



The International Kootenay Lake Board of Control

Annual Public Meeting

Bruno Tassone, Canadian Chair (IKLBC)

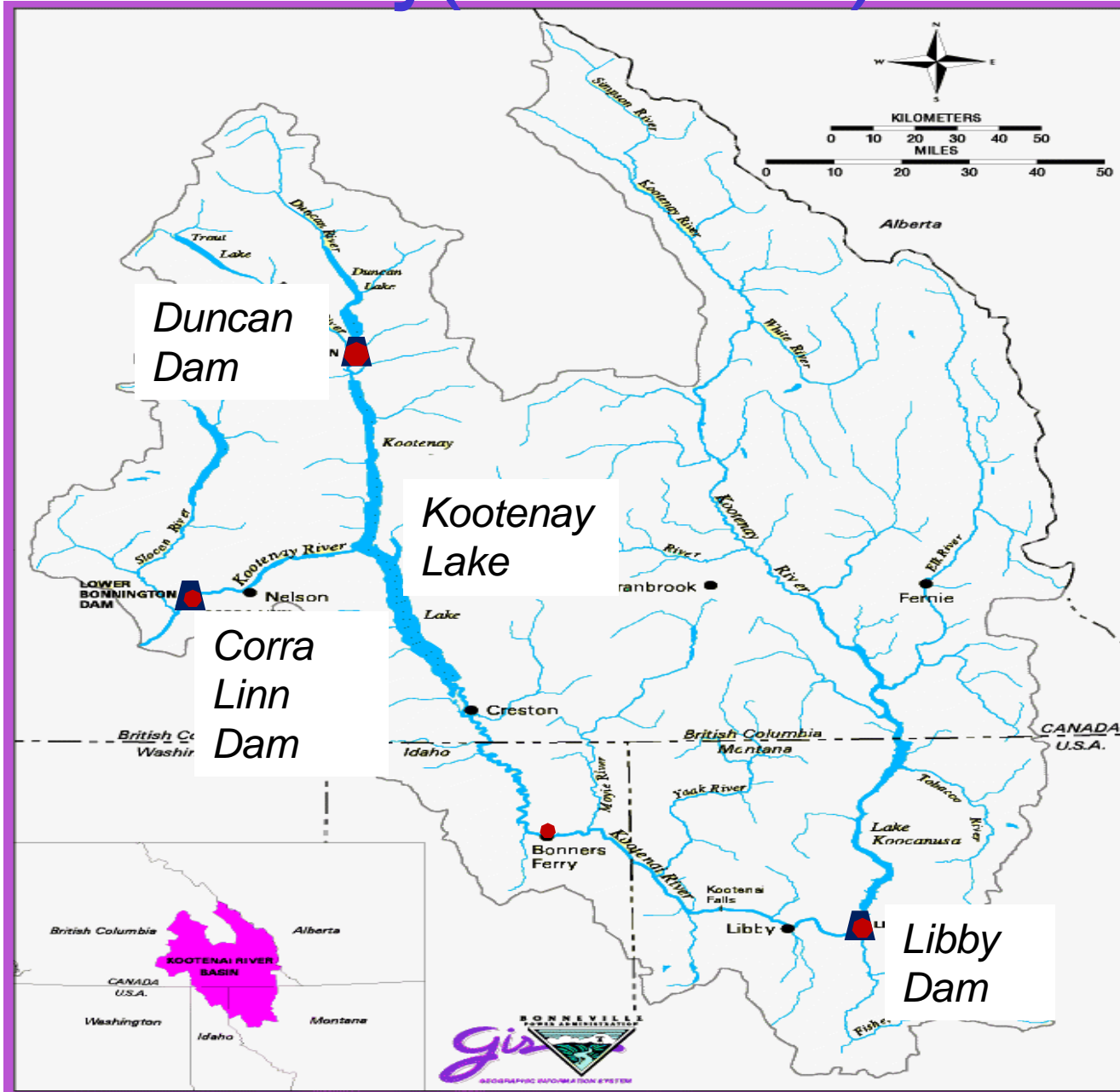
October 19, 2017

Nelson, BC

Agenda

- **Welcome and introductions**
- **International Joint Commission Context**
- **Kootenay Lake Orders**
 - **System Operations 2017**
 - **Kootenay Lake levels 2017**
- **Questions and Comments**

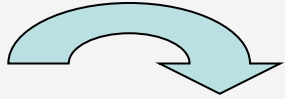
Kootenay(Kootenai) Basin



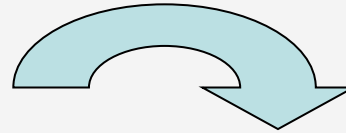
IJC Context



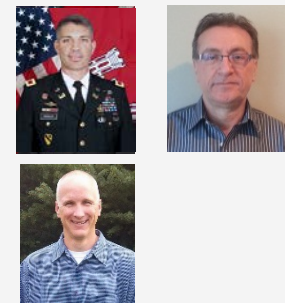
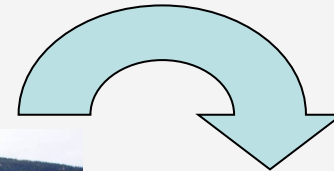
'Boundary Waters Treaty'
1909 Treaty Between the United States and Great Britain (for Canada) Relating to Boundary Waters, and Questions Arising Between the United States and Canada



International Joint Commission (IJC)



**Corra Linn Dam
IJC Kootenay Lake Order of Approval**



International Kootenay Lake Board of Control



International Joint Commission

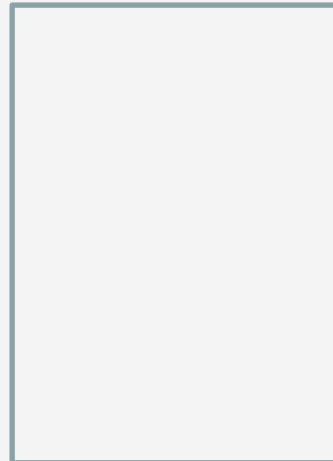
Lana Pollack
U.S., Chair



Gordon Walker,
Canada,
Acting Chair



Rich Moy, U.S.



Vacant, U.S.



Richard Morgan, Canada



Benoit Bouchard, Canada

International Joint Commission

- **To prevent and resolve Canada/US water issues, the Commission...**
 - Receives applications and references on transboundary issues
 - Notifies public, undertakes studies and holds hearings to inform decision
 - Issues Orders (e.g. 1938 IJC Order for Kootenay Lake)
 - Issues recommendations (i.e. for reference cases)
- **The Commission appoints Boards of Control to monitor compliance with terms of IJC Orders**

Kootenay Lake Board of Control

Canadian Section

Bruno Tassone, Chair
Water Survey of Canada (ret'd).

