

Summary of Columbia River Flood Control, 1-Jan

WY 2013

Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR
Project Limits								
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

Dec. 31 Project Conditions								
Elevation, ft (MSL)	2438.2	1421.2	2409.7	1863.4	3548.6	1284.2	2069.5	1544.2
Draft, kaf	3702.4	2801.2	2048.3	484.9	265.6	466.4	105.1	902.3
Usable Stor. less Draft, kaf	8350.9	4298.8	2931.2	913.7	2715.4	4718.9	870.2	1113.4

To Meet Jan. 31 Flood Control Requirements								
Elevation Change, ft	-	-	-14.5	-24.1	-7.1	-	-	-3.2
Draft Change, kaf	-	-	486.1	372.1	158.7	-	-	44.4

1-Jan Water Supply Forecast								
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR
Apr-Jul, kaf	-	-	-	-	-	-	4650	2587
Apr-Jul %-Normal 2	-	-	-	-	-	-	84.9%	96.4%
Apr-Jul Change, kaf 1	-	-	-	-	-	-	-	-
Apr-Aug, kaf	11574	23609	6898	2283	-	58230	-	-
Apr-Aug %-Normal 2	99.9%	104.3%	108.9%	111.8%	-	102.6%	-	-
Apr-Aug Change, kaf 1	-	-	-	-	-	-	-	-
May-Sep, kaf	-	-	-	-	1968	-	-	-
May-Sep %-Normal 2	-	-	-	-	116.3%	-	-	-
May-Sep Change, kaf 1	-	-	-	-	-	-	-	-

System Flood Control Requirements, Drafts								
Project >>	MCDB	ARDB	LIB VarQ	DCDB	HGH VarQ	GCL	BRN	DWR Sys
Jan. 31, kaf	1662	1703	2534	857	424	0	0	947
Feb. 28, kaf	2810	2603	2941	1215	582	0	333	1093
Mar. 15, kaf	-	-	3097	1270	-	-	-	-
Mar. 31, kaf	4080	3600	3097	1270	756	1637	365	1196
Apr. 15, kaf	4080	3600	3097	1270	840	2850	371	1331
Apr. 30, kaf	4080	3600	3097	1270	924	3767	383	1199

System Flood Control Requirements, Elevations								
Jan. 31, ft	-	1430.5	2395.2	1839.3	3541.4	1290.0	2077.0	1541.0
Feb. 29, ft	-	1422.9	2381.5	1812.5	3534.1	1290.0	2050.7	1530.3
Mar. 15, ft	-	-	2375.9	1807.7	-	-	-	-
Mar. 31, ft	-	1414.1	2375.9	1807.7	3525.7	1268.5	2047.8	1522.6
Apr. 15, ft	-	1414.1	2375.9	1807.7	3521.5	1250.7	2047.2	1512.1
Apr. 30, ft	-	1414.1	2375.9	1807.7	3517.2	1235.7	2046.1	1522.4

Flood Control Summary at The Dalles, Oregon								
Apr-Aug, kaf	92030							
Apr-Aug %-Normal 2	105.1%							
Apr-Aug Change, kaf (1)	-							
May-Aug, kaf	77512							
Upstream Storage Adjustment, kaf, Chart #2 (3) =							24348	
Initial Controlled Flow, ICF, kcfs, Chart #1 (3) =							336.2	
Estimated Unregulated Peak Discharge, kcfs, Chart #1-A (3) =							569	

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, 1981-2010, 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.

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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	-	-	10+14	-	
Units	kaf	kaf	kaf	kaf	kaf	kaf	kaf	ft	kaf	ft	kaf	ft	kaf	kaf	ft	kaf	ft		
Jan. 31	0	2745	2745	947	970	0	0	970	1539.3	0	1290.0	2745	0	0	0	2077.0	0	1290.0	
Feb. 29	0	2745	2745	1093	1112	0	0	1112	1528.9	0	1290.0	2745	0	0	333	2050.7	0	1290.0	
Mar. 31	1637	3164	1528	1196	1043	153	153	1043	1534.0	1790	1266.4	1374	0	0	365	2047.8	1790	1266.4	
Apr. 15	2850	3145	295	1331	916	414	295	1036	1534.5	3145	1246.0	0	0	0	371	2047.2	3145	1246.0	
Apr. 30 b	3767	3767	0	1199	-	0	0	1199	1522.4	3767	1235.7	0	0	0	383	2046.1	3767	1235.7	

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.