

NOOKSACK RIVER BASIN

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.--60 years (water years 1936-57, 1965-2002), 3,349 ft³/s, 77.91 in/yr, 2,426,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,900 ft³/s Nov. 29, 1995, gage height, 14.80 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. 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. 15	0130	27,000	10.57	Feb. 22	0900	33,900	11.60
Dec. 14	0515	17,300	8.52	Apr. 14	0730	24,100	10.01
Dec. 17	0100	27,600	10.67	Jun. 29	1015	16,000	9.01
Jan. 08	0345	*47,400	*13.80				

Minimum discharge, 686 ft³/s Oct. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	6160	4180	2540	2170	3710	3890	4790	6040	6490	2380	1720
2	1010	5000	6680	6540	2060	3390	3260	5150	5770	5420	2180	1920
3	920	3770	4190	5910	2270	3150	2810	4290	5880	4840	2000	2350
4	854	3820	3440	4360	2380	2980	2720	3620	5890	4570	2000	1580
5	794	4830	2980	3590	2270	2930	3090	3540	6940	4260	2480	1300
6	754	3170	3050	4710	2900	2660	4520	3230	6910	4140	2380	1230
7	713	2510	2990	22300	3380	2520	6170	2880	5080	4520	2070	1120
8	686	2140	3910	32300	2880	2430	3980	2640	4110	5830	1930	1080
9	693	1880	5130	15700	2560	2360	3660	2480	3840	4960	2010	1190
10	899	1700	3560	10300	2420	2340	6950	2420	4650	4780	2180	1270
11	1730	1670	2890	8080	2490	4570	5510	2450	5410	5180	2150	1310
12	1950	2250	2650	8410	2170	5050	7520	2960	6490	5040	2100	1310
13	2560	3580	7470	7920	1980	3730	10300	4300	7660	4800	2320	1300
14	2250	17900	13200	6050	1830	3350	17700	5090	8470	4570	2460	1300
15	1740	22600	6950	4980	1720	3040	10000	4110	8310	4080	2400	1300
16	1530	14700	17200	4310	1700	2840	7240	3590	7530	3970	2160	1740
17	1820	8890	19100	3760	1680	2540	5750	5420	6160	4050	1810	2680
18	1920	6170	9760	3390	1960	2390	4810	4960	9360	3900	1740	1470
19	5440	8340	7230	3280	2330	2540	4350	4420	7420	3760	1700	1400
20	2940	12900	5650	3240	2440	2460	4160	5560	6140	3450	1610	1780
21	2110	10100	4690	3050	6920	2250	3960	5510	6330	3350	1520	1280
22	4750	7910	4020	2840	e29300	2290	3960	4920	6790	3530	1590	1150
23	9840	8860	3520	2720	e20100	2450	3810	4470	6490	3730	1780	1150
24	5410	6330	3160	3880	10900	2640	3390	4200	5860	3780	2070	1130
25	5030	4720	2880	6680	7490	2850	3130	4500	5840	3710	2100	1070
26	5110	3850	2660	4300	5840	3050	3050	4930	6570	3610	1900	999
27	8830	3470	2510	3390	4770	3000	2900	5560	6980	3190	1860	977
28	4680	3250	2610	2870	4180	3250	2960	8090	7670	2960	1990	967
29	3230	4040	2630	2560	---	3120	3120	10300	14300	3090	1980	1080
30	3020	3520	2440	2400	---	2930	3730	9820	8560	2910	1910	1200
31	8420	---	2410	2300	---	2830	---	7450	---	2660	1760	---
TOTAL	92743	190030	165740	198660	135090	91640	152400	147650	203450	129130	62520	41353
MEAN	2992	6334	5346	6408	4825	2956	5080	4763	6782	4165	2017	1378
MAX	9840	22600	19100	32300	29300	5050	17700	10300	14300	6490	2480	2680
MIN	686	1670	2410	2300	1680	2250	2720	2420	3840	2660	1520	967
AC-FT	184000	376900	328700	394000	268000	181800	302300	292900	403500	256100	124000	82020
CFSM	5.12	10.8	9.15	11.0	8.26	5.06	8.70	8.16	11.6	7.13	3.45	2.36
IN.	5.91	12.10	10.56	12.65	8.61	5.84	9.71	9.41	12.96	8.23	3.98	2.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2002, BY WATER YEAR (WY)

	MEAN	2655	4023	4253	3672	3346	2939	3322	4434	4643	3330	1984	1722
MAX	7237	10030	9668	7767	7208	7347	5323	6750	7815	6180	3609	3888	
(WY)	1968	1991	1976	1997	1961	1972	1988	1936	1937	1974	1999	1978	
MIN	595	672	1265	957	1349	1585	1584	2669	2368	1652	1159	941	
(WY)	1988	1937	1986	1937	1936	1985	1975	1978	1940	1940	1994	1989	

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1935 - 2002

ANNUAL TOTAL		1131413		1610406								
ANNUAL MEAN		3100		4412						3349		
HIGHEST ANNUAL MEAN										4964		1997
LOWEST ANNUAL MEAN										2227		1944
HIGHEST DAILY MEAN			22600	Nov 15		32300	Jan 8		41500	Nov 29	1995	
LOWEST DAILY MEAN			686	Oct 8		686	Oct 8		430	Oct 29	1987	
ANNUAL SEVEN-DAY MINIMUM			770	Oct 4		770	Oct 4		441	Oct 20	1987	
ANNUAL RUNOFF (AC-FT)			2244000			3194000			2426000			
ANNUAL RUNOFF (CFSM)			5.31			7.55			5.73			
ANNUAL RUNOFF (INCHES)			72.07			102.58			77.91			
10 PERCENT EXCEEDS			5410			7910			6000			
50 PERCENT EXCEEDS			2410			3390			2700			
90 PERCENT EXCEEDS			1260			1590			1270			

e Estimated