

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>Feb. 29 Project Conditions</b>								
Elevation, ft (MSL)	2391.9	1411.0	2407.9	1812.3	3531.3	1276.7	2054.3	1529.4
Draft, kaf	7665.7	3938.7	2110.5	1217.8	641.2	1039.4	291.8	1105.6
Usable Stor. less Draft, kaf	4387.6	3161.2	2869.0	180.7	2339.8	4145.9	683.5	910.1

<b>To Meet Mar. 31 Flood Control Requirements</b>								
Elevation <b>Change</b> , ft	-	-	-	-4.6	-	-6.6	-11.4	-6.6
Draft <b>Change</b> , kaf	-	-	-	52.2	-	487.1	124.6	87.9

<b>1-Mar Water Supply Forecast</b>									
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR	TDA
Apr-Jul, kaf	-	-	-	-	-	-	5211	2585	-
Apr-Jul %-Normal <b>2</b>	-	-	-	-	-	-	82.5%	96.3%	-
Apr-Jul <b>Change</b> , kaf <b>1</b>	-	-	-	-	-	-	225	81	-
Apr-Aug, kaf	12085	23998	5635	2015	-	60853	-	-	90604
Apr-Aug %-Normal <b>2</b>	104.3%	106.0%	88.9%	98.7%	-	100.9%	-	-	97.3%
Apr-Aug <b>Change</b> , kaf <b>1</b>	-129	-155	-79	-24	-	4065	-	-	6150
May-Sep, kaf	-	-	-	-	1739	-	-	-	-
May-Sep %-Normal <b>2</b>	-	-	-	-	94.8%	-	-	-	-
May-Sep <b>Change</b> , kaf <b>1</b>	-	-	-	-	-42	-	-	-	-

<b>System Flood Control Requirements, Drafts</b>									
Project >>	MCDB	ARDB	LIB VarQ	DCDB	HGH VarQ	GCL	BRN	DWR Sys	DWR Loc
Jan. 31, kaf	1474	1551	1419	843	322	0	0	918	931
Feb. 28, kaf	2824	2603	1300	1215	451	0	347	1047	1059
Mar. 15, kaf	-	-	1030	1270	-	-	-	-	-
Mar. 31, kaf	4080	3600	1030	1270	511	1527	416	1193	1041
Apr. 15, kaf	4080	3600	1030	1270	554	2739	438	1327	914
Apr. 30, kaf	4080	3600	1030	1270	598	3692	455	1197	-

<b>System Flood Control Requirements, Elevations</b>									
Jan. 31, ft	-	1431.7	2426.2	1840.3	3546.0	1290.0	2077.0	1543.0	1542.1
Feb. 29, ft	-	1422.9	2429.2	1812.5	3540.2	1290.0	2049.5	1533.7	1532.9
Mar. 15, ft	-	-	2435.7	1807.7	-	-	-	-	-
Mar. 31, ft	-	1414.1	2435.7	1807.7	3537.4	1270.1	2042.9	1522.8	1534.2
Apr. 15, ft	-	1414.1	2435.7	1807.7	3535.4	1252.4	2040.8	1512.3	1543.3
Apr. 30, ft	-	1414.1	2435.7	1807.7	3533.3	1237.0	2039.1	1522.5	-

<b>Flood Control Summary at The Dalles, Oregon</b>			
Apr-Aug, kaf	90604		
Apr-Aug %-Normal	97.3%		Upstream Storage Adjustment, kaf, Chart #2 <b>(3)</b> = 23441
Apr-Aug <b>Change</b> , kaf <b>(1)</b>	6150		Initial Controlled Flow, ICF, kcfs, Chart #1 <b>(3)</b> = 337.8
May-Aug, kaf	76807		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 Kasi Rodgers, 503-808-3950.

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)	
Notes	-	<b>a</b>	2-1	-	-	4-5	Min 3,6	4-7	-	1+7	-	2-10	-	Min 12,13	-	-	10+14	-	
Units	kaf	kaf	kaf	kaf	kaf	kaf	kaf	kaf	ft	kaf	ft	kaf	ft	kaf	kaf	ft	kaf	ft	
Jan. 31	0	2745	2745	918	931	0	0	<b>931</b>	<b>1542.1</b>	<b>0</b>	<b>1290.0</b>	2745	0	0	0	<b>2077.0</b>	<b>0</b>	<b>1290.0</b>	
Feb. 29	0	2745	2745	1047	1059	0	0	<b>1059</b>	<b>1532.9</b>	<b>0</b>	<b>1290.0</b>	2745	0	0	347	<b>2049.5</b>	<b>0</b>	<b>1290.0</b>	
Mar. 31 <b>c</b>	1527	3775	2249	1193	1041	153	153	<b>1073</b>	<b>1531.8</b>	<b>1647</b>	<b>1268.4</b>	2096	0	0	416	<b>2042.9</b>	<b>1647</b>	<b>1268.4</b>	
Apr. 15 <b>c</b>	2739	3060	321	1327	914	414	321	<b>1327</b>	<b>1512.3</b>	<b>2739</b>	<b>1252.4</b>	0	0	0	438	<b>2040.8</b>	<b>2739</b>	<b>1252.4</b>	
Apr. 30 <b>b</b>	3692	3692	0	1197	-	0	0	<b>1197</b>	<b>1522.5</b>	<b>3692</b>	<b>1237.0</b>	0	0	0	<b>455</b>	<b>2039.1</b>	<b>3692</b>	<b>1237.0</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.
- c** Of the allowable shift from DWR to GCL, only part of the Mar 31 volume, and none of the Apr 15 volume was shifted.

**Questions?** Contact Maler Annamalai, 503-808-3994, or Kasi Rodgers, 503-808-3950.