

Figure 44. Location of surface-water stations in the Nooksack River Basin.

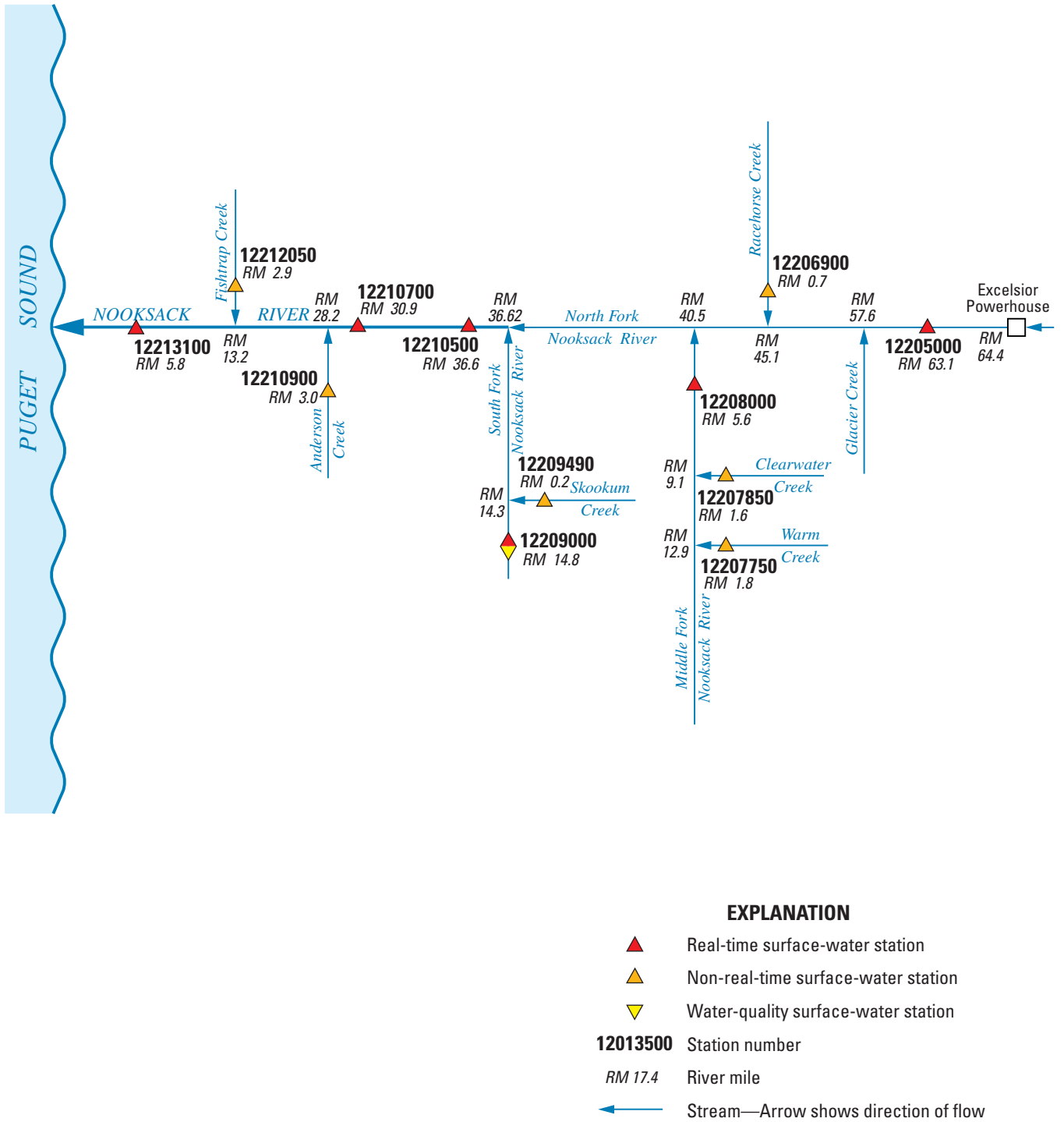


Figure 45. Schematic diagram showing surface-water stations in the Nooksack River Basin.

12205000 NORTH FORK NOOKSACK RIVER BELOW CASCADE CREEK, NEAR GLACIER, WA

LOCATION.--Lat 48°54'22", long 121°50'35", in SE¼SW¼ sec.36, T.40 N., R.7 E., Whatcom County, Hydrologic Unit 17110004, Mt. Baker National Forest, on right bank 0.2 mi downstream from Cascade Creek, 0.3 mi downstream from Deadhorse Creek, 4.8 mi east of Glacier, 5.5 mi upstream from Glacier Creek, and at mile 63.1.

DRAINAGE AREA.--105 mi².

PERIOD OF RECORD.--October 1937 to current year. Published as "Nooksack River above Cascade Creek, near Glacier" 1937-58 and as "Nooksack River below Cascade Creek, near Glacier" 1958-66.

REVISED RECORDS.--WSP 1092: 1946.

GAGE.--Water-stage recorder. Elevation of gage is 1,245 ft above NGVD of 1929, from river-profile map. Supplementary gage on left bank, at datum 1.19 ft lower, used as principal gage prior to Oct. 1, 1953, and Oct. 8, 1958, to Sept. 30, 1959.

REMARKS.--Records fair. No diversion upstream from station. Some regulation at low flow by powerplant at Excelsior. Summer flows augmented by glacier melt. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--68 years (water years 1938-2005), 784 ft³/s, 101.39 in/yr, 567,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft³/s, Oct. 16, 2003, from slope-area measurement, gage height, 11.97 ft, from floodmark; minimum discharge, 60 ft³/s, Mar. 12, 1969; minimum daily, 98 ft³/s, Jan. 8, 1979, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 24	2130	*7,970	*8.30	Jan 22	1845	4,760	5.50
Dec 11	0045	6,810	7.67	Sep 29	2000	4,400	6.02
Jan 19	0015	6,550	7.25				

Minimum discharge, 178 ft³/s, Jan. 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	439	564	528	343	548	314	1,060	931	1,160	952	741	414
2	425	1,890	482	319	524	298	774	958	943	853	601	429
3	424	992	458	302	494	285	667	1,120	864	791	560	367
4	429	774	512	286	857	269	613	1,070	802	819	576	356
5	426	679	502	276	765	264	521	1,120	808	912	596	339
6	826	880	434	271	639	262	546	1,170	706	2,230	643	314
7	564	1,350	409	271	572	378	643	1,050	761	1,270	652	312
8	1,230	1,250	465	260	517	371	672	910	809	1,910	630	335
9	1,330	931	450	249	483	518	553	1,080	746	1,690	663	343
10	829	794	2,410	238	451	445	488	1,310	723	1,030	629	353
11	666	710	2,930	229	432	443	570	1,450	811	1,030	595	299
12	612	650	1,200	232	427	464	507	1,370	837	993	607	293
13	588	651	981	221	411	386	468	1,310	826	856	603	289
14	580	738	1,790	206	387	352	434	1,650	759	788	625	307
15	562	965	1,200	205	357	331	409	2,100	722	835	619	299
16	902	776	868	220	347	329	1,330	2,060	704	1,010	622	300
17	989	672	725	1,180	337	325	1,090	1,310	865	901	728	288
18	919	710	800	4,100	323	305	820	1,110	826	939	537	273
19	751	668	1,440	4,750	313	310	723	1,580	813	852	505	278
20	655	599	932	4,620	299	931	732	1,180	895	753	545	261
21	639	561	707	3,320	289	840	883	1,070	1,090	711	539	238
22	620	619	592	3,890	282	547	1,170	1,100	1,400	748	507	222
23	609	608	518	2,980	277	456	1,320	981	1,020	720	437	210
24	577	3,720	476	1,790	274	402	1,510	859	940	658	405	205
25	544	3,420	513	1,290	271	371	1,620	826	950	650	412	206
26	514	1,460	532	1,080	268	541	1,820	943	884	666	425	217
27	484	1,070	451	1,090	267	568	1,810	1,160	1,120	695	432	213
28	465	812	415	830	273	609	1,420	1,410	1,020	760	473	207
29	452	682	401	693	---	556	1,120	1,560	977	724	581	1,950
30	612	601	387	611	---	527	973	1,460	1,040	716	439	1,650
31	543	---	365	618	---	502	---	1,400	---	726	425	---
TOTAL	20,205	30,796	24,873	36,970	11,684	13,499	27,266	38,608	26,821	29,188	17,352	11,767
MEAN	652	1,027	802	1,193	417	435	909	1,245	894	942	560	392
MAX	1,330	3,720	2,930	4,750	857	931	1,820	2,100	1,400	2,230	741	1,950
MIN	424	561	365	205	267	262	409	826	704	650	405	205
AC-FT	40,080	61,080	49,340	73,330	23,180	26,780	54,080	76,580	53,200	57,890	34,420	23,340
CFSM	6.21	9.78	7.64	11.4	3.97	4.15	8.66	11.9	8.51	8.97	5.33	3.74
IN.	7.16	10.91	8.81	13.10	4.14	4.78	9.66	13.68	9.50	10.34	6.15	4.17

12205000 NORTH FORK NOOKSACK RIVER BELOW CASCADE CREEK, NEAR GLACIER, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)												
MEAN	676	757	641	528	471	416	572	1,118	1,522	1,299	802	584
MAX	2,010	2,143	1,354	1,193	1,401	1,061	930	1,794	2,459	2,112	1,582	1,122
(WY)	(2004)	(1991)	(1940)	(2005)	(1991)	(1972)	(1990)	(1997)	(1948)	(1974)	(1999)	(1978)
MIN	210	216	232	147	165	191	253	686	893	725	473	353
(WY)	(1988)	(1953)	(1979)	(1979)	(1956)	(1948)	(1975)	(1962)	(1941)	(1940)	(1941)	(1989)
SUMMARY STATISTICS												
	FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR				WATER YEARS 1938 - 2005				
ANNUAL TOTAL	298,572			289,029				784				
ANNUAL MEAN	816			792				1,090				
HIGHEST ANNUAL MEAN								540				
LOWEST ANNUAL MEAN								10,800				
HIGHEST DAILY MEAN	3,720			Nov 24				4,750				
LOWEST DAILY MEAN	199			Mar 1				205				
ANNUAL SEVEN-DAY MINIMUM	222			Feb 26				211				
ANNUAL RUNOFF (AC-FT)	592,200			573,300				567,700				
ANNUAL RUNOFF (CFSM)	7.77			7.54				7.46				
ANNUAL RUNOFF (INCHES)	105.78			102.40				101.39				
10 PERCENT EXCEEDS	1,320			1,360				1,540				
50 PERCENT EXCEEDS	729			639				600				
90 PERCENT EXCEEDS	375			289				261				

12206900 RACEHORSE CREEK AT NORTH FORK ROAD, NEAR KENDALL, WA

LOCATION.--Lat 48°53'07", long 122°07'56", in SW¹/₄NW¹/₄ sec.11, T.39 N., R.5 E., Whatcom County, Hydrologic Unit 17110004, on right bank on the downstream side of North Fork Road bridge, 2.2 mi south of Kendall, and at mile 0.7.

