

Figure 22. Location of surface-water stations in the Tulalip and Mission Creek Basins.

12157130 JOHN SAM LAKE NEAR TULALIP, WA

LOCATION.--Lat 48°06'42", long 122°14'50", in SW 1/4 SW 1/4 sec.1, T.30 N., R.4 E., Snohomish County, Hydrologic Unit 17110019, Tulalip Indian Reservation, 3.6 mi northeast of Tulalip, WA

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Nonrecording gage. Elevation of gage is 505.0 ft above NGVD of 1929, from precision Global Positioning System (GPS).

REMARKS.--Lake elevation controlled by concrete pipe culvert, at lake outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 6.44 ft Dec. 20, 2001; minimum gage height observed, 4.06 ft Sept. 23, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 6.31 ft Feb. 2; minimum gage height observed, 5.42 ft, Dec. 9.

GAGE HEIGHT, FEET WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004 DAILY INSTANTANEOUS VALUES

1	DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
3	1												
4						6.31							
$\begin{array}{cccccccccccccccccccccccccccccccccccc$													
6													
7	5												
8 5.42													
9 5.42													
10													
11 5.71 13													
12 5.71 13	10												
13	11												
14									5.71				
15													
16													
17	15												
18 .	16												
19 .													
20 5.51 21 .													
21													
22 6.09	20										5.51		
23	21												
24 .	22						6.09						
25 -													
26 .													
27	25												
28	26												
29	27												
30													
31													
MEAN	30												
MAX	31												
MAX	MEAN												
MIN	MAX												
	MIN												

12157200 ROSS LAKE NEAR MARYSVILLE, WA

LOCATION.--Lat 48°05'28", long 122°13'46", in SE ¹/₄ NE ¹/₄ sec.13, T.30 N., R.4 E., Snohomish County, Hydrologic Unit 17110019, Tulalip Indian Reservation, 3.3 mi northeast of Tulalip, WA

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Nonrecording gage. Elevation of gage is 304.8 ft above NGVD of 1929, from precision Global Positioning System (GPS).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 77.47 ft Dec. 18, 2001; minimum gage height observed, 75.23 ft, Sept. 23, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 76.96 ft Jan. 28; minimum gage height observed, 76.14 ft, July 20.

GAGE HEIGHT, FEET WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004 DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DAT	001	NOV	DEC	JAN	TED	MAK	AIK	MAI	JUN	JUL	AUG	311
1												
2												
3 4												
5												
5												
6												
7												
8												
9												
10			76.21									
11								76.45				
12												
13												
14												
15												
16												
17												
18												
19												
20										76.14		
21												
22						76.82						
23												
24												
25												
26												
27												
28				76.96								
29												
30												
31												
MEAN												
MAX												
MIN												

12157250 MISSION CREEK NEAR TULALIP, WA

LOCATION.--Lat 48°03'31", long 122°15'58", in SW¹/₄NW¹/₄, sec.26, T.30 N., R.4 E., Snohomish County, Hydrologic Unit 17110019, on left bank 100 ft upstream from highway crossing, 0.25 mi above mouth, and 0.9 mi east of Tulalip.

DRAINAGE AREA.--7.92 mi².

PERIOD OF RECORD.--October 1974 to September 1977, November 2000 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 20.3 ft below NGVD of 1929, from precision Global Positioning System (GPS). October 1974 to September 1977, water-stage recorder, at site downstream from highway crossing, at different datum.

REMARKS.--Records fair. Some natural regulation in lakes and beaver ponds. Chemical analysis November 1974 to March 1977. Water temperatures October 1974 to March 1977.

AVERAGE DISCHARGE.--6 years (water years 1975-77, 2002-04), 5.31 ft³/s, 9.12 in/yr, 3,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85 ft³/s, Jan. 19, 1977, gage height, 4.11 ft, from rating curve extended above 20 ft³/s datum then in use, probably result of release of water from beaver ponds; minimum, 0.12 ft³/s, June 29, 1977, probably result of beaver activity upstream.

