# 12439500 OKANOGAN RIVER AT OROVILLE, WA

Upper Columbia Basin
Okanogan Subbasin

LOCATION.--Lat 48°55′51″, long 119°25′09″ referenced to North American Datum of 1927, in SE ¼ SW ¼ sec.27, T.40 N., R.27 E., Okanogan County, WA, Hydrologic Unit 17020006, on left bank in Oroville, 20 ft downstream from Burlington Northern trestle, 0.5 mi downstream from Tonasket Creek, 1.7 mi downstream from Osoyoos Lake, 3.2 mi upstream from Similkameen River, and at mile 77.3.

DRAINAGE AREA.--3,195 $mi^2$.

## SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1942 to current year.

REVISED RECORDS.--WDR WA-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Oct. 26, 1944, nonrecording gage at Zosel Mill dam 200 ft upstream, Oct. 26, 1944, to Mar. 6, 1948, water-stage recorder on railroad trestle 20 ft upstream, both at same datum. Auxiliary water-stage recorder 0.5 mi downstream used during high-water periods; May 15, 1946, to Apr. 9, 1948, nonrecording gage at same site, both at datum 900.00 ft above NGVD of 1929. To convert to 1947 joint adjustment of U.S. Coast and Geodetic Survey and Geodetic Survey of Canada, subtract 0.26 ft.

COOPERATION.--This station is maintained by the United States under agreement with Canada.

REMARKS.--No estimated daily discharges. Records good except for backwater period May 17 - June 18 which is fair. Diversions made to irrigate approximately 44,000 acres in Canada and minor diversions in the United States upstream from station. Natural regulation in several large lakes and artificial regulation in Okanagan Lake 46.7 mi upstream for flood control and irrigation; also regulated by Zosel dam at Oroville, 500 ft upstream from gage. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--64 years (water years 1943-2006), 685 $ft^3/s$, 496,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,770 $ft^3/s$ June 7, 1997; maximum elevation, 916.89 ft June 2, 1972, at datum then in use, backwater from Similkameen River; minimum daily discharge, -2,270 $ft^3/s$ reverse flow May 29, 1948; minimum elevation, 903.98 ft Mar. 1, 1948, at datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,690 $ft^3/s$, June 16, maximum elevation, 911.62 ft, May 21, result of backwater from Similkameen River; minimum discharge, 59 $ft^3/s$ , Mar. 25; minimum elevation, 905.67 ft, Mar. 25, result of regulation at Zosel Dam.

