

MEETING SUMMARY

Columbia Basin Regional Advisory Committee Webinar

BC Hydro Operations Update

May 25, 2021, 12pm – 1:30pm Pacific Time

The Columbia Basin Regional Advisory Committee met on May 25, 2021 by webinar. As well as general updates, the main purpose of this webinar was a BC Hydro operations update.

[Welcome/CBRAC member updates](#)

Brooke McMurchy, B.C. Columbia River Treaty Team

- Brooke welcomed everyone and acknowledged the traditional territories of the Ktunaxa, Secwepemc and Syilx/Okanagan Nations, and the territories of Indigenous Nations across B.C.
- Brooke introduced the two newest CBRAC members – Kymme Paul (Baynes Lake) and Giles Shearing from (Revelstoke) – who then shared a few words about themselves.
- Before moving on to the session's main presentation, Brooke invited comments on the updated CBRAC Terms of Reference, which had been revised to include feedback from CBRAC members. No comments were raised. Brooke mentioned the updated version would be posted to CBRAC website that week.

[2021 BC Hydro Columbia Basin Operations Update](#)

Gillian Kong, Principle Engineer, Generation System Operations, BC Hydro

View Gillian's [presentation](#), which contains graphs, charts and more detailed descriptions of the Columbia Basin operations.

[Presentation Highlights](#)

Columbia Basin Weather Summary from October 2020 to May 2021

- Gillian noted that the Canadian portion of the Columbia Basin only constitutes 1/6 of the Basin, which also includes some or all of seven U.S. states, so weather conditions vary a lot, Basin-wide.
- **October** was wetter than usual in the northern half of the Basin with cooler temperatures, but slightly above normal elsewhere.
- **November** brought wide-ranging weather conditions, but close to normal overall.
- **December** was mostly warm and dry and was the warmest month in this water year.
- **January** brought warm and dry conditions.
- **February** was wet and cold, with an arctic outbreak causing extremely cold temperatures in the Canadian portion of the Basin.

- **March** was dry overall, with temperatures cooler than normal in Canada but near normal elsewhere.
- **April** saw prolonged dry conditions, with temperatures generally cooler than normal in Canada and mostly above normal in the U.S. portion of the Basin.
- **May** was dry, cooler than normal in Canada but mostly above normal in the U.S.

2021 Water Year Precipitation

- From October 2020 to May 2021, the Kootenays have been quite dry overall, with only the portion above Hugh Keenleyside/Arrow Dam close to normal.

2021 Water Year Observed Runoff

- The 2021 water year observed runoff to date is highly variable across the Basin, with the lowest runoff volumes in the Snake River basin and the highest in the Upper Columbia.

Current Snowpack

- Gillian noted that snow accumulation varies across the Columbia Basin. By the beginning of the runoff period (April/May), snowpack in the northern portion of the basin (above Hugh Keenleyside/Arrow Dam) was generally above average, while it was below average in the south.
- Warmer temperatures in the U.S. in April/May accelerated snowmelt, contributing to increasing spring runoff, resulting in no snow in many locations.
- Freshet is a little delayed in Canada due to cooler temperatures.
- Snowmelt in the Canadian Basin started in mid-May, contributing to noticeably higher stream flows.

Canadian Columbia Basin Runoff Forecast

- Overall, the water supply forecast (WSF) is lower for this year compared to last year.
- Kinbasket Reservoir is the only one currently forecast above normal.

U.S. Columbia Basin Runoff Forecast

- The U.S. portion of the Basin experienced dryer conditions this past year, so their water supply forecast is lower.

Kinbasket Reservoir Operations

- Kinbasket refilled fully last summer due to above-normal inflows.
- It was drafted across the winter/fall period and began trending below average in late January 2021.
- An arctic outbreak brought unseasonably cold temperatures in January and February, followed by cooler and drier conditions in March and April. This resulted in higher energy loads and increased reservoir draft rate.
- Kinbasket reached a minimum level of 2358.4 feet on April 15, 2021, about 5 feet below last year's minimum. At the time of this meeting, is at 2376 feet, filling at about a foot a day in the past week.