Ted White, Member
B.C. Ministry of FLNRO

U.S. Section

Col. Mark Gerald, Chair
U.S. Army Corps of Engineers

Kyle Blasch, Member
U.S. Geological Survey

Secretariat

Gwyn Graham
Environment & Climate Change Canada

Kevin Shaffer
U.S. Army Corps of Engineers

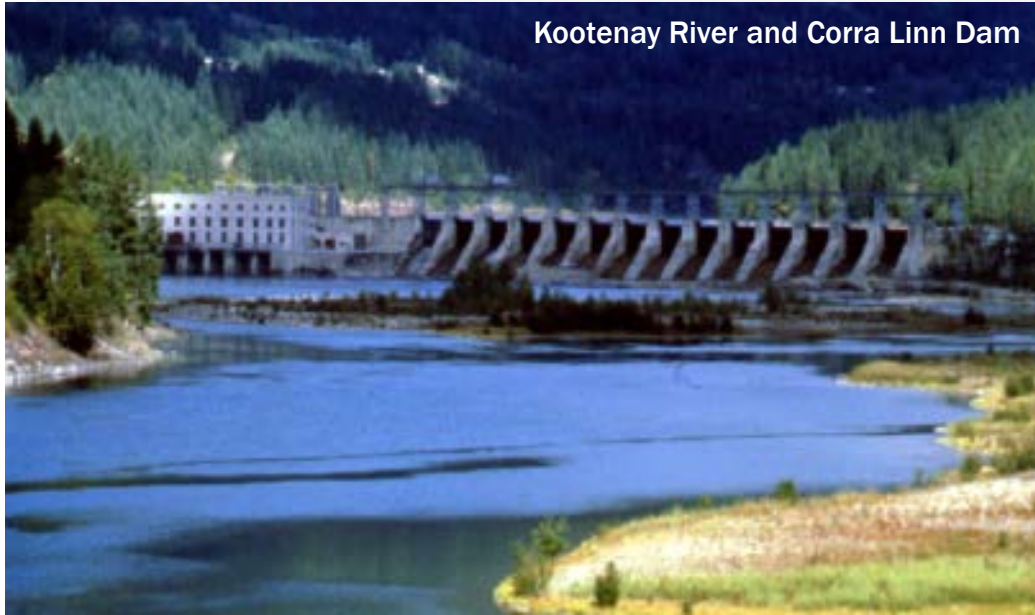
Kootenay Lake Board of Control

- **Duties of the Kootenay Lake Board of Control...**

- Monitor FortisBC's operation of Corra Linn Dam for compliance with terms of IJC Order (e.g. [maximum water levels](#) on Kootenay Lake)
- Assure all other provisions of the 1938 IJC Order are followed
- Hold annual meetings, report and provide general support to the IJC on issues relating to the 1938 IJC Order

1938 Kootenay Lake Order

Kootenay River and Corra Linn Dam



- Kootenay Lake Order relates to Corra Linn Dam (FortisBC).
- 1929: West Kootenay Power sought IJC approval for Corra Linn Dam & 6 ft of water storage in Kootenay Lake.
- 1938: IJC Order of Approval for Corra Linn Dam
 - Required excavation at Grohman Narrows

- Issue: The dam can affect Kootenay Lake levels and cause backwater effect up Kootenai River into Idaho.



1938 Kootenay Lake Order



- Directs FortisBC to help pay Idaho farmers to offset increased pumping costs for land drainage

1938 Kootenay Lake Order



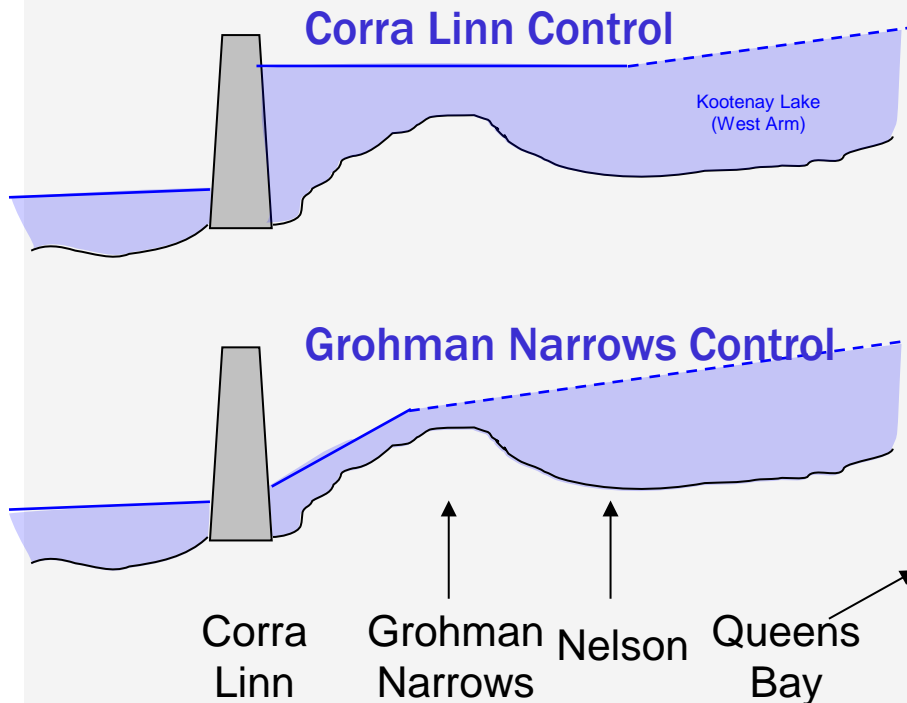
- Directed FortisBC's predecessor to dredge Grohman Narrows (completed in the early 1940s)

1938 Kootenay Lake Order



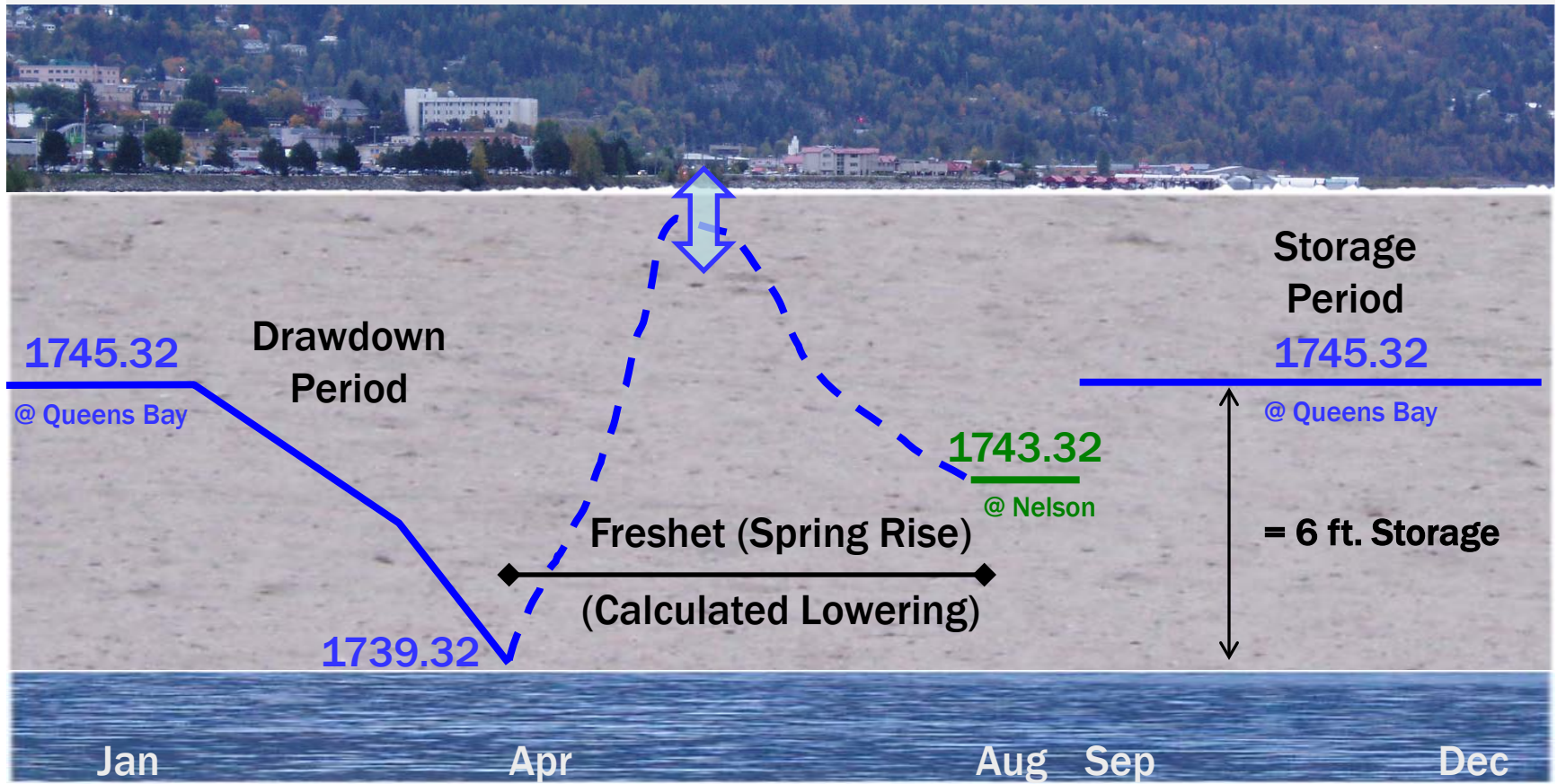
- Directs FortisBC to take advantage of the dredging to lower peak water levels on Kootenay Lake

