

Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR
<b>Project Limits</b>								
Maximum Elevation, ft	2475.0	1444.0	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	7100.0	4979.5	1398.6	2981.0	5185.3	975.3	2015.7
Usable Storage, ksfd	6076.9	3579.6	2510.5	705.1	1502.9	2614.3	491.7	1016.3

<b>Dec. 31 Project Conditions</b>								
Elevation, ft (MSL)	2436.1	1429.1	2411.9	1867.9	3538.7	1284.6	2069.2	1527.3
Draft, kaf	3906.3	1868.3	1967.6	411.7	483.6	435.0	109.0	1133.6
Usable Stor. less Draft, kaf	8147.0	5231.7	3012.0	986.9	2497.4	4750.3	866.3	882.1

<b>To Meet Jan. 31 Flood Control Requirements</b>								
Elevation <b>Change</b> , ft	-	-	-	-23.1	-	-	-	-1.1
Draft <b>Change</b> , kaf	-	-	-	364.7	-	-	-	14.4

<b>1-Jan Water Supply Forecast</b>									
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR	TDA
Apr-Jul, kaf	-	-	-	-	-	-	7230	3340	-
Apr-Jul %-Normal <b>2</b>	-	-	-	-	-	-	114.5%	124.5%	-
Apr-Jul <b>Change</b> , kaf <b>1</b>	-	-	-	-	-	-	-	-	-
Apr-Aug, kaf	10550	21012	5610	1846	-	56500	-	-	90600
Apr-Aug %-Normal <b>2</b>	91.0%	92.8%	88.5%	90.4%	-	93.7%	-	-	97.3%
Apr-Aug <b>Change</b> , kaf <b>1</b>	-	-	-	-	-	-	-	-	-
May-Sep, kaf	-	-	-	-	1944	-	-	-	-
May-Sep %-Normal <b>2</b>	-	-	-	-	105.9%	-	-	-	-
May-Sep <b>Change</b> , kaf <b>1</b>	-	-	-	-	-	-	-	-	-

<b>System Flood Control Requirements, Drafts</b>									
Project >>	MCDB	ARDB	LIB VarQ	DCDB	HGH VarQ	GCL	BRN	DWR Sys	DWR Loc
Jan. 31, kaf	1662	1703	1488	776	415	0	0	1148	1148
Feb. 28, kaf	2810	2603	1155	1104	564	0	400	1568	1546
Mar. 15, kaf	-	-	988	1116	-	-	-	-	-
Mar. 31, kaf	4080	3600	988	1116	730	1389	478	2016	1689
Apr. 15, kaf	4080	3600	988	1116	810	2601	528	2016	1631
Apr. 30, kaf	4080	3600	988	1116	890	3599	556	1733	-

<b>System Flood Control Requirements, Elevations</b>									
Jan. 31, ft	-	1430.5	2424.5	1844.8	3541.8	1290.0	2077.0	1526.2	1526.2
Feb. 28, ft	-	1422.9	2432.7	1821.5	3534.9	1290.0	2044.5	1491.5	1493.5
Mar. 15, ft	-	-	2436.7	1820.5	-	-	-	-	-
Mar. 31, ft	-	1414.1	2436.7	1820.5	3527.0	1272.0	2036.8	1445.0	1479.7
Apr. 15, ft	-	1414.1	2436.7	1820.5	3523.1	1254.5	2031.7	1445.0	1485.5
Apr. 30, ft	-	1414.1	2436.7	1820.5	3519.0	1238.5	2028.8	1475.2	-

<b>Flood Control Summary at The Dalles, Oregon</b>			
Apr-Aug, kaf	90600		
Apr-Aug %-Normal	97.3%		Upstream Storage Adjustment, kaf, Chart #2 <b>(3)</b> = 24085
Apr-Aug <b>Change</b> , kaf <b>(1)</b>	-		Initial Controlled Flow, ICF, kcfs, Chart #1 <b>(3)</b> = 332.9
May-Aug, kaf	76804		Estimated Unregulated Peak Discharge, kcfs, Chart #1-A <b>(3)</b> = 559

- 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 See Charts 1 and 2 of Columbia River Treaty Flood Control Operating Plan, Corps of Engineers, **Northwestern Division, Corps of Engineers**.

**Questions?** Contact Maler Annamalai, 503-808-3994, or Bill Proctor, 503-808-3952.

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>	-	<b>a</b>	2-1	-	-	4-5	Min 3,6	4-7	-	1+7	-	2-10	-	Min 12,13	-	-	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	1148	1148	0	0	<b>1148</b>	<b>1526.2</b>	<b>0</b>	<b>1290.0</b>	2745	0	0	0	<b>2077.0</b>	<b>0</b>	<b>1290.0</b>	
Feb. 28	0	2745	2745	1568	1546	22	22	<b>1546</b>	<b>1493.5</b>	<b>22</b>	<b>1289.7</b>	2723	0	0	400	<b>2044.5</b>	<b>22</b>	<b>1289.7</b>	
Mar. 31	1389	3179	1790	2016	1689	327	327	<b>1689</b>	<b>1479.7</b>	<b>1716</b>	<b>1267.4</b>	1463	0	0	478	<b>2036.8</b>	<b>1716</b>	<b>1267.4</b>	
Apr. 15	2601	3088	487	2016	1631	385	385	<b>1631</b>	<b>1485.5</b>	<b>2986</b>	<b>1248.5</b>	102	0	0	528	<b>2031.7</b>	<b>2986</b>	<b>1248.5</b>	
Apr. 30 <b>b</b>	3599	3599	0	1733	-	0	0	<b>1733</b>	<b>1475.2</b>	<b>3599</b>	<b>1238.5</b>	0	0	0	<b>556</b>	<b>2028.8</b>	<b>3599</b>	<b>1238.5</b>	

**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 Maler Annamalai, 503-808-3994, or Bill Proctor, 503-808-3952.