

Columbia Operations Update

June 23, 2026



2026 Operations Update: Columbia Basin

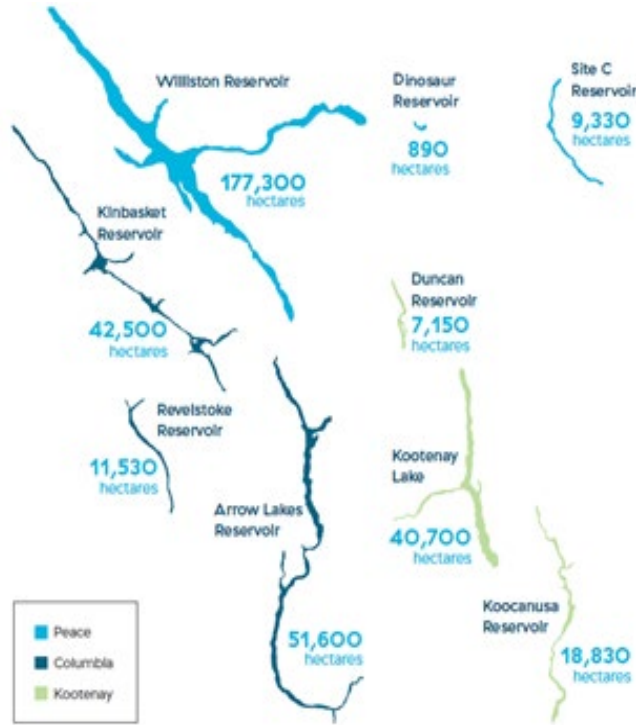


Columbia River

- Our Integrated System & Columbia
- Columbia River Treaty
- 2025 Recap
- Current Conditions
- Reservoir Forecasts

