



**Figure 23.** Location of surface-water stations in the Stillaguamish River Basin.

## 12161000 SOUTH FORK STILLAGUAMISH RIVER NEAR GRANITE FALLS, WA

LOCATION.--Lat 48°06'12", long 121°57'07", in SW 1/4 NW 1/4 sec.8, T.30 N., R.7 E., Snohomish County, Hydrologic Unit 17110008, on right bank 0.3 mi upstream from county road bridge, 1.2 mi upstream from Canyon Creek, 1.6 mi northeast of Granite Falls, and at mile 34.9.

DRAINAGE AREA.--119 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1902 to July 1903 (gage heights only), July 1928 to September 1980, November 1999 to current year (gage heights only).  
Published as "at Robe" 1902-03. Chemical analyses July 1959 to September 1966, October 1973 to September 1974.

REVISED RECORDS.--WSP 902: 1939. WSP 1286: 1929-31(M), 1932, 1935, 1937(M), 1939(P), 1940-41(M), 1943(P), 1947(P), WSP 1736: 1932-35(M), 1944(M), 1946-48(M), 1951(M), 1957(M). WSP 1932: 1938(P), 1945(P), 1950(P), 1956(P), 1959(P).

GAGE.--Water-stage recorder. Elevation of gage is 310 ft above NGVD of 1929, from river-profile map. Prior to Aug. 21, 1928, nonrecording gage at site 8 mi upstream at different datum. Aug. 31 to Sept. 30, 1928, nonrecording gage at present site and datum.

REMARKS.--Some small diversion for domestic use above station. No regulation. U.S. Geological Survey satellite telemeter and National Weather Service radio telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 21.17 ft Oct. 20, 2003; minimum gage height, 2.99 ft Aug. 19-21, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 21.17 ft, Oct. 20; minimum gage height, 3.18 ft, Oct. 6.

GAGE HEIGHT, FEET  
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.24	4.86	5.56	4.50	5.88	4.46	5.03	5.10	5.76	4.08	3.42	4.39
2	3.23	4.68	5.63	4.42	5.43	4.39	4.81	5.27	5.35	4.04	3.40	4.89
3	3.22	4.52	6.64	4.37	5.18	4.43	4.75	5.12	5.19	4.01	3.38	4.57
4	3.20	4.40	5.69	4.19	5.33	4.96	4.90	5.15	5.22	3.98	3.38	4.33
5	3.19	4.29	6.52	4.05	5.12	5.08	4.86	5.52	5.20	3.91	3.37	4.23
6	3.19	4.20	6.81	4.18	5.07	4.88	4.75	4.94	5.99	3.94	3.42	4.13
7	3.52	4.13	5.84	4.81	5.32	5.31	4.84	4.76	5.49	4.36	4.61	4.02
8	4.13	4.09	5.40	6.31	5.07	6.44	4.81	4.86	5.09	4.24	4.13	3.94
9	4.36	4.04	5.10	5.97	4.85	6.53	4.79	4.94	5.43	3.99	3.76	4.57
10	4.60	4.74	4.89	6.66	4.70	5.98	4.88	4.81	5.51	3.93	3.61	4.48
11	4.36	7.06	4.77	6.03	4.60	5.39	5.05	4.67	5.76	3.98	3.52	6.52
12	6.35	5.48	5.01	5.68	4.56	5.16	5.23	4.71	5.16	3.87	3.47	5.22
13	7.27	4.95	5.30	5.93	4.52	4.98	5.20	4.71	5.84	3.82	3.44	5.17
14	5.18	4.69	5.34	6.67	4.84	4.97	5.22	4.66	5.79	3.80	3.42	6.53
15	4.61	4.62	5.21	8.72	5.13	5.01	5.10	4.65	5.42	3.79	3.40	6.74
16	6.42	5.72	5.69	6.91	5.22	4.84	5.02	4.73	5.07	3.78	3.38	7.14
17	11.16	6.95	6.32	5.76	5.38	4.82	4.89	4.65	4.97	3.73	3.36	7.71
18	6.51	11.77	5.49	5.45	5.62	5.24	4.72	4.91	4.93	3.71	3.35	6.80
19	5.87	11.19	5.27	5.51	5.96	5.26	4.62	4.98	4.81	3.70	3.33	6.25
20	11.50	6.74	5.70	5.21	5.36	4.91	4.85	4.80	4.68	3.67	3.32	5.50
21	12.10	5.77	5.87	4.97	5.01	4.76	4.89	4.74	4.63	3.64	3.32	5.07
22	6.91	5.28	5.42	4.80	4.80	4.92	4.67	5.65	4.62	3.60	4.97	4.81
23	7.27	5.17	5.16	5.18	4.67	5.33	4.79	5.41	4.63	3.57	4.75	4.66
24	6.00	5.65	5.34	6.02	4.60	5.60	4.92	5.09	4.56	3.55	6.33	4.51
25	5.41	5.39	5.82	5.32	4.60	5.48	4.67	4.89	4.47	3.54	8.95	4.37
26	5.07	5.29	5.27	5.21	4.50	5.53	4.79	5.90	4.36	3.53	8.20	4.25
27	4.84	5.06	5.02	5.38	4.63	5.69	5.23	7.14	4.26	3.50	5.79	4.16
28	7.47	6.30	4.96	6.59	4.63	5.35	5.06	7.10	4.18	3.47	5.10	4.08
29	6.93	9.01	4.75	9.12	4.57	5.15	4.82	6.30	4.14	3.45	4.78	4.01
30	5.65	6.27	4.61	9.66	---	5.63	4.82	7.06	4.13	3.44	4.55	3.95
31	5.13	---	4.57	6.70	---	5.47	---	6.70	---	3.44	4.37	---
MEAN	5.74	5.74	5.45	5.82	5.01	5.22	4.90	5.29	5.02	3.78	4.24	5.03
MAX	12.10	11.77	6.81	9.66	5.96	6.53	5.23	7.14	5.99	4.36	8.95	7.71
MIN	3.19	4.04	4.57	4.05	4.50	4.39	4.62	4.65	4.13	3.44	3.32	3.94