**12439500 OKANOGAN RIVER AT OROVILLE, WA—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**
**DAILY MEAN VALUES**

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 441 | 526 | 259 | 254 | 259 | 289 | 145 | 1,170 | 2,420 | 981 | 234 | 295 |
| 2 | 441 | 562 | 259 | 254 | 259 | 403 | 146 | 1,020 | 2,350 | 783 | 233 | 295 |
| 3 | 447 | 590 | 259 | 254 | 262 | 699 | 151 | 770 | 2,340 | 790 | 229 | 295 |
| 4 | 455 | 585 | 259 | 254 | 272 | 801 | 181 | 645 | 2,390 | 795 | 230 | 295 |
| 5 | 459 | 576 | 259 | 319 | 283 | 807 | 660 | 735 | 2,420 | 790 | 229 | 295 |
| 6 | 461 | 569 | 259 | 358 | 335 | 875 | 1,260 | 1,010 | 2,410 | 736 | 229 | 295 |
| 7 | 464 | 557 | 259 | 358 | 440 | 908 | 872 | 1,230 | 2,420 | 707 | 232 | 295 |
| 8 | 467 | 547 | 254 | 352 | 621 | 904 | 750 | 1,230 | 2,430 | 706 | 233 | 295 |
| 9 | 472 | 532 | 254 | 348 | 1,120 | 908 | 750 | 1,260 | 2,400 | 707 | 258 | 295 |
| 10 | 473 | 516 | 254 | 353 | 1,410 | 909 | 755 | 1,610 | 2,470 | 706 | 287 | 295 |
| 11 | 477 | 504 | 254 | 352 | 1,340 | 909 | 756 | 1,890 | 2,490 | 904 | 287 | 295 |
| 12 | 480 | 493 | 207 | 348 | 1,250 | 906 | 769 | 2,030 | 2,550 | 1,190 | 287 | 295 |
| 13 | 484 | 482 | 217 | 348 | 1,190 | 899 | 852 | 2,100 | 2,600 | 1,190 | 287 | 295 |
| 14 | 489 | 473 | 239 | 343 | 1,150 | 673 | 858 | 2,070 | 2,610 | 1,190 | 324 | 295 |
| 15 | 492 | 459 | 240 | 340 | 688 | 928 | 846 | 2,060 | 2,610 | 1,190 | 353 | 295 |
| 16 | 496 | 450 | 213 | 278 | 930 | 929 | 843 | 2,090 | 2,640 | 1,190 | 333 | 299 |
| 17 | 503 | 439 | 197 | 244 | 887 | 941 | 837 | 2,060 | 2,680 | 1,180 | 276 | 780 |
| 18 | 504 | 360 | 200 | 244 | 786 | 845 | 771 | 1,720 | 2,640 | 1,090 | 234 | 771 |
| 19 | 504 | 321 | 200 | 244 | 761 | 953 | 641 | 1,270 | 2,580 | 896 | 234 | 538 |
| 20 | 506 | 317 | 200 | 244 | 742 | 953 | 582 | 1,330 | 2,490 | 427 | 234 | 648 |
| 21 | 503 | 283 | 200 | 249 | 726 | 888 | 687 | 1,490 | 2,430 | 164 | 234 | 774 |
| 22 | 503 | 264 | 220 | 249 | 715 | 778 | 808 | 2,030 | 2,380 | 162 | 264 | 768 |
| 23 | 503 | 262 | 254 | 249 | 683 | 616 | 831 | 2,230 | 2,330 | 204 | 331 | 577 |
| 24 | 496 | 259 | 254 | 249 | 627 | 521 | 829 | 2,300 | 2,300 | 443 | 350 | 403 |
| 25 | 493 | 259 | 253 | 249 | 698 | 423 | 828 | 2,360 | 2,270 | 503 | 348 | 585 |
| 26 | 492 | 261 | 254 | 249 | 677 | 501 | 830 | 2,380 | 2,240 | 338 | 316 | 750 |
| 27 | 501 | 260 | 254 | 249 | 671 | 467 | 855 | 2,400 | 2,160 | 253 | 300 | 676 |
| 28 | 504 | 259 | 254 | 249 | 410 | 350 | 944 | 2,420 | 2,050 | 249 | 300 | 606 |
| 29 | 495 | 259 | 254 | 249 | --- | 301 | 1,000 | 2,410 | 1,860 | 245 | 300 | 551 |
| 30 | 492 | 259 | 254 | 254 | --- | 201 | 1,090 | 2,400 | 1,450 | 242 | 297 | 450 |
| 31 | 492 | --- | 254 | 254 | --- | 144 | --- | 2,430 | --- | 239 | 295 | --- |
| Total | 14,989 | 12,483 | 7,447 | 8,838 | 20,192 | 21,629 | 22,127 | 54,150 | 71,410 | 21,190 | 8,578 | 13,601 |
| Mean | 484 | 416 | 240 | 285 | 721 | 698 | 738 | 1,747 | 2,380 | 684 | 277 | 453 |
| Max | 506 | 590 | 259 | 358 | 1,410 | 953 | 1,260 | 2,430 | 2,680 | 1,190 | 353 | 780 |
| Min | 441 | 259 | 197 | 244 | 259 | 144 | 145 | 645 | 1,450 | 162 | 229 | 295 |
| Ac-ft | 29,730 | 24,760 | 14,770 | 17,530 | 40,050 | 42,900 | 43,890 | 107,400 | 141,600 | 42,030 | 17,010 | 26,980 |

