

SNOHOMISH RIVER BASIN

12147600 SOUTH FORK TOLT RIVER NEAR INDEX, WA

LOCATION.--Lat 47°42'25", long 121°35'56", in NE 1/4 SW 1/4 sec.25, T.26 N., R.9 E., King County, Hydrologic Unit 17110010, on left bank 0.6 mi upstream from Phelps Creek, 8.1 mi south of Index, and at mile 12.9.

DRAINAGE AREA.--5.34 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1959 to December 1963, November 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,850 ft above sea level, from topographic map. Prior to Oct. 1, 1961, at datum 0.85 ft higher. Oct. 1, 1961 to Sept. 30, 1992, at datum 1.00 ft higher.

REMARKS.--Records fair except for those above 300 ft³/s and below 15 ft³/s, and estimated daily discharges, which are poor. No regulation or diversion upstream from station. A portion of flow is within the gravel streambed and is unmeasurable. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--35 years (water years 1961-63, 1969-2000), 55.0 ft³/s, 139.91 in/yr, 39,840 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,340 ft³/s Jan. 14, 1999; gage height 4.11 ft; maximum gage height, 8.13 ft, present datum, Dec. 14, 1959; minimum discharge, 2.2 ft³/s Oct. 9, 10, 1989, Sept. 9, 10, 1997, Sept. 14-17, 1998.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 550 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 08	0730	(a)1,000	3.73	Dec. 15	1445	(a)*1,500	*4.54
Oct. 28	2015	687	3.35	Dec. 18	0245	717	3.38
Nov. 12	0215	857	3.51	June 12	1215	737	3.40
Nov. 24	2115	954	3.59	Sept. 30	0445	869	3.52
Dec. 12	0115	562	3.21				

Minimum discharge, 3.0 ft³/s Oct. 4-5.

(a) estimate.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	59	101	39	187	37	40	61	75	31	11	5.8
2	3.5	35	222	28	98	38	58	95	76	28	10	5.5
3	3.3	35	78	32	45	41	76	130	74	32	8.9	5.3
4	3.1	49	51	100	32	43	89	87	90	38	8.5	5.0
5	3.1	30	43	49	26	30	68	70	92	28	8.4	4.7
6	3.3	54	109	33	28	23	54	57	80	27	8.1	6.8
7	37	40	68	35	38	19	43	48	83	26	7.5	6.9
8	e680	57	44	66	78	17	48	49	84	28	6.9	80
9	109	90	39	53	69	16	57	66	109	26	6.5	54
10	40	147	42	36	40	15	58	87	94	23	6.4	122
11	25	171	280	28	30	17	67	74	113	23	6.1	52
12	22	573	428	23	24	16	76	71	455	23	5.6	26
13	43	286	110	20	21	16	109	60	189	23	5.3	17
14	39	114	102	20	19	35	425	69	189	22	5.1	13
15	27	54	e1000	19	18	25	268	87	130	18	4.8	11
16	20	39	290	17	16	35	94	96	72	19	4.8	10
17	16	49	155	16	15	37	69	87	69	21	4.8	9.4
18	14	41	329	15	14	70	77	66	70	20	5.9	9.8
19	12	35	92	14	13	70	79	160	61	18	9.3	24
20	11	75	59	13	13	41	67	107	49	17	8.5	16
21	10	57	47	16	18	32	69	134	54	18	7.1	15
22	9.0	45	42	16	38	63	95	152	48	21	5.9	13
23	8.5	43	42	15	39	68	69	93	43	31	5.3	10
24	12	306	41	13	26	45	54	77	48	20	5.0	9.2
25	17	416	39	14	21	37	49	67	45	16	4.9	8.4
26	33	197	38	14	19	30	48	95	51	14	5.4	7.9
27	21	79	44	13	25	34	56	119	56	13	5.7	7.4
28	210	57	49	12	34	41	69	113	54	12	4.8	7.0
29	149	55	40	12	33	34	54	96	48	12	4.8	18
30	116	142	32	12	---	30	51	81	40	11	7.6	588
31	164	---	32	11	---	30	---	84	---	12	6.4	---
TOTAL	1864.5	3430	4088	804	1077	1085	2536	2738	2741	671	205.3	1168.1
MEAN	60.1	114	132	25.9	37.1	35.0	84.5	88.3	91.4	21.6	6.62	38.9
MAX	680	573	1000	100	187	70	425	160	455	38	11	588
MIN	3.1	30	32	11	13	15	40	48	40	11	4.8	4.7
AC-FT	3700	6800	8110	1590	2140	2150	5030	5430	5440	1330	407	2320
CFSM	11.3	21.4	24.7	4.86	6.95	6.55	15.8	16.5	17.1	4.05	1.24	7.29
IN.	12.99	23.89	28.48	5.60	7.50	7.56	17.67	19.07	19.09	4.67	1.43	8.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2000, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)
MEAN	43.7	80.5	76.2	72.3	63.1	46.5	63.5	80.1	68.0	32.0	13.9	25.1
MAX	107	181	165	154	150	93.4	116	140	160	81.3	37.4	56.9
(WY)	1986	1991	1976	1990	1982	1972	1988	1972	1974	1974	1975	1969
MIN	6.24	14.0	20.0	19.8	9.41	18.6	28.6	26.0	13.1	13.3	3.89	3.56
(WY)	1988	1980	1986	1981	1969	1962	1975	1992	1992	1961	1998	1998

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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1960 - 2000	
ANNUAL TOTAL	24652.4		22407.9		55.0	
ANNUAL MEAN	67.5		61.2		77.8	
HIGHEST ANNUAL MEAN					37.7	
LOWEST ANNUAL MEAN					1160	
HIGHEST DAILY MEAN	1000	Dec 15	1000	Dec 15	Nov 23 1986	
LOWEST DAILY MEAN	3.1	Oct 4	3.1	Oct 4	Sep 9 1997	
ANNUAL SEVEN-DAY MINIMUM	3.4	Sep 30	5.1	Aug 23	Sep 11 1998	
ANNUAL RUNOFF (AC-FT)	48900		44450		39840	
ANNUAL RUNOFF (CFSM)	12.6		11.5		10.3	
ANNUAL RUNOFF (INCHES)	171.74		156.10		139.91	
10 PERCENT EXCEEDS	142		113		116	
50 PERCENT EXCEEDS	41		38		34	
90 PERCENT EXCEEDS	10		7.5		8.0	

e Estimated