

# Summary of Columbia River Flood Control, 1-Mar

WY      2007

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. 28 Project Conditions</b>									
Elevation, ft (MSL)	2395.5	1403.2	2389.0	1812.3	3531.8	1281.7	2056.0	1538.2	
Draft, kaf	7395.3	4763.1	2724.0	1217.1	629.9	660.9	272.3	985.3	
Usable Stor. less Draft, kaf	4658.1	2336.8	2255.5	181.4	2351.1	4524.4	703.1	1030.4	
<b>To Meet Mar. 31 Flood Control Requirements</b>									
Elevation Change, ft	-	0.0	0.0	4.6	0.0	0.0	0.0	0.0	
Draft Change, kaf	0.0	0.0	0.0	52.9	0.0	615.4	0.0	0.0	
<b>1-Mar Water Supply Forecasts</b>									
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR	TDA
Apr-Jul, kaf	-	-	-	-	-	-	3760	2192	-
Apr-Jul %-Normal <b>2</b>	-	-	-	-	-	-	59.6%	81.7%	-
Apr-Jul <b>Change, 1</b> , kaf	-	-	-	-	-	-	130	66	-
Apr-Aug, kaf	11686	23536	6516	2096	-	61200	-	-	88300
Apr-Aug %-Normal <b>2</b>	100.8%	103.9%	102.8%	102.7%	-	101.5%	-	-	94.9%
Apr-Aug <b>Change, 1</b> , kaf	-925	-1345	-66	-25	-	-400	-	-	100
May-Sep, kaf	-	-	-	-	1786	-	-	-	-
May-Sep %-Normal <b>2</b>	-	-	-	-	97.4%	-	-	-	-
May-Sep <b>Change, 1</b> , kaf	-	-	-	-	-17	-	-	-	-
<b>System Flood Control Requirements, Drafts</b>									
Project >>	MCDB	ARDB	LIB VarQ	DCDB	HGH VarQ	GCL *	BRN	DWR Sys *	DWR Loc
Jan. 31, kaf <b>4</b>	1662	1703	2582	857	371	0	0	1067	1078
Feb. 28, kaf <b>4</b>	2810	2603	2511	1215	466	0	250	801	814
Mar. 15, kaf	-	-	2524	-	-	-	-	-	-
Mar. 31, kaf	4080	3600	2524	1270	562	1276*	256	742*	669
Apr. 15, kaf	4080	3600	2524	1270	613	2488*	219	741*	496
Apr. 30, kaf	4080	3600	2524	1270	666	3523	207	741	-
<b>System Flood Control Requirements, Elevations</b>									
Jan. 31, ft <b>4</b>	-	1430.5	2393.7	1839.3	3543.9	1290.0	2077.0	1532.3	1531.4
Feb. 28, ft <b>4</b>	-	1422.9	2396.0	1812.5	3539.5	1290.0	2057.9	1551.3	1550.4
Mar. 15, ft	-	-	2395.5	-	-	-	-	-	-
Mar. 31, ft	-	1414.1	2395.5	1807.7	3535.1	1273.5*	2057.4	1555.4*	1560.3
Apr. 15, ft	-	1414.1	2395.5	1807.7	3532.6	1256.2*	2060.6	1555.5*	1571.6
Apr. 30, ft	-	1414.1	2395.5	1807.7	3530.1	1239.8	2061.6	1555.5	-
<b>Flood Control Summary at The Dalles, Or</b>									
Apr-Aug, kaf	88300								
Apr-Aug %-Normal	94.9%								
Apr-Aug <b>Change, kaf (1)</b>	100								
May-Aug, kaf	74854								
					Upstream Storage Adjustment, kaf, Chart #2 <b>(3)</b> =	22315			
					Initial Controlled Flow, ICF, kcfs, Chart #1 <b>(3)</b> =	331.5			
					Estimated Unregulated Peak Discharge, kcfs, Chart #1-A <b>(3)</b> =	542.8			

**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** Previous month's flood control values may differ from the previously released value due to updates in climate data.
- 5** DCDB Feb 28 draft is based on BCHydro deviation request granted by COE.

\* GCL and DWR projected flood control operations will incorporate a shift. See following page for shifted operational rule curves for GCL and DWR, columns 8-11.

**Questions?** Contact Ken Soderlind, 503-808-3950; Arun Mylvahanan 503-808-3961, John McCoskery, 503-808-3951, or Patti Etzel, 503-808-3958

# Summary of Columbia River Flood Control Shift, 1-Mar

WY      2007

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 (System FC Draft)	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	ft	kaf	ft
Jan. 31	0	-	-	1067	1078	0	0	1078	1531.4	0	1290.0	-	0	0	0	2077.0	0	1290.0
Feb. 28	0	2744	2744	801	814	0	0	814	1550.4	0	1290.0	2744	250	250	0	2077.0	250	1286.9
Mar. 31	1276	4355	3079	742	669	73	73	669	1560.3	1349	1272.5	3006	256	256	0	2077.0	1605	1269.0
Apr. 15	2488	4355	1867	741	496	244	244	496	1571.6	2733	1252.5	1622	219	219	0	2077.0	2951	1249.1
Apr. 30 b	3523	3523	0	741	-	0	0	741	1555.5	3523	1239.8	0	207	0	207	2061.6	3523	1239.8

**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 the end of March and 15-April. All projects to be at their non-shifted flood control requirements at the end of April.

b No shift is allowed, all projects to be back to their non-shifted flood control requirement by 30-April.

Final flood control points used in actual system operations reflect a DWR to GCL shift **ONLY**. A shift of flood control from BRN to GCL is not anticipated for the 2007 operating year.

**Questions?** Contact Ken Soderlind, 503-808-3950; Arun Mylvahana 503-808-3961, John McCoskery, 503-808-3951, or Patti Etzel, 503-808-3958.