

Figure 30. Location of surface-water and water-quality stations in the Lake Washington and Sammamish River Basins.

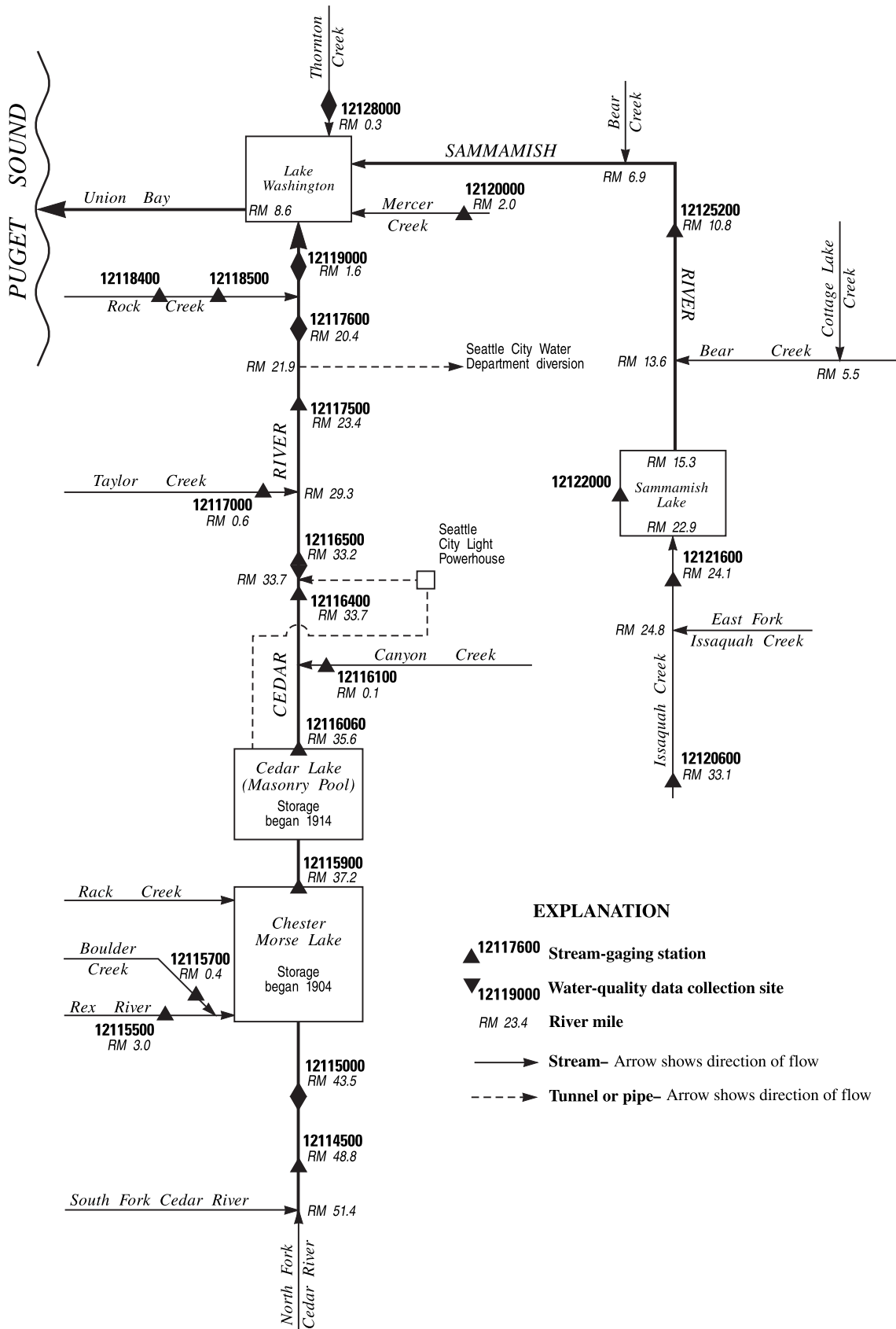


Figure 31. Schematic diagram showing surface-water and water-quality stations in the Lake Washington and Sammamish River Basins.

12114500 CEDAR RIVER BELOW BEAR CREEK, NEAR CEDAR FALLS, WA

LOCATION.--Lat 47°20'32", long 121°32'52", in SE ¼ SE ¼ sec.32, T.22 N., R.10 E., King County, Hydrologic Unit 17110012, on right bank 500 ft downstream from Bear Creek, and 12.2 mi southeast of town of Cedar Falls.

DRAINAGE AREA.--25.4 mi².

PERIOD OF RECORD.--October 1945 to December 1963, October 1975 to current year.

REVISED RECORDS.--WSP 1716: 1956-57(M), 1959(M).

GAGE.--Water-stage recorder. Elevation of gage is 1,880 ft above NGVD of 1929, from topographic map. Prior to Sept. 16, 1960, at site 90 ft upstream at datum 2.35 ft higher.

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

AVERAGE DISCHARGE.--46 years (water years 1946-63, 1976-2003), 163 ft³/s, 87.32 in/yr, 118,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,620 ft³/s Nov. 22, 1959, gage height, 6.98 ft site and datum then in use, from rating curve extended above 890 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 12 ft³/s Nov. 27, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|--------|------|--------------------------------|------------------|
| Jan 26 | 1200 | 1,070 | 4.34 | Mar 12 | 2300 | 892 | 4.09 |
| Jan 31 | 0800 | *2,340 | *5.56 | | | | |

Minimum discharge, 16 ft³/s, Oct. 31 to Nov. 8, gage height, 0.94 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 1 | 19 | 16 | 35 | 43 | 884 | 100 | 357 | 178 | 212 | 50 | 25 | 19 |
| 2 | 19 | 16 | 34 | 75 | 518 | 95 | 286 | 201 | 188 | 48 | 25 | 18 |
| 3 | 26 | 16 | 33 | 102 | 374 | 90 | 237 | 211 | 173 | 46 | 25 | 18 |
| 4 | 23 | 16 | 31 | 178 | 285 | 84 | 200 | 201 | 172 | 45 | 24 | 18 |
| 5 | 21 | 16 | 30 | 228 | 227 | 94 | 175 | 198 | 188 | 44 | 24 | 18 |
| 6 | 20 | 16 | 30 | 169 | 188 | 94 | 162 | 182 | 200 | 43 | 24 | 18 |
| 7 | 19 | 16 | 29 | 140 | 162 | 86 | 154 | 162 | 193 | 41 | 23 | 18 |
| 8 | 19 | 18 | 28 | 121 | 144 | 79 | 154 | 150 | 174 | 40 | 23 | 36 |
| 9 | 19 | 20 | 27 | 105 | 130 | 106 | 162 | 145 | 147 | 39 | 23 | 23 |
| 10 | 19 | 23 | 29 | 93 | 118 | 183 | 163 | 146 | 124 | 37 | 22 | 23 |
| 11 | 19 | 22 | 38 | 85 | 109 | 369 | 169 | 160 | 113 | 36 | 22 | 45 |
| 12 | 19 | 32 | 57 | 91 | 100 | 674 | 183 | 177 | 107 | 36 | 22 | 37 |
| 13 | 18 | 46 | 64 | 87 | 94 | 705 | 227 | 190 | 99 | 38 | 22 | 25 |
| 14 | 18 | 39 | 74 | 87 | 89 | 483 | 235 | 207 | 91 | 36 | 22 | 21 |
| 15 | 17 | 32 | 98 | 80 | 86 | 387 | 216 | 216 | 85 | 34 | 21 | 20 |
| 16 | 17 | 32 | 112 | 75 | 86 | 337 | 200 | 186 | 82 | 34 | 22 | 32 |
| 17 | 17 | 36 | 102 | 70 | 87 | 286 | 196 | 163 | 82 | 33 | 21 | 31 |
| 18 | 17 | 36 | 88 | 66 | 83 | 240 | 181 | 146 | 77 | 32 | 21 | 26 |
| 19 | 17 | 286 | 77 | 64 | 80 | 206 | 166 | 134 | 73 | 31 | 20 | 31 |
| 20 | 18 | 178 | 70 | 62 | 125 | 193 | 161 | 130 | 81 | 31 | 20 | 30 |
| 21 | 17 | 109 | 64 | 63 | 367 | 227 | 169 | 141 | 97 | 30 | 20 | 27 |
| 22 | 17 | 81 | 60 | 68 | 410 | 498 | 174 | 164 | 81 | 29 | 20 | 25 |
| 23 | 17 | 66 | 56 | 100 | 274 | 427 | 171 | 229 | 78 | 29 | 20 | 23 |
| 24 | 17 | 58 | 55 | 119 | 200 | 316 | 199 | 353 | 72 | 29 | 20 | 23 |
| 25 | 17 | 54 | 51 | 158 | 162 | 274 | 184 | 321 | 68 | 28 | 19 | 22 |
| 26 | 17 | 49 | 49 | 805 | 141 | 250 | 174 | 249 | 66 | 28 | 19 | 21 |
| 27 | 17 | 45 | 49 | 665 | 123 | 223 | 168 | 248 | 64 | 27 | 20 | 21 |
| 28 | 20 | 42 | 47 | 438 | 111 | 196 | 163 | 312 | 60 | 27 | 19 | 20 |
| 29 | 19 | 39 | 44 | 364 | --- | 179 | 168 | 283 | 58 | 27 | 19 | 20 |
| 30 | 17 | 37 | 44 | 739 | --- | 200 | 170 | 268 | 54 | 26 | 19 | 19 |
| 31 | 16 | --- | 42 | 1,810 | --- | 379 | --- | 245 | --- | 25 | 19 | --- |
| TOTAL | 572 | 1,492 | 1,647 | 7,350 | 5,757 | 8,060 | 5,724 | 6,296 | 3,359 | 1,079 | 665 | 728 |
| MEAN | 18.5 | 49.7 | 53.1 | 237 | 206 | 260 | 191 | 203 | 112 | 34.8 | 21.5 | 24.3 |
| MAX | 26 | 286 | 112 | 1,810 | 884 | 705 | 357 | 353 | 212 | 50 | 25 | 45 |
| MIN | 16 | 16 | 27 | 43 | 80 | 79 | 154 | 130 | 54 | 25 | 19 | 18 |
| AC-FT | 1,130 | 2,960 | 3,270 | 14,580 | 11,420 | 15,990 | 11,350 | 12,490 | 6,660 | 2,140 | 1,320 | 1,440 |
| CFSM | 0.73 | 1.96 | 2.09 | 9.33 | 8.09 | 10.2 | 7.51 | 8.00 | 4.41 | 1.37 | 0.84 | 0.96 |
| IN. | 0.84 | 2.19 | 2.41 | 10.76 | 8.43 | 11.80 | 8.38 | 9.22 | 4.92 | 1.58 | 0.97 | 1.07 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2003, BY WATER YEAR (WY)

| | MEAN | MAX | (WY) | MIN | (WY) | MEAN | MAX | (WY) | MIN | (WY) | MEAN | MAX | (WY) | MIN | (WY) |
|--|------|------|--------|------|--------|------|------|--------|------|--------|------|------|--------|------|--------|
| | 95.3 | 262 | (1960) | 15.3 | (1988) | 217 | 697 | (1991) | 204 | (1976) | 169 | 459 | (1953) | 170 | (1952) |
| | 217 | 697 | (1991) | 16.6 | (1953) | 204 | 496 | (1976) | 169 | (1953) | 170 | 407 | (1996) | 144 | (1956) |
| | 204 | 496 | (1976) | 27.9 | (1953) | 169 | 496 | (1976) | 169 | (1953) | 170 | 263 | (1996) | 144 | (1956) |
| | 169 | 459 | (1953) | 49.9 | (1952) | 169 | 459 | (1953) | 169 | (1953) | 170 | 263 | (1996) | 144 | (1956) |
| | 170 | 407 | (1996) | 43.9 | (1956) | 170 | 407 | (1996) | 170 | (1956) | 170 | 263 | (1996) | 144 | (1956) |
| | 144 | 263 | (1997) | 49.4 | (1955) | 144 | 263 | (1997) | 144 | (1955) | 144 | 263 | (1997) | 144 | (1955) |
| | 144 | 263 | (1997) | 102 | (1955) | 144 | 263 | (1997) | 144 | (1955) | 144 | 263 | (1997) | 144 | (1955) |
| | 235 | 387 | (1989) | 110 | (1955) | 235 | 387 | (1989) | 235 | (1955) | 235 | 387 | (1989) | 235 | (1955) |
| | 235 | 387 | (1989) | 309 | (1992) | 235 | 387 | (1989) | 235 | (1992) | 235 | 387 | (1989) | 235 | (1992) |
| | 309 | 599 | (1956) | 38.8 | (1992) | 309 | 599 | (1956) | 309 | (1992) | 309 | 599 | (1956) | 309 | (1992) |
| | 309 | 599 | (1956) | 30.4 | (1992) | 309 | 599 | (1956) | 309 | (1992) | 309 | 599 | (1956) | 309 | (1992) |
| | 241 | 608 | (1950) | 30.4 | (1992) | 241 | 608 | (1950) | 241 | (1992) | 241 | 608 | (1950) | 241 | (1992) |
| | 241 | 608 | (1950) | 30.4 | (1992) | 241 | 608 | (1950) | 241 | (1992) | 241 | 608 | (1950) | 241 | (1992) |
| | 98.3 | 352 | (1955) | 30.4 | (1992) | 98.3 | 352 | (1955) | 98.3 | (1992) | 98.3 | 352 | (1955) | 98.3 | (1992) |
| | 98.3 | 352 | (1955) | 21.5 | (2003) | 98.3 | 352 | (1955) | 98.3 | (2003) | 98.3 | 352 | (1955) | 98.3 | (2003) |
| | 35.9 | 92.0 | (1955) | 21.5 | (2003) | 35.9 | 92.0 | (1955) | 35.9 | (2003) | 35.9 | 92.0 | (1955) | 35.9 | (2003) |
| | 35.9 | 92.0 | (1955) | 17.8 | (1998) | 35.9 | 92.0 | (1955) | 35.9 | (1998) | 35.9 | 92.0 | (1955) | 35.9 | (1998) |
| | 38.8 | 231 | (1959) | 17.8 | (1998) | 38.8 | 231 | (1959) | 38.8 | (1998) | 38.8 | 231 | (1959) | 38.8 | (1998) |

SUMMARY STATISTICS

| | FOR 2002 CALENDAR YEAR | | FOR 2003 WATER YEAR | | WATER YEARS 1946 - 2003 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL | 54,347 | | 42,729 | | | |
| ANNUAL MEAN | 149 | | 117 | | 163 | |
| HIGHEST ANNUAL MEAN | | | | | 234 | 1959 |
| LOWEST ANNUAL MEAN | | | | | 102 | 2001 |
| HIGHEST DAILY MEAN | 1,150 | Apr 14 | 1,810 | Jan 31 | 3,880 | Nov 24, 1990 |
| LOWEST DAILY MEAN | 16 | Oct 31 | 16 | Oct 31 | 13 | Nov 29, 1952 |
| ANNUAL SEVEN-DAY MINIMUM | 16 | Oct 31 | 16 | Oct 31 | 14 | Nov 26, 1952 |
| ANNUAL RUNOFF (AC-FT) | 107,800 | | 84,750 | | 118,300 | |
| ANNUAL RUNOFF (CFSM) | 5.86 | | 4.61 | | 6.43 | |
| ANNUAL RUNOFF (INCHES) | 79.59 | | 62.58 | | 87.32 | |
| 10 PERCENT EXCEEDS | 388 | | 246 | | 358 | |
| 50 PERCENT EXCEEDS | 77 | | 66 | | 110 | |
| 90 PERCENT EXCEEDS | 19 | | 19 | | 27 | |

12115000 CEDAR RIVER NEAR CEDAR FALLS, WA

LOCATION.--Lat 47°22'13", long 121°37'26", in SE 1/4 SW 1/4 sec.23, T.22 N., R.9 E., King County, Hydrologic Unit 17110012, Snoqualmie National Forest, on left bank 1.4 mi upstream from Chester Morse Lake, 8.3 mi southeast of town of Cedar Falls, and at mile 43.5.

DRAINAGE AREA.--40.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1286: 1946-48, 1950(P), 1951. WSP 1516: 1946(M), 1947-48(P), 1950-51(M), 1953-54(P), 1955(M). WSP 1932: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,560 ft above NGVD of 1929 from topographic map. Prior to Oct. 26, 1957, at site 80 ft downstream at same 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.--58 years (water years 1946-2003), 258 ft³/s, 86.12 in/yr, 186,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,490 ft³/s Nov. 22, 1959, gage height, 11.34 ft, from high-water mark in well, from rating curve extended above 4,300 ft³/s, on basis of slope-area measurements at gage heights 10.16 ft and 11.34 ft; maximum gage height, 11.4 ft Feb. 11, 1951, backwater from Chester Morse Lake; minimum discharge, 19 ft³/s Oct. 23-26, 29-31, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|--------|------|--------------------------------|------------------|
| Jan 26 | 1345 | 1,880 | 6.45 | Mar 12 | 2245 | 1,620 | 6.20 |
| Jan 31 | 1230 | *3,820 | *7.87 | | | | |

Minimum discharge, 21 ft³/s, Sept. 5, 6, 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 1 | 29 | 25 | 56 | 85 | 1,500 | 167 | 574 | 264 | 294 | 70 | 31 | 23 |
| 2 | 28 | 25 | 54 | 164 | 832 | 159 | 453 | 289 | 262 | 67 | 31 | 23 |
| 3 | 37 | 24 | 51 | 229 | 621 | 155 | 383 | 304 | 241 | 64 | 31 | 22 |
| 4 | 39 | 24 | 50 | 354 | 474 | 143 | 326 | 298 | 231 | 61 | 30 | 22 |
| 5 | 33 | 24 | 47 | 479 | 382 | 152 | 291 | 302 | 243 | 60 | 30 | 22 |
| 6 | 31 | 24 | 46 | 329 | 317 | 157 | 272 | 284 | 253 | 58 | 30 | 21 |
| 7 | 30 | 23 | 44 | 256 | 273 | 150 | 255 | 254 | 247 | 56 | 30 | 22 |
| 8 | 28 | 24 | 43 | 212 | 240 | 138 | 256 | 232 | 226 | 55 | 30 | 51 |
| 9 | 28 | 27 | 41 | 183 | 214 | 226 | 272 | 220 | 197 | 53 | 29 | 36 |
| 10 | 28 | 34 | 44 | 161 | 196 | 399 | 270 | 216 | 169 | 51 | 29 | 31 |
| 11 | 28 | 34 | 66 | 148 | 178 | 707 | 275 | 234 | 152 | 49 | 29 | 63 |
| 12 | 28 | 46 | 107 | 173 | 164 | 1,230 | 290 | 260 | 143 | 48 | 29 | 71 |
| 13 | 27 | 78 | 141 | 163 | 153 | 1,270 | 349 | 273 | 135 | 53 | 28 | 41 |
| 14 | 27 | 67 | 148 | 164 | 144 | 807 | 360 | 291 | 126 | 50 | 27 | 34 |
| 15 | 26 | 58 | 187 | 150 | 138 | 637 | 332 | 309 | 115 | 47 | 27 | 32 |
| 16 | 25 | 53 | 208 | 139 | 139 | 551 | 310 | 276 | 109 | 45 | 27 | 44 |
| 17 | 25 | 60 | 197 | 130 | 142 | 462 | 308 | 250 | 106 | 44 | 27 | 53 |
| 18 | 25 | 60 | 165 | 122 | 134 | 388 | 291 | 220 | 104 | 42 | 27 | 41 |
| 19 | 25 | 446 | 142 | 115 | 129 | 332 | 266 | 200 | 100 | 40 | 26 | 49 |
| 20 | 25 | 339 | 126 | 109 | 197 | 313 | 252 | 193 | 109 | 39 | 26 | 50 |
| 21 | 25 | 199 | 112 | 114 | 570 | 371 | 263 | 205 | 133 | 39 | 25 | 43 |
| 22 | 25 | 146 | 101 | 132 | 712 | 831 | 268 | 231 | 115 | 38 | 25 | 39 |
| 23 | 25 | 119 | 93 | 188 | 472 | 731 | 264 | 298 | 107 | 37 | 25 | 37 |
| 24 | 25 | 101 | 87 | 223 | 343 | 560 | 304 | 455 | 98 | 36 | 24 | 35 |
| 25 | 25 | 88 | 82 | 281 | 275 | 503 | 285 | 442 | 93 | 35 | 24 | 33 |
| 26 | 25 | 79 | 81 | 1,340 | 235 | 447 | 272 | 347 | 89 | 35 | 24 | 32 |
| 27 | 25 | 72 | 82 | 1,130 | 204 | 392 | 262 | 327 | 86 | 34 | 24 | 31 |
| 28 | 25 | 67 | 79 | 758 | 186 | 338 | 251 | 401 | 81 | 34 | 24 | 30 |
| 29 | 27 | 63 | 74 | 620 | --- | 304 | 255 | 379 | 77 | 33 | 24 | 29 |
| 30 | 27 | 59 | 74 | 1,170 | --- | 322 | 259 | 358 | 74 | 32 | 23 | 28 |
| 31 | 26 | --- | 75 | 3,090 | --- | 593 | --- | 335 | --- | 32 | 23 | --- |
| TOTAL | 852 | 2,488 | 2,903 | 12,911 | 9,564 | 13,935 | 9,068 | 8,947 | 4,515 | 1,437 | 839 | 1,088 |
| MEAN | 27.5 | 82.9 | 93.6 | 416 | 342 | 450 | 302 | 289 | 150 | 46.4 | 27.1 | 36.3 |
| MAX | 39 | 446 | 208 | 3,090 | 1,500 | 1,270 | 574 | 455 | 294 | 70 | 31 | 71 |
| MIN | 25 | 23 | 41 | 85 | 129 | 138 | 251 | 193 | 74 | 32 | 23 | 21 |
| AC-FT | 1,690 | 4,930 | 5,760 | 25,610 | 18,970 | 27,640 | 17,990 | 17,750 | 8,960 | 2,850 | 1,660 | 2,160 |
| CFSM | 0.68 | 2.04 | 2.30 | 10.2 | 8.39 | 11.0 | 7.43 | 7.09 | 3.70 | 1.14 | 0.66 | 0.89 |
| IN. | 0.78 | 2.27 | 2.65 | 11.80 | 8.74 | 12.74 | 8.29 | 8.18 | 4.13 | 1.31 | 0.77 | 0.99 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2003, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 148 | 331 | 346 | 308 | 294 | 244 | 353 | 453 | 353 | 149 | 57.8 | 64.7 |
| MAX | 403 | 1,269 | 780 | 722 | 692 | 698 | 580 | 834 | 874 | 472 | 150 | 365 |
| (WY) | (1948) | (1991) | (1976) | (1953) | (1996) | (1972) | (1989) | (1956) | (1974) | (1955) | (1964) | (1959) |
| MIN | 20.1 | 27.1 | 63.5 | 91.7 | 81.9 | 99.1 | 160 | 170 | 62.6 | 46.4 | 27.1 | 25.4 |
| (WY) | (1988) | (1953) | (1953) | (1979) | (1969) | (1955) | (1967) | (1992) | (1992) | (2003) | (2003) | (1987) |

SUMMARY STATISTICS

| | FOR 2002 CALENDAR YEAR | FOR 2003 WATER YEAR | WATER YEARS 1946 - 2003 |
|--------------------------|------------------------|---------------------|-------------------------|
| ANNUAL TOTAL | 87,352 | 68,547 | |
| ANNUAL MEAN | 239 | 188 | 258 |
| HIGHEST ANNUAL MEAN | | | 373 |
| LOWEST ANNUAL MEAN | | | 157 |
| HIGHEST DAILY MEAN | 2,000 | 3,090 | 6,400 |
| LOWEST DAILY MEAN | 23 | 21 | 19 |
| ANNUAL SEVEN-DAY MINIMUM | 24 | 22 | 19 |
| ANNUAL RUNOFF (AC-FT) | 173,300 | 136,000 | 186,900 |
| ANNUAL RUNOFF (CFSM) | 5.88 | 4.61 | 6.34 |
| ANNUAL RUNOFF (INCHES) | 79.84 | 62.65 | 86.12 |
| 10 PERCENT EXCEEDS | 600 | 385 | 544 |
| 50 PERCENT EXCEEDS | 141 | 109 | 182 |
| 90 PERCENT EXCEEDS | 28 | 25 | 43 |

LAKE WASHINGTON BASIN
12115000 CEDAR RIVER NEAR CEDAR FALLS, WA—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1997 to current year.

INSTRUMENTATION.--Temperature recorder since May, 1997.

