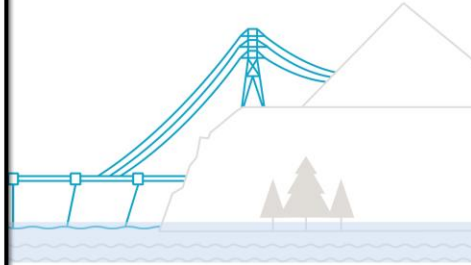


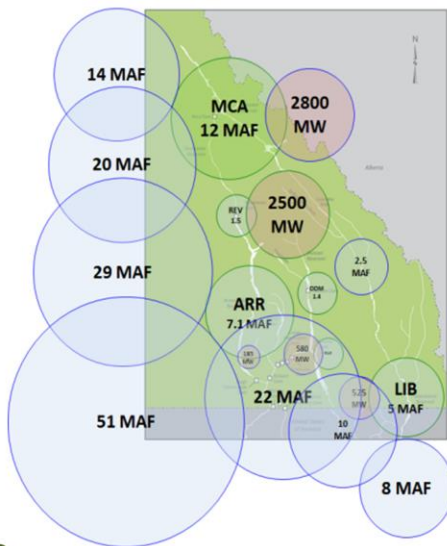
Columbia Operations Update

13 May 2018



 BC Hydro

Columbia Basin: Quick Comparison

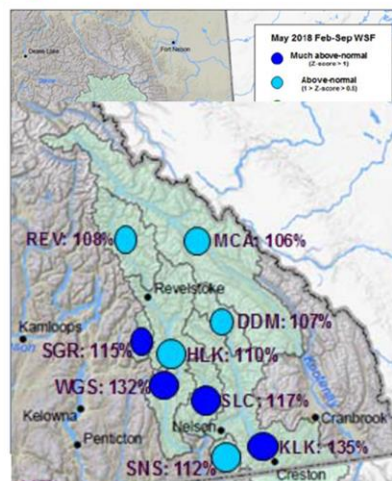
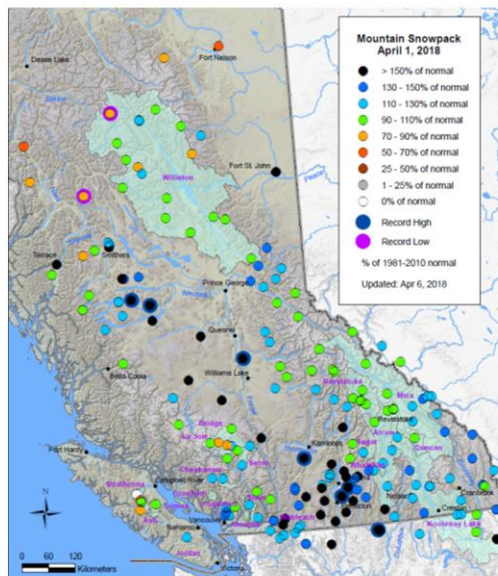


Inflow (Blue)
Storage (Green)
Capacity (Red)



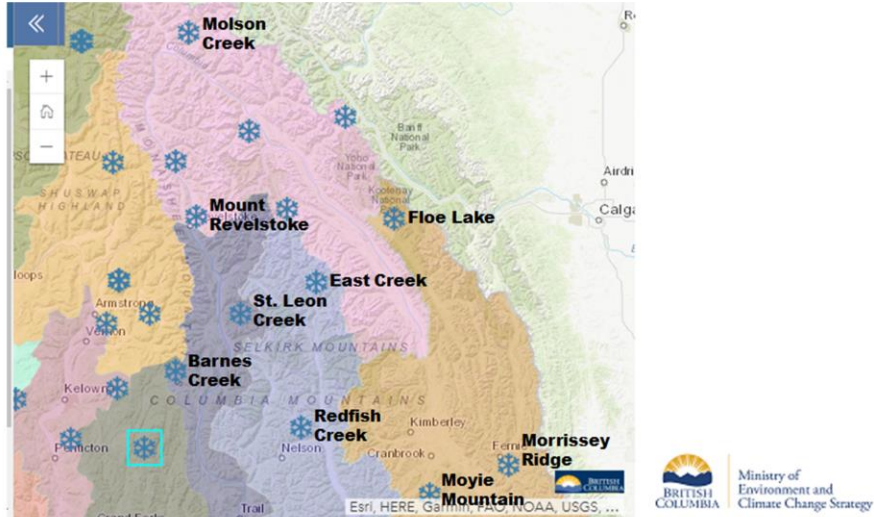
BC Hydro
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Snow Pack & Water Supply Forecast



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Location of Key Snow/Weather Stations



