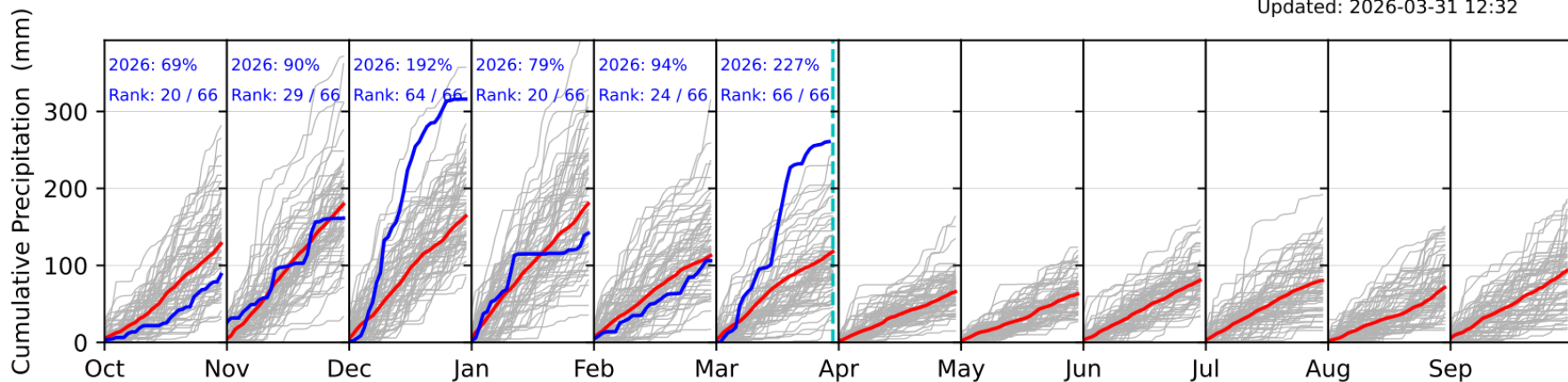


Columbia System: April Update

Updated: 2026-03-31 12:32



Kinbasket Water Supply:

- Record precip in Dec and Mar. Near average in other months.
- Mid and Upper Snowpack well above average.

27 Mar 2026

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Columbia System: April Update

Provincial Snowpack

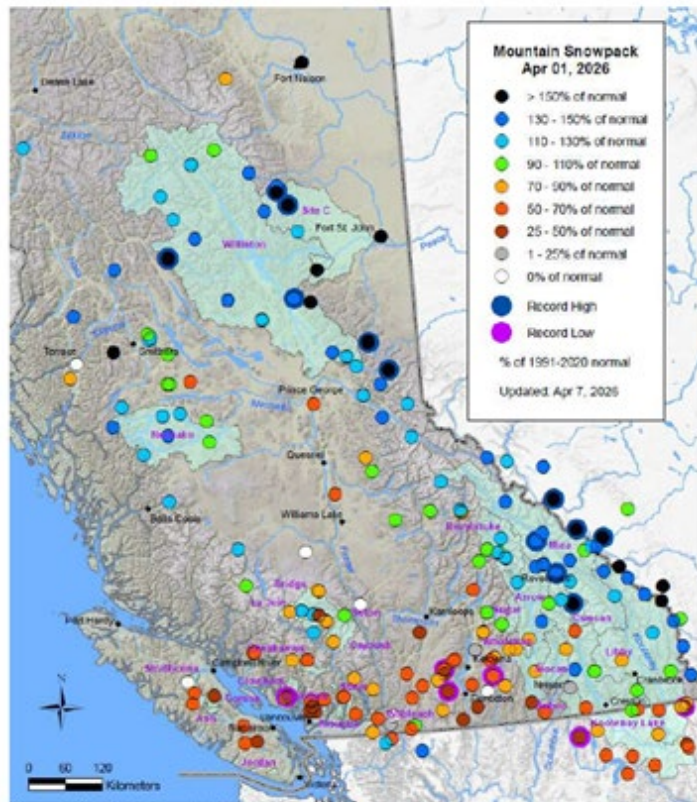


Figure 3. April 01, 2026 provincial SWE data as a percentage of normal.

