

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

WY 2025

Issue Date: 06-Mar-2025

Project Limits

Project >>	MCDB	ARDB	DCDB	LIB	HGH	DWR	BRN	GCL
Maximum Elevation, ft	2475.0	1444.0	1892.0	2459.0	3560.0	1600.0	2077.0	1290.0
Minimum Elevation, ft	2320.0	1378.0	1794.2	2287.0	3336.0	1445.0	1976.0	1208.0
Usable Storage, kaf	12053.3	7100.0	1398.6	4979.5	2981.0	2015.7	975.3	5349.6

Feb. 28/29 Project Conditions

Project >>	MCDB	ARDB	DCDB	LIB	HGH	DWR	BRN	GCL
Elevation, ft (MSL)	2398.8	1396.9	1815.6	2407.0	3511.8	1528.3	2043.4	1280.0
Draft, kaf	7146.4	5398.0	1178.2	2144.0	1029.6	1119.8	411.8	798.5
Usable Stor. less Draft, kaf	4906.9	1702.0	220.4	2835.5	1951.4	895.9	563.5	4551.1

Draft Required to meet Mar. 31 Flood Risk Management

Project >>	MCDB (4)	ARDB (4)	DCDB (4)	LIB	HGH	DWR	BRN	GCL
Elevation Reduction, ft	-	-	-	-	-	-	-	-
Storage Reduction, kaf	-	-	-	-	-	-	-	-

1-Mar Water Supply Forecast

Project >>	MCDB	ARDB	DCDB	LIB	HGH	DWR	BRN	GCL	TDA
Apr-Jul, kaf	-	-	-	-	-	2194	5681	-	-
Apr-Jul %-Normal (2)	-	-	-	-	-	89%	111%	-	-
Apr-Jul Change, kaf (1)	-	-	-	-	-	-20	-319	-	-
Apr-Aug, kaf	9614	19113	1741	5004	-	-	-	46836	75123
Apr-Aug %-Normal (2)	86%	86%	85%	82%	-	-	-	80%	84%
Apr-Aug Change, kaf (1)	18	42	12	276	-	-	-	-267	-105
May-Sep, kaf	-	-	-	-	1388	-	-	-	-
May-Sep %-Normal (2)	-	-	-	-	78%	-	-	-	-
May-Sep Change, kaf (1)	-	-	-	-	-21	-	-	-	-

System Draft Requirements

Project >>	MCDB + ARDB (4)	ARDB (4)	DCDB (4)	LIB	HGH	DWR (3)	BRN	GCL
Jan. 31, kaf	1632	1632	-	1983	317	818	0	0
Feb. 28/29, kaf	1798	1798	-	1541	207	874	400	0
Mar. 31, kaf	2729	2729	-	1647	172	707	304	574
Apr. 15, kaf	-	-	-	-	159	620	221	659
Apr. 30, kaf	2729	2729	-	1643	146	742	122	642

System Draft Requirements (continued) - Apr. 30 (kaf)

Project >>	WEL	RRH	WAN+PRD	JDA
FRM Space Requirement, kaf	-	-	-	-

System Elevation Requirements

Project >>	MCDB (4)	ARDB (4)	DCDB (4)	LIB	HGH	DWR (3)	BRN	GCL
Jan. 31, ft	-	1431.0	-	2411.5	3546.3	1550.1	2077.0	1290.0
Feb. 28/29, ft	-	1429.7	-	2423.1	3551.2	1546.2	2044.5	1290.0
Mar. 31, ft	-	1421.8	-	2420.4	3552.7	1557.8	2053.3	1282.9
Apr. 15, ft	-	-	-	-	3553.2	1563.6	2060.4	1281.8
Apr. 30, ft	-	1421.8	-	2420.5	3553.8	1555.4	2068.2	1282.0

Flood Risk Management Summary at The Dalles, Oregon

Parameter	kaf	kcfs
The Dalles Apr-Aug Forecast	75123	-
The Dalles May-Aug Forecast	62810	-
Initial Controlled Flow, ICF	-	275
Estimated Unregulated Peak Discharge	-	449

Notes:

- 1 Change in official forecast from the previous month.
- 2 All %-Normal values are based on 30-year (1991-2020) Runoff Volume averages as determined by the Northwest River Forecast Center.
- 3 Dworshak and Grand Coulee System numbers include shift if applicable, when shift is maximal the System values at Dworshak are the same as Local
- 4 MCDB and DCDB do not have system FRM requirements unless an Article IV(3) call is active.
- 5 If FRM space is required at John Day or the middle Columbia projects, the date for maximum drawdown will be coordinated with operators in real-time. It is anticipated that all requested space would be available by the start of system refill.

Questions? Contact Kasi Underhill 503-808-3950 or Haytham Oueidat 503-351-5362.

William Proctor, P.E.
Ch., Hydrologic Engineering and Power Branch

Maximum Flood Risk Storage Shift from DWR and/or BRN to GCL																		
Date	GCL Non-Shifted FC Draft (kaf)	GCL Maximum Draft Limit (kaf)	GCL Maximum Shift Potential (kaf)	DWR FC Draft - System (kaf)	DWR FC Draft - Local (kaf)	DWR FC Shift - Granted (kaf)	DWR / GCL FC Shift - Allowable (kaf)	DWR Shifted FC Draft (kaf)	DWR Shifted FC Elevation (ft)	GCL Shifted FC Draft (w/DWR Shift) (kaf)	GCL Shifted FC Elevation (w/DWR Shift) (ft)	GCL Maximum Shift Potential remaining (kaf)	BRN FC Shift - Granted (kaf)	BRN / GCL FC Shift - Allowable (kaf)	BRN Shifted FC Draft (kaf)	BRN Shifted FC Elevation (ft)	GCL Shifted FC Draft (w/DWR+BRN Shift) (kaf)	GCL Shifted FC Elevation(w/DWR+BRN Shift) (ft)
Jan. 31	0	2798	2798	809	818	0	0	818	1550.1	0	1290.0	2798	0	0	0	2077.0	0	1290.0
Feb. 28/29	0	2798	2798	869	874	0	0	874	1546.2	0	1290.0	2798	0	0	400	2044.5	0	1290.0
Mar. 31	537	3738	3201	743	670	37	73	707	1557.8	574	1282.9	3164	0	304	304	2053.3	574	1282.9
Apr. 15	537	2243	1706	742	497	122	245	620	1563.6	659	1281.8	1584	0	221	221	2060.4	659	1281.8
Apr. 30 b	642	642	0	742	-	0	0	742	1555.4	642	1282.0	0	0	0	122	2068.2	642	1282.0
Column Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Notes	-	a	2-1	-	-	4-5	Min 3,6	4-7	-	1+7	-	2-10	-	Min 12,13	-	-	10+14	-

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.

b No shift is allowed, all projects to be back to their non-shifted flood risk draft requirement by 30-April.

Questions? Contact Kasi Underhill 503-808-3950 or Haytham Oueidat 503-808-3740.

William Proctor, P.E.
Ch., Hydrologic Engineering and Power Branch