EXTREMES FOR CURRENT YEAR .-- Maximum discharge, 71 ft³/s, Nov. 19, gage height, 57.66 ft; minimum discharge, 0.27 ft³/s, July 1.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.6	3.4	4.3	21	7.5	4.8	1.4	4.7	0.54	0.48	1.3
2	1.2	2.4	4.0	4.0	17	6.8	4.3	1.2	3.5	0.63	0.66	4.5
3	1.1	2.2	9.8	3.7	15	7.4	4.0	1.3	2.7	1.7	0.54	2.6
4	1.4	2.1	8.8	3.4	14	13	3.7	1.4	2.1	1.4	0.47	1.7
5	1.5	2.0	9.1	2.9	13	14	3.6	1.8	1.6	0.76	0.47	1.5
6	1.4	1.9	15	2.9	12	11	3.5	1.7	1.9	0.75	0.82	1.4
7	1.8	1.9	11	4.0	12	9.5	3.3	1.7	2.1	1.9	1.7	1.3
8	1.9	2.0	8.5	9.9	12	8.6	3.2	1.7	1.9	1.7	1.4	1.2
9	1.7	2.0	6.9	11	10	7.9	3.1	1.7	1.7	0.82	1.1	1.2
10	1.6	3.1	6.1	8.8	9.0	7.5	3.0	1.5	2.5	0.89	0.79	1.2
11	1.5	8.5	6.3	7.3	8.1	6.9	3.0	1.5	4.4	$\begin{array}{c} 0.83 \\ 0.73 \\ 0.70 \\ 0.69 \\ 0.78 \end{array}$	0.68	2.4
12	1.7	6.8	5.9	6.1	7.6	6.5	2.9	1.5	3.5		0.61	2.9
13	2.0	4.6	5.4	5.3	7.1	6.3	2.7	1.4	2.8		0.55	3.2
14	2.1	3.7	4.9	5.0	7.5	6.0	2.7	1.4	2.4		0.51	4.0
15	1.9	3.3	4.4	5.3	8.1	5.8	2.7	1.4	2.1		0.81	3.6
16	2.4	3.7	4.4	5.2	8.7	5.7	2.9	1.9	1.7	0.69	0.67	3.3
17	4.7	4.3	4.6	4.8	10	5.9	2.8	1.8	1.4	0.65	0.51	4.0
18	6.0	7.8	4.4	4.6	11	6.2	2.7	1.6	1.2	0.67	0.55	3.7
19	3.8	44	4.1	4.4	10	5.8	2.7	1.4	1.2	0.71	0.54	3.1
20	4.5	22	4.2	4.1	9.9	5.3	2.7	1.3	0.88	0.62	0.55	2.4
21	10	11	3.8	3.8	8.9	4.9	2.6	1.2	0.88	0.57	0.50	2.0
22	8.1	6.7	3.6	3.7	8.0	4.7	2.3	2.0	0.84	0.65	1.7	1.9
23	6.0	5.1	3.5	5.8	7.4	4.7	2.2	2.5	0.78	0.65	2.2	1.9
24	4.9	5.0	3.7	16	6.9	5.1	2.2	1.7	0.80	0.54	2.0	1.9
25	3.6	5.7	3.8	24	6.7	5.6	2.1	1.5	0.90	0.48	2.5	1.8
26 27 28 29 30 31	2.9 2.4 2.4 3.3 3.4 2.9	5.5 4.6 4.0 4.0 3.7	3.9 4.5 6.4 5.7 4.7 4.5	16 12 10 26 36 27	6.8 8.1 8.5 8.8 	5.9 5.9 5.5 5.0 4.6 5.1	1.9 1.8 1.8 1.5 1.4	3.4 7.8 40 18 8.2 5.7	0.94 0.82 0.73 0.71 0.79	0.46 0.50 0.52 0.48 0.51 0.51	2.6 1.8 1.4 1.2 1.1 0.98	1.7 1.6 1.6 1.5
TOTAL	95.2	186.2	179.3	287.3	293.1	210.6	84.1	122.6	54.47	$24.03 \\ 0.78 \\ 1.9 \\ 0.46 \\ 48 \\ 0.10 \\ 0.11$	32.39	68.0
MEAN	3.07	6.21	5.78	9.27	10.1	6.79	2.80	3.95	1.82		1.04	2.27
MAX	10	44	15	36	21	14	4.8	40	4.7		2.6	4.5
MIN	1.1	1.9	3.4	2.9	6.7	4.6	1.4	1.2	0.71		0.47	1.2
AC-FT	189	369	356	570	581	418	167	243	108		64	135
CFSM	0.39	0.78	0.73	1.17	1.28	0.86	0.35	0.50	0.23		0.13	0.29
IN.	0.45	0.87	0.84	1.35	1.38	0.99	0.40	0.58	0.26		0.15	0.32
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2004, BY WATER YEAR (WY)												
MEAN	3.27	5.76	8.02	9.04	8.19	8.77	6.69	4.63	2.81	1.38	2.03	1.90
MAX	5.73	9.52	14.6	12.7	14.0	13.5	12.2	7.01	5.44	2.04	3.99	2.71
(WY)	(1976)	(1976)	(2002)	(1976)	(1975)	(1975)	(1976)	(1977)	(2001)	(2001)	(1976)	(1977)
MIN	2.06	2.77	4.28	4.43	3.58	6.79	2.80	2.67	1.30	0.63	0.47	0.92
(WY)	(1975)	(2003)	(2001)	(1977)	(1977)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)

