

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)	2436.2	1421.2	2412.5	1859.5	3541.4	1281.2	2071.3	1521.6
Draft, kaf	3905.4	2801.2	1946.7	548.1	424.6	703.2	81.0	1209.0
Usable Stor. less Draft, kaf	8148.0	4298.8	3032.9	850.5	2556.4	4482.1	894.3	806.7

<b>To Meet Jan. 31 Flood Control Requirements</b>								
Elevation <b>Change</b> , ft	-	-	-	-19.7	-	-	-	-
Draft <b>Change</b> , kaf	-	-	-	302.3	-	-	-	-

<b>1-Jan Water Supply Forecast</b>									
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR	TDA
Apr-Jul, kaf	-	-	-	-	-	-	4783	2473	-
Apr-Jul %-Normal <b>2</b>	-	-	-	-	-	-	75.8%	92.2%	-
Apr-Jul <b>Change</b> , kaf <b>1</b>	-	-	-	-	-	-	-	-	-
Apr-Aug, kaf	11741	22596	5429	1987	-	44509	-	-	77401
Apr-Aug %-Normal <b>2</b>	101.3%	99.8%	85.7%	97.3%	-	73.8%	-	-	83.2%
Apr-Aug <b>Change</b> , kaf <b>1</b>	-	-	-	-	-	-	-	-	-
May-Sep, kaf	-	-	-	-	1691	-	-	-	-
May-Sep %-Normal <b>2</b>	-	-	-	-	92.2%	-	-	-	-
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	1486	1551	1400	850	322	0	0	918	931
Feb. 28, kaf	2476	2315	1000	1206	388	0	293	1030	1039
Mar. 15, kaf	-	-	800	1257	-	-	-	-	-
Mar. 31, kaf	3570	3160	779	1257	460	537	226	1070	934
Apr. 15, kaf	3570	3160	764	1257	495	537	186	1160	794
Apr. 30, kaf	3570	3160	750	1257	530	1075	118	1115	-

<b>System Flood Control Requirements, Elevations</b>									
Jan. 31, ft	-	1431.7	2426.7	1839.8	3546.0	1290.0	2077.0	1543.0	1542.1
Feb. 28, ft	-	1425.4	2436.4	1813.3	3543.1	1290.0	2054.2	1534.9	1534.3
Mar. 15, ft	-	-	2441.1	1808.8	-	-	-	-	-
Mar. 31, ft	-	1418.1	2441.6	1808.8	3539.8	1283.3	2059.9	1532.0	1541.9
Apr. 15, ft	-	1418.1	2442.0	1808.8	3538.2	1283.3	2063.3	1525.3	1551.7
Apr. 30, ft	-	1418.1	2442.3	1808.8	3536.6	1276.2	2068.5	1528.7	-

<b>Flood Control Summary at The Dalles, Oregon</b>			
Apr-Aug, kaf	77401		
Apr-Aug %-Normal	83.2%		Upstream Storage Adjustment, kaf, Chart #2 <b>(3)</b> = 18971
Apr-Aug <b>Change</b> , kaf <b>(1)</b>	-		Initial Controlled Flow, ICF, kcfs, Chart #1 <b>(3)</b> = 287.3
May-Aug, kaf	65615		Estimated Unregulated Peak Discharge, kcfs, Chart #1-A <b>(3)</b> = 465

- 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.

## Summary of Columbia River Flood Control, 1-Jan

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
	GCL	GCL	GCL	DWR	DWR	DWR	DWR / GCL	DWR	DWR	GCL	GCL	GCL	BRN	BRN / GCL	BRN	BRN
	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	
				System	Local	Potential	Allowable	Draft	Elevation	Draft (w/DWR Shift)	Elevation (w/DWR Shift)		Potential	Allowable FC Shift	Draft	Elevation
<i>Notes</i>	-	<b>a</b>	2-1	-	-	4-5	Min 3,6	4-7	-	1+7	-	2-10	-	Min 12,13	-	-
<i>Units</i>	kaf	kaf	kaf	kaf	kaf	kaf	kaf	kaf	ft	kaf	ft	kaf	ft	kaf	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>
Feb. 28	0	2745	2745	1030	1039	0	0	<b>1039</b>	<b>1534.3</b>	<b>0</b>	<b>1290.0</b>	2745	0	0	293	<b>2054.2</b>
Mar. 31	537	3164	2627	1070	934	136	136	<b>934</b>	<b>1541.9</b>	<b>673</b>	<b>1281.5</b>	2491	0	0	226	<b>2059.9</b>
Apr. 15	537	2288	1751	1160	794	365	365	<b>794</b>	<b>1551.7</b>	<b>902</b>	<b>1278.5</b>	1386	0	0	186	<b>2063.3</b>
Apr. 30 <b>b</b>	1075	1075	0	1115	-	0	0	<b>1115</b>	<b>1528.7</b>	<b>1075</b>	<b>1276.2</b>	0	0	0	<b>118</b>	<b>2068.5</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 Kasi Rodgers, 503-808-3950.

WY 2012

GCL	
17	18
GCL	GCL
Shifted FC	
Draft (w/DWR+ BRN Shift)	Elevation (w/DWR+ BRN Shift)
10+14	-
kaf	ft
<b>0</b>	<b>1290.0</b>
<b>0</b>	<b>1290.0</b>
<b>673</b>	<b>1281.5</b>
<b>902</b>	<b>1278.5</b>
<b>1075</b>	<b>1276.2</b>