REMARKS.--Records rated excellent, except for Oct. 1, June 6-17, Aug. 9 to Sept. 24, which are good, and Sept. 25-30, which are fair.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 16.5°C (rounded) Sept.3, 4, 6, 14, 1998; minimum, 0.0°C March 19, 20, 2002.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 13.3°C Aug. 21; minimum, 1.4°C Mar. 7.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|
| | | | | | | | | | | | | |
| 1 | 9.5 | 8.1 | 8.7 | 6.7 | 5.7 | 6.0 | 5.7 | 5.3 | 5.5 | 3.5 | 3.5 | 3.5 |
| 2 | 9.2 | 7.4 | 8.2 | 7.1 | 5.7 | 6.2 | 6.0 | 5.3 | 5.7 | 3.9 | 3.5 | 3.6 |
| 3 | 9.2 | 8.5 | 8.8 | 7.1 | 5.7 | 6.1 | 5.3 | 4.6 | 4.9 | 3.9 | 3.5 | 3.7 |
| 4 | 9.5 | 8.8 | 9.1 | 7.4 | 5.3 | 6.2 | 5.3 | 4.6 | 4.9 | 4.2 | 3.9 | 4.1 |
| 5 | 9.5 | 8.5 | 8.8 | 7.8 | 6.4 | 7.0 | 5.7 | 4.9 | 5.1 | 3.9 | 3.5 | 3.8 |
| 6 | 10.2 | 8.8 | 9.1 | 7.4 | 6.7 | 7.1 | 5.3 | 4.9 | 5.0 | 3.9 | 3.5 | 3.6 |
| 7 | 9.9 | 8.8 | 9.1 | 7.8 | 6.7 | 7.3 | 5.3 | 4.6 | 4.9 | 3.5 | 3.2 | 3.5 |
| 8 | 9.9 | 8.1 | 8.8 | 7.8 | 7.1 | 7.3 | 4.9 | 4.6 | 4.7 | 3.5 | 3.2 | 3.4 |
| 9 | 9.9 | 8.5 | 9.0 | 7.8 | 7.1 | 7.3 | 4.9 | 4.6 | 4.8 | 3.5 | 2.8 | 3.3 |
| 10 | 8.8 | 8.1 | 8.5 | 7.8 | 6.7 | 7.3 | 4.9 | 4.6 | 4.8 | 2.8 | 2.5 | 2.8 |
| 11 | 8.8 | 7.8 | 8.3 | 7.8 | 7.1 | 7.3 | 4.9 | 4.2 | 4.7 | 3.5 | 2.8 | 3.0 |
| 12 | 8.8 | 7.1 | 7.8 | 7.4 | 7.1 | 7.3 | 4.6 | 4.2 | 4.4 | 3.2 | 2.5 | 3.0 |
| 13 | 9.2 | 7.8 | 8.1 | 7.1 | 6.7 | 7.0 | 4.6 | 4.2 | 4.4 | 3.9 | 3.2 | 3.6 |
| 14 | 9.2 | 7.1 | 7.9 | 7.1 | 6.4 | 6.9 | 5.3 | 4.6 | 4.9 | 4.2 | 3.5 | 3.8 |
| 15 | 9.5 | 7.8 | 8.3 | 7.1 | 6.4 | 6.6 | 4.9 | 4.6 | 4.7 | 3.9 | 3.2 | 3.4 |
| 16 | 9.5 | 7.8 | 8.4 | 6.7 | 6.4 | 6.6 | 4.6 | 4.2 | 4.5 | 3.9 | 3.2 | 3.5 |
| 17 | 9.5 | 7.4 | 8.1 | 6.7 | 6.4 | 6.6 | 4.6 | 4.2 | 4.2 | 3.5 | 3.2 | 3.3 |
| 18 | 8.8 | 7.4 | 7.9 | 6.7 | 6.4 | 6.6 | 4.2 | 3.9 | 4.1 | 3.2 | 2.8 | 3.0 |
| 19 | 8.8 | 7.8 | 8.3 | 6.7 | 6.0 | 6.3 | 3.9 | 3.5 | 3.9 | 3.5 | 2.8 | 3.1 |
| 20 | 9.2 | 8.5 | 8.6 | 7.1 | 6.0 | 6.4 | 4.2 | 3.5 | 3.8 | 3.9 | 2.8 | 3.3 |
| 21 | 9.2 | 8.5 | 8.6 | 7.4 | 6.7 | 7.0 | 4.2 | 3.9 | 4.1 | 3.9 | 3.5 | 3.6 |
| 22 | 9.2 | 7.8 | 8.5 | 7.4 | 6.7 | 6.9 | 4.6 | 3.9 | 4.2 | 3.5 | 3.2 | 3.2 |
| 23 | 9.2 | 7.4 | 8.1 | 7.1 | 6.4 | 6.8 | 3.9 | 3.2 | 3.5 | 3.9 | 3.2 | 3.6 |
| 24 | 8.5 | 6.7 | 7.3 | 6.4 | 4.9 | 5.7 | 3.5 | 3.2 | 3.4 | 3.9 | 3.5 | 3.7 |
| 25 | 8.1 | 6.4 | 7.0 | 5.3 | 4.6 | 4.9 | 3.9 | 3.5 | 3.6 | 4.6 | 3.9 | 4.1 |
| 26 | 7.8 | 6.4 | 6.9 | 5.3 | 4.6 | 5.0 | 3.9 | 3.2 | 3.5 | 4.2 | 3.9 | 4.0 |
| 27 | 7.8 | 6.4 | 7.2 | 5.7 | 4.9 | 5.2 | 3.9 | 3.2 | 3.6 | 4.2 | 3.9 | 4.0 |
| 28 | 8.1 | 7.4 | 7.6 | 6.0 | 5.3 | 5.5 | 4.2 | 3.5 | 3.8 | 4.2 | 3.5 | 3.9 |
| 29 | 7.8 | 6.4 | 7.2 | 6.0 | 5.3 | 5.6 | 3.9 | 3.5 | 3.6 | 3.9 | 3.5 | 3.9 |
| 30 | 6.7 | 5.7 | 6.1 | 6.4 | 5.7 | 5.8 | 3.5 | 2.8 | 3.1 | 4.2 | 3.9 | 4.1 |
| 31 | 6.7 | 5.3 | 5.9 | --- | --- | --- | 3.9 | 3.2 | 3.5 | 4.2 | 3.9 | 4.0 |
| MONTH | 10.2 | 5.3 | 8.1 | 7.8 | 4.6 | 6.5 | 6.0 | 2.8 | 4.3 | 4.6 | 2.5 | 3.6 |
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| | | | | | | | | | | | | |
| 1 | 4.2 | 3.9 | 4.2 | 3.9 | 2.5 | 3.1 | 4.9 | 3.9 | 4.2 | 7.4 | 5.3 | 6.3 |
| 2 | 4.6 | 4.2 | 4.3 | 3.5 | 2.5 | 3.0 | 4.2 | 3.5 | 3.9 | 7.8 | 4.9 | 6.3 |
| 3 | 4.2 | 3.5 | 3.9 | 4.2 | 2.5 | 3.3 | 3.9 | 3.2 | 3.6 | 6.4 | 5.3 | 5.8 |
| 4 | 3.9 | 3.5 | 3.6 | 4.2 | 3.2 | 3.5 | 4.9 | 3.2 | 3.9 | 6.0 | 4.9 | 5.5 |
| 5 | 3.5 | 2.8 | 3.2 | 3.5 | 3.2 | 3.5 | 3.9 | 3.5 | 3.7 | 5.7 | 4.6 | 5.0 |
| 6 | 3.5 | 2.8 | 3.2 | 3.2 | 2.5 | 2.9 | 4.9 | 3.2 | 3.9 | 6.4 | 4.2 | 5.0 |
| 7 | 3.5 | 2.8 | 3.1 | 2.5 | 1.4 | 2.1 | 4.9 | 3.9 | 4.4 | 5.7 | 3.9 | 5.0 |
| 8 | 3.5 | 2.8 | 3.1 | 3.2 | 2.5 | 2.8 | 6.4 | 4.2 | 5.1 | 7.4 | 4.9 | 5.8 |
| 9 | 3.5 | 2.5 | 3.0 | 2.8 | 2.5 | 2.8 | 6.0 | 4.6 | 5.2 | 6.4 | 5.3 | 6.0 |
| 10 | 4.2 | 3.2 | 3.5 | 3.5 | 2.8 | 3.1 | 5.7 | 4.2 | 4.9 | 8.1 | 5.7 | 6.6 |
| 11 | 3.9 | 2.8 | 3.3 | 3.5 | 3.2 | 3.3 | 6.4 | 4.6 | 5.3 | 8.8 | 6.0 | 7.1 |
| 12 | 4.2 | 3.2 | 3.6 | 3.5 | 3.2 | 3.3 | 6.0 | 4.6 | 5.2 | 8.1 | 6.0 | 6.9 |
| 13 | 4.6 | 3.5 | 3.9 | 3.9 | 3.2 | 3.6 | 5.7 | 4.6 | 5.1 | 8.1 | 5.3 | 6.8 |
| 14 | 4.6 | 4.2 | 4.3 | 4.6 | 3.5 | 3.9 | 6.0 | 4.6 | 5.2 | 6.7 | 5.7 | 6.2 |
| 15 | 4.6 | 4.2 | 4.4 | 4.9 | 3.9 | 4.2 | 5.7 | 4.6 | 5.1 | 6.0 | 4.6 | 5.3 |
| 16 | 4.9 | 4.2 | 4.5 | 4.6 | 3.5 | 4.1 | 6.0 | 4.6 | 5.2 | 5.3 | 4.2 | 4.8 |
| 17 | 4.6 | 4.2 | 4.3 | 4.6 | 3.5 | 4.1 | 5.3 | 4.6 | 4.9 | 6.0 | 3.9 | 4.7 |
| 18 | 4.6 | 3.9 | 4.3 | 4.2 | 3.5 | 3.8 | 5.7 | 4.2 | 4.8 | 6.7 | 4.2 | 5.4 |
| 19 | 4.6 | 3.9 | 4.3 | 4.6 | 3.5 | 4.0 | 6.4 | 3.9 | 5.0 | 7.5 | 4.3 | 5.9 |
| 20 | 4.2 | 3.9 | 4.2 | 4.6 | 3.9 | 4.2 | 7.4 | 4.9 | 5.9 | 6.8 | 5.4 | 6.1 |
| 21 | 4.2 | 3.2 | 4.0 | 4.2 | 3.9 | 4.1 | 6.0 | 5.3 | 5.6 | 7.2 | 5.8 | 6.5 |
| 22 | 3.9 | 3.2 | 3.5 | 4.2 | 3.5 | 3.9 | 5.3 | 4.9 | 5.2 | 7.2 | 6.1 | 6.6 |
| 23 | 3.5 | 2.5 | 3.2 | 4.2 | 2.8 | 3.5 | 6.0 | 4.2 | 5.2 | 9.3 | 6.1 | 7.6 |
| 24 | 2.5 | 1.8 | 2.1 | 4.2 | 2.8 | 3.5 | 5.7 | 4.6 | 4.8 | 8.6 | 6.5 | 7.4 |
| 25 | 2.8 | 1.8 | 2.3 | 4.2 | 3.5 | 3.8 | 7.1 | 4.2 | 5.3 | 6.8 | 6.1 | 6.4 |
| 26 | 3.5 | 2.1 | 2.7 | 4.2 | 3.5 | 3.7 | 5.7 | 4.6 | 5.0 | 8.6 | 5.4 | 6.7 |
| 27 | 3.5 | 2.5 | 2.9 | 4.6 | 3.5 | 3.9 | 7.1 | 4.6 | 5.7 | 9.6 | 6.5 | 7.8 |
| 28 | 3.5 | 2.8 | 3.0 | 5.3 | 3.5 | 4.4 | 7.8 | 4.6 | 5.9 | 8.7 | 6.9 | 7.9 |
| 29 | --- | --- | --- | 6.4 | 4.2 | 5.1 | 6.7 | 5.3 | 6.0 | 9.4 | 6.2 | 7.8 |
| 30 | --- | --- | --- | 6.4 | 4.6 | 5.4 | 6.0 | 5.7 | 5.8 | 8.0 | 6.9 | 7.5 |
| 31 | --- | --- | --- | 5.3 | 4.2 | 4.9 | --- | --- | --- | 9.0 | 6.9 | 7.7 |
| MONTH | 4.9 | 1.8 | 3.6 | 6.4 | 1.4 | 3.7 | 7.8 | 3.2 | 5.0 | 9.6 | 3.9 | 6.3 |

LAKE WASHINGTON BASIN
12115500 REX RIVER NEAR CEDAR FALLS, WA

LOCATION.--Lat 47°21'03", long 121°39'43", in NE ¼ NW ¼ sec.33, T.22 N., R.9 E., King County, Hydrologic Unit 17110012, Snoqualmie National Forest, on right bank 3.0 mi upstream from mouth and Chester Morse Lake, and 7.5 mi southeast of town of Cedar Falls.

DRAINAGE AREA.--13.4 mi².

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1286: 1946, 1948(P), 1949(M), 1950(P), 1952(M). WSP 1446: 1946(M), 1951, 1953-55(M). WSP 1932: Drainage area. WDR WA-74-1: 1973.

GAGE.--Water-stage recorder. Elevation of gage is 1,700 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 2000, published at datum 1,600 ft above NGVD of 1929.

REMARKS.--Records fair. No regulation or diversion upstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--58 years (water years 1946-2003), 101 ft³/s, 102.14 in/yr, 72,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,200 ft³/s Nov. 22, 1959, gage height, 8.20 ft, from rating curve extended above 1,600 ft³/s on basis of contracted-opening measurement at gage height 7.19 ft and slope-area measurement at gage height 8.20 ft; maximum gage height, 9.31 ft Nov. 19, 1962, backwater from debris; minimum discharge, 3.0 ft³/s Sept. 6-8, 1986, gage height, 3.23 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|--------|------|--------------------------------|------------------|
| Jan 26 | 1045 | 882 | 5.64 | Mar 11 | 2030 | 868 | 5.62 |
| Jan 31 | 1430 | *1,630 | *6.53 | | | | |

Minimum discharge, 4.1 ft³/s, Aug. 30 to Sept. 7, gage height, 2.92 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|---------|-------|--------|-------|--------|-------|-------|-------|-------|-------|-------|
| 1 | 7.3 | 8.0 | 20 | 33 | 475 | 47 | 192 | 84 | 47 | 13 | 6.1 | 4.1 |
| 2 | 6.6 | 7.8 | 19 | 119 | 276 | 45 | 141 | 87 | 43 | 13 | 6.0 | 4.1 |
| 3 | 32 | 7.9 | 18 | 153 | 193 | 42 | 115 | 85 | 38 | 12 | 5.9 | 4.1 |
| 4 | 16 | 8.0 | 18 | 290 | 142 | 38 | 96 | 94 | 34 | 12 | 5.8 | 4.1 |
| 5 | 12 | 8.0 | 18 | 263 | 110 | 48 | 83 | 98 | 32 | 12 | 5.8 | 4.1 |
| 6 | 10 | 8.9 | 17 | 155 | 90 | 45 | 76 | 94 | 30 | 11 | 6.0 | 4.1 |
| 7 | 9.3 | 9.3 | 16 | 108 | 74 | 41 | 86 | 83 | 27 | 11 | 5.8 | 4.7 |
| 8 | 8.8 | 13 | 15 | 85 | 64 | 38 | 104 | 76 | 25 | 12 | 5.8 | 24 |
| 9 | 9.1 | 18 | 14 | 71 | 55 | 161 | 118 | 71 | 24 | 11 | 5.7 | 9.5 |
| 10 | 10 | 22 | 18 | 61 | 48 | 302 | 110 | 70 | 23 | 10 | 5.5 | 12 |
| 11 | 12 | 19 | 47 | 57 | 43 | 480 | 112 | 79 | 22 | 9.6 | 6.0 | 68 |
| 12 | 9.5 | 36 | 92 | 148 | 39 | 614 | 125 | 83 | 20 | 9.5 | 6.2 | 35 |
| 13 | 8.6 | 44 | 108 | 104 | 36 | 456 | 154 | 80 | 20 | 14 | 5.4 | 16 |
| 14 | 8.2 | 41 | 121 | 103 | 35 | 285 | 139 | 83 | 20 | 11 | 5.3 | 12 |
| 15 | 7.8 | 27 | 106 | 82 | 33 | 221 | 121 | 83 | 18 | 9.9 | 5.0 | 11 |
| 16 | 7.4 | 30 | 115 | 70 | 37 | 175 | 114 | 75 | 17 | 9.2 | 5.4 | 42 |
| 17 | 7.4 | 29 | 96 | 62 | 39 | 142 | 114 | 73 | 16 | 9.1 | 5.3 | 34 |
| 18 | 7.4 | 41 | 73 | 56 | 34 | 116 | 102 | 68 | 15 | 8.6 | 5.0 | 21 |
| 19 | 7.8 | 331 | 59 | 51 | 36 | 98 | 92 | 66 | 16 | 8.3 | 5.0 | 39 |
| 20 | 9.0 | 172 | 49 | 46 | 143 | 108 | 91 | 65 | 23 | 8.3 | 5.0 | 26 |
| 21 | 8.1 | 91 | 42 | 62 | 415 | 168 | 96 | 74 | 32 | 8.2 | 5.0 | 20 |
| 22 | 7.8 | 63 | 37 | 114 | 310 | 373 | 92 | 75 | 24 | 7.8 | 5.0 | 17 |
| 23 | 7.4 | 49 | 33 | 152 | 179 | 260 | 85 | 84 | 23 | 7.4 | 4.8 | 15 |
| 24 | 7.4 | 39 | 30 | 167 | 123 | 169 | 99 | 100 | 20 | 7.4 | 4.7 | 14 |
| 25 | 7.4 | 33 | 29 | 184 | e92 | 156 | 87 | 90 | 18 | 7.3 | 4.7 | 13 |
| 26 | 7.4 | 29 | 28 | 559 | 74 | 141 | 84 | 74 | 16 | 6.9 | 4.7 | 11 |
| 27 | 7.7 | 27 | 29 | 384 | 61 | 122 | 86 | 72 | 15 | 6.9 | 4.7 | 11 |
| 28 | 16 | 24 | 28 | 279 | 53 | 107 | 85 | 72 | 15 | 6.6 | 4.6 | 9.7 |
| 29 | 12 | 22 | 26 | 285 | --- | 101 | 83 | 65 | 14 | 6.5 | 4.4 | 9.4 |
| 30 | 9.7 | 21 | 26 | 518 | --- | 117 | 82 | 60 | 14 | 6.5 | 4.4 | 9.1 |
| 31 | 8.7 | --- | 26 | 1,280 | --- | 265 | --- | 55 | --- | 6.1 | 4.1 | --- |
| TOTAL | 305.8 | 1,278.9 | 1,373 | 6,101 | 3,309 | 5,481 | 3,164 | 2,418 | 701 | 292.1 | 163.1 | 508.0 |
| MEAN | 9.86 | 42.6 | 44.3 | 197 | 118 | 177 | 105 | 78.0 | 23.4 | 9.42 | 5.26 | 16.9 |
| MAX | 32 | 331 | 121 | 1,280 | 475 | 614 | 192 | 100 | 47 | 14 | 6.2 | 68 |
| MIN | 6.6 | 7.8 | 14 | 33 | 33 | 38 | 76 | 55 | 14 | 6.1 | 4.1 | 4.1 |
| AC-FT | 607 | 2,540 | 2,720 | 12,100 | 6,560 | 10,870 | 6,280 | 4,800 | 1,390 | 579 | 324 | 1,010 |
| CFSM | 0.74 | 3.18 | 3.31 | 14.7 | 8.82 | 13.2 | 7.87 | 5.82 | 1.74 | 0.70 | 0.39 | 1.26 |
| IN. | 0.85 | 3.55 | 3.81 | 16.94 | 9.19 | 15.22 | 8.78 | 6.71 | 1.95 | 0.81 | 0.45 | 1.41 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2003, BY WATER YEAR (WY)

| | MEAN | MAX | (WY) | MIN | (WY) | MEAN | MAX | (WY) | MIN | (WY) | MEAN | MAX | (WY) | MIN | (WY) |
|--|------|-----|--------|------|--------|------|------|--------|------|--------|------|-----|--------|------|--------|
| | 70.5 | 171 | (1948) | 6.30 | (1953) | 147 | 489 | (1991) | 7.90 | (1953) | 149 | 357 | (1976) | 28.9 | (1986) |
| | 133 | 326 | (1953) | 32.6 | (1957) | 119 | 281 | (1982) | 20.6 | (1969) | 93.0 | 250 | (1972) | 28.7 | (1955) |
| | 136 | 248 | (1989) | 50.7 | (1967) | 159 | 280 | (1971) | 41.7 | (1992) | 114 | 354 | (1974) | 17.1 | (1992) |
| | 44.1 | 174 | (1955) | 9.42 | (2003) | 17.5 | 62.4 | (1964) | 5.26 | (2003) | 29.0 | 189 | (1959) | 6.54 | (1967) |

SUMMARY STATISTICS

| | FOR 2002 CALENDAR YEAR | | FOR 2003 WATER YEAR | | WATER YEARS 1946 - 2003 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL | 30,632.4 | | 25,094.9 | | | |
| ANNUAL MEAN | 83.9 | | 68.8 | | 101 | |
| HIGHEST ANNUAL MEAN | | | | | 146 | |
| LOWEST ANNUAL MEAN | | | | | 61.5 | |
| HIGHEST DAILY MEAN | 766 | Apr 14 | 1,280 | Jan 31 | 2,750 | Nov 24, 1990 |
| LOWEST DAILY MEAN | 5.7 | Sep 25 | 4.1 | Aug 31 | 3.1 | Sep 7, 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 5.9 | Sep 22 | 4.1 | Aug 31 | 3.8 | Sep 2, 1986 |
| ANNUAL RUNOFF (AC-FT) | 60,760 | | 49,780 | | 72,980 | |
| ANNUAL RUNOFF (CFSM) | 6.26 | | 5.13 | | 7.52 | |
| ANNUAL RUNOFF (INCHES) | 85.04 | | 69.67 | | 102.14 | |
| 10 PERCENT EXCEEDS | 229 | | 152 | | 219 | |
| 50 PERCENT EXCEEDS | 43 | | 33 | | 64 | |
| 90 PERCENT EXCEEDS | 7.8 | | 6.1 | | 12 | |

e Estimated

12115700 BOULDER CREEK NEAR CEDAR FALLS, WA

LOCATION.--Lat 47°21'59", long 121°41'30", in NW ¼ NW ¼ sec.29, T.22 N., R.9 E., King County, Hydrologic Unit 17110012, Snoqualmie National Forest, on left bank 5.8 mi southeast of Cedar Falls, and at mile 0.4.

DRAINAGE AREA.--4.64 mi².

PERIOD OF RECORD.--March 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,610 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--20 years (water years 1984-2003), 24.3 ft³/s, 71.08 in/yr, 17,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft³/s Nov. 23, 1986, gage height, 4.16 ft; maximum gage height, 5.37 ft Feb. 8, 1996; minimum discharge, no flow for many days during August through October most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 310 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|--|------|--------------------------------|------------------|
| Jan 31 | 0600 | *341 | *4.20 | No other peak greater than base discharge. | | | |

Minimum discharge, no flow, Aug. 30 to Sept. 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|---------|---------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 1.1 | 1.7 | 5.6 | 9.0 | 141 | 14 | 49 | 19 | 8.6 | 2.7 | 0.69 | 0.11 |
| 2 | 0.97 | 1.7 | 5.3 | 28 | 87 | 14 | 39 | 19 | 7.8 | 2.6 | 0.69 | 0.09 |
| 3 | 9.8 | 1.6 | 5.0 | 43 | 68 | 13 | 32 | 19 | 7.0 | 2.4 | 0.70 | 0.04 |
| 4 | 4.8 | 1.6 | 5.3 | 78 | 51 | 12 | 27 | 22 | 6.3 | 2.4 | 0.69 | 0.01 |
| 5 | 3.0 | 1.5 | 5.0 | 78 | 39 | 14 | 24 | 25 | 5.9 | 2.3 | 0.68 | 0.00 |
| 6 | 2.3 | 1.7 | 4.7 | 47 | 31 | 13 | 23 | 25 | 5.4 | 2.2 | 0.73 | 0.00 |
| 7 | 1.9 | 1.9 | 4.5 | 35 | 26 | 12 | 26 | 22 | 5.0 | 2.1 | 0.68 | 0.24 |
| 8 | 1.8 | 2.4 | 4.3 | 27 | 21 | 11 | 33 | 20 | 4.7 | 2.4 | 0.66 | 4.8 |
| 9 | 1.8 | 3.9 | 4.2 | 23 | 18 | 44 | 37 | 19 | 4.6 | 2.1 | 0.65 | 2.0 |
| 10 | 2.2 | 5.3 | 5.6 | 19 | 15 | 92 | 34 | 18 | 4.6 | 1.9 | 0.65 | 2.4 |
| 11 | 2.5 | 4.4 | 15 | 18 | 13 | 149 | 32 | 20 | 4.5 | 1.7 | 1.1 | 12 |
| 12 | 1.9 | 10 | 33 | 38 | 12 | 184 | 35 | 21 | 4.2 | 1.7 | 1.6 | 7.4 |
| 13 | 1.7 | 11 | 42 | 35 | 11 | 136 | 47 | 19 | 4.3 | 2.6 | 1.0 | 2.9 |
| 14 | 1.5 | 9.8 | 42 | 37 | 9.9 | 84 | 43 | 19 | 4.2 | 2.3 | 0.82 | 2.0 |
| 15 | 1.3 | 7.2 | 35 | 30 | 9.4 | 63 | 36 | 19 | 3.8 | 1.9 | 0.71 | 1.6 |
| 16 | 1.2 | 7.2 | 39 | 25 | 10 | 50 | 34 | 18 | 3.5 | 1.8 | 0.83 | 6.5 |
| 17 | 1.2 | 6.9 | 34 | 21 | 11 | 41 | 35 | 18 | 3.2 | 1.6 | 0.77 | 6.0 |
| 18 | 1.2 | 10 | 25 | 19 | 9.5 | 34 | 32 | 17 | 3.2 | 1.5 | 0.63 | 3.5 |
| 19 | 1.3 | 84 | 19 | 17 | 9.8 | 29 | 30 | 17 | 3.5 | 1.4 | 0.57 | 7.6 |
| 20 | 1.4 | 50 | 16 | 15 | 34 | 32 | 28 | 16 | 5.4 | 1.3 | 0.53 | 5.7 |
| 21 | 1.2 | 27 | 14 | 22 | 100 | 47 | 27 | 17 | 7.6 | 1.3 | 0.47 | 3.9 |
| 22 | 1.2 | 18 | 12 | 39 | 93 | 89 | 25 | 17 | 6.0 | 1.2 | 0.41 | 3.0 |
| 23 | 1.1 | 13 | 11 | 54 | 57 | 71 | 23 | 18 | 5.2 | 1.1 | 0.42 | 2.5 |
| 24 | 1.1 | 11 | 9.8 | 57 | 38 | 50 | 28 | 19 | 4.4 | 1.1 | 0.42 | 2.2 |
| 25 | 1.1 | 9.1 | 9.3 | 63 | 29 | 45 | 24 | 18 | 3.9 | 1.0 | 0.35 | 1.9 |
| 26 | 1.1 | 8.1 | 9.0 | 195 | 23 | 41 | 23 | 15 | 3.5 | 1.00 | 0.37 | 1.7 |
| 27 | 1.2 | 7.4 | 9.5 | 124 | 18 | 36 | 23 | 14 | 3.2 | 0.95 | 0.47 | 1.6 |
| 28 | 3.4 | 6.8 | 9.0 | 87 | 16 | 32 | 21 | 13 | 2.9 | 0.89 | 0.42 | 1.4 |
| 29 | 2.8 | 6.3 | 8.3 | 76 | --- | 30 | 20 | 11 | 2.8 | 0.80 | 0.30 | 1.2 |
| 30 | 2.0 | 5.9 | 8.4 | 129 | --- | 32 | 20 | 10 | 2.9 | 0.74 | 0.19 | 1.2 |
| 31 | 1.8 | --- | 8.2 | 272 | --- | 60 | --- | 9.8 | --- | 0.70 | 0.12 | --- |
| TOTAL | 62.87 | 336.4 | 458.0 | 1,760.0 | 1,000.6 | 1,574 | 910 | 553.8 | 142.1 | 51.68 | 19.32 | 85.49 |
| MEAN | 2.03 | 11.2 | 14.8 | 56.8 | 35.7 | 50.8 | 30.3 | 17.9 | 4.74 | 1.67 | 0.62 | 2.85 |
| MAX | 9.8 | 84 | 42 | 272 | 141 | 184 | 49 | 25 | 8.6 | 2.7 | 1.6 | 12 |
| MIN | 0.97 | 1.5 | 4.2 | 9.0 | 9.4 | 11 | 20 | 9.8 | 2.8 | 0.70 | 0.12 | 0.00 |
| AC-FT | 125 | 667 | 908 | 3,490 | 1,980 | 3,120 | 1,800 | 1,100 | 282 | 103 | 38 | 170 |
| CFSM | 0.44 | 2.42 | 3.18 | 12.2 | 7.70 | 10.9 | 6.54 | 3.85 | 1.02 | 0.36 | 0.13 | 0.61 |
| IN. | 0.50 | 2.70 | 3.67 | 14.11 | 8.02 | 12.62 | 7.30 | 4.44 | 1.14 | 0.41 | 0.15 | 0.69 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003, BY WATER YEAR (WY)

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|--|
| MEAN | 13.6 | 46.2 | 37.4 | 36.4 | 32.6 | 29.7 | 36.5 | 31.0 | 17.6 | 6.50 | 1.57 | 2.82 | | | | | | | | | | |
| MAX | 42.0 | 124 | 137 | 73.2 | 97.8 | 50.8 | 70.7 | 52.9 | 42.8 | 27.8 | 5.22 | 12.2 | | | | | | | | | | |
| (WY) | (1986) | (1996) | (1999) | (1984) | (1996) | (2003) | (1985) | (1999) | (1988) | (1993) | (1983) | (1993) | (1983) | | | | | | | | | |
| MIN | 0.000 | 2.07 | 5.92 | 9.96 | 10.9 | 9.34 | 16.3 | 9.21 | 2.03 | 0.22 | 0.000 | 0.000 | | | | | | | | | | |
| (WY) | (1988) | (1988) | (1986) | (1985) | (1994) | (1992) | (1995) | (1992) | (1992) | (1987) | (1987) | (1987) | | | | | | | | | | |

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1983 - 2003

| | | | |
|--------------------------|----------|----------|-------------|
| ANNUAL TOTAL | 8,448.67 | 6,954.26 | |
| ANNUAL MEAN | 23.1 | 19.1 | |
| HIGHEST ANNUAL MEAN | | | 24.3 |
| LOWEST ANNUAL MEAN | | | 37.0 |
| HIGHEST DAILY MEAN | 222 | Apr 14 | 1999 |
| LOWEST DAILY MEAN | 0.97 | Oct 2 | 1992 |
| ANNUAL SEVEN-DAY MINIMUM | 1.1 | Sep 26 | 15.6 |
| ANNUAL RUNOFF (AC-FT) | 16,760 | | 850 |
| ANNUAL RUNOFF (CFSM) | 4.99 | | 0.00 |
| ANNUAL RUNOFF (INCHES) | 67.74 | | 0.00 |
| 10 PERCENT EXCEEDS | 54 | | Aug 8, 1984 |
| 50 PERCENT EXCEEDS | 13 | | Aug 8, 1984 |
| 90 PERCENT EXCEEDS | 1.6 | | |

LAKE WASHINGTON BASIN

12116100 CANYON CREEK NEAR CEDAR FALLS, WA

LOCATION.--Lat 47°25'11", long 121°45'55", in NW ¼ SE ¼ sec.3, T.22 N., R.8 E., King County, Hydrologic Unit 17110012, Snoqualmie National Forest, on right bank 400 ft upstream from mouth, and 0.8 mi east of town of Cedar Falls.