DRAINAGE AREA.--10.5 mi².

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 410 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those below 4 ft³/s and those above 300 ft³/s, and estimated discharges, which are fair. No known diversions or regulation upstream of station.

AVERAGE DISCHARGE.--7 years (water year 1999-2005), 59.1 ft³/s, 76.53 in/yr, 42,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,670 ft³/s, Oct. 20, 2003, gage height, 7.45 ft, from rating curve extended above 189 ft³/s; minimum discharge, 1.3 ft³/s, Oct. 1, 1998.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,540 ft³/s, Nov. 24, gage height, 7.33 ft; minimum discharge, 2.5 ft³/s, Sept. 26, 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	91	51	42	39	48	220	42	26	10	7.5	4.5
2	15	586	46	37	38	39	107	43	22	9.3	7.0	3.9
3	14	131	47	34	e38	32	88	44	18	8.9	6.6	3.6
4	13	77	104	31	e70	28	90	40	16	8.3	6.1	3.8
5	13	57	108	48	e56	28	66	46	20	8.0	5.8	4.2
6	20	89	71	28	e45	27	64	38	19	45	5.5	3.8
7	15	152	59	27	e43	41	112	32	18	31	5.4	3.4
8	77	97	92	25	e42	36	110	28	24	76	5.2	3.1
9	184	66	86	26	e40	47	71	33	20	151	5.1	3.8
10	98	52	473	46	e38	34	56	33	17	62	4.9	5.7
11	61	42	348	133	e38	31	81	32	17	44	4.8	4.4
12	44	36	133	22	e35	28	73	28	25	37	4.8	3.7
13	35	33	113	19	e35	23	63	26	24	31	4.5	3.4
14	29	39	292	111	e32	20	57	32	22	25	4.3	3.3
15	26	95	242	165	e30	18	56	40	19	22	4.1	3.1
16	85	74	127	138	e29	20	294	40	16	31	3.9	3.5
17	82	57	96	540	e28	21	148	30	18	27	9.1	3.6
18	88	102	94	642	26	20	90	28	16	22	6.1	3.4
19	65	94	108	328	24	32	73	38	15	18	4.8	3.3
20	49	59	80	351	22	102	74	27	13	16	4.4	3.2
21	72	47	66	175	21	70	89	29	12	15	4.2	3.0
22	72	54	56	219	20	44	100	25	18	14	4.0	2.8
23	63	61	49	182	20	34	99	30	15	13	3.9	2.7
24	59	837	45	116	20	29	96	26	12	12	3.7	2.7
25	51	547	92	e100	20	26	91	22	12	11	3.6	2.6
26	43	166	105	e75	21	103	88	20	11	9.8	3.4	2.5
27	37	107	71	e65	21	95	81	18	14	9.2	3.3	2.5
28	32	81	58	e55	23	91	62	17	13	8.6	4.2	2.6
29	31	67	54	e46	---	81	48	16	11	8.2	5.8	283
30	63	58	51	41	---	72	43	14	11	7.7	5.1	106
31	42	---	48	45	---	83	---	24	---	7.4	5.1	---
TOTAL	1,594	4,054	3,465	3,912	914	1,403	2,790	941	514	798.4	156.2	485.1
MEAN	51.4	135	112	126	32.6	45.3	93.0	30.4	17.1	25.8	5.04	16.2
MAX	184	837	473	642	70	103	294	46	26	151	9.1	283
MIN	13	33	45	19	20	18	43	14	11	7.4	3.3	2.5
AC-FT	3,160	8,040	6,870	7,760	1,810	2,780	5,530	1,870	1,020	1,580	310	962
CFSM	4.90	12.9	10.6	12.0	3.11	4.31	8.86	2.89	1.63	2.45	0.48	1.54
IN.	5.65	14.36	12.28	13.86	3.24	4.97	9.88	3.33	1.82	2.83	0.55	1.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	60.3	103	84.1	88.3	49.5	61.7	75.9	71.1	62.3	21.8	13.1	18.7
MAX	161	135	121	126	106	106	108	93.2	107	54.5	32.3	59.4
(WY)	(2004)	(2005)	(1999)	(2005)	(2002)	(2003)	(2002)	(2000)	(2000)	(1999)	(2004)	(2004)
MIN	6.10	27.1	45.8	36.7	25.0	36.8	50.4	30.4	17.1	6.59	2.26	2.27
(WY)	(2003)	(2001)	(2001)	(2000)	(2001)	(2002)	(2004)	(2005)	(2005)	(2004)	(2003)	(2003)

NOOKSACK RIVER BASIN

12206900 RACEHORSE CREEK AT NORTH FORK ROAD, NEAR KENDALL, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	23,728.3		21,026.7		59.1	
ANNUAL MEAN	64.8		57.6		71.1	
HIGHEST ANNUAL MEAN					40.3	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	837	Nov 24	837	Nov 24	1,000	Oct 17, 2003
LOWEST DAILY MEAN	2.3	Aug 20	2.5	Sep 26	1.4	Oct 1, 1998
ANNUAL SEVEN-DAY MINIMUM	2.5	Aug 14	2.6	Sep 22	1.6	Aug 23, 2003
MAXIMUM PEAK FLOW					1,500	Jan 8, 2002
MAXIMUM PEAK STAGE					7.05	Jan 8, 2002
INSTANTANEOUS LOW FLOW					1.3	Oct 1, 1998
ANNUAL RUNOFF (AC-FT)	47,070		41,710		42,850	
ANNUAL RUNOFF (CFSM)	6.17		5.49		5.63	
ANNUAL RUNOFF (INCHES)	84.07		74.49		76.53	
10 PERCENT EXCEEDS	109		107		114	
50 PERCENT EXCEEDS	50		33		39	
90 PERCENT EXCEEDS	6.4		4.4		5.7	

e Estimated

12207750 WARM CREEK NEAR WELCOME, WA

LOCATION.--Lat 48°46'03", long 121°57'48", in NE¹/₄SE¹/₄ sec.24, T.38 N., R.6 E., Whatcom County, Hydrologic Unit 17110004, on right bank, 10 mi southeast of Welcome, and at mile 1.2.

DRAINAGE AREA.--4.13 mi².

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,700 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for period Nov. 24 to Mar. 14 and discharges above 104 ft³/s, which are fair. No diversions or regulation upstream of station. Records for water years 1991-98 available in the files of Devine Tarbell & Associates, Inc., Bellingham, Washington.

AVERAGE DISCHARGE.--7 years (water year 1999-2005), 27.7 ft³/s, 91.24 in/yr, 20,090 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 506 ft³/s, Oct. 17, 2003, gage height, 4.09 ft; minimum discharge, 2.3 ft³/s, Sept. 26-28, 2005.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 405 ft³/s, Nov. 24, 25, gage height, 3.82 ft; minimum discharge, 2.3 ft³/s, Sept. 26-28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	21	33	16	20	11	29	28	30	16	7.3	3.4
2	12	88	29	14	19	10	19	27	24	15	6.8	3.2
3	12	42	26	13	18	9.3	19	29	22	13	6.2	3.1
4	11	29	33	12	21	8.9	17	27	20	13	5.9	3.3
5	11	24	30	11	19	8.6	14	27	20	14	5.7	3.4
6	12	35	25	10	17	8.5	14	26	18	29	5.6	3.1
7	12	66	22	10	16	12	21	24	19	20	5.5	3.0
8	19	52	25	10	15	10	23	21	22	29	5.3	2.8
9	28	37	23	9.8	14	13	19	23	20	37	5.2	3.3
10	21	29	108	9.4	13	11	16	27	19	26	5.1	5.2
11	18	25	121	8.7	13	11	19	29	19	23	5.0	3.5
12	15	22	58	8.5	13	12	16	27	22	21	4.8	3.1
13	14	21	51	7.9	12	11	14	24	21	18	4.6	3.0
14	13	22	90	7.4	11	9.2	13	28	20	16	4.3	2.9
15	13	29	90	7.3	10	8.0	13	41	19	15	4.2	2.8
16	38	24	59	9.5	10	7.6	56	41	19	18	4.0	2.9
17	33	21	47	55	9.9	7.8	39	29	24	16	6.2	3.0
18	32	22	46	150	9.5	7.6	26	27	22	15	4.7	2.8
19	27	21	58	131	9.1	8.1	23	32	20	13	4.2	2.7
20	23	18	46	129	8.6	29	25	26	20	12	4.0	2.7
21	22	17	38	86	8.3	21	35	26	22	11	3.8	2.6
22	21	24	31	107	8.2	14	49	24	25	11	3.8	2.5
23	20	24	28	107	8.4	12	53	22	20	10	3.7	2.4
24	19	215	25	72	8.5	11	55	20	19	9.6	3.6	2.4
25	18	245	30	52	8.5	9.7	56	19	18	9.1	3.4	2.4
26	17	100	31	43	8.5	15	59	20	17	8.6	3.3	2.4
27	16	66	25	38	8.5	16	58	23	19	8.4	3.3	2.3
28	15	51	22	30	8.7	16	48	28	19	8.2	3.2	2.3
29	14	44	20	26	---	14	37	31	17	8.0	4.1	102
30	16	37	19	24	---	13	31	28	17	7.5	3.8	65
31	15	---	17	23	---	13	---	33	---	7.3	3.8	---
TOTAL	570	1,471	1,306	1,237.5	345.7	368.3	916	837	613	477.7	144.4	249.5
MEAN	18.4	49.0	42.1	39.9	12.3	11.9	30.5	27.0	20.4	15.4	4.66	8.32
MAX	38	245	121	150	21	29	59	41	30	37	7.3	102
MIN	11	17	17	7.3	8.2	7.6	13	19	17	7.3	3.2	2.3
AC-FT	1,130	2,920	2,590	2,450	686	731	1,820	1,660	1,220	948	286	495
CFSM	4.45	11.9	10.2	9.67	2.99	2.88	7.39	6.54	4.95	3.73	1.13	2.01
IN.	5.13	13.25	11.76	11.15	3.11	3.32	8.25	7.54	5.52	4.30	1.30	2.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	24.8	38.4	28.9	29.1	13.5	17.7	28.1	40.2	53.2	30.9	14.7	12.6
MAX	73.3	61.9	48.6	40.5	19.4	39.3	36.7	51.2	87.5	65.5	35.3	33.0
(WY)	(2004)	(2000)	(1999)	(2002)	(2002)	(2003)	(2000)	(2002)	(2002)	(1999)	(1999)	(2004)
MIN	5.94	12.2	11.1	11.9	7.46	10.4	18.8	27.0	20.4	15.4	4.66	4.66
(WY)	(2003)	(2001)	(2001)	(2000)	(2001)	(2000)	(2001)	(2005)	(2005)	(2005)	(2005)	(2003)

