

| Project >> | MCDB | ARDB | LIB | DCDB | HGH | GCL | BRN | DWR |
|-----------------------|---------|--------|--------|--------|--------|--------|--------|--------|
| Project Limits | | | | | | | | |
| Maximum Elevation, ft | 2475.0 | 1446.0 | 2459.0 | 1892.0 | 3560.0 | 1290.0 | 2077.0 | 1600.0 |
| Minimum Elevation, ft | 2320.0 | 1378.0 | 2287.0 | 1794.2 | 3336.0 | 1208.0 | 1976.0 | 1445.0 |
| Usable Storage, kaf | 12053.3 | 7361.6 | 4979.5 | 1398.6 | 2981.0 | 5185.3 | 975.3 | 2015.7 |
| Usable Storage, ksfd | 6076.9 | 3711.5 | 2510.5 | 705.1 | 1502.9 | 2614.3 | 491.7 | 1016.3 |

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| Feb. 28 Project Conditions | | | | | | | | |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Elevation, ft (MSL) | 2382.4 | 1418.1 | 2399.2 | 1811.7 | 3513.6 | 1259.4 | 2033.1 | 1521.8 |
| Draft, kaf | 8345.0 | 3417.4 | 2407.2 | 1224.4 | 994.6 | 2272.8 | 514.7 | 1206.3 |
| Usable Stor. less Draft, kaf | 3708.4 | 3944.2 | 2572.3 | 174.1 | 1986.4 | 2912.5 | 460.6 | 809.4 |

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| To Meet Mar. 31 Flood Control Requirements | | | | | | | | |
|---|-----|-------|-------|------|-----|-----|-----|-------|
| Elevation Change , ft | - | -4.0 | -5.7 | -4.0 | 0.0 | 0.0 | 0.0 | -21.7 |
| Draft Change , kaf | 0.0 | 182.6 | 179.4 | 45.6 | 0.0 | 0.0 | 0.0 | 266.6 |

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| 1-Mar Water Supply Forecast | | | | | | | | | |
|--------------------------------------|--------|--------|--------|--------|--------|--------|-------|--------|--------|
| Project >> | MCDB | ARDB | LIB | DCDB | HGH | GCL | BRN | DWR | TDA |
| Apr-Jul, kaf | - | - | - | - | - | - | 5500 | 2810 | - |
| Apr-Jul %-Normal 2 | - | - | - | - | - | - | 87.1% | 104.7% | - |
| Apr-Jul Change , kaf 1 | - | - | - | - | - | - | 240 | 72 | - |
| Apr-Aug, kaf | 11716 | 23480 | 6558 | 2091 | - | 61300 | - | - | 94300 |
| Apr-Aug %-Normal 2 | 101.1% | 103.7% | 103.5% | 102.4% | - | 101.7% | - | - | 101.3% |
| Apr-Aug Change , kaf 1 | -6 | -157 | 44 | 0 | - | 2100 | - | - | 2500 |
| May-Sep, kaf | - | - | - | - | 1876 | - | - | - | - |
| May-Sep %-Normal 2 | - | - | - | - | 102.2% | - | - | - | - |
| May-Sep Change , kaf 1 | - | - | - | - | 17 | - | - | - | - |

| System Flood Control Requirements, Drafts | | | | | | | | | |
|--|------|------|----------|------|----------|------|-----|---------|---------|
| Project >> | MCDB | ARDB | LIB VarQ | DCDB | HGH VarQ | GCL | BRN | DWR Sys | DWR Loc |
| Jan. 31, kaf | 1662 | 1703 | 2039 | 857 | 377 | 0 | 0 | 997 | 1015 |
| Feb. 28, kaf | 2810 | 2603 | 2418 | 1215 | 505 | 0 | 363 | 1197 | 1206 |
| Mar. 15, kaf | - | - | 2587 | 1270 | - | - | - | - | - |
| Mar. 31, kaf | 4080 | 3600 | 2587 | 1270 | 657 | 2222 | 448 | 1473 | 1241 |
| Apr. 15, kaf | 4080 | 3600 | 2587 | 1270 | 725 | 3371 | 485 | 1668 | 1138 |
| Apr. 30, kaf | 4080 | 3600 | 2587 | 1270 | 793 | 4137 | 520 | 1396 | - |

| System Flood Control Requirements, Elevations | | | | | | | | | |
|--|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Jan. 31, ft | - | 1430.5 | 2410.0 | 1839.3 | 3543.6 | 1290.0 | 2077.0 | 1537.4 | 1536.1 |
| Feb. 28/29, ft | - | 1422.9 | 2398.9 | 1812.5 | 3537.7 | 1290.0 | 2047.9 | 1522.5 | 1521.8 |
| Mar. 15, ft | - | - | 2393.5 | 1807.7 | - | - | - | - | - |
| Mar. 31, ft | - | 1414.1 | 2393.5 | 1807.7 | 3530.5 | 1260.1 | 2039.8 | 1500.1 | 1519.1 |
| Apr. 15, ft | - | 1416.5 | 2393.5 | 1807.7 | 3527.2 | 1242.3 | 2036.1 | 1481.9 | 1526.9 |
| Apr. 30, ft | - | 1416.5 | 2393.5 | 1807.7 | 3523.9 | 1229.1 | 2032.6 | 1506.7 | - |