DRAINAGE AREA.--0.19 mi².

PERIOD OF RECORD.--May 1945 to current year. Prior to October 1960 published in WSP 1932.

GAGE.--Water-stage recorder and wooden control. Elevation of gage is 1,040 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station. Flow is mostly seepage from Chester Morse Lake.

AVERAGE DISCHARGE.--58 years (water years 1946-2003), 15.2 ft³/s, 10,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 131 ft³/s Dec. 7, 1975, gage height, 2.22 ft; minimum daily discharge, 0.22 ft³/s Nov. 6-11, 17-22, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53 ft³/s March 28-30; minimum discharge, 0.40 ft³/s Dec. 23-28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 8.9 | 2.5 | 0.73 | 0.57 | 1.4 | 36 | 46 | 20 | 31 | 25 | 12 | 3.4 |
| 2 | 8.8 | 2.2 | 0.72 | 0.60 | 1.5 | 36 | 44 | 20 | 32 | 24 | 12 | 3.3 |
| 3 | 8.6 | 2.1 | 0.65 | 0.55 | 2.2 | 35 | 43 | 20 | 33 | 24 | 12 | 3.2 |
| 4 | 8.2 | 2.0 | 0.64 | 0.54 | 3.7 | 34 | 41 | 21 | 34 | 23 | 11 | 2.9 |
| 5 | 8.0 | 1.8 | 0.58 | 0.57 | 6.0 | 33 | 40 | 21 | 34 | 23 | 11 | 2.8 |
| 6 | 7.8 | 1.8 | 0.58 | 0.56 | 8.2 | 32 | 39 | 21 | 34 | 22 | 11 | 2.7 |
| 7 | 7.4 | 1.8 | 0.58 | 0.58 | 10 | 31 | 37 | 21 | 34 | 22 | 10 | 2.5 |
| 8 | 7.2 | 1.5 | 0.57 | 0.58 | 12 | 30 | 36 | 21 | 34 | 22 | 10 | 2.4 |
| 9 | 7.0 | 1.5 | 0.52 | 0.58 | 16 | 30 | 34 | 21 | 34 | 21 | 9.8 | 2.2 |
| 10 | 6.6 | 1.5 | 0.52 | 0.58 | 19 | 29 | 32 | 21 | 34 | 21 | 9.5 | 2.1 |
| 11 | 6.3 | 1.4 | 0.57 | 0.58 | 21 | 28 | 30 | 22 | 34 | 21 | 9.1 | 2.1 |
| 12 | 6.0 | 1.4 | 0.61 | 0.65 | 24 | 28 | 28 | 22 | 34 | 20 | 8.6 | 2.0 |
| 13 | 5.7 | 1.4 | 0.64 | 0.65 | 26 | 27 | 27 | 22 | 34 | 20 | 8.4 | 1.9 |
| 14 | 5.4 | 1.3 | 0.58 | 0.65 | 28 | 26 | 26 | 23 | 33 | 20 | 8.0 | 1.8 |
| 15 | 5.2 | 1.3 | 0.54 | 0.65 | 29 | 27 | 25 | 23 | 32 | 19 | 7.6 | 1.8 |
| 16 | 4.8 | 1.3 | 0.57 | 0.68 | 30 | 28 | 24 | 23 | 32 | 19 | 7.4 | 1.7 |
| 17 | 4.7 | 1.3 | 0.55 | 0.73 | 31 | 31 | 24 | 24 | 32 | 18 | 7.0 | 1.7 |
| 18 | 4.5 | 1.2 | 0.51 | 0.73 | 31 | 34 | 23 | 24 | 31 | 18 | 6.8 | 1.7 |
| 19 | 4.2 | 1.2 | 0.46 | 0.74 | 31 | 36 | 22 | 24 | 31 | 17 | 6.5 | 1.7 |
| 20 | 4.1 | 1.1 | 0.46 | 0.81 | 31 | 39 | 22 | 24 | 31 | 17 | 6.2 | 1.6 |
| 21 | 3.9 | 1.1 | 0.46 | 0.81 | 31 | 42 | 21 | 25 | 30 | 16 | 6.1 | 1.5 |
| 22 | 3.7 | 1.0 | 0.46 | 0.83 | 32 | 45 | 21 | 25 | 29 | 16 | 5.6 | 1.4 |
| 23 | 3.6 | 0.92 | 0.43 | 0.89 | 31 | 44 | 21 | 25 | 29 | 16 | 5.6 | 1.4 |
| 24 | 3.4 | 0.89 | 0.40 | 0.93 | 32 | 43 | 21 | 26 | 28 | 15 | 5.3 | 1.3 |
| 25 | 3.3 | 0.89 | 0.40 | 0.98 | 33 | 45 | 21 | 27 | 28 | 14 | 4.8 | 1.3 |
| 26 | 3.3 | 0.88 | 0.40 | 1.3 | 35 | 47 | 20 | 27 | 27 | 13 | 4.6 | 1.3 |
| 27 | 3.0 | 0.81 | 0.40 | 1.1 | 35 | 49 | 20 | 28 | 27 | 13 | 4.3 | 1.3 |
| 28 | 2.8 | 0.79 | 0.44 | 1.0 | 36 | 51 | 20 | 29 | 26 | 13 | 4.2 | 0.99 |
| 29 | 2.7 | 0.73 | 0.46 | 1.0 | --- | 53 | 20 | 29 | 26 | 13 | 4.0 | 0.98 |
| 30 | 2.7 | 0.73 | 0.47 | 1.2 | --- | 53 | 20 | 30 | 25 | 13 | 3.7 | 0.98 |
| 31 | 2.5 | --- | 0.53 | 1.7 | --- | 49 | --- | 31 | --- | 12 | 3.6 | --- |
| TOTAL | 164.3 | 40.34 | 16.43 | 24.32 | 627.0 | 1,151 | 848 | 740 | 933 | 570 | 235.7 | 57.95 |
| MEAN | 5.30 | 1.34 | 0.53 | 0.78 | 22.4 | 37.1 | 28.3 | 23.9 | 31.1 | 18.4 | 7.60 | 1.93 |
| MAX | 8.9 | 2.5 | 0.73 | 1.7 | 36 | 53 | 46 | 31 | 34 | 25 | 12 | 3.4 |
| MIN | 2.5 | 0.73 | 0.40 | 0.54 | 1.4 | 26 | 20 | 20 | 25 | 12 | 3.6 | 0.98 |
| AC-FT | 326 | 80 | 33 | 48 | 1,240 | 2,280 | 1,680 | 1,470 | 1,850 | 1,130 | 468 | 115 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2003, BY WATER YEAR (WY)

| | 3.06 | 7.72 | 16.2 | 15.4 | 15.0 | 12.9 | 13.3 | 22.8 | 32.5 | 24.3 | 13.3 | 5.32 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 3.06 | 7.72 | 16.2 | 15.4 | 15.0 | 12.9 | 13.3 | 22.8 | 32.5 | 24.3 | 13.3 | 5.32 |
| MAX | 22.6 | 67.3 | 58.6 | 51.5 | 65.6 | 47.7 | 53.8 | 51.6 | 73.1 | 63.9 | 39.8 | 18.5 |
| (WY) | (1960) | (1948) | (1976) | (1954) | (1953) | (1950) | (1988) | (1988) | (1946) | (1955) | (1955) | (1955) |
| MIN | 0.32 | 0.23 | 0.46 | 0.63 | 0.38 | 0.41 | 4.31 | 3.65 | 9.80 | 5.74 | 1.55 | 0.53 |
| (WY) | (1988) | (1988) | (1953) | (2001) | (2001) | (2001) | (1956) | (1999) | (1963) | (1978) | (1987) | (1978) |

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1945 - 2003

| | | | |
|--------------------------|----------|----------|--------|
| ANNUAL TOTAL | 4,781.27 | 5,408.04 | |
| ANNUAL MEAN | 13.1 | 14.8 | |
| HIGHEST ANNUAL MEAN | | | 15.2 |
| LOWEST ANNUAL MEAN | | | 29.3 |
| HIGHEST DAILY MEAN | 49 | Jun 10 | 53 |
| LOWEST DAILY MEAN | 0.40 | Dec 24 | 0.40 |
| ANNUAL SEVEN-DAY MINIMUM | 0.42 | Dec 22 | 0.42 |
| ANNUAL RUNOFF (AC-FT) | 9,480 | 10,730 | 10,980 |
| 10 PERCENT EXCEEDS | 35 | 34 | 35 |
| 50 PERCENT EXCEEDS | 8.0 | 10 | 11 |
| 90 PERCENT EXCEEDS | 0.89 | 0.61 | 1.5 |

12116400 CEDAR RIVER AT POWERPLANT, AT CEDAR FALLS, WA

LOCATION.--Lat 47°25'08", long 121°46'49", in SE ¼ sec.4, T.22 N., R.8 E., King County, Hydrologic Unit 17110012, on right bank 100 ft upstream from Seattle Municipal Powerplant at town of Cedar Falls, and at mile 33.7.

DRAINAGE AREA.--83.9 mi², includes 78.4 mi² upstream from Cedar Lake which is non-contributing except during spillage and seepage from dam.

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Water-stage recorder, crest-stage gage and concrete weir. Datum of gage is 900.00 ft above NGVD of 1929 (City of Seattle benchmark).

REMARKS.--Records good. Flow regulated by Chester Morse Lake (station 12115900) and Cedar Lake (station 12116060) to supply powerplant, which discharges below gage. Entire flow of river normally diverted at Cedar Lake except for infrequent releases. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--2 years (water years 2002-2003) 115 ft³/s, 82,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 950 ft³/s Feb. 3, 2003, gage height 34.80 ft; minimum discharge, 3.0 ft³/s Aug. 28, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 950 ft³/s Feb. 3, gage height, 34.80 ft; minimum discharge, 3.0 ft³/s Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 1 | 145 | 153 | 231 | 398 | 343 | 141 | 157 | 28 | 32 | 26 | 14 | 32 |
| 2 | 159 | 149 | 230 | 351 | 636 | 68 | 65 | 28 | 33 | 26 | 14 | 33 |
| 3 | 171 | 145 | 228 | 153 | 728 | e56 | 197 | 28 | 33 | 25 | 14 | 36 |
| 4 | 213 | 148 | 227 | 51 | 864 | e37 | 384 | 28 | 33 | 25 | 13 | 36 |
| 5 | 230 | 165 | 202 | 56 | 847 | 36 | 379 | 29 | 33 | 24 | 14 | 36 |
| 6 | 216 | 166 | 181 | 47 | 771 | 35 | 377 | 31 | 34 | 23 | 13 | 36 |
| 7 | 238 | 166 | 185 | 66 | 621 | 106 | 375 | 28 | 34 | 22 | 12 | 36 |
| 8 | 276 | 179 | 186 | 101 | 523 | 233 | 254 | 28 | 33 | 22 | 12 | 42 |
| 9 | 314 | 201 | 148 | 142 | 448 | 248 | e210 | 28 | 33 | 21 | 11 | 32 |
| 10 | 318 | 201 | 119 | 169 | 401 | 257 | e52 | 27 | 33 | 21 | 11 | 34 |
| 11 | 321 | 201 | 116 | 182 | 311 | e377 | e50 | 27 | 33 | 24 | 11 | 62 |
| 12 | 322 | 192 | 91 | 186 | 250 | e562 | e48 | 28 | 33 | 125 | 10 | 103 |
| 13 | 323 | 143 | 99 | 186 | 199 | 470 | e49 | 29 | 33 | 171 | 9.6 | 98 |
| 14 | 314 | 119 | 101 | 184 | 161 | 225 | e46 | 29 | 33 | 170 | 9.0 | 94 |
| 15 | 277 | 113 | 102 | 176 | 120 | 127 | e94 | 28 | 32 | 169 | 8.3 | 125 |
| 16 | 250 | 96 | 100 | 174 | 103 | 120 | e38 | 28 | 31 | 168 | 7.9 | 175 |
| 17 | 236 | 96 | 70 | 173 | 102 | 279 | e38 | 29 | 31 | 167 | 7.4 | 159 |
| 18 | 235 | 97 | 75 | 171 | 101 | 441 | 37 | 29 | 30 | 138 | 6.9 | 105 |
| 19 | 232 | 109 | 127 | 173 | 101 | 350 | 36 | 29 | 30 | 81 | 6.5 | e78 |
| 20 | 230 | 140 | 152 | 199 | e106 | 315 | 34 | 29 | 30 | 80 | 6.0 | 48 |
| 21 | 219 | 195 | 162 | 224 | e225 | 102 | 33 | 30 | 33 | 80 | 5.4 | 47 |
| 22 | 205 | 205 | 161 | 253 | e293 | 91 | 32 | 30 | 33 | 55 | 4.8 | 43 |
| 23 | 203 | 214 | 160 | 240 | e330 | 82 | 31 | 31 | 32 | 17 | 4.5 | 35 |
| 24 | 200 | 211 | 188 | 210 | e395 | 70 | 34 | 32 | 30 | 16 | 4.0 | 33 |
| 25 | 198 | 208 | 210 | 210 | 330 | 130 | 33 | 32 | 29 | 16 | 4.3 | 33 |
| 26 | 195 | 206 | 208 | 256 | 419 | 263 | 31 | 32 | 29 | 15 | 4.5 | 33 |
| 27 | 193 | 220 | 206 | 257 | 396 | 262 | 30 | 31 | 28 | 15 | 3.4 | 33 |
| 28 | 191 | 238 | 204 | 266 | 284 | 259 | 29 | 32 | 28 | 16 | 11 | 32 |
| 29 | 177 | 236 | 203 | 271 | --- | 258 | 28 | 32 | 27 | 20 | 34 | 32 |
| 30 | 159 | 233 | 205 | 265 | --- | 256 | 28 | 32 | 27 | 16 | 34 | 33 |
| 31 | 157 | --- | 271 | 157 | --- | 267 | --- | 32 | --- | 15 | 33 | --- |
| TOTAL | 7,117 | 5,145 | 5,148 | 5,947 | 10,408 | 6,523 | 3,229 | 914 | 943 | 1,809 | 353.5 | 1,754 |
| MEAN | 230 | 172 | 166 | 192 | 372 | 210 | 108 | 29.5 | 31.4 | 58.4 | 11.4 | 58.5 |
| MAX | 323 | 238 | 271 | 398 | 864 | 562 | 384 | 32 | 34 | 171 | 34 | 175 |
| MIN | 145 | 96 | 70 | 47 | 101 | 35 | 28 | 27 | 27 | 15 | 3.4 | 32 |
| AC-FT | 14,120 | 10,210 | 10,210 | 11,800 | 20,640 | 12,940 | 6,400 | 1,810 | 1,870 | 3,590 | 701 | 3,480 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

| | 2002 | 2003 | 2002 | 2003 | 2002 | 2003 | 2002 | 2003 | 2002 | 2003 | 2002 | 2003 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 123 | 150 | 143 | 136 | 200 | 116 | 130 | 29.3 | 192 | 77.5 | 22.8 | 64.9 |
| MAX | 230 | 172 | 166 | 192 | 372 | 210 | 152 | 29.5 | 352 | 96.6 | 34.2 | 71.4 |
| (WY) | (2003) | (2003) | (2003) | (2003) | (2003) | (2003) | (2002) | (2003) | (2002) | (2002) | (2002) | (2002) |
| MIN | 16.9 | 129 | 120 | 81.0 | 27.8 | 22.1 | 108 | 29.2 | 31.4 | 58.4 | 11.4 | 58.5 |
| (WY) | (2002) | (2002) | (2002) | (2002) | (2002) | (2002) | (2003) | (2002) | (2003) | (2003) | (2003) | (2003) |

SUMMARY STATISTICS

| | FOR 2002 CALENDAR YEAR | | FOR 2003 WATER YEAR | | WATER YEARS 2002 - 2003 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL | 43,604 | | 49,290.5 | | | |
| ANNUAL MEAN | 119 | | 135 | | 115 | |
| HIGHEST ANNUAL MEAN | | | | | 135 | |
| LOWEST ANNUAL MEAN | | | | | 94.0 | |
| HIGHEST DAILY MEAN | 694 | Jun 18 | 864 | Feb 4 | 864 | Feb 4, 2003 |
| LOWEST DAILY MEAN | 16 | Mar 9 | 3.4 | Aug 27 | 3.4 | Aug 27, 2003 |
| ANNUAL SEVEN-DAY MINIMUM | 17 | Sep 3 | 4.4 | Aug 21 | 4.1 | Oct 2, 2001 |
| ANNUAL RUNOFF (AC-FT) | 86,490 | | 97,770 | | 82,960 | |
| 10 PERCENT EXCEEDS | 248 | | 281 | | 299 | |
| 50 PERCENT EXCEEDS | 60 | | 100 | | 40 | |
| 90 PERCENT EXCEEDS | 20 | | 19 | | 19 | |

e Estimated

LAKE WASHINGTON BASIN

12116500 CEDAR RIVER AT CEDAR FALLS, WA

LOCATION.--Lat 47°25'02", long 121°47'27", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.4, T.22 N., R.8 E., King County, Hydrologic Unit 17110012, Snoqualmie National Forest, on right bank 0.5 mi downstream from Seattle municipal powerplant at town of Cedar Falls, 4.0 mi downstream from Chester Morse Lake, and at mile 33.2.

DRAINAGE AREA.--84.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1914 to current year.

REVISED RECORDS.--WSP 722: 1930. WSP 1286: 1934(M), drainage area. WA-96-1: 1991(M).

GAGE.--Water-stage recorder. Datum of gage is 902.1 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. All diversions are returned to river upstream from station. Flow regulated by Chester Morse Lake (station 12115900) and Cedar Lake (station 12116060). U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--89 years (water years 1915-2003), 320 ft³/s, 231,700 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,120 ft³/s, Nov. 24, 1990, gage height, 14.00 ft, from flood mark, from rating curve extended above 5,000 ft³/s; no flow part or all of each day Nov. 25, 1917, Aug. 18, 1923, Sept. 30 to Oct. 5, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft³/s Feb. 6, gage height, 7.59 ft; minimum discharge, 5.8 ft³/s Aug. 21.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|---------|-------|
| 1 | 141 | 154 | 232 | 400 | 337 | 436 | 785 | 50 | 144 | 261 | 76 | 32 |
| 2 | 155 | 150 | 232 | 355 | 628 | 340 | 587 | 76 | 146 | 257 | 73 | 32 |
| 3 | 165 | 145 | 229 | 159 | 724 | 286 | 817 | 76 | 145 | 257 | 75 | 36 |
| 4 | 206 | 148 | 229 | 54 | 897 | 253 | 1,000 | 77 | 144 | 256 | 78 | 36 |
| 5 | 225 | 165 | 203 | 59 | 864 | 292 | 999 | 79 | 144 | 254 | 88 | 36 |
| 6 | 212 | 165 | 181 | 50 | 814 | 338 | 995 | 81 | 144 | 254 | 84 | 36 |
| 7 | 230 | 165 | 184 | 67 | 614 | 402 | 997 | 78 | 143 | 253 | 83 | 36 |
| 8 | 269 | 176 | 187 | 102 | 514 | 527 | 881 | 63 | 143 | 199 | 83 | 43 |
| 9 | 305 | 200 | 148 | 142 | 444 | 542 | 754 | 30 | 144 | 36 | 82 | 31 |
| 10 | 308 | 201 | 118 | 170 | 406 | 550 | 644 | 30 | 152 | 20 | 81 | 34 |
| 11 | 308 | 201 | 117 | 185 | 335 | 663 | 634 | 30 | 164 | 31 | 52 | 60 |
| 12 | 308 | 192 | 92 | 187 | 267 | 816 | 633 | 45 | 229 | 121 | 8.3 | 99 |
| 13 | 312 | 145 | 98 | 187 | 219 | 614 | 627 | 127 | 148 | 168 | 7.6 | 94 |
| 14 | 306 | 118 | 99 | 186 | 164 | 507 | 513 | 125 | 100 | 168 | 7.2 | 91 |
| 15 | 275 | 114 | 101 | 178 | 122 | 629 | 507 | 119 | 53 | 168 | 7.1 | 119 |
| 16 | 248 | 97 | 100 | 176 | 104 | 696 | 498 | 53 | 43 | 168 | 6.9 | 171 |
| 17 | 233 | 97 | 73 | 174 | 103 | 835 | 473 | 30 | 32 | 165 | 6.6 | 157 |
| 18 | 232 | 97 | 76 | 173 | 102 | 1,010 | 372 | 30 | 31 | 138 | 6.3 | 114 |
| 19 | 229 | 107 | 126 | 175 | 102 | 926 | 256 | 92 | 31 | 80 | 6.2 | 96 |
| 20 | 229 | 138 | 152 | 201 | 118 | 832 | 176 | 87 | 32 | 80 | 6.0 | 73 |
| 21 | 217 | 195 | 162 | 226 | 225 | 623 | 182 | 78 | 34 | 80 | 11 | 71 |
| 22 | 204 | 205 | 162 | 258 | 293 | 326 | 122 | 74 | 35 | 76 | 25 | 86 |
| 23 | 201 | 216 | 162 | 245 | 330 | 218 | 78 | 72 | 34 | 66 | 30 | 119 |
| 24 | 199 | 213 | 190 | 215 | 503 | 300 | 59 | 74 | 32 | 65 | 29 | 121 |
| 25 | 195 | 208 | 213 | 214 | 612 | 748 | 34 | 73 | 56 | 65 | 28 | 119 |
| 26 | 194 | 207 | 211 | 260 | 696 | 887 | 33 | 72 | 152 | 66 | 28 | 120 |
| 27 | 191 | 220 | 209 | 261 | 681 | 880 | 31 | 74 | 217 | 66 | 27 | 119 |
| 28 | 190 | 238 | 208 | 269 | 575 | 879 | 32 | 79 | 258 | 70 | 29 | 118 |
| 29 | 177 | 237 | 206 | 276 | --- | 874 | 34 | 116 | 220 | 80 | 33 | 118 |
| 30 | 159 | 235 | 208 | 274 | --- | 876 | 30 | 146 | 233 | 77 | 33 | 117 |
| 31 | 156 | --- | 274 | 165 | --- | 896 | --- | 146 | --- | 76 | 33 | --- |
| TOTAL | 6,979 | 5,149 | 5,182 | 6,043 | 11,793 | 19,001 | 13,783 | 2,382 | 3,583 | 4,121 | 1,223.2 | 2,534 |
| MEAN | 225 | 172 | 167 | 195 | 421 | 613 | 459 | 76.8 | 119 | 133 | 39.5 | 84.5 |
| MAX | 312 | 238 | 274 | 400 | 897 | 1,010 | 1,000 | 146 | 258 | 261 | 88 | 171 |
| MIN | 141 | 97 | 73 | 50 | 102 | 218 | 30 | 30 | 31 | 20 | 6.0 | 31 |
| AC-FT | 13,840 | 10,210 | 10,280 | 11,990 | 23,390 | 37,690 | 27,340 | 4,720 | 7,110 | 8,170 | 2,430 | 5,030 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2003, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 165 | 350 | 523 | 494 | 425 | 357 | 363 | 388 | 384 | 187 | 111 | 102 |
| MAX | 547 | 1,780 | 2,197 | 1,393 | 1,256 | 1,324 | 767 | 868 | 1,419 | 814 | 424 | 324 |
| (WY) | (1960) | (1991) | (1918) | (1918) | (1982) | (1972) | (2002) | (1997) | (1917) | (1917) | (1954) | (1959) |
| MIN | 34.7 | 24.9 | 47.7 | 133 | 95.0 | 89.0 | 75.3 | 59.5 | 46.3 | 24.5 | 20.2 | 28.3 |
| (WY) | (1953) | (1953) | (1953) | (1952) | (1988) | (1941) | (1995) | (1992) | (1963) | (1926) | (2001) | (1957) |

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1914 - 2003

| | | | |
|--------------------------|---------|----------|---------|
| ANNUAL TOTAL | 120,312 | 81,773.2 | |
| ANNUAL MEAN | 330 | 224 | 320 |
| HIGHEST ANNUAL MEAN | | | 567 |
| LOWEST ANNUAL MEAN | | | 93.0 |
| HIGHEST DAILY MEAN | 1,330 | 1,010 | 7,440 |
| LOWEST DAILY MEAN | 13 | 6.0 | 0.00 |
| ANNUAL SEVEN-DAY MINIMUM | 14 | 6.6 | 0.04 |
| ANNUAL RUNOFF (AC-FT) | 238,600 | 162,200 | 231,700 |
| 10 PERCENT EXCEEDS | 722 | 614 | 694 |
| 50 PERCENT EXCEEDS | 221 | 159 | 226 |
| 90 PERCENT EXCEEDS | 46 | 33 | 60 |

12116500 CEDAR RIVER AT CEDAR FALLS, WA—CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1999 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: March 1999 to current year.

