean					123	1944
Highest daily mean	4,480	Dec 13	4,480	Dec 13	8,510	Jan 8, 2009
Lowest daily mean	25	Sep 5	34	Sep 9	15	Sep 5, 2003
Annual seven-day minimum	29	Aug 24	35	Sep 5	16	Aug 31, 2003
Annual runoff (ac-ft)	173,000		221,800		178,500	
Annual runoff (cfsm)	2.72		3.49		2.81	
Annual runoff (inches)	36.96		47.38		38.13	
10 percent exceeds	445		629		530	
50 percent exceeds	182		207		171	
90 percent exceeds	36		43		31