## 12398000 SULLIVAN CREEK AT METALINE FALLS, WA

LOCATION.--Lat 48°51'37", long 117°21'47", in SW 1/4 SW 1/4 sec.22, T.39 N., R.43 E., Pend Oreille County, Hydrologic Unit 17010216, on left pier of State highway bridge, 0.5 mi upstream from mouth, 0.5 mi east of Metaline Falls and at mile 0.5.

DRAINAGE AREA.--142 $mi^2$.

PERIOD OF RECORD.--October 1953 to November 1968, April 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,050 ft above NGVD of 1929, from topographic map. Aug. 24, 1956, to November 1968, water-stage recorder 100 ft downstream, at different datum. Prior to Aug. 24, 1956, staff gage at site 20 ft upstream at different datum.

REMARKS.--Records fair except for those above 1,000 $ft^3/s$, which are poor. Some regulation by storage in Sullivan Lake. Small diversions upstream from station for municipal water supply.

AVERAGE DISCHARGE.--23 years (water years 1954-68, 1995-2002), 240 $ft^3/s$, 174,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 4,350 $ft^3/s$ June 1, 1997, gage height, 4.38 ft; minimum discharge, 7.3 $ft^3/s$ Jan. 1, 1958, result of freezeup; minimum daily discharge, 27 $ft^3/s$ Jan. 1, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,670 $ft^3/s$ May 28, gage height, 2.21 ft, minimum discharge, 39 $ft^3/s$ Oct. 4, 5 and 7.

