

Summary of Columbia River Flood Control, 1-Feb

WY 2010

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

Jan. 31 Project Conditions								
Elevation, ft (MSL)	2412.4	1410.3	2408.5	1835.9	3530.5	1286.1	2064.9	1514.5
Draft, kaf	6061.9	4012.1	2089.2	906.5	658.0	320.0	165.2	1300.3
Usable Stor. less Draft, kaf	5991.4	3087.9	2890.4	492.1	2322.9	4865.3	810.1	715.4

To Meet Feb. 28 Flood Control Requirements								
Elevation Change, ft	-	-	-	-	-21.1	-	-	-
Draft Change, kaf	-	-	-	-	280.7	-	-	-

1-Feb Water Supply Forecast								
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR
Apr-Jul, kaf	-	-	-	-	-	-	3020	1742
Apr-Jul %-Normal 2	-	-	-	-	-	-	47.8%	64.9%
Apr-Jul Change, kaf 1	-	-	-	-	-	-	-280	-432
Apr-Aug, kaf	10792	21806	5478	1962	-	49100	-	-
Apr-Aug %-Normal 2	93.1%	96.3%	86.4%	96.1%	-	81.4%	-	-
Apr-Aug Change, kaf 1	-370	-835	-205	-69	-	-4900	-	-8200
May-Sep, kaf	-	-	-	-	1429	-	-	-
May-Sep %-Normal 2	-	-	-	-	77.9%	-	-	-
May-Sep Change, kaf 1	-	-	-	-	-225	-	-	-

System Flood Control Requirements, Drafts									
Project >>	MCDB	ARDB	LIB VarQ	DCDB	HGH VarQ	GCL	BRN	DWR Sys	DWR Loc
Jan. 31, kaf	1439	1510	1546	857	309	0	0	818	825
Feb. 28, kaf	1330	1266	1000	1187	219	0	4	558	560
Mar. 15, kaf	-	-	800	1232	-	-	-	-	-
Mar. 31, kaf	1824	1560	793	1232	203	537	2	340	324
Apr. 15, kaf	1824	1560	789	1232	195	537	1	210	149
Apr. 30, kaf	1824	1560	785	1232	187	537	0	210	-
System Flood Control Requirements, Elevations									
Jan. 31, ft	-	1432.1	2423.0	1839.3	3546.6	1290.0	2077.0	1550.1	1549.6
Feb. 28, ft	-	1434.0	2436.4	1814.8	3550.6	1290.0	2076.7	1567.6	1567.5
Mar. 15, ft	-	-	2441.1	1811.1	-	-	-	-	-
Mar. 31, ft	-	1431.6	2441.3	1811.1	3551.3	1283.3	2076.9	1581.1	1582.0
Apr. 15, ft	-	1431.6	2441.4	1811.1	3551.7	1283.3	2076.9	1588.6	1592.0
Apr. 30, ft	-	1431.6	2441.5	1811.1	3552.0	1283.3	2077.0	1588.6	-

Flood Control Summary at The Dalles, Oregon									
Apr-Aug, kaf	68500								
Apr-Aug %-Normal	73.6%								
Apr-Aug Change, kaf (1)	-8200								
May-Aug, kaf	58069								
Upstream Storage Adjustment, kaf, Chart #2 (3) =								17994	
Initial Controlled Flow, ICF, kcfs, Chart #1 (3) =								238.1	
Estimated Unregulated Peak Discharge, kcfs, Chart #1-A (3) =								402	

- 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** See Charts 1 and 2 of Columbia River Treaty Flood Control Operating Plan, Corps of Engineers, Northwestern Division, Corps of Engineers.

Questions? Contact Ken Soderlind, 503-808-3950, Maler Annamalai, 503-808-3994, or Bill Proctor, 503-808-3952.

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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	
Jan. 31	0	2745	2745	818	825	0	0	825	1549.6	0	1290.0	2745	0	0	0	2077.0	0	1290.0
Feb. 28	0	2745	2745	558	560	0	0	560	1567.5	0	1290.0	2745	4	4	0	2077.0	4	1290.0
Mar. 31	537	3167	2630	340	324	16	16	324	1582.0	553	1283.1	2614	2	2	0	2077.0	555	1283.1
Apr. 15	537	2193	1656	210	149	61	61	149	1592.0	598	1282.5	1595	1	1	0	2077.0	599	1282.5
Apr. 30 b	537	537	0	210	-	0	0	210	1588.6	537	1283.3	0	0	0	0	2077.0	537	1283.3

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, or Bill Proctor, 503-808-3952.