NOOKSACK RIVER BASIN

12207750 WARM CREEK NEAR WELCOME, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	11,039.5		8,536.1		27.7	
ANNUAL MEAN	30.2		23.4		34.1	
HIGHEST ANNUAL MEAN					18.5	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	245	Nov 25	245	Nov 25	500	Oct 17, 2003
LOWEST DAILY MEAN	5.6	Aug 20	2.3	Sep 27	2.3	Sep 27, 2005
ANNUAL SEVEN-DAY MINIMUM	6.2	Aug 14	2.4	Sep 22	2.4	Sep 22, 2005
MAXIMUM PEAK FLOW					506	Oct 17, 2003
MAXIMUM PEAK STAGE					4.09	Oct 17, 2003
INSTANTANEOUS LOW FLOW					3.3	Oct 1, 1998
ANNUAL RUNOFF (AC-FT)	21,900		16,930		20,090	
ANNUAL RUNOFF (CFSM)	7.30		5.66		6.72	
ANNUAL RUNOFF (INCHES)	99.44		76.89		91.24	
10 PERCENT EXCEEDS	52		46		59	
50 PERCENT EXCEEDS	25		18		19	
90 PERCENT EXCEEDS	11		3.8		6.8	

12207850 CLEARWATER CREEK NEAR WELCOME, WA

LOCATION.--Lat 48°47'19", long 122°01'18", in NW¼NW¼ sec.15, T.38 N., R.6 E., Whatcom County, Hydrologic Unit 17110004, on left bank, 7 mi southeast of Welcome, and at mile 1.8.

DRAINAGE AREA.--18.5 mi².

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,650 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except estimated daily discharges and those above 400 ft³/s, which are fair. No diversions or regulation upstream of station. Records for water years 1992-98 are available in the files of Devine Tarbell & Associates, Bellingham, Washington.

AVERAGE DISCHARGE.--7 years (water years 1999-2005) 120 ft³/s, 87.85 in/yr, 86,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft³/s, Dec. 29, 1998, gage height, 6.14 ft; minimum discharge, 6.4 ft³/s, Sept. 6, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge, 2,040 ft³/s, Sept. 29, gage height, 6.10 ft, but may have been higher during period of estimated record Oct. 5 to Mar. 11; minimum discharge, 11 ft³/s, Sept. 26-28, gage height, 1.28 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	e105	e55	e43	e41	e60	245	109	94	37	21	15
2	35	e600	e50	e39	e40	e50	132	107	75	35	20	14
3	33	e140	e50	e35	e39	e45	111	111	65	33	20	14
4	32	e90	e125	e32	e75	e42	103	101	55	31	19	15
5	e31	e75	e120	e49	e60	e41	83	108	69	30	18	16
6	e42	e110	e80	e29	e47	e40	94	96	64	122	18	14
7	e33	e160	e70	e28	e45	e60	195	82	77	84	18	13
8	e90	e115	e100	e26	e44	e55	183	72	103	130	17	13
9	e200	e85	e95	e27	e43	e75	116	82	77	220	17	14
10	e125	e70	e500	e47	e41	e65	91	91	63	103	16	21
11	e75	e60	e550	e120	e41	e60	116	93	66	82	16	16
12	e56	e50	e150	e25	e39	58	93	80	87	68	16	14
13	e48	e45	e130	e20	e39	46	85	73	77	58	16	13
14	e42	e55	e300	e100	e37	42	83	86	70	49	15	13
15	e41	e105	e270	e180	e35	39	85	121	59	45	15	12
16	e110	e80	e150	e160	e35	39	436	122	50	82	15	13
17	e100	e70	e115	e650	e34	42	230	91	63	61	26	13
18	e100	e125	e110	e800	e32	40	146	89	57	45	18	13
19	e85	e110	e130	e400	e31	46	131	129	50	40	16	12
20	e65	e70	e90	e400	e30	211	159	90	44	36	15	12
21	e80	e55	e75	e250	e28	124	220	105	43	34	14	12
22	e80	e60	e65	e290	e28	75	264	87	69	32	14	12
23	e75	e65	e55	e270	e30	61	254	98	52	31	14	11
24	e70	e800	e50	e180	e31	52	256	78	43	29	14	11
25	e65	e950	e95	e150	e31	47	250	68	40	28	13	11
26	e55	e200	e110	e95	e32	125	250	64	38	26	13	11
27	e48	e130	e75	e75	e34	131	231	64	55	25	13	11
28	e42	e95	e60	e60	e40	134	162	65	49	24	13	11
29	e40	e80	e55	e50	---	102	122	62	41	23	17	858
30	e75	e65	e52	e45	---	95	111	55	40	22	17	367
31	e55	---	e49	e47	---	97	---	105	---	21	18	---
TOTAL	2,065	4,820	3,981	4,722	1,082	2,199	5,037	2,784	1,835	1,686	512	1,595
MEAN	66.6	161	128	152	38.6	70.9	168	89.8	61.2	54.4	16.5	53.2
MAX	200	950	550	800	75	211	436	129	103	220	26	858
MIN	31	45	49	20	28	39	83	55	38	21	13	11
AC-FT	4,100	9,560	7,900	9,370	2,150	4,360	9,990	5,520	3,640	3,340	1,020	3,160
CFSM	3.59	8.67	6.93	8.22	2.09	3.83	9.06	4.85	3.30	2.94	0.89	2.87
IN.	4.15	9.68	7.99	9.48	2.17	4.41	10.11	5.59	3.68	3.38	1.03	3.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	111	168	137	141	74.7	99.8	158	192	194	73.2	34.5	53.1
MAX	235	227	234	205	156	192	220	260	351	190	74.1	145
(WY)	(2004)	(2000)	(1999)	(2003)	(2002)	(2003)	(2000)	(2002)	(2002)	(1999)	(2004)	(2004)
MIN	28.5	50.1	63.4	51.5	36.8	65.4	113	89.8	61.2	25.6	9.78	21.9
(WY)	(2003)	(2001)	(2001)	(2000)	(2001)	(2002)	(1999)	(2005)	(2005)	(2003)	(2003)	(2003)

NOOKSACK RIVER BASIN

12207850 CLEARWATER CREEK NEAR WELCOME, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	43,795.8		32,318			
ANNUAL MEAN	120		88.5		120	
HIGHEST ANNUAL MEAN					158	
LOWEST ANNUAL MEAN					82.2	
HIGHEST DAILY MEAN	950	Nov 25	950	Nov 25	1,520	Feb 22, 2002
LOWEST DAILY MEAN	9.8	Aug 20	11	Sep 23	6.7	Sep 6, 2003
ANNUAL SEVEN-DAY MINIMUM	10	Aug 14	11	Sep 22	7.1	Aug 31, 2003
MAXIMUM PEAK FLOW					2,090	Dec 29, 1998
MAXIMUM PEAK STAGE					6.14	Dec 29, 1998
INSTANTANEOUS LOW FLOW					6.4	Sep 6, 2003
ANNUAL RUNOFF (AC-FT)	86,870		64,100		86,800	
ANNUAL RUNOFF (CFSM)	6.46		4.78		6.47	
ANNUAL RUNOFF (INCHES)	87.92		64.88		87.85	
10 PERCENT EXCEEDS	214		160		264	
50 PERCENT EXCEEDS	95		60		75	
90 PERCENT EXCEEDS	29		15		18	

e Estimated

12208000 MIDDLE FORK NOOKSACK RIVER NEAR DEMING, WA

LOCATION.--Lat 48°46'46", long 122°06'19", in lot 7 or 8, in SW¹/₄ sec.13, T.38 N., R.5 E., Whatcom County, Hydrologic Unit 17110004, on left bank 0.5 mi upstream from Heislars Creek, 6.0 mi southeast of Deming, and at mile 5.6.

DRAINAGE AREA.--73.3 mi². Area at site 1910-11, 1920-21, 1954, 75.4 mi².

PERIOD OF RECORD.--October 1910 to March 1911 (fragmentary gage heights and discharge measurements only), August 1920 to September 1921, February 1934 to September 1935, June to October 1954, October 1964 to November 1968, July 1969 to July 1970, January 1992 to current year.

REVISED RECORDS.--WSP 1932: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 580 ft above NGVD of 1929, from river-profile map. Oct. 11, 1910, to Mar. 14, 1911, Aug. 28, 1920, to Sept. 30, 1921, June 3 to Oct. 31, 1954, nonrecording gages at site 0.8 mi downstream at different datums. Feb. 18 to Apr. 6, 1934, Nov. 16, 1934, to Sept. 30, 1935, nonrecording gage at present site and datum. Prior to January 1992 at same site, different datum.

REMARKS.--Records fair except for discharges above 4,000 ft³/s, which are poor. Since February 1962, the City of Bellingham sometimes diverts up to about 100 ft³/s for municipal use at dam 1.8 mi upstream. Some regulation. U.S. Geological Survey satellite telemeter at station.

COOPERATION.--Records for the 1992-97 water years were provided by the City of Bellingham and were reviewed by the U.S. Geological Survey.

AVERAGE DISCHARGE.--19 years (water years 1921, 1935, 1965-68, 1993-2005), 509 ft³/s, 94.29 in/yr, 368,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined, probably occurred Nov. 5, 1934, gage height, 15.0 ft, from floodmarks, present site at different datum; minimum discharge, 30 ft³/s, Oct. 3, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 2	0515	5,910	6.00	Jan 17	2200	6,580	6.40
Nov 24	2200	*12,500	*8.06	Apr 16	1130	4,470	5.48
Dec 10	2345	7,970	6.75	Sep 29	1945	6,870	6.43