Snow Pack

- Well above average in Upper Columbia (and Peace).
- Kinbasekt and Arrow Reservoir expected to fill mid summer.
- Increased likelihood of spill at Kinbasket... even with average spring/summer rain.
- Much different spring conditions relative to the past 3 (dry) years.
- “Local Arrow FRM” likely to be requested this year under the new Flood Risk Operating Plan.
- Different picture for Lower Mainland and Vancouver Island. Above ave precip... but not retained as snow. Freshet flows likely to be below average.

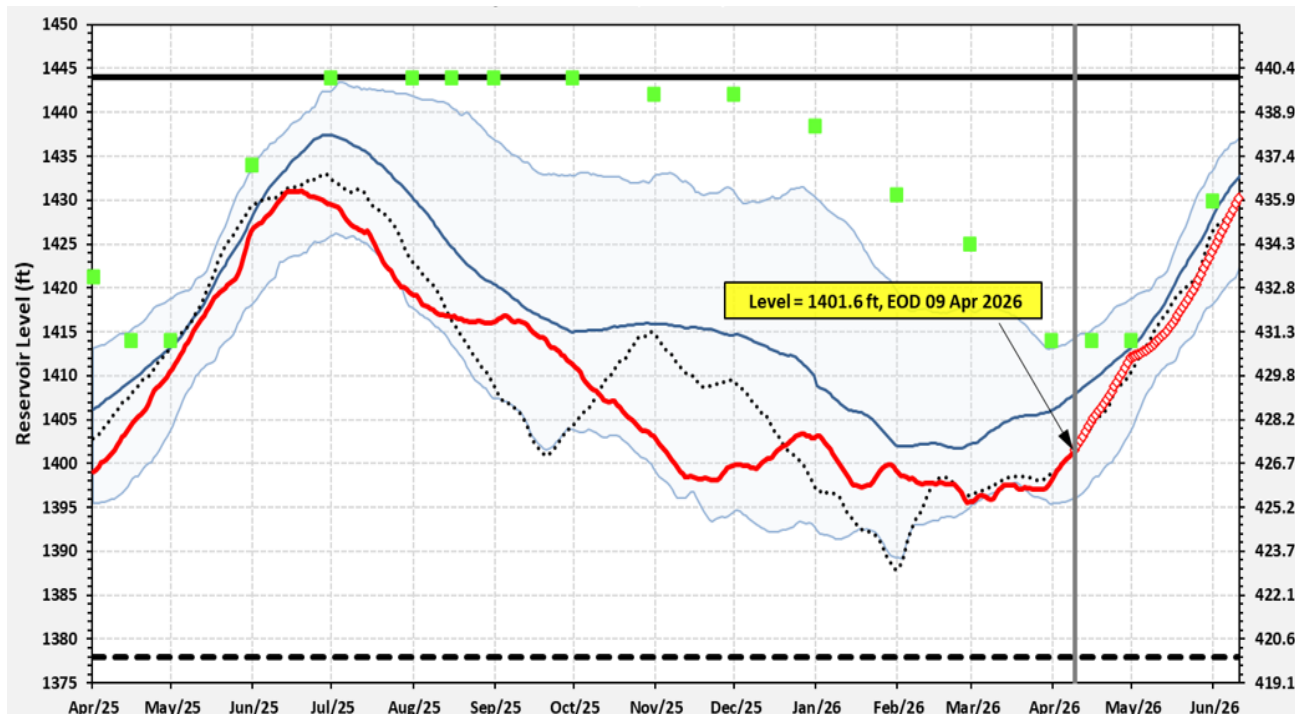
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Columbia System: April Update

April Arrow Forecast

- With the onset of spring snow melt, Arrow Reservoir expected to track average refill rates and levels over the next two months.
- Longer term system planning for Arrow considers the Hugh Keenleyside (HLK) Spillway Upgrade Project in Oct/Nov.
- Kinbasket also expected to be near full pool mid July.



