

SNOHOMISH RIVER BASIN

12155300 PILCHUCK RIVER NEAR SNOHOMISH, WA

LOCATION.--Lat 47°56'06", long 122°04'19", in NW 1/4 NW 1/4 sec.8, T.28 N., R.6 E., Snohomish County, Hydrologic Unit 17110011, on right bank, 1.8 mi northeast of Snohomish, and at mile 3.6.

DRAINAGE AREA.--127 mi².

PERIOD OF RECORD.--May 1992 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 30.00 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--10 years (water years 1993-2002), 490 ft³/s, 52.44 in/yr, 355,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,480 Dec. 16, 1999, gage height, 19.16 ft; minimum discharge, 45 ft³/s Aug. 31, Sept. 1-3, 1994.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 24, 1990, reached a stage of 18.75 ft, from high-water mark at former bridge, discharge, 7,100 ft³/s (from slope-area measurement of peak flow).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|--------------------------------|------------------|---------|------|--------------------------------|------------------|
| Nov. 14 | 2130 | 2,630 | 13.19 | Jan. 08 | 0515 | 2,760 | 13.29 |
| Dec. 14 | 0815 | 4,240 | 15.40 | Jan. 25 | 1130 | 2,870 | 13.45 |
| Dec. 17 | 0600 | 3,910 | 14.96 | Feb. 22 | 2045 | *4,470 | *15.71 |

Minimum daily discharge, 48 ft³/s Sept. 15, 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 | e88 | 704 | 1740 | 516 | 977 | 546 | 834 | 375 | 336 | 266 | 89 | 52 |
| 2 | 86 | 670 | 1720 | 568 | 889 | 495 | 768 | 365 | 316 | 214 | 84 | 54 |
| 3 | e77 | 526 | 1190 | 562 | 842 | 454 | 640 | 470 | 300 | 194 | 82 | 80 |
| 4 | e74 | 417 | 983 | 494 | 822 | 425 | 587 | 361 | 287 | 178 | 80 | 74 |
| 5 | 69 | 705 | 947 | 475 | 734 | 416 | 611 | 475 | 525 | 175 | 85 | 61 |
| 6 | e67 | 481 | 1010 | 505 | 910 | 401 | 668 | 853 | 568 | 171 | 88 | 56 |
| 7 | e70 | 373 | 1060 | 1770 | 1200 | 373 | 778 | 747 | 361 | 179 | 83 | 56 |
| 8 | 70 | 315 | 882 | 2350 | 1230 | 360 | 616 | 597 | 338 | 368 | 79 | 63 |
| 9 | 95 | 274 | 1460 | 1460 | 1090 | 351 | 549 | 517 | 338 | 304 | 75 | 59 |
| 10 | 91 | 244 | 1090 | 912 | 929 | 405 | 1000 | 466 | 309 | 232 | 73 | 56 |
| 11 | e113 | 224 | 960 | 714 | 1070 | 747 | 1050 | 423 | 308 | 212 | 72 | 54 |
| 12 | e226 | 222 | 884 | 801 | 879 | 990 | 1580 | 405 | 312 | 187 | 69 | 55 |
| 13 | 461 | 263 | 2510 | 847 | 755 | 868 | 1360 | 456 | 335 | 171 | 73 | 51 |
| 14 | 622 | 1520 | 3550 | 657 | 662 | 993 | 1730 | 658 | 347 | 157 | 70 | 50 |
| 15 | 394 | 2130 | 2060 | 563 | 596 | 1060 | 1010 | 578 | 292 | 145 | 66 | 52 |
| 16 | 255 | 1480 | 2590 | 509 | 578 | 1060 | 1100 | 414 | 259 | 137 | 63 | 53 |
| 17 | 266 | 948 | 3080 | 471 | 571 | 899 | 998 | 478 | 225 | 131 | 62 | 98 |
| 18 | 214 | 705 | 1860 | 443 | 793 | 751 | 809 | 516 | 258 | 127 | 61 | 75 |
| 19 | 999 | 645 | 1430 | 699 | 883 | 850 | 669 | 404 | 252 | 121 | 61 | 62 |
| 20 | 780 | 942 | 1170 | 1100 | 900 | 1300 | 581 | 455 | 211 | 114 | 60 | 61 |
| 21 | 416 | 1050 | 987 | 1250 | 998 | 1070 | 518 | 458 | 227 | 109 | 60 | 61 |
| 22 | 1030 | 972 | 855 | 1060 | 3270 | 961 | 493 | 438 | 241 | 107 | 60 | 57 |
| 23 | 1220 | 1680 | 755 | 929 | 2340 | 871 | 574 | 439 | 225 | 107 | 59 | 54 |
| 24 | 848 | 1130 | 679 | 1490 | 1460 | 802 | 477 | 363 | 193 | 104 | 59 | 52 |
| 25 | 1420 | 842 | 616 | 2240 | 1040 | 818 | 412 | 351 | 187 | 100 | 56 | 51 |
| 26 | 981 | 842 | 567 | 1570 | 820 | 805 | 384 | 374 | 202 | 99 | 57 | 55 |
| 27 | 1180 | 740 | 527 | 1100 | 692 | 908 | 367 | 366 | 205 | 97 | 56 | 53 |
| 28 | 930 | 768 | 526 | 874 | 618 | 1220 | 335 | 691 | 279 | 94 | 55 | 49 |
| 29 | 610 | 1600 | 541 | 725 | --- | 1090 | 318 | 785 | 817 | 97 | 58 | 57 |
| 30 | 466 | 1740 | 480 | 693 | --- | 896 | 333 | 529 | 368 | 97 | 55 | 72 |
| 31 | 718 | --- | 485 | 863 | --- | 785 | --- | 398 | --- | 97 | 53 | --- |
| TOTAL | 14936 | 25152 | 39194 | 29210 | 28548 | 23970 | 22149 | 15205 | 9421 | 4891 | 2103 | 1783 |
| MEAN | 482 | 838 | 1264 | 942 | 1020 | 773 | 738 | 490 | 314 | 158 | 67.8 | 59.4 |
| MAX | 1420 | 2130 | 3550 | 2350 | 3270 | 1300 | 1730 | 853 | 817 | 368 | 89 | 98 |
| MIN | 67 | 222 | 480 | 443 | 571 | 351 | 318 | 351 | 187 | 94 | 53 | 49 |
| AC-FT | 29630 | 49890 | 77740 | 57940 | 56620 | 47540 | 43930 | 30160 | 18690 | 9700 | 4170 | 3540 |
| CFSM | 3.79 | 6.60 | 9.96 | 7.42 | 8.03 | 6.09 | 5.81 | 3.86 | 2.47 | 1.24 | 0.53 | 0.47 |
| IN. | 4.37 | 7.37 | 11.48 | 8.56 | 8.36 | 7.02 | 6.49 | 4.45 | 2.76 | 1.43 | 0.62 | 0.52 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