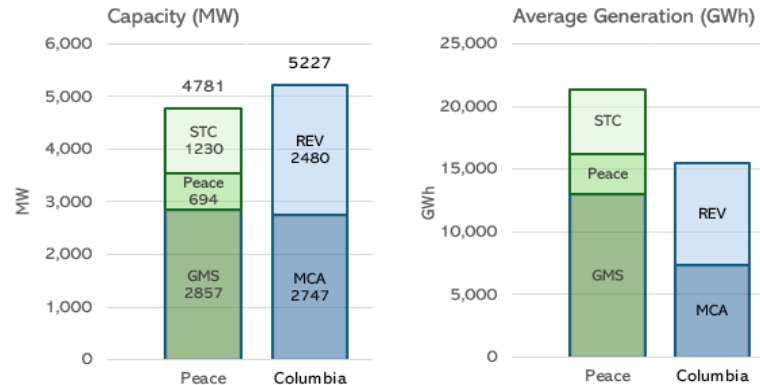


Our Major Integrated Systems



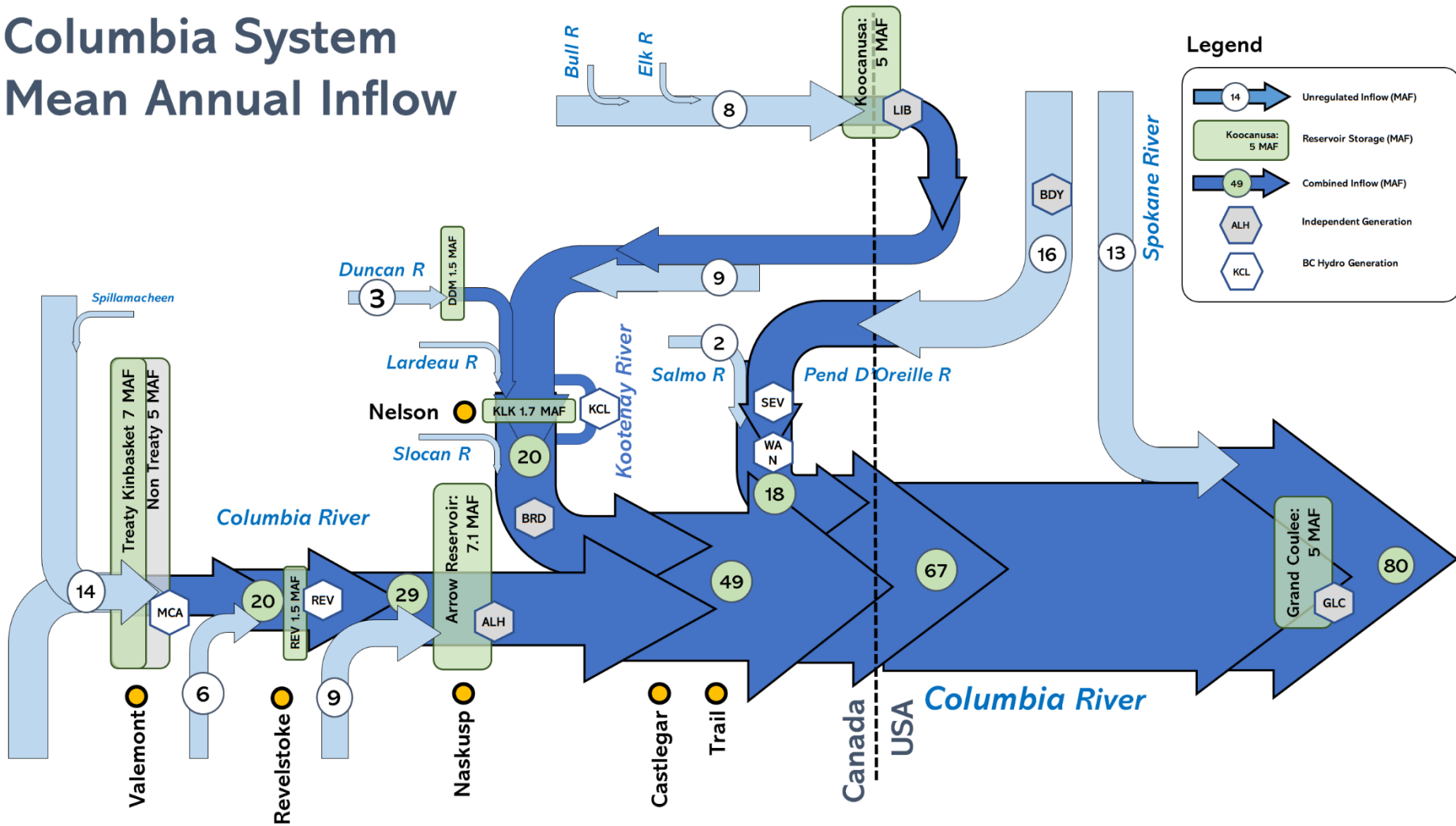
Reservoir Surface Areas

- Columbia and Peace are essential for B.C.'s annual energy demand.
- Columbia (25%) and Kootenay and Pend d'Oreille (10%) provide about 35% of our average annual generation.
- The Peace, with the new John Horgan Generating Station (Site C), provides around 33%.
- In total, the two basins represent 68% of our annual generation.



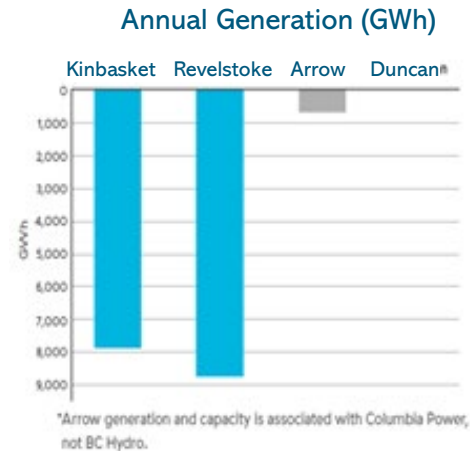
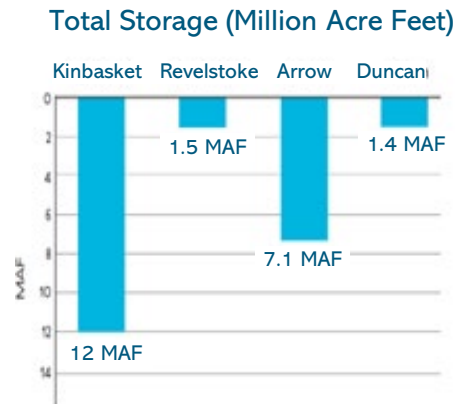
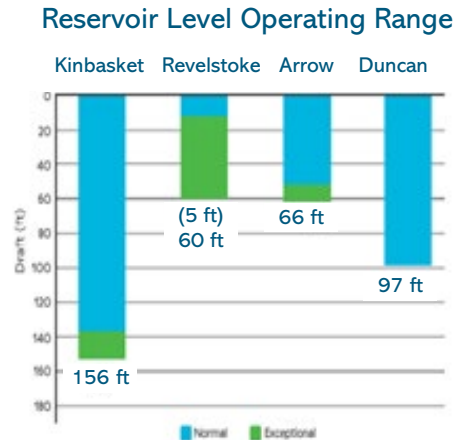
Columbia System

Mean Annual Inflow



Each Reservoir is Unique

- When and how much the reservoirs rise (fill) and lower (draft) each season depends on operating range, total storage, seasonal generation demand, and downstream discharge requirements.
- These attributes can vary significantly between reservoirs resulting in different operations for generation, flood risk management or other interests, like environmental flows.



Columbia River

Major Hydropower Projects in Columbia Basin



Columbia River Basin



Canadian Basin Detail

Columbia River Treaty

Canada	United States
Required to construct the Kinbasket, Arrow and Duncan storage reservoirs on the Columbia River system.	As of 2024, required to pay Canada annual payments of USD \$37.6M (indexed to inflation) for flood risk management for 3 years.
Required to operate these reservoirs for optimum power generation and flood control downstream in both countries.	Required to deliver to Canada 50% of the increased power capability at downstream U.S. plants due to upstream regulation – this is called the ‘Downstream Benefit’ and is typically worth between \$110 - \$400 million per year.
Canada did not turn over control of its reservoirs to the U.S. Rather, the operations of the Treaty reservoirs in B.C must be agreed to by both Canada and the U.S. depending on advanced plans and annual conditions.	Permitted to construct and operate the Libby project on the Kootenai River creating Koocanusa Reservoir which flooded 67 kilometres into Canada.

- Columbia River is 4th largest in North America.
- Canada has 15% of the basin area. The Canadian portion is mountainous with much snow. On average, it produces 30-35% of inflow for the entire basin.
- During flood years, Canada has produced as much as 50% of the flows recorded at Portland.
- Most hydropower production and need for flood control is in the USA. The major storage dam sites are in Canada.



Columbia River Treaty Updates

- Treaty negotiations between the two countries are currently paused.
- In July 2024, Canada and the United States reached an agreement-in-principle (AIP) to modernize the Columbia River Treaty.
- Until a new Treaty is finalized, operations are subject to current Treaty requirements.
- Periodically, Canada and the U.S. negotiate other operating agreements if modifying water releases specified by the terms of the Treaty has benefits for both countries.



Columbia River

Non-Power Use Agreement

- This agreement modifies flows downstream of Hugh L. Keenleyside Dam specified by the Columbia River Treaty.
- The modified flows are intended to protect Canadian fish (whitefish) during spawning and rainbow trout.
- These flows also protect U.S. salmon during spawning migration.