Kootenay Lake Control



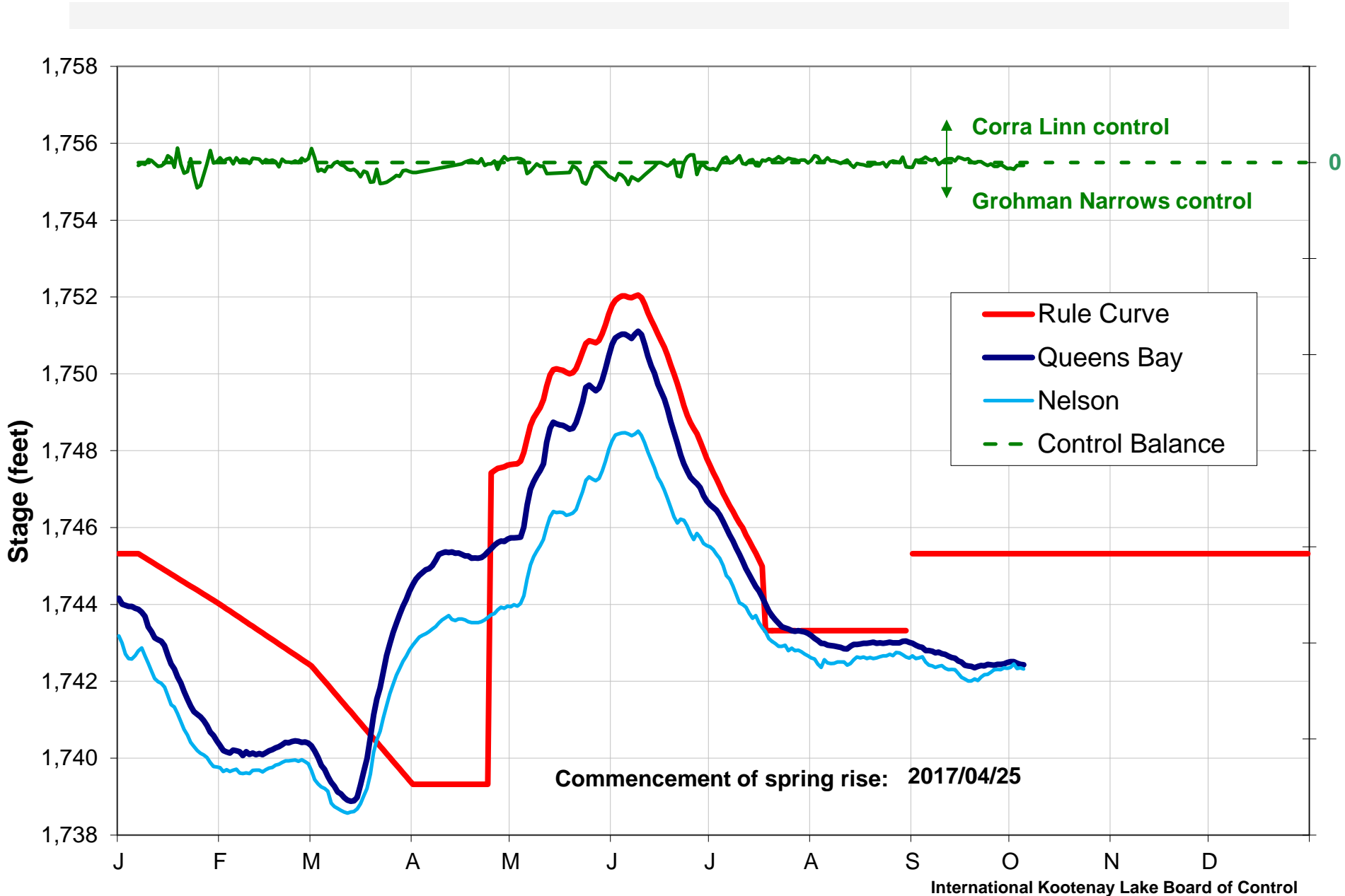
- Lake level depends on balance of inflow and outflow
- Corra Linn dam does not have exclusive control of lake outflow
- When the Corra Linn forebay is kept low, control moves upstream to the channel constriction at Grohman Narrows

IJC Order specifies Maximum Water Level Conditions

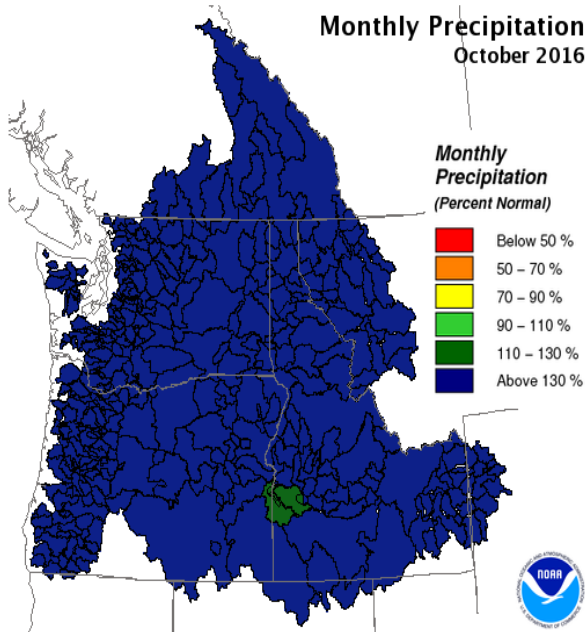


Kootenay Lake in 2017

Conditions to date

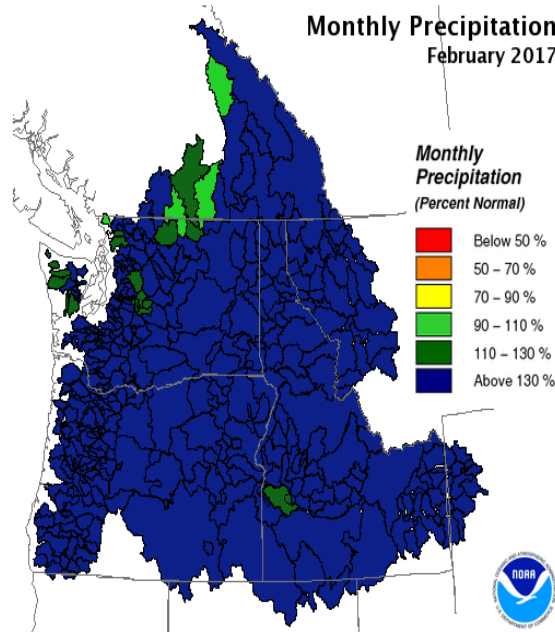


Monthly Precipitation October 2016



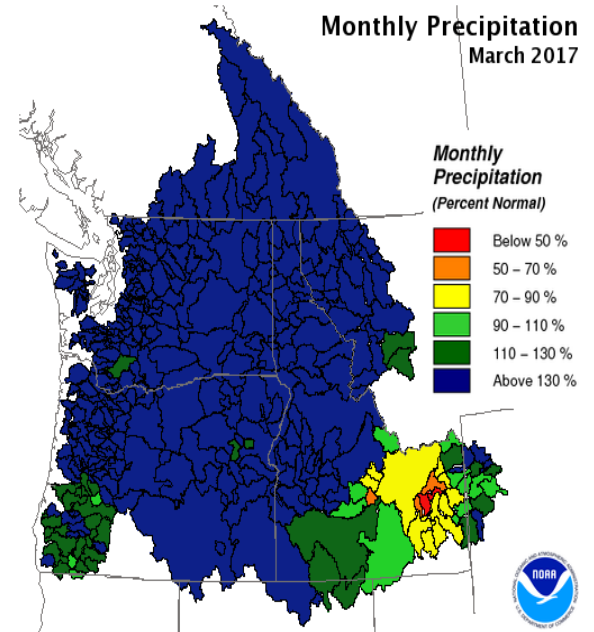
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Monthly Precipitation February 2017