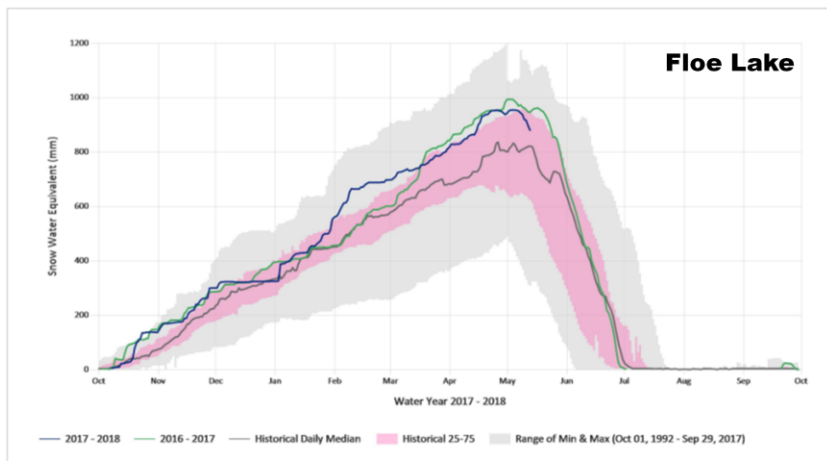
<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-science-data/water-data-tools/snow-survey-data/automated-snow-weather-station-data>

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Snow Stations 13 May 2018

SW Daily@2C14P - Floe Lake

Latitude: 51.050834 Longitude: -116.135559 Elevation: 2090 (m)



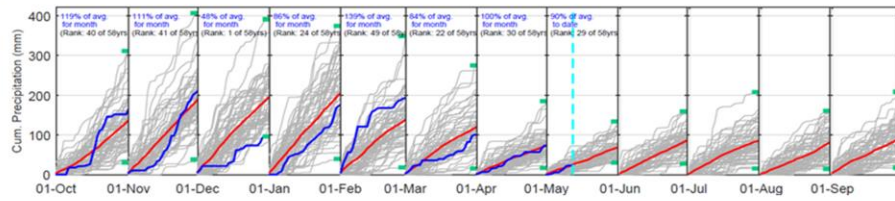
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Precip Summary: Water Year 2018

Mica

Water Year 2018

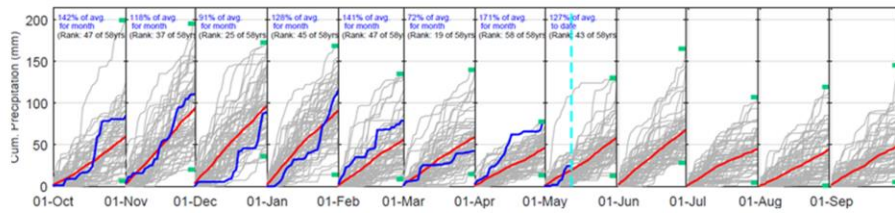
Updated 14-May-2018 12:17:19



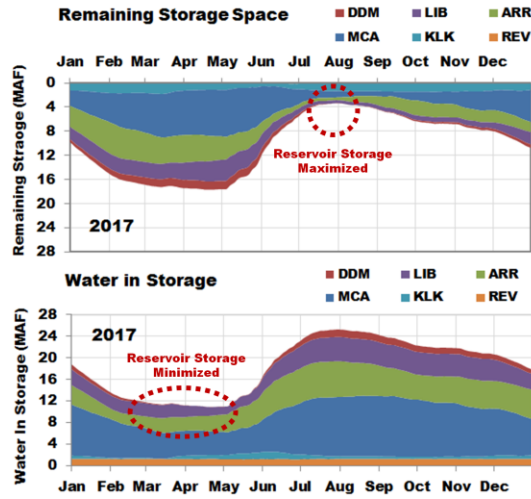
Kootenay

Water Year 2018

Updated 14-May-2018 12:17:10

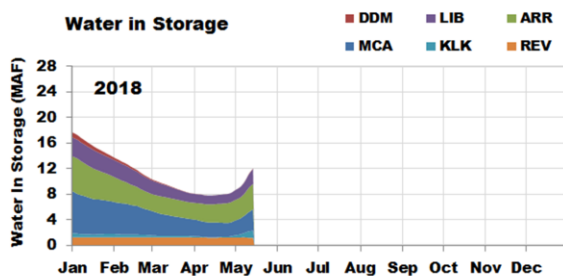
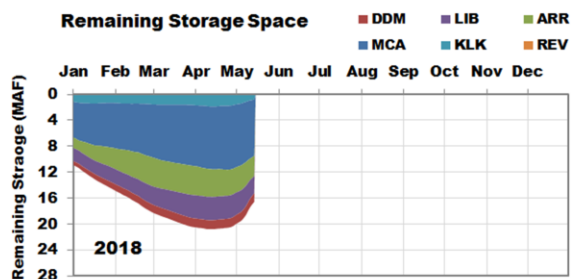


