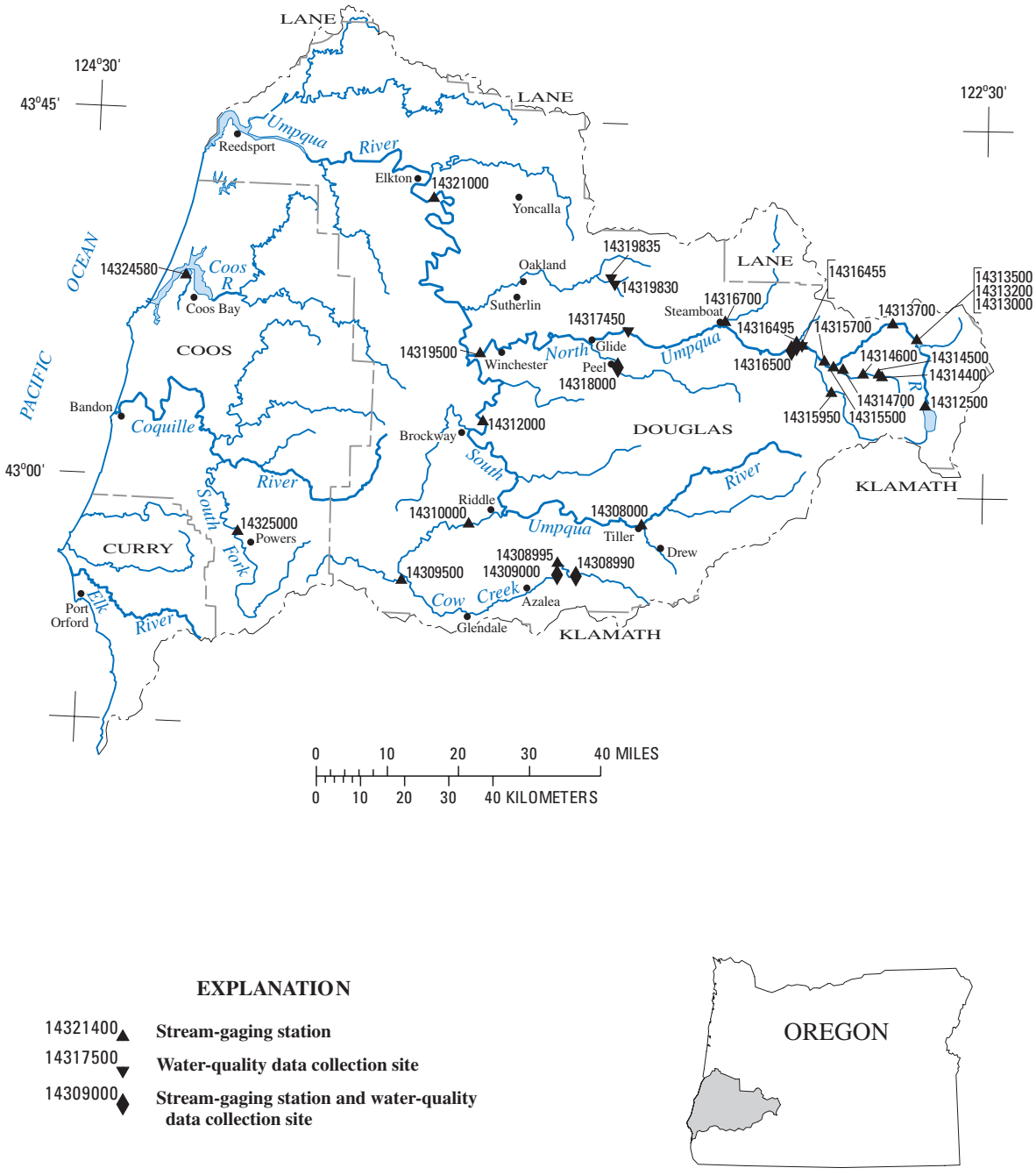



**Figure 29.** Location of surface-water and water-quality stations in the Umpqua, Coos, and Coquille River Basins.

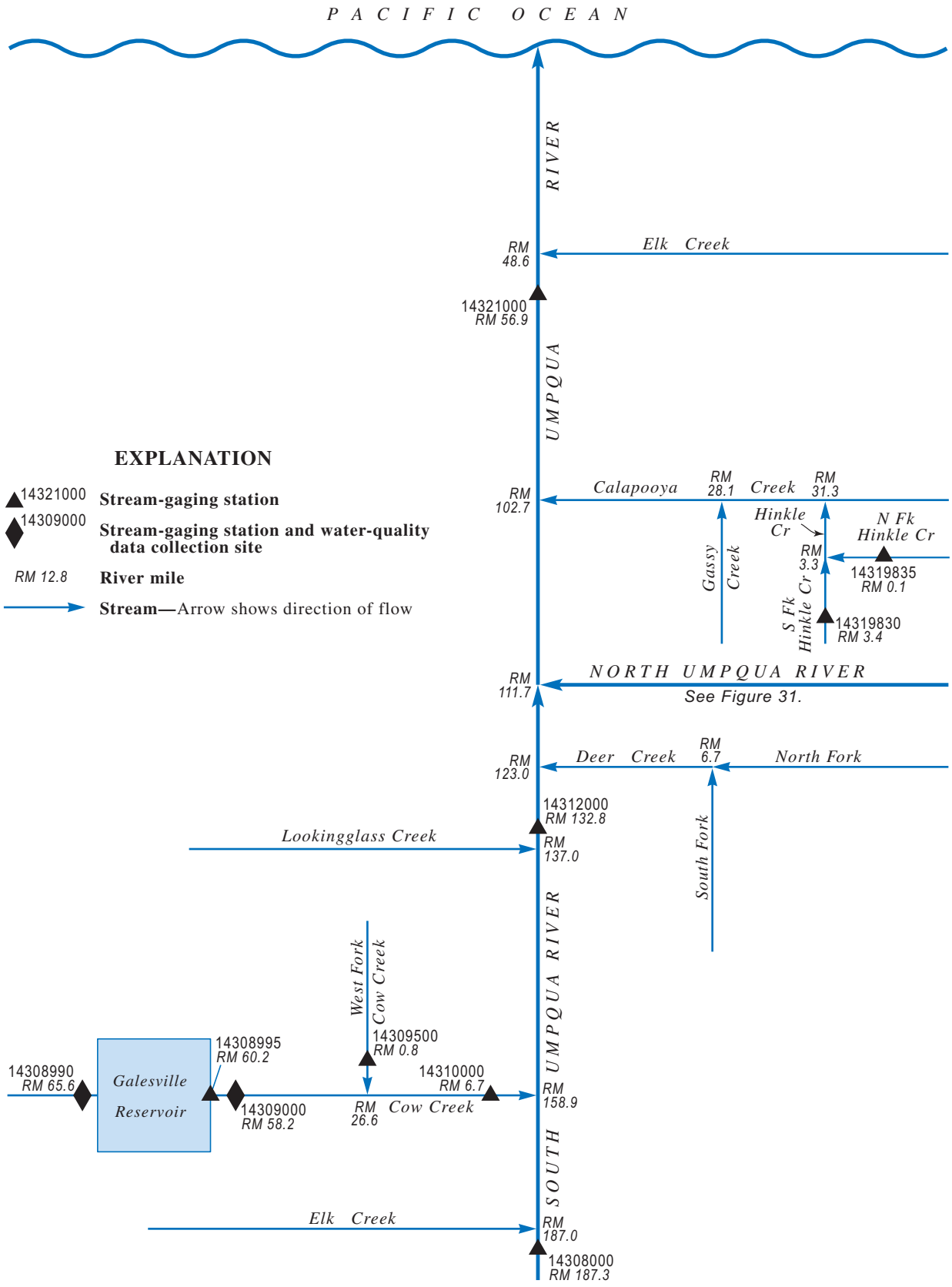



**Figure 30.** Schematic diagram showing gaging stations in the Umpqua and South Umpqua River Basins.

## 14308000 SOUTH UMPQUA RIVER AT TILLER, OR

LOCATION.--Lat 42°55'50", long 122°56'50", in NE $^1/_4$ sec.33, T.30 S., R.2 W., Douglas County, Hydrologic Unit 17100302, Umpqua National Forest, on left bank 0.3 mi upstream from bridge on State Highway 227 at Tiller, 0.3 mi upstream from Elk Creek and at mile 187.31.

DRAINAGE AREA.--449 mi$^2$.

PERIOD OF RECORD.--October 1910 to December 1911, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to December 1911, published as South Fork of Umpqua River at Tiller.

REVISED RECORDS.--WSP 1448: 1911(M), 1912, drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 991.8 ft above NGVD of 1929 (river-profile survey). Prior to Oct. 1, 1939, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. No regulation. Small diversions for irrigation upstream from station. National Weather Service telephone telemetry at station.

AVERAGE DISCHARGE.--67 years, (water years 1911, 1940-2005), 1,019 ft$^3$/s, 30.83 in/yr, 738,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,200 ft$^3$/s Dec. 22, 1964, gage height, 25.72 ft; minimum discharge observed, 20 ft$^3$/s Sept. 3, 4, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft$^3$/s and maximum (*):

| Date | Time | Discharge (ft$^3$/s) | Gage height (ft) | Date | Time | Discharge (ft$^3$/s) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Dec 9 | 1130 | *21,800 | *15.35 | May 10 | 1300 | 8,350 | 9.39 |

Minimum discharge, 44 ft$^3$/s, Oct. 5, 6, Sept. 9, 28-30, gage height, 0.69 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 51 | 237 | 204 | 514 | 439 | 262 | 2,160 | 968 | 835 | 231 | 86 | 50 |
| 2 | 50 | 207 | 200 | 518 | 403 | 251 | 1,960 | 933 | 757 | 221 | 85 | 49 |
| 3 | 48 | 821 | 188 | 476 | 375 | 239 | 1,870 | 858 | 675 | 211 | 85 | 48 |
| 4 | 47 | 572 | 178 | 447 | 359 | 231 | 2,290 | 880 | 610 | 202 | 82 | 48 |
| 5 | 45 | 379 | 173 | 411 | 357 | 220 | 2,230 | 1,340 | 572 | 192 | 79 | 48 |
| 6 | 44 | 288 | 202 | 378 | 342 | 210 | 2,000 | 1,710 | 722 | 185 | 76 | 47 |
| 7 | 46 | 235 | 1,220 | 374 | 367 | 203 | 2,570 | 2,000 | 961 | 180 | 74 | 46 |
| 8 | 51 | 201 | 6,580 | 426 | 342 | 198 | 3,400 | 2,910 | 1,020 | 176 | 73 | 46 |
| 9 | 99 | 178 | 16,600 | 403 | 325 | 194 | 3,120 | 4,380 | 904 | 177 | 71 | 45 |
| 10 | 112 | 163 | 7,120 | 415 | 310 | 192 | 2,440 | 7,490 | 786 | 189 | 69 | 49 |
| 11 | 75 | 151 | 3,490 | 490 | 299 | 190 | 2,220 | 5,290 | 704 | 182 | 67 | 70 |
| 12 | 62 | 141 | 2,290 | 469 | 291 | 187 | 2,080 | 3,400 | 640 | 166 | 66 | 66 |
| 13 | 57 | 134 | 1,690 | 436 | 334 | 183 | 1,730 | 2,490 | 573 | 159 | 66 | 55 |
| 14 | 54 | 127 | 1,530 | 410 | 350 | 174 | 1,470 | 1,950 | 528 | 152 | 65 | 51 |
| 15 | 51 | 121 | 1,300 | 515 | 325 | 167 | 1,300 | 1,690 | 487 | 147 | 62 | 50 |
| 16 | 50 | 125 | 1,040 | 1,360 | 306 | 163 | 1,220 | 1,720 | 459 | 142 | 61 | 49 |
| 17 | 64 | 121 | 865 | 1,810 | 287 | 162 | 1,990 | 2,000 | 554 | 136 | 61 | 60 |
| 18 | 344 | 114 | 742 | 2,370 | 273 | 168 | 2,050 | 2,520 | 498 | 130 | 60 | 83 |
| 19 | 310 | 115 | 657 | 2,160 | 277 | 176 | 1,760 | 2,830 | 459 | 125 | 60 | 63 |
| 20 | 184 | 109 | 582 | 1,740 | 342 | 204 | 1,490 | 2,220 | 414 | 120 | 59 | 55 |
| 21 | 140 | 104 | 519 | 1,410 | 437 | 222 | 1,300 | 1,970 | 380 | 117 | 57 | 52 |
| 22 | 137 | 101 | 467 | 1,160 | 388 | 248 | 1,360 | 1,620 | 355 | 116 | 56 | 50 |
| 23 | 1,210 | 99 | 425 | 1,010 | 348 | 332 | 1,350 | 1,350 | 337 | 112 | 56 | 50 |
| 24 | 780 | 97 | 389 | 894 | 318 | 404 | 1,430 | 1,140 | 319 | 108 | 55 | 54 |
| 25 | 407 | 199 | 362 | 799 | 295 | 355 | 1,360 | 990 | 300 | 104 | 54 | 54 |
| 26 | 338 | 574 | 392 | 771 | 278 | 339 | 1,220 | 867 | 285 | 101 | 53 | 50 |
| 27 | 280 | 364 | 397 | 799 | 263 | 1,200 | 1,140 | 771 | 276 | 100 | 51 | 47 |
| 28 | 215 | 284 | 398 | 690 | 274 | 3,360 | 1,280 | 794 | 274 | 96 | 50 | 46 |
| 29 | 181 | 235 | 437 | 607 | --- | 4,550 | 1,150 | 1,150 | 256 | 94 | 49 | 44 |
| 30 | 185 | 213 | 553 | 533 | --- | 3,280 | 1,020 | 1,140 | 242 | 91 | 49 | 44 |
| 31 | 288 | --- | 522 | 483 | --- | 2,160 | --- | 938 | --- | 88 | 51 | --- |
| TOTAL | 6,005 | 6,809 | 51,712 | 25,278 | 9,304 | 20,424 | 53,960 | 62,309 | 16,182 | 4,550 | 1,988 | 1,569 |
| MEAN | 194 | 227 | 1,668 | 815 | 332 | 659 | 1,799 | 2,010 | 539 | 147 | 64.1 | 52.3 |
| MAX | 1,210 | 821 | 16,600 | 2,370 | 439 | 4,550 | 3,400 | 7,490 | 1,020 | 231 | 86 | 83 |
| MIN | 44 | 97 | 173 | 374 | 263 | 162 | 1,020 | 771 | 242 | 88 | 49 | 44 |
| AC-FT | 11,910 | 13,510 | 102,600 | 50,140 | 18,450 | 40,510 | 107,000 | 123,600 | 32,100 | 9,020 | 3,940 | 3,110 |
| CFSM | 0.43 | 0.51 | 3.72 | 1.82 | 0.74 | 1.47 | 4.01 | 4.48 | 1.20 | 0.33 | 0.14 | 0.12 |
| IN. | 0.50 | 0.56 | 4.28 | 2.09 | 0.77 | 1.69 | 4.47 | 5.16 | 1.34 | 0.38 | 0.16 | 0.13 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2005, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 189 | 1,005 | 2,012 | 2,081 | 1,960 | 1,706 | 1,421 | 1,076 | 509 | 153 | 76.4 | 74.1 |
| MAX | 1,791 | 3,976 | 7,480 | 4,513 | 4,907 | 4,776 | 2,756 | 2,093 | 1,643 | 301 | 206 | 364 |
| (WY) | (1951) | (1974) | (1965) | (1972) | (1986) | (1972) | (1993) | (1963) | (1953) | (1953) | (1976) | (1986) |
| MIN | 34.5 | 48.2 | 66.6 | 89.7 | 95.1 | 328 | 433 | 231 | 108 | 49.5 | 29.9 | 38.9 |
| (WY) | (1988) | (1940) | (1977) | (1977) | (1977) | (1992) | (1968) | (1992) | (1992) | (1940) | (1940) | (1992) |

14308000 SOUTH UMPQUA RIVER AT TILLER, OR—Continued

| SUMMARY STATISTICS | FOR 2004 CALENDAR YEAR | | FOR 2005 WATER YEAR | | WATER YEARS 1911 - 2005 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 351,439 | | 260,090 | | | |
| ANNUAL MEAN | 960 | | 713 | | 1,019 | |
| HIGHEST ANNUAL MEAN | | | | | 1,762 | 1974 |
| LOWEST ANNUAL MEAN | | | | | 268 | 1977 |
| HIGHEST DAILY MEAN | 16,600 | Dec 9 | 16,600 | Dec 9 | 36,500 | Dec 22, 1964 |
| LOWEST DAILY MEAN | 44 | Oct 6 | 44 | Oct 6 | 20 | Sep 3, 1911 |
| ANNUAL SEVEN-DAY MINIMUM | 47 | Oct 1 | 47 | Sep 3 | 26 | Aug 27, 1940 |
| ANNUAL RUNOFF (AC-FT) | 697,100 | | 515,900 | | 738,200 | |
| ANNUAL RUNOFF (CFSM) | 2.14 | | 1.59 | | 2.27 | |
| ANNUAL RUNOFF (INCHES) | 29.12 | | 21.55 | | 30.83 | |
| 10 PERCENT EXCEEDS | 2,410 | | 1,950 | | 2,420 | |
| 50 PERCENT EXCEEDS | 520 | | 295 | | 500 | |
| 90 PERCENT EXCEEDS | 56 | | 53 | | 58 | |