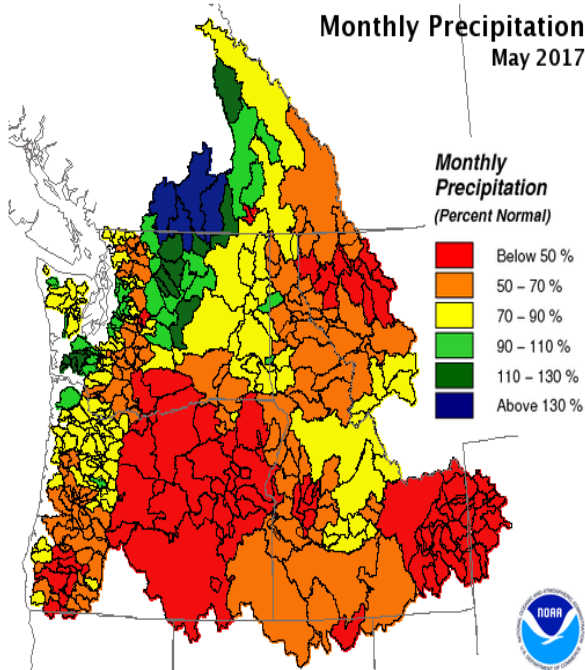
Creation Time: Wednesday, Mar 1, 2017 Northwest River Forecast Center

Monthly Precipitation March 2017



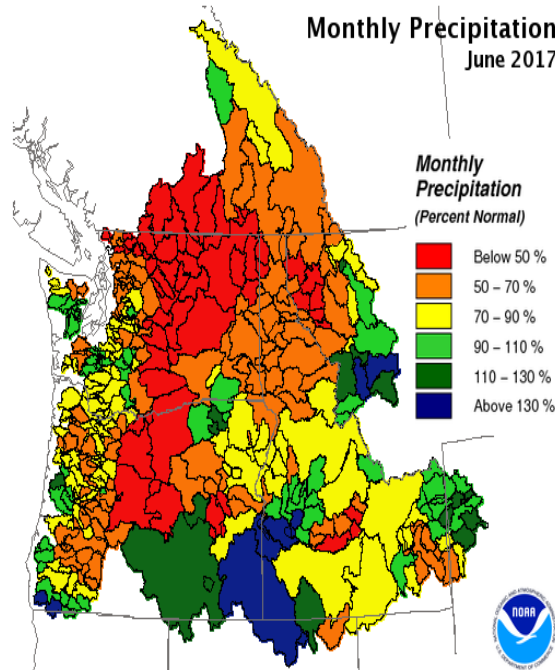
Creation Time: Saturday, Apr 1, 2017 Northwest River Forecast Center

Monthly Precipitation May 2017



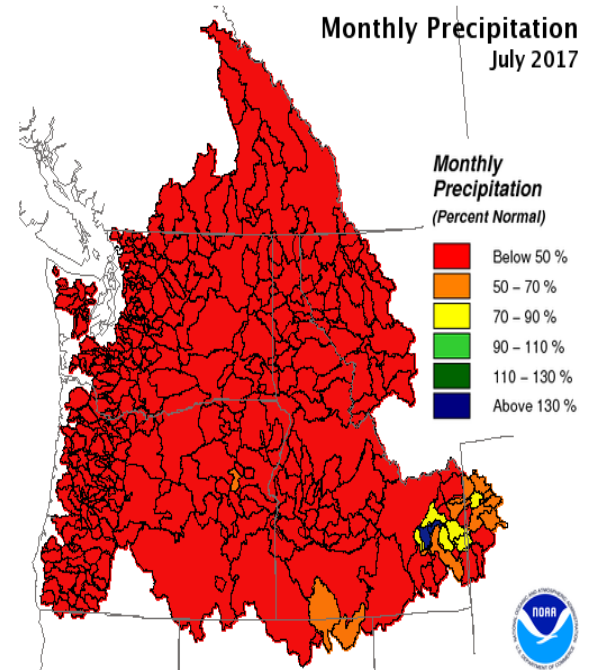
Creation Time: Thursday, Jun 1, 2017 Northwest River Forecast Center

Monthly Precipitation June 2017



Creation Time: Saturday, Jul 1, 2017 Northwest River Forecast Center

Monthly Precipitation July 2017



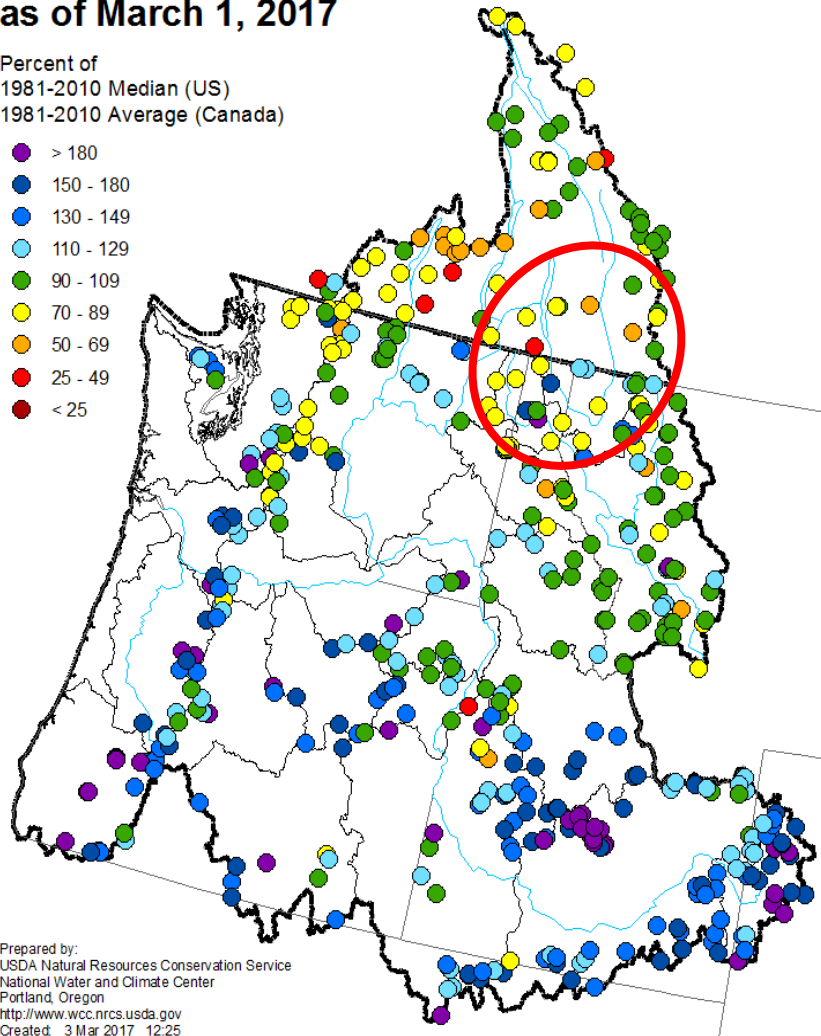
Creation Time: Tuesday, Aug 1, 2017 Northwest River Forecast Center