System Storage Summary

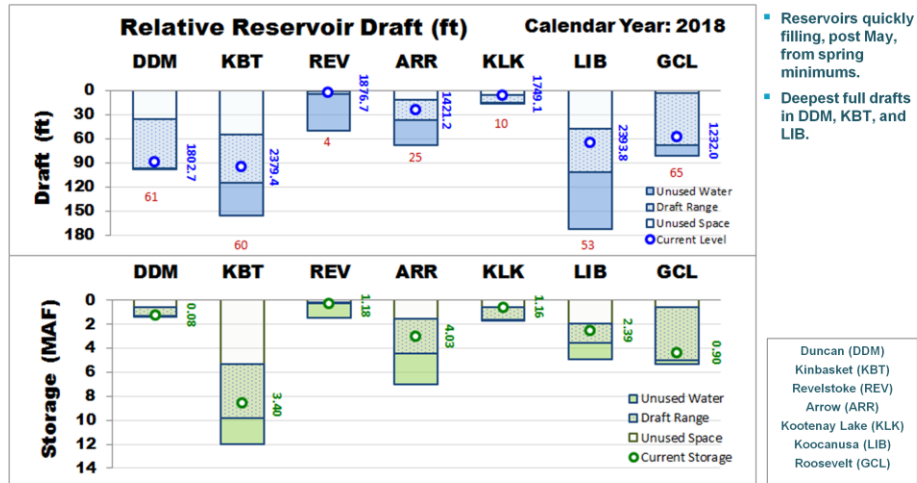


- System storage maximized Jul to Aug: ~24 MAF.
- System storage at minimum mid Mar: ~11.5 MAF.
- Bulk of seasonal storage swing in MCA, ARR, and LIB.

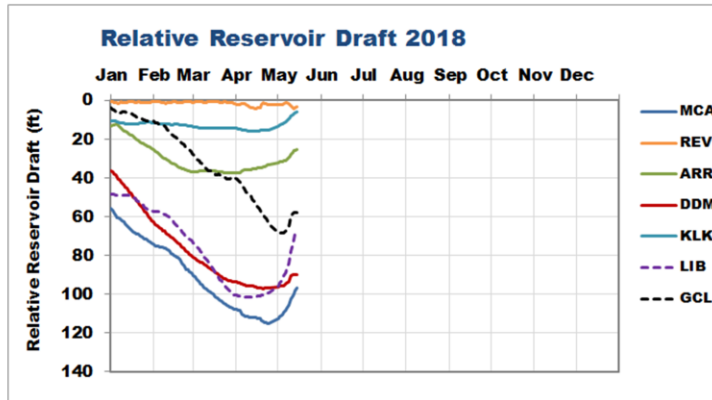
System Storage Summary: 2018



Relative Reservoir Draft: Jan to May 2018



Relative Reservoir Draft and Storage



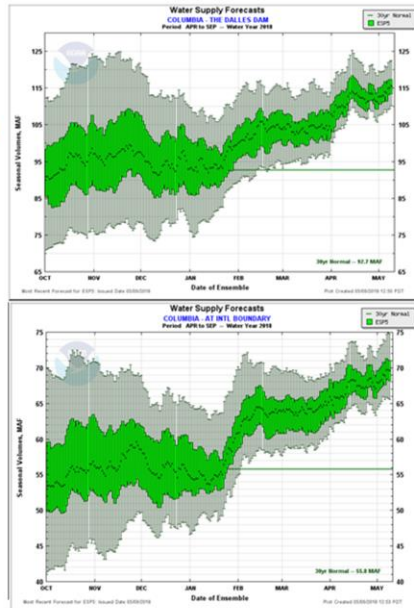
- Reservoirs generally cycling from full fall storage into winter drafts.
- Revelstoke has ~50' storage under its water licence. Kept near full pool under most circumstance for head gains.
- Not

2018 Columbia WSF

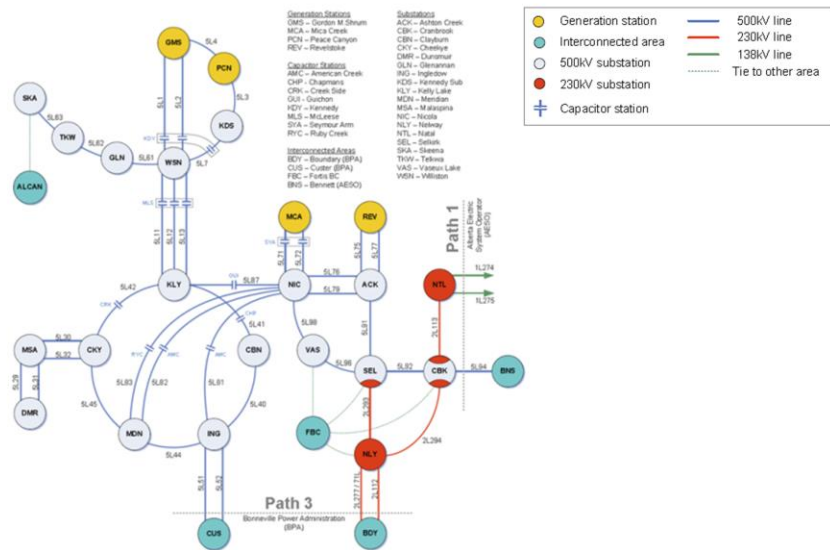
Feb-Sep 2018 Unregulated Inflows May (Official) Forecast (relative to Apr)