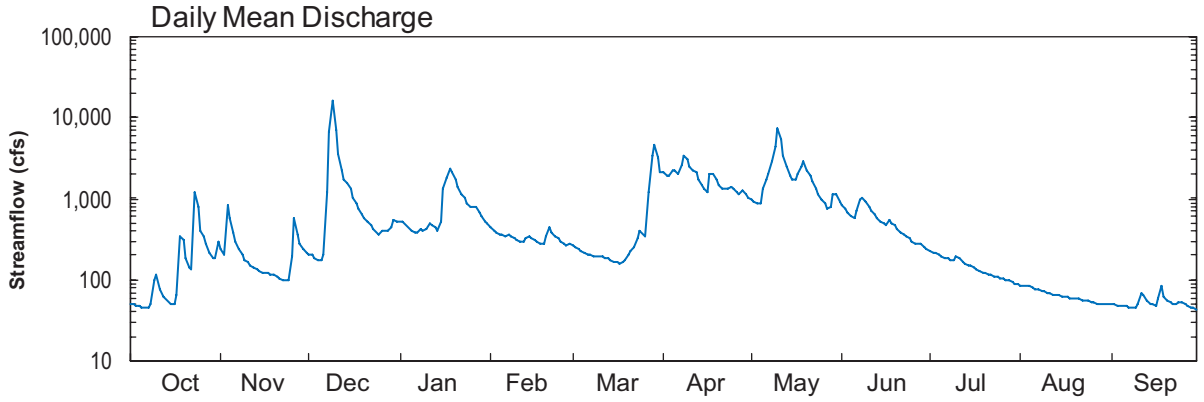
2005 Water Year

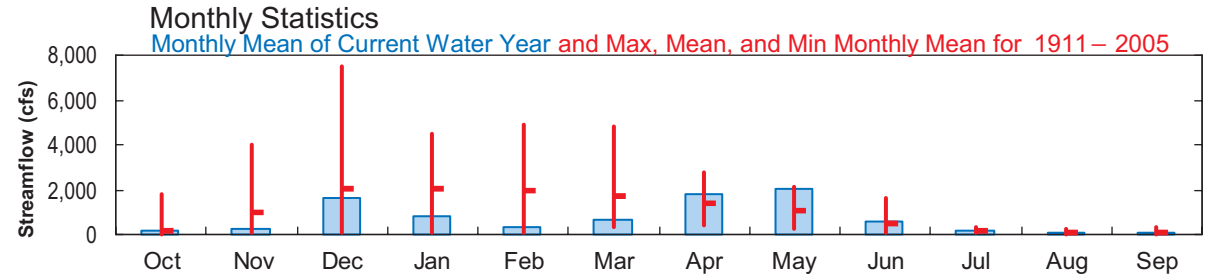
UMPQUA RIVER BASIN

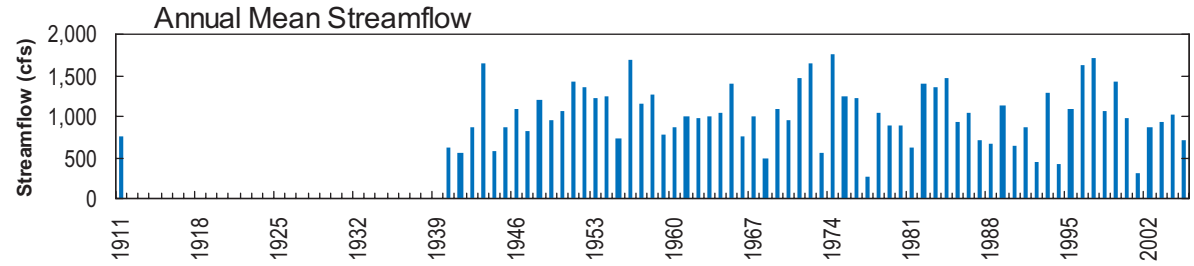
## 14308000 SOUTH UMPQUA RIVER AT TILLER, OR

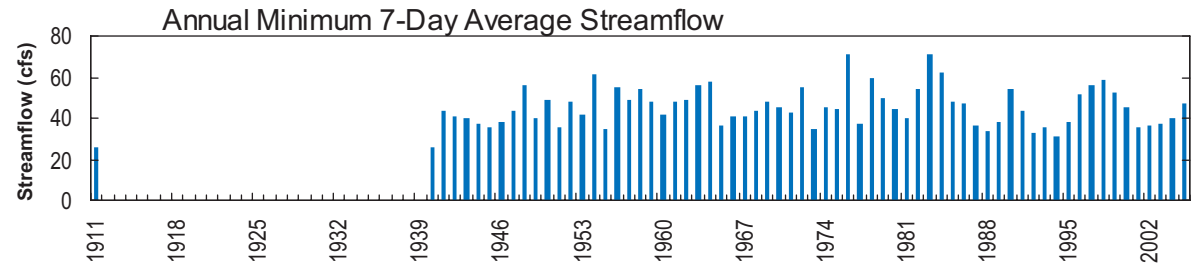
Latitude: 42°55'50" Longitude: 122°56'50" Hydrologic Unit Code: 17100302

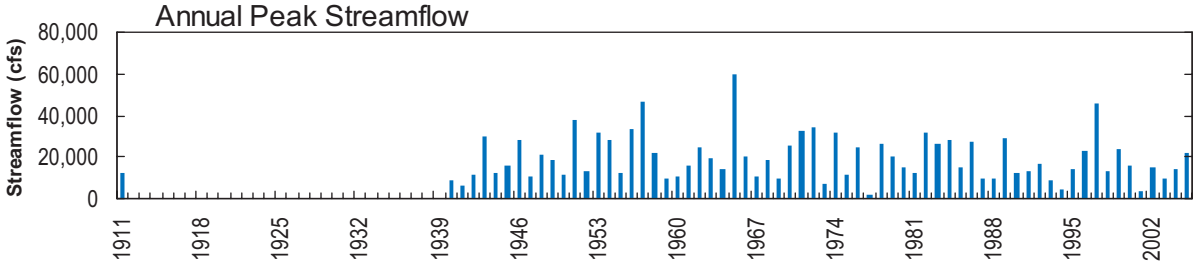
Douglas County Datum: 991.80 feet Drainage Area: 449 mi²



## 14308990 COW CREEK ABOVE GALESVILLE RESERVOIR, NEAR AZALEA, OR

LOCATION.--Lat 42°49'24", long 123°07'29", in SW $^1/_4$ NW $^1/_4$ sec.1, T.32 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on left bank, about 600 ft upstream from bridge on Houck Ranch Road (BLM), 1.1 mi downstream from Sugar Creek, 3.2 mi south of Galesville Dam, 6.9 mi northeast of Azalea and at mile 65.6

DRAINAGE AREA.--64.7 mi$^2$.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,900 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair.. No regulation or diversion upstream from station. Continuous water-quality records for the period November 1985 to September 1989 have been collected at this location.

AVERAGE DISCHARGE.--20 years (water years 1986-2005), 81.8 ft$^3$/s, 17.19 in/yr, 59,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 6,980 ft$^3$/s Jan. 9, 1995, gage height 12.04 ft, from rating curve extended above 2,450 ft$^3$/s; maximum gage height, 12.30 ft Jan. 9, 1995 (from outside highwater mark); minimum discharge, 3.5 ft$^3$/s Dec. 26, 1989, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1927 occurred Jan. 15, 1974. Stage and discharge not known at this site, but was 10,600 ft$^3$/s at site 7.4 mi downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft$^3$/s and maximum (*):

| Date | Time | Discharge (ft$^3$/s) | Gage height (ft) | Date | Time | Discharge (ft$^3$/s) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Dec. 9 | 0830 | *861 | *4.26 | | | | |

Minimum discharge, 5.3 ft$^3$/s, Sept. 1-3, gage height, 0.02 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.5 | 13 | 14 | 45 | 52 | 34 | 125 | 82 | 52 | 20 | 9.8 | 6.4 |
| 2 | 7.4 | 14 | 14 | 41 | 48 | 34 | 114 | 74 | 49 | 20 | 10 | 6.3 |
| 3 | 7.3 | 36 | 13 | 38 | 45 | e32 | 116 | 65 | 46 | 19 | 9.9 | 6.2 |
| 4 | 7.4 | 21 | 13 | 34 | 44 | e30 | 138 | 61 | 43 | 18 | 9.5 | 7.8 |
| 5 | 7.0 | 16 | 13 | 32 | 45 | 31 | 124 | 146 | 42 | 18 | 9.2 | 7.3 |
| 6 | 7.1 | 14 | 25 | 31 | 42 | 29 | 109 | 140 | 45 | 17 | 9.0 | 7.2 |
| 7 | 7.5 | 13 | 118 | 33 | 42 | 28 | 124 | 147 | 44 | 17 | 8.5 | 7.3 |
| 8 | 8.3 | 13 | 587 | 35 | 39 | 27 | 173 | 255 | 43 | 17 | 8.2 | 7.3 |
| 9 | 15 | 12 | 594 | 39 | 37 | 27 | 220 | 550 | 39 | 18 | 8.2 | 7.2 |
| 10 | 11 | 12 | 247 | 37 | 35 | 26 | 176 | 609 | 36 | 18 | 7.4 | 7.9 |
| 11 | 9.2 | 12 | 136 | 40 | 34 | 25 | 146 | 428 | 35 | 17 | 7.5 | 9.7 |
| 12 | 8.9 | 12 | 91 | 36 | 33 | 25 | 126 | 281 | 34 | 16 | 7.5 | 8.9 |
| 13 | 8.7 | 13 | 67 | 34 | 36 | 24 | 109 | 208 | 32 | 16 | 7.6 | 7.7 |
| 14 | 8.4 | 12 | 62 | 34 | e32 | 22 | 94 | 166 | 31 | 15 | 7.1 | 7.6 |
| 15 | 8.2 | 12 | 52 | 48 | 33 | 22 | 82 | 142 | 30 | 15 | 7.0 | 7.8 |
| 16 | 8.1 | 13 | 43 | 91 | 32 | 21 | 79 | 133 | 30 | 14 | 7.7 | 7.6 |
| 17 | 17 | 13 | 37 | 158 | 31 | 21 | 112 | 122 | 32 | 14 | 7.7 | 13 |
| 18 | 22 | 12 | 34 | 273 | 30 | 22 | 103 | 286 | 30 | 13 | 7.9 | 11 |
| 19 | 14 | 12 | 31 | 254 | 32 | 22 | 93 | 224 | 29 | 13 | 7.9 | 8.7 |
| 20 | 12 | 12 | 29 | 211 | 43 | 27 | 83 | 170 | 27 | 13 | 7.5 | 8.3 |
| 21 | 11 | 12 | 27 | 171 | 45 | 30 | 73 | 147 | 26 | 12 | 7.4 | 7.8 |
| 22 | 11 | 12 | 26 | 142 | 39 | 40 | 67 | 126 | 26 | 12 | 7.2 | 7.7 |
| 23 | 44 | 12 | 25 | 136 | 36 | 71 | 74 | 109 | 25 | 12 | 7.3 | 8.7 |
| 24 | 22 | 12 | 24 | 118 | 34 | 60 | 103 | 95 | 24 | 12 | 7.3 | 9.1 |
| 25 | 15 | 17 | 23 | 107 | 33 | 49 | 93 | 84 | 23 | 11 | 7.5 | 8.3 |
| 26 | 24 | 22 | 28 | 110 | 32 | 43 | 78 | 75 | 22 | 11 | 7.1 | 8.0 |
| 27 | 17 | 18 | 29 | 96 | 31 | 153 | 92 | 67 | 23 | 11 | 6.7 | 7.7 |
| 28 | 14 | 17 | 30 | 83 | 36 | 269 | 151 | 68 | 24 | 11 | 6.9 | 7.5 |
| 29 | 13 | 15 | 34 | 80 | --- | 321 | 99 | 65 | 22 | 10 | 7.1 | 7.6 |
| 30 | 13 | 14 | 42 | 66 | --- | 220 | 84 | 60 | 21 | 10 | 7.0 | 7.4 |
| 31 | 14 | --- | 44 | 58 | --- | 148 | --- | 54 | --- | 10 | 6.6 | --- |
| TOTAL | 400.0 | 438 | 2,552 | 2,711 | 1,051 | 1,933 | 3,360 | 5,239 | 985 | 450 | 243.2 | 241.0 |
| MEAN | 12.9 | 14.6 | 82.3 | 87.5 | 37.5 | 62.4 | 112 | 169 | 32.8 | 14.5 | 7.85 | 8.03 |
| MAX | 44 | 36 | 594 | 273 | 52 | 321 | 220 | 609 | 52 | 20 | 10 | 13 |
| MIN | 7.0 | 12 | 13 | 31 | 30 | 21 | 67 | 54 | 21 | 10 | 6.6 | 6.2 |
| AC-FT | 793 | 869 | 5,060 | 5,380 | 2,080 | 3,830 | 6,660 | 10,390 | 1,950 | 893 | 482 | 478 |
| CFSM | 0.20 | 0.23 | 1.27 | 1.35 | 0.58 | 0.96 | 1.73 | 2.61 | 0.51 | 0.22 | 0.12 | 0.12 |
| IN. | 0.23 | 0.25 | 1.47 | 1.56 | 0.60 | 1.11 | 1.93 | 3.01 | 0.57 | 0.26 | 0.14 | 0.14 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2005, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 12.7 | 51.1 | 147 | 195 | 183 | 150 | 105 | 74.3 | 33.0 | 15.7 | 9.88 | 9.35 |
| MAX | 27.2 | 269 | 862 | 506 | 483 | 315 | 213 | 208 | 83.8 | 30.2 | 15.8 | 18.8 |
| (WY) | (1998) | (1999) | (1997) | (1997) | (1999) | (1989) | (2003) | (1998) | (1998) | (1998) | (1993) | (1986) |
| MIN | 6.41 | 12.2 | 18.2 | 22.5 | 29.2 | 32.6 | 32.5 | 18.8 | 11.8 | 7.03 | 5.16 | 5.66 |
| (WY) | (1988) | (1988) | (1990) | (2001) | (2001) | (2001) | (1990) | (2001) | (2001) | (1994) | (1994) | (1994) |

14308990 COW CREEK ABOVE GALESVILLE RESERVOIR, NEAR AZALEA, OR—Continued

| SUMMARY STATISTICS | FOR 2004 CALENDAR YEAR | | FOR 2005 WATER YEAR | | WATER YEARS 1986 - 2005 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 23,563.7 | | 19,603.2 | | | |
| ANNUAL MEAN | 64.4 | | 53.7 | | 81.8 | |
| HIGHEST ANNUAL MEAN | | | | | 179 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 20.0 | 2001 |
| HIGHEST DAILY MEAN | 757 | Feb 17 | 609 | May 10 | 3,980 | Jan 1, 1997 |
| LOWEST DAILY MEAN | 6.2 | Aug 18 | 6.2 | Sep 3 | 4.2 | Sep 24, 1994 |
| ANNUAL SEVEN-DAY MINIMUM | 6.5 | Aug 15 | 6.6 | Aug 28 | 4.5 | Sep 21, 1994 |
| ANNUAL RUNOFF (AC-FT) | 46,740 | | 38,880 | | 59,290 | |
| ANNUAL RUNOFF (CFSM) | 0.995 | | 0.830 | | 1.26 | |
| ANNUAL RUNOFF (INCHES) | 13.55 | | 11.27 | | 17.19 | |
| 10 PERCENT EXCEEDS | 179 | | 136 | | 195 | |
| 50 PERCENT EXCEEDS | 25 | | 27 | | 30 | |
| 90 PERCENT EXCEEDS | 7.7 | | 7.6 | | 7.9 | |

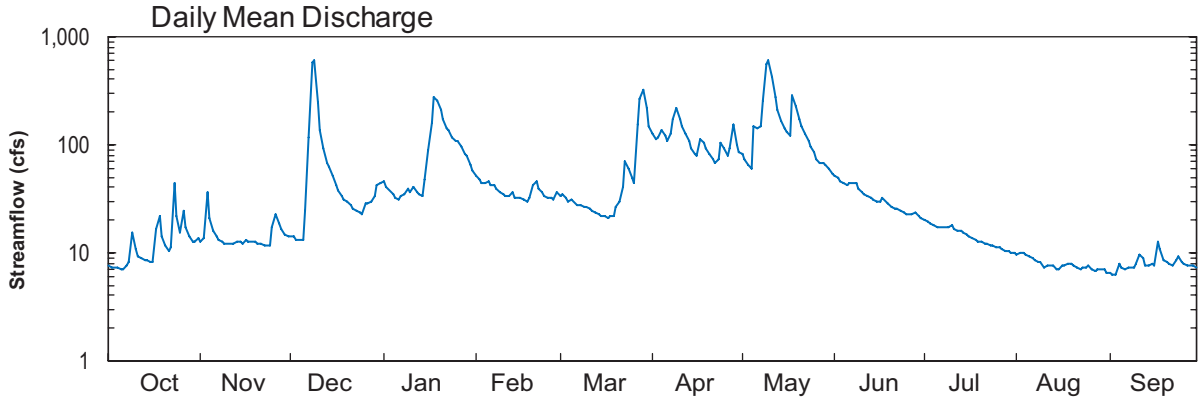
e Estimated

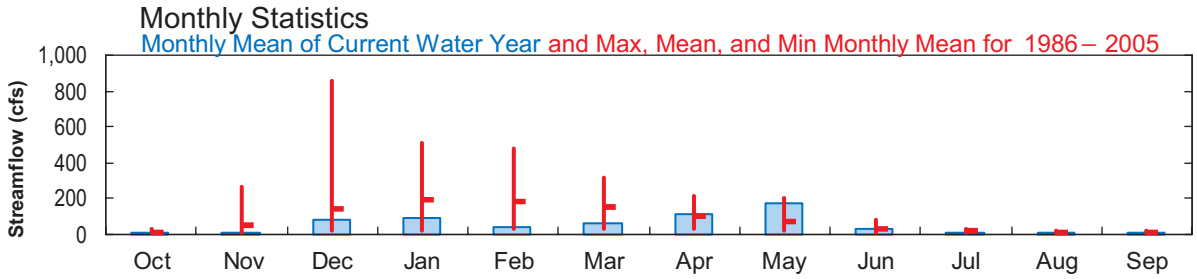
2005 Water Year

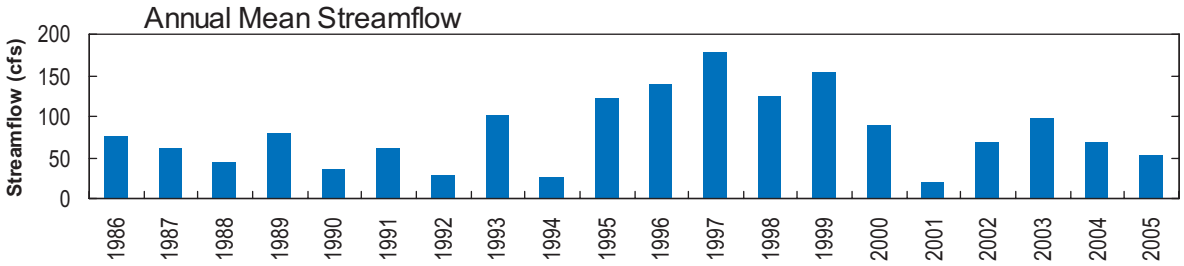
UMPQUA RIVER BASIN

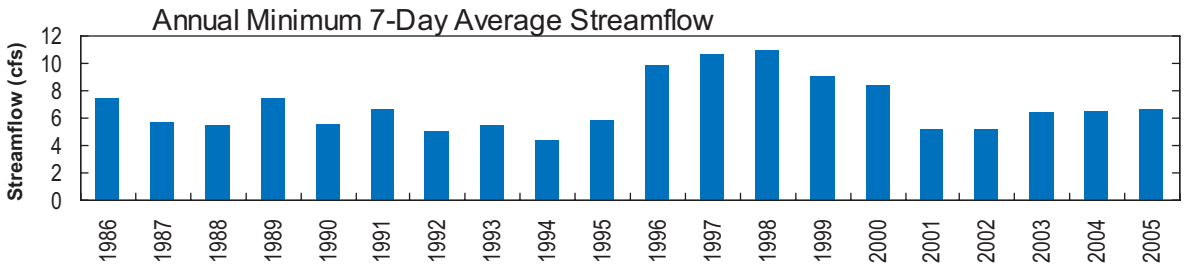
## 14308990 COW CREEK ABV GALESVILLE RES, NR AZALEA, OR

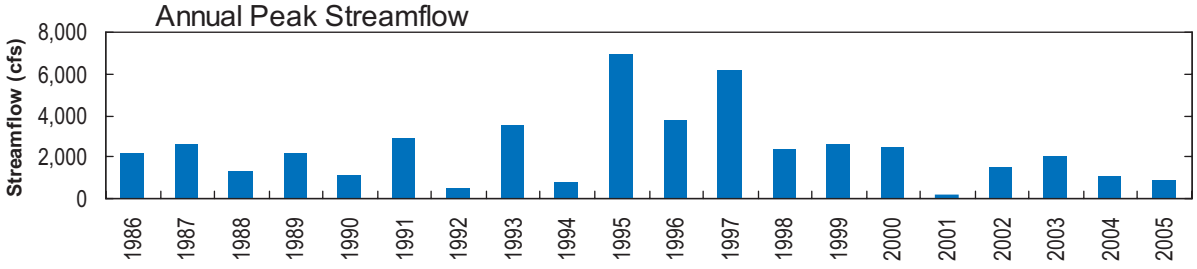
Latitude: 42°49'24" Longitude: 123°07'29" Hydrologic Unit Code: 17100302
Douglas County Datum: 1900 feet Drainage Area: 64.7 mi²



WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
TURBIDITY: October 1999 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Records good except for those greater than 100 FNU, which are fair and those for the period Oct. 1 to May 5, which are poor. Turbidity data are highly dependent on the instrumentation used for the measurement. See the "Definitions" section for turbidity in the front of this report.

