

Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR
<b>Project Limits</b>								
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

<b>Mar. 31 Project Conditions</b>								
Elevation, ft (MSL)	2400.3	1409.1	2403.5	1800.0	3508.6	1281.3	2057.6	1540.5
Draft, kaf	7031.6	4149.3	2264.5	1349.6	1088.4	691.7	254.3	953.7
Usable Stor. less Draft, kaf	5021.8	2950.7	2715.0	49.0	1892.6	4493.6	721.0	1062.0

<b>To Meet Apr. 30 Flood Control Requirements</b>								
Elevation <b>Change</b> , ft	-	-	-	-	-	-23.6	-4.4	-15.1
Draft <b>Change</b> , kaf	-	-	-	-	-	1698.4	51.0	205.6

<b>1-Apr Water Supply Forecast</b>									
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR	TDA
Apr-Jul, kaf	-	-	-	-	-	-	4970	2662	-
Apr-Jul %-Normal <b>2</b>	-	-	-	-	-	-	78.7%	99.2%	-
Apr-Jul <b>Change</b> , kaf <b>1</b>	-	-	-	-	-	-	1620	200	-
Apr-Aug, kaf	10427	21082	5672	1859	-	55400	-	-	82400
Apr-Aug %-Normal <b>2</b>	90.0%	93.1%	89.5%	91.0%	-	91.9%	-	-	88.5%
Apr-Aug <b>Change</b> , kaf <b>1</b>	-155	-258	376	-8	-	2300	-	-	7600
May-Sep, kaf	-	-	-	-	1817	-	-	-	-
May-Sep %-Normal <b>2</b>	-	-	-	-	99.0%	-	-	-	-
May-Sep <b>Change</b> , kaf <b>1</b>	-	-	-	-	120	-	-	-	-

<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	1421	857	366	0	0	1118	1124
Feb. 28, kaf	2771	2570	1000	1215	509	0	249	1156	1170
Mar. 15, kaf	-	-	800	1136	-	-	-	-	-
Mar. 31, kaf	3060	2716	739	1136	467	537	35	1057	923
Apr. 15, kaf	4080	3600	1092	1129	652	1214	331	1442	991
Apr. 30, kaf	4080	3600	1092	1129	709	2390	305	1159	-

<b>System Flood Control Requirements, Elevations</b>									
Jan. 31, ft	-	1430.5	2426.2	1839.3	3544.1	1290.0	2077.0	1528.5	1528.0
Feb. 28, ft	-	1423.2	2436.4	1812.5	3537.5	1290.0	2058.1	1525.6	1524.5
Mar. 15, ft	-	-	2441.1	1812.5	-	-	-	-	-
Mar. 31, ft	-	1421.9	2442.6	1818.9	3539.5	1283.3	2074.6	1532.9	1542.7
Apr. 15, ft	-	1414.1	2434.2	1819.5	3530.8	1274.3	2050.9	1502.8	1537.8
Apr. 30, ft	-	1414.1	2434.2	1819.5	3528.0	1257.7	2053.2	1525.4	-

<b>Flood Control Summary at The Dalles, Oregon</b>			
Apr-Aug, kaf	82400		
Apr-Aug %-Normal	88.5%	Upstream Storage Adjustment, kaf, Chart #2 (3) =	21052
Apr-Aug <b>Change</b> , kaf (1)	7600	Initial Controlled Flow, ICF, kcfs, Chart #1 (3) =	303.5
May-Aug, kaf	69853	Estimated Unregulated Peak Discharge, kcfs, Chart #1-A (3) =	500.9

- 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 Ken Soderlind, 503-808-3950; or Patti Low, 503-808-3958.

Summary of Columbia River Flood Control, 1-Apr

WY 2009

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	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	1118	1124	0	0	<b>1124</b>	<b>1528.0</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	1156	1170	0	0	<b>1170</b>	<b>1524.5</b>	<b>0</b>	<b>1290.0</b>	2745	249	249	0	<b>2077.0</b>	<b>249</b>	<b>1286.9</b>
Mar. 31	537	3556	3019	1057	923	134	134	<b>923</b>	<b>1542.7</b>	<b>671</b>	<b>1281.6</b>	2885	35	35	0	<b>2077.0</b>	<b>706</b>	<b>1281.1</b>
Apr. 15	1214	2303	1089	1442	991	451	451	<b>991</b>	<b>1537.8</b>	<b>1665</b>	<b>1268.1</b>	638	331	331	0	<b>2077.0</b>	<b>1996</b>	<b>1263.4</b>
Apr. 30 <b>b</b>	2390	2390	0	1159	-	0	0	<b>1159</b>	<b>1525.4</b>	<b>2390</b>	<b>1257.7</b>	0	0	0	<b>305</b>	<b>2053.2</b>	<b>2390</b>	<b>1257.7</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 Ken Soderlind, 503-808-3950; or Patti Low, 503-808-3958.