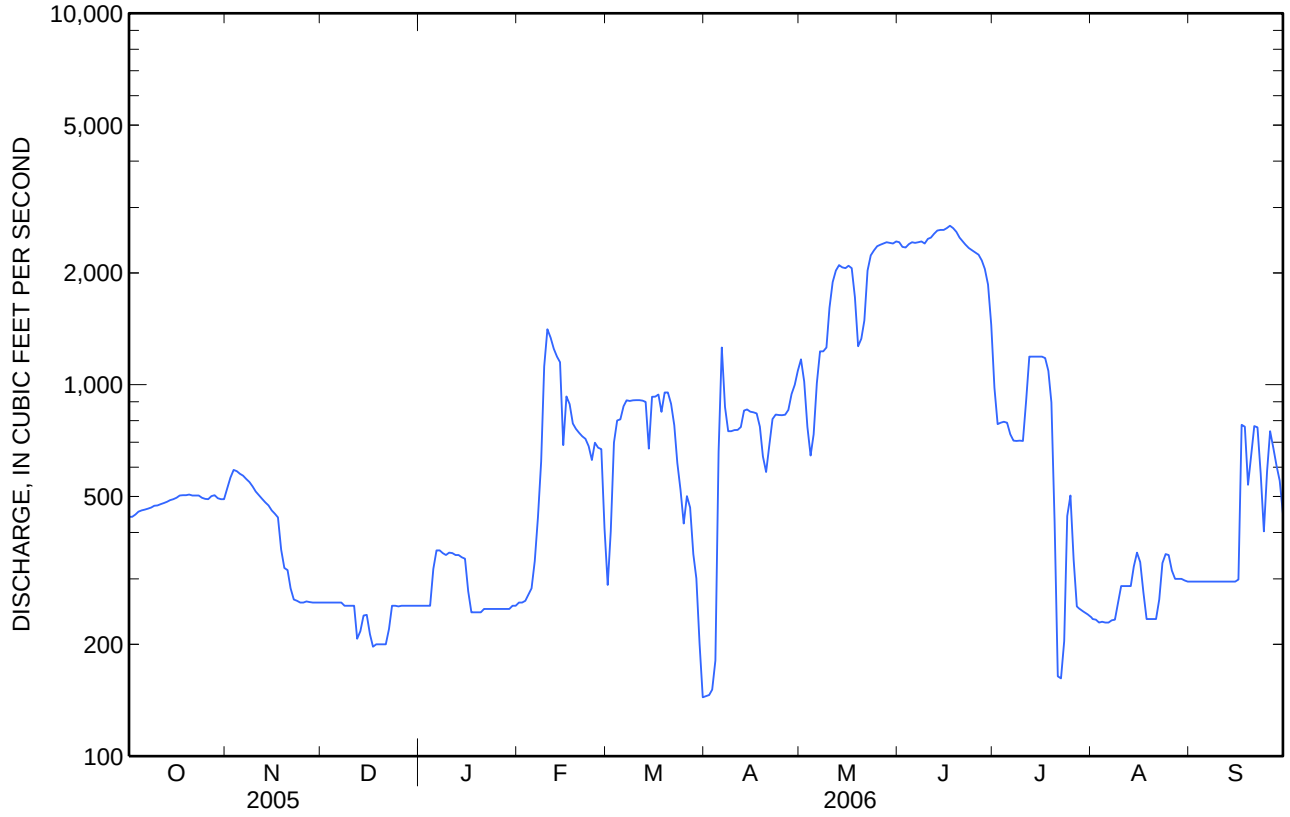
**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2006, BY WATER YEAR (WY)**

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | 505 | 474 | 463 | 483 | 577 | 638 | 759 | 1,151 | 1,151 | 813 | 643 | 562 |
| Max | 1,430 | 1,551 | 1,404 | 1,190 | 1,214 | 1,918 | 2,475 | 2,870 | 3,165 | 2,598 | 2,570 | 2,279 |
| (WY) | (1949) | (1949) | (1949) | (1949) | (1997) | (1983) | (1983) | (1983) | (1997) | (1997) | (1997) | (1997) |
| Min | 179 | 148 | 149 | 162 | 140 | 74.1 | 115 | 180 | 111 | 126 | 150 | 81.7 |
| (WY) | (1989) | (1971) | (1971) | (1968) | (1971) | (1977) | (1968) | (1992) | (1992) | (1947) | (1963) | (1944) |