Snowpack conditions March – May 2017

**Columbia River and Pacific Coastal Basins
Mountain Snowpack
as of March 1, 2017**

Percent of
1981-2010 Median (US)
1981-2010 Average (Canada)

- > 180
- 150 - 180
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- 25 - 49
- < 25

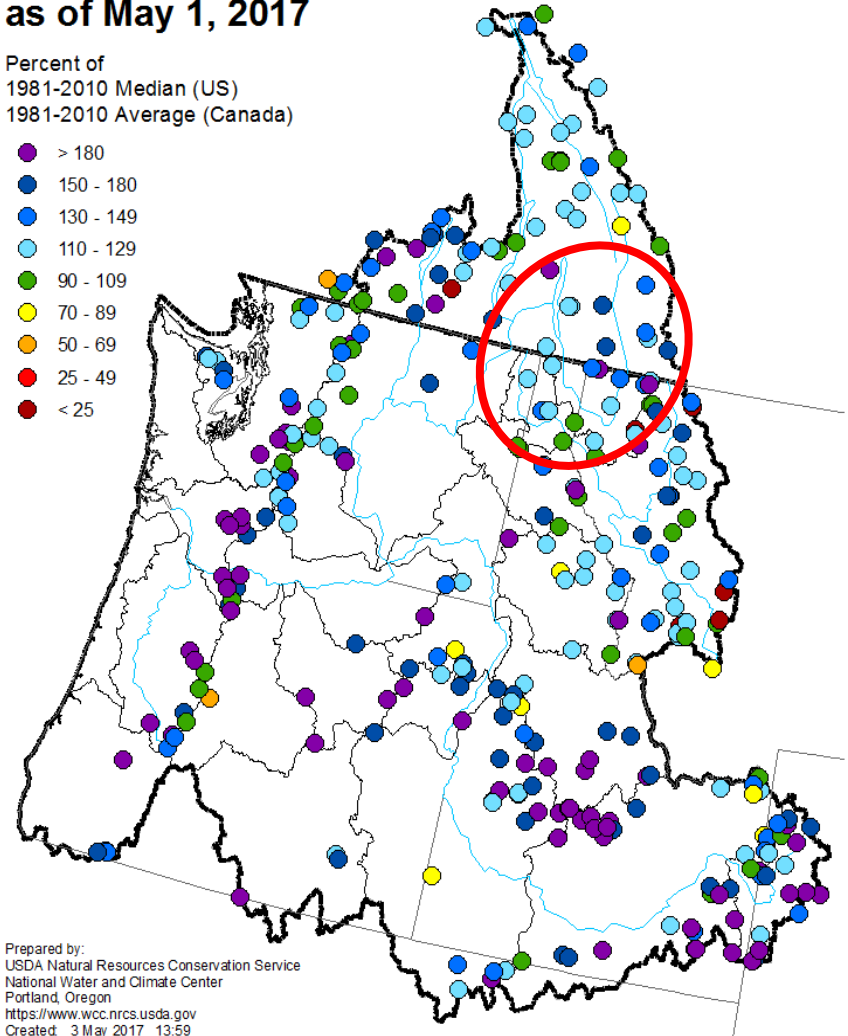


Prepared by:
USDA Natural Resources Conservation Service