REMARKS.--Records rated excellent, except Oct. 1-22 and June 11-19, which are good.

INSTRUMENTATION.--Temperature recorder since March, 1999.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 21.6°C Aug. 4, 2003; minimum, 1.2°C Feb. 12, 2001.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 21.6°C Aug. 4 minimum, 3.1°C Jan. 19.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|-------|---------|------|------|----------|-----|------|----------|-----|------|---------|-----|------|
| | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 14.6 | 13.6 | 14.0 | 6.2 | 5.4 | 5.9 | 6.7 | 6.4 | 6.6 | 4.2 | 3.7 | 4.0 |
| 2 | 14.5 | 13.5 | 14.0 | 5.7 | 5.1 | 5.3 | 6.9 | 6.3 | 6.7 | 4.9 | 4.2 | 4.5 |
| 3 | 14.6 | 14.1 | 14.3 | 5.9 | 5.1 | 5.5 | 6.3 | 5.6 | 6.1 | 5.6 | 4.6 | 5.0 |
| 4 | 14.7 | 14.3 | 14.5 | 6.5 | 5.4 | 6.0 | 5.7 | 5.5 | 5.6 | 6.3 | 5.6 | 5.9 |
| 5 | 14.4 | 14.1 | 14.3 | 7.6 | 6.5 | 7.3 | 5.9 | 5.3 | 5.6 | 5.8 | 5.0 | 5.5 |
| 6 | 14.7 | 14.2 | 14.4 | 7.8 | 7.4 | 7.6 | 5.6 | 5.2 | 5.4 | 5.5 | 4.9 | 5.2 |
| 7 | 14.8 | 14.2 | 14.5 | 7.7 | 7.5 | 7.6 | 5.3 | 5.0 | 5.2 | 5.2 | 4.4 | 4.8 |
| 8 | 14.4 | 13.8 | 14.1 | 7.8 | 7.6 | 7.7 | 5.1 | 4.8 | 5.0 | 4.5 | 4.2 | 4.3 |
| 9 | 14.1 | 13.6 | 13.8 | 7.9 | 7.5 | 7.7 | 5.0 | 4.6 | 4.8 | 4.5 | 3.6 | 4.1 |
| 10 | 13.6 | 13.1 | 13.4 | 8.0 | 7.6 | 7.8 | 5.0 | 4.7 | 4.9 | 3.6 | 3.2 | 3.4 |
| 11 | 13.2 | 12.4 | 12.9 | 8.1 | 7.8 | 7.9 | 5.5 | 4.8 | 5.1 | 3.5 | 3.2 | 3.4 |
| 12 | 12.9 | 12.2 | 12.5 | 8.2 | 7.9 | 8.1 | 5.8 | 5.5 | 5.7 | 3.6 | 3.4 | 3.5 |
| 13 | 12.3 | 11.5 | 11.9 | 8.3 | 7.8 | 8.1 | 5.8 | 5.5 | 5.7 | 3.9 | 3.4 | 3.7 |
| 14 | 12.1 | 11.4 | 11.7 | 8.2 | 7.5 | 8.0 | 6.3 | 5.8 | 6.1 | 3.9 | 3.4 | 3.8 |
| 15 | 12.1 | 11.5 | 11.8 | 7.8 | 7.3 | 7.5 | 6.2 | 5.8 | 6.0 | 4.0 | 3.2 | 3.6 |
| 16 | 12.4 | 11.7 | 12.0 | 7.7 | 7.2 | 7.4 | 5.9 | 5.7 | 5.8 | 4.0 | 3.5 | 3.8 |
| 17 | 12.3 | 11.6 | 11.9 | 7.6 | 7.2 | 7.4 | 5.7 | 5.2 | 5.4 | 3.8 | 3.6 | 3.7 |
| 18 | 11.9 | 11.5 | 11.7 | 7.5 | 7.1 | 7.3 | 5.3 | 4.9 | 5.1 | 3.6 | 3.2 | 3.5 |
| 19 | 12.2 | 11.5 | 11.9 | 8.2 | 7.5 | 8.0 | 5.0 | 4.6 | 4.7 | 3.7 | 3.1 | 3.4 |
| 20 | 12.2 | 11.9 | 12.1 | 8.3 | 7.9 | 8.1 | 4.6 | 4.2 | 4.4 | 3.5 | 3.2 | 3.4 |
| 21 | 12.2 | 12.0 | 12.1 | 8.5 | 8.1 | 8.3 | 4.2 | 4.1 | 4.2 | 3.7 | 3.4 | 3.6 |
| 22 | 12.0 | 11.4 | 11.8 | 8.6 | 8.3 | 8.4 | 4.3 | 3.7 | 4.1 | 4.2 | 3.6 | 3.8 |
| 23 | 11.7 | 11.0 | 11.3 | 8.3 | 7.8 | 8.2 | 3.9 | 3.5 | 3.7 | 4.3 | 4.0 | 4.2 |
| 24 | 11.0 | 10.2 | 10.6 | 7.8 | 6.9 | 7.4 | 3.6 | 3.4 | 3.5 | 4.6 | 4.0 | 4.4 |
| 25 | 10.3 | 9.7 | 10.0 | 6.9 | 6.3 | 6.6 | 3.6 | 3.4 | 3.5 | 5.1 | 4.5 | 4.8 |
| 26 | 10.0 | 9.5 | 9.7 | 6.3 | 6.0 | 6.1 | 3.6 | 3.3 | 3.4 | 6.0 | 5.1 | 5.6 |
| 27 | 9.8 | 9.3 | 9.6 | 6.3 | 5.9 | 6.1 | 4.1 | 3.3 | 3.8 | 5.5 | 5.3 | 5.4 |
| 28 | 9.9 | 9.5 | 9.7 | 6.5 | 6.1 | 6.3 | 4.1 | 3.7 | 3.9 | 5.4 | 4.7 | 5.2 |
| 29 | 9.6 | 8.5 | 9.3 | 6.7 | 6.2 | 6.4 | 3.9 | 3.6 | 3.8 | 5.1 | 4.7 | 4.8 |
| 30 | 8.5 | 7.5 | 8.0 | 7.0 | 6.6 | 6.8 | 3.9 | 3.6 | 3.8 | 6.0 | 5.1 | 5.2 |
| 31 | 7.5 | 6.2 | 6.8 | --- | --- | --- | 3.9 | 3.6 | 3.7 | 6.3 | 5.8 | 6.1 |
| MONTH | 14.8 | 6.2 | 12.0 | 8.6 | 5.1 | 7.2 | 6.9 | 3.3 | 4.9 | 6.3 | 3.1 | 4.4 |

12117000 TAYLOR CREEK NEAR SELLECK, WA

LOCATION.--Lat 47°23'12", long 121°50'42", in NW ¼ NW ¼ sec.19, T.22 N., R.8 E., King County, Hydrologic Unit 17110012, Snoqualmie National Forest, on left bank 0.6 mi upstream from mouth, and 1.3 mi northeast of Selleck.

DRAINAGE AREA.--17.2 mi².

PERIOD OF RECORD.--June to October 1945, August 1956 to current year.

REVISED RECORDS.--WSP 1932: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 940 ft above NGVD of 1929, from topographic map. June to October 1945 on right bank 350 ft downstream 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.--47 years (water years 1957-2003), 96.8 ft³/s, 76.48 in/yr, 70,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,130 ft³/s Feb. 8, 1996, gage height, 5.53 ft from rating curve extended above 900 ft³/s; minimum discharge, 15 ft³/s Oct. 3, 4, 7-14, 1979, Oct. 28-31, Nov. 3-10, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|--------|------|--------------------------------|------------------|
| Jan 26 | 1100 | 514 | 3.63 | Mar 11 | 1915 | 648 | 3.82 |
| Jan 31 | 1400 | *787 | *3.99 | | | | |

Minimum discharge, 17 ft³/s, Sep. 3-7 and 24-30, gage height, 1.84 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|
| 1 | 21 | 19 | 21 | 73 | 404 | 87 | 180 | 92 | 51 | 33 | 22 | 18 |
| 2 | 21 | 19 | 20 | 112 | 267 | 89 | 158 | 89 | 50 | 32 | 22 | 18 |
| 3 | 43 | 19 | 20 | 105 | 228 | 92 | 147 | 87 | 49 | 31 | 22 | 18 |
| 4 | 29 | 19 | 21 | 130 | 178 | 83 | 136 | 90 | 47 | 31 | 22 | 17 |
| 5 | 24 | 19 | 20 | 127 | 149 | 88 | 131 | 101 | 46 | 31 | 21 | 17 |
| 6 | 23 | 19 | 20 | 94 | 130 | 84 | 135 | 104 | 44 | 30 | 21 | 17 |
| 7 | 21 | 19 | 20 | 77 | 117 | 86 | 155 | 92 | 43 | 30 | 21 | 18 |
| 8 | 21 | 21 | 20 | 65 | 107 | 84 | 163 | 87 | 43 | 30 | 21 | 30 |
| 9 | 21 | 25 | 19 | 58 | 100 | 233 | 170 | 83 | 42 | 29 | 21 | 20 |
| 10 | 22 | 28 | 24 | 52 | 95 | 290 | 150 | 80 | 42 | 28 | 21 | 20 |
| 11 | 22 | 22 | 53 | 51 | 90 | 380 | 142 | 77 | 42 | 28 | 21 | 43 |
| 12 | 21 | 42 | 69 | 79 | 86 | 504 | 137 | 75 | 41 | 27 | 21 | 31 |
| 13 | 20 | 36 | 77 | 62 | 83 | 406 | 161 | 72 | 42 | 29 | 20 | 20 |
| 14 | 20 | 34 | 69 | 67 | 78 | 269 | 146 | 72 | 42 | 28 | 20 | 19 |
| 15 | 20 | 26 | 64 | 58 | 76 | 209 | 135 | 73 | 40 | 27 | 20 | 18 |
| 16 | 20 | 26 | 97 | 55 | 82 | 175 | 132 | 73 | 38 | 27 | 20 | 30 |
| 17 | 20 | 26 | 78 | 51 | 80 | 154 | 146 | 76 | 37 | 26 | 20 | 26 |
| 18 | 20 | 28 | 61 | 49 | 77 | 141 | 138 | 72 | 37 | 26 | 20 | 20 |
| 19 | 19 | 92 | 49 | 47 | 76 | 131 | 130 | 70 | 40 | 25 | 20 | 36 |
| 20 | 20 | 64 | 43 | 45 | 114 | 140 | 123 | 67 | 46 | 25 | 19 | 26 |
| 21 | 20 | 41 | 38 | 57 | 191 | 178 | 119 | 69 | 59 | 25 | 19 | 21 |
| 22 | 20 | 33 | 35 | 83 | 222 | 284 | 113 | 66 | 53 | 24 | 19 | 19 |
| 23 | 20 | 29 | 33 | 96 | 162 | 234 | 109 | 64 | 47 | 24 | 19 | 18 |
| 24 | 19 | 27 | 32 | 97 | 130 | 187 | 137 | 63 | 42 | 24 | 19 | 18 |
| 25 | 19 | 26 | 31 | 96 | 113 | 179 | 122 | 64 | 40 | 24 | 18 | 17 |
| 26 | 19 | 24 | 35 | 318 | 103 | 168 | 117 | 61 | 38 | 23 | 19 | 17 |
| 27 | 19 | 23 | 38 | 254 | 96 | 154 | 112 | 59 | 37 | 23 | 19 | 17 |
| 28 | 24 | 22 | 35 | 194 | 93 | 146 | 105 | 57 | 35 | 23 | 18 | 17 |
| 29 | 22 | 22 | 33 | 190 | --- | 136 | 100 | 55 | 34 | 23 | 18 | 17 |
| 30 | 20 | 21 | 46 | 269 | --- | 130 | 96 | 53 | 34 | 22 | 18 | 17 |
| 31 | 19 | --- | 54 | 677 | --- | 207 | --- | 53 | --- | 22 | 18 | --- |
| TOTAL | 669 | 871 | 1,275 | 3,788 | 3,727 | 5,728 | 4,045 | 2,296 | 1,281 | 830 | 619 | 640 |
| MEAN | 21.6 | 29.0 | 41.1 | 122 | 133 | 185 | 135 | 74.1 | 42.7 | 26.8 | 20.0 | 21.3 |
| MAX | 43 | 92 | 97 | 677 | 404 | 504 | 180 | 104 | 59 | 33 | 22 | 43 |
| MIN | 19 | 19 | 19 | 45 | 76 | 83 | 96 | 53 | 34 | 22 | 18 | 17 |
| AC-FT | 1,330 | 1,730 | 2,530 | 7,510 | 7,390 | 11,360 | 8,020 | 4,550 | 2,540 | 1,650 | 1,230 | 1,270 |
| CFSM | 1.25 | 1.69 | 2.39 | 7.10 | 7.74 | 10.7 | 7.84 | 4.31 | 2.48 | 1.56 | 1.16 | 1.24 |
| IN. | 1.45 | 1.88 | 2.76 | 8.19 | 8.06 | 12.39 | 8.75 | 4.97 | 2.77 | 1.80 | 1.34 | 1.38 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2003, BY WATER YEAR (WY)

| | MEAN | MAX | (WY) | MIN | (WY) | MEAN | MAX | (WY) | MIN | (WY) | MEAN | MAX | (WY) | MIN | (WY) |
|--|------|-----|--------|------|--------|------|------|--------|------|--------|------|------|--------|------|--------|
| | 47.4 | 132 | (1960) | 16.5 | (1988) | 112 | 317 | (1991) | 21.0 | (1988) | 150 | 291 | (1976) | 41.1 | (2003) |
| | 166 | 285 | (1997) | 62.3 | (1988) | 151 | 337 | (1996) | 55.2 | (1977) | 127 | 313 | (1972) | 68.5 | (1992) |
| | 101 | 193 | (1971) | 34.4 | (1995) | 123 | 158 | (2002) | 68.5 | (1992) | 123 | 193 | (1971) | 34.4 | (1995) |
| | 74.8 | 171 | (1964) | 25.6 | (1992) | 47.8 | 91.3 | (1993) | 19.6 | (1958) | 31.7 | 56.3 | (1968) | 17.9 | (1958) |
| | 33.0 | 128 | (1959) | 17.9 | (1988) | 33.0 | 128 | (1959) | 17.9 | (1988) | 33.0 | 128 | (1959) | 17.9 | (1988) |

SUMMARY STATISTICS

| | FOR 2002 CALENDAR YEAR | FOR 2003 WATER YEAR | WATER YEARS 1956 - 2003 |
|--------------------------|------------------------|---------------------|-------------------------|
| ANNUAL TOTAL | 31,403 | 25,769 | |
| ANNUAL MEAN | 86.0 | 70.6 | 96.8 |
| HIGHEST ANNUAL MEAN | | | 141 |
| LOWEST ANNUAL MEAN | | | 59.5 |
| HIGHEST DAILY MEAN | 654 | 677 | 2,190 |
| LOWEST DAILY MEAN | 19 | 17 | 15 |
| ANNUAL SEVEN-DAY MINIMUM | 19 | 17 | 15 |
| ANNUAL RUNOFF (AC-FT) | 62,290 | 51,110 | 70,140 |
| ANNUAL RUNOFF (CFSM) | 5.00 | 4.10 | 5.63 |
| ANNUAL RUNOFF (INCHES) | 67.92 | 55.73 | 76.48 |
| 10 PERCENT EXCEEDS | 159 | 152 | 183 |
| 50 PERCENT EXCEEDS | 69 | 42 | 77 |
| 90 PERCENT EXCEEDS | 21 | 19 | 25 |

12117500 CEDAR RIVER NEAR LANDSBURG, WA

LOCATION.--Lat 47°23'38", long 121°57'12", on west line NW ¼ SW ¼ sec.17, T.22 N., R.7 E., King County, Hydrologic Unit 17110012, on left bank 1.8 mi upstream from intake of Seattle water-supply system near Landsburg, 4.0 mi east of Maple Valley, 5.9 mi downstream from Taylor Creek, and at mile 23.4.

DRAINAGE AREA.--121 mi², excludes Walsh Lake diversion which enters Cedar River at mile 19.5, and excludes 1.9 mi² of Walsh Lake drainage in Cedar River basin which is normally diverted into Issaquah Creek.

PERIOD OF RECORD.--August 1895 to current year (prior to October 1948, flow of Rock Creek included). Monthly discharge only for some periods, published in WSP 1316. Published as "near Seattle" 1895-98, "near Maple Valley" 1902, and as "near Ravensdale" 1898-1901, 1903-12.

REVISED RECORDS.--WSP 313: 1895-98, 1902-09. WSP 1286: 1912. WSP 1316: 1896-98(M), 1902-11(M). WSP 1736: 1960. WSP 1932: 1947, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 565.9 ft above NGVD of 1929. Prior to Oct. 1, 1898, nonrecording gage at site 2.2 mi downstream at different datum. Mar. 24, 1901, to May 15, 1913, nonrecording gage at site 2 mi downstream at datum 535.84 ft NGVD of 1929 (levels by City of Seattle). Apr. 30, 1914, to Oct. 22, 1928, water-stage recorder 0.2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. All diversions except Rock Creek returned to river upstream from station. Rock Creek, a tributary which entered naturally just upstream from station prior to 1932, is diverted during summer months to enter river at a point about 3.9 mi downstream from station. Some regulation by Chester Morse Lake (station 12115900) and Cedar Lake (station 12116060), 12.2 mi upstream. Chemical analyses July 1959 to July 1960. Water temperatures published August 1953 to September 1985. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--108 years (water years 1896-2003), 688 ft³/s, 498,500 acre-ft/yr, unadjusted, includes data published in WSP 1316.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s Nov. 19, 1911, gage height, 10.0 ft, from graph based on gage readings, site and datum then in use, by computation of peak flow over dam, peak caused by failure of flashboards at Chester Morse Lake; minimum discharge observed, 83 ft³/s Sept. 19, 1898.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,730 ft³/s Mar. 11, gage height, 3.30 ft; minimum discharge, 218 ft³/s Aug. 21, 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 350 | 348 | 399 | 626 | 947 | 725 | 1,310 | 420 | 437 | 514 | 297 | 230 |
| 2 | 364 | 342 | 400 | 683 | 1,130 | 620 | 1,060 | 446 | 436 | 510 | 292 | 228 |
| 3 | 411 | 337 | 396 | 504 | 1,180 | 588 | 1,250 | 446 | 434 | 508 | 293 | 231 |
| 4 | 438 | 332 | 397 | 380 | 1,310 | 528 | 1,450 | 448 | 429 | 507 | 292 | 230 |
| 5 | 449 | 349 | 377 | 396 | 1,240 | 553 | 1,440 | 467 | 428 | 505 | 302 | 228 |
| 6 | 433 | 351 | 347 | 331 | 1,180 | 604 | 1,470 | 473 | 425 | 504 | 300 | 227 |
| 7 | 439 | 351 | 347 | 307 | 954 | 653 | 1,480 | 449 | 421 | 503 | 299 | 229 |
| 8 | 478 | 358 | 347 | 321 | 835 | 800 | 1,410 | 435 | 420 | 470 | 297 | 258 |
| 9 | 520 | 391 | 325 | 345 | 731 | 1,000 | 1,270 | 389 | 418 | 317 | 296 | 232 |
| 10 | 530 | 402 | 293 | 369 | 695 | 1,120 | 1,140 | 381 | 424 | 280 | 296 | 230 |
| 11 | 533 | 388 | 331 | 382 | 610 | 1,270 | 1,110 | 376 | 437 | 278 | 285 | 273 |
| 12 | 531 | 410 | 340 | 428 | 533 | 1,630 | 1,100 | 373 | 492 | 338 | 238 | 305 |
| 13 | 531 | 372 | 372 | 406 | 485 | 1,370 | 1,150 | 450 | 436 | 408 | 233 | 280 |
| 14 | 528 | 329 | 346 | 416 | 421 | 1,060 | 1,010 | 456 | 391 | 408 | 232 | 273 |
| 15 | 493 | 314 | 346 | 389 | 374 | 1,090 | 972 | 458 | 333 | 404 | 229 | 284 |
| 16 | 464 | 293 | 404 | 378 | 354 | 1,140 | 958 | 408 | 320 | 403 | 227 | 359 |
| 17 | 445 | 290 | 350 | 369 | 352 | 1,220 | 954 | 378 | 303 | 399 | 227 | 355 |
| 18 | 440 | 288 | 314 | 363 | 345 | 1,420 | 842 | 368 | 300 | 388 | 224 | 304 |
| 19 | 437 | 369 | 332 | 356 | 339 | 1,340 | 717 | 405 | 304 | 319 | 223 | 314 |
| 20 | 437 | 369 | 350 | 379 | 389 | 1,270 | 620 | 413 | 313 | 314 | 221 | 277 |
| 21 | 430 | 399 | 353 | 420 | 576 | 1,130 | 610 | 409 | 350 | 314 | 221 | 262 |
| 22 | 410 | 391 | 348 | 510 | 738 | 1,010 | 559 | 398 | 335 | 312 | 233 | 260 |
| 23 | 406 | 400 | 343 | 529 | 676 | 795 | 501 | 390 | 319 | 299 | 236 | 290 |
| 24 | 400 | 392 | 358 | 489 | 806 | 773 | 538 | 387 | 308 | 297 | 235 | 291 |
| 25 | 399 | 386 | 386 | 483 | 889 | 1,210 | 480 | 391 | 305 | 295 | 233 | 288 |
| 26 | 395 | 381 | 394 | 818 | 988 | 1,370 | 463 | 383 | 401 | 293 | 233 | 288 |
| 27 | 390 | 387 | 397 | 788 | 974 | 1,350 | 451 | 379 | 459 | 293 | 233 | 287 |
| 28 | 394 | 408 | 389 | 700 | 871 | 1,340 | 438 | 381 | 513 | 293 | 232 | 286 |
| 29 | 384 | 406 | 385 | 671 | --- | 1,320 | 432 | 401 | 479 | 301 | 233 | 284 |
| 30 | 356 | 403 | 403 | 759 | --- | 1,320 | 420 | 437 | 482 | 299 | 233 | 282 |
| 31 | 351 | --- | 468 | 1,180 | --- | 1,420 | --- | 440 | --- | 297 | 233 | --- |
| TOTAL | 13,566 | 10,936 | 11,337 | 15,475 | 20,922 | 33,039 | 27,605 | 12,835 | 11,852 | 11,570 | 7,858 | 8,165 |
| MEAN | 438 | 365 | 366 | 499 | 747 | 1,066 | 920 | 414 | 395 | 373 | 253 | 272 |
| MAX | 533 | 410 | 468 | 1,180 | 1,310 | 1,630 | 1,480 | 473 | 513 | 514 | 302 | 359 |
| MIN | 350 | 288 | 293 | 307 | 339 | 528 | 420 | 368 | 300 | 278 | 221 | 227 |
| AC-FT | 26,910 | 21,690 | 22,490 | 30,690 | 41,500 | 65,530 | 54,750 | 25,460 | 23,510 | 22,950 | 15,590 | 16,200 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2003, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 393 | 724 | 952 | 976 | 899 | 794 | 783 | 789 | 741 | 482 | 347 | 320 |
| MAX | 1,015 | 2,371 | 3,126 | 2,198 | 2,009 | 2,233 | 1,498 | 1,412 | 1,795 | 1,077 | 735 | 716 |
| (WY) | (1960) | (1991) | (1934) | (1918) | (1982) | (1972) | (1897) | (1897) | (1917) | (1917) | (1954) | (1959) |
| MIN | 141 | 141 | 179 | 369 | 368 | 360 | 335 | 306 | 320 | 262 | 124 | 127 |
| (WY) | (1905) | (1896) | (1953) | (1988) | (1988) | (1941) | (1941) | (1915) | (1992) | (1898) | (1898) | (1898) |

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1895 - 2003

| | | | | |
|--------------------------|---------|---------|---------|---------|
| ANNUAL TOTAL | 243,412 | 185,160 | | |
| ANNUAL MEAN | 667 | 507 | 682 | |
| HIGHEST ANNUAL MEAN | | | 1,066 | 1897 |
| LOWEST ANNUAL MEAN | | | 340 | 1941 |
| HIGHEST DAILY MEAN | 1,980 | Apr 14 | 1,630 | Mar 12 |
| LOWEST DAILY MEAN | 252 | Sep 8 | 221 | Aug 20 |
| ANNUAL SEVEN-DAY MINIMUM | 255 | Sep 4 | 225 | Aug 15 |
| ANNUAL RUNOFF (AC-FT) | 482,800 | | 367,300 | 494,000 |
| 10 PERCENT EXCEEDS | 1,180 | | 1,070 | 1,170 |
| 50 PERCENT EXCEEDS | 531 | | 399 | 566 |
| 90 PERCENT EXCEEDS | 293 | | 279 | 289 |

12117600 CEDAR RIVER BELOW DIVERSION, NEAR LANDSBURG, WA

LOCATION.--Lat 47°22'47", long 121°58'56", in SE ¼ NW ¼ sec.24, T.22 N., R.6 E., King County, Hydrologic Unit 17110012, on right bank 0.8 mi northeast of the Issaquah-Ravensdale road bridge, 0.9 mi northwest of Landsburg, and at mile 20.4.