**12439500 OKANOGAN RIVER AT OROVILLE, WA—Continued**

**SUMMARY STATISTICS**

| | Calendar Year 2005 | | Water Year 2006 | | Water Years 1943 - 2006 | |
|---|---|---|---|---|---|---|
| **Annual total** | 229,493 | | 276,634 | | | |
| **Annual mean** | 629 | | 758 | | 685 | |
| **Highest annual mean** | | | | | 1,691 | 1997 |
| **Lowest annual mean** | | | | | 213 | 1988 |
| **Highest daily mean** | 1,970 | Jul 1 | 2,680 | Jun 17 | 3,680 | Jun 14, 1972 |
| **Lowest daily mean** | 143 | Aug 11 | 144 | Mar 31 | -2,270 | May 29, 1948 |
| **Annual seven-day minimum** | 148 | Aug 11 | 181 | Mar 29 | -1,080 | May 24, 1948 |
| **Annual runoff (ac-ft)** | 455,200 | | 548,700 | | 496,400 | |
| **10 percent exceeds** | 1,090 | | 2,120 | | 1,490 | |
| **50 percent exceeds** | 532 | | 496 | | 495 | |
| **90 percent exceeds** | 259 | | 244 | | 200 | |



## WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 1986 to September, 1987 and March 2005 to current year.

INSTRUMENTATION.--Water temperature recorder since March, 2005.

REMARKS.--Records fair due to variability found in cross-section comparison of May 20.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 30.1°C, July 23, 2006; minimum, 0.0°C, Jan. 4-17, 1987 and Dec. 18, 2005.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 30.1°C, July 23; minimum, 0.0°C, Dec. 18.

