

NOOKSACK RIVER BASIN

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

LOCATION.--Lat 48°54'22", long 121°50'35", in SE 1/4 SW 1/4 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.--65 years (water years 1938-2002), 782 ft³/s, 101.24 in/yr, 566,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft³/s Nov. 10, 1989, gage height, 9.56 ft; 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. 15	0145	7,120	7.85	Apr. 14	0445	5,040	7.61
Nov. 15	1600	7,760	8.19	May 29	0530	3,900	7.41
Nov. 19	1815	5,490	6.90	June 29	0430	8,220	*9.42
Jan. 07	2145	*9,300	8.97				

Minimum discharge, 216 ft³/s Feb. 17.

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	330	1010	659	313	276	405	381	871	1450	1860	752	598
2	305	905	747	717	267	372	342	1050	1460	1510	695	671
3	281	717	551	688	276	348	321	856	1490	1360	620	655
4	259	826	488	528	266	332	324	696	1510	1320	642	469
5	242	926	441	472	260	322	372	614	1880	1170	703	419
6	235	634	423	777	288	294	484	535	1780	1170	826	398
7	227	530	397	4810	312	280	559	473	1310	1460	676	361
8	235	469	464	5490	289	271	479	431	1040	2100	643	344
9	245	430	462	2450	269	265	469	405	940	1720	713	386
10	274	407	409	1430	270	265	635	382	1200	1910	810	423
11	307	420	381	1070	268	404	669	388	1550	2260	762	432
12	358	823	361	1100	253	416	951	482	1890	2180	748	441
13	427	1370	513	944	245	352	1660	746	2330	2060	868	441
14	389	3730	738	765	234	324	3110	834	2680	1950	983	443
15	340	5950	504	658	228	304	1460	706	2730	1640	912	445
16	399	2920	1240	591	226	289	1010	665	2400	1640	764	742
17	394	1480	1580	535	226	269	795	956	1950	1700	623	724
18	365	1060	863	495	233	260	667	919	2520	1620	583	423
19	510	2720	647	468	288	262	604	884	1830	1510	582	475
20	432	3310	534	447	289	246	588	1260	1700	1310	548	444
21	395	2110	471	418	548	241	588	1300	1920	1320	528	353
22	597	1480	428	389	e2410	249	579	1160	2200	1460	560	327
23	1000	1230	395	375	1670	251	537	982	2120	1610	646	341
24	633	988	372	409	961	260	481	936	1960	1630	764	341
25	524	808	354	441	698	280	449	1020	2030	1620	789	320
26	843	680	337	381	580	298	429	1170	2370	1520	702	299
27	1240	606	330	351	501	297	413	1390	2520	1240	673	293
28	746	562	334	323	447	303	420	2010	3170	1120	736	281
29	e565	571	326	306	---	299	454	3070	5490	1150	735	346
30	e810	515	314	301	---	292	595	2280	2570	1070	695	312
31	1590	---	309	291	---	298	---	1720	---	891	617	---
TOTAL	15497	40187	16372	28733	13078	9348	20825	31191	61990	48081	21898	12947
MEAN	500	1340	528	927	467	302	694	1006	2066	1551	706	432
MAX	1590	5950	1580	5490	2410	416	3110	3070	5490	2260	983	742
MIN	227	407	309	291	226	241	321	382	940	891	528	281
AC-FT	30740	79710	32470	56990	25940	18540	41310	61870	123000	95370	43430	25680
CFSM	4.76	12.8	5.03	8.83	4.45	2.87	6.61	9.58	19.7	14.8	6.73	4.11
IN.	5.49	14.24	5.80	10.18	4.63	3.31	7.38	11.05	21.96	17.03	7.76	4.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2002, BY WATER YEAR (WY)

	MEAN	755	640	510	474	408	564	1119	1534	1315	808	582
MAX	1358	2143	1354	1161	1401	1061	930	1794	2459	2112	1582	1122
(WY)	1968	1991	1940	1997	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 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1938 - 2002

ANNUAL TOTAL		234138		320147								
ANNUAL MEAN		641		877						782		
HIGHEST ANNUAL MEAN										1090		
LOWEST ANNUAL MEAN										540		1997
HIGHEST DAILY MEAN			5950	Nov 15		5950	Nov 15		8620	Nov 10	1990	
LOWEST DAILY MEAN			150	Feb 28		226	Feb 16		98	Jan 8	1979	
ANNUAL SEVEN-DAY MINIMUM			157	Feb 26		235	Feb 12		108	Jan 4	1979	
ANNUAL RUNOFF (AC-FT)		464400				635000			566800			
ANNUAL RUNOFF (CFSM)			6.11			8.35			7.45			
ANNUAL RUNOFF (INCHES)			82.95			113.42			101.24			
10 PERCENT EXCEEDS			1170			1900			1550			
50 PERCENT EXCEEDS			486			588			597			
90 PERCENT EXCEEDS			213			281			260			

e Estimated