EXTREMES FOR PERIOD OF RECORD.--
TURBIDITY: Maximum recorded, 182 FNU Dec. 30, 2002; minimum, <1 FNU many days each year.

EXTREMES FOR CURRENT YEAR.--
TURBIDITY: Maximum recorded, 143 FNU Dec. 8; minimum, <1 FNU many days during year.

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/ -2.5 DEGREES, FNU
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

| DAY | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
| 1 | 1 | <1 | <1 | <1 | <1 | <1 | --- | --- | --- | 2 | 1 | 2 |
| 2 | 2 | <1 | <1 | 10 | <1 | <1 | --- | --- | --- | 2 | 1 | 1 |
| 3 | 1 | <1 | <1 | 5 | <1 | 3 | <1 | <1 | <1 | 2 | 1 | 1 |
| 4 | 2 | <1 | <1 | 2 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | 1 |
| 5 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 |
| 6 | 1 | <1 | <1 | <1 | <1 | <1 | 43 | <1 | <1 | 2 | <1 | <1 |
| 7 | 1 | <1 | <1 | <1 | <1 | <1 | 43 | 12 | 17 | 2 | <1 | 1 |
| 8 | 1 | <1 | <1 | <1 | <1 | <1 | 143 | 16 | 42 | 2 | 1 | 2 |
| 9 | 2 | <1 | <1 | <1 | <1 | <1 | 59 | 16 | 29 | 2 | 1 | 1 |
| 10 | 1 | <1 | <1 | <1 | <1 | <1 | 16 | 8 | 11 | 2 | 1 | 1 |
| 11 | <1 | <1 | <1 | <1 | <1 | <1 | 9 | 4 | 6 | 2 | 2 | 2 |
| 12 | 1 | <1 | <1 | <1 | <1 | <1 | 4 | 3 | 4 | 2 | 1 | 2 |
| 13 | 2 | <1 | <1 | <1 | <1 | <1 | 4 | 2 | 3 | 2 | 1 | 1 |
| 14 | 1 | <1 | <1 | <1 | <1 | <1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 15 | 2 | <1 | <1 | <1 | <1 | <1 | 3 | 2 | 2 | 7 | 1 | 2 |
| 16 | <1 | <1 | <1 | <1 | <1 | <1 | 2 | 1 | 2 | 10 | 3 | 6 |
| 17 | 7 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | 1 | 15 | 9 | 10 |
| 18 | 4 | <1 | 2 | <1 | <1 | <1 | 2 | 1 | 1 | 14 | 10 | 12 |
| 19 | 2 | <1 | <1 | <1 | <1 | <1 | 2 | 1 | 1 | 12 | 6 | 8 |
| 20 | 1 | <1 | <1 | <1 | <1 | <1 | 2 | 1 | 1 | 7 | 5 | 6 |
| 21 | <1 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | 1 | 6 | 4 | 4 |
| 22 | 2 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 | 4 | 3 | 4 |
| 23 | 9 | 1 | 3 | <1 | <1 | <1 | 1 | <1 | <1 | 4 | 3 | 3 |
| 24 | 2 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 | 3 | 2 | 3 |
| 25 | 1 | <1 | <1 | 4 | <1 | 1 | 2 | <1 | <1 | 4 | 2 | 2 |
| 26 | 2 | <1 | <1 | 2 | <1 | 1 | 5 | <1 | 1 | 2 | 2 | 2 |
| 27 | <1 | <1 | <1 | <1 | <1 | <1 | 2 | 1 | 1 | 3 | 1 | 2 |
| 28 | <1 | <1 | <1 | <1 | <1 | <1 | 3 | <1 | 1 | 2 | 1 | 2 |
| 29 | <1 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | 1 | 2 | 1 | 2 |
| 30 | 1 | <1 | <1 | --- | --- | --- | 2 | 1 | 2 | 2 | 1 | 1 |
| 31 | 1 | <1 | <1 | --- | --- | --- | 2 | 1 | 2 | 2 | <1 | 1 |
| MAX | 9 | 1 | 3 | 10 | <1 | 3 | 143 | 16 | 42 | 15 | 10 | 12 |
| MIN | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 |

14308990 COW CREEK ABOVE GALESVILLE RESERVOIR, NEAR AZALEA, OR—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/ -2.5 DEGREES, FNU—CONTINUED

| DAY | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
| 1 | 1 | <1 | 1 | <1 | <1 | <1 | 3 | 2 | 2 | 3 | 1 | 2 |
| 2 | 2 | <1 | <1 | 1 | <1 | <1 | 3 | 2 | 2 | 2 | 1 | 2 |
| 3 | 2 | <1 | <1 | <1 | <1 | <1 | 5 | 1 | 2 | 2 | <1 | 1 |
| 4 | 1 | <1 | <1 | 1 | <1 | <1 | 5 | 3 | 4 | 1 | <1 | 1 |
| 5 | 2 | <1 | <1 | 1 | <1 | <1 | 4 | 2 | 3 | 12 | 1 | 6 |
| 6 | 2 | <1 | <1 | 1 | <1 | <1 | 2 | 2 | 2 | 5 | 2 | 3 |
| 7 | 1 | <1 | <1 | <1 | <1 | <1 | --- | --- | --- | 4 | 2 | 2 |
| 8 | 1 | <1 | <1 | <1 | <1 | <1 | --- | --- | --- | 19 | 2 | 5 |
| 9 | 1 | <1 | <1 | <1 | <1 | <1 | --- | --- | --- | 28 | 14 | 22 |
| 10 | <1 | <1 | <1 | <1 | <1 | <1 | --- | --- | --- | 23 | 13 | 17 |
| 11 | <1 | <1 | <1 | <1 | <1 | <1 | 3 | 2 | 2 | 13 | 7 | 10 |
| 12 | <1 | <1 | <1 | <1 | <1 | <1 | 2 | 1 | 2 | 7 | 4 | 5 |
| 13 | 1 | <1 | <1 | <1 | <1 | <1 | 2 | 1 | 1 | 5 | 3 | 4 |
| 14 | 1 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | 1 | 3 | 2 | 3 |
| 15 | <1 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | <1 | 3 | 2 | 2 |
| 16 | <1 | <1 | <1 | <1 | <1 | <1 | 4 | <1 | 1 | 2 | 2 | 2 |
| 17 | <1 | <1 | <1 | <1 | <1 | <1 | 5 | 2 | 2 | 2 | 2 | 2 |
| 18 | <1 | <1 | <1 | <1 | <1 | <1 | 4 | 2 | 2 | 31 | 2 | 12 |
| 19 | <1 | <1 | <1 | <1 | <1 | <1 | 3 | 1 | 2 | 9 | 4 | 6 |
| 20 | 4 | <1 | 1 | <1 | <1 | <1 | 3 | <1 | 1 | 4 | 3 | 3 |
| 21 | 1 | <1 | <1 | <1 | <1 | <1 | 4 | <1 | 1 | 3 | 2 | 2 |
| 22 | 1 | <1 | <1 | --- | --- | --- | 5 | <1 | 1 | 3 | 2 | 2 |
| 23 | <1 | <1 | <1 | --- | --- | --- | 3 | 1 | 1 | 3 | 1 | 2 |
| 24 | <1 | <1 | <1 | 1 | <1 | 1 | 5 | 2 | 3 | 2 | 1 | 1 |
| 25 | 1 | <1 | <1 | 1 | <1 | <1 | 5 | 2 | 2 | 2 | <1 | 1 |
| 26 | 1 | <1 | <1 | 1 | <1 | <1 | 4 | <1 | 2 | 3 | <1 | 1 |
| 27 | 1 | <1 | <1 | 53 | <1 | 2 | 125 | <1 | 1 | 2 | <1 | 1 |
| 28 | 1 | <1 | <1 | 32 | 8 | 10 | 89 | 4 | 8 | 2 | <1 | 1 |
| 29 | --- | --- | --- | 20 | 8 | 13 | 4 | 2 | 3 | 1 | <1 | <1 |
| 30 | --- | --- | --- | 11 | 6 | 8 | 4 | 2 | 2 | 1 | <1 | <1 |
| 31 | --- | --- | --- | 6 | 3 | 4 | --- | --- | --- | 1 | <1 | <1 |
| MAX | 4 | <1 | 1 | 53 | 8 | 13 | 125 | 4 | 8 | 31 | 14 | 22 |
| MIN | <1 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | <1 | 1 | <1 | <1 |
| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
| 1 | 1 | <1 | <1 | 1 | <1 | <1 | 2 | <1 | <1 | 1 | <1 | <1 |
| 2 | <1 | <1 | <1 | 2 | <1 | <1 | 2 | <1 | <1 | 1 | <1 | <1 |
| 3 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 |
| 4 | <1 | <1 | <1 | 3 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 |
| 5 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 |
| 6 | 1 | <1 | <1 | 1 | <1 | <1 | 2 | <1 | <1 | 1 | <1 | <1 |
| 7 | 1 | <1 | <1 | 2 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 8 | 1 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 | 2 | <1 | <1 |
| 9 | 1 | <1 | <1 | 1 | <1 | <1 | 2 | <1 | <1 | <1 | <1 | <1 |
| 10 | 1 | <1 | <1 | 1 | <1 | <1 | 2 | <1 | <1 | <1 | <1 | <1 |
| 11 | 2 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 | <1 | <1 | <1 |
| 12 | 2 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | <1 | 1 | <1 | <1 |
| 13 | 1 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 |
| 14 | 2 | <1 | <1 | 2 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 |
| 15 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 |
| 16 | 2 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 | <1 | <1 | <1 |
| 17 | 1 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 | 2 | <1 | <1 |
| 18 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 |
| 19 | 1 | <1 | <1 | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 20 | 1 | <1 | <1 | <1 | <1 | <1 | 1 | <1 | <1 | <1 | <1 | <1 |
| 21 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 |
| 22 | <1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 | 2 | <1 | <1 |
| 23 | 2 | <1 | <1 | 1 | <1 | <1 | 2 | <1 | <1 | 1 | <1 | <1 |
| 24 | 2 | <1 | <1 | 2 | <1 | <1 | <1 | <1 | <1 | 4 | <1 | <1 |
| 25 | 1 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | <1 | 2 | <1 | <1 |
| 26 | 1 | <1 | <1 | 1 | <1 | <1 | 2 | <1 | <1 | <1 | <1 | <1 |
| 27 | 1 | <1 | <1 | 2 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 |
| 28 | 1 | <1 | <1 | 1 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | <1 |
| 29 | 2 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 |
| 30 | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 3 | <1 | <1 |
| 31 | --- | --- | --- | 2 | <1 | <1 | <1 | <1 | <1 | --- | --- | --- |
| MAX | 2 | <1 | <1 | 3 | <1 | <1 | 2 | <1 | <1 | 4 | <1 | <1 |
| MIN | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |

## 14308995 GALESVILLE RESERVOIR NEAR AZALEA, OR

LOCATION.--Lat 42°50'56", long 123°10'40", in NE $\frac{1}{4}$ sec.28, T.31 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on the upstream face of Galesville dam to the right side of the spillway section, 1.2 mi downstream from McGinnis Creek, 5.6 mi northeast of Azalea and at mile 60.2.

DRAINAGE AREA.--74.3 $mi^2$.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Douglas County).

REMARKS.--Reservoir is formed by a roller compacted concrete dam; storage began Oct. 7, 1985. Capacity, 42,220 acre-ft between elevations 1,780.0 ft (bottom of evacuation outlet) and 1,881.5 ft (crest of spillway). Dead storage, 1,800 acre-ft below elevation 1,780.0 ft. Reservoir is used for irrigation, power generation, flood control, and recreation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Douglas County Public Works Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 43,230 acre-ft Jan. 2, 3, 1997, elevation, 1,883.62 ft; minimum contents, 7,240 acre-ft Jan. 9, 10, 1991, elevation, 1,805.03 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 36,110 acre-ft June 9, elevation, 1,871.98 ft; minimum contents, 20,300 acre-ft Dec. 7, elevation, 1,841.08 ft.

Capacity Table (elevation, in feet and contents, in acre-feet)

| | | | | | |
|---|---|---|---|---|---|
| 1,780 | 1,800 | 1,820 | 11,950 | 1,860 | 29,480 |
| 1,790 | 3,590 | 1,830 | 15,660 | 1,870 | 34,970 |
| 1,800 | 5,890 | 1,840 | 19,820 | 1,880 | 40,930 |
| 1,810 | 8,700 | 1,850 | 24,420 | 1,885 | 44,130 |

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY OBSERVATION AT 2400 HOURS

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,852.16 | 1,845.27 | 1,841.54 | 1,842.87 | 1,846.89 | 1,846.69 | 1,850.09 | 1,856.85 | 1,871.79 | 1,871.12 | 1,868.14 | 1,863.97 |
| 2 | 1,851.94 | 1,845.11 | 1,841.45 | 1,842.85 | 1,846.89 | 1,846.67 | 1,850.31 | 1,856.94 | 1,871.83 | 1,871.06 | 1,868.03 | 1,863.87 |
| 3 | 1,851.70 | 1,844.99 | 1,841.38 | 1,842.82 | 1,846.90 | 1,846.65 | 1,850.58 | 1,857.01 | 1,871.86 | 1,870.98 | 1,867.90 | 1,863.74 |
| 4 | 1,851.45 | 1,844.79 | 1,841.31 | 1,842.77 | 1,846.87 | 1,846.63 | 1,850.89 | 1,857.13 | 1,871.87 | 1,870.91 | 1,867.79 | 1,863.61 |
| 5 | 1,851.21 | 1,844.58 | 1,841.24 | 1,842.72 | 1,846.87 | 1,846.61 | 1,851.15 | 1,857.56 | 1,871.89 | 1,870.83 | 1,867.66 | 1,863.47 |
| 6 | 1,850.96 | 1,844.38 | 1,841.30 | 1,842.66 | 1,846.90 | 1,846.59 | 1,851.39 | 1,857.94 | 1,871.93 | 1,870.74 | 1,867.53 | 1,863.33 |
| 7 | 1,850.71 | 1,844.19 | 1,841.09 | 1,842.63 | 1,846.90 | 1,846.57 | 1,851.72 | 1,858.35 | 1,871.95 | 1,870.67 | 1,867.41 | 1,863.19 |
| 8 | 1,850.52 | 1,843.98 | 1,842.94 | 1,842.54 | 1,846.89 | 1,846.55 | 1,852.20 | 1,859.22 | 1,871.97 | 1,870.60 | 1,867.26 | 1,863.06 |
| 9 | 1,850.31 | 1,843.81 | 1,844.66 | 1,842.42 | 1,846.87 | 1,846.53 | 1,852.86 | 1,861.20 | 1,871.97 | 1,870.53 | 1,867.13 | 1,862.92 |
| 10 | 1,850.07 | 1,843.66 | 1,844.95 | 1,842.31 | 1,846.86 | 1,846.50 | 1,853.35 | 1,863.31 | 1,871.96 | 1,870.45 | 1,866.99 | 1,862.81 |
| 11 | 1,849.82 | 1,843.52 | 1,844.76 | 1,842.22 | 1,846.86 | 1,846.48 | 1,853.70 | 1,864.73 | 1,871.95 | 1,870.38 | 1,866.86 | 1,862.69 |
| 12 | 1,849.56 | 1,843.39 | 1,844.54 | 1,842.10 | 1,846.85 | 1,846.45 | 1,853.98 | 1,865.60 | 1,871.94 | 1,870.30 | 1,866.72 | 1,862.55 |
| 13 | 1,849.30 | 1,843.25 | 1,844.48 | 1,842.04 | 1,846.86 | 1,846.41 | 1,854.17 | 1,866.22 | 1,871.92 | 1,870.20 | 1,866.59 | 1,862.42 |
| 14 | 1,849.03 | 1,843.11 | 1,844.45 | 1,842.03 | 1,846.85 | 1,846.37 | 1,854.33 | 1,866.69 | 1,871.89 | 1,870.12 | 1,866.46 | 1,862.29 |
| 15 | 1,848.78 | 1,842.98 | 1,844.38 | 1,842.01 | 1,846.84 | 1,846.34 | 1,854.43 | 1,867.07 | 1,871.79 | 1,870.03 | 1,866.32 | 1,862.16 |
| 16 | 1,848.50 | 1,842.86 | 1,844.26 | 1,842.13 | 1,846.82 | 1,846.30 | 1,854.56 | 1,867.43 | 1,871.77 | 1,869.94 | 1,866.19 | 1,862.04 |
| 17 | 1,848.36 | 1,842.74 | 1,844.15 | 1,842.57 | 1,846.81 | 1,846.27 | 1,854.78 | 1,867.71 | 1,871.76 | 1,869.85 | 1,866.04 | 1,861.95 |
| 18 | 1,848.16 | 1,842.64 | 1,844.03 | 1,843.49 | 1,846.79 | 1,846.25 | 1,854.97 | 1,868.64 | 1,871.75 | 1,869.75 | 1,865.91 | 1,861.83 |
| 19 | 1,847.93 | 1,842.51 | 1,843.91 | 1,844.32 | 1,846.79 | 1,846.23 | 1,855.11 | 1,869.30 | 1,871.73 | 1,869.64 | 1,865.79 | 1,861.71 |
| 20 | 1,847.69 | 1,842.38 | 1,843.78 | 1,844.93 | 1,846.81 | 1,846.21 | 1,855.22 | 1,869.88 | 1,871.69 | 1,869.53 | 1,865.65 | 1,861.59 |
| 21 | 1,847.45 | 1,842.25 | 1,843.66 | 1,845.40 | 1,846.78 | 1,846.21 | 1,855.29 | 1,870.26 | 1,871.64 | 1,869.43 | 1,865.53 | 1,861.45 |
| 22 | 1,847.27 | 1,842.13 | 1,843.55 | 1,845.72 | 1,846.77 | 1,846.21 | 1,855.36 | 1,870.56 | 1,871.61 | 1,869.32 | 1,865.39 | 1,861.32 |
| 23 | 1,847.22 | 1,842.01 | 1,843.41 | 1,846.01 | 1,846.76 | 1,846.25 | 1,855.42 | 1,870.81 | 1,871.56 | 1,869.19 | 1,865.25 | 1,861.21 |
| 24 | 1,847.04 | 1,841.90 | 1,843.29 | 1,846.23 | 1,846.75 | 1,846.26 | 1,855.61 | 1,871.02 | 1,871.51 | 1,869.07 | 1,865.12 | 1,861.09 |
| 25 | 1,846.84 | 1,841.87 | 1,843.19 | 1,846.41 | 1,846.73 | 1,846.24 | 1,855.75 | 1,871.15 | 1,871.45 | 1,868.95 | 1,864.98 | 1,860.96 |
| 26 | 1,846.65 | 1,841.83 | 1,843.12 | 1,846.59 | 1,846.71 | 1,846.21 | 1,855.88 | 1,871.29 | 1,871.39 | 1,868.85 | 1,864.85 | 1,860.82 |
| 27 | 1,846.43 | 1,841.78 | 1,843.05 | 1,846.72 | 1,846.71 | 1,846.62 | 1,856.07 | 1,871.39 | 1,871.36 | 1,868.73 | 1,864.71 | 1,860.69 |
| 28 | 1,846.20 | 1,841.72 | 1,842.99 | 1,846.82 | 1,846.70 | 1,847.58 | 1,856.45 | 1,871.50 | 1,871.31 | 1,868.61 | 1,864.57 | 1,860.53 |
| 29 | 1,845.96 | 1,841.66 | 1,842.94 | 1,846.89 | --- | 1,848.74 | 1,856.62 | 1,871.60 | 1,871.25 | 1,868.50 | 1,864.38 | 1,860.36 |
| 30 | 1,845.75 | 1,841.60 | 1,842.91 | 1,846.91 | --- | 1,849.43 | 1,856.74 | 1,871.68 | 1,871.19 | 1,868.39 | 1,864.24 | 1,860.15 |
| 31 | 1,845.50 | --- | 1,842.87 | 1,846.89 | --- | 1,849.81 | --- | 1,871.73 | --- | 1,868.27 | 1,864.10 | --- |
| MAX | 1,852.16 | 1,845.27 | 1,844.95 | 1,846.91 | 1,846.90 | 1,849.81 | 1,856.74 | 1,871.73 | 1,871.97 | 1,871.12 | 1,868.14 | 1,863.97 |
| MIN | 1,845.50 | 1,841.60 | 1,841.09 | 1,842.01 | 1,846.70 | 1,846.21 | 1,850.09 | 1,856.85 | 1,871.19 | 1,868.27 | 1,864.10 | 1,860.15 |
| (†) | 22,300 | 20,530 | 21,100 | 22,940 | 22,860 | 24,330 | 27,780 | 35,960 | 35,650 | 33,990 | 31,680 | 29,560 |
| (‡) | -3,290 | -1,770 | +570 | +1,840 | -80 | +1,470 | +3,450 | +8,180 | -310 | -1,660 | -2,310 | -2,120 |