2024/25: Reservoir Operations

- B.C. has been in a provincial drought since the fall of 2022.
- Inflows to Columbia had been below average for the past 3 years: 2023 to 2025.
- The drought not only affected Columbia operations. It was provincial and affected operations and reservoir storage in in the Peace, the Lower Mainland, and Vancouver island and extended into the Pacific Northwest in the US and Alberta.
- The cause of drought varied between years:
 - Dry fall in 2022
 - Very dry summer/fall in 2023
 - Low snowpack winter 23/24
 - Extremely low snowpack 24/25
- Most large reservoirs operated below average the past three years.



Columbia River near Trail

- BC Hydro manages the system for reliable generation each season.
- BC Hydro ensures there is sufficient storage for generation over the winter and into the spring prior to the start of snow melt.
- Imports are part of our strategy to manage load and resource.
- Over the last 15 years, we have been a net importer in 7 and a net exporter in the other 8.



2026 Conditions & Forecasts



Mica Creek: Downstream of Mica Dam



Spring 2026 Snowpack

Executive Summary

- As of June 15, 2026, the provincial mountain snowpack is at 48% of normal, decreasing from 64% of normal on June 1.
- Typically, approximately 80% of the annual snowpack melts by June 15. This year, about 85% of the measured snowpack had melted by mid-June.
- Higher elevation regions in northern and eastern B.C. with near- to above-normal alpine snowpack continue to have a slightly elevated hazard for snowmelt-related flooding.
- Below-normal snowpack in southern regions, earlier-than-normal lower elevation snowmelt, and warm seasonal weather forecasts are elevating drought hazards this upcoming season, particularly along the southern coast and southern interior.
- Visit [B.C. Drought Information Portal](#) for more information on drought and water scarcity.

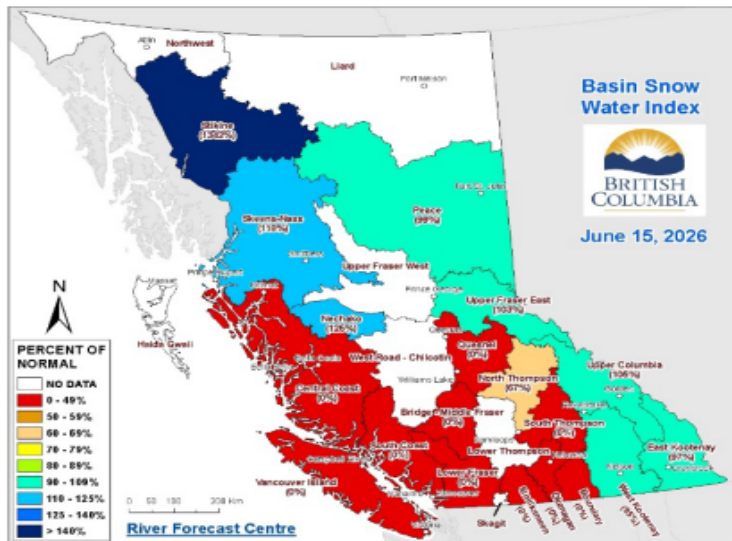


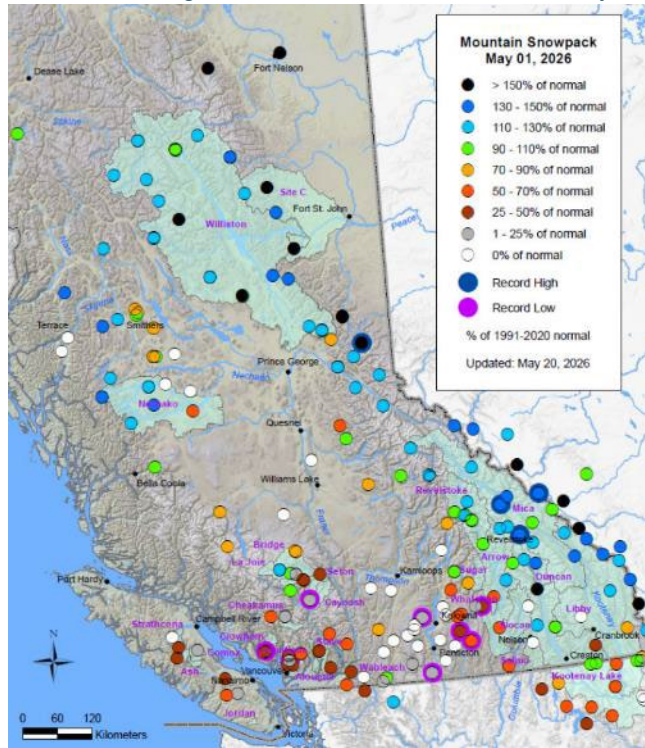
Figure 1. June 15, 2026 Basin Snow Water Index Map of British Columbia. Larger and colour-friendly versions available in full report.

- Peak provincial April snowpack was above average.
- Snowpack slightly below average as of June associated with an earlier start to spring melt.
- But this is a Provincial average, not basin specific

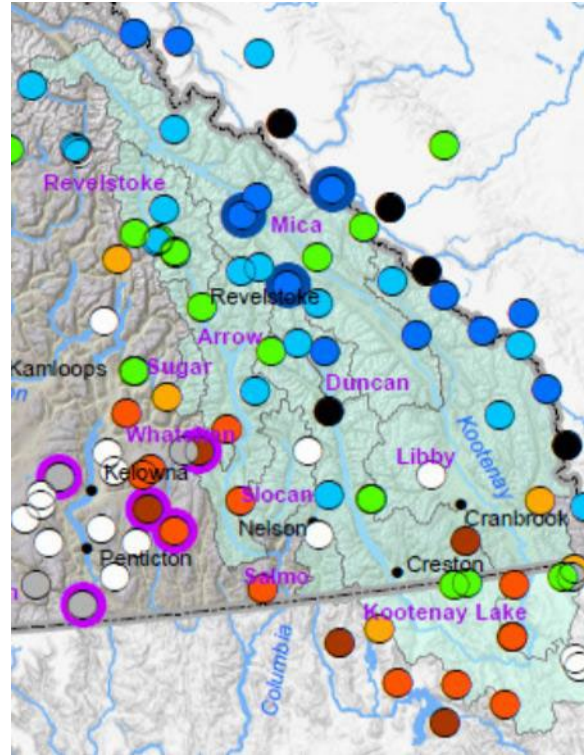


Spring 2026 Snowpack

- Below average for Coastal and Southern Interior.
- Above average in Peace and Columbia/Kootenay.



