

# Summary of Columbia River Flood Control, 1-Feb

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>Jan. 31 Project Conditions</b>									
Elevation, ft (MSL)	2400.9	1417.5	2408.2	1826.7	3519.1	1274.1	2044.5	1521.3	
Draft, kaf	6984.6	3485.2	2101.3	1034.7	889.0	1232.1	399.8	1212.9	
Usable Stor. less Draft, kaf	5068.8	3876.4	2878.3	363.9	2092.0	3953.2	575.5	802.8	
(4)									
<b>To Meet Feb. 29 Flood Control Requirements</b>									
Elevation Change, ft	-	0.0	-9.3	-14.2	0.0	0.0	0.0	0.0	
Draft Change, kaf	0.0	0.0	316.9	180.3	0.0	0.0	0.0	0.0	
(4)									
<b>1-Feb Water Supply Forecast</b>									
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR	TDA
Apr-Jul, kaf	-	-	-	-	-	-	5260	2738	-
Apr-Jul %-Normal <b>2</b>	-	-	-	-	-	-	83.3%	102.0%	-
Apr-Jul Change, kaf <b>1</b>	-	-	-	-	-	-	870	21	-
Apr-Aug, kaf	11722	23637	6513	2091	-	59200	-	-	91800
Apr-Aug %-Normal <b>2</b>	101.2%	104.4%	102.8%	102.4%	-	98.2%	-	-	98.6%
Apr-Aug Change, kaf <b>1</b>	-272	-621	215	-111	-	-100	-	-	3600
May-Sep, kaf	-	-	-	-	1859	-	-	-	-
May-Sep %-Normal <b>2</b>	-	-	-	-	101.3%	-	-	-	-
May-Sep Change, kaf <b>1</b>	-	-	-	-	18	-	-	-	-
<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	-	-	2520	1270	-	-	-	-	-
Mar. 31, kaf	4080	3600	2520	1270	639	1728	422	1382	1177
Apr. 15, kaf	4080	3600	2520	1270	704	2941	447	1557	1067
Apr. 30, kaf	4080	3600	2520	1270	769	3828	469	1343	-
<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	-	-	2395.7	1807.7	-	-	-	-	-
Mar. 31, ft	-	1414.1	2395.7	1807.7	3531.4	1267.2	2042.4	1507.8	1524.0
Apr. 15, ft	-	1416.5	2395.7	1807.7	3528.3	1249.2	2039.9	1492.5	1532.2
Apr. 30, ft	-	1416.5	2395.7	1807.7	3525.1	1234.6	2037.8	1511.0	-
(4)									
<b>Flood Control Summary at The Dalles, Oregon</b>									
Apr-Aug, kaf	91800								
Apr-Aug %-Normal	98.6%								
Apr-Aug Change, kaf <b>(1)</b>	3600								
May-Aug, kaf	77821								
Upstream Storage Adjustment, kaf, Chart #2 <b>(3)</b> = 23689									
Initial Controlled Flow, ICF, kcfs, Chart #1 <b>(3)</b> = 343.5									
Estimated Unregulated Peak Discharge, kcfs, Chart #1-A <b>(3)</b> = 567.7									

**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	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	1728	3164	1436	1382	1177	205	205	1177	1524.0	1933	1264.3	1231	0	0	422	2042.4	1933	1264.3
Apr. 15	2941	3254	313	1557	1067	490	313	1244	1518.9	3254	1244.3	0	0	0	447	2039.9	3254	1244.3
Apr. 30 b	3828	3828	0	1343	-	0	0	1343	1511.0	3828	1234.6	0	0	0	469	2037.8	3828	1234.6

**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 both end of March and 15-April, and also limited by the GCL draft rate limit. All projects are 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.

**Questions?** Contact Ken Soderlind, 503-808-3950; John McCoskery, 503-808-3951; or Patti Low, 503-808-3958.