Minimum daily discharge, 88 ft³/s, Jan. 14, 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	239	747	394	168	249	338	1,590	429	528	335	340	231
2	233	3,260	353	159	258	277	675	450	432	302	297	242
3	238	958	339	153	237	246	524	519	371	264	283	192
4	222	573	677	138	689	213	487	473	324	271	305	183
5	220	434	619	130	507	205	381	523	362	311	306	167
6	376	884	421	127	343	197	419	478	332	1,080	327	168
7	235	1,630	365	128	314	342	707	398	356	657	323	177
8	695	977	671	118	318	278	693	338	466	1,120	320	199
9	1,220	625	477	107	292	360	438	480	369	1,340	332	190
10	628	487	3,950	100	271	298	393	550	320	661	316	210
11	422	405	2,790	97	260	273	613	572	343	597	296	162
12	358	351	823	96	284	264	422	493	399	557	316	151
13	341	340	695	89	275	215	398	454	397	463	304	148
14	317	455	2,040	88	256	193	407	595	348	416	303	149
15	295	926	1,550	88	230	182	400	933	295	432	305	136
16	1,120	635	750	122	221	189	2,520	763	300	551	277	137
17	999	484	543	2,570	213	201	1,190	498	397	471	384	132
18	887	766	607	4,750	205	191	635	530	355	453	313	127
19	669	701	871	2,870	196	225	498	777	327	412	296	134
20	478	453	499	3,320	186	1,300	558	491	337	385	312	122
21	503	372	350	1,600	176	662	743	555	396	381	300	117
22	608	606	271	2,110	172	365	930	516	490	365	272	113
23	517	645	255	1,850	170	297	939	497	371	331	228	110
24	440	6,570	256	1,040	175	250	988	417	333	314	226	114
25	381	5,090	510	696	181	222	948	370	325	311	237	120
26	324	1,450	563	558	184	662	963	404	300	326	241	131
27	285	928	342	487	190	561	912	437	372	347	258	127
28	262	667	247	353	210	660	664	536	355	382	266	116
29	251	538	197	289	---	496	471	506	346	357	280	3,110
30	571	464	180	247	---	417	410	474	364	357	210	1,970
31	378	---	178	310	---	422	---	642	---	368	223	---
TOTAL	14,712	33,421	22,783	24,958	7,262	11,001	21,916	16,098	11,010	14,917	8,996	9,385
MEAN	475	1,114	735	805	259	355	731	519	367	481	290	313
MAX	1,220	6,570	3,950	4,750	689	1,300	2,520	933	528	1,340	384	3,110
MIN	220	340	178	88	170	182	381	338	295	264	210	110
AC-FT	29,180	66,290	45,190	49,500	14,400	21,820	43,470	31,930	21,840	29,590	17,840	18,620
CFSM	6.47	15.2	10.0	11.0	3.54	4.84	9.97	7.08	5.01	6.56	3.96	4.27
IN.	7.47	16.96	11.56	12.67	3.69	5.58	11.12	8.17	5.59	7.57	4.57	4.76

NOOKSACK RIVER BASIN

12208000 MIDDLE FORK NOOKSACK RIVER NEAR DEMING, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2005, BY WATER YEAR (WY)												
MEAN	529	624	575	593	449	395	453	611	665	481	328	351
MAX	1,379	1,154	940	965	855	734	739	1,039	1,202	839	619	796
(WY)	(2004)	(1996)	(1999)	(1997)	(1921)	(2003)	(1966)	(1997)	(1921)	(1954)	(2004)	(1920)
MIN	156	215	237	271	175	237	127	385	327	311	174	120
(WY)	(2003)	(1994)	(1993)	(1993)	(2001)	(1992)	(1967)	(1992)	(1996)	(1970)	(1994)	(1965)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1920 - 2005	
ANNUAL TOTAL	225,810		196,459			
ANNUAL MEAN	617		538		509	
HIGHEST ANNUAL MEAN					665	
LOWEST ANNUAL MEAN					362	
HIGHEST DAILY MEAN	6,570	Nov 24	6,570	Nov 24	8,250	Oct 17, 2003
LOWEST DAILY MEAN	171	Jan 3	88	Jan 14	32	Sep 29, 1965
ANNUAL SEVEN-DAY MINIMUM	182	Jan 1	95	Jan 9	36	Sep 27, 1965
ANNUAL RUNOFF (AC-FT)	447,900		389,700		368,500	
ANNUAL RUNOFF (CFSM)	8.42		7.34		6.94	
ANNUAL RUNOFF (INCHES)	114.60		99.70		94.29	
10 PERCENT EXCEEDS	1,040		931		960	
50 PERCENT EXCEEDS	448		362		375	
90 PERCENT EXCEEDS	256		169		172	

12209000 SOUTH FORK NOOKSACK RIVER NEAR WICKERSHAM, WA

LOCATION.--Lat 48°39'52", long 122°07'56", in lot 2, SW¼SW¼ sec.26, T.37 N., R.5 E., Whatcom County, Hydrologic Unit 17110004, on left bank 0.5 mi upstream from Skookum Creek, 3.7 mi east of Wickersham, and at mile 14.8.

DRAINAGE AREA.--103 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to October 1977, June to September 1978, October 1980 to September 1995 (seasonal records), October 1995 to current year. Monthly discharge only for October 1933 to April 1934, published in WSP 1316.

REVISED RECORDS.--WSP 832: 1935-36.

GAGE.--Water-stage recorder. Elevation of gage is 385 ft above NGVD of 1929, from river-profile map. Prior to July 9, 1934, nonrecording gage, at same site and datum.

REMARKS.--Records fair. No regulation or diversion upstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--53 years (water years 1935-77, 1996-2005), 746 ft³/s, 98.46 in/yr, 540,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s, Nov. 23, 1990, gage height, 13.20 ft, from rating curve extended above 11,000 ft³/s; minimum discharge, 59 ft³/s, Oct. 20-25, 30, 31, 1987, gage height, 1.79 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 2	0445	8,910	8.45	Jan 17	2330	8,610	7.96
Nov 24	2245	*12,600	*10.11	Apr 16	1300	6,060	6.43
Dec 11	0100	10,500	9.05	Sep 29	2000	5,450	6.15

Minimum discharge, 76 ft³/s, Sept. 28, gage height, 1.05 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	269	872	668	650	546	519	2,220	571	455	212	139	101
2	252	4,460	621	603	500	420	1,290	582	382	201	137	95
3	238	1,440	610	553	467	343	973	586	331	192	132	92
4	226	963	944	523	855	297	932	525	300	180	127	94
5	221	769	1,330	497	762	280	691	538	327	175	122	100
6	323	1,030	868	468	552	269	646	533	348	533	120	92
7	277	1,470	776	455	475	324	977	464	324	408	118	89
8	373	1,020	927	437	424	325	1,180	401	472	1,190	116	87
9	1,360	764	1,040	424	393	373	799	455	422	1,620	113	90
10	887	635	5,320	409	366	353	626	488	336	653	111	108
11	550	551	4,710	352	350	305	956	493	329	492	111	98
12	424	499	1,570	342	382	298	858	446	394	419	111	92
13	362	484	1,200	320	393	258	722	413	400	365	107	89
14	324	533	2,910	306	357	233	646	476	386	320	104	87
15	302	1,010	2,390	303	319	219	663	716	317	296	102	85
16	1,030	867	1,330	422	303	252	3,330	903	282	379	100	89
17	1,010	754	1,060	3,630	291	280	1,900	626	324	343	178	91
18	1,130	1,120	1,060	6,930	280	280	1,150	517	343	283	131	88
19	840	1,210	1,270	4,600	268	290	936	824	336	253	114	85
20	614	790	1,010	4,240	254	1,260	950	679	286	231	106	85
21	580	653	804	2,680	242	1,070	1,090	951	274	215	101	83
22	719	693	706	2,350	235	575	1,260	734	387	207	99	82
23	736	869	646	2,510	228	454	1,230	746	342	199	97	81
24	690	6,690	616	1,470	228	387	1,240	559	278	187	96	80
25	595	6,310	888	1,100	225	348	1,200	469	255	177	94	79
26	507	2,160	1,250	906	224	1,350	1,170	430	239	170	91	78
27	448	1,540	870	812	224	1,400	1,110	417	255	163	90	77
28	407	1,090	733	658	241	1,500	884	413	263	157	89	77
29	387	854	699	583	---	1,180	699	411	240	151	97	1,680
30	1,070	757	695	526	---	1,040	611	378	224	147	100	1,580
31	767	---	678	591	---	847	---	428	---	142	115	---
TOTAL	17,918	42,857	40,199	40,650	10,384	17,329	32,939	17,172	9,851	10,660	3,468	5,734
MEAN	578	1,429	1,297	1,311	371	559	1,098	554	328	344	112	191
MAX	1,360	6,690	5,320	6,930	855	1,500	3,330	951	472	1,620	178	1,680
MIN	221	484	610	303	224	219	611	378	224	142	89	77
AC-FT	35,540	85,010	79,730	80,630	20,600	34,370	65,330	34,060	19,540	21,140	6,880	11,370
CFSM	5.61	13.9	12.6	12.7	3.60	5.43	10.7	5.38	3.19	3.34	1.09	1.86
IN.	6.47	15.48	14.52	14.68	3.75	6.26	11.90	6.20	3.56	3.85	1.25	2.07

NOOKSACK RIVER BASIN

12209000 SOUTH FORK NOOKSACK RIVER NEAR WICKERSHAM, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2005, BY WATER YEAR (WY)												
MEAN	636	1,022	1,051	957	778	703	842	1,050	863	441	208	275
MAX	1,806	3,341	2,164	2,092	1,847	1,745	1,456	1,666	1,740	1,075	501	880
(WY)	(1968)	(1991)	(1976)	(1953)	(1951)	(1972)	(1959)	(1936)	(1937)	(1999)	(1954)	(2004)
MIN	68.6	126	500	194	288	324	401	540	263	123	81.5	79.7
(WY)	(1988)	(1937)	(1953)	(1937)	(1956)	(1955)	(1975)	(1994)	(1992)	(1940)	(1958)	(1998)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1934 - 2005	
ANNUAL TOTAL	284,199		249,161		746	
ANNUAL MEAN	776		683		1,001 1997	
HIGHEST ANNUAL MEAN					488 1944	
LOWEST ANNUAL MEAN					14,000 Nov 9, 1990	
HIGHEST DAILY MEAN	6,690	Nov 24	6,930	Jan 18		
LOWEST DAILY MEAN	80	Aug 20	77	Sep 27	59 Oct 21, 1987	
ANNUAL SEVEN-DAY MINIMUM	84	Aug 14	79	Sep 22	60 Oct 19, 1987	
ANNUAL RUNOFF (AC-FT)	563,700		494,200		540,700	
ANNUAL RUNOFF (CFSM)	7.54		6.63		7.25	
ANNUAL RUNOFF (INCHES)	102.64		89.99		98.46	
10 PERCENT EXCEEDS	1,330		1,250		1,480	
50 PERCENT EXCEEDS	628		428		559	
90 PERCENT EXCEEDS	173		101		147	

12209000 SOUTH FORK NOOKSACK RIVER NEAR WICKERSHAM, WA—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 2001 to current year.