2025 Flood Risk Operating Plan (FROP)



Deer Park Lookout

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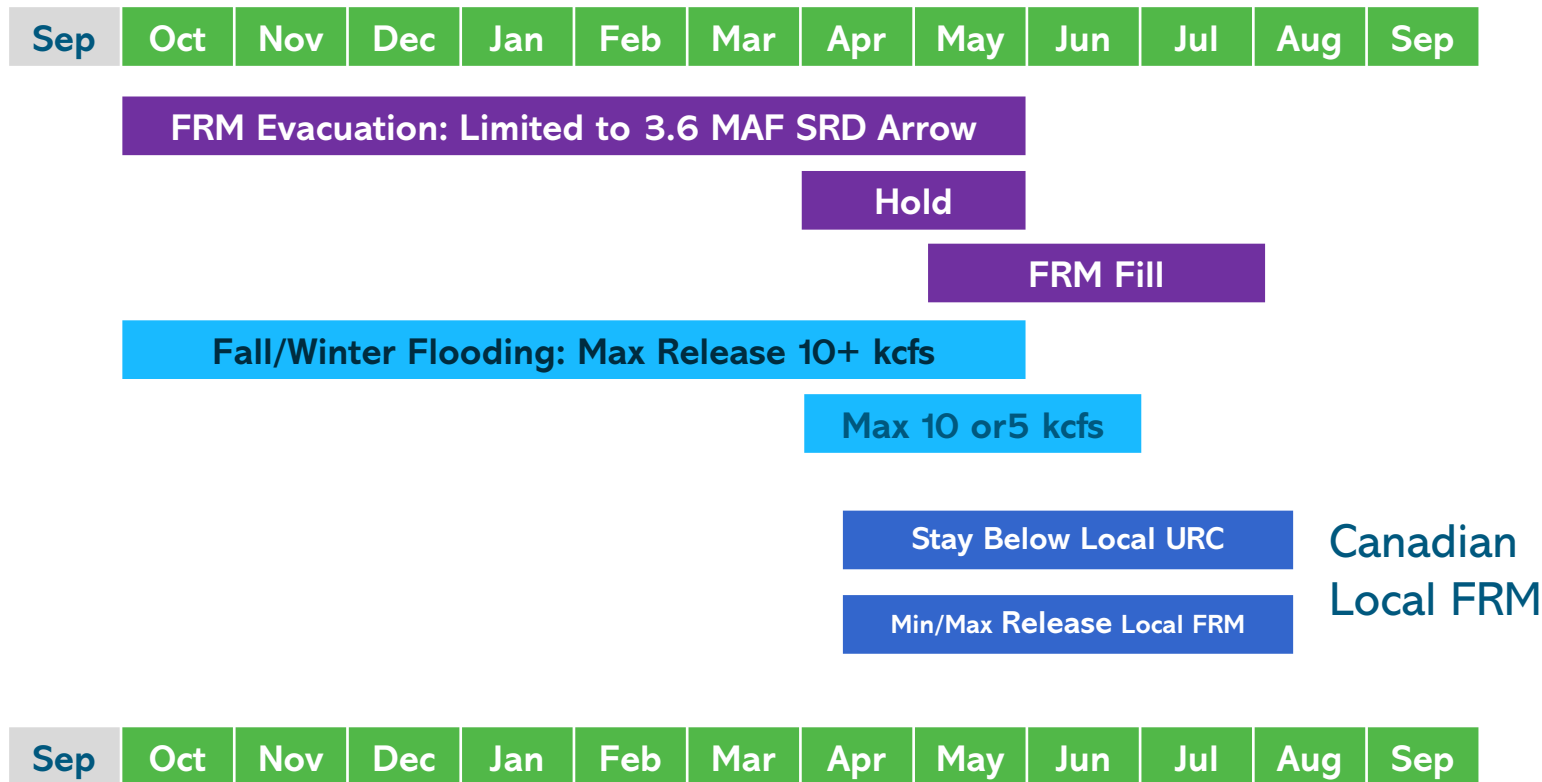
2025 Flood Risk Operating Plan (FROP)