12157250 MISSION CREEK NEAR TULALIP, WA-Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1975 - 2004		
ANNUAL TOTAL	1,450.08	1,637.29			
ANNUAL MEAN	3.97	4.47	5.31		
HIGHEST ANNUAL MEAN			7.22 1976		
LOWEST ANNUAL MEAN			3.52 2003		
HIGHEST DAILY MEAN	44 Nov 19	44 Nov 19	49 Dec 17, 2001		
LOWEST DAILY MEAN	0.27 Aug 19	0.46 Jul 26	0.13 Jun 29, 1977		
ANNUAL SEVEN-DAY MINIMUM	0.38 Aug 18	0.49 Jul 25	0.25 Jun 25, 1977		
ANNUAL RUNOFF (AC-FT)	2,880	3,250	3,850		
ANNUAL RUNOFF (CFSM)	0.502	0.565	0.671		
ANNUAL RUNOFF (INCHES)	6.81	7.69	9.12		
10 PERCENT EXCEEDS	7.6	9.2	12		
50 PERCENT EXCEEDS	3.4	2.9	3.7		
90 PERCENT EXCEEDS	0.49	0.72	1.1		

12158007 WEALLUP LAKE AT OUTLET NEAR TULALIP, WA

LOCATION.--Lat 48°06'44", long 122°18'01", in NW ¹/₄ SE ¹/₄ sec.4, T.30 N., R.4 E., Snohomish County, Hydrologic Unit 17110019, Tulalip Indian Reservation, 3.1 mi north of Tulalip, WA

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD .-- November 2000 to current year.

GAGE.--Nonrecording gage. Elevation of gage is 203.8 ft above NGVD of 1929, from precision Global Positioning System (GPS).

REMARKS .-- Lake elevation is controlled by concrete spillway and is subject to beaver activity.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 14.14 ft Dec. 20, 2001; minimum gage height observed, 10.64 ft, Nov. 6, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 13.11 ft, Feb. 2; minimum gage height observed, 11.50 ft, July 20.

GAGE HEIGHT, FEET WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004 DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
	001	110 1	220						vert	002	1100	0111
1												
2 3					13.11							
4												
5												
6												
7												
8 9			12.19									
10			12.19									
10												
11												
12								12.18				
13												
14												
15												
16												
17												
18												
19												
20										11.50		
21												
22						13.07						
23												
24												
25												
26												
20												
28												
29												
30												
31												
MEAN												
MAX												
MIN												

12158010 TULALIP CREEK ABOVE EAST BRANCH, NEAR TULALIP, WA

LOCATION.--Lat 48°05'51", long 122°17'17", in SE¹/₄SW¹/₄, sec.10, T.30 N., R.4 E., Snohomish County, Hydrologic Unit 17110019, Tulalip Indian Reservation, on left bank wing wall upstream side of diversion dam, 1.9 mi north of Tulalip and 2.0 mi above mouth.

DRAINAGE AREA.--9.74 mi².

PERIOD OF RECORD .-- November 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2.8 ft below NGVD of 1929, from precision Global Positioning System (GPS).

REMARKS .-- Records poor. Some natural regulation in lakes and beaver ponds in basin.

