

ENTIAT RIVER BASIN

12452990 ENTIAT RIVER NEAR ENTIAT, WA

LOCATION.--Lat 47°39'48", long 120°14'58", in NW 1/4 SE 1/4 sec.18, T.25 N., R.21 E., Chelan County, Hydrologic Unit 17020010, on left bank 200 ft upstream from bridge, 1.2 mi west of Entiat High School, and at mile 1.4.

DRAINAGE AREA.--419 mi².

PERIOD OF RECORD.--March 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 750 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. No regulation, but approximately 6 diversions and 50 small pumps divert water for agricultural irrigation upstream from station. U. S. Geological Survey telemeter at station.

AVERAGE DISCHARGE.--6 years (water years 1997-2002), 526 ft³/s, 381,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,600 ft³/s June 17, 1999, gage height, 11.20 ft; minimum daily discharge, 58 ft³/s Dec. 12, 2000, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,050 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|---------|------|--------------------------------|------------------|
| May 30 | 0730 | 2,910 | 9.84 | June 16 | 0645 | *3,250 | *10.04 |
| June 6 | 0600 | 2,800 | 9.77 | June 27 | 1115 | 2,080 | 9.27 |

Minimum daily discharge, 74 ft³/s Oct. 3-6, gage height 6.49 ft.