WTR YR 2004 MEAN 5.10 MAX 12.10 MIN 3.19

12167000 NORTH FORK STILLAGUAMISH RIVER NEAR ARLINGTON, WA

LOCATION.--Lat 48°15'42", long 122°02'47", in SW¼NW¼, sec.16, T.32 N., R.6 E., Snohomish County, Hydrologic Unit 17110008, on right bank 5.7 mi northeast of Arlington, 7.8 mi downstream from Deer Creek, and at mile 6.5.

DRAINAGE AREA.--262 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1928 to current year.

REVISED RECORDS.--WSP 1286: 1938-39. WSP 1932: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 89.34 ft above NGVD of 1929.

REMARKS.--Records fair, except those above 5,000 ft<sup>3</sup>/s, which are poor. No regulation. Small diversions for domestic use. National Weather Service radio telemeter and U.S. Geological Survey satellite telemeter at station. Chemical analyses November 1961 to September 1971, October 1973 to September 1974.

AVERAGE DISCHARGE.--76 years (water years 1929-2004), 1,896 ft<sup>3</sup>/s, 98.30 in/yr, 1,373,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,000 ft<sup>3</sup>/s, Oct. 21, 2003, gage height, 14.81 ft on basis of slope-area measurement at gage height 14.81 ft; maximum gage height, 15.20 ft, Nov. 24, 1990; minimum discharge, 117 ft<sup>3</sup>/s, Sept. 23, 1938.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 17	1445	35,000	14.10	Nov 29	0215	18,000	10.66
Oct 21	0000	*44,000	*14.81	Jan 30	0645	15,100	9.85
Nov 18	0945	25,200	12.66	Aug 26	0015	15,500	10.16
Nov 19	0615	33,000	13.86				

Minimum discharge, 155 ft<sup>3</sup>/s, Oct. 5, 6.