National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>
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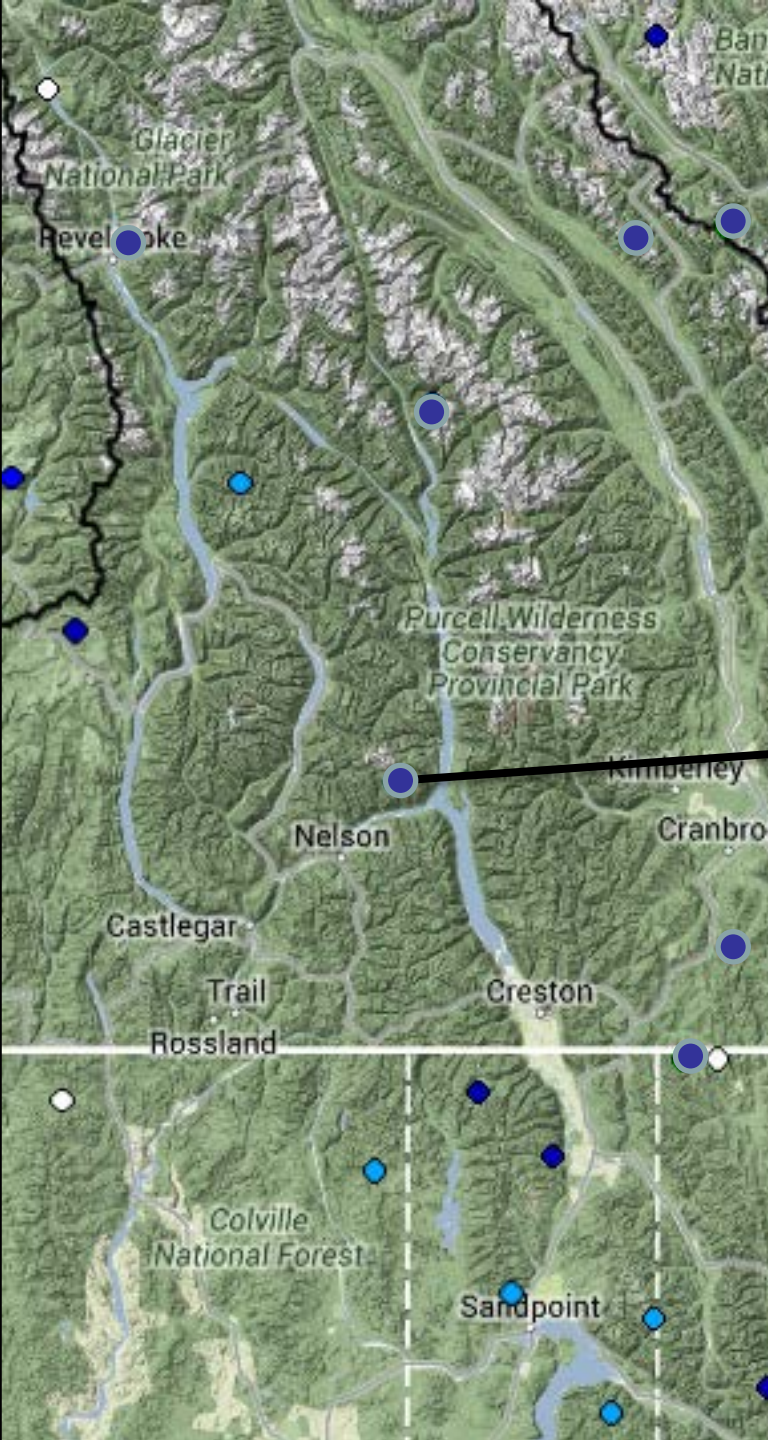
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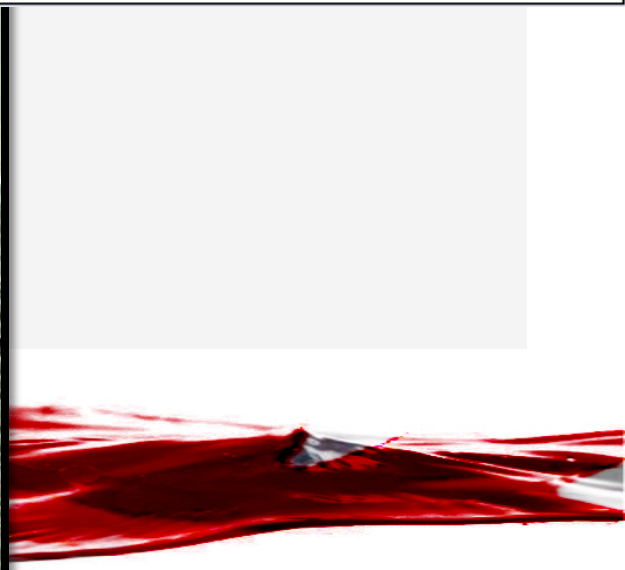
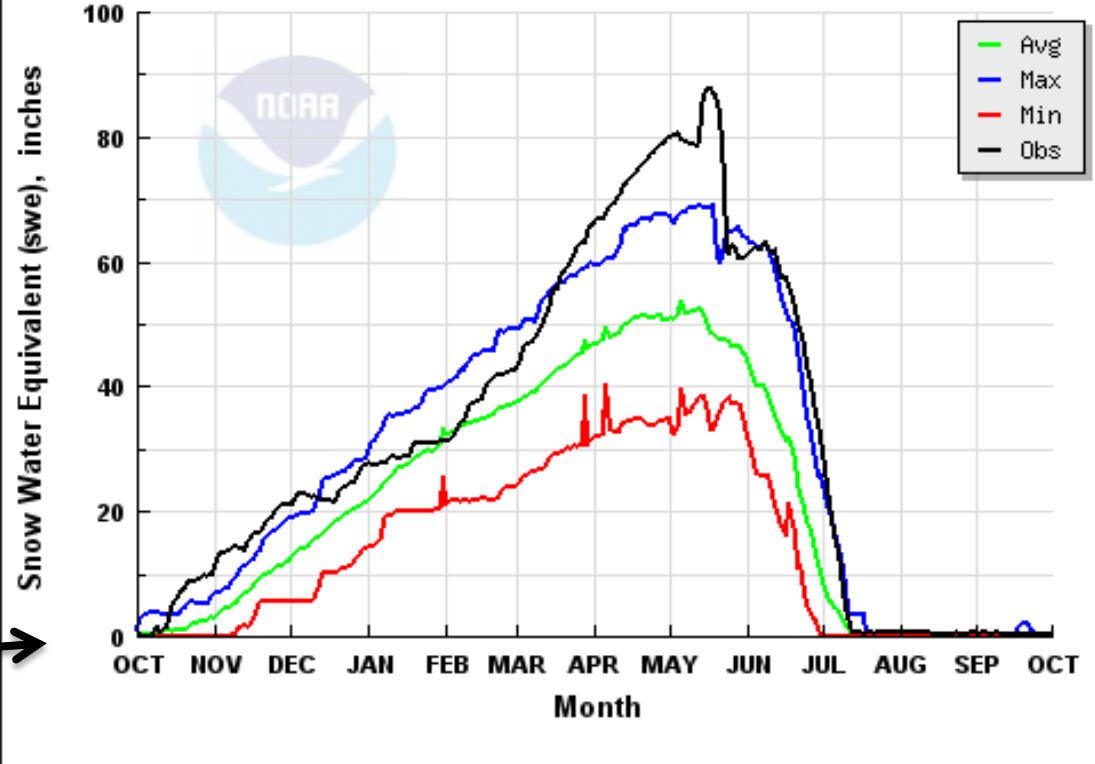
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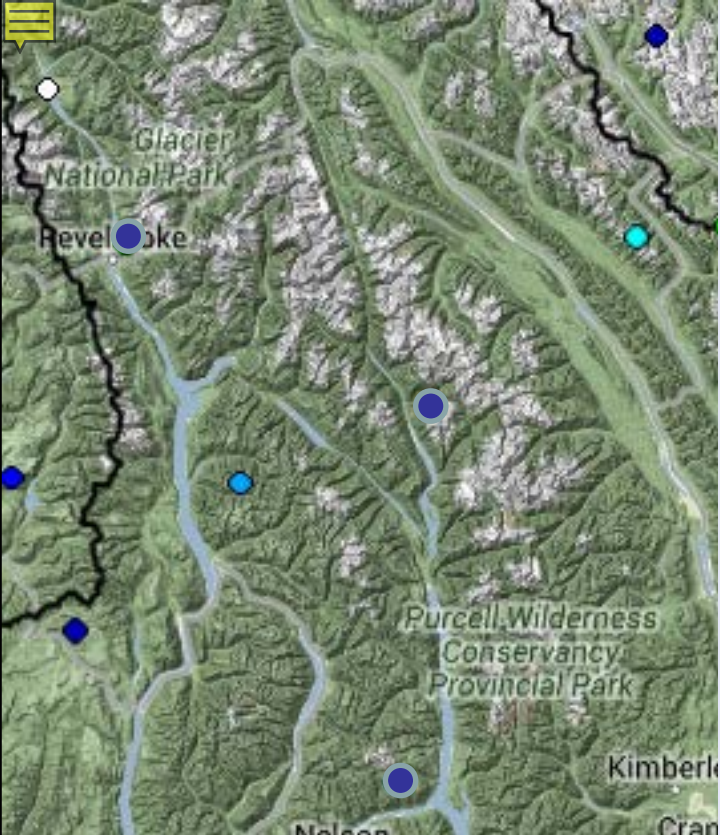