CAL YR2004 MAX 1,871.95 MIN 1,841.09 AC-FT‡ -1,130
WTR YR2005 MAX 1,871.97 MIN 1,841.09 AC-FT‡ +3,970

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

## 14309000 COW CREEK NEAR AZALEA, OR

LOCATION.--Lat 42°49'30", long 123°10'40", in N-½ sec.4, T.32 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on right bank 0.8 mi upstream from Whitehorse Creek, 4.5 mi northeast of Azalea and at mile 58.2.

DRAINAGE AREA.--78.0 $mi^2$.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1926 to September 1928 (no winter records), April 1929 to December 1931, April 1932 to current year.

REVISED RECORDS.--WSP 984: 1933-36. WSP 1154: 1946(M), 1948(M). WSP 1448: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,694.32 ft above NGVD of 1929 (Douglas County Road Department bench mark). Prior to July 19, 1949, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since Oct. 7, 1985 by Galesville Reservoir (station 14308995). Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--75 years (water years 1930-31, 1933-2005), 105 $ft^3/s$, 76,360 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 $ft^3/s$ Jan. 15, 1974, gage height, 16.40 ft, from high-water mark in well; minimum discharge, 1.1 $ft^3/s$ Aug. 12, 1981, but may have been less during period of no gage-height record Sept. 4-30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 305 $ft^3/s$ Dec. 7, gage height, 3.00 ft; minimum discharge, 29 $ft^3/s$ Dec. 1-3, Mar. 15, 16, 19.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 61 | 70 | 29 | 60 | 56 | 39 | 72 | 65 | 44 | 40 | 40 | 39 |
| 2 | 63 | 73 | 29 | 53 | 50 | 39 | 70 | 61 | 45 | 40 | 40 | 39 |
| 3 | 65 | 70 | 29 | 49 | 47 | 37 | 72 | 55 | 46 | 40 | 40 | 39 |
| 4 | 66 | 70 | 30 | 49 | 52 | 39 | 72 | 49 | 46 | 40 | 40 | 39 |
| 5 | 66 | 66 | 30 | 49 | 46 | 35 | 71 | 47 | 46 | 40 | 42 | 39 |
| 6 | 66 | 63 | 41 | 49 | 42 | 34 | 67 | 47 | 47 | 40 | 40 | 39 |
| 7 | 67 | 60 | 161 | 52 | 45 | 33 | 69 | 47 | 47 | 40 | 40 | 39 |
| 8 | 70 | 61 | 172 | 77 | 42 | 32 | 71 | 50 | 47 | 40 | 46 | 39 |
| 9 | 70 | 53 | 188 | 74 | 40 | 31 | 72 | 65 | 45 | 40 | 40 | 39 |
| 10 | 70 | 49 | 178 | 65 | 39 | 31 | 74 | 70 | 40 | 40 | 40 | 39 |
| 11 | 69 | 45 | 175 | 65 | 37 | 31 | 74 | 62 | 41 | 40 | 40 | 39 |
| 12 | 70 | 45 | 143 | 66 | 35 | 31 | 75 | 54 | 41 | 40 | 40 | 39 |
| 13 | 71 | 45 | 88 | 52 | 38 | 31 | 78 | 49 | 41 | 40 | 40 | 39 |
| 14 | 71 | 46 | 76 | 43 | 37 | 30 | 71 | 44 | 41 | 40 | 40 | 39 |
| 15 | 71 | 43 | 75 | 57 | 35 | 30 | 64 | 43 | 41 | 40 | 40 | 39 |
| 16 | 71 | 41 | 72 | 72 | 36 | 30 | 64 | 44 | 41 | 40 | 39 | 39 |
| 17 | 73 | 40 | 67 | 73 | 34 | 30 | 65 | 43 | 41 | 39 | 39 | 40 |
| 18 | 72 | 40 | 62 | 76 | 35 | 31 | 65 | 49 | 39 | 40 | 39 | 39 |
| 19 | 72 | 40 | 61 | 75 | 35 | 30 | 65 | 48 | 40 | 41 | 39 | 39 |
| 20 | 71 | 40 | 58 | 73 | 48 | 35 | 65 | 46 | 41 | 41 | 39 | 39 |
| 21 | 70 | 40 | 55 | 72 | 54 | 40 | 65 | 45 | 40 | 41 | 39 | 39 |
| 22 | 71 | 39 | 52 | 71 | 43 | 48 | 64 | 44 | 40 | 41 | 39 | 40 |
| 23 | 72 | 39 | 51 | 69 | 40 | 71 | 65 | 43 | 41 | 44 | 39 | 39 |
| 24 | 70 | 38 | 53 | 66 | 38 | 65 | 65 | 43 | 40 | 41 | 39 | 39 |
| 25 | 71 | 36 | 51 | 66 | 37 | 59 | 65 | 53 | 40 | 41 | 39 | 39 |
| 26 | 72 | 34 | 52 | 67 | 36 | 57 | 64 | 46 | 40 | 41 | 39 | 43 |
| 27 | 71 | 33 | 48 | 67 | 35 | 68 | 65 | 45 | 40 | 41 | 39 | 41 |
| 28 | 70 | 31 | 48 | 68 | 40 | 76 | 66 | 52 | 40 | 41 | 39 | 46 |
| 29 | 70 | 30 | 54 | 66 | --- | 86 | 66 | 46 | 40 | 41 | 39 | 54 |
| 30 | 71 | 30 | 58 | 69 | --- | 79 | 65 | 45 | 40 | 40 | 39 | 63 |
| 31 | 71 | --- | 60 | 63 | --- | 74 | --- | 44 | --- | 40 | 39 | --- |
| TOTAL | 2,154 | 1,410 | 2,346 | 1,973 | 1,152 | 1,382 | 2,046 | 1,544 | 1,261 | 1,253 | 1,232 | 1,224 |
| MEAN | 69.5 | 47.0 | 75.7 | 63.6 | 41.1 | 44.6 | 68.2 | 49.8 | 42.0 | 40.4 | 39.7 | 40.8 |
| MAX | 73 | 73 | 188 | 77 | 56 | 86 | 78 | 70 | 47 | 44 | 46 | 63 |
| MIN | 61 | 30 | 29 | 43 | 34 | 30 | 64 | 43 | 39 | 39 | 39 | 39 |
| AC-FT | 4,270 | 2,800 | 4,650 | 3,910 | 2,280 | 2,740 | 4,060 | 3,060 | 2,500 | 2,490 | 2,440 | 2,430 |
| MEAN† | 15.9 | 17.3 | 84.9 | 93.5 | 39.6 | 68.5 | 126 | 183 | 36.8 | 13.5 | 2.11 | 5.21 |
| CFSM† | 0.20 | 0.22 | 1.09 | 1.20 | 0.51 | 0.88 | 1.62 | 2.34 | 0.47 | 0.17 | 0.27 | 0.67 |
| IN.† | 0.24 | 0.25 | 1.26 | 1.38 | 0.53 | 1.01 | 1.81 | 2.70 | 0.53 | 0.20 | 0.03 | 0.08 |
| AC-FT† | 980 | 1,030 | 5,220 | 5,750 | 2,200 | 4,210 | 7,510 | 11,240 | 2,190 | 830 | 130 | 310 |

CAL YR2004 TOTAL 25,294 MEAN 69.1 MAX 196 MIN 29 AC-FT 50,170 MEAN† 67.6 CFSM† 0.87 IN.† 11.79 AC-FT† 49,040
WTR YR2005 TOTAL 18,977 MEAN 52.0 MAX 188 MIN 29 AC-FT 37,640 MEAN† 57.5 CFSM† 0.74 IN.† 10.00 AC-FT† 41,610

† Adjusted for change in contents, in Galesville Reservoir.

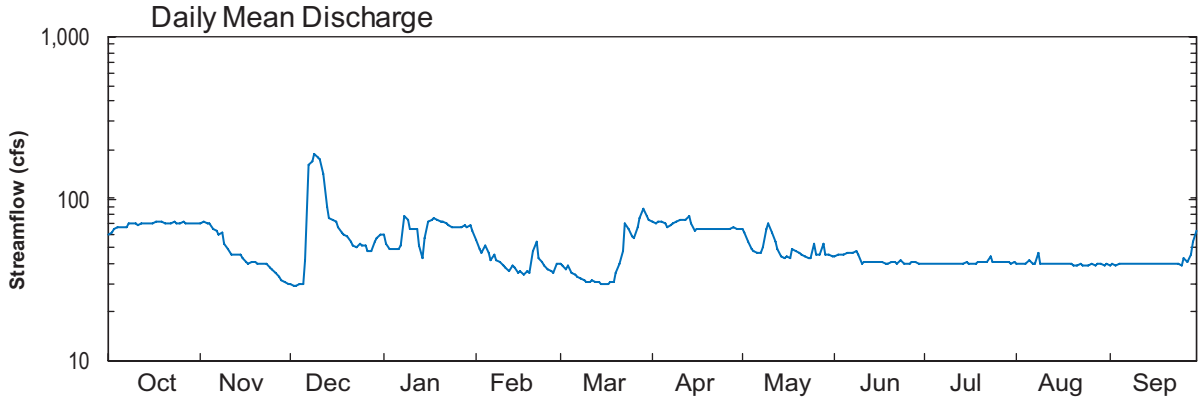
2005 Water Year

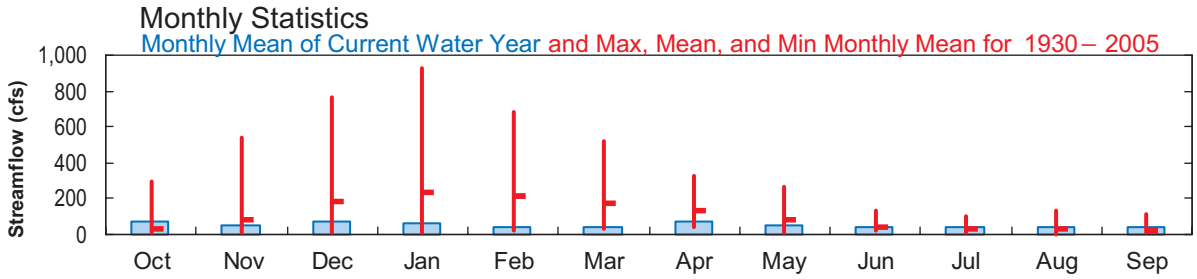
UMPQUA RIVER BASIN

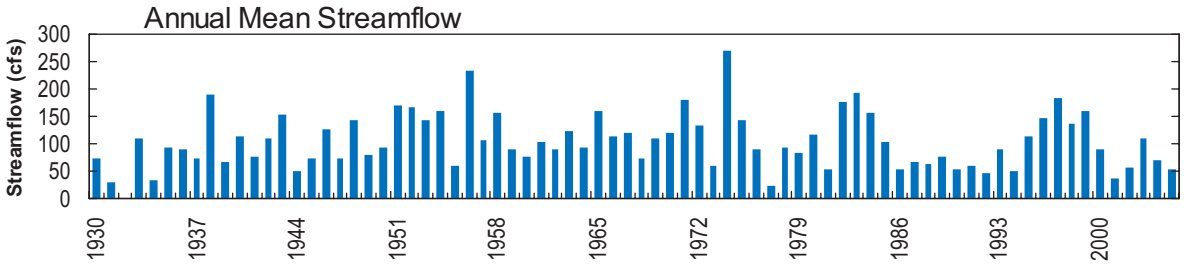
## 14309000 COW CREEK NEAR AZALEA, OR

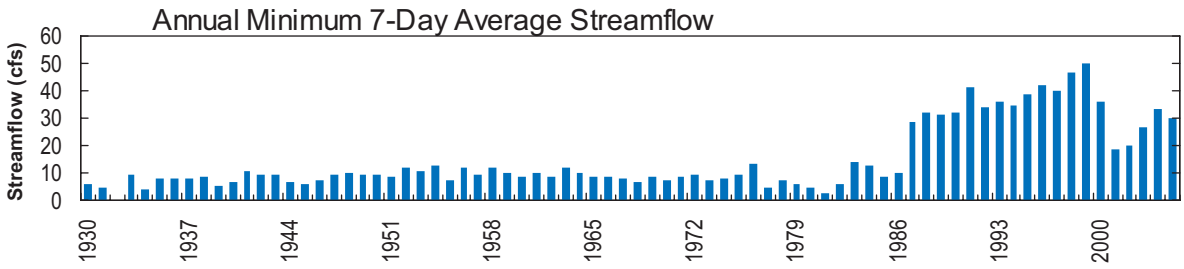
Latitude: 42°49'30" Longitude: 123°10'40" Hydrologic Unit Code: 17100302

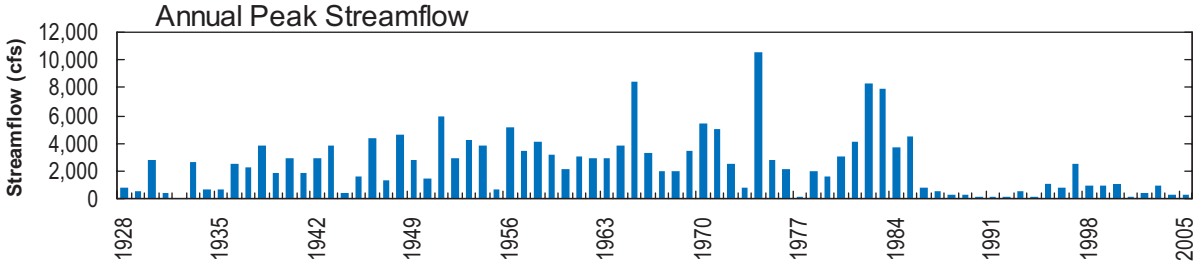
Douglas County Datum: 1694.32 feet Drainage Area: 78 mi²



14309000 COW CREEK NEAR AZALEA, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
DISSOLVED OXYGEN: November 1985 to current year.
TURBIDITY: October 1999 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Water-quality monitor located 1.9 mi upstream from water-discharge site, 1000 ft downstream from Galesville Dam, and at mile 60.1.
DISSOLVED OXYGEN: Records good except those for the period Jan. 25 to Feb. 11, which are poor.
TURBIDITY: Records good except those for the period Oct. 1 to Apr. 13, which are poor. Turbidity data are highly dependent on the instrumentation used for the measurement. See the "Definitions" section for turbidity in the front of this report.

EXTREMES FOR PERIOD OF DAILY RECORD.--
DISSOLVED OXYGEN: Maximum recorded, 15.1 mg/L Feb. 7, 1989, Nov. 17, 20, 1996, caused by operation of bypass valve at dam; minimum, 0.9 mg/L July 30, 1988.
TURBIDITY: Maximum recorded, 89 FNU May 1, 2002, but may have been higher during period of missing record; minimum, <1 FNU many days each year.