AVERAGE DISCHARGE.--3 years (water years 2002-04) 6.70 ft³/s, 9.34 in/yr, 4,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61 ft³/s, Dec. 16, 2001, gage height, 123.91; minimum daily discharge, 0.87 ft³/s, June 25, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft³/s, Nov. 19, gage height, 123.74 ft; minimum daily discharge, 0.87 ft³/s, June 25.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	3.6 3.8 4.0 4.1 4.5	3.1 3.6 3.4 3.2 4.5	4.2 4.9 7.1 6.3 8.2	5.1 5.0 e4.7 e4.3 e4.0	12 11 10 8.9 9.2	4.6 3.9 5.7 10 11	8.7 8.7 8.3 8.2 7.9	e3.6 3.7 4.0 4.2 4.1	1.8 1.5 1.4 1.3 1.6	1.9 2.2 2.7 2.6 2.5	e3.1 e3.1 e3.0 e3.3	e3.2 e3.7 e3.3 e3.1 e3.1
6 7 8 9 10	5.2 7.0 5.6 5.8 4.2	3.8 3.0 3.0 3.2 6.8	10 7.4 7.4 5.7 4.2	e4.0 e5.0 7.8 7.5 7.8	11 12 11 8.9 4.5	11 11 8.6 6.9 6.7	7.5 7.3 7.4 7.4 7.5	4.0 4.4 3.9 4.2 4.5	1.9 1.9 1.7 1.7 4.9	3.2 e3.7 e3.1 e3.0 e3.3	e3.5 e3.7 e3.4 e3.3 e3.2	e3.0 e3.0 e3.0 e3.1 e3.1
11 12 13 14 15	4.5 5.7 5.5 4.4 5.1	7.4 3.6 3.2 2.9 4.1	4.6 4.4 4.2 4.1 3.7	7.4 7.4 7.5 7.8 8.3	4.2 4.1 4.7 6.5 7.8	6.5 4.5 2.7 1.2 0.98	6.9 6.6 6.8 7.1 7.1	4.3 3.7 3.8 3.7 3.6	2.4 1.6 2.7 2.3 1.8	e3.1 e3.0 e3.0 e3.0	e3.1 e3.2 e3.2 e3.2 e3.2 e3.2	e4.2 e5.0 e5.0 e5.8 e4.8
16 17 18 19 20	7.3 12 3.3 3.8 7.6	8.6 11 14 17 8.8	3.9 3.8 3.6 3.6 3.5	6.9 4.8 5.1 5.0 5.1	10 8.6 6.8 8.3 8.4	1.2 3.7 7.2 8.4 8.5	6.8 5.6 5.7 5.5 5.9	3.5 3.6 3.6 3.4 3.8	1.8 1.9 2.0 2.1 1.3	e3.0 e3.0 e3.0 e3.0 e2.9	e3.2 e3.3 e3.2 e3.1	e4.9 e5.0 e4.5 e4.8 e4.1
21 22 23 24 25	7.1 3.9 8.6 6.4 6.3	5.1 4.0 4.5 5.6 6.0	3.6 3.6 3.2 3.8 3.8	5.2 5.5 7.0 8.9 11	8.5 8.5 8.6 9.1 7.8	8.9 9.0 8.5 9.8 9.1	6.5 6.0 5.5 e5.2 e5.2	4.1 4.9 4.3 3.9 4.2	1.0 2.2 2.6 2.1 0.87	e2.9 e3.0 e3.1 e3.1 e3.0	e3.3 e3.8 e3.7 e3.6 e6.0	e3.9 e3.8 e3.9 e4.0 e3.8
26 27 28 29 30 31	6.3 3.9 5.0 6.8 3.3 3.1	6.5 6.0 4.7 3.4 3.6	4.0 5.2 6.0 e5.6 e5.6 5.6	8.5 8.5 e8.5 10 13 12	4.0 4.5 4.5 5.2	9.0 9.0 9.1 8.6 9.3 8.6	e5.0 e4.8 e4.4 e4.2 e3.8	6.3 8.0 8.8 2.5 2.5 2.6	1.1 1.3 1.2 0.94 1.4	e3.0 e3.2 e3.1 e3.2 e3.2 e3.2 e3.1	e5.0 e3.9 e3.7 e3.6 e3.5 e3.3	e3.8 e3.7 e3.8 e3.9 e3.7
TOTAL MEAN MAX MIN AC-FT CFSM IN.	167.7 5.41 12 3.1 333 0.56 0.64	167.6 5.59 17 2.9 332 0.57 0.64	154.8 4.99 10 3.2 307 0.51 0.59	218.6 7.05 13 4.0 434 0.72 0.83	228.6 7.88 12 4.0 453 0.81 0.87	223.18 7.20 11 0.98 443 0.74 0.85	193.5 6.45 8.7 3.8 384 0.66 0.74	129.7 4.18 8.8 2.5 257 0.43 0.50	54.31 1.81 4.9 0.87 108 0.19 0.21	92.2 2.97 3.7 1.9 183 0.31 0.35	108.1 3.49 6.0 3.0 214 0.36 0.41	118.0 3.93 5.8 3.0 234 0.40 0.45
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)												
MEAN MAX (WY) MIN (WY)	5.45 5.90 (2002) 5.05 (2003)	6.02 7.00 (2002) 5.46 (2003)	8.92 21.5 (2002) 4.43 (2001)	8.55 14.3 (2002) 5.97 (2001)	9.21 15.8 (2002) 6.48 (2003)	9.56 13.8 (2002) 7.20 (2004)	9.17 11.5 (2002) 6.45 (2004)	5.98 7.78 (2002) 4.18 (2004)	4.17 5.91 (2001) 1.81 (2004)	3.56 4.58 (2001) 2.85 (2003)	3.78 4.63 (2001) 3.34 (2003)	3.91 4.50 (2001) 3.38 (2003)