**TEMPERATURE, WATER, DEGREES CELSIUS**
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

| Day | Max | Min | Mean | Max | Min | Mean | Max | Min | Mean | Max | Min | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | October | | | November | | | December | | | January | |
| 1 | 16.6 | 15.6 | 16.0 | 11.8 | 11.2 | 11.4 | 5.0 | 3.8 | 4.6 | 2.4 | 2.0 | 2.2 |
| 2 | 15.8 | 14.8 | 15.4 | 11.4 | 10.9 | 11.1 | 4.6 | 3.6 | 4.1 | 2.4 | 2.0 | 2.2 |
| 3 | 15.3 | 14.6 | 15.0 | 11.2 | 10.6 | 10.9 | 4.2 | 3.4 | 3.9 | 2.4 | 2.1 | 2.3 |
| 4 | 16.0 | 14.6 | 15.2 | 10.9 | 10.3 | 10.7 | 3.4 | 2.8 | 3.0 | 2.6 | 2.0 | 2.3 |
| 5 | 15.6 | 15.0 | 15.2 | 10.7 | 10.1 | 10.3 | 3.4 | 2.8 | 3.1 | 2.4 | 2.0 | 2.2 |
| 6 | 15.0 | 14.6 | 14.7 | 10.8 | 10.0 | 10.3 | 2.8 | 1.5 | 2.3 | 2.4 | 2.2 | 2.3 |
| 7 | 15.1 | 14.4 | 14.7 | 10.0 | 9.3 | 9.6 | 2.6 | 1.5 | 2.0 | 2.5 | 2.2 | 2.4 |
| 8 | 14.7 | 13.6 | 14.3 | 9.8 | 9.4 | 9.6 | 2.1 | 1.5 | 1.8 | 2.6 | 2.2 | 2.4 |
| 9 | 15.1 | 13.8 | 14.5 | 9.6 | 9.1 | 9.3 | 2.2 | 1.5 | 1.8 | 2.6 | 2.2 | 2.4 |
| 10 | 14.6 | 13.8 | 14.2 | 9.4 | 8.9 | 9.2 | 2.3 | 1.5 | 1.9 | 3.2 | 2.4 | 2.8 |
| 11 | 15.0 | 13.6 | 14.4 | 9.5 | 8.8 | 9.2 | 1.9 | 1.1 | 1.5 | 3.1 | 2.3 | 2.7 |
| 12 | 14.8 | 14.2 | 14.5 | 8.9 | 8.4 | 8.7 | 1.4 | 0.8 | 1.1 | 2.5 | 1.9 | 2.2 |
| 13 | 14.9 | 13.7 | 14.2 | 8.9 | 8.5 | 8.7 | 1.7 | 0.9 | 1.3 | 2.8 | 2.4 | 2.6 |
| 14 | 14.8 | 14.1 | 14.4 | 8.6 | 7.4 | 8.0 | 1.6 | 1.2 | 1.4 | 3.0 | 2.6 | 2.7 |
| 15 | 14.6 | 13.6 | 14.1 | 7.9 | 7.4 | 7.6 | 1.6 | 1.1 | 1.3 | 2.9 | 2.1 | 2.5 |
| 16 | 14.3 | 13.7 | 14.0 | 8.1 | 7.4 | 7.7 | 1.1 | 0.6 | 0.9 | 2.1 | 1.8 | 2.0 |
| 17 | 14.8 | 13.7 | 14.2 | 7.8 | 7.0 | 7.4 | 1.8 | 0.8 | 1.1 | 2.6 | 1.9 | 2.3 |
| 18 | 14.4 | 13.6 | 14.0 | 7.8 | 7.2 | 7.5 | 1.0 | 0.0 | 0.4 | 2.5 | 2.0 | 2.2 |
| 19 | 13.9 | 13.4 | 13.6 | 7.3 | 7.0 | 7.2 | 1.0 | 0.2 | 0.6 | 2.4 | 1.9 | 2.1 |
| 20 | 14.3 | 13.4 | 13.8 | 7.4 | 7.2 | 7.3 | 1.3 | 0.9 | 1.1 | 2.2 | 1.7 | 1.9 |
| 21 | 13.7 | 13.1 | 13.4 | 7.3 | 6.7 | 7.0 | 1.6 | 1.2 | 1.4 | 2.3 | 1.7 | 1.9 |
| 22 | 13.9 | 12.7 | 13.4 | 6.9 | 6.5 | 6.7 | 1.6 | 1.4 | 1.5 | 2.1 | 1.4 | 1.8 |
| 23 | 13.8 | 13.0 | 13.4 | 6.5 | 6.0 | 6.3 | 1.6 | 1.2 | 1.4 | 2.5 | 1.9 | 2.1 |
| 24 | 13.7 | 12.6 | 13.2 | 6.3 | 5.8 | 6.1 | 1.8 | 1.5 | 1.7 | 2.4 | 1.7 | 2.0 |
| 25 | 13.5 | 12.6 | 13.2 | 6.0 | 5.3 | 5.7 | 2.4 | 1.5 | 1.8 | 2.4 | 1.7 | 2.1 |
| 26 | 13.4 | 12.5 | 12.9 | 6.1 | 5.3 | 5.6 | 1.9 | 1.7 | 1.8 | 2.4 | 1.8 | 2.1 |
| 27 | 12.5 | 12.0 | 12.2 | 5.6 | 5.0 | 5.3 | 2.2 | 1.8 | 2.0 | 3.1 | 2.0 | 2.4 |
| 28 | 12.5 | 12.1 | 12.2 | 5.0 | 4.6 | 4.8 | 2.0 | 1.7 | 1.9 | 3.0 | 1.7 | 2.3 |
| 29 | 12.5 | 11.7 | 12.1 | 5.4 | 4.6 | 5.0 | 2.2 | 1.9 | 2.0 | 2.3 | 1.5 | 1.9 |
| 30 | 11.9 | 11.1 | 11.5 | 5.3 | 4.7 | 5.0 | 2.2 | 1.9 | 2.0 | 2.9 | 1.6 | 2.1 |
| 31 | 12.0 | 11.2 | 11.6 | --- | --- | --- | 2.5 | 2.0 | 2.2 | 2.1 | 1.7 | 2.0 |
| Month | 16.6 | 11.1 | 13.9 | 11.8 | 4.6 | 8.0 | 5.0 | 0.0 | 1.9 | 3.2 | 1.4 | 2.2 |