Detail for Kootenays and Columbia.



Fauquier Data Collection Platform.



Spring 2026 Drought Index Basin Status

Normal or wetter than normal
Abnormally dry
Increasing dryness and severity of drought
More rare

Drought Level 0

Basin Count: 14 63.2% of Province (Area)

Drought Level 1

Basin Count: 10 19.5% of Province (Area)

Drought Level 2

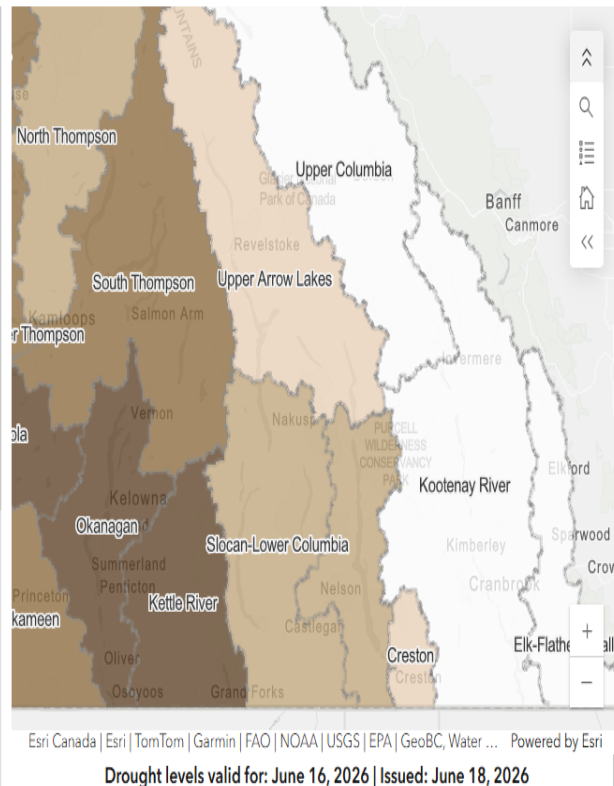
Basin Count: 7 8.4% of Province (Area)

Drought Level 3

Basin Count: 6 5.8% of Province (Area)

Drought Level 4

Basin Count: 4 3.1% of Province (Area)



BASINS	28-May	4-Jun	11-Jun	18-Jun
Upper Columbia	0	0	0	0
Upper Arrow Lakes	0	0	0	1
Kootenay River	1	0	0	0
Elk-Flathead Valleys	0	0	0	0
Creston	2	0	1	1
Kootenay Lake-West Arm	1	0	2	2
Slokan-Lower Columbia	3	2	2	2
Kettle River	4	4	4	4

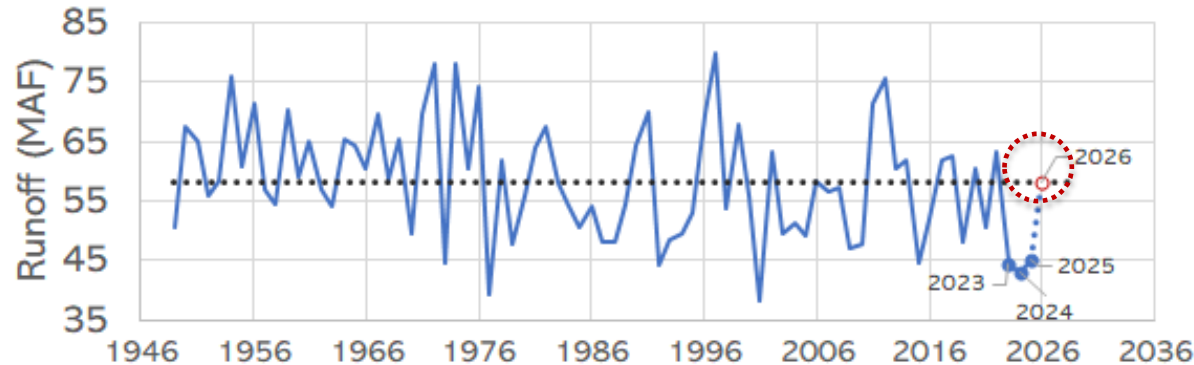
- Mid June, the provincial index has about 63% of the province in Stage 1+ drought levels.
- In contrast, the Upper Columbia, Arrow Lakes, and the East Kootenays (and the Peace) remain normal or wetter than normal.

Canadian Water Supply Forecast

Water Supply Forecast: inflows between April and September.

- 2023 was the 6th lowest on record, mostly because of the summer drought.
- 2024 was the 3rd lowest on record, driven by low snowpack.
- 2025 was the 8th lowest, driven (now) by low snowpack.
- 2026 forecasted to be above average, 96% based on current snowpack and inflows.