- Mica: 106% of normal (+2%)
- Revelstoke: 108% (+4%)
- Arrow: 110% (+4%)
- Duncan: 107% (-1%)
- Kootenay Lake: 135% (+18%)
- Libby: 125% (Apr – Aug)
- Col @ Int. Boundary: 126% (Apr – Sep)
- The Dalles: 126% (Apr – Sep)

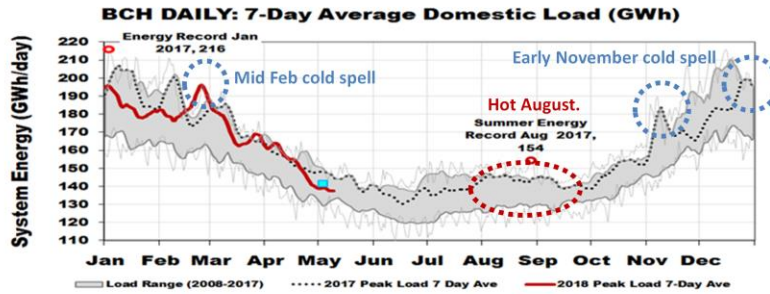
Normal is based on 1981 – 2010
WSF is updated monthly after each snow survey.



2017 System Operations



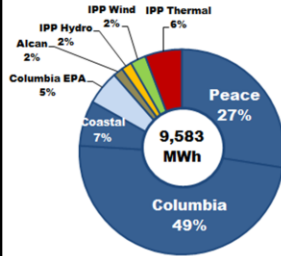
System Load: Jan 2017 to May 2018



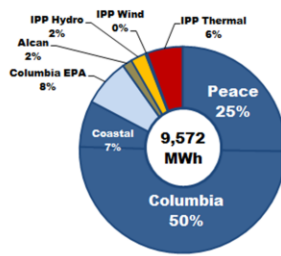
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System Generation Apr 2017 to Mar 2018

