

12098000 MUD MOUNTAIN LAKE NEAR BUCKLEY, WA

Puget Sound Basin
Puyallup Subbasin

LOCATION.--Lat 47°08'27", long 121°55'48" referenced to North American Datum of 1927, in NE ¼ NE ¼ sec.17, T.19 N., R.7 E., Pierce County, WA, Hydrologic Unit 17110014, on left bank of reservoir just upstream from Mud Mountain Dam on White River, 5 mi southeast of Buckley, 5.6 mi downstream from Clearwater River, and at mile 29.7.

DRAINAGE AREA.--400 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1943 to current year. Daily elevation at 0800 hours only October 1988 to September 1992. Month-end contents only October 1943 to September 1944, published in WSP 1316. Prior to October 1970, published as Mud Mountain Reservoir near Buckley.

GAGE.--Water-stage recorder. Prior to Oct. 1, 2005, non-recording gage at same site and datum. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

COOPERATION.--Records of lake elevations and capacity table furnished by Corps of Engineers (revised by USGS below 917 ft). Table uncertain below about 970 ft, due to siltation. Mud Mountain Lake is considered to have no appreciable storage below 917 ft.

REMARKS.--Lake, for flood control, is formed by earth fill dam. Embankment completed and storage began on small scale in 1942. Capacity, 106,000 acre-ft between elevations 895 ft, invert of outlet tunnel, and 1,215 ft, spillway crest. Storage is dissipated as soon after a flood as is possible, without creating damaging flows downstream, in order to have the maximum capacity available for any following flood which might develop.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed since dam was completed, 89,245 acre-ft, Feb. 9, 1996, elevation, 1,196.1 ft; no contents at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum contents 37,600 acre-ft, Jan. 18 elevation 1,117.61 ft; no contents many days during the year.

12098000 MUD MOUNTAIN LAKE NEAR BUCKLEY, WA—Continued

RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY OBSERVATION AT 0800 HOURS