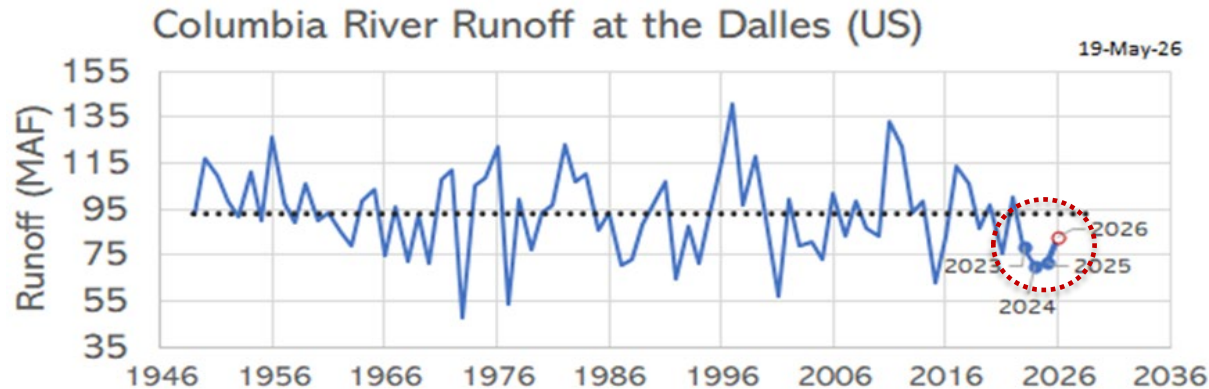
Water Supply Forecast: Canada | US



U.S. Water Supply Forecast

Water Supply Forecast: inflows between April and September.

- 2023 was the 17th lowest on record, mostly because of the summer drought.
- 2024 was the 6th lowest on record, driven by low snowpack.
- 2025 was the 10th lowest on record, driven by low snowpack.
- Unlike in Canada, US WSF forecasted to be below average (89%) again for 2026.



Kinbasket Reservoir

- Storage in Kinbasket Reservoir supports seasonal generation at both Mica Generating Station and Revelstoke Generating Station.
- Mica provides ~12% of BC Hydro's average annual generation and, combined with Revelstoke, almost 25% of our total generation.
- Kinbasket targets full pool prior to the winter. Fall storage levels must be sufficient to meet electricity demand until next spring under many conditions including a cold winter or a late spring.

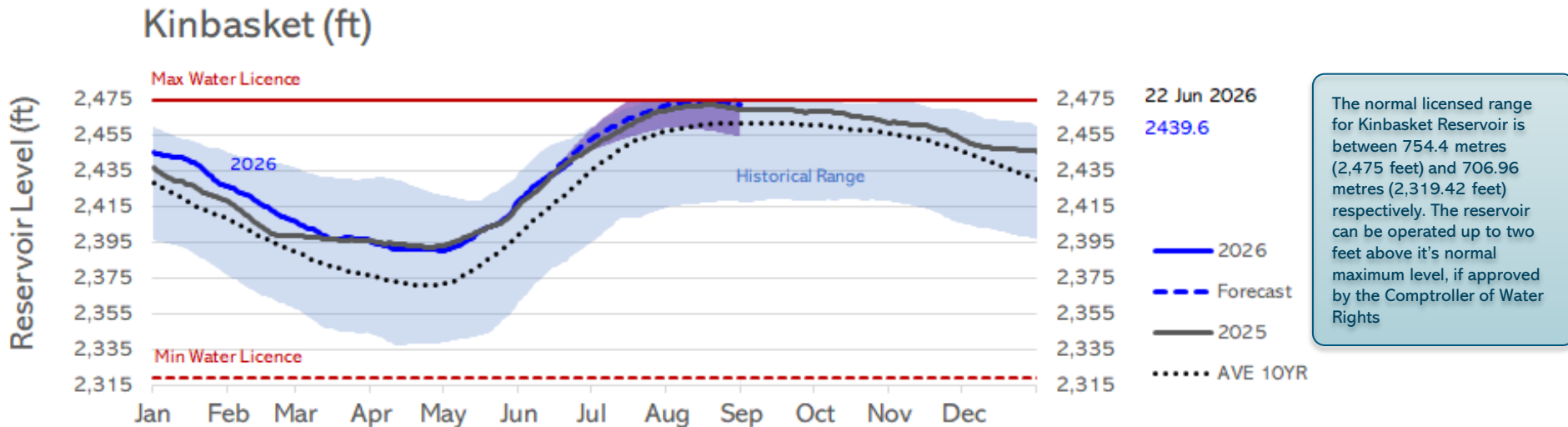
- Kinbasket Reservoir & Mica Dam
 - 42,500 Ha Surface Area
 - 12 MAF: 7MAF Treaty + 5MAF Non Treaty Storage
 - 2,477 ft: Water Licence Max with surcharge
 - 2,475 ft: Normal Max
 - 2,319 ft: Water Licence Min
- Mica Generating Station (MCA)
 - Units 1-4 (1977) and Units 5-6 (2015)
 - 2,747 MW: Capacity
 - 7,400 GWh: Average Generation
- Downstream Projects
 - Revelstoke Reservoir & Dam
 - Arrow Lakes Reservoir & Hugh Keenleyside Dam
 - Grand Coulee Dam & Reservoir (USACE)



Kinbasket Reservoir

Kinbasket Reservoir

- Kinbasket Reservoir is currently about 15 ft above average and comparable to mid June last year.
- With this year's elevated snowpack, maximum levels are expected to approach normal full pool by end of July: 2,475 ft. There is also a potential to use 1ft additional water licence storage to 2,476 ft.
- With the elevated levels, there is a chance that Kinbasket may have to safely spill water in addition to turbine generation to manage the reservoir within its water licence limits in July.



Revelstoke Reservoir

- Revelstoke is one of BC Hydro's largest generation stations in both annual average generation (approximately 13%) and reliable capacity (5 Units = 2,480 MW).
- Revelstoke has limited storage compared to Kinbasket. And is usually managed within 5 ft of its max level. It relies on Kinbasket storage for winter and spring generation.
- The reservoir may fluctuate below the top 5 ft during short-term changes to inflow and electricity demand in spring freshet, peak winter loads or during major unit outages.