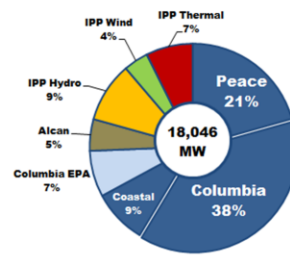
02 Jan 2018 Hr18 Peak



21 Dec 2017 Hr18 Peak



Installed MW



Peace

Columbia

Coastal

Columbia EPA

Alcan

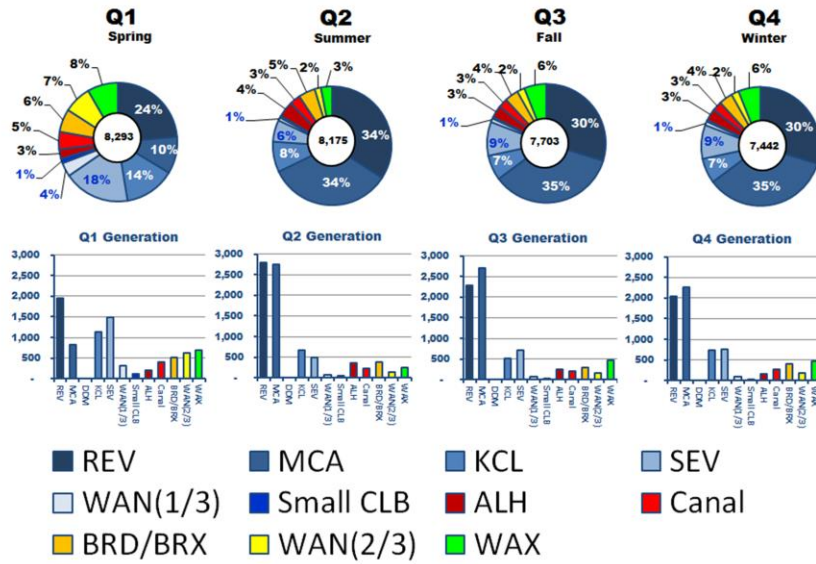
IPP Hydro

IPP Wind

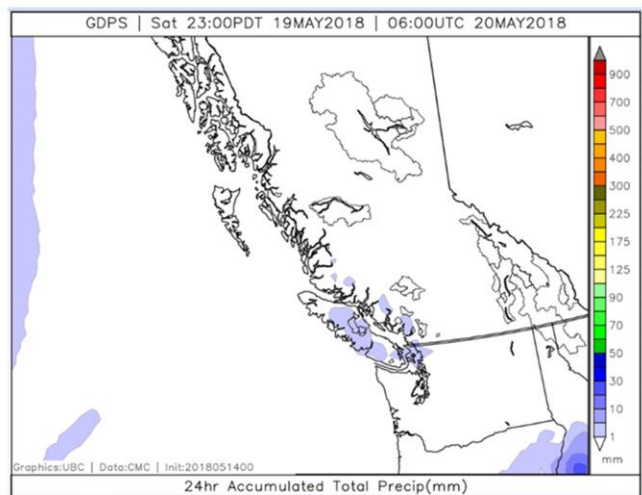
IPP Thermal

BC Hydro
Power smart

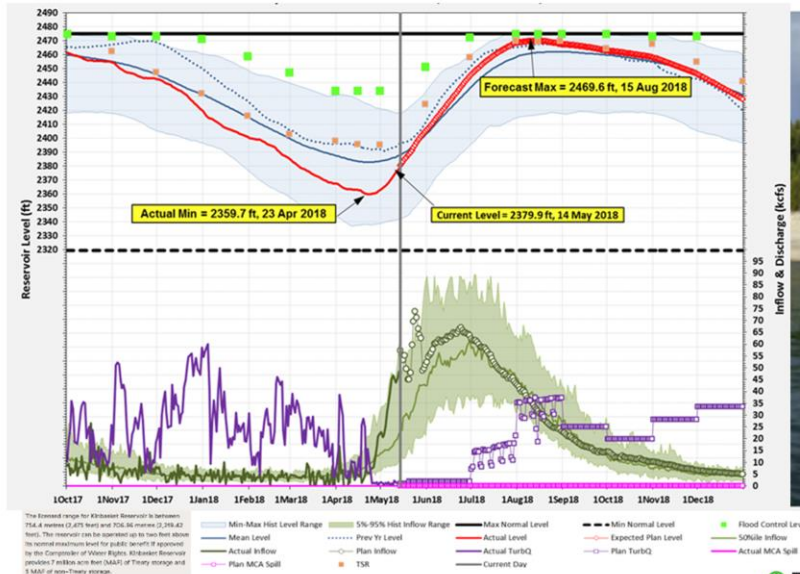
System Generation: Columbia FY18



Short Term Weather Outlook



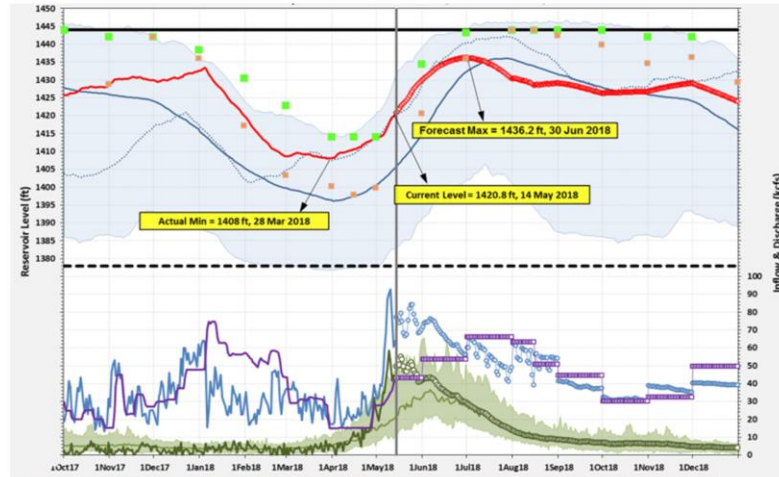
Kinbasket: Near Term Forecast



This forecast is confidential and is the property of BC Hydro. The forecast is subject to change at any time without notice. Distribution of the forecast to any third party or use by any unaffiliated recipient is prohibited without BC Hydro's written consent.

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Arrow: Near Term Forecast



Hugh L. Keenleyside Dam. Photo by Sally MacDonald.