**12439500 OKANOGAN RIVER AT OROVILLE, WA—Continued**

**TEMPERATURE, WATER, DEGREES CELSIUS**
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

| Day | Max | Min | Mean | Max | Min | Mean | Max | Min | Mean | Max | Min | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | February | | | March | | | April | | | May | |
| 1 | 3.6 | 1.9 | 2.6 | 3.2 | 2.0 | 2.6 | 9.1 | 6.6 | 7.8 | 13.2 | 11.5 | 12.2 |
| 2 | 3.3 | 2.0 | 2.6 | 2.9 | 2.2 | 2.5 | 10.7 | 7.6 | 8.8 | 13.6 | 10.7 | 12.1 |
| 3 | 2.9 | 2.4 | 2.7 | 3.6 | 1.8 | 2.6 | 9.0 | 7.7 | 8.4 | 14.6 | 11.2 | 12.9 |
| 4 | 3.4 | 2.5 | 2.9 | 3.6 | 2.0 | 2.7 | 9.6 | 7.5 | 8.3 | 15.7 | 12.4 | 14.1 |
| 5 | 3.3 | 2.0 | 2.7 | 3.2 | 2.3 | 2.7 | 9.7 | 8.3 | 8.8 | 15.0 | 11.5 | 13.5 |
| 6 | 3.4 | 2.2 | 2.8 | 3.7 | 2.6 | 3.0 | 9.9 | 7.9 | 8.8 | 13.8 | 10.9 | 12.2 |
| 7 | 2.8 | 2.1 | 2.5 | 3.9 | 2.6 | 3.1 | 9.4 | 7.9 | 8.7 | 14.2 | 12.3 | 13.1 |
| 8 | 3.3 | 2.1 | 2.6 | 3.1 | 2.6 | 2.9 | 10.2 | 8.4 | 9.3 | 14.2 | 12.0 | 12.9 |
| 9 | 2.9 | 1.9 | 2.4 | 3.9 | 2.5 | 3.0 | 9.2 | 6.9 | 8.0 | 15.1 | 11.9 | 13.4 |
| 10 | 2.8 | 1.9 | 2.2 | 4.2 | 2.3 | 3.0 | 8.9 | 6.3 | 7.5 | 14.8 | 12.1 | 13.5 |
| 11 | 3.1 | 2.0 | 2.4 | 4.4 | 2.6 | 3.3 | 10.6 | 8.8 | 9.5 | 13.9 | 12.3 | 12.9 |
| 12 | 3.1 | 2.1 | 2.5 | 4.2 | 2.4 | 3.2 | 9.9 | 7.3 | 8.9 | 14.2 | 12.7 | 13.3 |
| 13 | 3.0 | 2.3 | 2.5 | 4.6 | 2.7 | 3.5 | 9.0 | 6.9 | 7.8 | 14.8 | 12.6 | 13.5 |
| 14 | 2.8 | 1.9 | 2.3 | 5.2 | 3.0 | 3.8 | 8.7 | 7.1 | 7.7 | 15.5 | 12.7 | 13.7 |
| 15 | 2.9 | 1.6 | 2.1 | 4.4 | 3.2 | 3.7 | 8.6 | 6.9 | 7.7 | 16.5 | 13.4 | 14.8 |
| 16 | 2.3 | 1.2 | 1.7 | 4.2 | 3.4 | 3.8 | 9.5 | 7.0 | 8.1 | 17.5 | 14.7 | 16.0 |
| 17 | 2.2 | 0.7 | 1.3 | 5.2 | 3.6 | 4.2 | 10.1 | 7.2 | 8.5 | 18.6 | 15.0 | 16.6 |
| 18 | 2.2 | 0.7 | 1.3 | 5.9 | 3.7 | 4.7 | 10.4 | 8.0 | 9.0 | 18.1 | 14.4 | 15.9 |
| 19 | 1.9 | 0.7 | 1.3 | 5.9 | 3.9 | 4.8 | 10.6 | 7.6 | 9.0 | 18.5 | 15.5 | 16.9 |
| 20 | 2.1 | 1.0 | 1.5 | 6.1 | 4.5 | 5.2 | 10.7 | 8.0 | 9.3 | 18.6 | 16.1 | 17.4 |
| 21 | 2.8 | 1.6 | 2.0 | 6.2 | 4.4 | 5.3 | 9.6 | 8.8 | 9.2 | 18.0 | 14.5 | 16.8 |
| 22 | 2.9 | 1.7 | 2.2 | 5.8 | 4.3 | 5.0 | 11.0 | 8.2 | 9.5 | 17.3 | 13.6 | 15.5 |
| 23 | 2.8 | 1.2 | 2.2 | 7.1 | 4.8 | 5.8 | 12.0 | 8.9 | 10.4 | 17.6 | 14.0 | 16.5 |
| 24 | 2.1 | --- | --- | 7.1 | 5.0 | 5.9 | 12.9 | 9.8 | 11.3 | 16.5 | 14.1 | 15.4 |
| 25 | 2.1 | 1.3 | 1.6 | --- | 4.8 | 6.2 | 12.4 | 10.0 | 11.1 | 17.5 | 16.0 | 16.6 |
| 26 | 2.5 | 1.5 | 2.0 | 7.0 | 5.2 | 6.1 | 10.9 | 9.0 | 9.9 | 16.8 | 15.5 | 16.1 |
| 27 | 3.0 | 2.0 | 2.4 | 7.1 | 4.8 | 6.0 | 13.3 | 9.5 | 11.3 | 17.5 | 15.4 | 16.2 |
| 28 | 3.0 | 2.1 | 2.4 | 7.1 | 5.9 | 6.4 | 14.3 | 11.2 | 12.5 | 17.4 | 15.3 | 16.3 |
| 29 | --- | --- | --- | 8.4 | 6.1 | 7.3 | 13.5 | 11.2 | 11.9 | 17.7 | 16.1 | 16.8 |
| 30 | --- | --- | --- | 10.6 | 7.8 | 8.9 | 13.6 | 10.5 | 11.9 | 18.0 | 15.8 | 16.8 |
| 31 | --- | --- | --- | 10.9 | 7.1 | 8.7 | --- | --- | --- | 18.1 | 15.4 | 16.5 |
| Month | 3.6 | --- | --- | --- | 1.8 | 4.5 | 14.3 | 6.3 | 9.3 | 18.6 | 10.7 | 14.9 |