EXTREMES FOR CURRENT YEAR.--
DISSOLVED OXYGEN: Maximum recorded, 12.1 mg/L Jan. 9, Feb. 4, but may have been higher during periods of missing record; minimum recorded, 5.4 mg/L Dec. 9, but may have been lower during periods of missing record.
TURBIDITY: Maximum recorded, 29 FNU May 16, but may have been higher during periods of missing record; minimum, <1 FNU many days during year.

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 7.9 | 7.5 | 7.8 | 8.7 | 8.2 | 8.4 | 9.6 | 9.3 | 9.4 | 8.1 | 7.8 | 8.0 |
| 2 | 8.0 | 7.2 | 7.7 | 8.7 | 7.5 | 8.3 | 9.6 | 9.1 | 9.3 | 8.1 | 7.7 | 7.8 |
| 3 | 8.0 | 7.4 | 7.7 | 8.5 | 6.7 | 7.7 | 9.9 | 9.2 | 9.5 | 8.2 | 7.8 | 8.1 |
| 4 | 7.9 | 7.5 | 7.7 | 10.6 | 8.1 | 8.9 | 10.1 | 9.9 | 9.9 | 8.1 | 7.6 | 7.9 |
| 5 | 8.0 | 7.3 | 7.7 | 9.2 | 8.7 | 9.1 | 10.2 | 9.9 | 10.0 | 8.1 | 7.7 | 7.9 |
| 6 | 7.8 | 7.0 | 7.5 | 9.3 | 9.1 | 9.2 | 11.5 | 9.8 | 10.3 | 8.0 | 7.8 | 7.9 |
| 7 | 7.8 | 7.1 | 7.6 | 9.3 | 9.0 | 9.2 | 11.7 | 9.0 | 10.6 | 11.5 | 7.8 | 8.1 |
| 8 | 8.0 | 6.8 | 7.4 | 10.7 | 9.2 | 9.4 | 11.5 | 8.3 | 9.9 | 12.0 | 7.6 | 10.3 |
| 9 | 8.0 | 6.9 | 7.6 | 9.4 | 8.7 | 9.0 | 8.7 | 5.4 | 7.4 | 12.1 | 7.7 | 9.8 |
| 10 | 8.0 | 7.2 | 7.6 | 9.6 | 8.9 | 9.4 | 8.4 | 7.4 | 8.0 | 7.9 | 7.7 | 7.8 |
| 11 | 8.3 | 7.1 | 7.8 | 9.6 | 9.3 | 9.5 | 9.1 | 7.7 | 8.4 | 7.9 | 7.8 | 7.9 |
| 12 | 8.1 | 7.4 | 7.8 | 9.7 | 9.2 | 9.6 | 9.0 | 7.8 | 8.5 | 9.2 | 7.9 | 8.0 |
| 13 | 8.1 | 7.5 | 7.9 | 9.7 | 9.3 | 9.5 | 9.0 | 7.8 | 8.5 | 8.5 | 8.0 | 8.3 |
| 14 | 8.4 | 7.3 | 7.9 | 9.9 | 9.3 | 9.7 | 9.7 | 7.7 | 8.9 | 8.5 | 8.3 | 8.4 |
| 15 | 8.3 | 7.4 | 7.9 | 9.8 | 9.4 | 9.6 | 9.6 | 8.4 | 9.1 | 8.4 | 7.9 | 8.2 |
| 16 | 8.2 | 7.4 | 7.9 | 9.9 | 9.3 | 9.7 | 9.7 | 8.5 | 9.2 | 8.2 | 7.9 | 8.0 |
| 17 | 8.4 | 6.7 | 7.6 | 10 | 9.6 | 9.8 | 9.9 | 9.5 | 9.6 | 8.3 | 8.1 | 8.2 |
| 18 | 8.2 | 7.7 | 8.0 | 9.8 | 9.1 | 9.5 | 10.1 | 9.5 | 9.9 | 8.5 | 8.2 | 8.3 |
| 19 | 8.6 | 7.8 | 8.2 | 9.9 | 9.0 | 9.4 | 10.2 | 9.0 | 9.8 | 8.7 | 8.4 | 8.5 |
| 20 | 8.1 | 7.5 | 7.8 | 10.0 | 9.1 | 9.6 | 9.6 | 6.7 | 8.1 | 8.7 | 8.3 | 8.5 |
| 21 | 8.1 | 7.6 | 7.8 | 9.9 | 9.6 | 9.7 | 9.3 | 7.9 | 8.5 | 8.8 | 8.5 | 8.6 |
| 22 | 8.1 | 7.8 | 7.9 | 9.9 | 9.5 | 9.7 | 9.8 | 8.7 | 9.4 | 8.8 | 8.5 | 8.7 |
| 23 | 8.2 | 7.8 | 7.9 | 9.9 | 9.6 | 9.7 | 9.8 | 9.4 | 9.7 | 9.0 | 8.5 | 8.8 |
| 24 | 8.4 | 7.4 | 7.9 | 9.9 | 9.6 | 9.8 | 9.8 | 9.3 | 9.5 | 9.0 | 8.6 | 8.8 |
| 25 | 8.5 | 8.0 | 8.2 | 9.9 | 9.0 | 9.7 | 11.4 | 7.5 | 9.5 | 9.3 | 8.7 | 9.0 |
| 26 | 8.4 | 7.8 | 8.1 | 10.1 | 9.7 | 9.9 | 8.1 | 7.4 | 7.9 | 9.0 | 8.5 | 8.8 |
| 27 | 8.5 | 7.8 | 8.2 | 10.2 | 9.8 | 10 | 8.6 | 7.8 | 8.3 | 9.2 | 8.6 | 8.8 |
| 28 | 8.4 | 7.5 | 7.9 | 10.2 | 9.7 | 9.9 | 8.6 | 8.4 | 8.5 | 9.1 | 8.8 | 9.0 |
| 29 | 8.4 | 7.8 | 8.0 | 10.2 | 9.2 | 9.6 | 11.5 | 8.5 | 9.0 | 9.1 | 8.8 | 9.0 |
| 30 | 8.6 | 7.8 | 8.3 | 9.8 | 9.1 | 9.3 | 8.8 | 7.7 | 8.2 | 9.3 | 8.9 | 9.1 |
| 31 | 8.6 | 8.0 | 8.3 | --- | --- | --- | 8.2 | 7.7 | 7.9 | 9.5 | 9.0 | 9.3 |
| MONTH | 8.6 | 6.7 | 7.9 | 10.7 | 6.7 | 9.4 | 11.7 | 5.4 | 9.1 | 12.1 | 7.6 | 8.5 |

14309000 COW CREEK NEAR AZALEA, OR—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 9.6 | 9.2 | 9.4 | 10.7 | 10.4 | 10.6 | 10.7 | 9.9 | 10.3 | 10.3 | 9.5 | 9.9 |
| 2 | 9.8 | 9.3 | 9.5 | 10.7 | 10.4 | 10.6 | 10.7 | 10.0 | 10.4 | 10.5 | 9.3 | 9.8 |
| 3 | 9.8 | 9.4 | 9.5 | 11.0 | 10.5 | 10.7 | 10.9 | 9.6 | 10.3 | 10.5 | 9.3 | 9.8 |
| 4 | 12.1 | 9.3 | 9.9 | 11.0 | 10.5 | 10.7 | 10.7 | 10.1 | 10.4 | 10.1 | 9.5 | 9.8 |
| 5 | 9.6 | 9.1 | 9.4 | 11.0 | 10.5 | 10.8 | 10.6 | 10.1 | 10.4 | 10.1 | 9.6 | 9.8 |
| 6 | 9.6 | 9.0 | 9.3 | 11.0 | 10.5 | 10.8 | 10.7 | 9.6 | 10.3 | 10.1 | 9.6 | 9.9 |
| 7 | 9.3 | 8.9 | 9.1 | 10.8 | 10.4 | 10.7 | 10.6 | 9.8 | 10.3 | 10.1 | 9.6 | 9.8 |
| 8 | 9.6 | 9.0 | 9.3 | 10.9 | 10.4 | 10.7 | 10.8 | 9.7 | 10.4 | 9.9 | 9.4 | 9.8 |
| 9 | 9.7 | 9.2 | 9.4 | 10.8 | 10.6 | 10.7 | 10.6 | 9.6 | 10.2 | 9.9 | 9.4 | 9.7 |
| 10 | 9.8 | 9.2 | 9.5 | 10.8 | 10.4 | 10.7 | 10.7 | 9.8 | 10.4 | 9.9 | 9.6 | 9.7 |
| 11 | --- | --- | --- | 10.9 | 10.4 | 10.7 | 10.6 | 9.7 | 10.3 | 9.8 | 9.4 | 9.7 |
| 12 | --- | --- | --- | 10.8 | 10.3 | 10.6 | 10.9 | 9.6 | 10.4 | 9.8 | 9.3 | 9.7 |
| 13 | --- | --- | --- | 10.9 | 10.5 | 10.7 | 10.7 | 9.6 | 10.2 | 10.7 | 9.2 | 9.7 |
| 14 | --- | --- | --- | 10.8 | 10.2 | 10.6 | 10.6 | 10.0 | 10.3 | 9.8 | 9.2 | 9.6 |
| 15 | --- | --- | --- | 10.8 | 10.4 | 10.6 | 10.6 | 9.9 | 10.3 | 9.8 | 9.4 | 9.6 |
| 16 | --- | --- | --- | 10.8 | 10.5 | 10.7 | 10.4 | 9.9 | 10.1 | 9.7 | 9.3 | 9.5 |
| 17 | --- | --- | --- | 10.9 | 10.6 | 10.7 | 10.6 | 9.3 | 10.1 | 9.6 | 9.1 | 9.4 |
| 18 | --- | --- | --- | 10.8 | 10.4 | 10.7 | 10.5 | 9.7 | 10.2 | 9.6 | 8.9 | 9.4 |
| 19 | --- | --- | --- | 10.8 | 10.5 | 10.6 | 10.6 | 9.6 | 10.2 | 9.7 | 9.1 | 9.5 |
| 20 | --- | --- | --- | 10.6 | 10.4 | 10.5 | 10.6 | 9.6 | 10.1 | 9.7 | 9.3 | 9.5 |
| 21 | --- | --- | --- | 10.8 | 10.4 | 10.6 | 10.5 | 9.5 | 10.1 | 9.6 | 9.2 | 9.4 |
| 22 | --- | --- | --- | --- | --- | --- | 10.6 | 9.3 | 10.1 | 9.6 | 9.1 | 9.4 |
| 23 | 10.6 | 9.6 | 10.1 | --- | --- | --- | 10.5 | 9.6 | 10.1 | 9.6 | 9.0 | 9.4 |
| 24 | 10.7 | 10.1 | 10.4 | --- | --- | --- | 10.4 | 9.6 | 10.1 | 9.6 | 9.0 | 9.3 |
| 25 | 10.8 | 9.6 | 10.4 | --- | --- | --- | 10.4 | 9.7 | 10.1 | 11.0 | 9.1 | 9.7 |
| 26 | 10.7 | 9.8 | 10.4 | --- | --- | --- | 10.4 | 9.8 | 10.1 | 9.5 | 9.0 | 9.3 |
| 27 | 10.8 | 10.2 | 10.6 | --- | --- | --- | 10.6 | 9.8 | 10.1 | 9.4 | 8.8 | 9.2 |
| 28 | 10.7 | 10.2 | 10.5 | --- | --- | --- | 10.5 | 9.5 | 9.9 | --- | --- | --- |
| 29 | --- | --- | --- | --- | --- | --- | 10.3 | 9.6 | 10 | --- | --- | --- |
| 30 | --- | --- | --- | --- | --- | --- | 10.5 | 9.1 | 9.8 | --- | --- | --- |
| 31 | --- | --- | --- | 10.6 | 10.1 | 10.4 | --- | --- | --- | 9.3 | 8.9 | 9.1 |
| MONTH | 12.1 | 8.9 | 9.8 | 11.0 | 10.1 | 10.7 | 10.9 | 9.1 | 10.2 | 11.0 | 8.8 | 9.6 |
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 9.3 | 8.9 | 9.1 | 8.7 | 8.2 | 8.5 | 8.7 | 8.0 | 8.4 | 7.7 | 7.0 | 7.3 |
| 2 | 9.3 | 8.9 | 9.1 | 8.6 | 8.1 | 8.4 | 8.7 | 8.0 | 8.3 | 7.6 | 7.0 | 7.3 |
| 3 | 9.2 | 8.9 | 9.1 | 8.6 | 8.1 | 8.4 | 8.6 | 8.1 | 8.3 | 7.5 | 7.0 | 7.2 |
| 4 | 9.2 | 8.8 | 9.0 | 8.6 | 8.1 | 8.4 | 8.5 | 8.0 | 8.3 | 7.6 | 6.9 | 7.2 |
| 5 | 9.2 | 8.8 | 9.0 | 8.7 | 8.2 | 8.4 | 10.2 | 8.0 | 8.3 | 7.7 | 7.0 | 7.3 |
| 6 | 9.1 | 8.8 | 8.9 | 8.5 | 8.0 | 8.3 | 8.6 | 7.9 | 8.2 | 7.6 | 7.0 | 7.3 |
| 7 | 9.3 | 8.9 | 9.1 | 8.5 | 7.9 | 8.3 | 8.6 | 8.0 | 8.2 | 7.8 | 7.0 | 7.2 |
| 8 | 9.3 | 9.0 | 9.1 | 8.5 | 8.0 | 8.2 | 9.9 | 7.8 | 8.4 | 7.5 | 7.0 | 7.2 |
| 9 | 9.3 | 8.9 | 9.2 | 8.4 | 8.0 | 8.2 | 8.4 | 7.9 | 8.1 | 7.4 | 6.9 | 7.1 |
| 10 | 9.3 | 8.8 | 9.1 | 8.4 | 8.0 | 8.2 | 8.4 | 7.8 | 8.0 | 7.4 | 7.0 | 7.1 |
| 11 | 9.3 | 8.8 | 9.1 | 8.5 | 8.0 | 8.2 | 8.3 | 7.8 | 8.0 | 7.5 | 7.0 | 7.1 |
| 12 | 9.3 | 9.1 | 9.2 | 8.4 | 7.8 | 8.2 | 8.2 | 7.7 | 8.0 | 7.5 | 7.0 | 7.2 |
| 13 | 9.3 | 8.9 | 9.1 | 8.4 | 8.1 | 8.2 | 8.2 | 7.7 | 8.0 | 7.5 | 7.0 | 7.2 |
| 14 | 9.2 | 9.0 | 9.1 | 8.4 | 7.9 | 8.2 | 8.1 | 7.7 | 7.9 | 7.5 | 7.1 | 7.2 |
| 15 | 9.3 | 8.8 | 9.0 | 10.8 | 8.0 | 8.8 | 8.1 | 7.7 | 7.8 | 7.5 | 7.1 | 7.2 |
| 16 | 9.1 | 8.7 | 9.0 | 8.4 | 7.9 | 8.1 | 8.0 | 7.6 | 7.8 | 7.5 | 7.0 | 7.2 |
| 17 | 10.2 | 8.8 | 9.0 | 8.3 | 7.8 | 8.1 | 7.8 | 7.4 | 7.6 | 7.6 | 7.0 | 7.3 |
| 18 | 9.0 | 8.8 | 8.9 | 8.4 | 7.7 | 8.1 | 7.8 | 7.3 | 7.5 | 7.6 | 7.1 | 7.3 |
| 19 | 9.0 | 8.3 | 8.8 | 8.3 | 7.8 | 8.1 | 7.8 | 7.3 | 7.5 | 7.6 | 7.1 | 7.3 |
| 20 | 10.2 | 8.6 | 8.9 | 8.2 | 7.8 | 8.0 | 7.8 | 7.5 | 7.6 | 7.6 | 7.1 | 7.3 |
| 21 | 8.9 | 8.5 | 8.8 | 8.2 | 7.7 | 8.0 | 7.8 | 7.4 | 7.6 | 7.7 | 7.1 | 7.3 |
| 22 | 8.9 | 8.3 | 8.6 | 8.2 | 7.7 | 8.0 | 7.8 | 7.3 | 7.6 | 7.8 | 7.0 | 7.3 |
| 23 | 10.6 | 8.3 | 8.7 | 11.1 | 7.8 | 8.4 | 7.7 | 7.4 | 7.5 | 7.6 | 7.1 | 7.4 |
| 24 | 8.8 | 8.3 | 8.6 | 8.2 | 7.7 | 7.9 | 7.8 | 7.3 | 7.5 | 7.9 | 7.4 | 7.6 |
| 25 | 8.8 | 8.1 | 8.6 | 8.1 | 7.6 | 7.9 | 8.2 | 7.3 | 7.5 | 7.9 | 7.4 | 7.6 |
| 26 | 8.8 | 8.2 | 8.5 | 8.1 | 7.6 | 7.9 | 7.8 | 7.3 | 7.5 | 9.2 | 7.5 | 7.8 |
| 27 | 8.7 | 8.1 | 8.5 | 8.1 | 7.6 | 7.8 | 7.6 | 7.0 | 7.4 | 7.8 | 7.4 | 7.6 |
| 28 | 8.8 | 8.2 | 8.5 | 8.0 | 7.5 | 7.8 | 7.7 | 7.2 | 7.4 | 7.9 | 7.6 | 7.8 |
| 29 | 8.7 | 8.1 | 8.5 | 8.8 | 7.5 | 8.2 | 7.6 | 7.1 | 7.4 | 8.0 | 7.6 | 7.8 |
| 30 | 8.7 | 8.1 | 8.5 | 8.8 | 8.2 | 8.5 | 7.8 | 6.9 | 7.3 | 8.1 | 7.4 | 7.8 |
| 31 | --- | --- | --- | 8.7 | 8.1 | 8.4 | 7.6 | 6.7 | 7.3 | --- | --- | --- |
| MONTH | 10.6 | 8.1 | 8.9 | 11.1 | 7.5 | 8.2 | 10.2 | 6.7 | 7.8 | 9.2 | 6.9 | 7.3 |
| YEAR | 12.1 | 5.4 | 8.9 | | | | | | | | | |