Background

- Released as a requirement under the Flood Risk Management (FRM) Entity Agreement, issued in 2024.
- The 2025 FROP establishes the technical requirements and procedures by which the Canadian Entity will operate the 3.6 MAF of pre planned flood risk management storage at Arrow Lakes Reservoir in coordination with operation of Canadian Treaty Storage.
- The 2025 FROP becomes in effect for the operating year when the USACE provides payment to BC, as described in the FRM Entity Agreement, and it has been accepted by the Canadian Entity.
- The FROP (and the FRM Entity Agreement) expires in Jul 2027.
- The 2025 FROP replaces the previously governing 2003 Flood Control Operating Plan (FCOP), which expired in Sep 2024.



FROP 2025: Periods & Timing



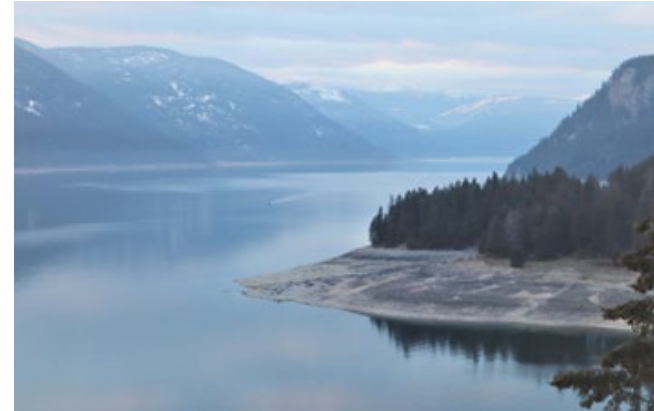
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What has changed under the 2025 FROP?

Comparing the 2025 FROP to the 2003 FCOP

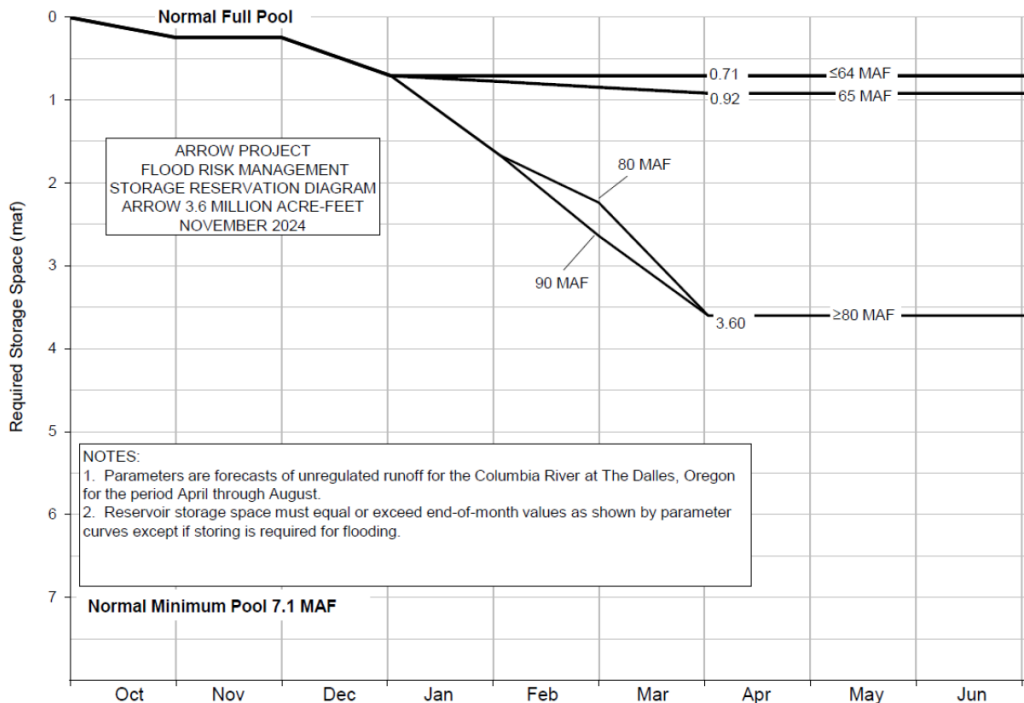
- 2025 FROP reflects changes detailed in the Agreement in Principle (AIP) and the Flood Right Management (FRM) Entity Agreement.
- Pre planned operations for flood risk management storage is now limited to 3.6 Million Acre Feet (MAF) at only Arrow.
- Unlike the 2003 FCOP, the 2025 FROP does not explicitly include operations at Kinbasket, Duncan or Libby Reservoirs.
- US Operations retains the objective of controlling floods below 16' at Vancouver Washington (~450 kcfs at The Dalles OR).
- US can only issue a maximum release rate at Arrow if under a System Flood Emergency: Vancouver WA is forecasted > 16 ft.
- The 2025 FROP now defines 180 kcfs as a Local Canadian Flood Risk Management objective for Trail (from 225 kcfs).
- Operationally, for seasonal reservoir levels and downstream discharges, the 2025 FROP outcomes are not expected to be materially different relative to the 2003 FCOP operations.