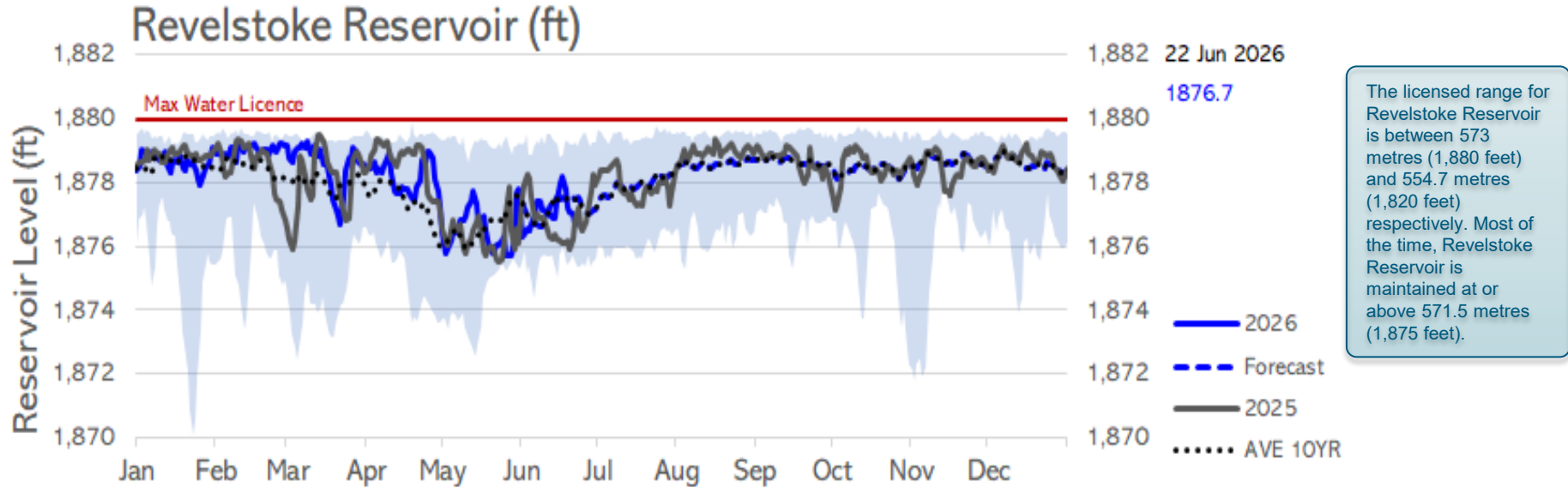
Revelstoke Reservoir

- Revelstoke Reservoir and Dam
 - 11,530 Ha: Surface Area
 - 1.5 MAF Storage
 - 1,880 ft: Licence Maximum
 - 1,875 ft: Normal Minimum
 - 1,820 ft: Licence Minimum
- Revelstoke Generating Station (REV)
 - U1-4 (1984) & U5 (2011)
 - 2,480 MW: Capacity
 - 8,200 GWh: Average Generation
- Upstream Projects:
 - Kinbasket Reservoir and Dam and Mica GS
- Downstream Projects
 - Arrow Lakes Reservoir & Hugh Keenleyside Dam
 - Arrow Lakes Hydro GS (Columbia Power Corp)
 - Grand Coulee Dam, Reservoir, and GS (USACE)



Revelstoke Reservoir

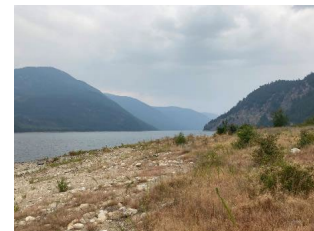
- Operations at Revelstoke Reservoir are expected to remain within normal seasonal patterns for the near term.
- Revelstoke has no significant storage: Keeping the reservoir high maximizes the energy per unit of water.
- Revelstoke is often, briefly, operated lower in spring to accommodate peak freshet inflows and may spill.



Arrow Lakes Reservoir

- Arrow Reservoir, impounded by Hugh Keenleyside Dam, along with Kinbasket and Duncan reservoirs, are part of the Canadian Columbia River Treaty storage projects.
- BC Hydro does not generate power from Arrow Reservoir. However, the Columbia Power Corporation project Arrow Lakes Hydro (ALH) can generate power when the reservoir is above 1397 ft. The amount of generation, however, is small (<1% of BC Hydro's total generation) and does not materially influence Arrow Reservoir levels or planning.
- Arrow is currently forecasted to track just below average in June and above average for the balance of July and August.
- Seasonal levels at Arrow are determined by the balance between local inflows, Columbia River Treaty Discharge, and upstream discharges from Kinbasket Reservoir.

- Arrow Lakes Reservoir & Hugh Keenleyside Dam
 - Completed 1968
 - 51,600 Ha Surface Area
 - 7.1 MAF Treaty Storage
 - Normal Max: 1,444 ft (Option to 1,446 ft)
 - Water Licence Min: 1,369 ft
- Arrow Lakes Hydro Generation Station (CPC/CBT)
 - U1-2 (2022)
 - 185 MW
- Upstream Projects
 - Kinbasket Reservoir and Mica Dam
 - Revelstoke Reservoir & Dam
- Downstream Projects
 - Grand Coulee Dam and Reservoir (USBR)



Arrow Lakes Reservoir at Syringa, July 29, 2024



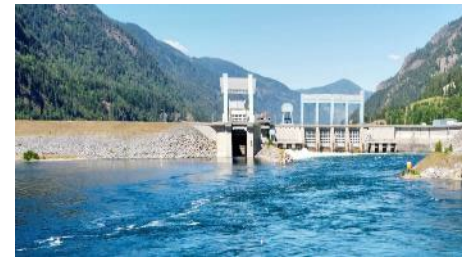
Arrow Lakes Reservoir

- Arrow is just below average: ~1432 ft as of mid-June.
- Under current conditions, with average precipitation, Arrow is expected to track just below average in June and above average and levels observed the past several years over the balance of the summer.
- In any season, the levels in Arrow are a balance of local unregulated inflows, Columbia Treaty Discharge Requirements, and upstream inflows from Kinbasket Reservoir.