INSTRUMENTATION.--Water-temperature sensor interfaced with a data collection platform for satellite telemetry.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 23.7°C, July 24, 2004; minimum, 0.0°C, Jan. 4, 5, 7, 10-12, 14-16, 2005.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 21.9°C, Aug. 14; minimum, 0.0°C, Jan. 4, 5, 7, 10-12, 14-16.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.1	9.0	10.5	6.3	5.4	5.7	4.5	4.2	4.4	3.8	3.4	3.6
2	12.2	8.9	10.4	7.0	6.2	6.6	4.9	4.4	4.6	3.4	1.7	2.5
3	12.5	9.2	10.7	6.6	5.5	6.2	5.3	4.8	5.1	1.7	0.9	1.3
4	12.3	9.1	10.6	5.9	4.7	5.4	5.2	4.9	5.0	0.9	0.0	0.4
5	11.8	8.6	10.2	6.8	5.5	6.2	5.1	3.9	4.4	0.6	0.0	0.1
6	12.2	10.8	11.2	7.2	6.7	7.0	4.4	3.9	4.2	1.1	0.1	0.7
7	11.6	9.3	10.4	7.9	7.1	7.5	4.7	4.0	4.3	1.3	0.0	0.7
8	10.9	10.4	10.6	8.0	7.3	7.7	5.0	4.6	4.8	1.5	0.2	1.0
9	10.4	9.3	9.6	7.6	6.8	7.3	5.3	4.4	4.9	1.2	0.3	0.8
10	10.8	9.3	10	7.4	6.1	6.6	5.4	4.9	5.2	0.9	0.0	0.4
11	11.6	9.9	10.7	6.3	5.2	5.8	5.1	4.1	4.7	0.3	0.0	0.0
12	12.1	10.3	11.0	6.5	4.8	5.7	4.5	3.4	3.9	1.5	0.0	1.0
13	11.7	9.5	10.5	7.8	6.5	7.0	6.1	4.5	5.4	1.9	0.6	1.5
14	11.9	9.5	10.6	7.5	6.8	7.2	6.1	5.4	5.7	0.6	0.0	0.0
15	11.4	11.0	11.2	7.9	6.5	7.4	5.9	5.4	5.7	0.0	0.0	0.0
16	11.0	10.4	10.8	6.9	6.2	6.5	5.8	4.7	5.3	1.9	0.0	0.7
17	10.6	9.4	9.8	6.2	4.9	5.5	5.9	5.1	5.4	3.0	1.2	2.3
18	9.4	8.4	8.7	6.1	5.7	6.0	6.9	5.9	6.4	4.5	3.0	3.9
19	9.1	8.0	8.5	6.0	5.1	5.7	6.7	5.6	6.3	5.6	4.5	5.3
20	8.8	7.4	8.2	5.1	4.1	4.6	5.6	4.8	5.1	5.6	5.1	5.4
21	9.2	8.2	8.5	5.4	4.0	4.7	5.0	4.7	4.9	6.2	5.2	5.7
22	8.3	7.5	7.9	6.0	5.4	5.7	4.7	3.8	4.3	6.2	5.8	6.0
23	7.5	5.8	7.0	6.3	5.8	6.1	3.8	3.1	3.4	6.6	5.8	6.2
24	7.1	6.0	6.5	6.8	6.0	6.3	4.4	3.1	3.8	6.7	6.2	6.4
25	7.4	6.2	6.8	6.9	6.2	6.7	5.0	4.4	4.8	6.2	5.4	5.9
26	8.0	6.6	7.1	6.2	5.4	5.8	5.4	5.0	5.2	6.4	5.7	6.1
27	6.9	5.4	6.2	5.5	4.4	5.2	5.3	4.0	4.6	6.7	5.6	6.3
28	6.7	5.2	6.0	4.4	3.4	3.7	4.0	3.4	3.7	5.6	4.4	5.0
29	7.9	6.7	7.3	3.8	2.9	3.4	5.0	3.7	4.5	5.7	5.2	5.5
30	7.6	6.5	7.0	4.5	3.6	4.1	5.0	4.6	4.9	6.2	5.5	5.8
31	6.6	5.8	6.3	---	---	---	5.0	3.8	4.4	6.5	5.5	6.1
MONTH	12.5	5.2	9.1	8.0	2.9	6.0	6.9	3.1	4.8	6.7	0.0	3.1

12209490 SKOOKUM CREEK ABOVE DIVERSION, NEAR WICKERSHAM, WA

LOCATION.--Lat 48°40'18", long 122°08'18", in NE¹/₄NE¹/₄ sec.27, T.37 N., R.5 E., Whatcom County, Hydrologic Unit 17110004, on right bank, 200 ft upstream of hatchery diversion, 3.6 mi northeast of Wickersham, and at mile 0.2.

DRAINAGE AREA.--23.0 mi².

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 410 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except estimated daily discharges, which are poor. No regulation or diversion upstream from station. Records for water years 1992-1998 are available in the files of Devine Tarbell & Associates, Bellingham, Washington.

AVERAGE DISCHARGE.--7 years (water years 1999-2005) 141 ft³/s, 83.56 in/yr, 102,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,850 ft³/s, Oct. 16, 2003, gage height, 8.55 ft; minimum discharge, 14 ft³/s, Oct. 1, 1998, and Sept. 27, 28, 2005.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,220 ft³/s, Nov. 24, gage height, 7.13 ft; minimum discharge, 14 ft³/s, Sept. 27, 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	158	117	104	95	111	622	103	93	e42	e32	20
2	42	796	107	92	89	76	223	102	78	e40	e31	19
3	40	201	105	82	82	60	184	101	69	e38	e30	19
4	38	141	176	74	140	51	168	92	61	e36	27	21
5	37	115	179	69	121	49	135	101	77	e35	27	21
6	52	208	129	68	96	47	157	90	73	e110	26	19
7	40	268	121	69	85	63	242	78	73	e75	26	18
8	98	164	190	64	76	52	204	69	105	e200	25	18
9	230	126	158	59	71	69	144	86	81	e250	25	21
10	113	106	985	56	67	55	122	88	64	e130	24	26
11	78	91	650	53	65	49	260	87	67	e100	24	20
12	63	80	249	53	73	45	171	77	81	e80	24	19
13	55	74	249	50	72	40	148	70	83	e75	23	18
14	51	82	639	45	63	37	142	78	71	e70	23	18
15	49	224	400	52	56	35	138	132	59	e66	22	17
16	180	151	222	87	54	41	1,040	129	53	e75	22	20
17	229	122	180	795	53	47	360	104	66	e70	46	20
18	189	199	189	1,020	51	45	207	112	64	e65	27	18
19	138	179	211	596	48	86	176	179	58	e60	23	18
20	101	127	160	e544	45	402	185	122	51	e56	22	17
21	100	107	140	300	44	180	210	154	53	e52	22	16
22	121	155	123	358	43	108	228	130	82	e50	21	16
23	106	169	110	310	43	84	223	126	64	e48	21	16
24	97	1,620	102	200	44	70	214	100	53	e45	20	15
25	86	1,090	295	161	44	61	194	82	49	e43	20	15
26	74	354	270	145	44	299	186	77	47	e42	19	15
27	65	236	164	131	45	206	169	74	53	e41	19	15
28	60	169	140	116	55	230	144	74	e51	e39	19	14
29	59	146	135	105	---	170	123	73	e50	e37	21	335
30	177	132	130	97	---	144	111	67	e46	e36	21	173
31	101	---	119	107	---	153	---	100	---	e34	27	---
TOTAL	2,913	7,790	7,144	6,062	1,864	3,165	6,830	3,057	1,975	2,140	759	1,017
MEAN	94.0	260	230	196	66.6	102	228	98.6	65.8	69.0	24.5	33.9
MAX	230	1,620	985	1,020	140	402	1,040	179	105	250	46	335
MIN	37	74	102	45	43	35	111	67	46	34	19	14
AC-FT	5,780	15,450	14,170	12,020	3,700	6,280	13,550	6,060	3,920	4,240	1,510	2,020
CFSM	4.09	11.3	10.0	8.50	2.89	4.44	9.90	4.29	2.86	3.00	1.06	1.47
IN.	4.71	12.60	11.55	9.80	3.01	5.12	11.05	4.94	3.19	3.46	1.23	1.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	127	216	189	201	110	131	187	176	156	88.5	62.9	50.8
MAX	354	338	296	375	197	261	333	309	288	201	130	131
(WY)	(2004)	(2000)	(2000)	(2003)	(2002)	(2003)	(2000)	(1999)	(1999)	(1999)	(1999)	(2004)
MIN	31.2	63.9	89.8	83.4	53.4	84.0	97.7	98.6	65.8	46.2	23.7	27.2
(WY)	(2003)	(2001)	(2001)	(2000)	(2001)	(2001)	(2001)	(2005)	(2005)	(2004)	(2003)	(2003)

NOOKSACK RIVER BASIN

12209490 SKOOKUM CREEK ABOVE DIVERSION, NEAR WICKERSHAM, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	50,106		44,716			
ANNUAL MEAN	137		123		141	
HIGHEST ANNUAL MEAN					175	
LOWEST ANNUAL MEAN					84.9	
HIGHEST DAILY MEAN	1,620	Nov 24	1,620	Nov 24	2,390	Oct 17, 2003
LOWEST DAILY MEAN	26	Aug 19	14	Sep 28	14	Oct 1, 1998
ANNUAL SEVEN-DAY MINIMUM	27	Aug 14	15	Sep 22	15	Sep 22, 2005
MAXIMUM PEAK FLOW					4,190	Mar 13, 2003
MAXIMUM PEAK STAGE					7.62	Mar 13, 2003
INSTANTANEOUS LOW FLOW					14	Oct 1, 1998
ANNUAL RUNOFF (AC-FT)	99,390		88,690		102,500	
ANNUAL RUNOFF (CFSM)	5.95		5.33		6.15	
ANNUAL RUNOFF (INCHES)	81.04		72.32		83.56	
10 PERCENT EXCEEDS	231		223		268	
50 PERCENT EXCEEDS	105		77		97	
90 PERCENT EXCEEDS	42		22		30	

e Estimated

12210500 NOOKSACK RIVER AT DEMING, WA

LOCATION.--Lat 48°48'38", long 122°12'13", in lot 12, NE 1/4 SE 1/4 sec.6, T.38 N., R.5 E., Whatcom County, Hydrologic Unit 17110004, on left bank 800 ft downstream from South Fork, 1.1 mi southeast of Deming, and at mile 36.6.

DRAINAGE AREA.--584 mi², includes 5 mi² in Canada.

PERIOD OF RECORD.--September 1910 to March 1911 (gage heights only), July 1935 to September 1957, October 1957 to September 1964 (discharges above 3,500 ft³/s only), October 1964 to current year. Published as "near Deming" 1910-11.

REVISED RECORDS.--WSP 1286: 1951. WSP 1736: 1937(M). WSP 1932: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 204.2 ft above NGVD of 1929. Prior to Dec. 5, 1910, nonrecording gage at site 1.1 mi downstream at different datum. Dec. 5, 1910, to Mar. 31, 1911, nonrecording gage at site 5 mi downstream at different datum. July 20 to Sept. 19, 1935, nonrecording gage at same site and datum.