| | 344 | 679 | 943 | 854 | 718 | 682 | 541 | 427 | 282 | 185 | 101 | 114 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 344 | 679 | 943 | 854 | 718 | 682 | 541 | 427 | 282 | 185 | 101 | 114 |
| MAX | 697 | 1140 | 1467 | 1532 | 1110 | 1084 | 738 | 597 | 543 | 378 | 209 | 244 |
| (WY) | 1996 | 1996 | 2000 | 1997 | 1996 | 1997 | 2002 | 1999 | 1999 | 1997 | 1995 | 1997 |
| MIN | 116 | 179 | 379 | 434 | 264 | 418 | 375 | 208 | 118 | 105 | 57.8 | 52.8 |
| (WY) | 1993 | 1994 | 2001 | 2001 | 1993 | 1993 | 1995 | 1994 | 1992 | 1995 | 1994 | 1998 |

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1992 - 2002

| | | | | | | | | | | | | |
|--------------------------|--|--------|-------|--------|--|-------|--------|--|--------|--------|------|------|
| ANNUAL TOTAL | | 167569 | | 216562 | | | | | | | | |
| ANNUAL MEAN | | 459 | | 593 | | | | | | 490 | | |
| HIGHEST ANNUAL MEAN | | | | | | | | | | 721 | | 1997 |
| LOWEST ANNUAL MEAN | | | | | | | | | | 314 | | 2001 |
| HIGHEST DAILY MEAN | | | 3550 | Dec 14 | | 3550 | Dec 14 | | 5050 | Jan 1 | 1997 | |
| LOWEST DAILY MEAN | | | 56 | Sep 25 | | 49 | Sep 28 | | 45 | Sep 1 | 1994 | |
| ANNUAL SEVEN-DAY MINIMUM | | | 58 | Sep 19 | | 53 | Sep 10 | | 47 | Aug 27 | 1994 | |
| ANNUAL RUNOFF (AC-FT) | | 332400 | | 429600 | | | | | 355100 | | | |
| ANNUAL RUNOFF (CFSM) | | | 3.61 | | | 4.67 | | | 3.86 | | | |
| ANNUAL RUNOFF (INCHES) | | | 49.08 | | | 63.43 | | | 52.44 | | | |
| 10 PERCENT EXCEEDS | | | 980 | | | 1180 | | | 1040 | | | |
| 50 PERCENT EXCEEDS | | | 310 | | | 475 | | | 342 | | | |
| 90 PERCENT EXCEEDS | | | 73 | | | 61 | | | 74 | | | |

e Estimated