Water-Data Report 2007

# 11295250 Collierville Powerplant near Murphys, CA

San Joaquin River Basin

LOCATION.--Lat 38°08′33″, long 120°22′39″ referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.1, T.3 N., R.14 E., Calaveras County, CA, Hydrologic Unit 18040010, 800 ft upstream from Stanislaus River, and 4.4 mi east of Murphys.

## SURFACE-WATER RECORDS

PERIOD OF RECORD.--February 1990 to current year.

GAGE.--Discharge record is computed from power generation record. Elevation of powerplant is 1,120 ft above NGVD of 1929, from topographic map.

COOPERATION.--Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2409.

REMARKS.--Flow is diverted from McKays Point Reservoir (station 11295260) through Collierville Tunnel to powerplant. A portion of the flow in the tunnel is diverted to Utica Canal (station 11295240) through a pressure tap near Mill Creek in SW ¼ SW ¼ sec.17, T.4 N., R.15 E. See schematic diagram of Stanislaus River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,610 $ft^3/s$, May 8, 2000; no flow for many days most years.

**11295250 Collierville Powerplant near Murphys, CA—Continued**

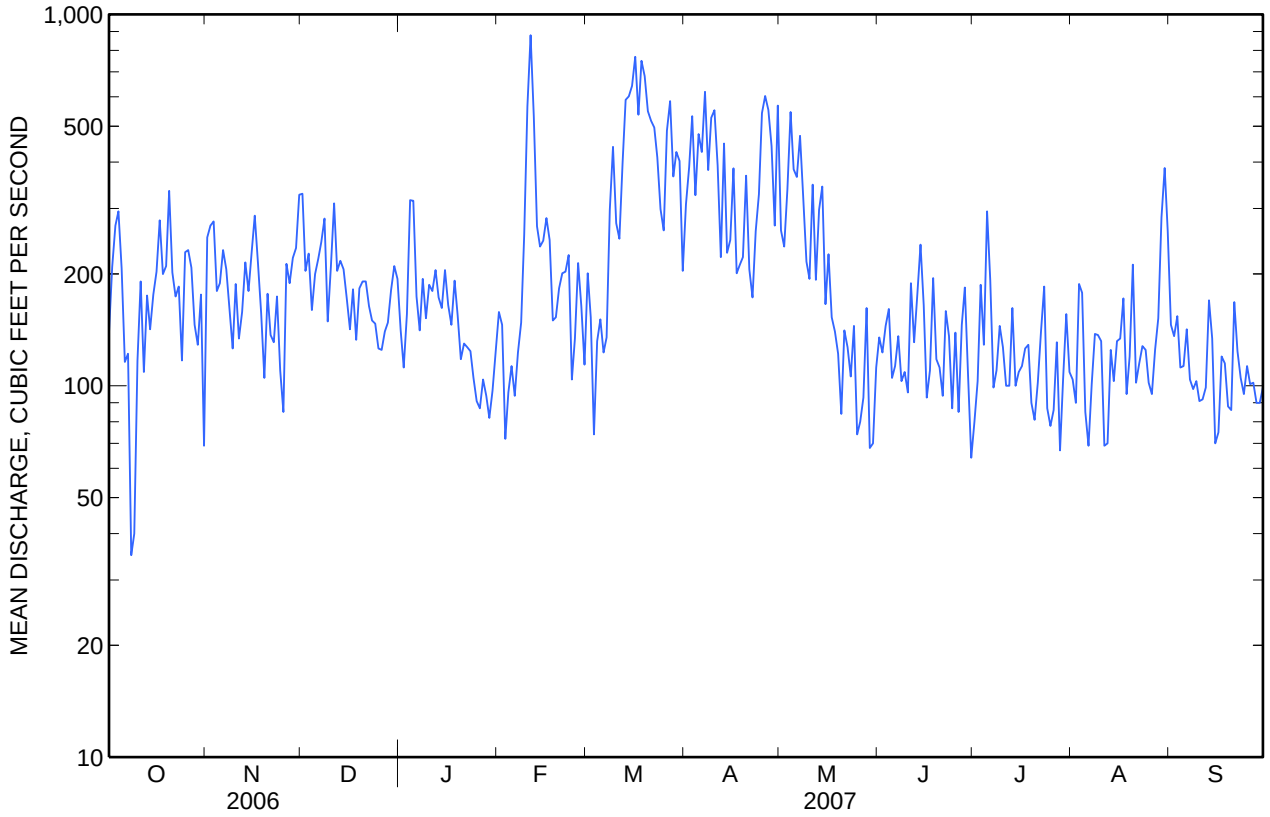
**DISCHARGE, CUBIC FEET PER SECOND**
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**
**DAILY MEAN VALUES**