DRAINAGE AREA.--124 mi², excludes Walsh Lake diversion, which enters Cedar River at mile 19.5, and excludes 1.9 mi of Walsh Lake drainage in Cedar River basin, which is normally diverted into Issaquah Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1991 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 490 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow is regulated by Chester Morse Lake (station 12115900) and Cedar Lake (station 12116060) 15 mi upstream for operation of powerplant at Cedar Falls 13.1 mi upstream from station. Seattle City Water diversion 1.5 mi upstream from the gage diverted an average discharge of about 122 ft³/s during the water year. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--11 years (water years 1993-2003), 525 ft³/s, 380,300 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,560 ft³/s Nov. 30, 1995, gage height, 10.32 ft, from rating curve extended above 2,000 ft³/s; maximum gage height, 10.70 ft Nov. 30, 1995, from outside high-water mark; minimum discharge, 45 ft³/s Sept. 9, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,910 ft³/s Mar. 11, gage height, 6.06 ft; minimum discharge, 72 ft³/s Aug. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| 1 | 220 | 288 | 285 | 547 | 954 | 565 | 1,350 | 309 | 267 | 254 | 113 | 88 |
| 2 | 223 | 284 | 286 | 617 | 1,130 | 466 | 1,100 | 322 | 270 | 236 | 115 | 88 |
| 3 | 260 | 284 | 285 | 444 | 1,090 | 481 | 1,280 | 313 | 269 | 223 | 117 | 89 |
| 4 | 279 | 283 | 283 | 289 | 1,230 | 415 | 1,470 | 311 | 270 | 222 | 114 | 88 |
| 5 | 282 | 288 | 284 | 281 | 1,020 | 437 | 1,440 | 336 | 270 | 216 | 109 | 86 |
| 6 | 267 | 290 | 282 | 273 | 954 | 493 | 1,380 | 368 | 269 | 218 | 100 | 88 |
| 7 | 296 | 290 | 284 | 289 | 723 | 535 | 1,330 | 335 | 269 | 220 | 93 | 90 |
| 8 | 353 | 292 | 285 | 299 | 608 | 692 | 1,190 | 347 | 269 | 202 | 100 | 112 |
| 9 | 351 | 303 | 295 | 284 | 502 | 921 | 1,040 | 328 | 270 | 188 | 99 | 98 |
| 10 | 359 | 303 | 302 | 275 | 471 | 1,070 | 908 | 301 | 250 | 277 | 100 | 98 |
| 11 | 361 | 297 | 336 | 269 | 386 | 1,110 | 875 | 300 | 247 | 220 | 106 | 105 |
| 12 | 359 | 293 | 352 | 281 | 380 | 1,670 | 864 | 301 | 294 | 192 | 105 | 97 |
| 13 | 359 | 283 | 300 | 279 | 376 | 1,410 | 917 | 304 | 261 | 183 | 133 | 87 |
| 14 | 371 | 287 | 285 | 280 | 366 | 1,100 | 785 | 302 | 268 | 172 | 131 | 90 |
| 15 | 369 | 310 | 282 | 278 | 322 | 1,110 | 797 | 325 | 316 | 149 | 123 | 95 |
| 16 | 365 | 304 | 307 | 278 | 290 | 1,170 | 811 | 346 | 333 | 139 | 101 | 157 |
| 17 | 344 | 302 | 284 | 277 | 278 | 1,180 | 841 | 306 | 317 | 144 | 90 | 145 |
| 18 | 344 | 297 | 281 | 277 | 278 | 1,200 | 775 | 299 | 314 | 148 | 90 | 145 |
| 19 | 348 | 320 | 289 | 276 | 280 | 1,110 | 647 | 307 | 319 | 162 | 106 | 170 |
| 20 | 347 | 297 | 286 | 276 | 326 | 1,060 | 548 | 304 | 326 | 143 | 118 | 172 |
| 21 | 344 | 296 | 287 | 283 | 512 | 981 | 560 | 301 | 362 | 147 | 117 | 154 |
| 22 | 316 | 297 | 286 | 451 | 735 | 1,000 | 510 | 289 | 353 | 142 | 92 | 163 |
| 23 | 283 | 289 | 285 | 363 | 615 | 849 | 519 | 289 | 331 | 131 | 91 | 218 |
| 24 | 283 | 286 | 286 | 282 | 753 | 799 | 559 | 290 | 303 | 127 | 88 | 221 |
| 25 | 285 | 285 | 285 | 278 | 806 | 1,240 | 496 | 285 | 254 | 128 | 88 | 220 |
| 26 | 285 | 290 | 287 | 729 | 804 | 1,420 | 440 | 285 | 255 | 127 | 90 | 219 |
| 27 | 285 | 289 | 287 | 818 | 803 | 1,400 | 360 | 283 | 259 | 129 | 90 | 220 |
| 28 | 288 | 285 | 285 | 722 | 707 | 1,390 | 309 | 271 | 278 | 131 | 91 | 220 |
| 29 | 286 | 286 | 310 | 674 | --- | 1,360 | 311 | 268 | 256 | 124 | 90 | 220 |
| 30 | 284 | 287 | 389 | 605 | --- | 1,360 | 307 | 267 | 253 | 112 | 89 | 218 |
| 31 | 286 | --- | 322 | 1,180 | --- | 1,460 | --- | 266 | --- | 118 | 87 | --- |
| TOTAL | 9,682 | 8,785 | 9,182 | 12,754 | 17,699 | 31,454 | 24,719 | 9,458 | 8,572 | 5,324 | 3,176 | 4,261 |
| MEAN | 312 | 293 | 296 | 411 | 632 | 1,015 | 824 | 305 | 286 | 172 | 102 | 142 |
| MAX | 371 | 320 | 389 | 1,180 | 1,230 | 1,670 | 1,470 | 368 | 362 | 277 | 133 | 221 |
| MIN | 220 | 283 | 281 | 269 | 278 | 415 | 307 | 266 | 247 | 112 | 87 | 86 |
| AC-FT | 19,200 | 17,430 | 18,210 | 25,300 | 35,110 | 62,390 | 49,030 | 18,760 | 17,000 | 10,560 | 6,300 | 8,450 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2003, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 334 | 665 | 884 | 834 | 759 | 615 | 617 | 508 | 420 | 242 | 131 | 166 |
| MAX | 417 | 1,490 | 1,755 | 1,736 | 1,865 | 1,232 | 1,153 | 1,098 | 937 | 509 | 194 | 228 |
| (WY) | (1996) | (1996) | (2000) | (1999) | (1996) | (1997) | (2002) | (1997) | (2002) | (1997) | (1993) | (2000) |
| MIN | 256 | 293 | 296 | 295 | 277 | 298 | 287 | 237 | 196 | 107 | 96.5 | 119 |
| (WY) | (1995) | (2003) | (2003) | (2001) | (2001) | (2001) | (1995) | (1992) | (1992) | (1992) | (1992) | (1995) |

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1992 - 2003

| | | | |
|--------------------------|---------|---------|--------------|
| ANNUAL TOTAL | 206,678 | 145,066 | |
| ANNUAL MEAN | 566 | 397 | 525 |
| HIGHEST ANNUAL MEAN | | | 826 |
| LOWEST ANNUAL MEAN | | | 294 |
| HIGHEST DAILY MEAN | 2,090 | Apr 14 | 1,670 |
| LOWEST DAILY MEAN | 126 | Aug 7 | 86 |
| ANNUAL SEVEN-DAY MINIMUM | 132 | Sep 5 | 88 |
| ANNUAL RUNOFF (AC-FT) | 409,900 | | 287,700 |
| 10 PERCENT EXCEEDS | 1,130 | | 934 |
| 50 PERCENT EXCEEDS | 430 | | 287 |
| 90 PERCENT EXCEEDS | 153 | | 111 |
| | | | 380,300 |
| | | | 1,160 |
| | | | 347 |
| | | | 142 |
| | | | 6,170 |
| | | | 78 |
| | | | 85 |
| | | | 2001 |
| | | | 2001 |
| | | | Nov 30, 1995 |
| | | | Aug 8, 1992 |
| | | | Sep 4, 1995 |

LAKE WASHINGTON BASIN
12117600 CEDAR RIVER BELOW DIVERSION, NEAR LANDSBURG, WA—CONTINUED
WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 2001 to current year.

INSTRUMENTATION.--Temperature recorder since May, 2001.

REMARKS.--Records excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 16.3°C July 18, 2003; minimum, 4.2°C Feb. 25, 2003.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 16.3°C July 18; minimum, 4.2°C Feb. 25.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|-------|----------|------|------|----------|-----|------|----------|-----|------|---------|------|------|
| | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 10.9 | 9.5 | 10.2 | 7.5 | 6.8 | 7.1 | 7.9 | 7.0 | 7.4 | 5.8 | 5.4 | 5.6 |
| 2 | 11.2 | 9.8 | 10.6 | 7.1 | 6.4 | 6.8 | 8.3 | 7.5 | 8.0 | 6.8 | 5.7 | 6.2 |
| 3 | 11.4 | 10.9 | 11.2 | 7.2 | 6.4 | 6.8 | 7.5 | 6.8 | 7.0 | 7.2 | 6.5 | 6.8 |
| 4 | 12.1 | 11.2 | 11.7 | 7.5 | 6.4 | 7.0 | 7.5 | 7.0 | 7.2 | 8.2 | 7.2 | 7.8 |
| 5 | 12.0 | 11.5 | 11.8 | 8.9 | 7.5 | 8.2 | 7.6 | 7.0 | 7.3 | 7.6 | 7.0 | 7.3 |
| 6 | 12.5 | 11.6 | 12.0 | 8.8 | 8.5 | 8.6 | 7.4 | 6.9 | 7.1 | 7.2 | 6.7 | 7.0 |
| 7 | 12.5 | 11.6 | 12.0 | 9.1 | 8.7 | 8.9 | 7.1 | 6.6 | 6.8 | 7.2 | 6.8 | 7.0 |
| 8 | 12.2 | 11.2 | 11.8 | 9.2 | 8.8 | 8.9 | 7.0 | 6.4 | 6.7 | 6.9 | 6.3 | 6.6 |
| 9 | 12.3 | 11.8 | 12.1 | 9.1 | 8.5 | 8.8 | 7.4 | 6.6 | 7.0 | 6.7 | 6.3 | 6.5 |
| 10 | 11.8 | 11.1 | 11.5 | 9.0 | 8.4 | 8.7 | 7.6 | 7.4 | 7.5 | 6.3 | 5.7 | 5.9 |
| 11 | 11.3 | 10.6 | 11.0 | 9.3 | 8.7 | 9.0 | 7.6 | 7.4 | 7.5 | 6.4 | 5.5 | 5.9 |
| 12 | 10.9 | 9.8 | 10.4 | 9.3 | 8.9 | 9.1 | 8.0 | 7.2 | 7.6 | 6.5 | 6.2 | 6.3 |
| 13 | 10.8 | 9.9 | 10.4 | 9.2 | 8.7 | 9.0 | 7.9 | 7.4 | 7.7 | 6.9 | 6.3 | 6.5 |
| 14 | 10.7 | 9.4 | 10.1 | 9.3 | 8.6 | 9.0 | 8.3 | 7.8 | 8.0 | 6.8 | 6.1 | 6.6 |
| 15 | 10.7 | 9.6 | 10.2 | 8.9 | 8.2 | 8.5 | 8.3 | 7.9 | 8.1 | 6.1 | 5.5 | 5.8 |
| 16 | 10.9 | 9.7 | 10.4 | 8.8 | 8.4 | 8.6 | 7.9 | 7.3 | 7.7 | 6.5 | 5.7 | 6.1 |
| 17 | 10.8 | 9.8 | 10.3 | 9.2 | 8.6 | 8.9 | 7.3 | 7.1 | 7.2 | 6.3 | 5.9 | 6.1 |
| 18 | 10.6 | 10.0 | 10.2 | 8.9 | 8.5 | 8.7 | 7.4 | 7.0 | 7.1 | 6.2 | 5.8 | 6.0 |
| 19 | 11.0 | 10.3 | 10.6 | 9.3 | 8.8 | 9.1 | 7.0 | 6.7 | 6.8 | 6.4 | 5.7 | 6.0 |
| 20 | 11.3 | 10.9 | 11.1 | 9.3 | 8.9 | 9.1 | 6.8 | 6.5 | 6.7 | 6.2 | 5.6 | 5.9 |
| 21 | 11.3 | 10.9 | 11.0 | 9.4 | 9.0 | 9.2 | 6.9 | 6.6 | 6.7 | 6.5 | 6.0 | 6.2 |
| 22 | 11.2 | 10.5 | 10.9 | 9.6 | 9.2 | 9.4 | 7.0 | 6.3 | 6.8 | 6.2 | 6.0 | 6.1 |
| 23 | 10.5 | 9.6 | 10.0 | 9.4 | 8.7 | 9.2 | 6.3 | 5.6 | 5.8 | 6.9 | 6.1 | 6.5 |
| 24 | 10.1 | 9.0 | 9.4 | 8.7 | 7.5 | 7.9 | 6.2 | 5.6 | 5.9 | 7.1 | 6.5 | 6.8 |
| 25 | 9.3 | 8.3 | 8.8 | 7.5 | 6.8 | 7.0 | 6.3 | 5.9 | 6.1 | 7.4 | 6.8 | 7.1 |
| 26 | 9.4 | 8.6 | 9.0 | 7.0 | 6.6 | 6.8 | 6.3 | 6.1 | 6.2 | 8.2 | 7.4 | 7.8 |
| 27 | 9.4 | 8.4 | 8.9 | 7.3 | 6.6 | 6.9 | 6.6 | 6.0 | 6.3 | 7.5 | 7.1 | 7.2 |
| 28 | 9.8 | 9.2 | 9.5 | 7.6 | 7.1 | 7.3 | 6.6 | 6.2 | 6.4 | 7.1 | 6.6 | 6.9 |
| 29 | 9.2 | 8.2 | 8.9 | 7.4 | 7.0 | 7.2 | 6.4 | 5.9 | 6.1 | 6.8 | 6.3 | 6.6 |
| 30 | 8.2 | 7.2 | 7.5 | 7.7 | 6.9 | 7.3 | 6.3 | 5.9 | 6.1 | 7.3 | 6.7 | 7.1 |
| 31 | 7.5 | 6.9 | 7.2 | --- | --- | --- | 6.3 | 5.7 | 6.1 | 7.9 | 7.3 | 7.6 |
| MONTH | 12.5 | 6.9 | 10.3 | 9.6 | 6.4 | 8.2 | 8.3 | 5.6 | 6.9 | 8.2 | 5.4 | 6.6 |
| DAY | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
| | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 7.5 | 6.5 | 7.2 | 6.1 | 5.1 | 5.6 | 7.3 | 6.7 | 7.0 | 10.8 | 9.3 | 10.0 |
| 2 | 6.6 | 6.3 | 6.4 | 6.1 | 5.4 | 5.7 | 7.3 | 6.4 | 6.8 | 11.3 | 8.8 | 10 |
| 3 | 6.3 | 5.7 | 6.1 | 6.6 | 5.8 | 6.1 | 7.1 | 6.4 | 6.7 | 10.3 | 9.0 | 9.5 |
| 4 | 5.7 | 5.3 | 5.5 | 6.9 | 5.8 | 6.3 | 7.2 | 6.1 | 6.6 | 9.7 | 8.8 | 9.3 |
| 5 | 5.4 | 4.9 | 5.2 | 6.6 | 6.1 | 6.5 | 6.9 | 6.4 | 6.7 | 9.7 | 8.4 | 9.0 |
| 6 | 5.3 | 4.9 | 5.1 | 6.3 | 5.9 | 6.1 | 7.2 | 6.5 | 6.8 | 9.9 | 8.1 | 8.9 |
| 7 | 5.5 | 4.9 | 5.2 | 6.0 | 4.8 | 5.4 | 7.4 | 6.6 | 7.0 | 9.8 | 7.8 | 8.9 |
| 8 | 5.5 | 5.1 | 5.3 | 5.8 | 5.1 | 5.4 | 8.0 | 7.0 | 7.4 | 10.3 | 8.4 | 9.2 |
| 9 | 5.7 | 5.0 | 5.3 | 5.8 | 5.4 | 5.5 | 8.1 | 7.0 | 7.6 | 10.3 | 8.7 | 9.6 |
| 10 | 5.9 | 5.3 | 5.6 | 6.3 | 5.5 | 5.9 | 8.1 | 7.2 | 7.6 | 10.3 | 9.3 | 9.7 |
| 11 | 5.7 | 5.2 | 5.5 | 6.3 | 5.8 | 6.1 | 8.5 | 7.6 | 8.0 | 10.8 | 9.3 | 9.9 |
| 12 | 6.5 | 5.6 | 6.0 | 6.5 | 5.7 | 6.0 | 8.3 | 7.4 | 7.8 | 11.3 | 9.4 | 10.2 |
| 13 | 7.3 | 6.4 | 6.8 | 6.9 | 6.4 | 6.6 | 8.5 | 7.6 | 7.9 | 11.7 | 9.0 | 10.3 |
| 14 | 7.8 | 7.0 | 7.4 | 7.2 | 6.5 | 6.8 | 8.9 | 7.6 | 8.1 | 10.6 | 9.2 | 9.7 |
| 15 | 8.0 | 7.2 | 7.6 | 7.2 | 6.4 | 6.8 | 8.7 | 7.8 | 8.2 | 9.6 | 8.7 | 9.1 |
| 16 | 8.2 | 7.7 | 8.0 | 6.8 | 6.1 | 6.4 | 9.1 | 7.8 | 8.4 | 9.9 | 8.2 | 9.0 |
| 17 | 8.0 | 7.4 | 7.7 | 6.8 | 5.9 | 6.3 | 8.8 | 8.0 | 8.3 | 9.6 | 8.2 | 8.8 |
| 18 | 8.0 | 7.2 | 7.7 | 6.4 | 5.8 | 6.1 | 8.9 | 7.8 | 8.3 | 10.6 | 7.9 | 9.1 |
| 19 | 7.9 | 7.4 | 7.7 | 6.5 | 5.8 | 6.2 | 9.4 | 7.7 | 8.5 | 11.2 | 8.2 | 9.6 |
| 20 | 7.8 | 7.6 | 7.7 | 6.7 | 6.2 | 6.4 | 9.9 | 8.2 | 9.0 | 10.3 | 9.0 | 9.7 |
| 21 | 7.6 | 6.8 | 7.4 | 6.8 | 6.2 | 6.5 | 9.3 | 8.7 | 8.9 | 11.7 | 9.5 | 10.4 |
| 22 | 6.9 | 6.3 | 6.6 | 7.4 | 6.8 | 7.0 | 9.2 | 8.6 | 8.8 | 10.9 | 9.8 | 10.4 |
| 23 | 6.4 | 5.2 | 5.9 | 7.2 | 6.3 | 6.8 | 9.4 | 8.2 | 8.8 | 13.1 | 9.9 | 11.3 |
| 24 | 5.2 | 4.5 | 4.8 | 7.4 | 6.0 | 6.7 | 9.1 | 8.2 | 8.5 | 11.9 | 10.4 | 11.1 |
| 25 | 5.2 | 4.2 | 4.7 | 7.0 | 6.2 | 6.5 | 10.4 | 7.8 | 8.9 | 10.9 | 10.1 | 10.4 |
| 26 | 5.4 | 4.6 | 5.0 | 6.7 | 6.1 | 6.3 | 9.5 | 8.4 | 9.0 | 12.3 | 9.4 | 10.7 |
| 27 | 5.4 | 4.6 | 5.0 | 6.8 | 6.0 | 6.4 | 10.8 | 8.4 | 9.5 | 13.3 | 9.9 | 11.5 |
| 28 | 5.6 | 5.0 | 5.3 | 7.1 | 6.2 | 6.6 | 10.6 | 8.3 | 9.5 | 12.5 | 10.4 | 11.4 |
| 29 | --- | --- | --- | 7.6 | 6.4 | 7.0 | 10.4 | 9.1 | 9.7 | 13.5 | 10.0 | 11.6 |
| 30 | --- | --- | --- | 7.9 | 6.7 | 7.2 | 10.2 | 9.2 | 9.7 | 12.1 | 10.4 | 10.9 |
| 31 | --- | --- | --- | 7.6 | 7.0 | 7.2 | --- | --- | --- | 12.4 | 10.2 | 11.1 |
| MONTH | 8.2 | 4.2 | 6.2 | 7.9 | 4.8 | 6.3 | 10.8 | 6.1 | 8.1 | 13.5 | 7.8 | 10.0 |

12118400 ROCK CREEK AT STATE HIGHWAY 516, NEAR RAVENSDALE, WA

LOCATION.--Lat 47°21'45", long 122°00'35", in NE 1/4 SW 1/4 sec.26, T.22 N., R.6 E., on left bank in Parshall Flume, upstream of State Hwy 516, 1.5 mi northeast of Ravensdale, King Co.

DRAINAGE AREA.--11.2 mi².

PERIOD OF RECORD.--June 1956 to September 1962. May 2001 to current year. Published as "State Highway 5A" 1956-62.

GAGE.--Water-stage recorder. Elevation of gage is 530 ft above NGVD of 1929, from topographic map. Prior to May, 2001, recording gage at same site at different datum.

REMARKS.--Records fair. Diversions by City of Kent upstream of gage for municipal use may affect flow. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--8 years (water years 1956-1962, 2002-03), 16.0 ft³/s, 19.37 in/yr, 11,570 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 114 ft³/s Dec. 16, 1959, gage height 2.89 ft datum then in use; minimum, 0.86 ft³/s Nov. 2, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36.4 ft³/s Mar. 24, gage height 2.01 ft; minimum discharge, 0.86 ft³/s, Nov. 2.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| 1 | 4.0 | 3.4 | 3.6 | 4.0 | 8.2 | 12.1 | 29.8 | 24.5 | 8.1 | 4.0 | 2.6 | 2.2 |
| 2 | 4.0 | 1.6 | 3.5 | 4.2 | 8.6 | 12.1 | 28.9 | 23.6 | 7.9 | 3.9 | 2.6 | 2.2 |
| 3 | 4.0 | 1.6 | 3.4 | 4.5 | 9.9 | 11.7 | 28.4 | 22.9 | 7.7 | 3.9 | 2.5 | 2.2 |
| 4 | 3.9 | 3.0 | 3.6 | 4.8 | 10.6 | 11.6 | 27.1 | 22.3 | 7.4 | 3.8 | 2.5 | 2.1 |
| 5 | 3.9 | 3.4 | 3.7 | 4.6 | 11.5 | 11.6 | 28.0 | 21.8 | 7.1 | 3.7 | 2.7 | 2.1 |
| 6 | 3.8 | 3.4 | 3.7 | 4.4 | 12.5 | 11.5 | 27.7 | 20.8 | 6.8 | 3.6 | 2.7 | 2.0 |
| 7 | 3.8 | 3.3 | 3.8 | 4.0 | 12.7 | 11.7 | 27.3 | 19.4 | 6.7 | 3.6 | 2.5 | 1.9 |
| 8 | 3.7 | 3.4 | 3.9 | 3.9 | 13.5 | 12.0 | 27.7 | 18.8 | 6.6 | 3.5 | 2.4 | 1.9 |
| 9 | 3.5 | 3.6 | 3.6 | 4.2 | 13.7 | 13.2 | 28.2 | 18.1 | 6.7 | 3.6 | 2.3 | 1.7 |
| 10 | 3.5 | 3.6 | 3.4 | 3.7 | 13.0 | 14.1 | 27.4 | 17.6 | 6.4 | 3.6 | 2.3 | 1.7 |
| 11 | 3.4 | 3.5 | 3.5 | 3.9 | 13.1 | 15.5 | 26.3 | 17.6 | 6.1 | 3.6 | 2.2 | 1.9 |
| 12 | 3.6 | 3.5 | 3.8 | 4.1 | 15.0 | 18.2 | 26.6 | 16.3 | 6.0 | 3.9 | 2.2 | 2.0 |
| 13 | 3.7 | 3.3 | 3.9 | 4.0 | 15.4 | 23.9 | 29.0 | 15.8 | 6.0 | 4.2 | 2.2 | 1.8 |
| 14 | 3.5 | 3.3 | 3.9 | 4.0 | 15.1 | 27.3 | 30.1 | 15.0 | 5.8 | 3.8 | 2.6 | 1.7 |
| 15 | e3.5 | 3.4 | 3.9 | 4.2 | 14.7 | 28.7 | 29.5 | 14.2 | 5.5 | 3.3 | 2.8 | 1.7 |
| 16 | 3.7 | 3.3 | 3.9 | 3.9 | 14.3 | 29.6 | 29.6 | 13.8 | 5.5 | 3.1 | 2.6 | 1.7 |
| 17 | 3.6 | 3.3 | 3.6 | 4.1 | 13.9 | 28.3 | 30.0 | 13.4 | 5.2 | 3.0 | 2.5 | 1.7 |
| 18 | 3.7 | 3.2 | 3.7 | 4.1 | 13.6 | 27.1 | 29.4 | 13.8 | 5.1 | 2.8 | 2.5 | 1.6 |
| 19 | 3.8 | 3.3 | 3.6 | 4.3 | 13.3 | 26.1 | 29.0 | 12.9 | 5.1 | 2.8 | 2.5 | e1.8 |
| 20 | 3.9 | 3.1 | 3.8 | 4.3 | 12.9 | 25.6 | 28.3 | 12.5 | 5.2 | 3.0 | 2.4 | 1.7 |
| 21 | 3.8 | 3.3 | 3.7 | 4.1 | 12.0 | 26.1 | 28.6 | 12.2 | 5.1 | 3.0 | 2.4 | 1.7 |
| 22 | 3.6 | 3.6 | 3.4 | 4.5 | 12.1 | 31.6 | 28.5 | 11.8 | 5.0 | 2.8 | 2.4 | 1.7 |
| 23 | 4.1 | 3.7 | 3.2 | 4.6 | 12.2 | 33.8 | 27.8 | 11.5 | 5.0 | 3.2 | 2.3 | 1.7 |
| 24 | 3.8 | 3.8 | 3.7 | 4.7 | 11.8 | 34.2 | 29.7 | 11.2 | 4.7 | 3.4 | 2.2 | 1.7 |
| 25 | 3.7 | 3.6 | 4.6 | 4.6 | 11.9 | 33.6 | 28.8 | 11.2 | 4.5 | 3.3 | 2.3 | 1.9 |
| 26 | 3.6 | 3.7 | 4.4 | 5.8 | 12.1 | 33.6 | 28.9 | 11.1 | 4.4 | 2.8 | 2.4 | 2.3 |
| 27 | 3.6 | 3.5 | 3.2 | 6.3 | 12.1 | 32.9 | 28.5 | 10.3 | 4.3 | 2.7 | 2.5 | 2.2 |
| 28 | 3.5 | 3.6 | 3.4 | 6.1 | 12.0 | 32.5 | 27.7 | 10.0 | 4.2 | 2.5 | 2.4 | 2.1 |
| 29 | 3.5 | 3.7 | 3.5 | 6.2 | --- | 32.0 | 26.7 | 9.8 | 4.2 | 2.7 | 2.3 | 2.7 |
| 30 | 3.5 | 3.8 | 3.4 | 6.3 | --- | 31.5 | 25.5 | 9.1 | 4.1 | 2.7 | 2.2 | 3.2 |
| 31 | 3.4 | --- | 3.7 | 7.5 | --- | 30.7 | --- | 8.4 | --- | 2.6 | 2.2 | --- |
| TOTAL | 114.6 | 99.8 | 114.0 | 143.9 | 351.7 | 724.4 | 849.0 | 471.7 | 172.4 | 102.4 | 75.2 | 58.8 |
| MEAN | 3.70 | 3.33 | 3.68 | 4.64 | 12.6 | 23.4 | 28.3 | 15.2 | 5.75 | 3.30 | 2.43 | 1.96 |
| MAX | 4.1 | 3.8 | 4.6 | 7.5 | 15 | 34 | 30 | 24 | 8.1 | 4.2 | 2.8 | 3.2 |
| MIN | 3.4 | 1.6 | 3.2 | 3.7 | 8.2 | 12 | 26 | 8.4 | 4.1 | 2.5 | 2.2 | 1.6 |
| AC-FT | 227 | 198 | 226 | 285 | 698 | 1,440 | 1,680 | 936 | 342 | 203 | 149 | 117 |
| CFSM | 0.33 | 0.30 | 0.33 | 0.41 | 1.12 | 2.09 | 2.53 | 1.36 | 0.51 | 0.29 | 0.22 | 0.17 |
| IN. | 0.38 | 0.33 | 0.38 | 0.48 | 1.17 | 2.41 | 2.82 | 1.57 | 0.57 | 0.34 | 0.25 | 0.20 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2003, BY WATER YEAR (WY)

| | 1956 | 1960 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1973 | 1956-2003 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| MEAN | 5.91 | 11.5 | 22.3 | 23.8 | 30.0 | 28.3 | 23.3 | 15.9 | 10.4 | 7.73 | 6.22 | 5.35 |
| MAX | 11.7 | 29.0 | 48.7 | 46.5 | 56.9 | 51.8 | 30.7 | 26.0 | 16.5 | 11.3 | 8.92 | 7.92 |
| (WY) | (1960) | (1960) | (1960) | (1959) | (1961) | (1961) | (1961) | (1961) | (1960) | (1956) | (1956) | (1959) |
| MIN | 2.93 | 3.33 | 3.68 | 4.64 | 11.0 | 13.2 | 13.9 | 7.64 | 5.75 | 3.30 | 2.43 | 1.96 |
| (WY) | (2002) | (2003) | (2003) | (2003) | (1962) | (1962) | (1958) | (2001) | (2003) | (2003) | (2003) | (2003) |

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1956 - 2003

| | | | |
|--------------------------|---------|---------|--------|
| ANNUAL TOTAL | 4,601.0 | 3,277.9 | 16.0 |
| ANNUAL MEAN | 12.6 | 8.98 | 23.9 |
| HIGHEST ANNUAL MEAN | | | 8.98 |
| LOWEST ANNUAL MEAN | | | 161 |
| HIGHEST DAILY MEAN | 40 | 34 | 110 |
| LOWEST DAILY MEAN | 1.6 | 1.6 | 1.6 |
| ANNUAL SEVEN-DAY MINIMUM | 2.8 | 1.7 | 1.7 |
| ANNUAL RUNOFF (AC-FT) | 9,130 | 6,500 | 11,570 |
| ANNUAL RUNOFF (CFSM) | 1.13 | 0.80 | 1.43 |
| ANNUAL RUNOFF (INCHES) | 15.28 | 10.89 | 19.37 |
| 10 PERCENT EXCEEDS | 32 | 28 | 33 |
| 50 PERCENT EXCEEDS | 4.8 | 4.0 | 12 |
| 90 PERCENT EXCEEDS | 3.4 | 2.3 | 3.8 |

e Estimated

12119000 CEDAR RIVER AT RENTON, WA

LOCATION.--Lat 47°28'58", long 122°12'08", in SW ¼ NW ¼ sec.17, T.23 N., R.5 E., King County, Hydrologic Unit 17110012, on left bank 125 ft downstream from bridge on Mill Avenue at Renton, and at mile 1.6.