12158010 TULALIP CREEK ABOVE EAST BRANCH, NEAR TULALIP, WA-Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 2001 - 2004		
ANNUAL TOTAL	2,054.4	1,856.29			
ANNUAL MEAN	5.63	5.07	6.70		
HIGHEST ANNUAL MEAN			9.46 2002		
LOWEST ANNUAL MEAN			5.07 2004		
HIGHEST DAILY MEAN	17 Nov 19	17 Nov 19	43 Dec 17, 2001		
LOWEST DAILY MEAN	2.2 Jul 23	0.87 Jun 25	0.87 Jun 25, 2004		
ANNUAL SEVEN-DAY MINIMUM	2.4 Jul 20	1.2 Jun 25	1.2 Jun 25, 2004		
ANNUAL RUNOFF (AC-FT)	4,070	3,680	4,850		
ANNUAL RUNOFF (CFSM)	0.578	0.521	0.688		
ANNUAL RUNOFF (INCHES)	7.85	7.09	9.34		
10 PERCENT EXCEEDS	9.0	8.7	13		
50 PERCENT EXCEEDS	5.2	4.2	5.1		
90 PERCENT EXCEEDS	3.0	2.6	3.1		

e Estimated

12158032 EAST BRANCH TULALIP CREEK NEAR MOUTH, NEAR TULALIP, WA

LOCATION.--Lat 48°05'35", long 122°16'44", in NW¹/₄NE¹/₄, sec.15, T.30 N., R.4 E., Snohomish County, Hydrologic Unit 17110019, Tulalip Indian Reservation, on left wing wall at diversion dam headworks pool, 200 ft upstream from culvert for one lane road, 1.9 mi north of Tulalip and 0.6 mi above mouth.

DRAINAGE AREA.--1.75 mi².

PERIOD OF RECORD.--September 1960, October 1974 to August 1977 and November 2000 to May 2002 (discharge measurements). May 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage 9.74 ft below NGVD of 1929, from precision Global Positioning System (GPS).

REMARKS.--Records poor. Some natural regulation from beaver ponds and unknown regulation from fish hatchery in basin. Minor diversions for domestic use.