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	170	1,910	3,210	1,480	3,390	1,430	1,860	1,580	2,160	645	270	1,150
2	165	1,750	3,030	1,390	2,750	1,340	1,660	1,680	1,760	619	259	2,020
3	164	1,610	4,570	1,330	2,370	1,380	1,570	1,560	1,570	598	250	1,460
4	160	1,500	3,160	1,190	2,500	1,920	1,680	1,570	1,520	569	246	1,140
5	159	1,410	4,120	1,330	2,200	1,940	1,630	1,820	1,540	539	247	1,010
6	158	1,340	5,410	1,230	2,070	1,800	1,550	1,440	4,270	576	259	900
7	1,260	1,280	3,640	1,740	2,290	2,760	1,640	1,320	2,180	785	526	806
8	819	1,240	2,870	3,790	2,040	3,760	1,580	1,320	1,660	754	433	734
9	858	1,190	2,450	3,200	1,830	3,680	1,540	1,440	1,620	591	323	1,240
10	952	1,700	2,180	4,500	1,700	2,930	1,600	1,360	1,560	534	288	1,070
11	629	5,490	2,000	3,520	1,610	2,270	1,740	1,270	1,560	581	269	4,530
12	1,590	2,710	2,330	2,910	1,570	2,040	1,910	1,220	1,340	539	258	2,200
13	3,800	2,080	2,420	3,290	1,530	1,860	1,850	1,160	2,140	494	251	2,010
14	1,300	1,790	2,660	5,140	1,610	1,800	1,820	1,190	2,020	482	247	3,710
15	901	1,670	2,430	9,630	1,930	1,770	1,840	1,150	1,640	474	240	3,810
16	3,060	2,690	2,520	5,200	2,090	1,650	1,710	1,130	1,390	457	234	3,850
17	19,100	6,270	3,230	3,340	2,310	1,730	1,630	1,110	1,290	432	230	7,430
18	4,410	17,000	2,400	2,840	2,720	1,990	1,480	1,220	1,240	418	225	4,840
19	3,870	18,700	2,190	2,940	3,190	2,030	1,390	1,270	1,150	419	216	3,750
20	16,500	5,800	2,760	2,480	2,400	1,740	1,440	1,180	1,070	405	211	2,660
21	24,500	3,850	3,100	2,140	2,000	1,690	1,430	1,170	1,020	386	211	2,080
22	6,000	3,020	2,460	1,930	1,790	1,840	1,330	1,710	991	360	670	1,750
23	5,570	2,690	2,140	2,010	1,650	2,080	1,390	1,490	988	348	594	1,590
24	3,630	3,360	2,170	2,810	1,560	2,330	1,470	1,300	965	342	1,110	1,430
25	2,800	3,100	2,780	2,320	1,530	2,210	1,290	1,200	922	338	6,280	1,280
26	2,350	3,130	2,320	2,260	1,470	2,220	1,400	1,620	859	324	7,570	1,180
27	2,070	2,690	2,030	3,020	1,520	2,490	1,700	2,340	786	317	2,370	1,100
28	4,740	5,380	1,970	4,100	1,540	2,330	1,550	4,760	729	295	1,690	1,030
29	3,830	10,600	1,760	7,370	1,520	2,050	1,380	2,550	689	290	1,540	971
30	2,610	4,410	1,600	10,500	---	2,540	1,400	3,360	673	283	1,190	923
31	2,150	---	1,550	4,720	---	2,350	---	3,260	---	276	997	---
TOTAL	120,275	121,360	83,460	105,650	58,680	65,950	47,460	51,750	43,302	14,470	29,704	63,654
MEAN	3,880	4,045	2,692	3,408	2,023	2,127	1,582	1,669	1,443	467	958	2,122
MAX	24,500	18,700	5,410	10,500	3,390	3,760	1,910	4,760	4,270	785	7,570	7,430
MIN	158	1,190	1,550	1,190	1,470	1,340	1,290	1,110	673	276	211	734
AC-FT	238,600	240,700	165,500	209,600	116,400	130,800	94,140	102,600	85,890	28,700	58,920	126,300
CFSM	14.8	15.4	10.3	13.0	7.2	8.12	6.04	6.37	5.51	1.78	3.66	8.10
IN.	17.08	17.23	11.85	15.00	8.33	9.36	6.74	7.35	6.15	2.05	4.22	9.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

	1,534	2,765	3,040	2,807	2,446	2,147	2,206	2,160	1,657	866	465	686
MEAN	1,534	2,765	3,040	2,807	2,446	2,147	2,206	2,160	1,657	866	465	686
MAX	3,880	8,008	6,177	5,852	5,632	5,814	4,040	4,371	3,348	2,165	1,049	2,418
(WY)	(2004)	(1991)	(1980)	(1953)	(1982)	(1972)	(1959)	(1974)	(1972)	(1972)	(1964)	(1959)
MIN	171	223	871	484	467	898	812	1,091	510	290	166	140
(WY)	(1988)	(1937)	(1986)	(1937)	(1929)	(1992)	(1941)	(1992)	(1992)	(1940)	(1938)	(1938)

## STILLAGUAMISH RIVER BASIN

12167000 NORTH FORK STILLAGUAMISH RIVER NEAR ARLINGTON, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	742,477		805,715			
ANNUAL MEAN	2,034		2,201		1,896	
HIGHEST ANNUAL MEAN					2,883	
LOWEST ANNUAL MEAN					1,123	
HIGHEST DAILY MEAN	24,500	Oct 21	24,500	Oct 21	34,200	Nov 24, 1990
LOWEST DAILY MEAN	154	Sep 6	158	Oct 6	123	Sep 23, 1938
ANNUAL SEVEN-DAY MINIMUM	158	Aug 31	224	Aug 15	128	Sep 17, 1938
ANNUAL RUNOFF (AC-FT)	1,473,000		1,598,000		1,373,000	
ANNUAL RUNOFF (CFSM)	7.76		8.40		7.24	
ANNUAL RUNOFF (INCHES)	105.42		114.40		98.30	
10 PERCENT EXCEEDS	3,910		3,840		3,720	
50 PERCENT EXCEEDS	1,390		1,640		1,380	
90 PERCENT EXCEEDS	202		399		340	