14309000 COW CREEK NEAR AZALEA, OR—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/ -2.5 DEGREES, FNU
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

| DAY | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
| 1 | 2 | <1 | 1 | 2 | <1 | <1 | 1 | <1 | <1 | 3 | 2 | 3 |
| 2 | --- | --- | --- | 2 | <1 | <1 | 2 | <1 | <1 | 3 | 3 | 3 |
| 3 | --- | --- | --- | 1 | <1 | <1 | <1 | <1 | <1 | 3 | 2 | 3 |
| 4 | --- | --- | --- | 4 | <1 | <1 | <1 | <1 | <1 | 3 | 3 | 3 |
| 5 | 2 | <1 | <1 | 3 | <1 | 1 | <1 | <1 | <1 | 3 | 3 | 3 |
| 6 | <1 | <1 | <1 | <1 | <1 | <1 | 4 | <1 | <1 | 3 | 3 | 3 |
| 7 | <1 | <1 | <1 | <1 | <1 | <1 | 4 | <1 | 1 | 4 | 3 | 3 |
| 8 | <1 | <1 | <1 | 2 | <1 | <1 | 2 | 1 | 1 | 4 | 3 | 4 |
| 9 | <1 | <1 | <1 | 2 | <1 | <1 | 3 | 1 | 2 | 6 | 4 | 4 |
| 10 | <1 | <1 | <1 | 1 | <1 | <1 | 3 | 1 | 2 | 4 | 3 | 4 |
| 11 | 2 | <1 | <1 | --- | --- | --- | 2 | 1 | 2 | 4 | 3 | 4 |
| 12 | 2 | <1 | <1 | --- | --- | --- | 2 | 1 | 1 | 5 | 4 | 4 |
| 13 | 3 | <1 | <1 | --- | --- | --- | 2 | 1 | 1 | 4 | 3 | 4 |
| 14 | 3 | <1 | 1 | --- | --- | --- | 2 | 1 | 1 | 4 | 4 | 4 |
| 15 | 2 | <1 | <1 | --- | --- | --- | 2 | 1 | 2 | 5 | 4 | 4 |
| 16 | 1 | <1 | <1 | --- | --- | --- | 2 | 1 | 2 | 4 | 4 | 4 |
| 17 | <1 | <1 | <1 | <1 | <1 | <1 | 2 | 1 | 1 | 4 | 3 | 4 |
| 18 | 1 | <1 | <1 | <1 | <1 | <1 | 3 | 1 | 1 | 4 | 3 | 3 |
| 19 | 1 | <1 | <1 | <1 | <1 | <1 | 3 | 1 | 1 | 3 | 2 | 3 |
| 20 | 2 | <1 | <1 | 1 | <1 | <1 | 2 | 1 | 2 | 4 | 2 | 3 |
| 21 | <1 | <1 | <1 | <1 | <1 | <1 | 3 | 1 | 2 | 2 | 2 | 2 |
| 22 | <1 | <1 | <1 | <1 | <1 | <1 | 2 | 2 | 2 | 2 | 2 | 2 |
| 23 | <1 | <1 | <1 | 1 | <1 | <1 | --- | --- | --- | 3 | 2 | 2 |
| 24 | <1 | <1 | <1 | 2 | <1 | <1 | 2 | 2 | 2 | 3 | 2 | 3 |
| 25 | 2 | <1 | <1 | 1 | <1 | <1 | 5 | 2 | 2 | 2 | 1 | 2 |
| 26 | 1 | <1 | <1 | 1 | <1 | <1 | 4 | 2 | 2 | 2 | 2 | 2 |
| 27 | 1 | <1 | <1 | <1 | <1 | <1 | 5 | 2 | 3 | 2 | 1 | 2 |
| 28 | 1 | <1 | <1 | <1 | <1 | <1 | 3 | 2 | 2 | 2 | 2 | 2 |
| 29 | 1 | <1 | <1 | <1 | <1 | <1 | 3 | 2 | 2 | 2 | 2 | 2 |
| 30 | 2 | <1 | <1 | 2 | <1 | <1 | 3 | 2 | 2 | 2 | 2 | 2 |
| 31 | --- | --- | --- | --- | --- | --- | 3 | 2 | 2 | 2 | 2 | 2 |
| MAX | 3 | <1 | 1 | 4 | <1 | 1 | 5 | 2 | 3 | 6 | 4 | 4 |
| MIN | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 2 | 1 | 2 |
| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
| 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | --- | --- | --- |
| 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | --- | --- | --- |
| 3 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 |
| 4 | 3 | 1 | 2 | --- | --- | --- | 2 | 2 | 2 | 2 | 2 | 2 |
| 5 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | --- | --- | --- |
| 6 | 2 | 1 | 2 | 2 | 1 | 1 | --- | --- | --- | 3 | 2 | 2 |
| 7 | 2 | 2 | 2 | 2 | 1 | 1 | --- | --- | --- | 4 | 2 | 2 |
| 8 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | --- | --- | --- |
| 9 | 2 | 1 | 2 | 2 | 1 | 2 | --- | --- | --- | 4 | 2 | 3 |
| 10 | --- | --- | --- | 2 | 1 | 2 | --- | --- | --- | 5 | 2 | 3 |
| 11 | 2 | 1 | 1 | --- | --- | --- | 3 | 2 | 2 | 4 | 2 | 2 |
| 12 | 2 | 1 | 1 | 2 | 1 | 2 | --- | --- | --- | 3 | 2 | 2 |
| 13 | 2 | 1 | 1 | 2 | 1 | 2 | --- | --- | --- | 9 | 2 | 3 |
| 14 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | --- | --- | --- |
| 15 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 4 |
| 16 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 29 | 3 | 4 |
| 17 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | --- | --- | --- |
| 18 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 13 | 3 | 4 |
| 19 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | --- | --- | --- |
| 20 | --- | --- | --- | 2 | 2 | 2 | 2 | 2 | 2 | --- | --- | --- |
| 21 | --- | --- | --- | 2 | 2 | 2 | 3 | 2 | 2 | --- | --- | --- |
| 22 | --- | --- | --- | --- | --- | --- | 3 | 2 | 2 | --- | --- | --- |
| 23 | 3 | 1 | 2 | --- | --- | --- | 3 | 2 | 2 | --- | --- | --- |
| 24 | 2 | 1 | 2 | --- | --- | --- | 3 | 2 | 2 | --- | --- | --- |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 12 | 3 | 3 |
| 26 | 2 | 1 | 1 | --- | --- | --- | 4 | 2 | 3 | 3 | 2 | 3 |
| 27 | 2 | 1 | 1 | --- | --- | --- | --- | --- | --- | 4 | 3 | 3 |
| 28 | 2 | 1 | 2 | --- | --- | --- | --- | --- | --- | 7 | 3 | 4 |
| 29 | --- | --- | --- | --- | --- | --- | 3 | 2 | 2 | 4 | 3 | 3 |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4 | 3 | 3 |
| 31 | --- | --- | --- | 2 | 2 | 2 | --- | --- | --- | 4 | 3 | 3 |
| MAX | 3 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 3 | 29 | 3 | 4 |
| MIN | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 |

14309000 COW CREEK NEAR AZALEA, OR—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/ -2.5 DEGREES, FNU—CONTINUED

| DAY | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 4 | 3 | 3 | 2 | 2 | 2 | --- | --- | --- | --- | --- | --- |
| 2 | --- | --- | --- | 2 | 2 | 2 | --- | --- | --- | --- | --- | --- |
| 3 | --- | --- | --- | 2 | 2 | 2 | --- | --- | --- | --- | --- | --- |
| 4 | 4 | 3 | 3 | --- | --- | --- | 2 | 2 | 2 | --- | --- | --- |
| 5 | 5 | 3 | 3 | --- | --- | --- | 4 | 2 | 2 | --- | --- | --- |
| 6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 | 4 | 2 | 2 | --- | --- | --- | --- | --- | --- | 1 | <1 | 1 |
| 8 | 3 | 2 | 3 | --- | --- | --- | 4 | 2 | 2 | 1 | <1 | <1 |
| 9 | 3 | 2 | 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 3 | 2 | 3 | --- | --- | --- | 3 | 2 | 2 | 1 | <1 | <1 |
| 11 | 3 | 2 | 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12 | 3 | 2 | 2 | --- | --- | --- | 2 | 2 | 2 | --- | --- | --- |
| 13 | 2 | 2 | 2 | 2 | 2 | 2 | --- | --- | --- | --- | --- | --- |
| 14 | 3 | 2 | 2 | 3 | 2 | 2 | --- | --- | --- | --- | --- | --- |
| 15 | 2 | 2 | 2 | --- | --- | --- | --- | --- | --- | 2 | <1 | <1 |
| 16 | 3 | 2 | 2 | --- | --- | --- | --- | --- | --- | 1 | <1 | <1 |
| 17 | 7 | 2 | 2 | --- | --- | --- | --- | --- | --- | 2 | <1 | <1 |
| 18 | 3 | 2 | 2 | --- | --- | --- | 1 | 1 | 1 | 2 | <1 | <1 |
| 19 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | <1 | 1 | 2 | <1 | <1 |
| 20 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | <1 | <1 | 2 | <1 | <1 |
| 21 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | <1 | <1 |
| 22 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | --- | --- | --- |
| 23 | 3 | 2 | 2 | 14 | 2 | 2 | 2 | <1 | 1 | --- | --- | --- |
| 24 | 2 | 2 | 2 | --- | --- | --- | 1 | <1 | <1 | 1 | <1 | <1 |
| 25 | 2 | 2 | 2 | --- | --- | --- | 2 | <1 | <1 | <1 | <1 | <1 |
| 26 | 2 | 2 | 2 | --- | --- | --- | 1 | <1 | <1 | 7 | <1 | <1 |
| 27 | 2 | 2 | 2 | --- | --- | --- | 1 | <1 | <1 | --- | --- | --- |
| 28 | 2 | 2 | 2 | --- | --- | --- | --- | --- | --- | <1 | <1 | <1 |
| 29 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | <1 | <1 | <1 | <1 | <1 |
| 30 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | <1 | <1 | 1 | <1 | <1 |
| 31 | --- | --- | --- | --- | --- | --- | 2 | <1 | <1 | --- | --- | --- |
| MAX | 7 | 3 | 3 | 14 | 2 | 2 | 4 | 2 | 2 | 7 | <1 | 1 |
| MIN | 2 | 2 | 2 | 2 | 2 | 2 | 1 | <1 | <1 | <1 | <1 | <1 |

## 14309500 WEST FORK COW CREEK NEAR GLENDALE, OR

LOCATION.--Lat 42°48'15", long 123°36'35", in SW $^1/_4$ NE $^1/_4$ sec.11, T.32 S., R.8 W., Douglas County, Hydrologic Unit 17100302, on left bank 1.6 mi downstream from Bear Creek, 11 mi northwest of Glendale and at mile 0.8.

DRAINAGE AREA.--86.9 mi$^2$.

PERIOD OF RECORD.--August 1955 to current year.

REVISED RECORDS.--WSP 1738: 1956, drainage area (former site). WSP 1935: 1956.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,018.48 ft above NGVD of 1929. Prior to June 8, 1964, at site 0.6 mi upstream at different datum.

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

AVERAGE DISCHARGE.--50 years (water years 1956-2005), 253 ft$^3$/s, 39.49 in/yr, 183,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft$^3$/s Dec. 22, 1964, gage height, 18.59 ft, from floodmark, from rating curve extended above 2,600 ft$^3$/s on basis of slope-area measurement of peak flow; minimum discharge, 2.5 ft$^3$/s Sept. 10, 2001.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft$^3$/s and maximum (*):

| Date | Time | Discharge (ft$^3$/s) | Gage height (ft) | Date | Time | Discharge (ft$^3$/s) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Dec 8 | 0630 | *4,040 | *9.20 | Mar 29 | 0830 | 3,330 | 8.43 |

Minimum discharge, 5.5 ft$^3$/s, Sept. 7-10, 28-30, gage height, 2.53 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.7 | 40 | 33 | 360 | 172 | 220 | 573 | 106 | 86 | 35 | 12 | 6.5 |
| 2 | 6.6 | 40 | 32 | 271 | 149 | 161 | 474 | 96 | 82 | 34 | 12 | 6.3 |
| 3 | 6.5 | 147 | 31 | 215 | 133 | 129 | 442 | 87 | 77 | 33 | 12 | 6.0 |
| 4 | 6.4 | 107 | 30 | 181 | 122 | 111 | 496 | 86 | 72 | 31 | 11 | 6.1 |
| 5 | 6.2 | 75 | 30 | 152 | 114 | 96 | 430 | 96 | 72 | 30 | 11 | 6.0 |
| 6 | 6.0 | 58 | 49 | 132 | 107 | 85 | 364 | 100 | 99 | 29 | 10 | 6.0 |
| 7 | 6.1 | 48 | 536 | 144 | 115 | 78 | 365 | 97 | 111 | 29 | 10 | 5.9 |
| 8 | 9.2 | 41 | 2,920 | 163 | 103 | 71 | 528 | 99 | 93 | 28 | 9.7 | 5.9 |
| 9 | 43 | 36 | 2,340 | 157 | 94 | 66 | 707 | 567 | 83 | 29 | 9.4 | 5.6 |
| 10 | 23 | 32 | 905 | 153 | 88 | 61 | 525 | 850 | 75 | 30 | 9.0 | 6.0 |
| 11 | 15 | 30 | 479 | 172 | 84 | 58 | 416 | 683 | 72 | 28 | 8.7 | 7.5 |
| 12 | 12 | 28 | 321 | 161 | 79 | 55 | 377 | 456 | 67 | 26 | 8.6 | 8.1 |
| 13 | 11 | 27 | 234 | 150 | 82 | 52 | 371 | 327 | 62 | 26 | 8.6 | 7.4 |
| 14 | 9.8 | 25 | 195 | 139 | 76 | 48 | 334 | 250 | 59 | 24 | 8.4 | 6.8 |
| 15 | 9.3 | 24 | 164 | 174 | 72 | 46 | 306 | 204 | 57 | 23 | 8.0 | 6.5 |
| 16 | 8.9 | 24 | 142 | 349 | 69 | 45 | 291 | 209 | 56 | 22 | 7.7 | 6.6 |
| 17 | 18 | 22 | 123 | 625 | 66 | 46 | 291 | 198 | 58 | 21 | 7.6 | 8.4 |
| 18 | 88 | 23 | 107 | 999 | 64 | 46 | 282 | 462 | 69 | 21 | 7.7 | 9.2 |
| 19 | 157 | 23 | 97 | 900 | 63 | 51 | 266 | 539 | 59 | 19 | 7.8 | 8.0 |
| 20 | 134 | 21 | 87 | 696 | 99 | 391 | 242 | 412 | 54 | 18 | 7.6 | 7.3 |
| 21 | 57 | 21 | 79 | 517 | 120 | 433 | 210 | 334 | 50 | 18 | 7.4 | 6.9 |
| 22 | 38 | 20 | 72 | 403 | 104 | 497 | 185 | 270 | 47 | 18 | 7.2 | 6.5 |
| 23 | 120 | 20 | 68 | 347 | 92 | 465 | 171 | 222 | 46 | 17 | 7.2 | 6.5 |
| 24 | 97 | 19 | 63 | 294 | 83 | 358 | 165 | 187 | 44 | 16 | 7.0 | 6.5 |
| 25 | 61 | 30 | 61 | 256 | 76 | 270 | 149 | 161 | 42 | 16 | 6.8 | 6.4 |
| 26 | 190 | 51 | 133 | 232 | 72 | 219 | 131 | 142 | 41 | 15 | 6.7 | 6.3 |
| 27 | 115 | 42 | 129 | 199 | 68 | 712 | 121 | 126 | 42 | 14 | 6.3 | 6.1 |
| 28 | 71 | 36 | 119 | 225 | 160 | 1,150 | 111 | 124 | 42 | 14 | 6.1 | 5.9 |
| 29 | 54 | 32 | 117 | 318 | --- | 2,480 | 101 | 114 | 38 | 13 | 6.2 | 5.9 |
| 30 | 46 | 32 | 137 | 250 | --- | 1,380 | 94 | 101 | 36 | 13 | 6.6 | 6.0 |
| 31 | 45 | --- | 227 | 203 | --- | 770 | --- | 91 | --- | 12 | 6.8 | --- |
| TOTAL | 1,476.7 | 1,174 | 10,060 | 9,537 | 2,726 | 10,650 | 9,518 | 7,796 | 1,891 | 702 | 261.1 | 199.1 |
| MEAN | 47.6 | 39.1 | 325 | 308 | 97.4 | 344 | 317 | 251 | 63.0 | 22.6 | 8.42 | 6.64 |
| MAX | 190 | 147 | 2,920 | 999 | 172 | 2,480 | 707 | 850 | 111 | 35 | 12 | 9.2 |
| MIN | 6.0 | 19 | 30 | 132 | 63 | 45 | 94 | 86 | 36 | 12 | 6.1 | 5.6 |
| AC-FT | 2,930 | 2,330 | 19,950 | 18,920 | 5,410 | 21,120 | 18,880 | 15,460 | 3,750 | 1,390 | 518 | 395 |
| CFSM | 0.55 | 0.45 | 3.73 | 3.54 | 1.12 | 3.95 | 3.65 | 2.89 | 0.73 | 0.26 | 0.10 | 0.08 |
| IN. | 0.63 | 0.50 | 4.31 | 4.08 | 1.17 | 4.56 | 4.07 | 3.34 | 0.81 | 0.30 | 0.11 | 0.09 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2005, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 38.8 | 277 | 590 | 653 | 564 | 459 | 267 | 116 | 41.0 | 17.3 | 9.79 | 12.0 |
| MAX | 254 | 1,470 | 1,960 | 1,496 | 1,660 | 934 | 840 | 476 | 99.4 | 29.5 | 16.0 | 56.9 |
| (WY) | (1963) | (1974) | (1997) | (1970) | (1958) | (1983) | (1982) | (1963) | (1993) | (1983) | (1983) | (1986) |
| MIN | 5.19 | 13.7 | 13.3 | 24.2 | 66.0 | 91.6 | 56.2 | 38.3 | 17.8 | 7.55 | 3.85 | 3.75 |
| (WY) | (1988) | (1994) | (1977) | (1977) | (1977) | (1992) | (1990) | (1987) | (1992) | (1999) | (1992) | (2001) |

14309500 WEST FORK COW CREEK NEAR GLENDALE, OR—Continued

| SUMMARY STATISTICS | FOR 2004 CALENDAR YEAR | | FOR 2005 WATER YEAR | | WATER YEARS 1956 - 2005 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 66,131.5 | | 55,990.9 | | | |
| ANNUAL MEAN | 181 | | 153 | | 253 | |
| HIGHEST ANNUAL MEAN | | | | | 499 | 1974 |
| LOWEST ANNUAL MEAN | | | | | 56.6 | 2001 |
| HIGHEST DAILY MEAN | 2,920 | Dec 8 | 2,920 | Dec 8 | 11,000 | Dec 22, 1964 |
| LOWEST DAILY MEAN | 4.5 | Aug 17 | 5.6 | Sep 9 | 3.0 | Aug 31, 1992 |
| ANNUAL SEVEN-DAY MINIMUM | 4.5 | Aug 15 | 5.9 | Sep 3 | 3.2 | Aug 26, 1992 |
| ANNUAL RUNOFF (AC-FT) | 131,200 | | 111,100 | | 183,000 | |
| ANNUAL RUNOFF (CFSM) | 2.08 | | 1.77 | | 2.91 | |
| ANNUAL RUNOFF (INCHES) | 28.31 | | 23.97 | | 39.49 | |
| 10 PERCENT EXCEEDS | 516 | | 383 | | 657 | |
| 50 PERCENT EXCEEDS | 46 | | 68 | | 65 | |
| 90 PERCENT EXCEEDS | 6.4 | | 6.9 | | 8.2 | |