AVERAGE DISCHARGE.--2 years (water years 2003-04), 2.21 ft³/s, 1,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9.2 ft³/s, May 28, 2004, gage height 139.91 ft; minimum daily discharge, 0.90 ft³/s, Nov. 13, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.2 ft³/s, May 28, gage height, 139.91 ft; minimum daily discharge, 0.90 ft³/s, Nov. 13.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	0.92 0.97 0.94 1.0 1.1	e1.1 e1.3 e1.1 e1.1 e1.1	e1.1 e1.5 e3.0 e2.7 e3.5	1.6 1.6 1.5 1.5 1.4	7.3 6.4 5.1 4.4 3.8	2.5 2.4 3.0 4.0 e3.0	e2.6 e2.5 e2.5 e2.4 e2.4	e1.5 1.5 1.4 1.6 1.8	1.5 e1.1 e1.1 e1.1 e1.4	e1.5 e1.5 e2.0 e1.8 e1.6	e1.5 e1.6 e1.6 e1.7	e1.5 e2.0 e1.5 e1.5 e1.5
6 7 8 9 10	1.4 2.1 1.2 1.2 1.3	e1.1 e1.2 e1.2 e2.0	e5.2 e3.6 e3.5 e3.0 e2.2	1.5 2.1 2.3 2.0 e1.4	3.6 3.7 3.2 3.0 2.8	e2.9 e2.9 e2.7 e2.7 e2.7	e2.3 e2.3 e2.2 e2.2 e2.1	1.5 1.8 1.9 1.9 1.5	e1.5 e1.4 e1.4 e1.3 e3.0	e1.8 e2.2 e2.0 e1.8 e1.9	e1.9 e2.0 e1.6 e1.5 e1.5	e1.5 e1.5 e1.6 e1.6
11 12 13 14 15	1.5 2.4 2.4 1.1 1.6	e2.4 e1.6 e0.90 e1.1 e1.2	e2.2 e2.2 2.1 2.1 1.9	e1.3 e1.3 e1.3 e1.3 e1.5	2.7 2.7 2.5 2.7 2.8	e2.5 e2.4 e2.4 2.4 2.3	e2.1 e2.0 e2.0 e1.9 e1.9	1.8 1.8 1.7 1.5 1.5	e2.3 e2.0 e1.9 e1.7 e1.7	e1.7 e1.7 e1.6 e1.6 e1.6	e1.5 e1.5 e1.5 e1.5 e1.5	e2.0 e2.2 e2.1 e2.0 e2.0
16 17 18 19 20	3.4 5.2 e3.0 e3.6 e5.0	e1.4 e3.0 e5.0 e7.0 e4.0	2.1 1.9 1.9 1.9 1.9	e1.5 e1.3 e1.5 e1.3 e1.2	3.2 3.2 3.3 3.9 3.5	2.3 2.6 e2.8 e2.6 2.3	e1.9 e1.8 e1.8 e1.8 e1.7	1.6 1.5 1.6 1.6 1.5	e1.7 e1.6 e1.6 e1.5 e1.5	e1.6 e1.6 e1.5 e1.5 e1.5	e1.5 e1.5 e1.5 e1.5 e1.5	e1.9 e1.9 e1.7 e1.6 e1.6
21 22 23 24 25	3.3 2.9 e3.0 1.4 1.4	e2.5 e2.0 e1.7 e1.9 e1.9	1.9 1.8 1.8 2.0 1.9	e1.2 e1.6 2.5 3.4 2.7	e3.1 e2.9 e2.8 e2.7 e2.6	2.4 2.3 2.5 e2.8 e2.8	e1.7 e1.7 e1.6 e1.6	1.4 1.8 e1.6 e1.5 1.5	e1.5 e1.5 e1.7 e1.8 e1.8	e1.6 e1.6 e1.6 e1.6 e1.6	e1.6 e2.2 e2.2 e2.1 e3.0	e1.5 e1.5 e1.5 e1.5 e1.5
26 27 28 29 30 31	1.4 e1.1 e1.7 e2.1 1.6 1.4	e1.8 e1.6 e1.4 e1.3 e1.1	2.0 2.5 1.8 1.7 1.5 1.6	2.1 1.9 2.2 4.7 6.6 7.9	2.5 2.7 2.6 2.6	e2.7 e2.6 e2.5 e2.3 e2.6 e2.8	e1.6 e1.6 e1.5 e1.5 e1.5	2.5 3.7 4.6 1.7 2.0 2.2	e1.7 e1.7 e1.6 e1.6 e1.5	e1.7 e1.6 e1.5 e1.5 e1.5 e1.5	e2.4 e1.6 e1.5 e1.5 e1.5	e1.5 e1.5 e1.5 e1.5 e1.5
TOTAL MEAN MAX MIN AC-FT	62.63 2.02 5.2 0.92 124	57.10 1.90 7.0 0.90 113	70.0 2.26 5.2 1.1 139	67.2 2.17 7.9 1.2 133	98.3 3.39 7.3 2.5 195	81.7 2.64 4.0 2.3 162	58.4 1.95 2.6 1.5 116	57.0 1.84 4.6 1.4 113	48.7 1.62 3.0 1.1 97	51.3 1.65 2.2 1.5 102	52.7 1.70 3.0 1.5 105	49.7 1.66 2.2 1.5 99
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)												
MEAN MAX (WY) MIN (WY)	2.18 2.34 (2003) 2.02 (2004)	2.19 2.48 (2003) 1.90 (2004)	2.37 2.63 (2003) 2.22 (2001)	2.30 2.46 (2003) 2.17 (2004)	2.75 3.39 (2004) 2.22 (2001)	2.63 3.02 (2003) 2.23 (2001)	2.55 2.97 (2003) 1.95 (2004)	2.01 2.32 (2003) 1.84 (2004)	1.92 2.29 (2002) 1.62 (2004)	1.90 2.55 (2002) 1.65 (2004)	1.89 2.20 (2002) 1.70 (2004)	1.98 2.53 (2002) 1.65 (2001)

