Columbia River System Flood Risk Management Requirements
Report #3.3 for Water Year 2025
Issue Date: 31 Mar 2025
Adjustment to 26 March 2025 FRM drafts due to
changing water supply forecasts

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
Due to changes in water supply forecasts, it has become necessary to make adjustments to the official March FRM. The forecasted runoff volumes have decreased since the 26 March FRM submittal. As a result, draft targets for FRM are being adjusted to respond to the dynamic hydrologic conditions

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 RFC's 31 March HEFS 15-day EQPF is 80,820 kaf per the recommendation of the CRT Hydrometeorologial Committee (26 March 2025). Forecasts for Grand Coulee (Apr-Aug), Brownlee (Apr-Jul), and Dworshak (Apr-Jul) are based upon the RFC's 31 March 10-day QPF. All other forecasts are based on the official March forecasts published by the Corps on 07 March. 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 31 March forecast is 305.1 kcfs.

D. System Flood Risk Management Refill Requirement Discussion.
The Flood Risk Management Requirements shown in Table 1 are based on the 31 March seasonal runoff volume forecasts. During the refill season, end-of-month reservoir elevation targets and control flow may change in response to the shape and timing of the runoff.

E. Individual Project Flood Risk Management Requirements Discussion.
No specific individual requirements at this time.

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	2420.5	2420.5	-	-	-	-
LIB (kcfs)	n/a	n/a	n/a	tbd	tbd	-	tbd	tbd	tbd
HGH (ft)	3546.3	3551.2	3552.7	3553.2	3553.8	-	-	-	-
HGH (kcfs)	n/a	n/a	n/a	tbd	tbd	-	tbd	tbd	tbd
SKQ (ft)	n/a	n/a	n/a	2886	2887	-	-	-	-
ALF (ft) [2]	2060.0	2060.0	2056.0	n/a	2056.0	-	-	-	-
GCL (ft)[8]	1290.0	1290.0	1282.9	1275.2	1266.5	-	1278.9	1289.8	1290.0
BRN (ft)[8]	2077.0	2044.5	2053.3	2047.2	2051.0	-	2073.3	2077.0	2077.0
DWR (ft)[7, 8]	1550.1	1546.2	1557.8	1571.0	1554.5	-	1589.1	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. Based upon RFC's 31 March 10-day QPF.

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	9614				86%
ARDB[1]	Apr-Aug	21797	19071	19113	19113				86%
DCDB[1]	Apr-Aug	1915	1729	1741	1741				85%
LIB	Apr-Aug	5871	4728	5004	5004				82%
HGH	May-Sep	1675	1409	1388	1388				78%
SKQ[2]	Apr-Jul	5076	4521	4396	4396				72%
ALF[2]	Apr-Jul	9829	9323	9246	9246				71%
GCL[2,4]	Apr-Aug	50979	47103	46836	52058				89%
BRN[2,4]	Apr-Jul	5032	6000	5681	5759				112%
DWR[2,4]	Apr-Jul	2154	2214	2194	2203				89%
TDA3[5]	Apr-Aug	79356	75228	75123	80820				91%

Notes:
1. Official water supply forecasts for MCDB, ARDB, and DCDB are provided by BC Hydro on official forecast days.
2. Official water supply forecasts for SKQ, ALF, GCL, BRN, and DWR are the ESP 10-day-QPF median values is published by the NWRFC on the official forecast days for 2025. For this submittal, an early WSF was used to provide projects time to respond to changing conditions.
3. Per the recommendation of the CRT Hydrometeorological Committee, the NWRFC 15-day HEFS forecast was used for TDA.
4. RFC 31 March 10-day QPF.
5. RFC 31 March 15-day EQPF.

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