

Summary of Columbia River Flood Control, 1-Jan

WY 2008

Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR	
Project Limits									
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)									
Dec. 31 Project Conditions									
Elevation, ft (MSL)	2423.8	1420.7	2411.0	1855.6	3526.1	1286.4	2068.0	1521.2	
Draft, kaf	5067.5	3120.5	2000.4	610.0	748.0	292.0	125.1	1214.2	
Usable Stor. less Draft, kaf	6985.9	4241.1	2979.1	788.6	2232.9	4893.3	850.3	801.5	
(4)									
To Meet Jan. 31 Flood Control Requirements									
Elevation Change, ft	-	0.0	-1.0	-16.3	0.0	0.0	0.0	0.0	
Draft Change, kaf	0.0	0.0	38.1	247.0	0.0	0.0	0.0	0.0	
(4)									
1-Jan Water Supply Forecast									
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR	TDA
Apr-Jul, kaf	-	-	-	-	-	-	4390	2717	-
Apr-Jul %-Normal 2	-	-	-	-	-	-	69.5%	101.3%	-
Apr-Jul Change, kaf 1	-	-	-	-	-	-	-	-	-
Apr-Aug, kaf	11994	24258	6298	2202	-	59300	-	-	88200
Apr-Aug %-Normal 2	103.5%	107.1%	99.4%	107.8%	-	98.4%	-	-	94.8%
Apr-Aug Change, kaf 1	-	-	-	-	-	-	-	-	-
May-Sep, kaf	-	-	-	-	1840	-	-	-	-
May-Sep %-Normal 2	-	-	-	-	100.3%	-	-	-	-
May-Sep Change, kaf 1	-	-	-	-	-	-	-	-	-
System Flood Control Requirements, Drafts									
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	2117	1215	492	0	320	1182	1193
Mar. 15, kaf	-	-	2157	1270	-	-	-	-	-
Mar. 31, kaf	4080	3600	2157	1270	620	1107	339	1357	1159
Apr. 15, kaf	4080	3600	2157	1270	681	2312	321	1526	1047
Apr. 30, kaf	4080	3600	2157	1270	743	3382	325	1328	-
System Flood Control Requirements, Elevations									
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	2407.7	1812.5	3538.3	1290.0	2051.9	1523.6	1522.8
Mar. 15, ft	-	-	2406.6	1807.7	-	-	-	-	-
Mar. 31, ft	-	1414.1	2406.6	1807.7	3532.3	1275.8	2050.1	1510.0	1525.4
Apr. 15, ft	-	1416.5	2406.6	1807.7	3529.4	1258.8	2051.7	1495.4	1533.7
Apr. 30, ft	-	1416.5	2406.6	1807.7	3526.4	1242.2	2051.4	1512.3	-
(4)									
Flood Control Summary at The Dalles, Oregon									
Apr-Aug, kaf	88200								
Apr-Aug %-Normal	94.8%								
Apr-Aug Change, kaf (1)	-								
May-Aug, kaf	74769								
Upstream Storage Adjustment, kaf, Chart #2 (3) = 22894									
Initial Controlled Flow, ICF, kcfs, Chart #1 (3) = 326.6									
Estimated Unregulated Peak Discharge, kcfs, Chart #1-A (3) = 542.1									

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	1182	1193	0	0	1193	1522.8	0	1290.0	2745	320	320	-1	2077.0	320	1286.0
Mar. 31	1107	3375	2267	1357	1159	198	198	1159	1525.4	1305	1273.1	2070	339	339	0	2077.0	1644	1268.4
Apr. 15	2312	3033	721	1526	1047	479	479	1047	1533.7	2791	1251.6	242	242	242	79	2071.4	3033	1247.8
Apr. 30 b	3382	3382	0	1544	-	0	0	1544	1493.7	3382	1242.2	0	0	0	508	2033.8	3382	1242.2

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.