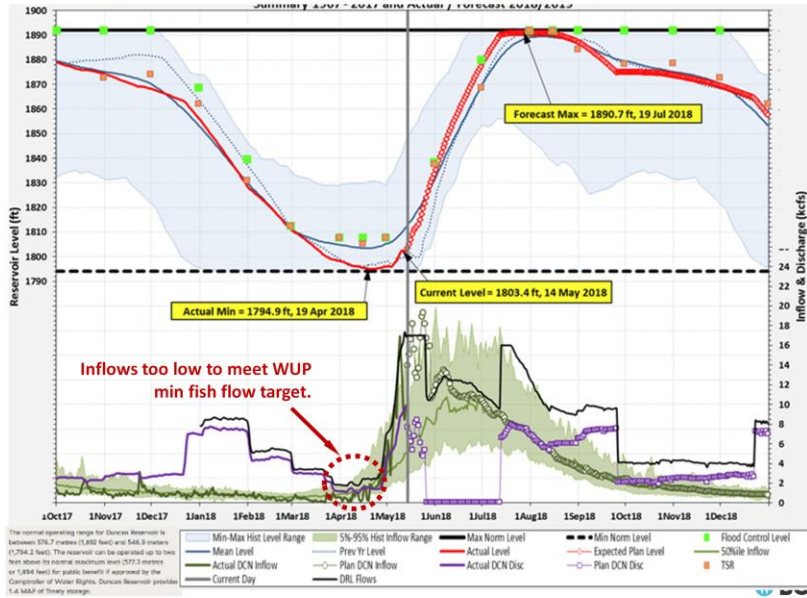
The normal forecast range for Arrow Lake Reservoir is between 140.0 metres (1464 feet) and 419.9 metres (1377.9 feet). The reservoir can be operated up to two feet above its normal maximum level (to 462.7 metres or 1518 feet) if approved by the Comptroller of Water Rights. Arrow Lake Reservoir provides 1.1 TWh of Treaty storage.

Min-Max Hist Level Range
 Mean Level
 Actual Inflow
 Plan Inflow
 Plan MCA Spill
 5%-95% Hist Inflow Range
 Prev Yr Level
 Plan Inflow
 Actual TurbQ
 Plan TurbQ
 Current Day
 Max Normal Level
 Actual Level
 Expected Plan Level
 Plan TurbQ
 Flood Control Level
 50%ile Inflow
 Actual MCA Spill

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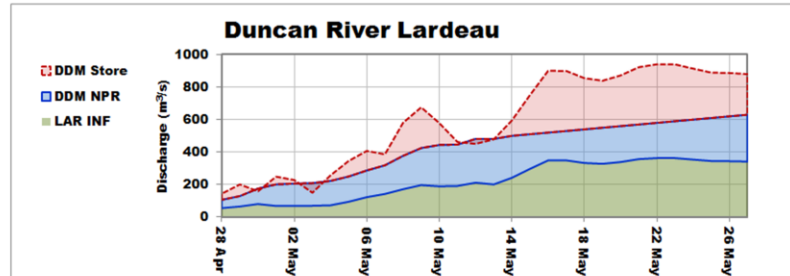
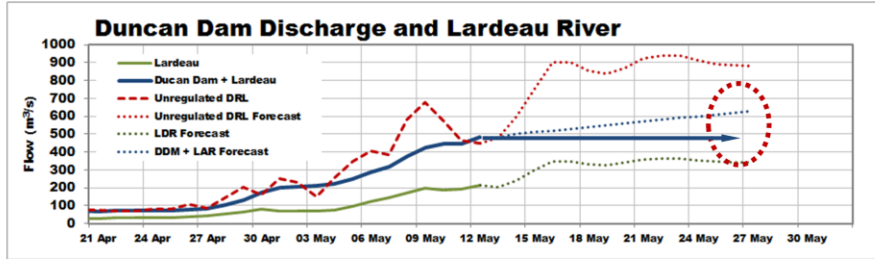
Duncan: Near Term Forecast



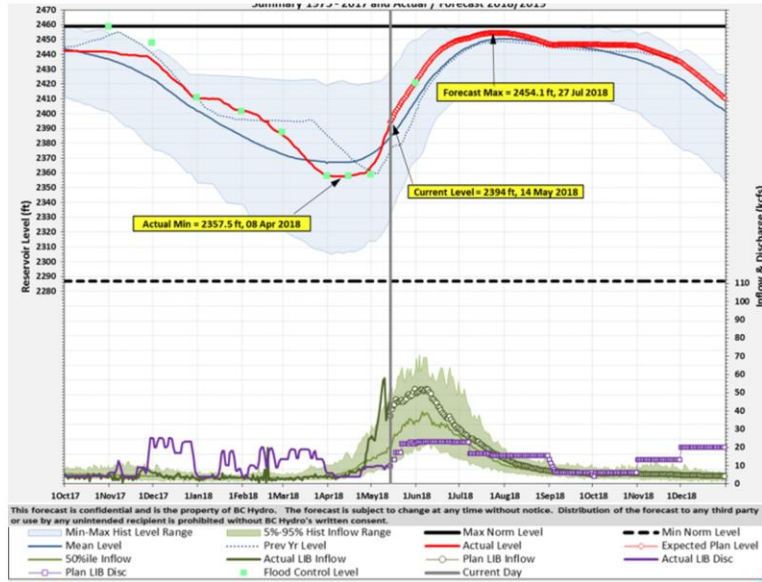
This forecast is confidential and is the property of BC Hydro. The forecast is subject to change at any time without notice. Distribution of the forecast to any third party or use by any unauthorized recipient is prohibited without BC Hydro's written consent.