DRAINAGE AREA.--184 mi², includes 3.67 mi² in vicinity of Youngs Lake in Big Soos Creek basin, excludes 1.9 mi² from upper Rock Creek, Cedar River basin, normally diverted into Issaquah Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1901 to July 1903 (fragmentary), September 1906 to December 1907 (monthly discharge only), August 1945 to current year.

REVISED RECORDS.--WSP 1316: 1901-02. WSP 1932: Drainage area. WDR WA-75-1: 1972-74.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 15.20 ft above NGVD of 1929. Prior to Jan. 1, 1908, nonrecording gages within 1 mi of present site, at datum 10.67 ft above NGVD of 1929. Aug. 7, 1945, to Aug. 15, 1947, water-stage recorder at site 700 ft upstream at datum 20.13 ft above NGVD of 1929, and Aug. 16, 1947, to Dec. 7, 1950, at datum 19.13 ft above NGVD of 1929.

REMARKS.--Records good, except for estimated daily discharges, which are fair. Flow partly regulated by Chester Morse Lake and Masonry Dam for operation of powerplant at Cedar Falls 32.1 mi upstream from gage. An average daily discharge of about 122 ft³/s was diverted during the year at Landsburg by the City of Seattle for municipal use, computed from data furnished by Seattle Water Department. U.S. Geological Survey satellite telemeter at station. Chemical analyses July 1959 to August 1964, December 1965 to September 1971.

AVERAGE DISCHARGE.--58 years (water years 1946-2003), 664 ft³/s, 481,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft³/s Nov. 24, 1990, gage height, 17.13 ft from outside high-water mark; minimum daily discharge, 30 ft³/s July 1, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft³/s Mar. 13, gage height, 10.26 ft; minimum discharge, 104 ft³/s Sept. 2-6, but may have been less during period of estimated record.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| 1 | 254 | 331 | 346 | 648 | 1,240 | 743 | 1,510 | 452 | 329 | 292 | 139 | 109 |
| 2 | 256 | 335 | 344 | 840 | 1,350 | 616 | 1,270 | 457 | 327 | 283 | 138 | 108 |
| 3 | 287 | 333 | 344 | 723 | 1,240 | 659 | 1,340 | 447 | 324 | 259 | 139 | 112 |
| 4 | 323 | 332 | 344 | 529 | 1,410 | 572 | 1,540 | 449 | 323 | 262 | 137 | 110 |
| 5 | 323 | 340 | 342 | 485 | 1,200 | 555 | 1,520 | 464 | 316 | 247 | 138 | 110 |
| 6 | 309 | 349 | 343 | 438 | 1,110 | 629 | 1,500 | 516 | 312 | 249 | 129 | 109 |
| 7 | 323 | 344 | 342 | 406 | 944 | 662 | 1,450 | 466 | 311 | 250 | 126 | 116 |
| 8 | 376 | 341 | 344 | 432 | 806 | 820 | 1,380 | 470 | 313 | 244 | 126 | 133 |
| 9 | 393 | 355 | 350 | 387 | 678 | 1,010 | 1,250 | 456 | 318 | 225 | 127 | 133 |
| 10 | 407 | 356 | 374 | 382 | 648 | 1,270 | 1,110 | 412 | 304 | 275 | 132 | 129 |
| 11 | 415 | 340 | 406 | 369 | 533 | 1,150 | 1,050 | 407 | 291 | 280 | 132 | 129 |
| 12 | 413 | 366 | 479 | 413 | 512 | 1,880 | 1,030 | 412 | 312 | 233 | 132 | 138 |
| 13 | 415 | 348 | 461 | 400 | 503 | 1,800 | 1,130 | 405 | 320 | 215 | 150 | 120 |
| 14 | 418 | 345 | 438 | 417 | 490 | 1,390 | 1,050 | 399 | 314 | 210 | 156 | 119 |
| 15 | 420 | 356 | 437 | 393 | 449 | 1,310 | 993 | 402 | 331 | 189 | 153 | 118 |
| 16 | 427 | 372 | 524 | 383 | 440 | 1,370 | 998 | 458 | 380 | 171 | 136 | 163 |
| 17 | 406 | 369 | 477 | 379 | 420 | 1,330 | 1,020 | 432 | 358 | 171 | e113 | 179 |
| 18 | 404 | 363 | 439 | 372 | 408 | 1,350 | 977 | 406 | 356 | 177 | e113 | 163 |
| 19 | 410 | 397 | 405 | 368 | 402 | 1,280 | 867 | 395 | 362 | 185 | e125 | 187 |
| 20 | 409 | 377 | 394 | 363 | 434 | 1,220 | 753 | 390 | 374 | 171 | 139 | 214 |
| 21 | 402 | 367 | 380 | 407 | 569 | 1,190 | 742 | 386 | 415 | 171 | 138 | 187 |
| 22 | 392 | 361 | 373 | 597 | 901 | 1,350 | 714 | 376 | 436 | 168 | 131 | 178 |
| 23 | 337 | 353 | 366 | 634 | 780 | 1,200 | 698 | 372 | 408 | 160 | e114 | 229 |
| 24 | 335 | 343 | 369 | 509 | 858 | 1,080 | 769 | 370 | 373 | 153 | e109 | 244 |
| 25 | 332 | 339 | 369 | 478 | 910 | 1,340 | 704 | 365 | 300 | 154 | e109 | 250 |
| 26 | 331 | 343 | 373 | 965 | 927 | 1,560 | 643 | 361 | 290 | 153 | e111 | 248 |
| 27 | 331 | 347 | 378 | 1,180 | 923 | 1,530 | 555 | 360 | 287 | 153 | e116 | 250 |
| 28 | 331 | 348 | 367 | 1,050 | 867 | 1,520 | 480 | 349 | 316 | 153 | 112 | 251 |
| 29 | 331 | 347 | 371 | 936 | --- | 1,500 | 468 | 341 | 304 | 149 | 114 | 247 |
| 30 | 327 | 348 | 496 | 918 | --- | 1,480 | 458 | 338 | 288 | 139 | 112 | 247 |
| 31 | 325 | --- | 425 | 1,370 | --- | 1,570 | --- | 332 | --- | 139 | 110 | --- |
| TOTAL | 11,162 | 10,545 | 12,200 | 18,171 | 21,952 | 36,936 | 29,969 | 12,645 | 9,992 | 6,280 | 3,956 | 5,030 |
| MEAN | 360 | 352 | 394 | 586 | 784 | 1,191 | 999 | 408 | 333 | 203 | 128 | 168 |
| MAX | 427 | 397 | 524 | 1,370 | 1,410 | 1,880 | 1,540 | 516 | 436 | 292 | 156 | 251 |
| MIN | 254 | 331 | 342 | 363 | 402 | 555 | 458 | 332 | 287 | 139 | 109 | 108 |
| AC-FT | 22,140 | 20,920 | 24,200 | 36,040 | 43,540 | 73,260 | 59,440 | 25,080 | 19,820 | 12,460 | 7,850 | 9,980 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2003, BY WATER YEAR (WY)

| | 354 | 735 | 1,059 | 1,085 | 1,049 | 872 | 788 | 705 | 627 | 301 | 192 | 226 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 354 | 735 | 1,059 | 1,085 | 1,049 | 872 | 788 | 705 | 627 | 301 | 192 | 226 |
| MAX | 864 | 2,673 | 2,845 | 1,924 | 2,374 | 2,577 | 1,290 | 1,226 | 1,757 | 785 | 582 | 601 |
| (WY) | (1960) | (1991) | (1976) | (1999) | (1982) | (1972) | (2002) | (1997) | (1964) | (1955) | (1954) | (1964) |
| MIN | 76.4 | 61.2 | 91.2 | 283 | 299 | 389 | 335 | 274 | 168 | 44.9 | 41.1 | 52.9 |
| (WY) | (1953) | (1953) | (1953) | (1988) | (1988) | (1992) | (1973) | (1992) | (1958) | (1958) | (1958) | (1958) |

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1946 - 2003

| | | | |
|--------------------------|---------|---------|---------|
| ANNUAL TOTAL | 243,184 | 178,838 | |
| ANNUAL MEAN | 666 | 490 | 664 |
| HIGHEST ANNUAL MEAN | | | 1,016 |
| LOWEST ANNUAL MEAN | | | 373 |
| HIGHEST DAILY MEAN | 2,400 | Apr 14 | 1,880 |
| LOWEST DAILY MEAN | 156 | Aug 8 | 108 |
| ANNUAL SEVEN-DAY MINIMUM | 168 | Sep 5 | 110 |
| ANNUAL RUNOFF (AC-FT) | 482,400 | 354,700 | 481,000 |
| 10 PERCENT EXCEEDS | 1,290 | 1,160 | 1,290 |
| 50 PERCENT EXCEEDS | 561 | 370 | 509 |
| 90 PERCENT EXCEEDS | 183 | 138 | 151 |

e Estimated

12119000 CEDAR RIVER AT RENTON, WA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-71, March 1978 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 1965 to February 1967, March 1978 to current year.

INSTRUMENTATION.--Temperature recorder for period of daily record.

REMARKS.--Records excellent except Nov. 12 to Mar. 17, which are good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 24.0°C (rounded) Aug. 8, 1978; minimum, 0.0°C (rounded) Dec. 30, 1978 to Jan. 1, 1979, Jan. 29, 1980.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum 21.1°C July 30; minimum 3.8°C Feb. 25.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|-------|---------|------|------|----------|-----|------|----------|-----|------|---------|-----|------|
| | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 11.8 | 9.4 | 10.7 | 7.6 | 5.6 | 6.5 | 7.6 | 5.8 | 6.7 | 6.2 | 5.9 | 6.0 |
| 2 | 11.8 | 9.2 | 10.5 | 7.1 | 5.5 | 6.3 | 8.5 | 7.4 | 7.8 | 7.3 | 6.1 | 6.7 |
| 3 | 12.3 | 11.3 | 11.8 | 7.3 | 5.2 | 6.2 | 7.4 | 6.2 | 6.8 | 7.5 | 6.8 | 7.2 |
| 4 | 13.3 | 11.7 | 12.4 | 7.3 | 5.5 | 6.5 | 7.8 | 6.6 | 7.2 | 8.4 | 7.3 | 7.9 |
| 5 | 12.8 | 11.9 | 12.4 | 9.5 | 6.8 | 8.1 | 8.0 | 6.3 | 7.1 | 8.0 | 6.8 | 7.6 |
| 6 | 14.0 | 11.9 | 12.9 | 9.3 | 8.5 | 9.0 | 7.1 | 5.8 | 6.5 | 7.1 | 5.9 | 6.5 |
| 7 | 13.5 | 12.1 | 12.8 | 9.8 | 8.7 | 9.3 | 6.9 | 5.6 | 6.2 | 7.0 | 5.8 | 6.4 |
| 8 | 12.9 | 11.5 | 12.2 | 10.0 | 9.2 | 9.5 | 6.7 | 5.9 | 6.3 | 6.5 | 5.4 | 5.9 |
| 9 | 12.9 | 12.2 | 12.5 | 9.8 | 8.9 | 9.4 | 7.4 | 5.7 | 6.6 | 6.2 | 4.9 | 5.6 |
| 10 | 12.4 | 11.4 | 12.0 | 9.7 | 8.8 | 9.3 | 7.7 | 6.9 | 7.3 | 6.0 | 5.1 | 5.6 |
| 11 | 11.9 | 10.7 | 11.2 | 10.1 | 9.0 | 9.5 | 7.8 | 7.0 | 7.4 | 6.6 | 5.0 | 5.8 |
| 12 | 11.3 | 9.2 | 10.3 | 10.3 | 9.3 | 9.8 | 8.1 | 7.3 | 7.7 | 7.2 | 6.5 | 6.8 |
| 13 | 11.4 | 9.2 | 10.3 | 9.8 | 9.0 | 9.5 | 8.3 | 7.6 | 7.9 | 7.2 | 6.5 | 6.9 |
| 14 | 11.2 | 9.1 | 10.1 | 9.8 | 9.0 | 9.5 | 8.9 | 7.7 | 8.3 | 7.4 | 6.1 | 6.9 |
| 15 | 11.5 | 9.1 | 10.3 | 9.0 | 8.0 | 8.6 | 8.6 | 8.0 | 8.3 | 6.2 | 5.3 | 5.7 |
| 16 | 11.7 | 9.5 | 10.6 | 9.0 | 8.0 | 8.6 | 8.2 | 7.5 | 7.9 | 6.3 | 5.2 | 5.8 |
| 17 | 11.6 | 9.6 | 10.6 | 9.6 | 8.6 | 9.1 | 7.5 | 6.9 | 7.1 | 6.4 | 5.2 | 5.8 |
| 18 | 10.9 | 10.1 | 10.5 | 9.2 | 8.6 | 9.0 | 7.4 | 6.6 | 7.0 | 6.1 | 4.7 | 5.4 |
| 19 | 11.8 | 10.5 | 11.1 | 10.0 | 9.1 | 9.7 | 6.9 | 6.5 | 6.7 | 6.9 | 5.6 | 6.1 |
| 20 | 12.3 | 11.4 | 11.8 | 10.2 | 9.5 | 9.8 | 7.0 | 6.3 | 6.7 | 6.5 | 5.8 | 6.1 |
| 21 | 12.4 | 11.4 | 11.9 | 10.1 | 9.0 | 9.6 | 7.0 | 6.3 | 6.6 | 6.7 | 5.9 | 6.3 |
| 22 | 12.4 | 11.2 | 11.8 | 10.1 | 9.5 | 9.8 | 7.3 | 6.2 | 6.9 | 6.8 | 6.5 | 6.6 |
| 23 | 11.2 | 10.1 | 10.7 | 9.9 | 9.0 | 9.6 | 6.2 | 4.8 | 5.3 | 7.7 | 6.6 | 7.1 |
| 24 | 10.4 | 8.6 | 9.6 | 9.0 | 7.1 | 8.1 | 6.0 | 4.8 | 5.5 | 7.9 | 6.9 | 7.4 |
| 25 | 9.6 | 8.6 | 9.2 | 7.1 | 5.8 | 6.4 | 6.7 | 5.9 | 6.3 | 8.1 | 7.2 | 7.7 |
| 26 | 9.7 | 8.7 | 9.1 | 6.7 | 5.7 | 6.1 | 6.8 | 6.1 | 6.4 | 9.0 | 8.0 | 8.6 |
| 27 | 9.6 | 8.1 | 8.8 | 6.9 | 5.4 | 6.1 | 6.9 | 6.0 | 6.5 | 8.2 | 7.5 | 7.8 |
| 28 | 10.6 | 9.4 | 9.9 | 7.4 | 5.6 | 6.4 | 6.7 | 6.0 | 6.4 | 7.8 | 6.7 | 7.4 |
| 29 | 9.9 | 8.5 | 9.4 | 7.4 | 6.1 | 6.8 | 6.6 | 6.0 | 6.3 | 7.2 | 6.5 | 6.9 |
| 30 | 8.6 | 6.6 | 7.4 | 7.2 | 6.1 | 6.7 | 6.6 | 5.8 | 6.2 | 8.2 | 7.2 | 7.6 |
| 31 | 7.7 | 5.8 | 6.7 | --- | --- | --- | 6.8 | 6.1 | 6.4 | 8.3 | 7.8 | 8.1 |
| MONTH | 14.0 | 5.8 | 10.7 | 10.3 | 5.2 | 8.3 | 8.9 | 4.8 | 6.8 | 9.0 | 4.7 | 6.7 |

12120000 MERCER CREEK NEAR BELLEVUE, WA

LOCATION.--Lat 47°36'11", long 122°10'47", in NW 1/4 NW 1/4 sec.4, T.24 N., R.5 E., King County, Hydrologic Unit 17110012, on left bank 40 ft upstream from Burlington Northern Railroad trestle, 1.2 mi southeast of Bellevue, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--12.0 mi².

PERIOD OF RECORD.--June to October 1945, June 1955 to current year.

REVISED RECORDS.--WSP 1446: Drainage area. WDR WA-83-1: 1977-79(P).

GAGE.--Water-stage recorder. Datum of gage is 17.11 ft above NGVD of 1929 (levels by Municipality of Metropolitan Seattle engineers). Prior to June 5, 1959, at site 600 ft downstream at different datums.

REMARKS.--No estimated daily discharges. Records good. Natural flow affected by urbanization and construction of flood-control catchments.

AVERAGE DISCHARGE.--48 years (water years 1956-2003), 22.5 ft³/s, 25.52 in/yr, 16,330 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 832 ft³/s Jan. 18, 1986, gage height, 6.50 ft; maximum gage height, 8.68 ft Mar. 6, 1972, caused by backwater from plugged culvert; minimum discharge, 1.9 ft³/s Aug. 6, 1958.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|--------|------|--------------------------------|------------------|
| Dec 14 | 2115 | 340 | 3.75 | Mar 12 | 2315 | *346 | *3.79 |
| Dec 16 | 1045 | 257 | 3.15 | Sep 8 | 1030 | 344 | 3.78 |

Minimum discharge, 3.1 ft³/s, July 19, 23-25, 27, 29, gage height, 0.17 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 7.3 | 6.9 | 8.0 | 64 | 25 | 12 | 23 | 9.0 | 6.8 | 4.9 | 3.9 | 4.4 |
| 2 | 7.0 | 6.7 | 7.7 | 132 | 19 | 25 | 20 | 8.9 | 6.3 | 5.4 | 4.3 | 4.4 |
| 3 | 24 | 6.7 | 7.6 | 90 | 30 | 28 | 25 | 8.9 | 6.0 | 4.6 | 4.2 | 4.5 |
| 4 | 10 | 6.7 | 11 | 89 | 17 | 14 | 14 | 18 | 5.8 | 4.4 | 4.2 | 4.5 |
| 5 | 7.4 | 6.8 | 8.6 | 36 | 15 | 12 | 21 | 45 | 5.7 | 4.5 | 4.4 | 4.6 |
| 6 | 6.8 | 33 | 7.6 | 21 | 13 | 12 | 31 | 16 | 6.0 | 5.0 | 6.2 | 4.5 |
| 7 | 6.3 | 24 | 7.4 | 17 | 12 | 28 | 21 | 10 | 5.3 | 4.5 | 4.9 | 4.8 |
| 8 | 6.3 | 27 | 7.4 | 14 | 12 | 28 | 17 | 9.1 | 5.4 | 4.4 | 4.7 | 128 |
| 9 | 7.4 | 21 | 8.1 | 12 | 11 | 43 | 38 | 8.6 | 6.1 | 4.3 | 5.9 | 18 |
| 10 | 9.1 | 26 | 34 | 11 | 12 | 22 | 16 | 9.1 | 6.4 | 4.7 | 13 | 16 |
| 11 | 6.9 | 10 | 31 | 14 | 11 | 32 | 15 | 8.1 | 6.6 | 4.3 | 7.1 | 38 |
| 12 | 6.1 | 66 | 53 | 79 | 9.7 | 98 | 19 | 7.8 | 6.2 | 4.3 | 5.8 | 29 |
| 13 | 5.9 | 51 | 53 | 27 | 10 | 164 | 64 | 7.6 | 8.0 | 4.1 | 5.2 | 11 |
| 14 | 5.9 | 18 | 133 | 43 | 10 | 53 | 23 | 7.4 | 6.7 | 4.6 | 5.2 | 9.0 |
| 15 | 6.0 | 12 | 120 | 18 | 12 | 30 | 16 | 8.4 | 5.8 | 4.7 | 4.6 | 8.3 |
| 16 | 5.9 | 41 | 144 | 14 | 42 | 25 | 13 | 7.5 | 5.3 | 4.5 | 5.0 | 70 |
| 17 | 6.3 | 20 | 72 | 13 | 29 | 18 | 12 | 20 | 4.8 | 4.4 | 4.8 | 21 |
| 18 | 6.2 | 12 | 41 | 12 | 19 | 20 | 49 | 8.2 | 5.0 | 4.2 | 4.7 | 12 |
| 19 | 6.5 | 21 | 23 | 11 | 15 | 25 | 15 | 7.5 | 5.6 | 4.0 | 4.5 | 29 |
| 20 | 7.1 | 19 | 16 | 10 | 18 | 24 | 12 | 7.5 | 24 | 3.9 | 4.5 | 12 |
| 21 | 6.5 | 11 | 13 | 48 | 24 | 32 | 16 | 8.5 | 13 | 4.1 | 4.5 | 9.0 |
| 22 | 6.5 | 9.9 | 11 | 101 | 34 | 129 | 12 | 7.6 | 7.2 | 4.0 | 4.5 | 8.2 |
| 23 | 6.3 | 9.3 | 10 | 105 | 16 | 34 | 13 | 7.4 | 8.9 | 4.0 | 4.8 | 8.2 |
| 24 | 6.3 | 8.5 | 13 | 56 | 13 | 21 | 45 | 6.9 | 6.4 | 4.1 | 4.8 | 7.6 |
| 25 | 6.4 | 8.0 | 17 | 30 | 12 | 18 | 17 | 11 | 5.4 | 4.2 | 4.7 | 7.4 |
| 26 | 6.4 | 8.0 | 34 | 103 | 11 | 21 | 13 | 7.1 | 4.8 | 4.3 | 4.5 | 6.9 |
| 27 | 6.3 | 8.2 | 30 | 60 | 11 | 15 | 11 | 6.9 | 4.7 | 3.9 | 4.6 | 6.5 |
| 28 | 8.5 | 8.1 | 14 | 31 | 14 | 13 | 10 | 6.7 | 4.3 | 4.0 | 4.7 | 6.4 |
| 29 | 8.0 | 7.9 | 18 | 49 | --- | 12 | 9.4 | 6.4 | 4.4 | 3.9 | 4.5 | 6.4 |
| 30 | 7.3 | 7.8 | 33 | 54 | --- | 12 | 9.0 | 6.7 | 4.7 | 3.9 | 4.5 | 6.7 |
| 31 | 7.0 | --- | 29 | 59 | --- | 52 | --- | 8.2 | --- | 4.0 | 4.4 | --- |
| TOTAL | 229.9 | 521.5 | 1,015.4 | 1,423 | 476.7 | 1,072 | 619.4 | 316.0 | 201.6 | 134.1 | 157.6 | 506.3 |
| MEAN | 7.42 | 17.4 | 32.8 | 45.9 | 17.0 | 34.6 | 20.6 | 10.2 | 6.72 | 4.33 | 5.08 | 16.9 |
| MAX | 24 | 66 | 144 | 132 | 42 | 164 | 64 | 45 | 24 | 5.4 | 13 | 128 |
| MIN | 5.9 | 6.7 | 7.4 | 10 | 9.7 | 12 | 9.0 | 6.4 | 4.3 | 3.9 | 3.9 | 4.4 |
| AC-FT | 456 | 1,030 | 2,010 | 2,820 | 946 | 2,130 | 1,230 | 627 | 400 | 266 | 313 | 1,000 |
| CFSM | 0.62 | 1.45 | 2.73 | 3.83 | 1.42 | 2.88 | 1.72 | 0.85 | 0.56 | 0.36 | 0.42 | 1.41 |
| IN. | 0.71 | 1.62 | 3.15 | 4.41 | 1.48 | 3.32 | 1.92 | 0.98 | 0.62 | 0.42 | 0.49 | 1.57 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2003, BY WATER YEAR (WY)

| | MEAN | MAX | MIN | (WY) | (WY) | (WY) | (WY) | (WY) | (WY) | (WY) | (WY) | (WY) |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 16.4 | 32.0 | 39.8 | 40.1 | 34.5 | 30.2 | 22.1 | 14.6 | 12.4 | 8.85 | 8.52 | 11.1 |
| MAX | 44.4 | 60.9 | 70.7 | 74.1 | 61.1 | 67.5 | 39.9 | 27.2 | 23.8 | 16.5 | 18.7 | 22.3 |
| (WY) | (1982) | (2000) | (1997) | (1997) | (1996) | (1972) | (1991) | (1996) | (1985) | (1997) | (1976) | (1978) |
| MIN | 7.42 | 11.0 | 16.5 | 15.9 | 10.2 | 15.4 | 12.7 | 8.45 | 5.34 | 3.22 | 3.25 | 5.05 |
| (WY) | (2003) | (1977) | (1977) | (1977) | (1993) | (1965) | (1962) | (1958) | (1958) | (1958) | (1945) | (1955) |

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1945 - 2003

| | | | |
|--------------------------|---------|---------|--------|
| ANNUAL TOTAL | 6,918.0 | 6,673.5 | |
| ANNUAL MEAN | 19.0 | 18.3 | 22.5 |
| HIGHEST ANNUAL MEAN | | | 36.8 |
| LOWEST ANNUAL MEAN | | | 14.6 |
| HIGHEST DAILY MEAN | 204 | 164 | 412 |
| LOWEST DAILY MEAN | 5.0 | 3.9 | 2.5 |
| ANNUAL SEVEN-DAY MINIMUM | 5.4 | 4.0 | 2.8 |
| ANNUAL RUNOFF (AC-FT) | 13,720 | 13,240 | 16,330 |
| ANNUAL RUNOFF (CFSM) | 1.58 | 1.52 | 1.88 |
| ANNUAL RUNOFF (INCHES) | 21.45 | 20.69 | 25.52 |
| 10 PERCENT EXCEEDS | 38 | 41 | 47 |
| 50 PERCENT EXCEEDS | 10 | 9.1 | 14 |
| 90 PERCENT EXCEEDS | 5.9 | 4.5 | 6.6 |

12120600 ISSAQUAH CREEK NEAR HOBART, WA

LOCATION.--Lat 47°27'27", long 122°00'14", in NE 1/4 NW 1/4 sec.26, T.23 N., R.6 E., King County, Hydrologic Unit 17110012, on left bank 20 ft downstream from highway bridge, 2.9 mi northwest of Hobart, and 10.2 mi upstream from mouth, 1.6 mi northwest of Issaquah, and at mile 33.1 (continuation of Sammamish River).

