

SKAGIT RIVER BASIN

12178100 NEWHALEM CREEK NEAR NEWHALEM, WA

LOCATION.--Lat 48°39'22", long 121°14'14", in SE 1/4, SE 1/4 sec.28, T.37 N., R.12 E., Whatcom County, Hydrologic Unit 17110005, North Cascades National Park, on left bank 1.2 mi south of Newhalem, 1.5 mi downstream from East Fork, and at mile 1.5.

DRAINAGE AREA.--27.9 mi².

PERIOD OF RECORD.--January 1961 to current year.

REVISED RECORDS.--WDR WA-84-1: 1983.

GAGE.--Water-stage recorder. Elevation of gage is 1,080 ft above NGVD of 1929, by barometer. Prior to October 1981, at datum 0.96 ft lower.

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

AVERAGE DISCHARGE.--41 years (water years 1961-2002), 176 ft³/s, 85.54 in/yr, 127,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,430 ft³/s Dec. 26, 1980, gage height, 9.14 ft present datum, from floodmarks, from rating curve extended above 5,570 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 20 ft³/s Feb. 1, 1963, gage height, 1.07 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 14	1445	1,740	5.43	Apr. 14	0330	1,350	4.95
Nov. 15	1515	1,300	4.88	May 29	0915	867	4.20
Dec. 16	2345	781	4.04	June 05	2115	883	4.23
Jan. 07	2145	*2,580	*6.26	June 29	0530	1,090	4.58
Feb. 22	0715	1,370	4.97				

Minimum discharge, 33 ft³/s Oct. 5-8.

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	40	275	103	73	55	110	94	290	406	362	164	94
2	38	268	106	93	53	98	91	311	448	305	149	102
3	36	213	95	101	54	91	86	250	477	291	127	110
4	35	181	90	96	52	88	93	205	470	282	124	81
5	33	209	85	92	51	91	126	182	608	262	136	68
6	34	156	84	180	53	80	192	158	576	294	166	61
7	33	126	79	1690	54	75	222	138	340	394	139	58
8	43	110	91	1270	53	70	175	124	259	566	138	56
9	42	99	94	544	50	66	161	115	238	395	148	55
10	68	94	85	335	52	64	201	109	323	473	162	54
11	91	97	80	253	53	127	219	114	452	552	154	55
12	96	122	77	248	50	146	358	153	588	516	148	55
13	142	262	132	220	48	111	590	230	697	476	161	55
14	120	1420	213	183	46	96	952	243	753	454	164	54
15	92	1030	140	157	46	87	440	206	723	367	161	54
16	92	518	395	137	49	80	301	195	606	371	137	101
17	100	302	455	120	49	72	242	250	452	381	113	97
18	82	219	230	108	53	68	211	253	514	364	103	65
19	195	276	171	101	67	66	197	263	383	335	98	77
20	142	378	141	96	71	61	191	388	378	290	94	75
21	112	292	123	89	312	60	186	383	489	297	89	58
22	226	234	111	83	1170	62	183	326	584	315	91	52
23	e350	203	101	78	610	71	172	269	540	336	99	50
24	e220	171	94	79	309	79	153	249	481	336	109	48
25	e185	150	88	76	216	87	141	279	521	322	110	46
26	e210	134	84	71	178	95	135	326	642	284	100	44
27	339	122	80	66	149	91	135	387	630	232	97	42
28	200	115	81	62	126	86	144	611	690	217	100	41
29	151	110	80	60	---	80	168	768	881	248	98	50
30	164	102	77	58	---	77	227	580	479	246	95	54
31	356	---	75	58	---	79	---	473	---	195	89	---
TOTAL	4067	7988	3940	6877	4129	2614	6786	8828	15628	10758	3863	1912
MEAN	131	266	127	222	147	84.3	226	285	521	347	125	63.7
MAX	356	1420	455	1690	1170	146	952	768	881	566	166	110
MIN	33	94	75	58	46	60	86	109	238	195	89	41
AC-FT	8070	15840	7810	13640	8190	5180	13460	17510	31000	21340	7660	3790
CFSM	4.70	9.54	4.56	7.95	5.29	3.02	8.11	10.2	18.7	12.4	4.47	2.28
IN.	5.42	10.65	5.25	9.17	5.51	3.49	9.05	11.77	20.84	14.34	5.15	2.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

	125	186	164	135	124	109	150	280	364	265	123	88.3
MEAN	125	186	164	135	124	109	150	280	364	265	123	88.3
MAX	351	589	552	340	313	290	267	448	594	476	277	192
(WY)	1968	1996	1981	1984	1991	1972	1989	1972	1974	1972	1999	1978
MIN	28.2	43.4	44.7	29.2	39.9	48.7	68.7	145	211	110	53.6	32.2
(WY)	1988	1980	1979	1979	1969	1962	1975	1977	1992	1977	1998	1998

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1961 - 2002

ANNUAL TOTAL	51039	77390	
ANNUAL MEAN	140	212	176
HIGHEST ANNUAL MEAN			244
LOWEST ANNUAL MEAN			114
HIGHEST DAILY MEAN	1420	Nov 14	5300
LOWEST DAILY MEAN	33	Oct 5	20
ANNUAL SEVEN-DAY MINIMUM	36	Oct 1	22
ANNUAL RUNOFF (AC-FT)	101200	153500	127200
ANNUAL RUNOFF (CFSM)	5.01	7.60	6.30
ANNUAL RUNOFF (INCHES)	68.05	103.19	85.54
10 PERCENT EXCEEDS	275	474	369
50 PERCENT EXCEEDS	94	136	118
90 PERCENT EXCEEDS	42	54	51

e Estimated