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Duncan: Near Term Forecast

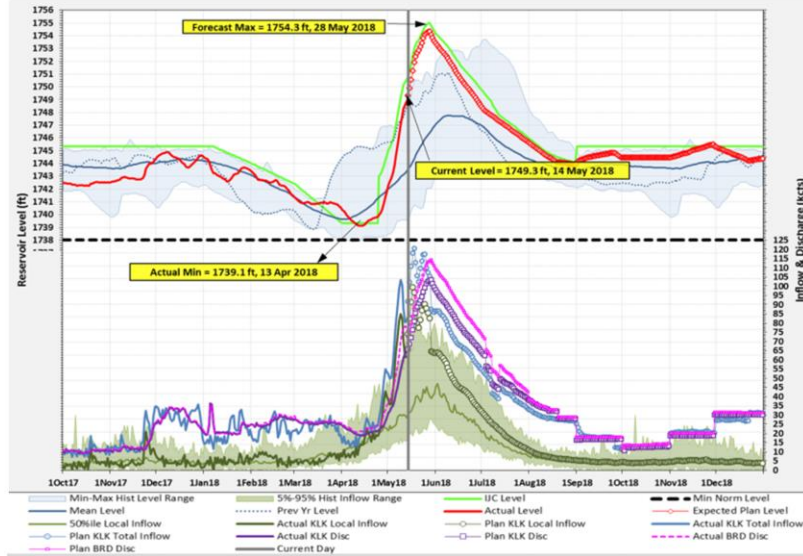


Libby: Near Term Forecast



BC Hydro
Power smart

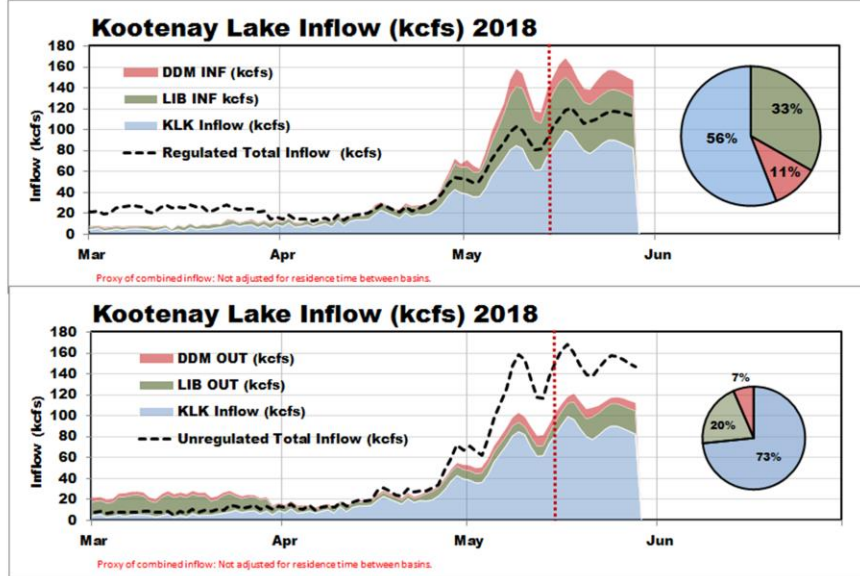
Kootenay: Near Term Forecast



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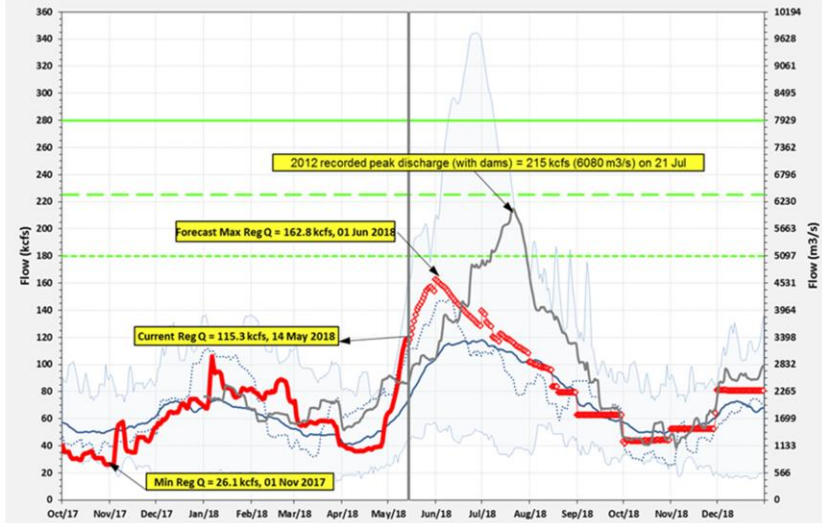
Hydro
Power smart