REMARKS.--Records poor. Slight regulation by powerplant at Excelsior. Since February 1962, City of Bellingham diverts at times up to about 100 ft³/s from the Middle Fork for municipal use. Summer flows augmented by glacier melt at source. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--63 years (water years 1936-57, 1965-2005), 3,339 ft³/s, 77.69 in/yr, 2,419,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,200 ft³/s, Nov. 25, 2004, gage height, 15.36 ft; maximum gage height, 15.89 ft, Dec. 3, 1975; minimum daily discharge, 430 ft³/s, Oct. 29, Nov. 9, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peak of Mar. 15, 1908, reportedly reached a stage of 20 ft, datum then in use. Peak of Feb. 27, 1932, reached a stage of 16.8 ft, from floodmarks, discharge, 49,300 ft³/s. Peak of November 1909 reached a stage about equal to that of the 1932 peak.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 2	0930	21,600	10.33	Jan 18	2330	27,900	11.53
Nov 25	0300	*53,200	*15.36	Sep 29	2315	17,000	9.41
Dec 11	0400	28,500	11.65				

Minimum daily discharge, 538 ft³/s, Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,260	e2,700	3,410	2,020	2,660	1,700	5,360	2,830	2,800	2,070	1,830	1,020
2	e1,900	e12,700	3,160	1,890	2,480	1,700	4,790	2,820	2,430	1,910	1,630	1,050
3	e1,750	6,950	2,990	1,770	2,400	1,540	3,930	2,950	2,200	1,820	1,550	946
4	e1,600	4,860	3,550	1,680	2,940	1,430	3,870	2,840	2,070	1,800	1,570	898
5	e1,550	3,910	4,100	1,580	3,220	1,390	3,300	2,870	2,090	1,870	1,570	872
6	e1,700	4,300	3,340	1,520	2,680	1,360	3,080	2,870	2,090	3,450	1,610	825
7	e2,150	6,090	3,070	1,500	2,440	e1,450	3,510	2,670	2,010	3,080	1,600	846
8	e1,800	4,960	3,480	1,480	2,290	1,600	3,990	2,410	2,330	3,560	1,560	816
9	e6,000	3,930	3,410	1,420	2,180	1,760	3,270	2,570	2,220	5,520	1,580	842
10	e4,700	3,370	11,400	1,380	2,050	1,720	2,920	2,820	2,020	3,420	1,550	855
11	e3,600	3,010	17,800	1,330	1,970	1,580	3,450	3,030	2,030	2,870	1,480	775
12	e2,950	2,680	7,100	1,300	1,970	1,580	3,410	2,850	2,230	2,690	1,510	748
13	e2,600	2,510	5,120	1,260	2,050	1,430	3,160	2,720	2,200	2,440	1,490	725
14	e2,400	2,600	8,000	1,180	1,930	1,360	2,990	2,980	2,150	2,210	1,480	731
15	e2,250	3,710	7,850	1,130	1,810	1,320	2,860	3,600	1,970	2,230	1,470	e700
16	e3,400	3,420	4,820	1,410	1,720	e1,280	7,640	4,230	1,910	2,520	1,430	e680
17	e4,000	2,990	3,840	6,980	1,680	1,380	7,080	3,280	2,100	2,440	1,660	684
18	e4,800	3,530	3,630	21,800	1,620	1,340	5,080	2,780	2,100	2,320	1,430	658
19	e4,000	4,060	4,310	17,800	1,550	1,340	4,210	3,470	2,060	2,210	1,300	651
20	e3,400	3,110	3,680	14,200	1,490	2,820	3,930	3,070	2,030	2,010	1,320	633
21	e3,150	2,690	3,070	9,060	1,440	2,880	4,080	3,080	2,180	1,920	1,300	604
22	e3,150	2,880	2,780	8,160	1,400	2,110	4,470	2,870	2,640	1,920	1,260	586
23	e3,500	3,060	2,530	8,790	1,370	1,810	4,570	2,830	2,340	1,850	1,150	562
24	e3,250	20,400	2,350	6,150	1,360	1,630	4,610	2,520	2,100	1,770	1,070	550
25	e3,000	31,100	2,600	4,770	1,360	1,530	4,540	2,310	2,090	1,720	1,070	547
26	e2,700	10,900	3,390	4,030	1,350	2,290	e4,570	2,310	2,000	1,740	1,070	556
27	e2,450	7,540	2,790	3,720	1,350	2,910	4,570	2,470	2,210	1,760	1,080	557
28	e2,250	5,620	2,460	3,340	1,350	3,130	4,010	2,670	2,220	1,840	1,150	538
29	e2,150	4,400	2,260	3,030	---	3,040	3,350	2,860	2,100	1,820	1,230	4,640
30	e2,750	3,830	2,200	2,780	---	2,830	2,980	2,790	2,130	1,760	1,070	7,720
31	e3,100	---	2,130	2,720	---	2,580	---	2,820	---	1,790	1,050	---
TOTAL	90,260	177,810	136,620	141,180	54,110	57,820	123,580	89,190	65,050	72,330	43,120	32,815
MEAN	2,912	5,927	4,407	4,554	1,932	1,865	4,119	2,877	2,168	2,333	1,391	1,094
MAX	6,000	31,100	17,800	21,800	3,220	3,130	7,640	4,230	2,800	5,520	1,830	7,720
MIN	1,550	2,510	2,130	1,130	1,350	1,280	2,860	2,310	1,910	1,720	1,050	538
AC-FT	179,000	352,700	271,000	280,000	107,300	114,700	245,100	176,900	129,000	143,500	85,530	65,090
CFSM	4.99	10.1	7.55	7.80	3.31	3.19	7.05	4.93	3.71	4.00	2.38	1.87
IN.	5.75	11.33	8.70	8.99	3.45	3.68	7.87	5.68	4.14	4.61	2.75	2.09

NOOKSACK RIVER BASIN

12210500 NOOKSACK RIVER AT DEMING, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2005, BY WATER YEAR (WY)													
MEAN	2,703	4,051	4,215	3,708	3,307	2,948	3,331	4,376	4,569	3,282	1,978	1,740	
MAX	7,237	10,030	9,668	7,767	7,208	7,347	5,323	6,750	7,815	6,180	3,609	3,888	
(WY)	(1968)	(1991)	(1976)	(1997)	(1961)	(1972)	(1988)	(1936)	(1937)	(1974)	(1999)	(1978)	
MIN	595	672	1,265	957	1,349	1,585	1,584	2,669	2,168	1,652	1,159	941	
(WY)	(1988)	(1937)	(1986)	(1937)	(1936)	(1985)	(1975)	(1978)	(2005)	(1940)	(1994)	(1989)	
SUMMARY STATISTICS													
	FOR 2004 CALENDAR YEAR					FOR 2005 WATER YEAR			WATER YEARS 1935 - 2005				
ANNUAL TOTAL	1,281,090					1,083,885							
ANNUAL MEAN	3,500					2,970			3,339				
HIGHEST ANNUAL MEAN									4,964				
LOWEST ANNUAL MEAN									2,227				
HIGHEST DAILY MEAN	31,100					Nov 25			31,100			Nov 25	
LOWEST DAILY MEAN	1,400					Aug 8			538			Sep 28	
ANNUAL SEVEN-DAY MINIMUM	1,480					Aug 4			557			Sep 22	
ANNUAL RUNOFF (AC-FT)	2,541,000					2,150,000			2,419,000				
ANNUAL RUNOFF (CFSM)	5.99					5.08			5.72				
ANNUAL RUNOFF (INCHES)	81.60					69.04			77.69				
10 PERCENT EXCEEDS	4,920					4,660			5,970				
50 PERCENT EXCEEDS	3,010					2,330			2,700				
90 PERCENT EXCEEDS	1,920					1,150			1,270				

e Estimated

12210700 NOOKSACK RIVER AT NORTH CEDARVILLE, WA

LOCATION.--Lat. 48°50'31", long. 122°17'35", in SW¹/₄NE¹/₄ sec.28, T.39 N., R.4 E., Whatcom County, Hydrologic Unit 17110004, on left bank at Highway 542 bridge at Nugents Corner, and at mile 30.9.

DRAINAGE AREA.--589 mi², includes 5 mi² in Canada.

PERIOD OF RECORD.--October 2002 to September 2004 (gauge heights only). October 15 to April 15, 2005 (discharge only).

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

REMARKS.--Records fair. U.S. Geological Survey satellite telemeter at station. Gage height record prior to October 1, 2004, needs to have a -0.12 ft correction applied.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,900 ft³/s, Nov. 25, 2004, gage height, 149.18 ft; minimum discharge, 954 ft³/s, Mar. 16, 2005, gage height, 139.25 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52,900 ft³/s, Nov. 25; gage height, 149.18 ft; minimum discharge, 954 ft³/s, Mar. 16, gage height, 139.25 ft.

DISCHARGE, CUBIC FEET PER SECOND
OCTOBER 2004 TO APRIL 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	---	2,620	3,610	2,760	2,870	1,830	8,390
2	---	18,600	3,220	2,540	2,630	1,830	6,490
3	---	7,410	3,030	2,370	2,500	1,560	4,600
4	---	4,390	4,190	2,220	4,220	1,380	4,670
5	---	3,350	5,810	2,120	4,700	1,300	3,440
6	---	4,100	4,060	2,070	3,410	1,250	3,090
7	---	7,990	3,430	2,090	2,950	1,510	3,790
8	---	6,070	4,370	2,000	2,650	1,670	5,120
9	---	4,140	4,380	1,870	2,410	1,860	3,490
10	---	3,300	13,200	1,770	2,220	1,870	2,890
11	---	2,820	19,700	1,670	2,120	1,610	4,020
12	---	2,470	8,840	1,680	2,200	1,630	4,060
13	---	2,280	6,760	1,620	2,310	1,390	3,470
14	---	2,390	10,000	1,490	2,120	1,250	3,140
15	1,660	4,060	10,500	1,470	1,930	1,150	2,950
16	4,170	3,850	7,080	1,950	1,800	1,160	---
17	4,280	3,230	5,720	8,680	1,710	1,320	---
18	4,910	4,010	5,440	23,800	1,630	1,250	---
19	3,630	5,270	6,760	18,700	1,540	1,200	---
20	2,780	3,580	5,660	16,800	1,440	4,120	---
21	2,710	2,950	4,380	11,500	1,360	4,680	---
22	2,920	3,160	3,740	11,000	1,310	2,610	---
23	3,110	3,460	3,360	11,900	1,260	2,080	---
24	2,940	23,100	3,140	8,580	1,240	1,780	---
25	2,610	31,600	4,090	6,710	1,220	1,560	---
26	2,260	11,200	5,630	5,440	1,230	3,120	---
27	2,020	8,370	4,020	4,910	1,220	4,610	---
28	1,820	6,440	3,430	3,970	1,220	5,150	---
29	1,700	5,050	3,160	3,390	---	4,850	---
30	3,080	4,310	3,090	3,010	---	4,300	---
31	2,800	---	2,990	3,030	---	3,630	---
TOTAL	---	195,570	176,790	173,110	59,420	70,510	---
MEAN	---	6,519	5,703	5,584	2,122	2,275	---
MAX	---	31,600	19,700	23,800	4,700	5,150	---
MIN	---	2,280	2,990	1,470	1,220	1,150	---
AC-FT	---	387,900	350,700	343,400	117,900	139,900	---
CFSM	---	11.1	9.70	9.50	3.61	3.87	---
IN.	---	12.37	11.18	10.95	3.76	4.46	---

12210900 ANDERSON CREEK AT SMITH ROAD, NEAR GOSHEN, WA

LOCATION.--Lat 48°49'58", long 122°20'16", in SW¼SE¼ sec.30, T.39 N., R.4 E., Whatcom County, Hydrologic Unit 17110004, on left bank on the downstream side of Smith Road bridge, 1.5 mi south of Goshen, and at mile 3.0.