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 139 | 251 | 329 | 141 | 158 | 201 | 308 | 262 | 135 | 80 | 104 | 146 |
| 2 | 209 | 270 | 204 | 112 | 146 | 153 | 388 | 237 | 123 | 103 | 90 | 136 |
| 3 | 270 | 277 | 227 | 156 | 72 | 74 | 532 | 338 | 145 | 187 | 188 | 154 |
| 4 | 295 | 180 | 160 | 316 | 96 | 132 | 326 | 546 | 161 | 129 | 178 | 112 |
| 5 | 207 | 189 | 200 | 315 | 113 | 151 | 476 | 383 | 105 | 295 | 85 | 113 |
| 6 | 116 | 232 | 220 | 174 | 94 | 123 | 426 | 365 | 113 | 192 | 69 | 142 |
| 7 | 122 | 206 | 244 | 141 | 123 | 135 | 619 | 471 | 136 | 99 | 101 | 104 |
| 8 | 35 | 161 | 282 | 194 | 148 | 298 | 381 | 321 | 103 | 110 | 138 | 98 |
| 9 | 40 | 126 | 149 | 152 | 255 | 440 | 527 | 216 | 109 | 145 | 137 | 103 |
| 10 | 117 | 188 | 210 | 187 | 565 | 274 | 552 | 194 | 96 | 127 | 132 | 91 |
| 11 | 191 | 134 | 310 | 180 | 879 | 249 | 392 | 348 | 189 | 100 | 69 | 92 |
| 12 | 109 | 158 | 204 | 205 | 531 | 399 | 222 | 193 | 131 | 100 | 70 | 99 |
| 13 | 175 | 215 | 217 | 173 | 269 | 589 | 449 | 298 | 176 | 162 | 125 | 170 |
| 14 | 142 | 180 | 206 | 162 | 237 | 602 | 228 | 344 | 240 | 100 | 103 | 134 |
| 15 | 176 | 230 | 172 | 205 | 246 | 642 | 247 | 166 | 165 | 109 | 132 | 70 |
| 16 | 203 | 287 | 142 | 165 | 283 | 769 | 385 | 226 | 93 | 113 | 134 | 75 |
| 17 | 279 | 214 | 182 | 146 | 247 | 537 | 201 | 153 | 110 | 126 | 172 | 120 |
| 18 | 200 | 157 | 133 | 192 | 150 | 750 | 212 | 140 | 195 | 129 | 95 | 115 |
| 19 | 210 | 105 | 183 | 155 | 153 | 682 | 222 | 122 | 118 | 90 | 120 | 88 |
| 20 | 335 | 177 | 191 | 118 | 183 | 549 | 368 | 84 | 112 | 81 | 212 | 86 |
| 21 | 202 | 137 | 191 | 130 | 201 | 517 | 206 | 141 | 94 | 102 | 102 | 168 |
| 22 | 174 | 131 | 164 | 127 | 203 | 496 | 173 | 127 | 159 | 140 | 115 | 124 |
| 23 | 185 | 174 | 150 | 124 | 225 | 412 | 261 | 106 | 136 | 185 | 128 | 105 |
| 24 | 117 | 110 | 147 | 105 | 104 | 299 | 328 | 145 | 87 | 87 | 125 | 95 |
| 25 | 229 | 85 | 126 | 91 | 134 | 262 | 542 | 74 | 139 | 78 | 102 | 113 |
| 26 | 232 | 213 | 125 | 87 | 214 | 486 | 603 | 80 | 85 | 86 | 95 | 101 |
| 27 | 208 | 189 | 140 | 104 | 164 | 584 | 553 | 93 | 146 | 131 | 125 | 102 |
| 28 | 146 | 221 | 148 | 94 | 114 | 366 | 442 | 162 | 184 | 67 | 152 | 90 |
| 29 | 129 | 235 | 181 | 82 | --- | 426 | 270 | 68 | 107 | 104 | 284 | 90 |
| 30 | 176 | 327 | 210 | 97 | --- | 403 | 568 | 70 | 64 | 156 | 386 | 99 |
| 31 | 69 | --- | 194 | 124 | --- | 204 | --- | 112 | --- | 109 | 261 | --- |
| Total | 5,437 | 5,759 | 5,941 | 4,754 | 6,307 | 12,204 | 11,407 | 6,585 | 3,956 | 3,822 | 4,329 | 3,335 |
| Mean | 175 | 192 | 192 | 153 | 225 | 394 | 380 | 212 | 132 | 123 | 140 | 111 |
| Max | 335 | 327 | 329 | 316 | 879 | 769 | 619 | 546 | 240 | 295 | 386 | 170 |
| Min | 35 | 85 | 125 | 82 | 72 | 74 | 173 | 68 | 64 | 67 | 69 | 70 |
| Ac-ft | 10,780 | 11,420 | 11,780 | 9,430 | 12,510 | 24,210 | 22,630 | 13,060 | 7,850 | 7,580 | 8,590 | 6,610 |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2007, BY WATER YEAR (WY)**