**12439500 OKANOGAN RIVER AT OROVILLE, WA—Continued**

**TEMPERATURE, WATER, DEGREES CELSIUS**
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

| Day | Max | Min | Mean | Max | Min | Mean | Max | Min | Mean | Max | Min | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | June | | | July | | | August | | | September | |
| 1 | 18.4 | 16.9 | 17.7 | 25.7 | 21.9 | 23.6 | 24.4 | 22.4 | 23.2 | 22.2 | 19.8 | 21.0 |
| 2 | 17.9 | 15.7 | 17.0 | 26.3 | 23.2 | 24.7 | 25.1 | 22.0 | 23.3 | 21.8 | 19.7 | 20.8 |
| 3 | 18.3 | 15.5 | 16.7 | 26.1 | 23.6 | 24.8 | 24.6 | 22.5 | 23.4 | 21.8 | 19.8 | 20.8 |
| 4 | 17.7 | 16.7 | 17.1 | 26.3 | 24.2 | 25.2 | 24.3 | 22.1 | 23.0 | 22.6 | 20.6 | 21.4 |
| 5 | 17.7 | 16.6 | 17.3 | 27.2 | 24.5 | 25.7 | 23.7 | 21.0 | 22.3 | 23.0 | 21.1 | 22.0 |
| 6 | 19.7 | 16.8 | 18.1 | 25.4 | 23.6 | 24.5 | 24.0 | 21.5 | 22.5 | 23.3 | 21.4 | 22.3 |
| 7 | 20.5 | 18.1 | 19.0 | 25.4 | 22.7 | 24.0 | 24.9 | 21.9 | 23.1 | 23.6 | 21.4 | 22.4 |
| 8 | 20.0 | 18.7 | 19.3 | 26.0 | 23.0 | 24.6 | 24.5 | 22.8 | 23.5 | 23.4 | 21.4 | 22.3 |
| 9 | 20.1 | 19.1 | 19.5 | 26.5 | 24.4 | 25.5 | 24.3 | 22.6 | 23.3 | 22.7 | 21.0 | 22.0 |
| 10 | 19.5 | 18.5 | 18.9 | 26.7 | 24.4 | 25.5 | 24.4 | 22.2 | 22.9 | 21.7 | 19.8 | 20.8 |
| 11 | 19.5 | 18.2 | 18.8 | 25.9 | 24.1 | 25.0 | 23.1 | 21.0 | 21.9 | 21.6 | 19.9 | 20.8 |
| 12 | 20.2 | 18.6 | 19.3 | 24.8 | 23.4 | 24.1 | 23.7 | 21.0 | 22.3 | 21.8 | 19.8 | 20.8 |
| 13 | 19.8 | 18.5 | 19.3 | 24.2 | 22.5 | 23.5 | 23.9 | 22.1 | 23.0 | 21.5 | 19.6 | 20.7 |
| 14 | 19.3 | 18.0 | 18.7 | 24.8 | 21.7 | 23.0 | 23.2 | 22.0 | 22.7 | 19.8 | 18.7 | 19.2 |