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 | 82 | 126 | 147 | 119 | 149 | 196 | 240 | 752 | 2420 | 1430 | 356 | 171 |
| 2 | 80 | 109 | 143 | 123 | 145 | 195 | 250 | 954 | 2320 | 1210 | 328 | 168 |
| 3 | 76 | 107 | 139 | 120 | 141 | 191 | 247 | 1100 | 2340 | 1080 | 313 | 165 |
| 4 | 76 | 104 | 137 | 116 | 139 | 188 | 248 | 1080 | 2360 | 1020 | 297 | 163 |
| 5 | 76 | 101 | 132 | 115 | 136 | 188 | 265 | 1010 | 2570 | 945 | 282 | 154 |
| 6 | 76 | 102 | 137 | 118 | 135 | 191 | 295 | 926 | 2690 | 866 | 273 | 147 |
| 7 | 77 | 99 | 133 | 128 | 137 | 186 | 311 | 850 | 2300 | 842 | 277 | 143 |
| 8 | 77 | 95 | 130 | 281 | 139 | 182 | 313 | 785 | 1830 | 1030 | 259 | 138 |
| 9 | 77 | 97 | 126 | 312 | 131 | 180 | 320 | 736 | 1560 | 1050 | 247 | 133 |
| 10 | 76 | 98 | 123 | 256 | 129 | 178 | 326 | 689 | 1480 | 959 | 246 | 126 |
| 11 | 85 | 96 | 127 | 235 | 128 | 184 | 352 | 666 | 1540 | 975 | 257 | 121 |
| 12 | 89 | 96 | 118 | 227 | 114 | 196 | 384 | 684 | 1760 | 1030 | 249 | 118 |
| 13 | 85 | 98 | 122 | 218 | 116 | 185 | 450 | 767 | 2150 | 982 | 236 | 117 |
| 14 | 91 | 141 | 139 | 208 | 127 | 180 | 822 | 855 | 2610 | 974 | 232 | 117 |
| 15 | 88 | 282 | 122 | e174 | 125 | 179 | 859 | 915 | 2940 | 893 | 243 | 114 |
| 16 | 87 | 266 | 134 | e170 | 125 | 181 | 751 | 946 | 3090 | 786 | 237 | 114 |
| 17 | 84 | 216 | 163 | e160 | 129 | 179 | 674 | 1030 | 2600 | 737 | 225 | 114 |
| 18 | 84 | 190 | 136 | e155 | 126 | 173 | 610 | 1160 | 2130 | 695 | 216 | 115 |
| 19 | 82 | 184 | 139 | e160 | 126 | 172 | 564 | 1220 | 1800 | 659 | 204 | 113 |
| 20 | 85 | 187 | 141 | e170 | 126 | 176 | 542 | 1370 | 1650 | 624 | 197 | 110 |
| 21 | 87 | 191 | 145 | 183 | 129 | 168 | 542 | 1560 | 1650 | 571 | 192 | 111 |
| 22 | 89 | 188 | 139 | 165 | 162 | 167 | 560 | 1570 | 1800 | 534 | 189 | 110 |
| 23 | 113 | 179 | 132 | 165 | 291 | 167 | 567 | 1470 | 1980 | 523 | 185 | 106 |
| 24 | 106 | 161 | 131 | 174 | 256 | 172 | 552 | 1410 | 1970 | 528 | 184 | 102 |
| 25 | 105 | 157 | 126 | 172 | 222 | 189 | 549 | 1420 | 1810 | 518 | 193 | 101 |
| 26 | 105 | 150 | 121 | 166 | 212 | 202 | 551 | 1500 | 1840 | 505 | 200 | 101 |
| 27 | 105 | 145 | 122 | e140 | 209 | 206 | 559 | 1630 | 2030 | 500 | 186 | 102 |
| 28 | 108 | 148 | 124 | e135 | 209 | 204 | 548 | 1980 | 1930 | 460 | 181 | 100 |
| 29 | 101 | 133 | 121 | e120 | --- | 209 | 561 | 2550 | 1920 | 433 | 177 | e99 |
| 30 | 102 | 142 | 121 | e130 | --- | 210 | 622 | 2840 | 1760 | 410 | 175 | e98 |
| 31 | 118 | --- | 121 | e140 | --- | 222 | --- | 2690 | --- | 387 | 178 | --- |
| TOTAL | 2772 | 4388 | 4091 | 5255 | 4313 | 5796 | 14434 | 39115 | 62830 | 24156 | 7214 | 3691 |
| MEAN | 89.4 | 146 | 132 | 170 | 154 | 187 | 481 | 1262 | 2094 | 779 | 233 | 123 |
| MAX | 118 | 282 | 163 | 312 | 291 | 222 | 859 | 2840 | 3090 | 1430 | 356 | 171 |
| MIN | 76 | 95 | 118 | 115 | 114 | 167 | 240 | 666 | 1480 | 387 | 175 | 98 |
| AC-FT | 5500 | 8700 | 8110 | 10420 | 8550 | 11500 | 28630 | 77580 | 124600 | 47910 | 14310 | 7320 |
| CFSM | 0.21 | 0.35 | 0.31 | 0.40 | 0.37 | 0.45 | 1.15 | 3.01 | 5.00 | 1.86 | 0.56 | 0.29 |
| IN. | 0.25 | 0.39 | 0.36 | 0.47 | 0.38 | 0.51 | 1.28 | 3.47 | 5.58 | 2.14 | 0.64 | 0.33 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|------|------|------|------|------|------|------|------|
| MEAN | 163 | 209 | 168 | 172 | 169 | 255 | 621 |
| MAX | 301 | 412 | 316 | 235 | 202 | 385 | 1090 |
| (WY) | 1998 | 2000 | 2000 | 2000 | 1997 | 1997 | 1996 |
| MIN | 89.4 | 133 | 118 | 108 | 92.1 | 125 | 165 |
| (WY) | 2002 | 1999 | 2001 | 2001 | 2001 | 2001 | 2001 |

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1996 - 2002

| | | | |
|--------------------------|--------|--------|--------|
| ANNUAL TOTAL | 74988 | 178055 | |
| ANNUAL MEAN | 205 | 488 | |
| HIGHEST ANNUAL MEAN | | | 526 |
| LOWEST ANNUAL MEAN | | | 699 |
| HIGHEST DAILY MEAN | 1480 | May 25 | 3090 |
| LOWEST DAILY MEAN | 60 | Feb 7 | 76 |
| ANNUAL SEVEN-DAY MINIMUM | 76 | Oct 3 | 76 |
| ANNUAL RUNOFF (AC-FT) | 148700 | 353200 | 381300 |
| ANNUAL RUNOFF (CFSM) | 0.49 | 1.16 | 1.26 |
| ANNUAL RUNOFF (INCHES) | 6.66 | 15.81 | 17.07 |
| 10 PERCENT EXCEEDS | 441 | 1520 | 1470 |
| 50 PERCENT EXCEEDS | 127 | 185 | 219 |
| 90 PERCENT EXCEEDS | 85 | 102 | 116 |

e Estimated