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | 189 | 150 | 217 | 292 | 405 | 599 | 716 | 705 | 456 | 280 | 237 | 217 |
| Max | 333 | 315 | 774 | 820 | 1,170 | 1,101 | 1,240 | 1,339 | 1,340 | 897 | 544 | 364 |
| (WY) | (1997) | (1997) | (1997) | (1997) | (1997) | (1995) | (1995) | (1995) | (1998) | (1995) | (1998) | (1997) |
| Min | 49.5 | 40.2 | 25.3 | 32.3 | 9.79 | 140 | 309 | 50.6 | 55.5 | 94.7 | 104 | 111 |
| (WY) | (1993) | (1992) | (1992) | (1992) | (1991) | (1991) | (1994) | (1992) | (1992) | (1994) | (1992) | (2007) |

**11295250 Collierville Powerplant near Murphys, CA—Continued**

**SUMMARY STATISTICS**

| | Calendar Year 2006 | | Water Year 2007 | | Water Years 1990 - 2007 | |
|---|---|---|---|---|---|---|
| **Annual total** | 210,316 | | 73,836 | | | |
| **Annual mean** | 576 | | 202 | | 381 | |
| **Highest annual mean** | | | | | 696 | 1995 |
| **Lowest annual mean** | | | | | 115 | 1992 |
| **Highest daily mean** | 1,380 | Apr 21 | 879 | Feb 11 | 1,610 | May 8, 2000 |
| **Lowest daily mean** | 35 | Oct 8 | 35 | Oct 8 | 0.00 | Feb 10, 1990 |
| **Annual seven-day minimum** | 104 | Oct 6 | 94 | May 25 | 0.00 | Feb 7, 1991 |
| **Annual runoff (ac-ft)** | 417,200 | | 146,500 | | 276,100 | |
| **10 percent exceeds** | 1,190 | | 387 | | 997 | |
| **50 percent exceeds** | 458 | | 159 | | 233 | |
| **90 percent exceeds** | 160 | | 92 | | 33 | |