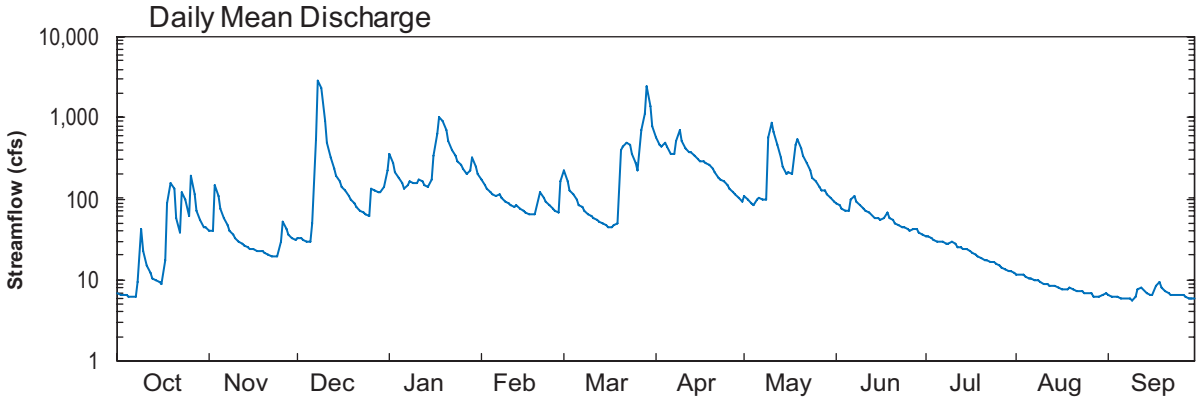
2005 Water Year

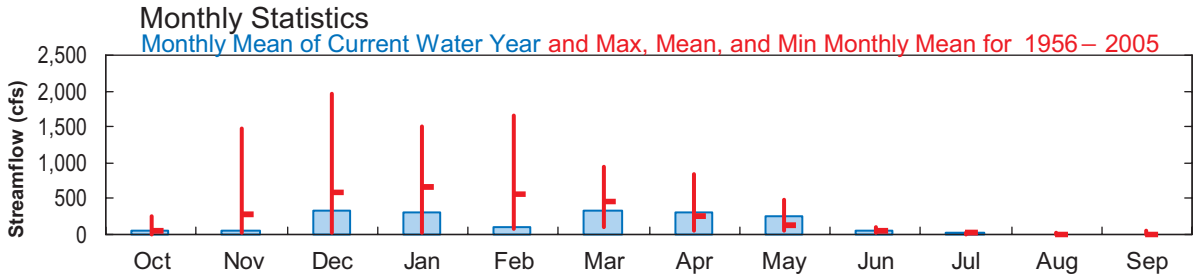
UMPQUA RIVER BASIN

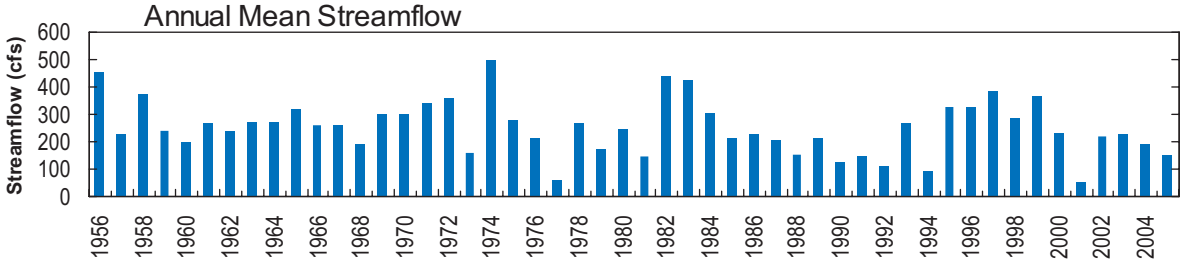
## 14309500 WEST FORK COW CREEK NEAR GLENDALE, OR

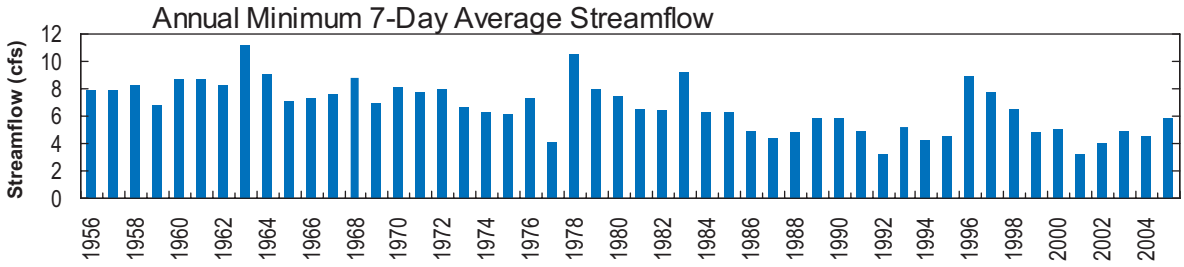
Latitude: 42°48'15" Longitude: 123°36'35" Hydrologic Unit Code: 17100302

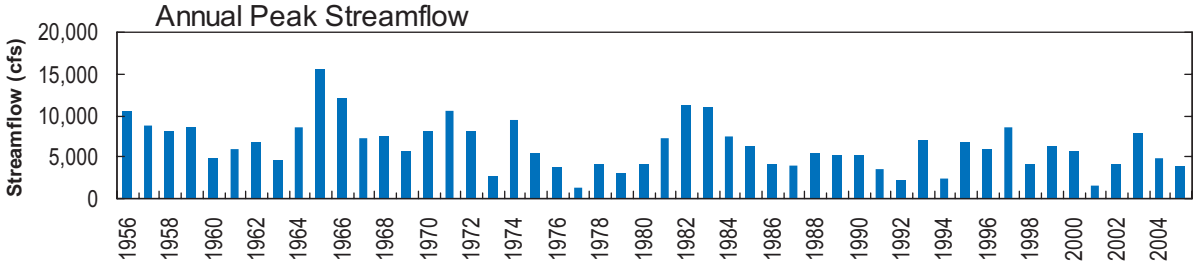
Douglas County Datum: 1018.48 feet Drainage Area: 86.9 mi²



## 14310000 COW CREEK NEAR RIDDLE, OR

LOCATION.--Lat 42°55'25", long 123°25'40", in NE $^1/_4$ sec.32, T.30 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on left bank 0.4 mi upstream from Council Creek, 3.8 mi southwest of Riddle and at mile 6.7.

DRAINAGE AREA.--456 $mi^2$.

PERIOD OF RECORD.--September 1954 to current year.

REVISED RECORDS.--WSP 1935: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 682.60 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since Oct. 7, 1985 by Galesville Reservoir (station 14308995). Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--31 years (water years 1955-85), 903 $ft^3/s$, 654,200 acre-ft/yr. 20 years (water years 1986-2005), 665 $ft^3/s$, 482,000 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,400 $ft^3/s$ Jan. 15, 1974, gage height, 28.17 ft; minimum discharge, 7.4 $ft^3/s$ Aug. 17-19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reached a stage of about 28.5 ft, present site and datum, discharge, 41,100 $ft^3/s$from slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,700 $ft^3/s$ Dec. 8, gage height, 10.00 ft; minimum discharge, 41 $ft^3/s$ Aug. 22-24, 28, 29, Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 74 | 149 | 120 | 680 | 422 | 432 | 1,530 | 471 | 299 | 129 | 56 | 44 |
| 2 | 76 | 147 | 119 | 650 | 382 | 361 | 1,220 | 440 | 289 | 127 | 56 | 43 |
| 3 | 78 | 277 | 115 | 551 | 346 | 311 | 1,050 | 390 | 278 | 123 | 55 | 44 |
| 4 | 79 | 297 | 115 | 484 | 324 | 285 | 1,230 | 367 | 262 | 119 | 57 | 43 |
| 5 | 80 | 227 | 115 | 430 | 313 | 264 | 1,080 | 437 | 253 | 116 | 55 | 44 |
| 6 | 81 | 189 | 126 | 378 | 295 | 245 | 928 | 586 | 268 | 111 | 53 | 44 |
| 7 | 83 | 167 | 757 | 371 | 300 | 237 | 880 | 556 | 315 | 107 | 53 | 44 |
| 8 | 88 | 151 | 5,670 | 453 | 288 | 230 | 1,080 | 566 | 289 | 105 | 52 | 45 |
| 9 | 135 | 141 | 5,940 | 527 | 273 | 223 | 1,720 | 2,670 | 261 | 106 | 52 | 43 |
| 10 | 138 | 128 | 2,790 | 564 | 257 | 217 | 1,470 | 4,100 | 242 | 113 | 54 | 42 |
| 11 | 112 | 120 | 1,400 | 605 | 248 | 215 | 1,170 | 2,950 | 228 | 110 | 51 | 47 |
| 12 | 104 | 114 | 939 | 593 | 246 | 212 | 991 | 1,960 | 223 | 102 | 50 | 55 |
| 13 | 104 | 113 | 679 | 552 | 249 | 208 | 937 | 1,330 | 210 | 97 | 49 | 55 |
| 14 | 104 | 111 | 530 | 514 | 246 | 204 | 821 | 970 | 203 | 94 | 50 | 52 |
| 15 | 105 | 110 | 453 | 531 | 240 | 207 | 733 | 766 | 199 | 90 | 48 | 50 |
| 16 | 107 | 109 | 404 | 984 | 248 | 210 | 682 | 683 | 193 | 86 | 47 | 51 |
| 17 | 109 | 108 | 362 | 1,780 | 257 | 209 | 670 | 624 | 196 | 83 | 45 | 53 |
| 18 | 194 | 106 | 331 | 2,770 | 262 | 214 | 654 | 1,110 | 203 | 80 | 44 | 58 |
| 19 | 247 | 108 | 308 | 2,640 | 264 | 213 | 620 | 1,830 | 199 | 77 | 45 | 61 |
| 20 | 329 | 107 | 282 | 1,950 | 277 | 447 | 577 | 1,330 | 185 | 75 | 45 | 59 |
| 21 | 189 | 106 | 270 | 1,420 | 364 | 756 | 531 | 1,020 | 174 | 73 | 45 | 58 |
| 22 | 150 | 104 | 259 | 1,070 | 390 | 832 | 485 | 809 | 169 | 73 | 42 | 59 |
| 23 | 224 | 101 | 247 | 884 | 354 | 952 | 461 | 668 | 164 | 71 | 41 | 57 |
| 24 | 294 | 103 | 234 | 756 | 321 | 786 | 492 | 576 | 157 | 69 | 43 | 57 |
| 25 | 200 | 107 | 232 | 649 | 297 | 620 | 481 | 509 | 151 | 70 | 42 | 57 |
| 26 | 285 | 147 | 283 | 586 | 284 | 509 | 447 | 466 | 146 | 67 | 42 | 56 |
| 27 | 278 | 148 | 331 | 526 | 268 | 916 | 421 | 423 | 146 | 67 | 42 | 56 |
| 28 | 207 | 136 | 305 | 485 | 274 | 3,080 | 438 | 414 | 150 | 62 | 41 | 57 |
| 29 | 175 | 123 | 298 | 606 | --- | 5,900 | 436 | 390 | 144 | 60 | 42 | 58 |
| 30 | 159 | 119 | 324 | 525 | --- | 4,330 | 397 | 346 | 136 | 59 | 44 | 61 |
| 31 | 155 | --- | 489 | 465 | --- | 2,240 | --- | 318 | --- | 57 | 44 | --- |
| TOTAL | 4,743 | 4,173 | 24,827 | 25,979 | 8,289 | 26,065 | 24,632 | 30,075 | 6,332 | 2,778 | 1,485 | 1,553 |
| MEAN | 153 | 139 | 801 | 838 | 296 | 841 | 821 | 970 | 211 | 89.6 | 47.9 | 51.8 |
| MAX | 329 | 297 | 5,940 | 2,770 | 422 | 5,900 | 1,720 | 4,100 | 315 | 129 | 57 | 61 |
| MIN | 74 | 101 | 115 | 371 | 240 | 204 | 397 | 318 | 136 | 57 | 41 | 42 |
| AC-FT | 9,410 | 8,280 | 49,240 | 51,530 | 16,440 | 51,700 | 48,860 | 59,650 | 12,560 | 5,510 | 2,950 | 3,080 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2005, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 106 | 468 | 1,368 | 1,834 | 1,563 | 1,123 | 708 | 409 | 185 | 99.0 | 77.9 | 82.2 |
| MAX | 249 | 1,792 | 6,225 | 4,144 | 4,420 | 2,362 | 1,833 | 1,074 | 477 | 189 | 166 | 152 |
| (WY) | (1998) | (1999) | (1997) | (1995) | (1999) | (1995) | (1993) | (1998) | (1998) | (1998) | (1993) | (1986) |
| MIN | 55.4 | 88.5 | 210 | 189 | 285 | 253 | 194 | 98.8 | 47.2 | 27.6 | 20.7 | 21.6 |
| (WY) | (1989) | (1988) | (1990) | (2001) | (2001) | (2001) | (1990) | (2001) | (2001) | (2001) | (2001) | (2001) |

14310000 COW CREEK NEAR RIDDLE, OR—Continued

| SUMMARY STATISTICS | FOR 2004 CALENDAR YEAR | | FOR 2005 WATER YEAR | | WATER YEARS 1986 - 2005 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 203,502 | | 160,931 | | | |
| ANNUAL MEAN | 556 | | 441 | | 665 | |
| HIGHEST ANNUAL MEAN | | | | | 1,221 | 1999 |
| LOWEST ANNUAL MEAN | | | | | 152 | 2001 |
| HIGHEST DAILY MEAN | 7,880 | Feb 18 | 5,940 | Dec 9 | 23,100 | Dec 8, 1996 |
| LOWEST DAILY MEAN | 46 | Aug 17 | 41 | Aug 23 | 16 | Aug 29, 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 47 | Aug 16 | 42 | Aug 22 | 17 | Aug 13, 2001 |
| ANNUAL RUNOFF (AC-FT) | 403,600 | | 319,200 | | 482,000 | |
| 10 PERCENT EXCEEDS | 1,420 | | 944 | | 1,640 | |
| 50 PERCENT EXCEEDS | 196 | | 228 | | 213 | |
| 90 PERCENT EXCEEDS | 57 | | 52 | | 57 | |

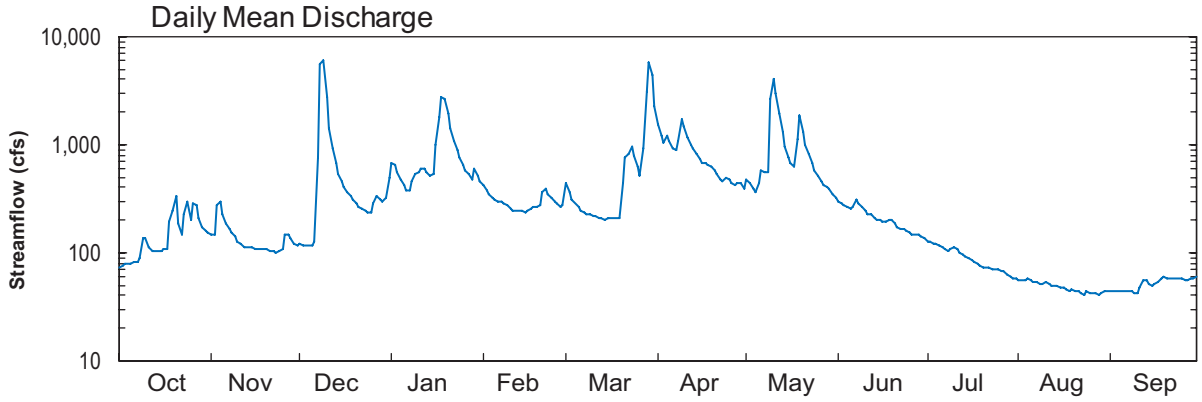
2005 Water Year

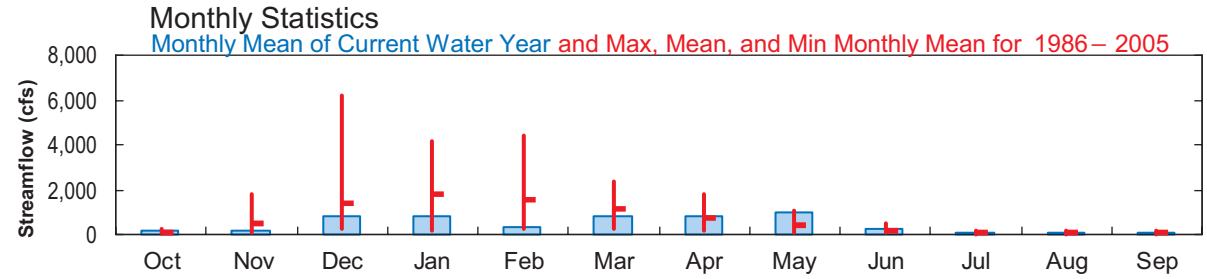
UMPQUA RIVER BASIN

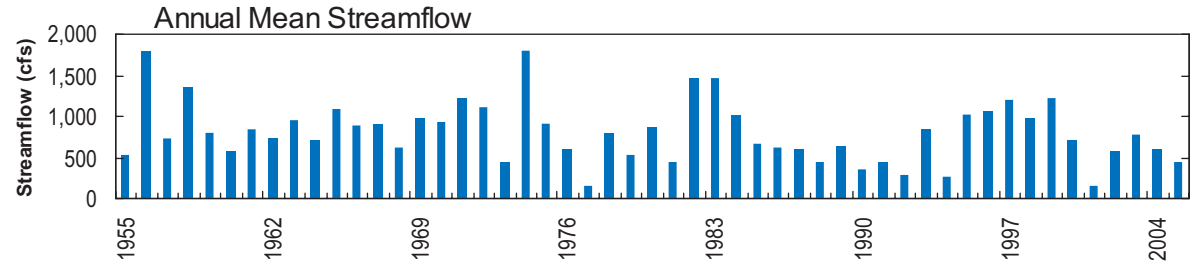
## 14310000 COW CREEK NEAR RIDDLE, OR

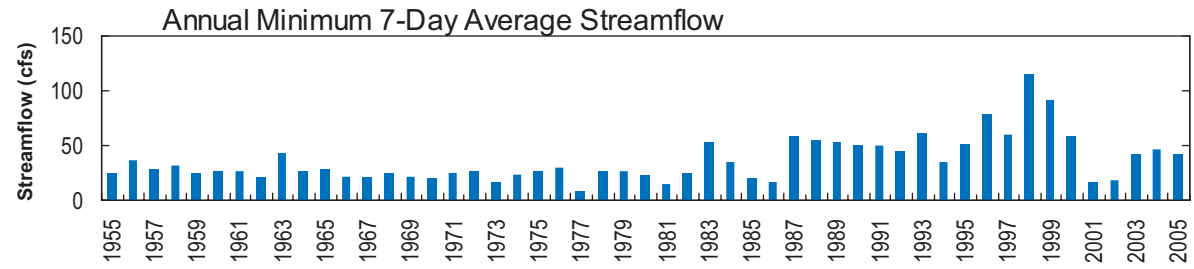
Latitude: 42° 55 ' 25" Longitude: 123° 25 ' 40" Hydrologic Unit Code: 17100302

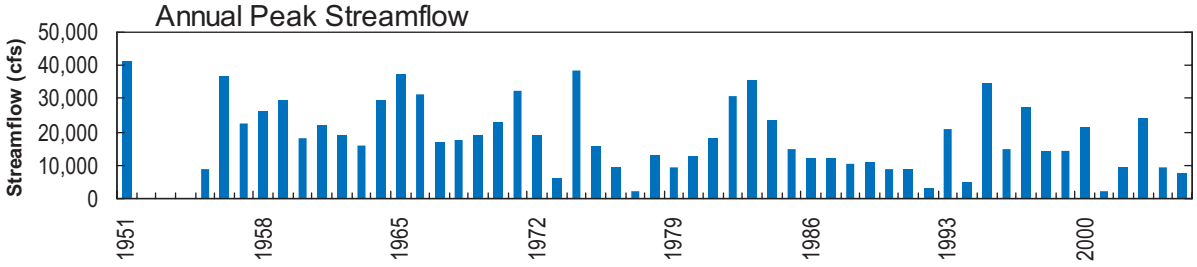
Douglas County Datum: 682.60 feet Drainage Area: 456 mi²



## 14312000 SOUTH UMPQUA RIVER NEAR BROCKWAY, OR

LOCATION.--Lat 43°08'00", long 123°23'50", in SW $^1/_4$ sec.15, T.28 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on right bank 10 ft upstream from Winston Bridge on State Highway 99, 2.5 mi northeast of Brockway, 4.2 mi downstream from Lookingglass Creek and at mile 132.8.