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| Flood Control Summary at The Dalles, Oregon | | | |
|--|--------|--|-------|
| Apr-Aug, kaf | 94300 | | |
| Apr-Aug %-Normal | 101.3% | Upstream Storage Adjustment, kaf, Chart #2 (3) = | 23981 |
| Apr-Aug Change , kaf (1) | 2500 | Initial Controlled Flow, ICF, kcfs, Chart #1 (3) = | 356.4 |
| May-Aug, kaf | 79941 | Estimated Unregulated Peak Discharge, kcfs, Chart #1-A (3) = | 585.4 |

- Notes:**
- 1 Change in official forecast from the previous month.
 - 2 Normal Runoff Volumes based on 71-Year, 1929-1999, averages for MCDB, ARDB, LIB, DCDB, DWR as reported in the 2000 Level Modified Streamflow Report, 2004. Normal Runoff Volumes based on 30-Year, 1971-2000, averages for HGH, GCL, BRN, and TDA as determined by the Northwest River Forecast Center.
 - 3 Columbia River Treaty Flood Control Operating Plan, Corps of Engineers, Northwestern Division, 2003
 - 4 ARDB flood control space requirements based on deviation request from BC Hydro, and adjusted from 1446.0 for 31-Jul.

Questions? Contact Ken Soderlind, 503-808-3950; John McCoskery, 503-808-3951; or Patti Low, 503-808-3958.

Summary of Columbia River Flood Control, 1-Mar

WY 2008

| Maximum Flood Control Shift from DWR to GCL | | | | | | | | | | | | Maximum Flood Control Shift from BRN to GCL | | | | | | | |
|---|----------------------|---------------------|-------------------------|----------|-------|-----------|-----------|-------------|---------------|---------------------|-------------------------|---|-----------|--------------------|------------------|---------------|-------------------------|-----------------------------|--|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | |
| | GCL | GCL | GCL | DWR | DWR | DWR | DWR / GCL | DWR | DWR | GCL | GCL | GCL | BRN | BRN / GCL | BRN | BRN | GCL | GCL | |
| | Non-Shifted FC Draft | Maximum Draft Limit | Maximum Shift Potential | FC Draft | | FC Shift | | Shifted FC | | Shifted FC | | Maximum Shift Potential remaining | FC Shift | | Shifted FC Draft | | Shifted FC | | |
| | | | | System | Local | Potential | Allowable | Draft | Elevation | Draft (w/DWR Shift) | Elevation (w/DWR Shift) | | Potential | Allowable FC Shift | Draft | Elevation | Draft (w/DWR+BRN Shift) | Elevation (w/DWR+BRN Shift) | |
| <i>Notes</i> | - | a | 2-1 | - | - | 4-5 | Min 3,6 | 4-7 | - | 1+7 | - | 2-10 | - | Min 12,13 | 13-14 | - | 10+14 | - | |
| <i>Units</i> | kaf | kaf | kaf | kaf | kaf | kaf | kaf | kaf | ft | kaf | ft | kaf | ft | kaf | kaf | ft | kaf | ft | |
| Jan. 31 | 0 | 2745 | 2745 | 997 | 1015 | 0 | 0 | 1015 | 1536.1 | 0 | 1290.0 | 2745 | 0 | 0 | 0 | 2077.0 | 0 | 1290.0 | |
| Feb. 28 | 0 | 2745 | 2745 | 1197 | 1206 | 0 | 0 | 1206 | 1521.8 | 0 | 1290.0 | 2745 | 0 | 0 | 363 | 2047.9 | 0 | 1290.0 | |
| Mar. 31 | 2222 | 4355 | 2133 | 1473 | 1241 | 232 | 232 | 1241 | 1519.1 | 2454 | 1256.7 | 1901 | 0 | 0 | 448 | 2039.8 | 2454 | 1256.7 | |
| Apr. 15 | 3371 | 3639 | 268 | 1668 | 1138 | 529 | 268 | 1400 | 1506.4 | 3639 | 1237.9 | 0 | 0 | 0 | 485 | 2036.1 | 3639 | 1237.9 | |
| Apr. 30 b | 4137 | 4137 | 0 | 1396 | - | 0 | 0 | 1396 | 1506.7 | 4137 | 1229.1 | 0 | 0 | 0 | 520 | 2032.6 | 4137 | 1229.1 | |

Notes: Under certain conditions the required flood control space at DWR and BRN may be shifted to GCL prior to 30-April. The shifted rule curve shown above represents the maximum allowable flood control shift(s) for the current water year based on the current month's flood control requirements for each project and evacuation limitations at GCL; however, the actual volume shifted to GCL on any date is ultimately determined by the Bureau of Reclamation. The shift of volume for DWR to GCL has priority over the shift of volume from BRN to GCL in cases when GCL cannot accept the total combined volume.

- a** The potential flood control shift to GCL is limited to the operation at GCL above elevation 1252.3 ft (2744 kaf draft) at the end of February and elevation 1225.0 ft (4355 kaf draft) at end of March and 15-Apr, and also limited by the GCL maximum draft rate limit. All projects are to be at their non-shifted flood control requirements at the end of Apr.
- b** No shift is allowed, all projects to be back to their non-shifted flood control requirement by 30-April.

Questions? Contact Ken Soderlind, 503-808-3950; John McCoskery, 503-808-3951; or Patti Low, 503-808-3958.