

## SNOHOMISH RIVER BASIN

12147500 NORTH FORK TOLT RIVER NEAR CARNATION, WA

LOCATION.--Lat 47°42'45", long 121°47'15", in SW 1/4 NE 1/4 sec.28, T.26 N., R.8 E., King County, Hydrologic Unit 17110010, on right bank 2.9 mi upstream from confluence with South Fork, 7.4 mi northeast of Carnation, and at mile 11.7.

DRAINAGE AREA.--39.9 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to December 1963, November 1967 to current year.

REVISED RECORDS.--WSP 1566: 1957. WSP 1932: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 600 ft above NGVD of 1929, from river-profile map.

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

AVERAGE DISCHARGE.--45 years (water years 1953-63, 1969-2002), 356 ft<sup>3</sup>/s, 121.29 in/yr, 258,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft<sup>3</sup>/s Dec. 15, 1959, gage height, 13.15 ft, from rating curve extended above 2,800 ft<sup>3</sup>/s; minimum discharge, 31 ft<sup>3</sup>/s Sept. 22, 23, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 14	1300	*4,360	*9.84	Jan. 7	2300	3,600	9.21
Dec. 13	1015	3,320	8.96	Feb. 22	1100	3,920	9.48
Dec. 16	1045	3,350	8.98	Apr. 14	0345	3,230	8.87

Minimum discharge, 46 ft<sup>3</sup>/s Sept. 28, 29.

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	69	523	522	320	271	316	404	556	536	481	116	62
2	66	645	599	465	259	296	380	584	534	347	111	69
3	63	410	401	393	270	281	340	591	522	309	107	123
4	62	351	348	371	260	273	354	437	538	279	106	84
5	61	455	321	322	251	293	421	398	857	276	106	69
6	59	325	341	528	280	266	580	364	768	271	119	64
7	59	280	348	2840	370	249	698	325	480	277	119	63
8	73	252	364	2090	326	239	461	309	424	393	106	62
9	97	232	420	939	300	230	506	299	393	282	101	63
10	155	216	339	556	296	243	991	291	453	286	99	62
11	576	207	309	453	310	868	1040	303	515	271	96	59
12	398	207	333	683	276	621	1720	398	600	248	93	56
13	462	299	2340	547	258	422	2040	558	683	236	92	55
14	710	2970	1260	411	243	362	2010	788	643	218	89	54
15	317	1190	641	354	236	331	863	506	532	197	87	52
16	228	763	2460	322	242	300	729	406	458	188	85	125
17	245	487	1630	298	251	274	581	609	388	186	83	133
18	203	385	730	285	351	259	496	546	581	179	80	82
19	1230	422	553	295	393	265	451	484	429	172	78	67
20	504	579	469	301	354	258	424	635	383	159	77	67
21	373	578	415	287	1660	243	404	557	444	153	77	62
22	707	661	377	268	2950	248	474	852	437	155	75	57
23	546	877	346	254	1280	250	523	614	389	152	73	54
24	540	545	324	643	745	254	425	510	339	146	72	51
25	1130	425	307	846	518	278	395	526	353	140	71	51
26	679	383	291	443	427	293	387	560	387	136	70	50
27	629	358	279	351	376	310	368	612	363	131	68	48
28	416	339	366	310	342	555	350	1160	553	125	66	47
29	327	460	337	286	---	457	385	1380	1260	132	65	70
30	367	397	295	280	---	442	474	769	429	133	63	76
31	696	---	318	287	---	393	---	621	---	126	63	---
TOTAL	12047	16221	18383	17028	14095	10369	19674	17548	15671	6784	2713	2037
MEAN	388.6	540.7	593.0	549.3	503.4	334.5	655.8	566.1	522.4	218.8	87.52	67.90
MAX	1230	2970	2460	2840	2950	868	2040	1380	1260	481	119	133
MIN	59	207	279	254	236	230	340	291	339	125	63	47
AC-FT	23900	32170	36460	33780	27960	20570	39020	34810	31080	13460	5380	4040
CFSM	9.74	13.6	14.9	13.8	12.6	8.38	16.4	14.2	13.1	5.48	2.19	1.70
IN.	11.23	15.12	17.14	15.88	13.14	9.67	18.34	16.36	14.61	6.32	2.53	1.90

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)

	MEAN	258.1	489.6	533.9	526.3	448.7	369.4	431.6	423.0	346.9	197.8	114.1	152.7
MAX	536	1145	1065	1160	1008	898	709	646	731	496	222	563	
(WY)	1960	1991	1976	1953	1982	1972	1959	1972	1955	1955	1955	1959	
MIN	38.5	69.0	192	222	166	172	249	214	136	80.1	48.7	49.6	
(WY)	1988	1953	1986	1957	1969	1992	1992	1992	1992	1958	1958	1998	

## SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1953 - 2002
ANNUAL TOTAL	116897	152570	
ANNUAL MEAN	320.3	418.0	356.2
HIGHEST ANNUAL MEAN			526
LOWEST ANNUAL MEAN			247
HIGHEST DAILY MEAN	2970	2970	5560
LOWEST DAILY MEAN	58	47	31
ANNUAL SEVEN-DAY MINIMUM	61	51	34
ANNUAL RUNOFF (AC-FT)	231900	302600	258000
ANNUAL RUNOFF (CFSM)	8.03	10.5	8.93
ANNUAL RUNOFF (INCHES)	108.99	142.25	121.29
10 PERCENT EXCEEDS	549	708	659
50 PERCENT EXCEEDS	261	339	278
90 PERCENT EXCEEDS	84	70	86