DRAINAGE AREA.--1,670 mi$^2$.

PERIOD OF RECORD.--December 1905 to June 1912, October 1923 to September 1926, January 1942 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1946(M), 1948(M), 1951. WSP 1448: Drainage area. WDR OR 72-1: 1965(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 462.52 ft above NGVD of 1929 (State Highway Department bench mark). Prior to June 24, 1949, nonrecording gage at several sites within 400 ft of present site at various datums. June 24, 1949 to Oct. 1, 1970, at datum 461.84 ft above NGVD of 1929(State Highway Department bench mark).

REMARKS.--No estimated daily discharges. Records fair. Regulation from Ben Irving Reservoir, since January 1980, on Berry Creek during summer months. Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--71 years (water years 1907-11, 1924-26, 1943-2005), 2,740 ft$^3$/s, 22.30 in/yr, 1,985,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125,000 ft$^3$/s Dec. 23, 1964, gage height, 34.28 ft; minimum discharge, 16 ft$^3$/s Aug. 23, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 21, 1927, reached a stage of about 31.2 ft, present site and datum, discharge, 89,500 ft$^3$/s. Discharge for flood of February 1890, which reached a stage 1.9 ft higher, according to local resident who lived nearby at time of both floods, has been found to be in error and should not be used.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft$^3$/s and maximum (*):

| Date | Time | Discharge (ft$^3$/s) | Gage height (ft) | Date | Time | Discharge (ft$^3$/s) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Dec 9 | 1730 | *34,300 | *17.50 | May 10 | 2030 | 20,300 | 13.60 |
| Mar 29 | 1630 | 20,500 | 13.65 | | | | |

Minimum discharge, 76 ft$^3$/s, Aug. 24, 27, gage height, 2.88 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 157 | 535 | 435 | 1,680 | 1,240 | 922 | 5,690 | 1,980 | 1,740 | 497 | 135 | 83 |
| 2 | 159 | 505 | 416 | 1,850 | 1,140 | 942 | 4,860 | 1,940 | 1,610 | 473 | 130 | 82 |
| 3 | 162 | 646 | 407 | 1,700 | 1,040 | 844 | 4,170 | 1,780 | 1,460 | 454 | 131 | 81 |
| 4 | 162 | 1,540 | 390 | 1,520 | 979 | 803 | 5,010 | 1,670 | 1,330 | 434 | 127 | 85 |
| 5 | 158 | 1,020 | 376 | 1,370 | 942 | 750 | 4,940 | 2,030 | 1,220 | 412 | 128 | 90 |
| 6 | 158 | 751 | 411 | 1,220 | 918 | 696 | 4,300 | 2,890 | 1,240 | 391 | 127 | 86 |
| 7 | 159 | 603 | 2,260 | 1,140 | 920 | 651 | 4,260 | 3,280 | 1,620 | 369 | 125 | 87 |
| 8 | 167 | 511 | 10,800 | 1,450 | 937 | 620 | 6,170 | 3,480 | 1,870 | 353 | 117 | 90 |
| 9 | 218 | 455 | 29,000 | 2,160 | 872 | 596 | 6,870 | 10,100 | 1,800 | 362 | 111 | 88 |
| 10 | 282 | 414 | 17,900 | 2,280 | 820 | 572 | 6,090 | 18,900 | 1,560 | 376 | 105 | 95 |
| 11 | 319 | 381 | 8,070 | 2,280 | 782 | 551 | 4,980 | 15,800 | 1,400 | 379 | 104 | 109 |
| 12 | 259 | 357 | 5,030 | 2,240 | 761 | 537 | 4,620 | 9,840 | 1,280 | 364 | 100 | 125 |
| 13 | 228 | 340 | 3,630 | 2,020 | 780 | 520 | 4,160 | 6,650 | 1,160 | 335 | 97 | 145 |
| 14 | 216 | 326 | 2,850 | 1,840 | 829 | 502 | 3,590 | 4,960 | 1,060 | 312 | 93 | 141 |
| 15 | 207 | 320 | 2,590 | 1,840 | 810 | 479 | 3,150 | 3,960 | 997 | 296 | 103 | 127 |
| 16 | 203 | 310 | 2,150 | 3,090 | 766 | 463 | 2,850 | 3,620 | 936 | 285 | 96 | 122 |
| 17 | 220 | 305 | 1,820 | 4,970 | 732 | 468 | 3,130 | 3,690 | 918 | 274 | 92 | 121 |
| 18 | 287 | 305 | 1,560 | 6,340 | 698 | 471 | 3,790 | 4,470 | 1,010 | 255 | 91 | 137 |
| 19 | 616 | 294 | 1,380 | 6,610 | 681 | 483 | 3,550 | 7,340 | 958 | 236 | 90 | 146 |
| 20 | 693 | 288 | 1,240 | 5,170 | 886 | 556 | 3,120 | 5,690 | 879 | 218 | 91 | 171 |
| 21 | 549 | 278 | 1,120 | 4,080 | 1,270 | 1,260 | 2,750 | 4,720 | 797 | 207 | 94 | 147 |
| 22 | 405 | 269 | 1,010 | 3,260 | 1,290 | 1,350 | 2,540 | 3,930 | 742 | 200 | 94 | 135 |
| 23 | 467 | 262 | 929 | 2,750 | 1,130 | 1,890 | 2,500 | 3,260 | 702 | 204 | 87 | 129 |
| 24 | 1,900 | 260 | 860 | 2,430 | 1,010 | 1,910 | 2,710 | 2,790 | 667 | 205 | 80 | 128 |
| 25 | 1,120 | 271 | 809 | 2,150 | 912 | 1,690 | 2,850 | 2,430 | 631 | 196 | 80 | 128 |
| 26 | 734 | 396 | 869 | 1,940 | 845 | 1,400 | 2,590 | 2,160 | 598 | 185 | 81 | 132 |
| 27 | 809 | 830 | 1,060 | 1,860 | 790 | 1,490 | 2,340 | 1,900 | 578 | 172 | 79 | 129 |
| 28 | 655 | 622 | 1,030 | 1,720 | 768 | 7,750 | 2,300 | 1,750 | 579 | 168 | 83 | 129 |
| 29 | 517 | 525 | 1,020 | 1,670 | --- | 16,700 | 2,340 | 1,960 | 570 | 157 | 85 | 125 |
| 30 | 450 | 463 | 1,140 | 1,550 | --- | 14,300 | 2,070 | 2,290 | 533 | 143 | 84 | 127 |
| 31 | 439 | --- | 1,440 | 1,370 | --- | 7,970 | --- | 1,990 | --- | 137 | 80 | --- |
| TOTAL | 13,075 | 14,382 | 104,002 | 77,550 | 25,548 | 70,136 | 114,290 | 143,250 | 32,445 | 9,049 | 3,120 | 3,520 |
| MEAN | 422 | 479 | 3,355 | 2,502 | 912 | 2,262 | 3,810 | 4,621 | 1,082 | 292 | 101 | 117 |
| MAX | 1,900 | 1,540 | 29,000 | 6,610 | 1,290 | 16,700 | 6,870 | 18,900 | 1,870 | 497 | 135 | 171 |
| MIN | 157 | 260 | 376 | 1,140 | 681 | 463 | 2,070 | 1,670 | 533 | 137 | 79 | 81 |
| AC-FT | 25,930 | 28,530 | 206,300 | 153,800 | 50,670 | 139,100 | 226,700 | 284,100 | 64,350 | 17,950 | 6,190 | 6,980 |
| CFSM | 0.25 | 0.29 | 2.01 | 1.50 | 0.55 | 1.35 | 2.28 | 2.77 | 0.65 | 0.17 | 0.06 | 0.07 |
| IN. | 0.29 | 0.32 | 2.32 | 1.73 | 0.57 | 1.56 | 2.55 | 3.19 | 0.72 | 0.20 | 0.07 | 0.08 |

14312000 SOUTH UMPQUA RIVER NEAR BROCKWAY, OR—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

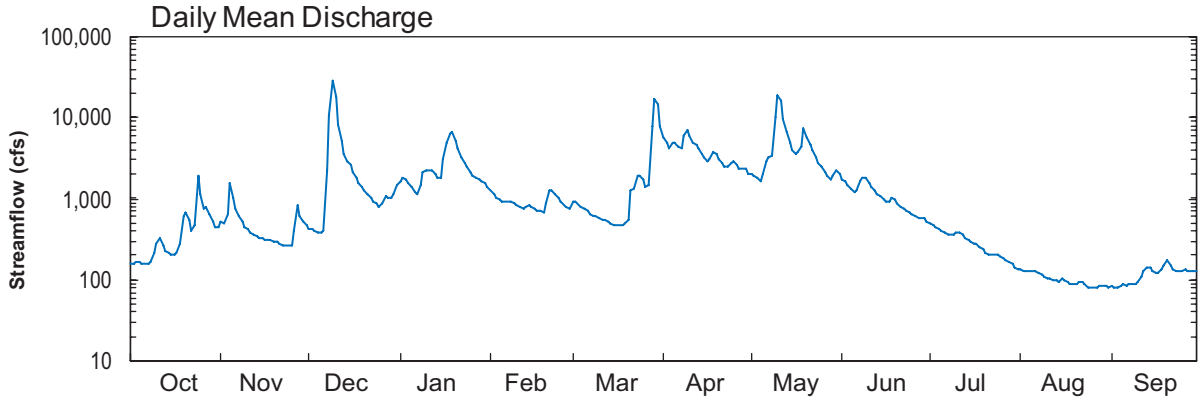
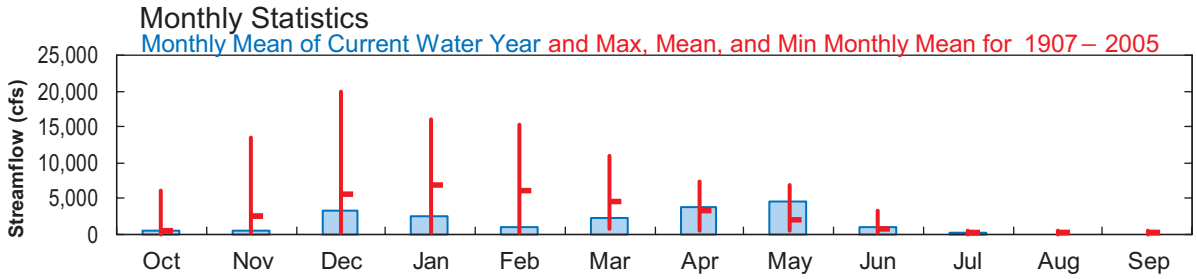
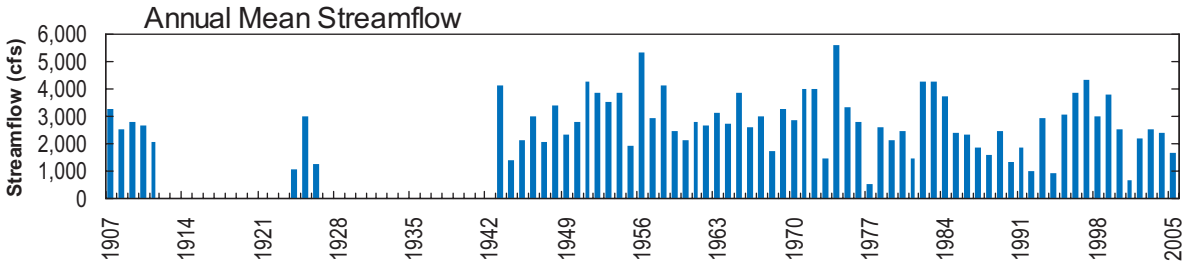
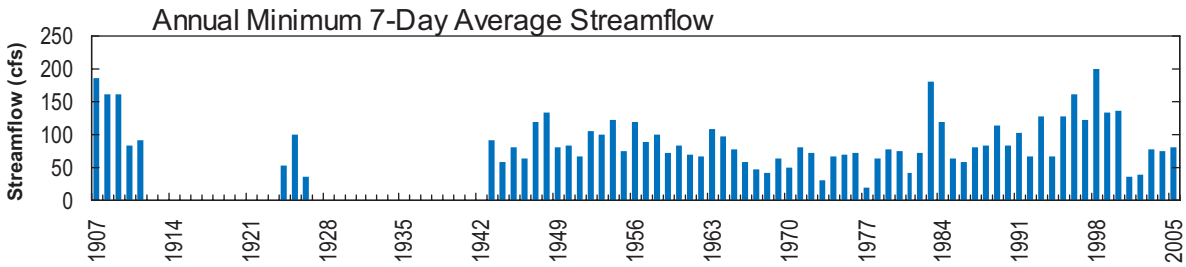
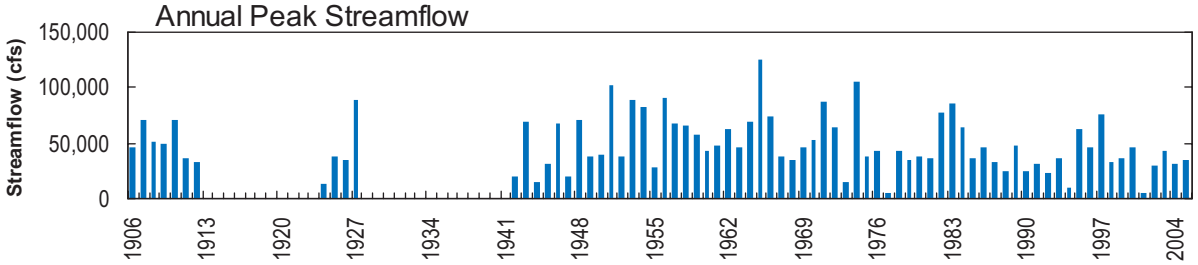
| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 2005, BY WATER YEAR (WY) | | | | | | | | | | | | |
| MEAN | 449 | 2,586 | 5,639 | 6,827 | 6,162 | 4,671 | 3,243 | 1,999 | 865 | 264 | 136 | 149 |
| MAX | 6,045 | 13,590 | 19,950 | 16,010 | 15,370 | 10,950 | 7,378 | 6,909 | 3,312 | 576 | 392 | 587 |
| (WY) | (1951) | (1974) | (1997) | (1956) | (1958) | (1974) | (1963) | (1963) | (1953) | (1953) | (1993) | (1986) |
| MIN | 103 | 190 | 184 | 262 | 341 | 882 | 589 | 446 | 142 | 52.6 | 40.2 | 50.0 |
| (WY) | (1988) | (1953) | (1977) | (1977) | (1977) | (1992) | (1926) | (1926) | (1926) | (1926) | (1973) | (2001) |

| SUMMARY STATISTICS | FOR 2004 CALENDAR YEAR | | FOR 2005 WATER YEAR | | WATER YEARS 1907 - 2005 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 798,258 | | 610,367 | | | |
| ANNUAL MEAN | 2,181 | | 1,672 | | 2,740 | |
| HIGHEST ANNUAL MEAN | | | | | 5,567 | 1974 |
| LOWEST ANNUAL MEAN | | | | | 562 | 1977 |
| HIGHEST DAILY MEAN | 29,000 | Dec 9 | 29,000 | Dec 9 | 90,200 | Oct 29, 1950 |
| LOWEST DAILY MEAN | 71 | Aug 18 | 79 | Aug 27 | 17 | Aug 20, 1977 |
| ANNUAL SEVEN-DAY MINIMUM | 74 | Aug 15 | 82 | Aug 24 | 18 | Aug 17, 1977 |
| ANNUAL RUNOFF (AC-FT) | 1,583,000 | | 1,211,000 | | 1,985,000 | |
| ANNUAL RUNOFF (CFSM) | 1.31 | | 1.00 | | 1.64 | |
| ANNUAL RUNOFF (INCHES) | 17.78 | | 13.60 | | 22.30 | |
| 10 PERCENT EXCEEDS | 6,400 | | 4,110 | | 6,690 | |
| 50 PERCENT EXCEEDS | 920 | | 766 | | 1,040 | |
| 90 PERCENT EXCEEDS | 119 | | 122 | | 114 | |

2005 Water Year

UMPQUA RIVER BASIN

## 14312000 SOUTH UMPQUA RIVER NEAR BROCKWAY, OR

Latitude: 43°08'00" Longitude: 123°23'50" Hydrologic Unit Code: 17100302

Douglas County Datum: 462.52 feet Drainage Area: 1670 mi²