DRAINAGE AREA.--8.96 mi².

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 200 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No known diversions or regulation upstream of station.

AVERAGE DISCHARGE.--7 years (water years 1999-2005) 20.7 ft³/s, 31.40 in/yr, 15,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 840 ft³/s, Nov. 24, 2004, gage height, 11.51 ft; minimum discharge, no flow many days in August and September 2002 and 2003.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 840 ft³/s, Nov. 24, gage height, 11.51 ft; minimum daily discharge, 0.26 ft³/s, Aug. 15, 16, but may have been less during period of estimated record.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.86	77	16	e24	8.8	16	132	3.2	e1.3	e0.85	0.83	0.75
2	e0.74	371	12	e21	e8.2	12	67	2.8	e1.3	e0.85	0.62	0.64
3	e0.70	73	11	e19	e8.2	9.3	57	2.6	e1.3	e0.80	0.40	e0.60
4	e0.65	36	55	e17	e30	8.6	67	2.3	e1.2	e0.76	0.46	e0.56
5	e0.65	22	166	e16	e31	11	37	2.2	e1.9	e0.8	0.44	e0.54
6	e0.93	96	55	e15	e22	8.8	27	1.9	e1.7	e2.0	0.42	e0.50
7	e0.72	112	49	e14	e18	8.5	30	1.6	e1.2	e1.5	0.43	e0.45
8	e15	58	80	e13	e15	7.0	27	1.6	e2.0	e4.0	0.41	e0.42
9	e43	35	78	e12	e14	9.5	19	e2.2	e1.9	23	0.40	e0.48
10	e32	23	311	e11	e14	8.0	15	e1.8	e1.5	14	0.40	e0.85
11	e20	18	180	e10	e13	7.0	125	e1.5	e1.4	8.9	0.49	e0.80
12	e12	15	62	e10	e14	6.1	152	e1.5	e1.6	6.2	0.43	0.75
13	e7.5	13	38	e9.5	e15	5.7	e68	e1.4	e1.4	5.0	0.38	0.77
14	e6.7	18	42	e9.0	e14	5.7	e46	e1.5	e1.3	4.1	0.32	0.86
15	e5.8	44	38	e9.5	e14	4.8	48	e1.8	e1.2	3.7	0.26	0.83
16	e8.7	28	26	49	e13	7.6	274	e2.1	e1.2	3.8	0.26	1.0
17	e19	19	21	310	e13	8.4	138	e1.9	e1.3	4.0	1.4	1.2
18	e32	96	20	438	12	6.7	54	e2.2	e1.2	3.5	0.77	1.1
19	21	82	17	211	10	9.3	30	e3.0	e1.1	3.5	0.53	1.00
20	13	35	13	236	8.9	55	21	e2.2	e1.0	2.4	0.45	0.92
21	14	21	10	101	7.9	63	15	e1.9	e1.0	1.8	0.41	0.92
22	16	19	8.9	76	7.2	28	13	e1.7	e1.5	1.7	0.36	0.94
23	18	25	7.9	58	6.7	18	11	e1.5	e1.3	1.6	0.37	0.94
24	16	455	7.5	35	6.3	13	9.4	e1.4	e1.0	1.5	0.50	0.93
25	12	462	94	24	5.9	10	6.8	e1.4	e1.1	1.6	0.51	0.92
26	9.1	96	92	18	5.6	29	5.5	e1.3	e1.0	1.3	0.35	0.94
27	6.9	61	e25	15	5.3	24	5.1	e1.2	e1.1	1.1	0.34	0.98
28	6.0	31	e28	12	5.4	50	4.4	e1.1	e0.98	0.86	0.51	1.1
29	6.6	21	e30	9.9	---	53	4.0	e1.0	e0.95	0.79	2.0	6.2
30	24	24	e30	9.8	---	43	3.7	e1.1	e0.89	0.69	1.1	7.8
31	17	---	e30	11	---	39	---	e1.3	---	0.67	1.1	---
TOTAL	386.55	2,486	1,653.3	1,823.7	346.4	585.0	1,511.9	56.2	38.82	107.27	17.65	36.69
MEAN	12.5	82.9	53.3	58.8	12.4	18.9	50.4	1.81	1.29	3.46	0.57	1.22
MAX	43	462	311	438	31	63	274	3.2	2.0	23	2.0	7.8
MIN	0.65	13	7.5	9.0	5.3	4.8	3.7	1.0	0.89	0.67	0.26	0.42
AC-FT	767	4,930	3,280	3,620	687	1,160	3,000	111	77	213	35	73
CFSM	1.39	9.25	5.95	6.57	1.38	2.11	5.62	0.20	0.14	0.39	0.06	0.14
IN.	1.60	10.32	6.86	7.57	1.44	2.43	6.28	0.23	0.16	0.45	0.07	0.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	11.0	40.7	43.7	47.4	29.5	31.7	24.2	10.4	6.46	1.79	0.79	1.31
MAX	39.9	82.9	70.6	64.1	62.1	53.7	50.4	28.0	16.7	5.03	2.00	4.05
(WY)	(2004)	(2005)	(2002)	(2002)	(1999)	(1999)	(2005)	(2000)	(2000)	(1999)	(2004)	(2004)
MIN	0.72	5.56	19.9	27.4	12.4	18.9	5.29	1.81	1.29	0.37	0.10	0.08
(WY)	(2003)	(2003)	(2003)	(2001)	(2005)	(2005)	(2004)	(2005)	(2005)	(2004)	(2002)	(2003)

12210900 ANDERSON CREEK AT SMITH ROAD, NEAR GOSHEN, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	8,634.33		9,049.48			
ANNUAL MEAN	23.6		24.8		20.7	
HIGHEST ANNUAL MEAN					25.1 2000	
LOWEST ANNUAL MEAN					10.7 2003	
HIGHEST DAILY MEAN	462	Nov 25	462	Nov 25	499	Nov 19, 2003
LOWEST DAILY MEAN	0.02	Aug 20	0.26	Aug 15	0.00	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	0.04	Aug 14	0.36	Aug 10	0.00	Aug 15, 2002
MAXIMUM PEAK FLOW					790 Nov 19, 2003	
MAXIMUM PEAK STAGE					11.30 Nov 19, 2003	
INSTANTANEOUS LOW FLOW					0.00 Aug 27, 2003	
ANNUAL RUNOFF (AC-FT)	17,130		17,950		15,000	
ANNUAL RUNOFF (CFSM)	2.63		2.77		2.31	
ANNUAL RUNOFF (INCHES)	35.85		37.57		31.40	
10 PERCENT EXCEEDS	60		57		54	
50 PERCENT EXCEEDS	7.4		7.5		6.8	
90 PERCENT EXCEEDS	0.35		0.68		0.48	

e Estimated

12212050 FISHTRAP CREEK AT FRONT STREET, AT LYNDEN, WA

LOCATION.--Lat 48°56'20", long 122°28'40", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.19, T.40 N., R.3 E., Whatcom County, Hydrologic Unit 17110004, on right bank on downstream side of Front Street bridge, and at mile 2.9.

DRAINAGE AREA.--37.8 mi².

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 54 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for the periods Apr. 25 to June 6, June 16 to Aug. 2, and estimated discharges, which are poor. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--7 years (water years 1999-2005) 65.6 ft³/s, 23.59 in/yr, 47,540 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 752 ft³/s, Jan. 18, 2005, gage height, 8.38 ft, from rating extended above 510 ft³/s; minimum daily discharge, 1.6 ft³/s, Aug. 20, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 752 ft³/s, Jan. 18, gage height, 8.38 ft; minimum discharge, 4.7 ft³/s, Aug. 16.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	56	71	54	100	79	173	52	33	21	9.5	8.0
2	12	290	63	47	97	81	153	51	36	21	10	7.4
3	12	231	64	39	95	78	160	48	38	21	10	6.9
4	12	133	179	35	e200	79	156	51	38	19	8.5	6.8
5	15	101	308	33	e210	76	130	53	36	19	7.7	6.4
6	16	121	176	32	e160	75	133	43	35	23	7.1	5.8
7	20	209	116	23	e140	75	137	45	31	24	7.4	5.3
8	40	159	141	19	e130	78	153	46	34	25	7.5	5.1
9	99	115	134	17	e120	77	122	47	35	28	6.7	4.9
10	80	94	355	18	e120	76	115	43	33	25	6.9	5.1
11	63	76	449	19	e110	70	146	42	33	24	6.7	5.5
12	50	68	224	24	e120	67	e226	40	34	22	6.4	5.0
13	41	66	125	25	e120	66	e138	40	32	20	6.5	4.9
14	36	70	122	23	e110	65	129	41	30	18	5.8	5.5
15	33	88	123	19	e101	62	125	44	28	18	5.4	5.2
16	33	93	92	22	93	65	246	56	26	18	4.7	6.2
17	38	74	70	214	89	73	212	54	27	19	14	6.8
18	50	85	74	659	87	70	123	57	26	18	16	7.9
19	49	101	66	688	86	76	89	53	26	17	11	7.6
20	41	78	55	617	82	99	78	44	26	17	8.2	7.0
21	43	67	52	434	83	182	72	47	25	15	6.9	6.4
22	46	69	48	326	75	140	66	46	27	15	6.0	5.9
23	53	83	48	318	77	117	63	45	25	12	5.7	5.2
24	50	354	44	212	78	107	58	43	23	14	5.8	5.0
25	47	603	95	167	72	102	56	41	22	12	5.7	5.2
26	41	384	165	141	73	138	60	39	21	13	4.8	5.0
27	36	212	106	130	74	212	62	38	23	12	4.8	5.3
28	34	127	77	120	72	156	56	36	24	9.8	8.7	5.9
29	33	88	66	110	---	215	54	32	23	11	9.1	36
30	35	87	71	108	---	175	53	31	22	9.7	12	67
31	34	---	67	108	---	145	---	31	---	9.2	9.6	---
TOTAL	1,205	4,382	3,846	4,801	2,974	3,176	3,544	1,379	872	549.7	245.1	270.2
MEAN	38.9	146	124	155	106	102	118	44.5	29.1	17.7	7.91	9.01
MAX	99	603	449	688	210	215	246	57	38	28	16	67
MIN	12	56	44	17	72	62	53	31	21	9.2	4.7	4.9
AC-FT	2,390	8,690	7,630	9,520	5,900	6,300	7,030	2,740	1,730	1,090	486	536
CFSM	1.03	3.86	3.28	4.10	2.81	2.71	3.13	1.18	0.77	0.47	0.21	0.24
IN.	1.19	4.31	3.78	4.72	2.93	3.13	3.49	1.36	0.86	0.54	0.24	0.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	36.7	97.4	129	129	103	95.3	76.5	47.8	35.3	16.9	10.6	11.6
MAX	108	146	186	187	179	133	118	77.6	76.8	26.9	17.3	21.5
(WY)	(2004)	(2005)	(2000)	(1999)	(1999)	(1999)	(2005)	(2000)	(2000)	(1999)	(2001)	(2000)
MIN	5.78	40.4	67.8	70.0	50.1	64.4	38.4	26.4	22.6	9.15	5.28	3.76
(WY)	(2003)	(2001)	(2001)	(2001)	(2001)	(2001)	(2004)	(2004)	(2003)	(2004)	(2003)	(2003)