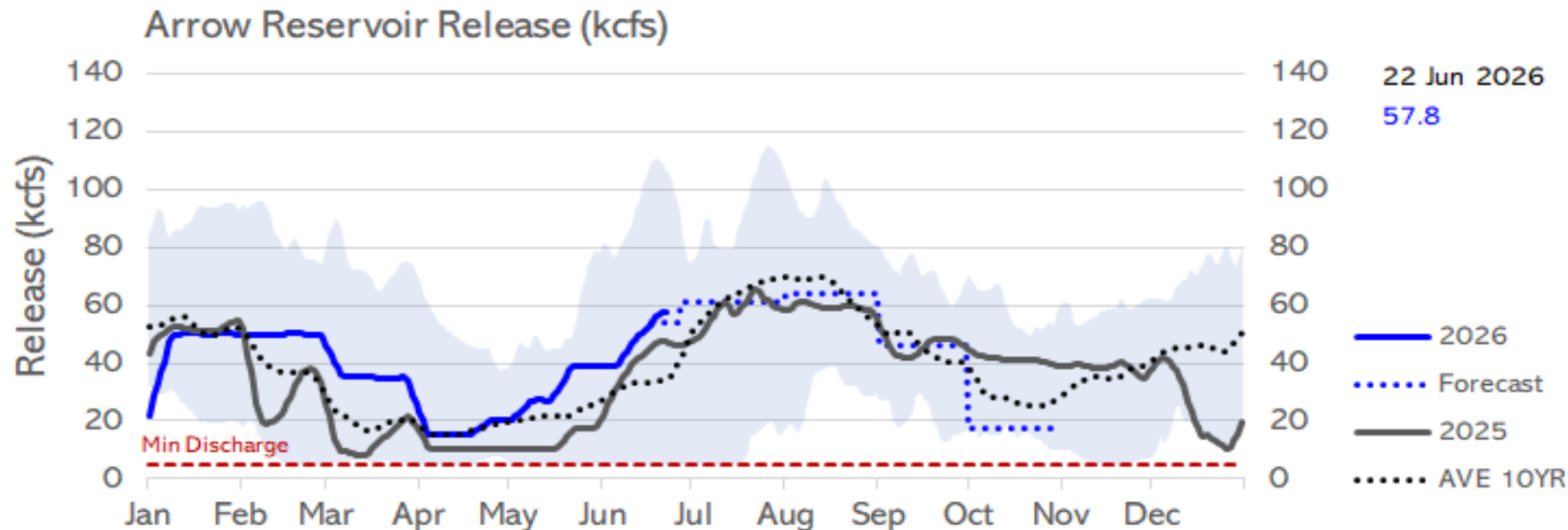


Arrow Lakes Releases

- Discharges from Arrow were above average this spring.
- Discharge across July and August are forecast to be slightly above average, subject to changes in water supply forecasts and precipitation in Canada and the U.S. Higher discharges across the summer may result in lower Arrow levels.



Keenleyside Dam



Duncan Reservoir

- Duncan River flows into Duncan Reservoir, upstream of Kootenay Lake.
- Discharge from Duncan joins flows into Kootenay River near Meadow Creek before joining Kootenay Lake.
- Duncan Reservoir is normally drafted from near full pool across the fall/winter to provide sustainable flows for fish and to meet local flood control requirements prior to spring freshet.
- While Duncan does regulate some inflow to Kootenay Lake, on an annual basis it only accounts for ~15% of the total annual inflows. Kootenay River from Koocanusa and Libby Dam provide ~40% and the balance (~45%) from unregulated downstream tributaries like the Lardeau River.
- During peak inflows to Kootenay Lake, however, Duncan may be reduced to minimum flows effectively attenuating all upstream inflow from Duncan River into Kootenay Lake.

- Duncan Dam and Reservoir
 - Completed 1967
 - 7,150 Ha Surface Area
 - 1.4 MAF Treaty Storage
 - 1893.2 ft: Water Licence Max
 - 1,892 ft: Normal Max
 - 1,795.2 ft: Water Licence Min
- No Generation
- Upstream Projects
 - Aberfeldie
- Downstream Projects
 - Kootenay Lake & Corra Linn Dam
 - Kootenay Canal GS
 - Kootenay River Plants
 - Grand Coulee Dam & Reservoir (USBR)