12158032 EAST BRANCH TULALIP CREEK NEAR MOUTH, NEAR TULALIP, WA-Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 2001 - 2004		
ANNUAL TOTAL ANNUAL MEAN HIGHEST ANNUAL MEAN LOWEST ANNUAL MEAN HIGHEST DAILY MEAN LOWEST DAILY MEAN	7.0 Nov 19 0.90 Nov 13	754.73 2.06 7.9 Jan 31 0.90 Nov 13	2.21 2.35 2003 2.06 2004 7.9 Jan 31, 2004 0.90 Nov 13, 2003		
ANNUAL SEVEN-DAY MINIMUM ANNUAL RUNOFF (AC-FT) 10 PERCENT EXCEEDS 50 PERCENT EXCEEDS 90 PERCENT EXCEEDS	1.1 Nov 1 1,630 3.0 2.1 1.5	1.1 Nov 1 1,500 3.0 1.7 1.3	1.1 Nov 1, 2003 1,600 3.0 2.1 1.5		

e Estimated

12158040 TULALIP CREEK NEAR TULALIP, WA

LOCATION.--Lat 48°04'07", long 122°17'12", in NW¹/₄SW¹/₄, sec.22, T.30 N., R.4 E., Snohomish County, Hydrologic Unit 17110019, Tulalip Indian Reservation, on left bank 200 ft upstream from highway crossing, 0.15 mi east of Tulalip and 0.30 mi above mouth.

DRAINAGE AREA .-- 15.4 mi2.

PERIOD OF RECORD.--October 1974 to September 1977, November 2000 to current year. Published as "at Tulalip" 1974-77.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 39.9 ft above NGVD of 1929, from precision Global Positioning System (GPS). October 1974 to September 1977, water-stage recorder, at site 600 ft upstream from highway crossing, at different datum.

REMARKS.--Records good, except for estimated daily discharges, and discharges below 15 ft³/s, and above 80 ft³/s, which are fair. Some regulation at outlet of Lake Shoecraft, drainage area 6.12 mi², and natural regulation in lakes and ponds in basin. Minor diversions above station for domestic use from East Branch Tulalip Creek. Tulalip Fish Hatchery diverts entire flow at times from East Branch Tulalip Creek, and Tulalip Creek above East Branch for use in hatchery. Water is returned to creek above station. Chemical analysis November 1974 to March 1977, water temperature October 1974 to March 1977.

AVERAGE DISCHARGE.--6 years (water years 1975-77, 2002-04), 11.9 ft³/s, 10.52 in/yr, 8,640 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD .-- Maximum discharge, 136 ft³/s, Dec. 17, 2001, gage height, 97.81 ft; minimum discharge, 2.0 ft³/s, Aug. 12, 1977.

