

WHATCOM CREEK BASIN

12202300 OLSEN CREEK NEAR BELLINGHAM, WA

LOCATION.--Lat 48°45'05", long 122°21'08", in NW 1/4 SW 1/4 sec.30, T.38 N., R.4 E., Whatcom County, Hydrologic Unit 17110002, on left bank at downstream side of bridge on North Shore Road, 500 ft upstream from mouth and Lake Whatcom, and 5.8 mi east of Court House in Bellingham.

DRAINAGE AREA.--3.78 mi².

PERIOD OF RECORD.--November 1967 to September 1969, annual maximum, water years 1970-1974. October 2001 to September 2002.

GAGE.--Water-stage recorder. Elevation of gage is 311.8 ft above NGVD of 1929, from survey to Lake Whatcom, City of Bellingham Lake elevation. Prior to 1975 gage at elevation 5.49 ft lower.

REMARKS.--Records good except estimated discharges and flows above 150 ft³/s, which are poor. No known regulation. Diversion rights above station for irrigation and domestic use.

AVERAGE DISCHARGE.--2 years (Water years 1969, 2002) 11.3 ft³/s, 40.47 in/yr, 8,160 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 226 ft³/s Dec. 25, 1967, gage height 3.11 ft, at site and datum then in use, from rating curve extended above 42 ft³/s; minimum discharge, 0.25 ft³/s Aug. 28-30, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum gage height 6.03 ft, Dec. 14, discharge not determined; minimum discharge 0.25 ft³/s Aug. 28-30.

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	e0.70	13	27	8.7	11	9.8	16	4.4	2.3	3.6	0.52	0.29
2	e0.65	11	e60	14	11	8.5	14	4.3	2.1	2.8	0.51	0.54
3	e0.60	8.4	e30	11	16	7.7	11	4.4	2.0	2.4	0.51	0.79
4	e0.55	14	18	8.8	17	7.0	9.9	4.2	1.9	2.1	0.54	0.44
5	e0.50	18	15	7.5	17	6.6	13	5.7	2.5	1.8	0.59	0.38
6	e0.55	e13	15	7.8	20	5.7	22	5.5	1.9	1.6	0.64	0.36
7	e0.55	9.5	16	15	22	5.3	31	4.9	1.7	1.9	0.55	0.34
8	e0.80	7.3	23	71	20	5.0	17	4.6	1.6	3.9	0.50	0.37
9	e0.90	6.1	30	45	17	5.0	19	4.3	1.5	2.4	0.45	0.49
10	e1.2	e5.3	20	25	16	5.2	33	4.0	1.4	1.8	0.46	0.40
11	e2.2	e4.6	16	18	16	16	23	3.7	1.3	1.5	0.43	0.36
12	1.8	e4.0	16	20	13	16	22	3.5	1.3	1.3	0.40	0.35
13	2.0	e5.0	143	21	11	15	29	3.6	1.2	1.2	0.38	0.32
14	3.2	e20	234	18	9.9	15	48	4.8	1.1	1.1	0.36	0.31
15	2.2	e30	56	14	8.8	15	28	3.9	1.0	1.1	0.36	0.31
16	2.6	e20	302	12	8.5	13	25	3.6	0.99	0.95	0.34	0.92
17	2.8	e15	139	10	9.2	11	22	5.7	1.0	0.89	0.32	0.93
18	5.5	e10	43	9.2	13	9.6	19	4.9	5.6	0.86	0.32	0.54
19	13	e15	25	11	15	11	15	4.6	2.7	0.81	0.33	0.47
20	6.5	e22	18	12	15	9.9	13	5.6	2.1	0.75	0.33	0.57
21	e7.0	e20	14	11	100	9.2	11	4.9	1.7	0.71	0.34	0.46
22	e11	e32	12	9.5	271	11	9.9	4.4	1.4	0.67	0.33	0.40
23	e9.0	e40	9.8	9.1	165	13	8.9	4.0	1.3	0.62	0.32	0.38
24	e12	22	8.6	23	46	16	7.8	3.6	1.2	0.57	0.29	0.38
25	e24	14	7.5	69	26	18	7.0	3.5	1.1	0.57	0.29	0.36
26	e21	11	6.6	33	18	18	6.7	3.4	1.0	0.57	0.29	0.34
27	37	9.1	6.6	21	14	17	6.2	3.2	1.1	0.55	0.29	0.33
28	17	11	7.3	16	12	17	5.5	3.1	2.6	0.57	0.29	0.32
29	10	22	6.7	13	---	16	5.0	3.0	9.1	0.62	0.27	0.79
30	7.7	19	6.5	12	---	15	4.7	3.0	5.2	0.57	0.28	0.84
31	15	---	7.6	12	---	14	---	2.6	---	0.53	0.29	---
TOTAL	219.50	451.3	1339.2	587.6	938.4	361.5	502.6	128.9	62.89	41.31	12.12	14.08
MEAN	7.08	15.0	43.2	19.0	33.5	11.7	16.8	4.16	2.10	1.33	0.39	0.47
MAX	37	40	302	71	271	18	48	5.7	9.1	3.9	0.64	0.93
MIN	0.50	4.0	6.5	7.5	8.5	5.0	4.7	2.6	0.99	0.53	0.27	0.29
AC-FT	435	895	2660	1170	1860	717	997	256	125	82	24	28
CFSM	1.87	3.98	11.4	5.01	8.87	3.08	4.43	1.10	0.55	0.35	0.10	0.12
IN.	2.16	4.44	13.18	5.78	9.24	3.56	4.95	1.27	0.62	0.41	0.12	0.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

	7.40	12.6	31.3	17.0	21.9	13.8	14.1	4.58	2.98	1.59	1.32	3.71
MEAN	7.40	12.6	31.3	17.0	21.9	13.8	14.1	4.58	2.98	1.59	1.32	3.71
MAX	7.71	15.3	43.2	19.0	33.5	15.6	17.3	5.37	5.34	2.20	2.95	5.37
(WY)	1969	1969	2002	2002	2002	1969	1969	1969	1968	1968	1968	1968
MIN	7.08	7.61	20.8	14.9	11.6	11.7	8.35	4.16	1.51	1.24	0.39	0.47
(WY)	2002	1968	1969	1969	1969	2002	1968	2002	1969	1969	2002	2002

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1968 - 2002

ANNUAL TOTAL	4659.40	
ANNUAL MEAN	12.8	11.3
HIGHEST ANNUAL MEAN		12.8
LOWEST ANNUAL MEAN		9.75
HIGHEST DAILY MEAN		
LOWEST DAILY MEAN	302	Dec 16
ANNUAL SEVEN-DAY MINIMUM	0.27	Aug 29
ANNUAL RUNOFF (AC-FT)	9240	0.29
ANNUAL RUNOFF (CFSM)	3.38	Aug 24
ANNUAL RUNOFF (INCHES)	45.85	8160
10 PERCENT EXCEEDS	22	2.98
50 PERCENT EXCEEDS	6.1	40.47
90 PERCENT EXCEEDS	0.40	22
		6.3
		0.53

e Estimated