Snow Water Equivalent

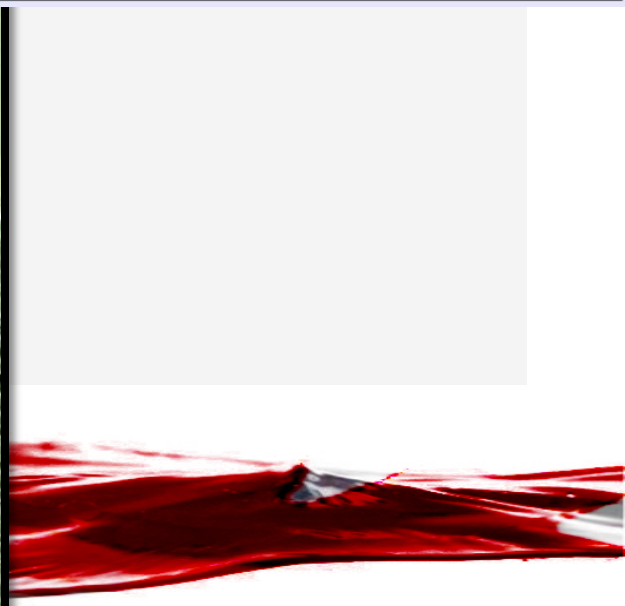
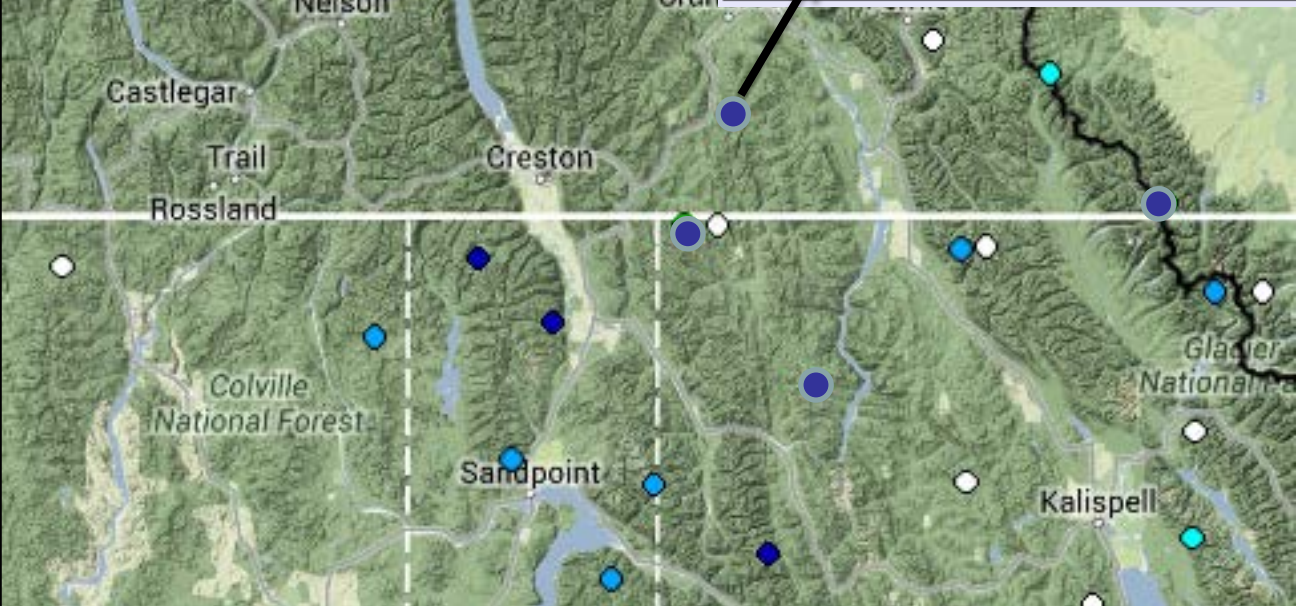
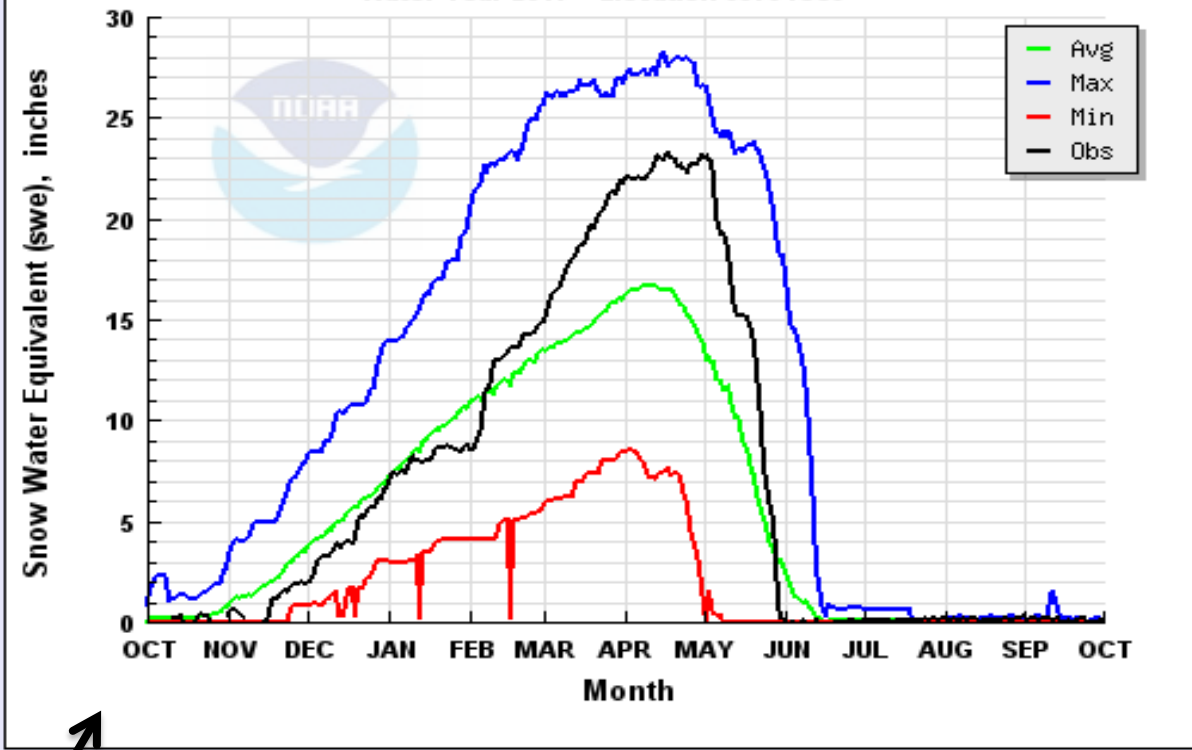
REDFISH CREEK

