Columbia River System Flood Risk Management Requirements
Report #4 for Water Year 2025
Issue Date: 07 April 2025

A. Purpose of Flood Risk Management Requirements. These requirements provide maximum end-of-month reservoir elevations and/or outflows for flood risk management projects in the Columbia River Basin. These requirements are for use by U.S. Army Corps of Engineers, Bureau of Reclamation, Idaho Power, Energy Keepers, BC Hydro, Grant PUD, Chelan PUD, Douglas Co. PUD, and Bonneville Power Administration for operations planning and include all formally approved deviations to date. Any deviation from the flood risk management requirements herein will require approval from the Chief, Columbia Basin Water Management Division (CBWM) per the Northwestern Division's (NWD) Deviation Policy (NWDR 1110-2-6). Requirements are in accordance with the Columbia River Treaty and project-specific water control manuals, with variations as described below. These system flood risk management requirements will be revised and re-issued as new information becomes available.

B. List of Approved Flood Deviations from Water Control Manuals.
Deviation at SKQ for April FRM.

C. Flood Risk Management Requirements.
These requirements have been prepared using the most recent official seasonal volume forecasts. The April-August volume forecast at The Dalles Dam based on the April 2025 official forecast is 81,191 kaf. All other forecasts can be found in Table 2 or at:
http://www.nwd-wc.usace.army.mil/report/colsum/

Table 1 shows the flood risk management elevations, draft and flow limits for the evacuation, holding and refill periods. The Initial Controlled Flow (ICF) based on the official April forecast is 306 kcfs.

D. System Flood Risk Management Refill Requirement Discussion.
The Flood Risk Management Requirements shown in Table 1 are based on the official April seasonal runoff volume forecasts.

E. Individual Project Flood Risk Management Requirements Discussion.
Idaho Power is operating the Hells Canyon complex at full powerhouse to manage TDG in the Snake River until FRM elevations are met. Operations at BRN are targeting end of April FRM elevation of 2049.9 feet.

Table 1. Flood Risk Management Requirements

Project	31 Jan	28 Feb	31 Mar	15 Apr	30 Apr[3]	Date Refill Started	31 May[3]	30 Jun[3]	31 Jul[3]
MCDB+ARDB (kaf) [1]	1632	1798	2729	3600	3600	-	1764	0	0
ARDB (kaf) [1]	1632	1798	2729	3600	3600	-	1764	0	0
DCDB (kaf)[1]	-	-	-	-	-	-	-	-	-
LIB (ft) [4]	2411.5	2423.1	2420.4	2420.1	2420.2	-	-	-	-
LIB (kcfs)	n/a	n/a	n/a	-	-	-	tbd	tbd	tbd
HGH (ft)	3546.3	3551.2	3552.7	3551.9	3552.3	-	-	-	-
HGH (kcfs)	n/a	n/a	n/a	-	-	-	tbd	tbd	tbd
SKQ (ft)	n/a	n/a	n/a	2886	2887	-	2890[9]	-	-
ALF (ft) [2]	2060.0	2060.0	2056.0	n/a	2056.0	-	-	2062.5	2062.5
GCL (ft) [7]	1290.0	1290.0	1282.9	1274.5	1265.2		1278.3	1290.0	1290.0
BRN (ft)[8]	2077.0	2044.5	2053.3	2047.5[8]	2049.9		2073.2	2077.0	2077.0
DWR (ft) [7]	1550.1	1546.2	1557.8	1560.3	1546.3		1587.9	1600.0	1600.0
WEL (kaf)	0	0	0	0	-[6]	-	0[6]	0[6]	0[6]
RRH (kaf)	0	0	0	0	-[6]	-	0[6]	0[6]	0[6]
WAN+PRD (kaf)	0	0	0	0	-[6]	-	0[6]	0[6]	0[6]
JDA (kaf)	0	0	0	0	-[6]	-	0[6]	0[6]	0[6]

Notes:

1. MCDB and DCDB do not have system Flood Risk Management requirements unless an Article IV(3) call is active.
2. Albeni Falls flood risk management elevations are based on readings at the Hope gage.
3. Flood risk management requirements for May, June and July are based on estimated normal runoff shape. Under certain circumstances, the Refill Guide Curve (also known as Flood Control Refill Curve) procedure may be used to determine when refill is to begin at each project where applicable and affect the 30 Apr elevations.
4. Per the Libby Dam WCM, Rule 1 of the VarQ operating procedures, releases will be limited to the hydraulic capacity of the powerhouse to the best extent possible.
5. Per the Libby Water Control Manual, when the official Libby Water Supply Forecast released at the start of April is less than 6.9 MAF, refill is initiated on May 1.
6. If FRM space is required at John Day or the middle Columbia projects, Northwestern Division will coordinate the exact timing for drawdown and refill with project operators in real-time. It is anticipated that all requested space would be made available prior to the start of system refill.
7. A shift in FRM storage is in place for 15 April targets per the 2025 Water Management Plan.
8. BRN is targeting end of April FRM elevation of 2049.9 feet and not the April 15 target
9. SKQ May FRM is for Memorial Day, not 31 May

Table 2. Water Supply Forecasts (Kaf)

Project	Forecast Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Current month Forecast % of Normal
MCDB[1]	Apr-Aug	10686	9596	9614	9929				89%
ARDB[1]	Apr-Aug	21797	19071	19113	19492				88%
DCDB[1]	Apr-Aug	1915	1729	1741	1815				89%
LIB	Apr-Aug	5871	4728	5004	5023				83%
HGH	May-Sep	1675	1409	1388	1424				81%
SKQ[2]	Apr-Jul	5076	4521	4396	5444				89%
ALF[2]	Apr-Jul	9829	9323	9246	11268				91%
GCL[2]	Apr-Aug	50979	47103	46836	52841				91%
BRN[2]	Apr-Jul	5032	6000	5681	5755				112%
DWR[2]	Apr-Jul	2154	2214	2194	2281				92%
TDA[2]	Apr-Aug	79356	75228	75123	81191				91%

Notes:
1. Official water supply forecasts for MCDB, ARDB, and DCDB are provided by BC Hydro on the official forecast days for 2025.
2. Official water supply forecasts for SKQ, ALF, GCL, BRN, DWR and TDA are the ESP 10-day-QPF median values as published by the NWRFC on the official forecast days for 2025.

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