12212050 FISHTRAP CREEK AT FRONT STREET, AT LYNDEN, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	22,356.3		27,244.0			
ANNUAL MEAN	61.1		74.6		65.6	
HIGHEST ANNUAL MEAN					86.4	
LOWEST ANNUAL MEAN					41.5	
HIGHEST DAILY MEAN	603	Nov 25	688	Jan 19	688	Jan 19, 2005
LOWEST DAILY MEAN	1.6	Aug 20	4.7	Aug 16	1.6	Aug 20, 2004
ANNUAL SEVEN-DAY MINIMUM	1.9	Aug 14	5.1	Sep 7	1.9	Aug 14, 2004
MAXIMUM PEAK FLOW					701	
MAXIMUM PEAK STAGE					7.71	
INSTANTANEOUS LOW FLOW					1.3	
ANNUAL RUNOFF (AC-FT)	44,340		54,040		47,540	
ANNUAL RUNOFF (CFSM)	1.62		1.97		1.74	
ANNUAL RUNOFF (INCHES)	22.00		26.81		23.59	
10 PERCENT EXCEEDS	128		157		140	
50 PERCENT EXCEEDS	39		48		45	
90 PERCENT EXCEEDS	7.6		6.9		7.7	

e Estimated

12213100 NOOKSACK RIVER AT FERNDALE, WA

LOCATION.--Lat 48°50'42", long 122°35'17", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.29, T.39 N., R.2 E., Whatcom County, Hydrologic Unit 17110004, on right bank 300 ft downstream from Main Street bridge at Ferndale, and at mile 5.8.

DRAINAGE AREA.--786 mi², of which 48.9 mi² is in Canada.

PERIOD OF RECORD.--Annual maximum stage only, water years 1918, 1922, 1932, 1935, and annual maximum, water years 1946, 1950-66. October 1966 to current year.

REVISED RECORDS.--WDR WA-83-1: 1971(M), 1976(M), WDR WA-94-1: 1976(M), 1980(M), 1984(M), 1990(M), 1991, 1991(M).

GAGE.--Water-stage recorder. Datum of gage is 4.61 ft above NGVD of 1929. Prior to July 18, 1968, at site 220 ft upstream at datum 4.21 ft higher.

REMARKS.--Records good except estimated discharges, which are fair. City of Bellingham diverts up to about 100 ft³/s at times from Middle Fork Nooksack River for municipal use. Cities of Ferndale and Lynden divert about 10 ft³/s for municipal use. Numerous small diversions located upstream for irrigation. Chemical analyses October 1961 to September 1970. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--39 years (water years 1967-2005), 3,814 ft³/s, 65.93 in/yr, 2,763,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded discharge, 57,000 ft³/s, Nov. 10, 1990, gage height, 23.56 ft; minimum discharge, 463 ft³/s, Oct. 26, Nov. 9, 10, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 2	1615	19,600	15.40	Dec 11	1400	25,600	17.67
Nov 25	2045	*42,300	*21.21	Jan 19	1345	31,900	19.29

Minimum discharge, 648 ft³/s, Sept. 25, 26, gage height, 2.55 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,870	2,770	5,130	3,360	4,120	2,380	6,510	3,490	3,470	2,370	1,890	1,220
2	1,770	13,000	4,530	3,100	3,760	2,770	6,780	3,400	3,000	2,150	1,770	1,250
3	1,710	10,200	4,150	2,900	3,640	2,460	5,180	3,450	2,630	2,030	1,590	1,210
4	1,670	6,350	4,670	2,720	4,370	2,280	5,330	3,430	2,440	1,950	1,560	1,090
5	1,610	5,060	6,590	2,580	5,780	2,180	4,510	3,370	2,320	1,990	1,580	1,050
6	1,820	4,720	5,500	2,490	4,690	2,120	4,110	3,400	2,500	2,950	1,620	1,050
7	2,300	8,100	4,770	2,450	4,370	2,160	4,230	3,200	2,280	4,150	1,650	997
8	1,910	7,620	4,970	2,330	3,950	2,500	5,350	2,900	2,540	3,100	1,640	975
9	6,410	5,830	5,390	2,230	3,600	2,480	4,360	2,870	2,650	6,950	1,640	1,020
10	5,100	4,810	9,360	2,150	3,360	2,700	3,750	3,240	2,360	4,610	1,660	1,040
11	3,860	4,190	22,500	2,080	3,190	2,430	4,160	3,480	2,260	3,590	1,590	1,010
12	3,100	3,720	12,900	2,080	3,120	2,390	5,080	3,360	2,470	3,310	1,580	926
13	2,720	3,420	8,330	2,040	3,370	2,260	4,560	3,200	2,520	3,060	1,610	923
14	2,540	3,330	9,100	1,980	3,180	2,100	4,110	3,210	2,510	2,690	1,600	895
15	2,360	4,260	12,000	2,140	2,960	2,020	3,790	3,750	2,280	2,550	1,600	903
16	3,520	5,240	8,010	2,270	2,790	1,970	7,340	5,200	2,150	2,670	1,590	886
17	4,260	4,260	6,420	4,830	2,680	2,170	10,500	4,280	2,220	2,940	1,740	892
18	5,190	4,210	5,800	21,900	2,600	2,110	6,530	3,430	2,410	2,660	1,810	856
19	4,380	6,080	6,230	29,100	2,510	2,070	5,270	3,970	2,340	2,530	1,510	827
20	3,550	4,700	6,170	e23,800	2,400	3,390	4,810	3,970	2,250	2,270	1,480	821
21	3,260	3,980	4,960	e15,500	2,310	5,220	4,800	3,650	2,360	2,120	1,490	777
22	3,250	3,850	4,390	12,900	2,240	3,760	5,170	3,550	2,780	2,060	1,470	743
23	3,660	4,280	3,960	15,300	2,190	3,070	5,460	3,470	2,870	2,020	1,350	713
24	3,400	11,000	3,700	11,200	2,160	2,680	5,490	3,150	2,430	1,910	1,230	684
25	3,150	31,300	4,000	8,590	2,130	2,440	5,480	2,830	2,340	1,820	1,200	672
26	2,840	25,500	5,990	7,020	2,120	2,700	5,530	2,740	2,270	1,810	1,210	679
27	2,550	11,600	4,910	6,200	2,100	5,190	5,580	2,860	2,320	1,820	1,210	695
28	2,340	8,460	4,200	5,430	2,080	4,780	5,060	3,050	2,570	1,880	1,270	678
29	2,230	6,800	3,800	4,790	---	5,150	4,250	3,350	2,390	1,930	1,470	1,520
30	2,870	5,900	3,740	4,350	---	4,910	3,730	3,310	2,350	1,820	1,380	10,700
31	3,260	---	3,610	4,190	---	4,270	---	3,140	---	1,850	1,240	---
TOTAL	94,460	224,540	199,780	214,000	87,770	91,110	156,810	105,700	74,280	81,560	47,230	37,702
MEAN	3,047	7,485	6,445	6,903	3,135	2,939	5,227	3,410	2,476	2,631	1,524	1,257
MAX	6,410	31,300	22,500	29,100	5,780	5,220	10,500	5,200	3,470	6,950	1,890	10,700
MIN	1,610	2,770	3,610	1,980	2,080	1,970	3,730	2,740	2,150	1,810	1,200	672
AC-FT	187,400	445,400	396,300	424,500	174,100	180,700	311,000	209,700	147,300	161,800	93,680	74,780
CFSM	3.88	9.52	8.20	8.78	3.99	3.74	6.65	4.34	3.15	3.35	1.94	1.60
IN.	4.47	10.63	9.46	10.13	4.15	4.31	7.42	5.00	3.52	3.86	2.24	1.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2005, BY WATER YEAR (WY)

	2,735	5,003	5,160	4,848	4,243	3,733	3,740	4,493	4,783	3,448	2,095	1,857
MEAN	2,735	5,003	5,160	4,848	4,243	3,733	3,740	4,493	4,783	3,448	2,095	1,857
MAX	7,593	13,980	9,992	8,720	8,197	9,339	5,723	6,526	8,285	6,218	4,006	4,099
(WY)	(2004)	(1991)	(1976)	(1984)	(1982)	(1972)	(1988)	(1969)	(1974)	(1999)	(1999)	(2004)
MIN	629	1,276	1,539	1,149	1,719	1,864	1,746	2,998	2,411	1,988	1,338	917
(WY)	(1988)	(1988)	(1986)	(1979)	(2001)	(1985)	(1975)	(1978)	(1992)	(1977)	(1987)	(1989)

NOOKSACK RIVER BASIN

12213100 NOOKSACK RIVER AT FERNDALE, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1967 - 2005	
ANNUAL TOTAL	1,526,540		1,414,942		3,814	
ANNUAL MEAN	4,171		3,877		5,152	
HIGHEST ANNUAL MEAN					1991	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	31,300	Nov 25	31,300	Nov 25	48,200	Nov 11, 1990
LOWEST DAILY MEAN	1,570	Aug 6	672	Sep 25	466	Nov 9, 1987
ANNUAL SEVEN-DAY MINIMUM	1,650	Aug 4	695	Sep 22	483	Oct 23, 1987
ANNUAL RUNOFF (AC-FT)	3,028,000		2,807,000		2,763,000	
ANNUAL RUNOFF (CFSM)	5.31		4.93		4.85	
ANNUAL RUNOFF (INCHES)	72.25		66.97		65.93	
10 PERCENT EXCEEDS	6,530		6,370		6,720	
50 PERCENT EXCEEDS	3,600		2,950		3,100	
90 PERCENT EXCEEDS	2,010		1,430		1,370	

e Estimated