DRAINAGE AREA.--17.6 mi².

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 300 ft above NGVD of 1929, from topographic map.

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

AVERAGE DISCHARGE.--17 years (water years 1987-2003), 47.3 ft³/s, 36.50 in/yr, 34,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft³/s Nov. 24, 1990, gage height, 9.90 ft; minimum discharge, 5.3 ft³/s, Sept. 17-20, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|--------|------|--------------------------------|------------------|
| Jan 26 | 1615 | 302 | 6.21 | Mar 12 | 2315 | *346 | *6.39 |
| Jan 31 | 0900 | 339 | 6.36 | | | | |

Minimum discharge, 6.0 ft³/s, Sept. 2-6, gage height, 3.88 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| 1 | 8.7 | 9.2 | 9.6 | 50 | 171 | 40 | 60 | 34 | 18 | 13 | 7.7 | 6.7 |
| 2 | 8.7 | 9.1 | 9.6 | 73 | 122 | 46 | 56 | 32 | 17 | 12 | 7.7 | 6.7 |
| 3 | 20 | 9.2 | 9.6 | 66 | 128 | 62 | 57 | 32 | 17 | 12 | 7.7 | 6.7 |
| 4 | 15 | 9.2 | 9.9 | 75 | 98 | 48 | 53 | 33 | 16 | 12 | 7.7 | 6.5 |
| 5 | 12 | 9.1 | 9.6 | 70 | 80 | 47 | 52 | 43 | 15 | 12 | 7.7 | 6.4 |
| 6 | 11 | 11 | 9.3 | 49 | 68 | 44 | 70 | 38 | 15 | 11 | 7.8 | 6.5 |
| 7 | 10 | 11 | 9.2 | 39 | 59 | 50 | 71 | 33 | 14 | 11 | 7.5 | 7.4 |
| 8 | 9.8 | 12 | 9.2 | 33 | 52 | 50 | 73 | 31 | 14 | 11 | 7.4 | 14 |
| 9 | 10 | 13 | 9.2 | 28 | 48 | 98 | 72 | 28 | 14 | 11 | 7.4 | 8.8 |
| 10 | 11 | 15 | 11 | 26 | 45 | 104 | 61 | 27 | 15 | 10 | 8.7 | 9.3 |
| 11 | 10 | 11 | 18 | 24 | 41 | 119 | 58 | 26 | 15 | 10 | 9.0 | 18 |
| 12 | 9.6 | 16 | 28 | 37 | 39 | 183 | 55 | 25 | 14 | 10 | 8.4 | 14 |
| 13 | 9.4 | 16 | 36 | 31 | 37 | 223 | 90 | 23 | 16 | 11 | 8.1 | 9.6 |
| 14 | 9.2 | 16 | 32 | 38 | 35 | 138 | 83 | 23 | 16 | 11 | 7.8 | 8.5 |
| 15 | 9.2 | 12 | 38 | 30 | 34 | 104 | 68 | 24 | 14 | 9.9 | 7.8 | 8.1 |
| 16 | 9.2 | 14 | 77 | 26 | 41 | 86 | 63 | 26 | 13 | 9.6 | 8.1 | 11 |
| 17 | 9.2 | 13 | 53 | 25 | 43 | 75 | 67 | 46 | 13 | 9.4 | 7.9 | 11 |
| 18 | 8.9 | 12 | 42 | 23 | 40 | 70 | 57 | 33 | 13 | 9.2 | 7.6 | 9.2 |
| 19 | 9.0 | 19 | 31 | 21 | 38 | 65 | 51 | 28 | 14 | 8.9 | 7.5 | 17 |
| 20 | 9.4 | 21 | 25 | 20 | 45 | 74 | 47 | 26 | 21 | 8.7 | 7.4 | 12 |
| 21 | 9.2 | 15 | 21 | 36 | 53 | 83 | 46 | 31 | 30 | 8.7 | 7.2 | 9.6 |
| 22 | 9.2 | 13 | 19 | 73 | 76 | 183 | 44 | 27 | 23 | 8.4 | 7.2 | 8.7 |
| 23 | 9.1 | 12 | 18 | 83 | 63 | 137 | 43 | 25 | 25 | 8.2 | 7.1 | 8.1 |
| 24 | 8.9 | 11 | 17 | 78 | 53 | 112 | 75 | 23 | 20 | 8.1 | 7.1 | 7.8 |
| 25 | 8.7 | 11 | 17 | 71 | 47 | 97 | 58 | 25 | 16 | 8.1 | 7.0 | 7.5 |
| 26 | 8.8 | 10 | 17 | 219 | 44 | 86 | 50 | 23 | 15 | 8.1 | 7.5 | 7.4 |
| 27 | 8.9 | 10 | 19 | 196 | 41 | 78 | 47 | 22 | 14 | 8.0 | 7.6 | 7.3 |
| 28 | 9.6 | 10 | 18 | 160 | 42 | 71 | 43 | 20 | 13 | 7.8 | 7.3 | 7.1 |
| 29 | 9.8 | 10 | 19 | 131 | --- | 62 | 39 | 19 | 13 | 7.6 | 7.0 | 7.2 |
| 30 | 9.2 | 9.7 | 24 | 135 | --- | 56 | 37 | 19 | 13 | 7.4 | 6.9 | 7.3 |
| 31 | 9.2 | --- | 39 | 275 | --- | 72 | --- | 19 | --- | 7.5 | 6.7 | --- |
| TOTAL | 309.9 | 369.5 | 704.2 | 2,241 | 1,683 | 2,763 | 1,746 | 864 | 486 | 300.6 | 235.5 | 275.4 |
| MEAN | 10.0 | 12.3 | 22.7 | 72.3 | 60.1 | 89.1 | 58.2 | 27.9 | 16.2 | 9.70 | 7.60 | 9.18 |
| MAX | 20 | 21 | 77 | 275 | 171 | 223 | 90 | 46 | 30 | 13 | 9.0 | 18 |
| MIN | 8.7 | 9.1 | 9.2 | 20 | 34 | 40 | 37 | 19 | 13 | 7.4 | 6.7 | 6.4 |
| AC-FT | 615 | 733 | 1,400 | 4,450 | 3,340 | 5,480 | 3,460 | 1,710 | 964 | 596 | 467 | 546 |
| CFSM | 0.57 | 0.70 | 1.29 | 4.11 | 3.42 | 5.06 | 3.31 | 1.58 | 0.92 | 0.55 | 0.43 | 0.52 |
| IN. | 0.66 | 0.78 | 1.49 | 4.74 | 3.56 | 5.84 | 3.69 | 1.83 | 1.03 | 0.64 | 0.50 | 0.58 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2003, BY WATER YEAR (WY)

| | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|
| MEAN | 19.6 | 76.8 | 79.3 | 83.0 | 74.5 | 71.7 | 55.1 | 35.2 | 31.1 | 19.7 | 12.1 | 11.1 | | | | | |
| MAX | 41.2 | 245 | 156 | 140 | 159 | 137 | 98.4 | 58.3 | 69.3 | 59.1 | 18.2 | 18.1 | | | | | |
| (WY) | (1998) | (1991) | (1999) | (1997) | (1996) | (1997) | (1991) | (1996) | (1990) | (1997) | (1993) | (1997) | | | | | |
| MIN | 8.55 | 12.3 | 22.7 | 39.2 | 25.5 | 35.6 | 31.9 | 21.5 | 14.2 | 9.70 | 7.60 | 8.53 | | | | | |
| (WY) | (1988) | (2003) | (2003) | (2001) | (1993) | (1992) | (1998) | (1992) | (1992) | (2003) | (2003) | (1992) | | | | | |

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1987 - 2003

| | | | |
|--------------------------|----------|----------|--------|
| ANNUAL TOTAL | 13,624.7 | 11,978.1 | |
| ANNUAL MEAN | 37.3 | 32.8 | 47.3 |
| HIGHEST ANNUAL MEAN | | | 80.9 |
| LOWEST ANNUAL MEAN | | | 28.0 |
| HIGHEST DAILY MEAN | 315 | 275 | 1,000 |
| LOWEST DAILY MEAN | 8.2 | 6.4 | 5.4 |
| ANNUAL SEVEN-DAY MINIMUM | 8.5 | 6.6 | 5.7 |
| ANNUAL RUNOFF (AC-FT) | 27,020 | 23,760 | 34,250 |
| ANNUAL RUNOFF (CFSM) | 2.12 | 1.86 | 2.69 |
| ANNUAL RUNOFF (INCHES) | 28.80 | 25.32 | 36.50 |
| 10 PERCENT EXCEEDS | 88 | 73 | 102 |
| 50 PERCENT EXCEEDS | 21 | 17 | 30 |
| 90 PERCENT EXCEEDS | 9.3 | 7.7 | 10 |

12121600 ISSAQUAH CREEK NEAR MOUTH, NEAR ISSAQUAH, WA

LOCATION.--Lat 47°33'09", long 122°02'48", in SE 1/4 NW 1/4 sec.21, T.24 N., R.6 E., King County, Hydrologic Unit 17110012, on right bank 30 ft downstream from S.E. 56th Street bridge, 0.7 mi downstream from North Fork, 1.2 mi upstream from mouth, 1.6 mi northwest of Issaquah, and at mile 24.1 (continuation of Sammamish River).

DRAINAGE AREA.--56.6 mi², includes 1.9 mi² of Cedar River drainage from upper Rock Creek which normally is diverted into Issaquah Creek.

PERIOD OF RECORD.--September 1963 to current year.

REVISED RECORDS.--WDR WA-77-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 35.99 ft above NGVD of 1929.

REMARKS.--Records good. Many minor diversions for irrigation and domestic use upstream from station. Chemical analyses November 1964 to September 1971, October 1973 to September 1974. Water temperatures September 1970 to September 1971. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--40 years (water years 1964-2003), 132 ft³/s, 31.59 in/yr, 95,330 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,200 ft³/s Jan. 9, 1990, gage height, 13.50 ft; minimum discharge, 6.2 ft³/s Sept. 7, 2003.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|--------|------|--------------------------------|------------------|
| Jan 31 | 1145 | 816 | 7.20 | Mar 13 | 0100 | *858 | *7.37 |

Minimum discharge, 6.2 ft³/s, Sept. 7, gage height, 2.65 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|-------|------|------|
| 1 | 19 | 19 | 27 | 130 | 476 | 98 | 165 | 93 | 43 | 29 | 16 | 11 |
| 2 | 17 | 19 | 26 | 235 | 319 | 100 | 150 | 87 | 42 | 27 | 16 | 12 |
| 3 | 36 | 19 | 25 | 245 | 293 | 141 | 158 | 83 | 40 | 26 | 16 | 12 |
| 4 | 36 | 19 | 27 | 225 | 235 | 113 | 145 | 91 | 39 | 25 | 16 | 12 |
| 5 | 23 | 19 | 26 | 208 | 193 | 106 | 138 | 120 | 38 | 25 | 16 | 12 |
| 6 | 21 | 26 | 27 | 145 | 167 | 100 | 177 | 98 | 36 | 25 | 17 | 11 |
| 7 | 20 | 27 | 24 | 113 | 148 | 117 | 178 | 89 | 34 | 24 | 16 | 11 |
| 8 | 19 | 33 | 24 | 95 | 133 | 120 | 192 | 83 | 32 | 24 | 15 | 32 |
| 9 | 20 | 41 | 24 | 82 | 122 | 239 | 197 | 79 | 32 | 24 | 15 | 15 |
| 10 | 23 | 54 | 37 | 73 | 114 | 282 | 168 | 75 | 32 | 23 | 17 | 13 |
| 11 | 21 | 35 | 57 | 68 | 106 | 313 | 158 | 72 | 33 | 23 | 17 | 27 |
| 12 | 19 | 76 | 100 | 109 | 100 | 480 | 147 | 69 | 32 | 22 | 16 | 30 |
| 13 | 18 | 67 | 143 | 95 | 94 | 679 | 236 | 67 | 34 | 22 | 16 | 16 |
| 14 | 18 | 52 | 123 | 109 | 89 | 405 | 221 | 64 | 34 | 23 | 15 | 12 |
| 15 | 18 | 40 | 165 | 88 | 85 | 279 | 181 | 64 | 31 | 22 | 14 | 12 |
| 16 | 17 | 44 | 256 | 77 | 108 | 222 | 167 | 66 | 30 | 21 | 14 | 26 |
| 17 | 17 | 47 | 165 | e70 | 124 | 184 | 170 | 91 | 29 | 20 | 14 | 23 |
| 18 | 17 | 38 | 129 | e64 | 110 | 165 | 148 | 77 | 29 | 20 | 14 | 16 |
| 19 | 18 | 51 | 96 | e61 | 103 | 154 | 133 | 68 | 30 | 19 | 13 | 28 |
| 20 | 20 | 70 | 76 | e58 | 123 | 169 | 124 | 64 | 40 | 19 | 13 | 23 |
| 21 | 20 | 48 | 63 | e80 | 132 | 187 | 120 | 69 | 52 | 19 | 13 | 16 |
| 22 | 19 | 39 | 55 | 179 | 170 | 475 | 114 | 66 | 47 | 19 | 13 | 15 |
| 23 | 19 | 36 | 49 | 221 | 149 | 384 | 111 | 63 | 53 | 19 | 12 | 14 |
| 24 | 18 | 32 | 47 | 203 | 129 | 297 | 183 | 57 | 43 | 18 | 12 | 13 |
| 25 | 18 | 30 | 47 | 185 | 117 | 241 | 156 | 57 | 37 | 18 | 13 | 13 |
| 26 | 18 | 29 | 50 | 553 | 109 | 220 | 134 | 55 | 34 | 17 | 13 | 12 |
| 27 | 17 | 29 | 54 | 508 | 101 | 201 | 124 | 54 | 33 | 17 | 14 | 11 |
| 28 | 21 | 28 | 49 | 461 | 101 | 181 | 114 | 50 | 30 | 17 | 14 | 11 |
| 29 | 23 | 28 | 55 | 348 | --- | 160 | 105 | 48 | 29 | 17 | 13 | 11 |
| 30 | 20 | 27 | 70 | 339 | --- | 146 | 98 | 47 | 29 | 16 | 13 | 13 |
| 31 | 19 | --- | 103 | 685 | --- | 193 | --- | 46 | --- | 16 | 12 | --- |
| TOTAL | 629 | 1,122 | 2,219 | 6,112 | 4,250 | 7,151 | 4,612 | 2,212 | 1,077 | 656 | 448 | 483 |
| MEAN | 20.3 | 37.4 | 71.6 | 197 | 152 | 231 | 154 | 71.4 | 35.9 | 21.2 | 14.5 | 16.1 |
| MAX | 36 | 76 | 256 | 685 | 476 | 679 | 236 | 120 | 53 | 29 | 17 | 32 |
| MIN | 17 | 19 | 24 | 58 | 85 | 98 | 98 | 46 | 29 | 16 | 12 | 11 |
| AC-FT | 1,250 | 2,230 | 4,400 | 12,120 | 8,430 | 14,180 | 9,150 | 4,390 | 2,140 | 1,300 | 889 | 958 |
| CFSM | 0.36 | 0.66 | 1.26 | 3.48 | 2.68 | 4.08 | 2.72 | 1.26 | 0.63 | 0.37 | 0.26 | 0.28 |
| IN. | 0.41 | 0.74 | 1.46 | 4.02 | 2.79 | 4.70 | 3.03 | 1.45 | 0.71 | 0.43 | 0.29 | 0.32 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 53.4 | 159 | 243 | 269 | 226 | 197 | 152 | 94.0 | 76.8 | 45.7 | 31.8 | 35.8 |
| MAX | 151 | 440 | 520 | 472 | 546 | 420 | 280 | 166 | 179 | 116 | 56.4 | 85.5 |
| (WY) | (1976) | (1991) | (1976) | (1964) | (1982) | (1972) | (1991) | (1996) | (1964) | (1997) | (1976) | (1978) |
| MIN | 19.6 | 24.6 | 71.6 | 106 | 70.8 | 86.2 | 81.5 | 56.0 | 29.8 | 21.2 | 14.5 | 16.1 |
| (WY) | (1988) | (1980) | (2003) | (2001) | (1993) | (1992) | (1977) | (1992) | (1992) | (2003) | (2003) | (2003) |

SUMMARY STATISTICS

| | FOR 2002 CALENDAR YEAR | FOR 2003 WATER YEAR | WATER YEARS 1964 - 2003 |
|--------------------------|------------------------|---------------------|-------------------------|
| ANNUAL TOTAL | 39,280 | 30,971 | |
| ANNUAL MEAN | 108 | 84.9 | 132 |
| HIGHEST ANNUAL MEAN | | | 197 |
| LOWEST ANNUAL MEAN | | | 72.6 |
| HIGHEST DAILY MEAN | 822 | Apr 14 | 2,350 |
| LOWEST DAILY MEAN | 17 | Sep 27 | 11 |
| ANNUAL SEVEN-DAY MINIMUM | 18 | Oct 13 | 12 |
| ANNUAL RUNOFF (AC-FT) | 77,910 | | 95,330 |
| ANNUAL RUNOFF (CFSM) | 1.90 | | 2.32 |
| ANNUAL RUNOFF (INCHES) | 25.82 | | 31.59 |
| 10 PERCENT EXCEEDS | 267 | | 278 |
| 50 PERCENT EXCEEDS | 55 | | 86 |
| 90 PERCENT EXCEEDS | 20 | | 26 |

e Estimated

12125200 SAMMAMISH RIVER NEAR WOODINVILLE, WA

LOCATION.--Lat 47°42'15", long 122°08'29", in SW ¼ SW ¼ sec.26, T.26 N., R.5 E., King County, Hydrologic Unit 17110012, on right bank 3.9 mi upstream from Bear Creek, 3.6 mi southeast of Woodinville, and at mile 10.8.

DRAINAGE AREA.--159 mi², includes 1.9 mi² of Cedar River drainage from upper Rock Creek which is normally diverted into Issaquah Creek.

PERIOD OF RECORD.--January 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (Corps of Engineers bench mark). Prior to July 7, 1970, auxiliary water-stage recorder 2 mi downstream from base gage at same datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor. Some regulation at Sammamish Lake. Many small diversions for irrigation and domestic use. Water temperatures August 1965 to February 1967.

AVERAGE DISCHARGE.--38 years (water years 1966-2003), 308 ft³/s, 26.34 in/yr, 223,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,870 ft³/s Jan. 1, 1997, elevation, 26.93 ft; minimum daily discharge, 25 ft³/s Aug. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 939 ft³/s Mar. 13, elevation, 20.23 ft; minimum daily discharge, 38 ft³/s Sept 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 1 | 69 | e49 | 83 | 270 | 714 | 285 | 505 | 275 | e118 | e75 | e43 | e40 |
| 2 | 66 | e48 | 80 | 457 | 693 | 286 | 481 | 263 | e115 | e71 | e43 | e40 |
| 3 | 93 | e48 | 77 | 510 | 718 | 298 | 502 | 254 | e113 | e70 | e43 | e39 |
| 4 | 76 | e49 | 74 | 521 | 664 | 285 | 457 | 263 | e112 | e69 | e43 | e39 |
| 5 | 63 | e50 | 67 | 490 | 620 | 275 | 446 | 346 | e112 | e67 | e43 | e39 |
| 6 | 58 | 75 | 64 | 417 | 579 | 266 | 458 | 307 | e110 | e66 | e43 | e39 |
| 7 | 65 | 82 | 61 | 374 | 539 | 298 | 438 | 287 | e110 | e65 | e42 | e38 |
| 8 | e60 | 88 | 58 | 340 | 505 | 323 | 436 | 271 | e108 | e64 | e42 | 102 |
| 9 | e59 | 83 | 58 | 312 | 473 | 355 | 470 | 257 | e106 | e63 | e41 | 46 |
| 10 | e62 | 91 | 83 | 291 | 444 | 352 | 431 | 249 | e105 | e63 | e50 | 42 |
| 11 | e59 | 76 | 98 | 280 | 419 | 359 | 411 | 242 | e104 | e62 | e49 | 59 |
| 12 | e57 | 116 | 138 | 373 | 398 | 486 | 403 | 232 | e103 | e62 | e45 | 69 |
| 13 | e56 | 155 | 188 | 352 | 377 | 886 | 486 | 226 | e104 | e63 | e43 | 55 |
| 14 | e54 | 132 | 315 | 377 | 358 | 867 | 503 | 222 | e101 | e66 | e43 | 52 |
| 15 | e53 | 118 | 442 | 331 | 343 | 776 | 470 | 229 | e97 | e58 | e42 | 47 |
| 16 | e53 | 145 | 534 | 300 | 370 | 698 | 437 | 222 | e95 | e55 | e42 | 141 |
| 17 | e52 | 143 | 466 | 276 | 379 | 638 | 416 | 249 | e94 | e54 | e44 | 111 |
| 18 | e51 | 124 | 412 | 256 | 360 | 591 | 422 | 216 | e94 | e53 | e44 | 79 |
| 19 | e52 | 127 | 358 | 239 | 344 | 559 | 391 | 198 | e96 | e51 | e42 | 88 |
| 20 | e55 | 134 | 317 | 223 | 342 | 547 | 367 | 185 | e109 | e49 | e42 | 72 |
| 21 | e56 | 122 | 288 | 268 | 347 | 537 | 358 | e188 | e102 | e47 | e42 | 67 |
| 22 | e54 | 115 | 265 | 410 | 390 | 747 | 347 | e182 | e106 | e46 | e43 | 63 |
| 23 | e53 | 109 | 245 | 517 | 374 | 704 | 334 | e175 | e98 | e45 | e44 | 57 |
| 24 | e52 | 103 | 232 | 478 | 349 | 666 | 410 | e164 | e92 | e45 | e51 | 49 |
| 25 | e51 | 98 | 231 | 437 | 334 | 630 | 395 | e155 | e87 | e45 | e47 | 46 |
| 26 | e50 | 93 | 258 | 522 | 318 | 606 | 365 | e149 | e84 | e44 | e46 | 44 |
| 27 | e49 | 93 | 254 | 562 | 302 | 575 | 342 | e143 | e82 | e44 | e44 | 48 |
| 28 | e51 | 88 | 227 | 591 | 297 | 537 | 318 | e136 | e79 | e44 | e42 | 50 |
| 29 | e52 | 83 | 225 | 607 | --- | 504 | 302 | e130 | e76 | e44 | e42 | 52 |
| 30 | e50 | 83 | 235 | 635 | --- | 473 | 290 | e125 | e75 | e43 | e41 | 47 |
| 31 | e49 | --- | 239 | 728 | --- | 529 | --- | e122 | --- | e43 | e41 | --- |
| TOTAL | 1,780 | 2,920 | 6,672 | 12,744 | 12,350 | 15,938 | 12,391 | 6,662 | 2,987 | 1,736 | 1,352 | 1,760 |
| MEAN | 57.4 | 97.3 | 215 | 411 | 441 | 514 | 413 | 215 | 99.6 | 56.0 | 43.6 | 58.7 |
| MAX | 93 | 155 | 534 | 728 | 718 | 886 | 505 | 346 | 118 | 75 | 51 | 141 |
| MIN | 49 | 48 | 58 | 223 | 297 | 266 | 290 | 122 | 75 | 43 | 41 | 38 |
| AC-FT | 3,530 | 5,790 | 13,230 | 25,280 | 24,500 | 31,610 | 24,580 | 13,210 | 5,920 | 3,440 | 2,680 | 3,490 |
| CFSM | 0.36 | 0.61 | 1.35 | 2.59 | 2.77 | 3.23 | 2.60 | 1.35 | 0.63 | 0.35 | 0.27 | 0.37 |
| IN. | 0.42 | 0.68 | 1.56 | 2.98 | 2.89 | 3.73 | 2.90 | 1.56 | 0.70 | 0.41 | 0.32 | 0.41 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2003, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 118 | 312 | 577 | 622 | 549 | 484 | 361 | 237 | 185 | 110 | 72.0 | 85.2 |
| MAX | 338 | 681 | 1,078 | 1,318 | 1,066 | 1,214 | 675 | 421 | 373 | 258 | 124 | 189 |
| (WY) | (1982) | (1976) | (1976) | (1997) | (1982) | (1972) | (1991) | (1996) | (1993) | (1997) | (1976) | (1978) |
| MIN | 49.8 | 70.1 | 186 | 246 | 200 | 222 | 199 | 150 | 84.7 | 56.0 | 33.1 | 43.0 |
| (WY) | (1988) | (1988) | (1977) | (1993) | (1977) | (2001) | (1992) | (1994) | (1992) | (2003) | (1994) | (1994) |

SUMMARY STATISTICS

| | FOR 2002 CALENDAR YEAR | FOR 2003 WATER YEAR | WATER YEARS 1965 - 2003 |
|--------------------------|------------------------|---------------------|-------------------------|
| ANNUAL TOTAL | 98,222 | 79,292 | |
| ANNUAL MEAN | 269 | 217 | 308 |
| HIGHEST ANNUAL MEAN | | | 482 |
| LOWEST ANNUAL MEAN | | | 179 |
| HIGHEST DAILY MEAN | 982 | 886 | 2,830 |
| LOWEST DAILY MEAN | 48 | 38 | 25 |
| ANNUAL SEVEN-DAY MINIMUM | 49 | 39 | 29 |
| ANNUAL RUNOFF (AC-FT) | 194,800 | 157,300 | 223,300 |
| ANNUAL RUNOFF (CFSM) | 1.69 | 1.37 | 1.94 |
| ANNUAL RUNOFF (INCHES) | 22.98 | 18.55 | 26.34 |
| 10 PERCENT EXCEEDS | 626 | 504 | 674 |
| 50 PERCENT EXCEEDS | 176 | 116 | 223 |
| 90 PERCENT EXCEEDS | 58 | 44 | 65 |

e Estimated

12128000 THORNTON CREEK NEAR SEATTLE, WA—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1996 to September 1998.
 WATER TEMPERATURE: March 1996 to current year.
 DISSOLVED OXYGEN: March to September 1996.

