

# Summary of Columbia River Flood Control, 1-Apr

WY      2008

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	
(4)									
<b>Mar. 31 Project Conditions</b>									
Elevation, ft (MSL)	2370.1	1414.9	2396.2	1800.2	3507.0	1251.0	2033.3	1512.6	
Draft, kaf	9178.3	3775.7	2503.4	1347.7	1118.5	2828.9	512.8	1324.2	
Usable Stor. less Draft, kaf	2875.0	3585.9	2476.2	50.9	1862.4	2356.4	462.5	691.5	
(4)									
<b>To Meet Apr. 30 Flood Control Requirements</b>									
Elevation Change, ft	-	0.0	0.0	0.0	0.0	-22.2	0.0	-18.9	
Draft Change, kaf	0.0	0.0	0.0	0.0	0.0	1325.1	0.0	219.8	
(4)									
<b>1-Apr Water Supply Forecast</b>									
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR	TDA
Apr-Jul, kaf	-	-	-	-	-	-	5400	3010	-
Apr-Jul %-Normal <b>2</b>	-	-	-	-	-	-	85.5%	112.2%	-
Apr-Jul Change, kaf <b>1</b>	-	-	-	-	-	-	-100	200	-
Apr-Aug, kaf	11526	22945	6396	2059	-	61600	-	-	94700
Apr-Aug %-Normal <b>2</b>	99.5%	101.3%	100.9%	100.8%	-	102.2%	-	-	101.7%
Apr-Aug Change, kaf <b>1</b>	-190	-536	-162	-32	-	300	-	-	400
May-Sep, kaf	-	-	-	-	1913	-	-	-	-
May-Sep %-Normal <b>2</b>	-	-	-	-	104.2%	-	-	-	-
May-Sep Change, kaf <b>1</b>	-	-	-	-	37	-	-	-	-
<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	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	2323	1270	771	3393	474	1958	1336
Apr. 30, kaf	4080	3600	2323	1270	845	4154	508	1544	-
<b>System Flood Control Requirements, Elevations</b>									
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	2401.8	1807.7	3525.0	1242.0	2037.2	1451.3	1511.6
Apr. 30, ft	-	1416.5	2401.8	1807.7	3521.3	1228.8	2033.8	1493.7	-
(4)									
<b>Flood Control Summary at The Dalles, Oregon</b>									
Apr-Aug, kaf	94700								
Apr-Aug %-Normal	101.7%								
Apr-Aug Change, kaf <b>(1)</b>	400								
May-Aug, kaf	80280								
Upstream Storage Adjustment, kaf, Chart #2 <b>(3)</b> = 24264									
Initial Controlled Flow, ICF, kcfs, Chart #1 <b>(3)</b> = 356.8									
Estimated Unregulated Peak Discharge, kcfs, Chart #1-A <b>(3)</b> = 588.3									

**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.

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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	-	a	2-1	-	-	4-5	Min 3,6	4-7	-	1+7	-	2-10	-	Min 12,13	13-14	-	10+14	-	
Units	kaf	kaf	kaf	kaf	kaf	kaf	kaf	kaf	ft	kaf	ft	kaf	ft	kaf	kaf	kaf	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	3393	3893	500	1958	1336	622	500	1458	1501.4	3893	1233.5	0	0	0	474	2037.2	3893	1233.5	
Apr. 30 b	4154	4154	0	1544	-	0	0	1544	1493.7	4154	1228.8	0	0	0	508	2033.8	4154	1228.8	

**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.