Duncan Reservoir

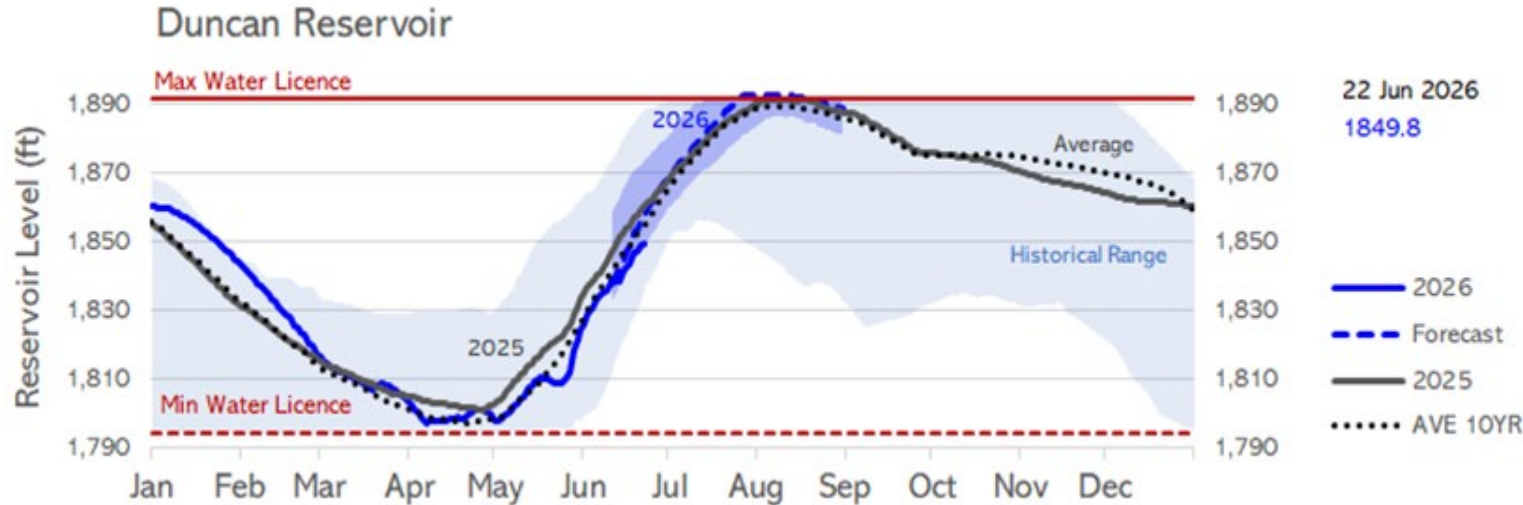


Duncan Reservoir

- Duncan Reservoir was near average levels in the spring and expected to trend to near or slightly above average through August.



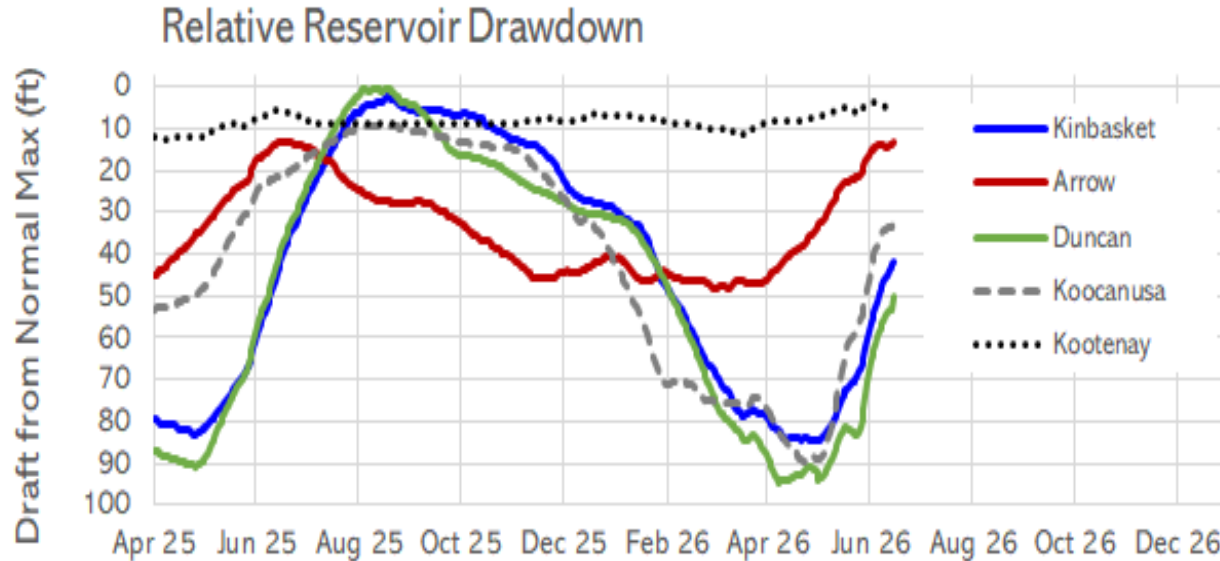
Duncan Dam and Duncan Reservoir



The normal licensed range for Duncan Reservoir is between 576.7 metres (1,892 feet) and 546.9 metres (1,794.2 feet). The reservoir can be operated up to 1.2 feet above its normal maximum level if approved by the Comptroller of Water Rights. Duncan Reservoir provides 1.4 MAF of Treaty storage.

Reservoirs in Comparison

Reservoir draft below full levels: Apr 2025 to Jun 2026.



- Kinbasket (and Koocanusa) are filled to near full pool in the fall and then drafted for winter and early spring energy and to ensure space for flood risk management prior to peak snow melt.
- Revelstoke has no seasonal storage, relying on Kinbasket releases for generation. It is kept near full pool to maximize energy.
- There are three components that affect Arrow Lakes Reservoir Levels. Arrow levels rise (fall) when discharges from Kinbasket and local inflows into Arrow are greater (less) than Columbia Treaty discharges.



Columbia River at Birchbank

- Flows measured at Birchbank on the Columbia River downstream of the Kootenay and Columbia Rivers.
- Flows and river levels depend on many factors: upstream runoff, storage operations and Treaty requirements, including operations from US Army Corps of Engineers (USACE) at Libby Dam.



Columbia River below Norns: Water Level Gauge



Columbia River at Birchbank

- Flows here are the combined releases from Arrow Reservoir (Columbia) and Kootenay River (regulated by Duncan Dam and USACE Libby Dam).
- Near average flows forecasted for the balance of June. Average to below average flows for the balance of the summer associated with the low water supply forecast.



Columbia River at Trail