- It is forecast to refill to a summer maximum level of 2464 feet by late August, 2021, 11 feet below full pool.
- Kinbasket operations will be fairly typical, but this could change depending on weather.
- A CBRAC member from Valemount commented that the Canoe River hot springs were accessible for about 2 weeks in April, making some locals happy.

Revelstoke Reservoir Operations

- Revelstoke Reservoir was drawn down in March, 2021 to support maintenance work and again in late April through mid-May, 2021 due to colder and drier conditions.
- Snowmelt in the basin is a bit delayed this year. It started with last weekend's (May 15/16, 2021) hot weather contributing to higher tributary flows and reservoir levels.
- The reservoir is expected to remain within the normal operating range.

Arrow Lakes Reservoir Operations

- Arrow releases are regulated under the Columbia River Treaty (CRT) and coordinated agreements.
- A Nonpower Uses Agreement was developed between CRT Entities to enable shaping of Arrow Treaty flows from January to July 2021 for U.S. and Canada fish objectives.
- Arrow Lakes Reservoir began the operating year near full supply at 1441 feet on August 1, 2020. It drafted as normal in the fall and winter.
- Arrow refilled to its maximum permissible level for CRT Flood Risk Management in April, 2021 and is forecast to continue to refill through the balance of May and June.
- Arrow is expected to reach a maximum level of about 1441 feet, 3 feet from full pool, by late June, 2021.
- Storage could return to proportional draft as early as July if dry conditions persist in the U.S.
- A CBRAC member asked if the projected elevation levels for Arrow include expected proportional drafts. Gillian replied that the current forecast assumes proportional draft operations starting in August as is normal in most years due to typical drier summer conditions in the Basin.

Duncan Reservoir Operations

- Duncan is typically operated to meet Water Use Plan (WUP) provisions for flows, levels and CRT Flood Risk Management requirements during drawdown and refill.
- It began the operating year near full pool in August 2020 and operated to WUP recreation targets through to Labour Day, 2020.
- Discharge was reduced to WUP stipulated low flows for downstream kokanee spawning protection and ecosystem objectives from late September through to late December, 2020.
- The reservoir drafted across January through April, 2021 for system-wide and local flood risk management.
- It reached a minimum level of 1794.7 ft on April 29, 2021, 0.5 feet above licence minimum.

- Duncan discharge was reduced in mid May to support refill of the reservoir.
- The reservoir is forecast to fill to a summer maximum level of 1891 feet, 1 foot below full, by late July.

Koocanusa Reservoir Operations

- Gillian emphasized that Koocanusa Reservoir water levels are managed by Libby Dam in Montana, which is owned and operated by the U.S. Army Corps of Engineers (USACE). The information provided during this session on Koocanusa Reservoir and Libby Dam operations is from the USACE.
- Koocanusa began the operating year in August 2020 at about 2451 feet, 8 feet below full pool.
- From December through April, Libby Dam was operated to meet flood-risk management requirements.
- Koocanusa reached a minimum level of 2401 feet on April 5, 2021.
- It is forecast to fill to a summer maximum level of 2452 feet, 7 feet below full pool, by mid-August, 2021.

Kootenay Lake Operations

- Kootenay Lake operations are in accordance to the International Joint Commission (IJC), held by FortisBC, which stipulates maximum and permissible levels on Kootenay Lake.
- The IJC requires the lake to be drawn down from January 7 through April 1 each year, subject to Grohman Narrows restriction.
- Kootenay Lake reached a minimum level of 1,738.6 feet on April 1, 2021.
- “Spring Rise” for Kootenay Lake was declared on April 21, 2021.
- Flows were proactively maximized through Grohman Narrows beginning April 21, 2021.
- Lake discharge will be maximized until mid-June, when freshet flows are expected to taper off and there are no concerns with flood risk.
- Kootenay Lake is forecast to fill to a spring maximum level of 1,748 feet in early June, 4 feet below onset of flood risk.