| 15 | 19.8 | 18.7 | 19.3 | 24.9 | 21.6 | 23.2 | 23.6 | 21.9 | 22.7 | 19.9 | 18.5 | 19.0 |
| 16 | 19.7 | 16.8 | 18.7 | 25.3 | 22.6 | 23.9 | 23.5 | 21.3 | 22.4 | 19.6 | 17.6 | 18.6 |
| 17 | 20.3 | 18.1 | 19.1 | 25.7 | 23.2 | 24.5 | 24.1 | 21.0 | 22.4 | 19.4 | 17.5 | 18.5 |
| 18 | 20.2 | 18.6 | 19.2 | 24.6 | 22.8 | 23.8 | 24.0 | 21.9 | 22.7 | 18.6 | 18.0 | 18.3 |
| 19 | 19.3 | 18.4 | 18.8 | 24.2 | 22.8 | 23.5 | 23.1 | 20.7 | 21.9 | 19.4 | 17.6 | 18.4 |
| 20 | 20.4 | 18.0 | 19.1 | 26.4 | 22.3 | 24.0 | 24.4 | 21.4 | 22.5 | 18.7 | 17.7 | 18.0 |
| 21 | 20.5 | 18.6 | 19.4 | 28.6 | 23.2 | 25.5 | 24.0 | 21.7 | 22.5 | 18.5 | 17.3 | 17.7 |
| 22 | 20.4 | 19.0 | 19.5 | 29.5 | 24.8 | 26.8 | 24.0 | 21.9 | 22.5 | 18.2 | 16.4 | 17.3 |
| 23 | 20.9 | 18.4 | 19.6 | 30.1 | 25.7 | 27.4 | 23.1 | 20.9 | 22.1 | 18.8 | 17.1 | 17.8 |
| 24 | 21.8 | 19.2 | 20.5 | 28.0 | 26.3 | 27.2 | 22.8 | 21.1 | 21.9 | 18.7 | 16.8 | 17.9 |
| 25 | 22.9 | 20.4 | 21.6 | 28.0 | 25.9 | 26.9 | 22.8 | 20.6 | 21.8 | 18.8 | 17.2 | 18.0 |
| 26 | 24.4 | 20.8 | 22.5 | 28.5 | 25.4 | 26.8 | 23.1 | 21.1 | 22.2 | 18.8 | 16.9 | 17.8 |
| 27 | 23.3 | 19.0 | 21.3 | 28.8 | 25.9 | 27.2 | 23.2 | 21.3 | 22.1 | 19.2 | 17.4 | 18.4 |
| 28 | 23.9 | 18.9 | 21.2 | 27.5 | 25.5 | 26.3 | 22.9 | 20.9 | 21.9 | 19.5 | 17.8 | 18.7 |
| 29 | 24.0 | 21.8 | 22.8 | 26.8 | 24.7 | 25.5 | 22.1 | 20.5 | 21.1 | 19.9 | 18.4 | 19.2 |
| 30 | 23.1 | 21.1 | 21.8 | 24.7 | 22.4 | 23.7 | 21.0 | 19.2 | 20.1 | 19.4 | 17.7 | 18.6 |
| 31 | --- | --- | --- | 24.2 | 21.6 | 22.8 | 21.6 | 19.1 | 20.4 | --- | --- | --- |
| Month | 24.4 | 15.5 | 19.4 | 30.1 | 21.6 | 24.9 | 25.1 | 19.1 | 22.4 | 23.6 | 16.4 | 19.6 |