

SNOHOMISH RIVER BASIN

12148000 SOUTH FORK TOLT RIVER NEAR CARNATION, WA

LOCATION.--Lat 47°41'22", long 121°42'44", in SW 1/4 SW 1/4 sec.31, T.26 N., R.9 E., King County, Hydrologic Unit 17110010, on left bank 0.1 mi upstream from private road bridge, 1.6 mi downstream from South Fork Tolt Reservoir, 9.8 mi northeast of Carnation, and at mile 6.8.

DRAINAGE AREA.--19.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to December 1963, June 1969 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,300 ft above NGVD of 1929, from river-profile map.

REMARKS.--No estimated daily discharges. Records good. Regulation by South Fork Tolt Reservoir since September 1963. During the current water year the Seattle Water Department diverted an average daily discharge of about 89 ft³/s upstream from the station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--11 years (water years 1953-63), 198 ft³/s, 143,300 acre-ft/yr (unregulated).
33 years (water years 1970-2002), 104 ft³/s, 75,610 acre-ft/yr (regulated).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s Dec. 15, 1959, gage height, 7.45 ft, from rating curve extended above 2,700 ft³/s; maximum gage height, 7.62 ft Nov. 20, 1958, backwater from debris; minimum discharge, 8.4 ft³/s Sept. 12, 1963, minimum gage height, 0.81 ft Aug. 23-27, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 310 ft³/s Dec. 20-22, gage height, 3.18 ft; minimum discharge, 59 ft³/s Oct. 4-6,

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	60	72	78	209	67	149	80	80	81	89	64	69
2	60	75	76	168	67	148	79	80	81	67	67	70
3	60	73	72	70	67	148	77	80	80	63	67	69
4	60	74	71	63	66	146	77	79	80	63	67	65
5	60	72	70	62	66	138	79	79	85	63	67	62
6	60	67	74	65	68	68	79	79	81	63	67	62
7	60	63	73	85	70	64	83	77	75	63	66	62
8	61	60	77	84	69	65	79	76	74	65	65	62
9	61	60	75	71	68	66	82	76	73	63	66	62
10	62	60	72	67	69	68	91	76	72	63	67	62
11	65	60	72	66	68	78	92	75	69	63	67	62
12	65	60	73	69	66	73	98	75	68	63	67	63
13	66	63	110	68	66	72	107	78	68	62	67	63
14	66	116	94	122	66	71	107	82	68	62	67	63
15	64	87	84	226	66	71	95	79	67	62	67	63
16	65	83	102	226	66	70	94	77	66	62	67	64
17	64	77	118	226	66	68	90	81	66	62	67	64
18	65	74	195	187	68	68	87	79	68	64	67	63
19	84	74	180	144	70	70	87	79	66	64	66	63
20	71	74	191	145	73	69	86	80	66	63	66	63
21	71	74	294	143	85	68	84	81	66	63	66	63
22	72	83	309	144	100	68	84	81	66	63	66	63
23	70	91	305	144	86	68	84	81	65	63	67	63
24	77	76	279	125	78	68	83	79	64	62	67	62
25	87	73	209	84	74	68	81	79	63	62	67	63
26	77	70	209	70	134	68	81	79	63	62	67	62
27	77	69	209	68	195	70	80	81	64	62	67	62
28	73	69	209	66	184	81	79	91	68	62	68	62
29	72	76	209	66	---	79	79	94	118	62	68	66
30	73	73	209	66	---	81	79	85	129	62	69	64
31	74	---	209	68	---	79	---	82	---	62	69	---
TOTAL	2102	2198	4607	3467	2288	2568	2563	2480	2220	1974	2072	1906
MEAN	67.8	73.3	149	112	81.7	82.8	85.4	80.0	74.0	63.7	66.8	63.5
MAX	87	116	309	226	195	149	107	94	129	89	69	70
MIN	60	60	70	62	66	64	77	75	63	62	64	62
AC-FT	4170	4360	9140	6880	4540	5090	5080	4920	4400	3920	4110	3780

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	69.2	141	163	179	136	97.7	95.5	108	95.3	63.4	50.4	61.8
MAX	161	499	481	436	468	326	247	235	282	176	150	196
(WY)	1972	1991	1976	1984	1982	1972	1989	1974	1974	1969	1969	1972
MIN	32.9	35.1	43.7	42.3	34.9	33.5	31.1	47.3	37.8	29.7	29.5	33.0
(WY)	1988	1988	1988	1988	1977	1978	1978	1978	1973	1982	1977	1987

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	26283		30445			
ANNUAL MEAN	72.0		83.4		104	
HIGHEST ANNUAL MEAN					195	
LOWEST ANNUAL MEAN					52.3	
HIGHEST DAILY MEAN	309	Dec 22	309	Dec 22	3500	Nov 24 1990
LOWEST DAILY MEAN	47	Jan 11	60	Oct 1	21	Sep 1 1977
ANNUAL SEVEN-DAY MINIMUM	48	Jan 11	60	Oct 1	25	Aug 27 1977
ANNUAL RUNOFF (AC-FT)	52130		60390		75610	
10 PERCENT EXCEEDS	77		120		196	
50 PERCENT EXCEEDS	64		70		64	
90 PERCENT EXCEEDS	58		62		40	