Columbia River System Flood Risk Management Requirements
Report #10 for Water Year 2026
Issue Date: 26 May 2026

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 Co. PUD, Chelan Co. 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, 09 Sept 2023). Requirements are in accordance with the Columbia River Treaty and project-specific water control plans and 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 Albeni Falls Dam for ramping rates, summer pool exceedance, spill and total dissolved gas, and delayed refill.

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 May 2026 official forecast is 78,761 kaf. All other forecasts can be found in Table 2 below 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.

This revision includes a higher Dworshak End of May Elevation to 1597' to aid refill with diminishing flood risk and residual runoff.

D. System Flood Risk Management Refill Requirement Discussion.
On 29 April, Columbia Basin Water Management declared that the initiation of system refill would begin on 07 May 2026. Each reservoir may begin refill on the prescribed date shown in Table 1. During the refill season, end-of-month reservoir elevation targets and control flow, if any, may change in response to the shape and timing of runoff. The 31 May FRM requirements may be updated as needed throughout the month.

E. Individual Project Flood Risk Management Requirements Discussion.

- On 16 April 2026, BC Hydro formally requested an end of June elevation of 1,442 feet (260 kaf) at Arrow consistent with Section 5-4 of the 2025 *Arrow 3.6 Million Acre-Feet Flood Risk Operating Plan* (FROP). See https://www.nwd.usace.army.mil/crwm/forecasts/ for reference.

- At the start of refill Arrow was at 1,412.70 feet (3754 kaf space from full), reserving 154 kaf of the 260 kaf requested for Canadian local FRM. Per the FROP (Section 5-4), the Canadian Entity may include a maximum elevation at Arrow Reservoir for Canadian Local FRM purposes provided that it is no higher than the System FRM elevation. If a maximum release rate at Arrow is required for System FRM purposes, the maximum elevation at Arrow Reservoir for Canadian Local FRM purposes may be exceeded, less the 154 kaf of reserved local FRM space (1442.8 ft).

- Mainstem Columbia River operations are capped to a maximum of 350 kcfs at McNary Dam due to current spillway limitations.

Table 1. Flood Risk Management Requirements

Project	31 Jan	28 Feb	31 Mar	15 Apr	30 Apr[3]	Refill Date	31 May[3]	30 Jun[3]	31 Jul[3]
MCDB+ARDB (kaf) [1]	1670	2345.7	3600	3600	3600	**05 May**	**1033.7***	**154***	**0**
ARDB (kaf) [1]	1670	2345.7	3600	3600	3600	**05 May**	**1033.7***	**154***	**0**
ARDB (ft)	1430.7	1425.1	1414.1	1414.1	1414.1	**05 May**	**1435.9***	**1442.8***	**1444.0**
DCDB (kaf)[1]	-	-	-	-	-	**-**	**-**	**-**	**-**
LIB (ft) [4]	2374.4	2383.9	2380.2	n/a	2363.6	**01 May**	**-[9]**	**-[9]**	**2459.0**
LIB (kcfs)	n/a	n/a	n/a	n/a	n/a	**01 May**	**VarQ**	**tbd**	**tbd**
HGH (ft)	3543.1	3547.0	3548.2	3546.4	3546.0	**03 May**	**-[9]**	**3560.0**	**3560.0**
HGH (kcfs)	n/a	n/a	n/a	n/a	n/a	**-**	**VarQ**	**tbd**	**tbd**
SKQ (ft)	n/a	n/a	n/a	2889.0	n/a	**-**	**2892.4[8]**	**2893.0**	**2893.0**
ALF (ft) [2]	2060.0	2060.0	2056.0	n/a	2056.6	**-**	**2063.5**	**2063.5**	**2063.5**
GCL (ft)	1290.0	1290.0	1279.3	1266.2	1255.3	**06 May**	**1279.0**	**1290.0**	**1290.0**
BRN (ft)	2077.0	2054.2	2054.2	2068.4	2070.5	**04 May**	**2076.0**	**2077.0**	**2077.0**
DWR (ft)[7]	1554.9	1567.2	1570.1	1575.5	1570.6	**04 May**	**1597**	**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:
*BCH has requested an elevation 1442.0' (equivalent to 260 kaf) at Arrow at the end of June for local FRM. In adding this requirement, no part of System FRM space in Arrow is being reserved for Canadian Local FRM, and the U.S. may still fill to 1442.8' by the end of June if needed for system FRM per the FROP.
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 2026 Water Management Plan.
8. SKQ May FRM is for Memorial Day (May 25), not 31 May.
9. End-of-month elevation is guided by the minimum VarQ outflow during the FRM Fill period.

Table 2. Water Supply Forecasts (Kaf)

Project	Forecast Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Current month Forecast % of Normal	Residual Runoff[3]
MCDB[1]	Apr-Aug	12577	12304	12216	13194	**13074**	-	-	**117%**	**80%**
ARDB[1]	Apr-Aug	24734	23894	23646	24974	**24609**	-	-	**111%**	**75%**
DCDB[1]	Apr-Aug	2354	2321	2291	2415	**2415**	-	-	**118%**	**74%**
LIB	Apr-Aug	7595	6831	6738	7117	**7053**	-	-	**116%**	**67%**
HGH	May-Sep	1867	1562	1505	1539	**1480**	-	-	**84%**	**64%**
SKQ[2]	Apr-Jul	5743	4965	4949	5035	**4785**	-	-	**78%**	**44%**
ALF[2]	Apr-Jul	11364	10089	10494	10693	**10035**	-	-	**81%**	**45%**
GCL[2]	Apr-Aug	58972	58106	60971	60862	**57019**	-	-	**98%**	**64%**
BRN[2]	Apr-Jul	5230	4279	4079	3412	**3410**	-	-	**67%**	**45%**
DWR[2]	Apr-Jul	1968	1752	2002	2009	**1912**	-	-	**77%**	**32%**
TDA[2]	Apr-Aug	88029	82642	84282	83904	**78761**	-	-	**88%**	**59%**

Notes:
1. Official water supply forecasts for MCDB, ARDB, and DCDB are provided by BC Hydro on official forecast days. These were revised to account for latest runoff calculations.
2. Official water supply forecasts for SKQ, ALF, GCL, BRN, DWR and TDA are the ESP 10-day-QPF median values published by the NWRFC on the official forecast days for 2026.
3. Residual runoff calculated using RFC runoff data from May 25.

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