INSTRUMENTATION.--Water-quality monitor since March 1996. Electronic data logger with fifteen-minute recording interval.

REMARKS.--Records excellent. Unpublished dissolved oxygen data for portions of the 1997 water year are available in the files of the Washington District office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 330 microsiemens Aug. 13, 1996, but may have been higher during periods of missing record; minimum recorded, 46 microsiemens Mar. 18, 1997, but may have been lower during periods of missing record.
 WATER TEMPERATURE: Maximum recorded, 23.0°C (rounded) July 27, 1998; minimum recorded, 0.0°C (rounded) Dec. 29, 1996.
 DISSOLVED OXYGEN: Maximum recorded, 12.7 mg/L Mar. 20, 1996, but may have been higher during periods of missing record; minimum recorded, 5.0 mg/L Apr. 7, 1996, but may have been lower during periods of missing record.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 21.2°C July 30; minimum, 3.9°C Feb. 25.

TEMPERATURE, WATER, DEGREES CELSIUS
 WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|-------|---------|------|------|----------|------|------|----------|-----|------|---------|-----|------|
| | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 13.2 | 11.6 | 12.3 | 6.9 | 4.9 | 6.0 | 8.7 | 7.5 | 8.1 | 7.4 | 7.0 | 7.2 |
| 2 | 12.3 | 10.8 | 11.6 | 6.7 | 4.8 | 5.8 | 9.3 | 8.3 | 8.8 | 9.1 | 7.0 | 8.0 |
| 3 | 13.7 | 12.0 | 13.0 | 6.7 | 4.7 | 5.7 | 8.4 | 8.0 | 8.2 | 9.1 | 8.3 | 8.6 |
| 4 | 14.0 | 12.9 | 13.4 | 7.0 | 5.1 | 6.1 | 8.9 | 8.1 | 8.4 | 9.7 | 8.7 | 9.2 |
| 5 | 13.6 | 12.9 | 13.2 | 9.4 | 6.9 | 8.1 | 8.4 | 7.2 | 7.8 | 9.1 | 8.1 | 8.8 |
| 6 | 14.4 | 12.9 | 13.5 | 10.5 | 8.8 | 9.7 | 7.8 | 6.6 | 7.3 | 8.1 | 6.9 | 7.4 |
| 7 | 13.9 | 12.9 | 13.3 | 10.7 | 10.0 | 10.4 | 7.6 | 6.6 | 7.1 | 7.2 | 6.0 | 6.7 |
| 8 | 13.6 | 12.4 | 12.9 | 10.7 | 10.4 | 10.5 | 7.0 | 6.0 | 6.5 | 7.2 | 5.9 | 6.5 |
| 9 | 13.4 | 12.6 | 13.1 | 10.7 | 10.0 | 10.4 | 7.8 | 5.7 | 6.6 | 6.9 | 5.6 | 6.2 |
| 10 | 12.6 | 11.4 | 12.1 | 10.9 | 10.1 | 10.5 | 8.2 | 7.5 | 7.8 | 6.1 | 4.9 | 5.5 |
| 11 | 11.4 | 10.2 | 10.8 | 11.1 | 10.3 | 10.7 | 8.5 | 7.6 | 7.9 | 7.2 | 5.0 | 5.9 |
| 12 | 10.8 | 8.7 | 9.8 | 11.5 | 10.8 | 11.1 | 9.4 | 8.5 | 9.0 | 7.6 | 6.8 | 7.3 |
| 13 | 11.0 | 8.8 | 9.9 | 11.4 | 10.7 | 11.1 | 9.1 | 8.5 | 8.8 | 8.0 | 7.3 | 7.7 |
| 14 | 11.1 | 8.8 | 10 | 11.5 | 10.1 | 11.1 | 10.2 | 8.6 | 9.2 | 8.4 | 7.0 | 8.0 |
| 15 | 11.7 | 9.3 | 10.5 | 10.1 | 9.1 | 9.7 | 9.7 | 8.9 | 9.2 | 7.3 | 6.3 | 6.8 |
| 16 | 12.2 | 9.8 | 11.0 | 10.1 | 8.9 | 9.6 | 8.9 | 8.1 | 8.4 | 7.5 | 6.1 | 6.8 |
| 17 | 12.0 | 10.0 | 11.1 | 10.3 | 9.3 | 9.8 | 8.3 | 7.9 | 8.1 | 7.2 | 6.0 | 6.6 |
| 18 | 11.5 | 10.6 | 11.1 | 10.7 | 9.8 | 10.1 | 8.0 | 7.2 | 7.8 | 6.8 | 5.4 | 6.2 |
| 19 | 12.3 | 11.5 | 11.9 | 11.9 | 10.7 | 11.4 | 7.8 | 7.1 | 7.5 | 8.1 | 6.3 | 7.3 |
| 20 | 13.2 | 12.3 | 12.7 | 11.8 | 10.9 | 11.4 | 7.9 | 7.3 | 7.7 | 8.2 | 7.0 | 7.5 |
| 21 | 13.3 | 12.6 | 12.9 | 11.3 | 10.3 | 10.8 | 8.0 | 7.1 | 7.6 | 7.8 | 7.2 | 7.5 |
| 22 | 13.1 | 12.0 | 12.7 | 11.2 | 11.0 | 11.1 | 8.4 | 6.9 | 7.9 | 8.2 | 7.3 | 7.8 |
| 23 | 12.0 | 10.7 | 11.2 | 11.0 | 9.6 | 10.6 | 6.9 | 5.4 | 6.0 | 8.8 | 8.2 | 8.5 |
| 24 | 10.9 | 9.9 | 10.3 | 9.6 | 7.8 | 8.8 | 6.5 | 4.9 | 5.6 | 9.1 | 8.2 | 8.7 |
| 25 | 10.3 | 9.9 | 10.1 | 7.8 | 6.7 | 7.1 | 7.7 | 6.5 | 7.1 | 9.9 | 9.0 | 9.3 |
| 26 | 10.3 | 9.7 | 10 | 7.0 | 5.8 | 6.5 | 7.5 | 6.9 | 7.2 | 11.2 | 9.9 | 10.7 |
| 27 | 10.3 | 9.0 | 9.6 | 7.1 | 5.8 | 6.4 | 7.4 | 6.4 | 7.0 | 10.2 | 9.3 | 9.8 |
| 28 | 11.2 | 10.1 | 10.7 | 7.4 | 5.9 | 6.7 | 7.3 | 6.7 | 7.0 | 9.7 | 8.3 | 9.2 |
| 29 | 10.4 | 9.1 | 10.0 | 7.3 | 6.1 | 6.7 | 7.0 | 6.5 | 6.8 | 9.0 | 7.8 | 8.3 |
| 30 | 9.1 | 6.7 | 7.5 | 7.5 | 6.4 | 6.9 | 7.3 | 6.1 | 6.7 | 10.1 | 9.0 | 9.5 |
| 31 | 7.0 | 5.2 | 6.2 | --- | --- | --- | 7.4 | 6.8 | 7.1 | 10.2 | 9.4 | 10 |
| MONTH | 14.4 | 5.2 | 11.2 | 11.9 | 4.7 | 9.0 | 10.2 | 4.9 | 7.6 | 11.2 | 4.9 | 7.9 |

12128000 THORNTON CREEK NEAR SEATTLE, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| Date | Time | Instantaneous discharge, cfs (00061) | Barometric pressure, mm Hg (00025) | Dissolved oxygen, mg/L (00300) | Dissolved oxygen, percent of saturation (00301) | pH, water, unfltrd field, std units (00400) | Specific conductance, wat unfltrd uS/cm 25 degC (00095) | Temperature, air, deg C (00020) | Temperature, water, deg C (00010) | Alkalinity, wat fltr inc tit field, mg/L as CaCO3 (39086) | Bicarbonate, wat fltr incrm. titr., field, mg/L (00453) | Carbonate, wat fltr incrm. titr., field, mg/L (00452) | Chloride, water, fltrd, mg/L (00940) |
|-----------|------|--------------------------------------|------------------------------------|--------------------------------|---|---|---|---------------------------------|-----------------------------------|---|---|---|--------------------------------------|
| OCT 08... | 1130 | 3.7 | 769 | 9.8 | 91 | 7.8 | 246 | 12.5 | 12.5 | 92 | 112 | 0.0 | 6.47 |
| NOV 06... | 1210 | 21 | 763 | 10.1 | 88 | 7.7 | 182 | -- | 9.3 | 58 | 71 | 0.0 | 5.42 |
| DEC 04... | 1220 | 3.7 | 770 | 10.6 | 89 | 7.8 | 243 | 7.8 | 8.5 | 88 | 107 | 0.0 | 6.36 |
| JAN 07... | 1210 | 10 | 770 | 11.7 | 94 | 7.5 | 201 | 9.9 | 6.4 | 66 | 80 | 0.0 | 5.26 |
| FEB 06... | 1140 | 6.8 | 777 | 12.2 | 96 | 8.0 | 220 | 5.7 | 5.8 | 77 | 94 | 0.0 | 5.92 |
| MAR 05... | 1150 | 6.1 | 758 | 12.0 | 103 | 8.2 | 223 | 9.6 | 8.3 | 81 | 99 | 0.0 | 6.59 |
| APR 02... | 1140 | 8.9 | 754 | 11.4 | 99 | 8.0 | 166 | 12.3 | 9.0 | 60 | 72 | 0.0 | 3.49 |
| MAY 14... | 1250 | 4.9 | 763 | 9.7 | 94 | 8.1 | 232 | 15.5 | 13.8 | 90 | 108 | 0.0 | 6.92 |
| JUN 10... | 1210 | 3.5 | 762 | 9.5 | 92 | 8.0 | 252 | 15.6 | 14.1 | 93 | 112 | 0.0 | 7.28 |
| JUL 16... | 1330 | 3.1 | 767 | 9.7 | 99 | 8.1 | 246 | 24.7 | 16.6 | 87 | 105 | 0.0 | 7.41 |
| AUG 07... | 1140 | 3.2 | 766 | 8.8 | 92 | 8.0 | 258 | 25.8 | 17.9 | 91 | 109 | 0.0 | 7.64 |
| SEP 11... | 1140 | 7.0 | 767 | 9.2 | 92 | 8.0 | 249 | 17.8 | 15.8 | 91 | 110 | 0.0 | 7.34 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| Date | Sulfate water, fltrd, mg/L (00945) | Ammonia + org-N, water, unfltrd mg/L as N (00625) | Ammonia water, fltrd, mg/L as N (00608) | Nitrite + nitrate water, fltrd, mg/L as N (00631) | Nitrite water, fltrd, mg/L as N (00613) | Orthophosphate, water, fltrd, mg/L as P (00671) | Phosphorus, water, unfltrd mg/L (00665) | Total nitrogen, water, unfltrd mg/L (00600) | 2,6-Diethyl-aniline water fltrd 0.7u GF (82660) | CIAT, water, fltrd, ug/L (04040) | Acetochlor, water, fltrd, ug/L (49260) | Alachlor, water, fltrd, ug/L (46342) | alpha-HCH, water, fltrd, ug/L (34253) |
|-----------|------------------------------------|---|---|---|---|---|---|---|---|----------------------------------|--|--------------------------------------|---------------------------------------|
| OCT 08... | 18.2 | 0.30 | E.03 | 1.24 | E.007 | 0.08 | 0.078 | 1.5 | -- | -- | -- | -- | -- |
| NOV 06... | 13.9 | 1.9 | 0.20 | 0.92 | 0.031 | 0.05 | 0.26 | 2.8 | <0.006 | <0.006 | <0.006 | <0.004 | <0.005 |
| DEC 04... | 17.7 | 0.28 | 0.06 | 1.21 | 0.008 | 0.05 | 0.088 | 1.5 | -- | -- | -- | -- | -- |
| JAN 07... | 16.9 | 0.29 | E.03 | 1.33 | E.007 | 0.03 | 0.055 | 1.6 | <0.006 | <0.006 | <0.006 | <0.004 | <0.005 |
| FEB 06... | 17.9 | 0.32 | E.03 | 1.36 | E.006 | 0.03 | 0.052 | 1.7 | -- | -- | -- | -- | -- |
| MAR 05... | 17.4 | 0.20 | <0.04 | 1.13 | <0.008 | 0.02 | 0.051 | 1.3 | <0.006 | <0.006 | <0.006 | <0.004 | <0.005 |
| APR 02... | 11.9 | 0.30 | <0.04 | 0.90 | E.004 | 0.02 | 0.048 | 1.2 | <0.006 | <0.006 | <0.006 | <0.004 | <0.005 |
| MAY 14... | 17.1 | 0.39 | E.03 | 1.04 | 0.015 | 0.02 | 0.066 | 1.4 | <0.006 | <0.006 | <0.006 | <0.004 | <0.005 |
| JUN 10... | 17.6 | 0.46 | E.04 | 1.17 | 0.008 | 0.04 | 0.111 | 1.6 | <0.006 | <0.006 | <0.006 | <0.004 | <0.005 |
| JUL 16... | 18.2 | 0.24 | <0.04 | 1.10 | E.004 | 0.05 | 0.088 | 1.3 | <0.006 | <0.006 | <0.006 | <0.004 | <0.005 |
| AUG 07... | 17.8 | 0.99 | <0.04 | 0.87 | 0.018 | E.01 | 0.175 | 1.9 | <0.006 | <0.006 | <0.006 | <0.004 | <0.005 |
| SEP 11... | 17.1 | 0.31 | E.02 | 1.01 | <0.008 | 0.04 | 0.078 | 1.3 | <0.006 | <0.006 | <0.006 | <0.004 | <0.005 |

12128000 THORNTON CREEK NEAR SEATTLE, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| Date | alpha-HCH-d6, surrog. wat flt 0.7u GF percent recovery (91065) | Atrazine, water, fltrd, ug/L (39632) | Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686) | Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673) | Butyl-ate, water, fltrd, ug/L (04028) | Car-baryl, water, fltrd 0.7u GF ug/L (82680) | Carbo-furan, water, fltrd 0.7u GF ug/L (82674) | Chlor-pyrifos water, fltrd, ug/L (38933) | cis-Per-methrin water fltrd 0.7u GF ug/L (82687) | Cyana-zine, water, fltrd, ug/L (04041) | DCPA, water fltrd 0.7u GF ug/L (82682) | Desulf-inyl fipro-nil, water, fltrd, ug/L (62170) | Diazi-non, water, fltrd, ug/L (39572) |
|-----------|--|--------------------------------------|---|--|---------------------------------------|--|--|--|--|--|--|---|---------------------------------------|
| OCT 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 06... | 103 | <0.007 | <0.050 | <0.010 | <0.002 | E.219 | <0.020 | <0.005 | <0.006 | <0.018 | <0.003 | <0.004 | <0.005 |
| DEC 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 07... | 96.9 | <0.007 | <0.050 | <0.010 | <0.002 | E.035 | <0.020 | <0.005 | <0.006 | <0.018 | <0.003 | <0.004 | E.004 |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 05... | 97.2 | <0.007 | <0.050 | <0.010 | <0.002 | E.008 | <0.020 | <0.005 | <0.006 | <0.018 | <0.003 | <0.004 | <0.005 |
| APR 02... | 131 | <0.007 | <0.050 | <0.010 | <0.002 | E.020 | <0.020 | <0.005 | <0.006 | <0.018 | <0.003 | <0.004 | 0.017 |
| MAY 14... | 91.1 | <0.007 | <0.050 | <0.010 | <0.002 | E.154 | <0.020 | <0.005 | <0.006 | <0.018 | <0.003 | <0.004 | 0.110 |
| JUN 10... | 92.9 | <0.007 | <0.050 | <0.010 | <0.002 | <0.041 | <0.020 | <0.005 | <0.006 | <0.018 | <0.003 | <0.004 | <0.005 |
| JUL 16... | 93.5 | <0.007 | <0.050 | <0.010 | <0.002 | <0.041 | <0.020 | <0.005 | <0.006 | <0.018 | <0.003 | <0.004 | <0.005 |
| AUG 07... | 86.5 | <0.007 | <0.050 | <0.010 | <0.002 | <0.041 | <0.020 | <0.005 | <0.006 | <0.018 | <0.003 | <0.004 | <0.005 |
| SEP 11... | 93.5 | <0.007 | <0.050 | <0.010 | <0.002 | <0.041 | <0.020 | <0.005 | <0.006 | <0.018 | <0.003 | <0.004 | <0.005 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| Date | Diazi-non-d10 surrog. wat flt 0.7u GF percent recovery (91063) | Diel-drin, water, fltrd, ug/L (39381) | Disulf-oton, water, fltrd 0.7u GF ug/L (82677) | EPTC, water, fltrd 0.7u GF ug/L (82668) | Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663) | Etho-prop, water, fltrd 0.7u GF ug/L (82672) | Desulf-inyl-fipro-nil amide, wat flt ug/L (62169) | Fipro-nil sulfide water, fltrd, ug/L (62167) | Fipro-nil sulfone water, fltrd, ug/L (62168) | Fipro-nil, water, fltrd, ug/L (62166) | Fonofos water, fltrd, ug/L (04095) | Lindane water, fltrd, ug/L (39341) | Linuron water fltrd 0.7u GF ug/L (82666) |
|-----------|--|---------------------------------------|--|---|--|--|---|--|--|---------------------------------------|------------------------------------|------------------------------------|--|
| OCT 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 06... | 131 | <0.005 | <0.02 | <0.002 | <0.009 | <0.005 | <0.009 | <0.005 | <0.005 | <0.007 | <0.003 | <0.004 | <0.035 |
| DEC 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 07... | 120 | <0.005 | <0.02 | <0.002 | <0.009 | <0.005 | <0.009 | <0.005 | <0.005 | <0.007 | <0.003 | <0.004 | <0.035 |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 05... | 105 | <0.005 | <0.02 | <0.002 | <0.009 | <0.005 | <0.009 | <0.005 | <0.005 | <0.007 | <0.003 | <0.004 | <0.035 |
| APR 02... | 134 | <0.005 | <0.02 | <0.002 | <0.009 | <0.005 | <0.009 | <0.005 | <0.005 | <0.007 | <0.003 | <0.004 | <0.035 |
| MAY 14... | 109 | <0.005 | <0.02 | <0.002 | <0.009 | <0.005 | <0.009 | <0.005 | <0.005 | <0.007 | <0.003 | <0.004 | <0.035 |
| JUN 10... | 120 | <0.005 | <0.02 | <0.002 | <0.009 | <0.005 | <0.009 | <0.005 | <0.005 | <0.007 | <0.003 | <0.004 | <0.035 |
| JUL 16... | 115 | <0.005 | <0.02 | <0.002 | <0.009 | <0.005 | <0.009 | <0.005 | <0.005 | <0.007 | <0.003 | <0.004 | <0.035 |
| AUG 07... | 92.3 | <0.005 | <0.02 | <0.002 | <0.009 | <0.005 | <0.009 | <0.005 | <0.005 | <0.007 | <0.003 | <0.004 | <0.035 |
| SEP 11... | 108 | <0.005 | <0.02 | <0.002 | <0.009 | <0.005 | <0.009 | <0.005 | <0.005 | <0.007 | <0.003 | <0.004 | <0.035 |

12128000 THORNTON CREEK NEAR SEATTLE, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| Date | Mala- thion, water, fltrd, ug/L (39532) | Methyl para- thion, water, fltrd 0.7u GF (82667) | Metola- chlor, water, fltrd, ug/L (39415) | Metri- buzin, water, fltrd, ug/L (82630) | Moli- nate, water, fltrd 0.7u GF (82671) | Naprop- amide, water, fltrd 0.7u GF (82684) | p,p'- DDE, water, fltrd, ug/L (34653) | Para- thion, water, fltrd, ug/L (39542) | Peb- ulate, water, fltrd 0.7u GF (82669) | Pendi- meth- alin, water, fltrd 0.7u GF (82683) | Phorate water fltrd 0.7u GF (82664) | Prome- ton, water, fltrd, ug/L (04037) | Pron- amide, water, fltrd, ug/L (82676) |
|-----------|--|--|--|---|---|--|--|--|---|---|---|---|--|
| OCT 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 06... | <0.027 | <0.006 | <0.013 | <0.006 | <0.002 | <0.007 | <0.003 | <0.010 | <0.004 | <0.022 | <0.011 | 0.06 | <0.004 |
| DEC 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 07... | <0.027 | <0.006 | <0.013 | <0.006 | <0.002 | <0.007 | <0.003 | <0.010 | <0.004 | <0.022 | <0.011 | 0.02 | <0.004 |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 05... | <0.027 | <0.006 | <0.013 | <0.006 | <0.002 | <0.007 | <0.003 | <0.010 | <0.004 | <0.022 | <0.011 | E.01 | <0.004 |
| APR 02... | E.015 | <0.006 | <0.013 | <0.006 | <0.002 | <0.007 | <0.003 | <0.010 | <0.004 | <0.022 | <0.011 | 0.03 | <0.004 |
| MAY 14... | <0.027 | <0.006 | <0.013 | <0.006 | <0.002 | <0.007 | <0.003 | <0.010 | <0.004 | <0.022 | <0.011 | E.01 | <0.004 |
| JUN 10... | <0.027 | <0.006 | <0.013 | <0.006 | <0.002 | <0.007 | <0.003 | <0.010 | <0.004 | <0.022 | <0.011 | <0.01 | <0.004 |
| JUL 16... | <0.027 | <0.006 | <0.013 | <0.006 | <0.002 | <0.007 | <0.003 | <0.010 | <0.004 | <0.022 | <0.011 | <0.01 | <0.004 |
| AUG 07... | <0.027 | <0.006 | <0.013 | <0.006 | <0.002 | <0.007 | <0.003 | <0.010 | <0.004 | <0.022 | <0.011 | E.01 | <0.004 |
| SEP 11... | <0.027 | <0.006 | <0.013 | <0.006 | <0.002 | <0.007 | <0.003 | <0.010 | <0.004 | <0.022 | <0.011 | E.01 | <0.004 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| Date | Propa- chlor, water, fltrd, ug/L (04024) | Pro- panil, water, fltrd 0.7u GF (82679) | Propar- gite, water, fltrd 0.7u GF (82685) | Sima- zine, water, fltrd, ug/L (04035) | Tebu- thiuron water fltrd 0.7u GF (82670) | Terba- cil, water, fltrd 0.7u GF (82665) | Terbu- fos, water, fltrd 0.7u GF (82675) | Thio- bencarb water fltrd 0.7u GF (82681) | Tri- allate, water, fltrd 0.7u GF (82678) | Tri- flur- alin, water, fltrd 0.7u GF (82661) | Sus- pended sediment concentration mg/L (80154) | Sus- pended sediment load, tons/d (80155) |
|-----------|---|---|---|---|--|---|---|--|--|---|--|--|
| OCT 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3 | 0.03 |
| NOV 06... | <0.010 | <0.011 | <0.02 | <0.005 | <0.02 | <0.034 | <0.02 | <0.005 | <0.002 | <0.009 | 69 | 3.9 |
| DEC 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6 | 0.06 |
| JAN 07... | <0.010 | <0.011 | <0.02 | 0.010 | <0.02 | <0.034 | <0.02 | <0.005 | <0.002 | <0.009 | 9 | 0.24 |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3 | 0.06 |
| MAR 05... | <0.010 | <0.011 | <0.02 | 0.017 | <0.02 | <0.034 | <0.02 | <0.005 | <0.002 | <0.009 | 5 | 0.08 |
| APR 02... | <0.010 | <0.011 | <0.02 | 0.045 | <0.02 | <0.034 | <0.02 | <0.005 | <0.002 | <0.009 | 5 | 0.12 |
| MAY 14... | <0.010 | <0.011 | <0.02 | <0.010 | <0.02 | <0.034 | <0.02 | <0.005 | <0.002 | <0.009 | 3 | 0.04 |
| JUN 10... | <0.010 | <0.011 | <0.02 | <0.005 | <0.02 | <0.034 | <0.02 | <0.005 | <0.002 | <0.009 | 12 | 0.11 |
| JUL 16... | <0.010 | <0.011 | <0.02 | <0.005 | <0.02 | <0.034 | <0.02 | <0.005 | <0.002 | <0.009 | 5 | 0.04 |
| AUG 07... | <0.010 | <0.011 | <0.02 | <0.005 | <0.02 | <0.034 | <0.02 | <0.005 | <0.002 | <0.009 | 17 | 0.15 |
| SEP 11... | <0.010 | <0.011 | <0.02 | <0.005 | <0.02 | <0.034 | <0.02 | <0.005 | <0.002 | <0.009 | 5 | 0.09 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| Date | Time | Instan- taneous dis- charge, cfs (00061) | Biomass peri- phyton, ashfree drymass g/m2 (49954) | Peri- phyton biomass ash weight, g/m2 (00572) | Peri- phyton biomass dry weight, g/m2 (00573) | Biomass chloro- phyll ratio, peri- phyton, number (70950) | Pheo- phytin a, peri- phyton, mg/m2 (62359) | Chloro- phyll a peri- phyton, chromo- fluoro, mg/m2 (70957) |
|-----------|------|---|--|---|---|--|---|--|
| JUL 24... | 1000 | 2.8 | 14.3 | 520 | 529.4 | 695 | 6.4 | 20.6 |