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 | 41 | 256 | 178 | 52 | 85 | 86 | 93 | 302 | 1240 | 310 | 92 | 67 |
| 2 | 41 | 248 | 159 | 57 | 84 | 83 | 90 | 360 | 1170 | 287 | 91 | 65 |
| 3 | 40 | 246 | 148 | 59 | 81 | 86 | 87 | 424 | 1190 | 263 | 89 | 69 |
| 4 | 40 | 243 | 137 | 57 | 80 | 86 | 88 | 430 | 1140 | 238 | 87 | 67 |
| 5 | 39 | 262 | 128 | 55 | 79 | 86 | 91 | 404 | 1160 | 225 | 86 | 64 |
| 6 | 39 | 286 | 124 | 57 | 79 | 83 | 100 | 372 | 1200 | 212 | 85 | 64 |
| 7 | 39 | 283 | 119 | 75 | 81 | 81 | 112 | 331 | 1100 | 201 | 84 | 63 |
| 8 | 40 | 296 | 110 | 171 | 81 | 79 | 110 | 300 | 988 | 271 | 82 | 62 |
| 9 | 41 | 299 | 104 | 156 | 78 | 82 | 107 | 278 | 883 | 278 | 81 | 62 |
| 10 | 42 | 295 | 94 | 140 | 78 | 87 | 119 | 261 | 739 | 244 | 80 | 61 |
| 11 | 46 | 291 | 93 | 135 | 78 | 89 | 128 | 251 | 694 | 232 | 79 | 61 |
| 12 | 45 | 287 | 85 | 137 | 69 | 90 | 151 | 252 | 728 | 218 | 77 | 60 |
| 13 | 45 | 293 | 91 | 135 | 75 | 87 | 227 | 277 | 793 | 208 | 76 | 59 |
| 14 | 47 | 324 | 95 | 128 | 72 | 85 | 481 | 361 | 894 | 202 | 75 | 59 |
| 15 | 45 | 357 | 83 | 111 | 70 | 86 | 520 | 380 | 924 | 191 | 75 | 59 |
| 16 | 43 | 380 | 86 | 107 | 72 | 87 | 418 | 375 | 913 | 174 | 73 | 59 |
| 17 | 43 | 385 | 96 | 109 | 74 | 84 | 347 | 393 | 834 | 167 | 72 | 61 |
| 18 | 42 | 368 | 79 | 101 | 72 | 82 | 310 | 439 | 831 | 161 | 71 | 64 |
| 19 | 42 | 359 | 79 | 108 | 72 | 84 | 284 | 514 | 826 | 152 | 70 | 61 |
| 20 | 42 | 353 | 74 | 110 | 72 | 83 | 267 | 836 | 711 | 142 | 70 | 59 |
| 21 | 43 | 346 | 73 | 109 | 71 | 76 | 265 | 988 | 656 | 138 | 70 | 59 |
| 22 | 72 | 342 | 70 | 102 | 81 | 83 | 285 | 1090 | 607 | 131 | 69 | 59 |
| 23 | 141 | 327 | 61 | 98 | 102 | 83 | 275 | 943 | 602 | 112 | 69 | 59 |
| 24 | 169 | 312 | 64 | 99 | 94 | 83 | 259 | 750 | 554 | 112 | 68 | 58 |
| 25 | 204 | 296 | 61 | 93 | 74 | 84 | 250 | 649 | 486 | 109 | 68 | 57 |
| 26 | 223 | 286 | 53 | 89 | 81 | 86 | 239 | 639 | 437 | 106 | 68 | 58 |
| 27 | 223 | 273 | 53 | 84 | 86 | 87 | 225 | 736 | 399 | 103 | 68 | 58 |
| 28 | 225 | 248 | 60 | 78 | 87 | 88 | 217 | 1150 | 372 | 100 | 67 | 57 |
| 29 | 224 | 222 | 63 | 70 | --- | 87 | 220 | 1410 | 391 | 98 | 68 | 58 |
| 30 | 233 | 196 | 61 | 81 | --- | 87 | 247 | 1340 | 343 | 97 | 71 | 64 |
| 31 | 249 | --- | 59 | 85 | --- | 90 | --- | 1260 | --- | 95 | 68 | --- |
| TOTAL | 2848 | 8959 | 2840 | 3048 | 2208 | 2630 | 6612 | 18495 | 23805 | 5577 | 2349 | 1833 |
| MEAN | 91.87 | 298.6 | 91.61 | 98.32 | 78.86 | 84.84 | 220.4 | 596.6 | 793.5 | 179.9 | 75.77 | 61.10 |
| MAX | 249 | 385 | 178 | 171 | 102 | 90 | 520 | 1410 | 1240 | 310 | 92 | 69 |
| MIN | 39 | 196 | 53 | 52 | 69 | 76 | 87 | 251 | 343 | 95 | 67 | 57 |
| AC-FT | 5650 | 17770 | 5630 | 6050 | 4380 | 5220 | 13110 | 36680 | 47220 | 11060 | 4660 | 3640 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2002, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 223.2 | 213.5 | 147.3 | 94.37 | 79.86 | 112.3 | 216.5 | 670.1 | 721.6 | 197.0 | 86.65 | 87.39 |
| MAX | 370 | 460 | 465 | 230 | 147 | 360 | 463 | 1398 | 1590 | 630 | 183 | 262 |
| (WY) | 1967 | 1996 | 1960 | 1957 | 1959 | 1959 | 1956 | 1997 | 1999 | 1999 | 1999 | 1957 |
| MIN | 55.4 | 52.7 | 44.6 | 40.8 | 35.6 | 42.2 | 65.9 | 266 | 189 | 92.5 | 54.3 | 43.0 |
| (WY) | 1959 | 1957 | 1958 | 1958 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 |

| SUMMARY STATISTICS | FOR 2001 CALENDAR YEAR | | FOR 2002 WATER YEAR | | WATER YEARS 1954 - 2002 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 40053 | | 81204 | | | |
| ANNUAL MEAN | 109.7 | | 222.5 | | 240.2 | |
| HIGHEST ANNUAL MEAN | | | | | 386 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 121 | 2001 |
| HIGHEST DAILY MEAN | 449 | May 25 | 1410 | May 29 | 4020 | Jun 1 1997 |
| LOWEST DAILY MEAN | 30 | Feb 7 | 39 | Oct 5 | 27 | Jan 1 1958 |
| ANNUAL SEVEN-DAY MINIMUM | 31 | Feb 5 | 40 | Oct 2 | 30 | Dec 31 1957 |
| ANNUAL RUNOFF (AC-FT) | 79450 | | 161100 | | 174000 | |
| 10 PERCENT EXCEEDS | 273 | | 534 | | 557 | |
| 50 PERCENT EXCEEDS | 57 | | 96 | | 115 | |
| 90 PERCENT EXCEEDS | 38 | | 59 | | 56 | |