

# Summary of Columbia River Basin Flood Risk Management Requirements, 1-Apr

WY      2015

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>Mar. 31 Project Conditions</b>									
Elevation, ft (MSL)	2430.9	1390.9	2419.2	1804.9	3539.7	1253.9	2057.4	1586.1	
Draft, kaf	4406.9	5977.3	1694.7	1300.5	461.3	2639.7	256.8	254.3	
Usable Stor. less Draft, kaf	7646.4	1122.6	3284.9	98.1	2519.7	2545.6	718.6	1761.4	
<b>Draft Required to meet Apr. 30 Flood Risk Management</b>									
Elevation Reduction, ft	-	-	-	-	-	-	-	-	
Storage Reduction, kaf	-	-	-	-	-	-	-	-	
<b>1-Apr Water Supply Forecast</b>									
Project >>	MCDB	ARDB	LIB	DCDB	HGH	GCL	BRN	DWR	TDA
Apr-Jul, kaf	-	-	-	-	-	-	3052	1709	-
Apr-Jul %-Normal <b>2</b>	-	-	-	-	-	-	56%	71%	-
Apr-Jul <b>Change</b> , kaf <b>1</b>	-	-	-	-	-	-	-686	-106	-
Apr-Aug, kaf	10945	22223	5808	1958	-	51165	-	-	72233
Apr-Aug %-Normal <b>2</b>	100%	101%	99%	98%	-	90%	-	-	83%
Apr-Aug <b>Change</b> , kaf <b>1</b>	-375	-325	125	-38	-	1746	-	-	449
May-Sep, kaf	-	-	-	-	1496	-	-	-	-
May-Sep %-Normal <b>2</b>	-	-	-	-	88%	-	-	-	-
May-Sep <b>Change</b> , kaf <b>1</b>	-	-	-	-	-182	-	-	-	-
<b>System Draft Requirements</b>									
Project >>	MCDB	ARDB	LIB VarQ	DCDB	HGH VarQ	GCL	BRN	DWR Sys	DWR Loc
Jan. 31, kaf	1662	1703	2037	857	428	0	0	801	811
Feb. 28/29, kaf	2810	2603	1032	1215	553	0	321	657	674
Mar. 15, kaf	-	-	-	1265	-	-	-	-	-
Mar. 31, kaf	2468	2163	1112	1265	446	537	74	397	372
Apr. 15, kaf	-	-	-	-	267	537	3	173	134
Apr. 30, kaf	2556	2245	1324	1228	270	650	0	173	-
<b>System Elevation Requirements</b>									
Jan. 31, ft	-	1430.5	2410.0	1839.3	3541.3	1290.0	2077.0	1551.3	1550.6
Feb. 28/29, ft	-	1422.9	2435.7	1812.5	3535.5	1290.0	2051.8	1561.1	1560.0
Mar. 15, ft	-	-	-	1808.1	-	-	-	-	-
Mar. 31, ft	-	1426.6	2433.8	1808.1	3540.4	1283.3	2071.8	1577.7	1579.2
Apr. 15, ft	-	-	-	-	3548.5	1283.3	2076.8	1590.7	1592.8
Apr. 30, ft	-	1425.9	2428.6	1811.4	3548.4	1281.8	2077.0	1590.7	-

## Flood Risk Management Summary at The Dalles, Oregon

Apr-Aug, kaf	72233	Upstream Storage Adjustment, kaf, Chart #2 <b>(3)</b> =	15817
Apr-Aug %-Normal	82.5%	Initial Controlled Flow, ICF, kcfs, Chart #1 <b>(3)</b> =	275
Apr-Aug <b>Change</b> , kaf <b>(1)</b>	449	Estimated Unregulated Peak Discharge, kcfs, Chart #1-A <b>(3)</b> =	429
May-Aug, kaf	60838		

**Notes:**

- 1** Change in official forecast from the previous month.
- 2** All %-Normal values are based on 30-year (1981-2010) Runoff Volume averages 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.

# Summary of Columbia River Basin Flood Risk Management Requirements, 1-Mar

WY 2015

Maximum Flood Risk Storage Shift from DWR to GCL												Maximum Flood Risk Storage 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	Granted	Allowable	Draft	Elevation	Draft (w/DWR Shift)	Elevation (w/DWR Shift)		Granted	Allowable	Draft	Elevation	Draft (w/DWR+BRN Shift)	Elevation (w/DWR+BRN Shift)					
Notes	-	<b>a</b>	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	kaf	ft	kaf	ft	kaf	kaf	kaf	kaf	ft	kaf	ft					
Jan. 31	0	2745	2745	801	811	0	0	811	1550.6	0	1290.0	2745	0	0	0	2077.0	0	1290.0					
Feb. 28/29	0	2745	2745	657	674	0	0	674	1560.0	0	1290.0	2745	40	321	281	2055.3	40	1289.5					
Mar. 31	537	4205	3668	397	372	0	25	397	1577.7	537	1283.3	3668	40	74	34	2074.7	577	1282.8					
Apr. 15	537	2212	1675	292	186	0	106	292	1583.9	537	1283.3	1675	20	37	17	2075.8	557	1283.0					
Apr. 30 <b>b</b>	567	567	0	292	-	0	0	<b>292</b>	<b>1583.9</b>	<b>567</b>	<b>1282.9</b>	0	0	0	<b>0</b>	<b>2077.0</b>	<b>567</b>	<b>1282.9</b>					

**Notes:** Under certain conditions the required flood risk draft at DWR and BRN may be shifted to GCL prior to 30-April. The shifted rule curve shown above represents the maximum allowable flood risk storage shift(s) for the current water year based on the current month's flood risk management 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 risk storage 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 risk management draft requirements at the end of Apr.
- b** No shift is allowed, all projects to be back to their non-shifted flood risk draft requirement by 30-April.

**Questions?** Contact Kasi Rodgers, 503-808-3950, Jason Ward, 503-808-3952, or Daniela Todesco, 503-808-3757.

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