EXTREMES FOR CURRENT YEAR .-- Maximum discharge, 78 ft³/s, Nov. 19, gage height, 97.33 ft; minimum discharge, 3.4 ft³/s, July 25, 28, 29, 31.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	6.1 6.1 6.3 6.4 6.7	11 12 11 11 11	7.6 9.2 18 12 15	8.9 8.6 8.2 e7.2 e7.0	23 21 20 20 20	17 16 18 24 21	13 12 11 11 11	5.6 5.6 5.7 6.3	8.8 7.3 6.7 6.1 6.1	4.6 4.7 5.4 5.1 4.8	4.3 4.4 4.4 4.5 4.7	5.3 6.3 5.4 5.0 5.0
6	6.9	11	23	7.5	20	19	10	5.8	7.5	5.7	5.5	4.7
7	8.8	11	15	9.7	22	19	9.9	6.1	6.4	6.2	6.1	4.7
8	8.1	12	12	17	20	18	9.5	6.3	6.1	5.2	5.2	4.7
9	7.5	12	11	16	19	18	9.2	5.9	5.7	5.0	4.8	4.8
10	7.3	15	11	14	19	17	8.9	5.7	11	5.3	4.6	4.8
11	8.1	20	11	13	18	16	8.5	6.1	13	4.9	4.4	7.0
12	8.8	12	11	11	17	14	8.0	5.7	8.1	4.8	4.5	7.8
13	10	11	10	11	17	13	7.9	5.5	7.8	4.7	4.5	7.8
14	8.2	9.9	9.6	11	18	13	8.1	5.5	7.3	4.7	4.5	8.3
15	8.6	9.7	9.2	12	18	12	7.8	5.4	6.4	4.7	4.5	7.2
16	11	12	9.8	12	19	12	7.7	6.2	5.8	4.6	4.5	7.6
17	15	13	10	11	20	14	7.7	5.6	5.5	4.6	4.6	7.8
18	12	18	9.2	12	21	14	7.3	5.5	5.1	4.6	4.6	6.9
19	9.5	47	8.9	11	22	15	7.3	5.3	4.9	4.6	4.5	7.4
20	15	24	8.8	11	20	13	7.5	5.3	4.8	4.5	4.4	6.5
21	18	14	8.5	11	19	13	7.1	5.4	4.7	e4.4	4.6	6.1
22	12	10	8.1	10	18	13	6.8	7.0	4.7	e4.3	6.3	5.9
23	13	9.0	8.0	14	17	12	6.8	6.3	4.8	4.4	6.3	6.1
24	11	9.9	8.8	23	17	13	6.4	5.6	5.1	4.3	6.0	6.2
25	9.3	9.9	9.0	27	16	13	6.4	5.6	5.1	4.3	8.3	5.9
26 27 28 29 30 31	9.0 9.1 11 14 13 11	9.7 8.8 8.4 8.2 7.8	9.0 10 12 10 9.1 9.0	19 15 14 31 33 26	16 18 18 17 	14 14 13 12 13 14	6.4 6.3 6.1 5.8 5.8	9.0 12 32 14 9.8 11	4.8 4.6 4.6 4.6 4.5	4.4 4.4 4.2 4.3 4.3 4.3	7.3 5.8 5.5 4.9 4.7 4.5	5.9 5.8 5.9 6.0 5.8
TOTAL	306.8	389.3	332.8	442.1	550	467	247.2	232.4	187.9	146.3	157.7	184.6
MEAN	9.90	13.0	10.7	14.3	19.0	15.1	8.24	7.50	6.26	4.72	5.09	6.15
MAX	18	47	23	33	23	24	13	32	13	6.2	8.3	8.3
MIN	6.1	7.8	7.6	7.0	16	12	5.8	5.3	4.5	4.2	4.3	4.7
AC-FT	609	772	660	877	1,090	926	490	461	373	290	313	366
CFSM	0.64	0.84	0.70	0.93	1.23	0.98	0.54	0.49	0.41	0.31	0.33	0.40
IN.	0.74	0.94	0.80	1.07	1.33	1.13	0.60	0.56	0.45	0.35	0.38	0.45
STATIST	ICS OF MO	ONTHLY M	EAN DATA	FOR WAT	ER YEARS	1975 - 2004	, BY WATE	R YEAR (W	Y)			
MEAN	8.67	11.6	17.0	17.4	17.2	17.5	15.4	10.2	7.61	5.76	6.37	6.31
MAX	10.8	16.1	32.6	26.8	26.4	23.3	27.0	12.8	10.5	7.18	9.18	7.27
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(1975)	(1976)	(2002)	(2001)	(2002)	(1976)	(1977)
MIN	5.69	8.60	9.05	8.06	7.63	12.7	8.24	7.50	5.32	3.66	4.31	5.22
(WY)	(1975)	(1977)	(1977)	(1977)	(1977)	(1977)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)

12158040 TULALIP CREEK NEAR TULALIP, WA-Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1975 - 2004
ANNUAL TOTAL	3,602.3	3,644.1	
ANNUAL MEAN	9.87	9.96	11.9
HIGHEST ANNUAL MEAN			16.1 2002
LOWEST ANNUAL MEAN			8.75 1977
HIGHEST DAILY MEAN	47 Nov 19	47 Nov 19	99 Dec 17, 2001
LOWEST DAILY MEAN	3.1 Jul 23	4.2 Jul 28	3.1 Jul 23, 2003
ANNUAL SEVEN-DAY MINIMUM	3.3 Jul 23	4.3 Jul 24	3.3 Jul 23, 2003
ANNUAL RUNOFF (AC-FT)	7,150	7,230	8,640
ANNUAL RUNOFF (CFSM)	0.641	0.647	0.774
ANNUAL RUNOFF (INCHES)	8.70	8.80	10.52
10 PERCENT EXCEEDS	16	18	23
50 PERCENT EXCEEDS	9.8	8.4	9.0
90 PERCENT EXCEEDS	4.2	4.6	5.3

e Estimated