Kootenay: Near Term Forecast



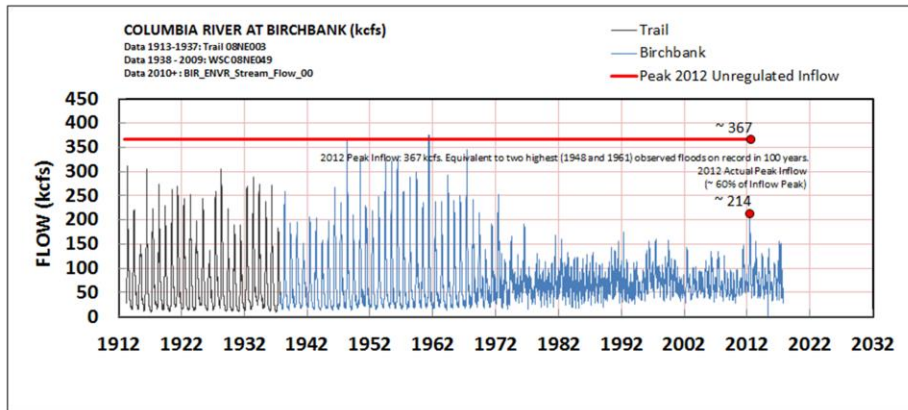
Power smart

Columbia River Birchbank: Forecast

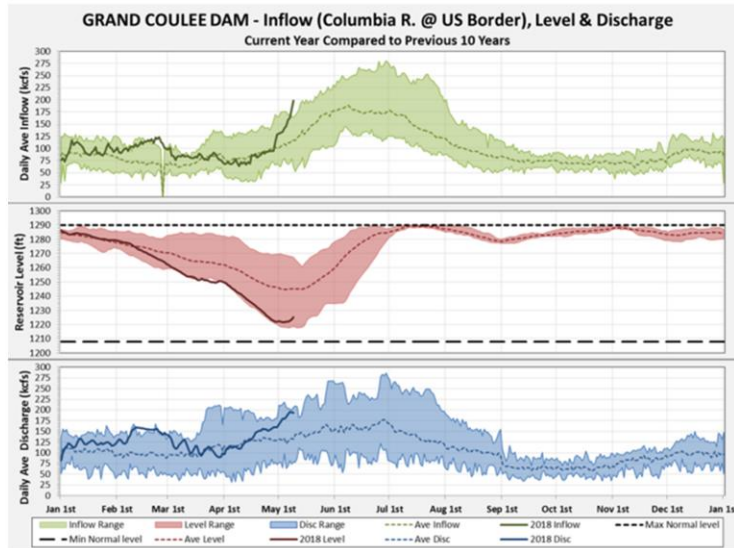


This forecast is confidential and is the property of BC Hydro. The forecast is subject to change at any time without notice. Distribution of the forecast to any third party or use by any unintended recipient is prohibited without BC Hydro's written consent. Notes:

Birchbank Flows: Historical and Present



Grand Coulee Dam



Additional Information

Want to stay informed of BC Hydro operations?

REGIONAL OPERATIONS UPDATE MEETINGS

BC Hydro will be hosting its annual Operations Update meetings in May and June 2018.

May 1: Creston	June 5: Castlegar
May 2: Cranbrook	June 6: Nakusp
May 2: Wardner	June 7: Revelstoke
June 4: Meadow Creek	June 8: Golden

These meetings are held to:

- Listen to and learn from local residents, stakeholders, First Nations and community representatives who have an interest in the operation of the Columbia River Treaty facilities and BC Hydro facilities in the East Kootenay and Thompson/Okanagan/Columbia regions.
- Provide information on the operations of Columbia River Treaty facilities in Canada and other facilities that are operated in a coordinated manner on the Columbia system.
- Provide an update on BC Hydro activities.

OPERATIONS UPDATE CONFERENCE CALLS

B.C. Hydro periodically hosts conference calls to provide updates on our Columbia and Kootenay system operations. If you would like to receive email notifications regarding these meetings and conference calls, please contact Dayle Hopp at dayle.hopp@bchydro.com.

BC HYDRO'S RESERVOIR LEVEL UPDATES

BC Hydro's toll-free reservoir information line: **1 877 924 2444**

BC Hydro's toll-free reservoir information line provides up to date reservoir water level and river flow information. The recording is updated every Monday, Wednesday and Friday and provides:

- **Current Water Levels:** Arrow Lakes Reservoir, Duncan Dam Reservoir, Kinbasket Reservoir, Kootenay Lake, Revelstoke Reservoir, Sugar Lake Reservoir and Whatchan Lake Reservoir.
- **Current River Flows:** Columbia River at Birchbank, Duncan River at the Lardeau Confluence, Shuswap River and the flow downstream from Willsey Dam at Shuswap Falls.