Arrow Lakes Reservoir (Jan 2023)

Arrow Storage Reservation Diagram

Chart 1: Arrow 3.6 MAF Storage Reservation Diagram



Arrow Storage Reservation Diagram (SRD)

- Applicable during the System Flood Risk Management (FRM) Evacuation Period.
- Intent is to balance evacuating (releasing) storage too quickly from Arrow, which could worsen downstream flooding in Canada and the US, vs not evacuating enough storage prior to spring snowmelt peaks.
- The Arrow SRD defines the required space at the end of each month based on Seasonal runoff forecast at The Dalles.
- For each month, depending on the Arrow levels and other governing requirements under the Annual Operating Plan (AOP), the SRD may or may not be the governing restriction for Arrow Discharges or levels.

Local Canadian Flood Risk Management (Local FRM)

Local FRM

- FROP 2025 incorporates a more conservative lower flood risk onset level for Trail (Birchbank: 180 kcfs).
- Canada may increase/decrease flow for Local FRM to manage to Trail objectives subject to release rates for System FRM under the 2025 FROP. All operations are expected to respect Arrow ramp rates for releases.
- Canada may issue a Local FRM rule curve (e.g. lower levels in Arrow during evacuation and fill). This would be characterized as a lower upper Arrow target elevation prior to peak freshet (ex: 1440' vs 1444' at Arrow).
- If maximum US release rates, limiting Arrow discharge resulting in Arrow exceeding a Local FRM target, BC Hydro may consider a surcharge at Arrow, similar to prior years.
- The System FRM under the 2025 FROP remains the priority constraint.
- Flood risk management at associated with other projects (Kinbasket, Revelstoke, Duncan, Kootenay Lake) will continue to be managed through coordinated operations. The Canadian Entity may reduce releases from said projects, as appropriate, to help manage local flooding.
- Flood risk in Canada generally at the same time or later than flooding in the Lower Columbia River. Objectives for managing releases for local flooding in Canada is compatible with System FRM objectives.

Operational Considerations: 2025 FROP

Operational Outcomes

- System FRM (or Local FRM) operations during refill are not expected to be materially different than those before Sep 2024 under the previous 2003 FCOP.
- Surcharge at Arrow remains an option for Local Canadian FRM management at Trail if constrained by System FRM operations.
- s5-4 *"In coordinating the operations for System FRM at Arrow, every effort will be made to minimize flood damage in both Canada and the United States"*
- s4-2 Fall/Winter Canadian Energy Emergency Provisions