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|--------|--------|--------|--------|--------|----------|---------|--------|--------|----------|---------|--------|
| 1 | 153 | 122 | 218 | 127 | 797 | 125 | 17,300 | 160 | 213 | 268 | 11,100 | 123 |
| 2 | 107 | 453 | 177 | 127 | 436 | 126 | 21,500 | 161 | 234 | --- | 8,170 | 121 |
| 3 | 104 | 202 | 157 | 125 | 330 | 477 | 24,400 | 168 | 242 | --- | 5,100 | 120 |
| 4 | 104 | 165 | 143 | 122 | 285 | 1,660 | 24,200 | 167 | 241 | --- | 2,840 | 119 |
| 5 | 100 | 150 | 136 | 121 | 499 | 3,240 | 23,500 | 174 | 260 | 264 | 1,980 | 121 |
| 6 | 98 | 141 | 132 | 139 | 351 | 4,960 | 21,900 | 183 | 305 | 271 | 462 | 121 |
| 7 | 97 | 156 | 130 | 179 | 367 | 6,580 | 18,600 | 191 | 380 | 290 | 374 | 120 |
| 8 | 98 | 147 | 140 | 203 | 244 | 7,850 | 14,300 | 221 | 389 | 275 | 328 | 121 |
| 9 | 99 | 137 | 157 | 175 | 209 | 6,780 | 9,300 | 211 | 376 | --- | 169 | 124 |
| 10 | 174 | 132 | 203 | 157 | 184 | 5,990 | 4,550 | 198 | 365 | --- | 167 | 126 |
| 11 | 168 | 126 | 176 | 143 | 177 | 5,060 | 2,430 | 205 | 380 | 198 | 164 | 125 |
| 12 | 134 | 127 | 471 | 142 | 171 | 4,080 | 1,880 | 210 | 357 | 196 | 142 | 124 |
| 13 | 120 | --- | 2,860 | 321 | 179 | 3,290 | 390 | 195 | 318 | 200 | 139 | 123 |
| 14 | 112 | 138 | 8,700 | 390 | 173 | 2,930 | 174 | --- | 321 | 217 | 139 | 122 |
| 15 | 109 | 154 | 6,980 | 393 | 171 | 1,500 | 0 | 2,100 | 308 | 207 | 135 | 118 |
| 16 | 104 | 349 | 2,600 | 2,020 | 164 | 1,070 | 0 | 13,500 | 238 | --- | 133 | 115 |
| 17 | 101 | 222 | 392 | 25,700 | 157 | 768 | 0 | 16,800 | 221 | --- | 131 | 113 |
| 18 | 99 | 199 | 215 | 36,700 | 153 | 0 | 0 | 16,400 | 233 | 207 | 131 | 116 |
| 19 | 98 | 172 | 235 | 37,000 | 149 | 0 | 0 | 14,000 | 292 | 210 | 130 | 128 |
| 20 | 97 | --- | 213 | 33,100 | 145 | 0 | 0 | 10,900 | 290 | 744 | 131 | 118 |
| 21 | 96 | 149 | 168 | 28,200 | 143 | 0 | 0 | 7,590 | 281 | 2,580 | 134 | 115 |
| 22 | 96 | 142 | 144 | 29,900 | 141 | 0 | 0 | 5,280 | 290 | 4,880 | 135 | 115 |
| 23 | 95 | 136 | 138 | 28,400 | 138 | 0 | 0 | 3,440 | 315 | 8,190 | 137 | 118 |
| 24 | 98 | 124 | 135 | 24,200 | 132 | 0 | 0 | 2,000 | 296 | 11,400 | 135 | 119 |
| 25 | 111 | --- | 145 | 22,200 | 124 | 0 | 0 | 612 | 283 | 14,700 | 136 | 118 |
| 26 | 119 | 128 | 140 | 18,600 | 122 | 0 | 0 | 476 | 254 | 18,200 | 135 | 115 |
| 27 | 151 | 130 | 135 | 13,900 | 127 | 0 | 0 | 225 | 248 | 20,700 | 135 | 133 |
| 28 | 134 | 129 | 146 | 9,940 | 131 | 0 | 177 | 221 | 262 | 20,000 | 132 | 124 |
| 29 | 131 | 123 | 148 | 6,320 | --- | 0 | 170 | 211 | 290 | 17,900 | 132 | 114 |
| 30 | 124 | 131 | 139 | 3,800 | --- | 0 | 166 | 202 | 313 | 15,700 | 131 | 113 |
| 31 | 125 | --- | 128 | 1,970 | --- | 7,800 | --- | 186 | --- | 13,400 | 128 | --- |
| Mean | 115 | --- | 839 | 10,500 | 229 | 2,070 | 6,160 | --- | 293 | --- | 1,080 | 120 |
| Max | 174 | --- | 8,700 | 37,000 | 797 | 7,850 | 24,400 | --- | 389 | --- | 11,100 | 133 |
| Min | 95 | --- | 128 | 121 | 122 | 0 | 0 | --- | 213 | --- | 128 | 113 |
| Monthend elevation, in feet, at 2400 hours | 922.60 | 930.90 | 923.52 | 960.87 | 922.87 | 1,062.98 | 927.05 | 930.40 | 935.90 | 1,050.11 | 922.55 | 920.91 |
| Monthend contents, in acre-feet | 125 | 205 | 131 | 1,060 | 127 | 15,200 | 161 | 197 | 282 | 11,900 | 124 | 113 |
| Change in Contents, in acre-feet | -30 | +80 | -74 | +929 | -933 | +15,073 | -15,039 | +36 | +85 | +11,618 | -11,776 | -11 |

| | Calendar Year 2010 | Water Year 2011 |
|---|--------------------|-----------------|
| Change in Contents, in acre-feet | +131 | -42 |