Water Year 2017 - Elevation 6903 feet

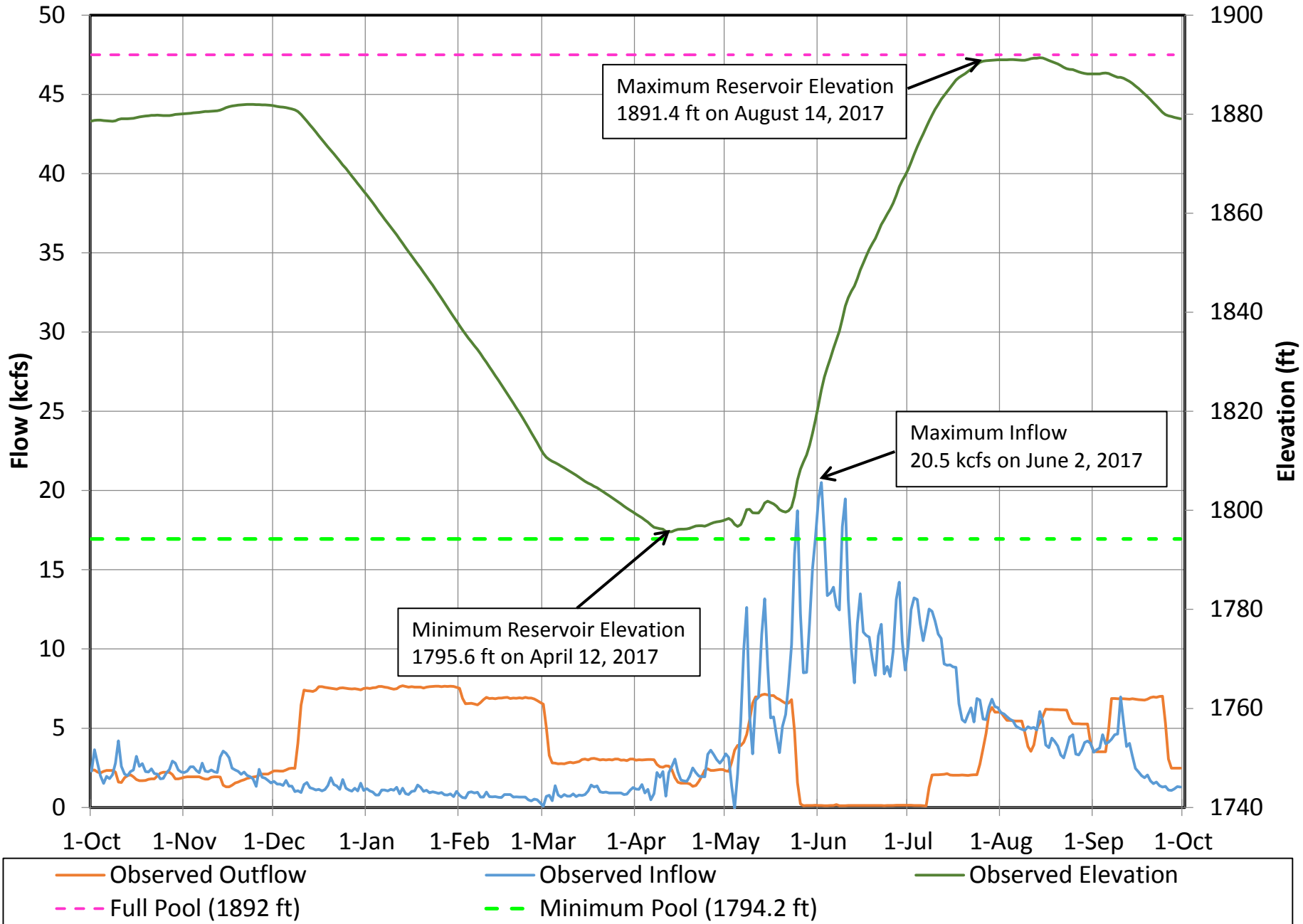




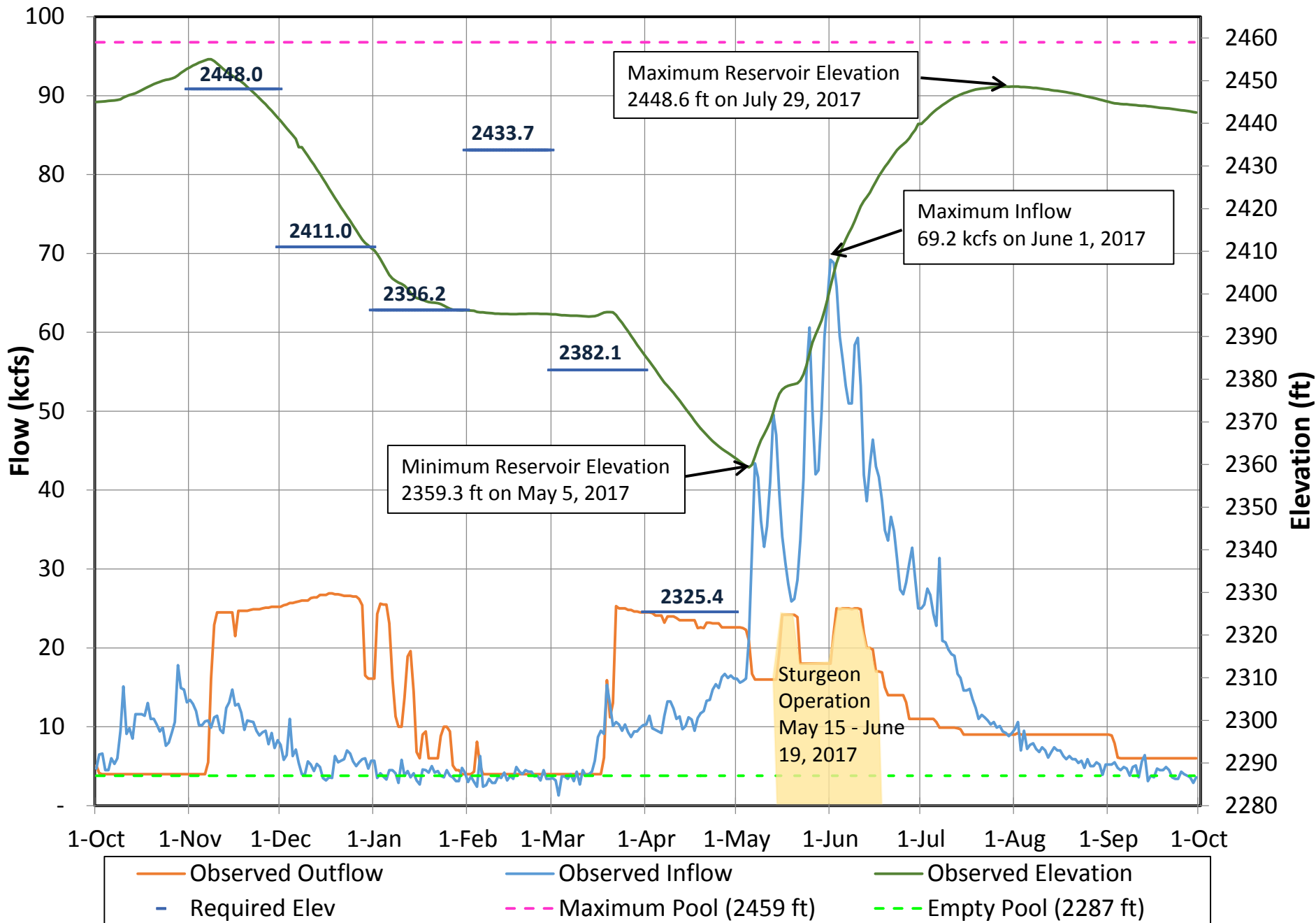
Snow Water Equivalent
MOYIE MOUNTAIN
 Water Year 2017 - Elevation 6370 feet



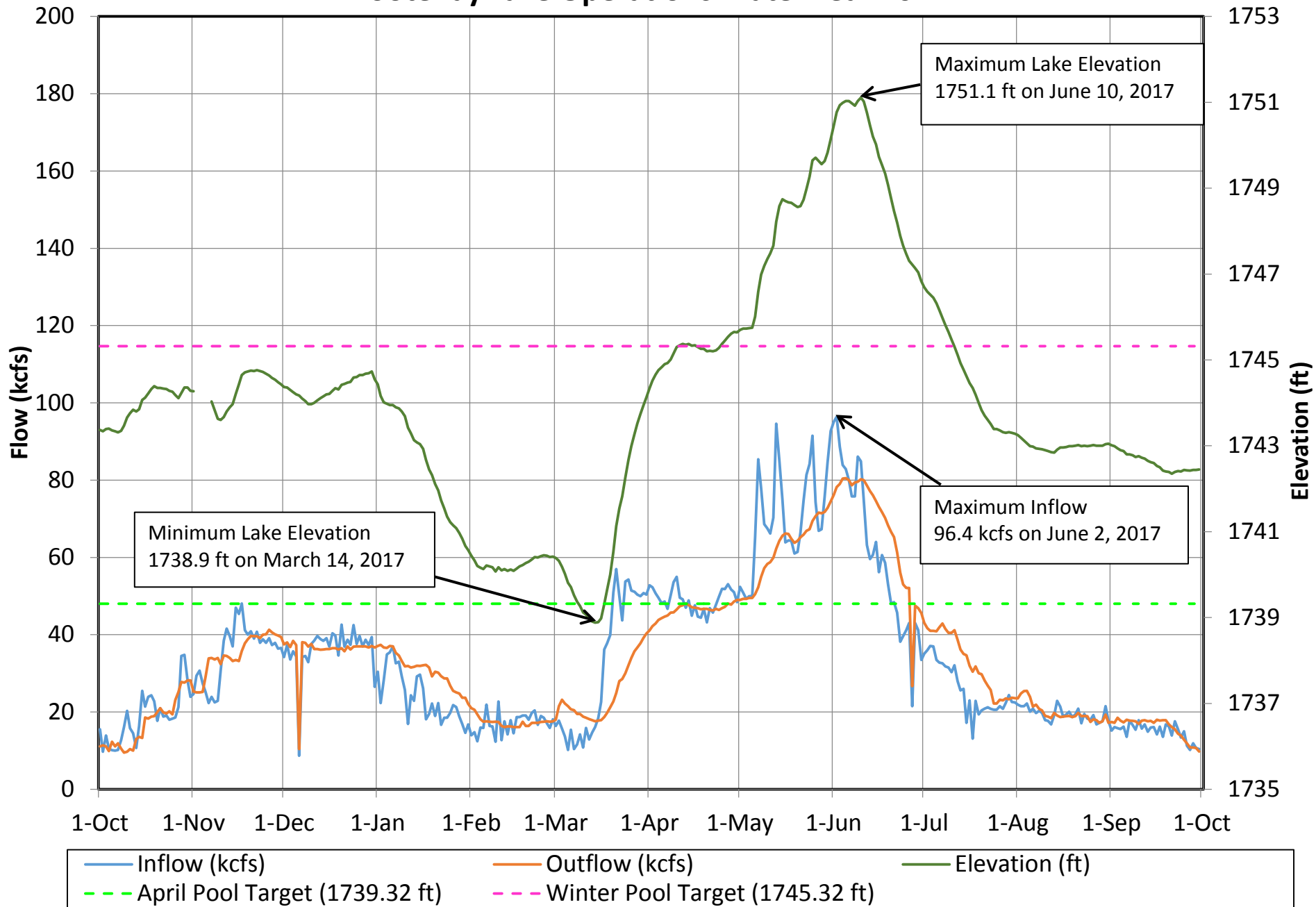
Duncan Reservoir Operations Water Year 2017



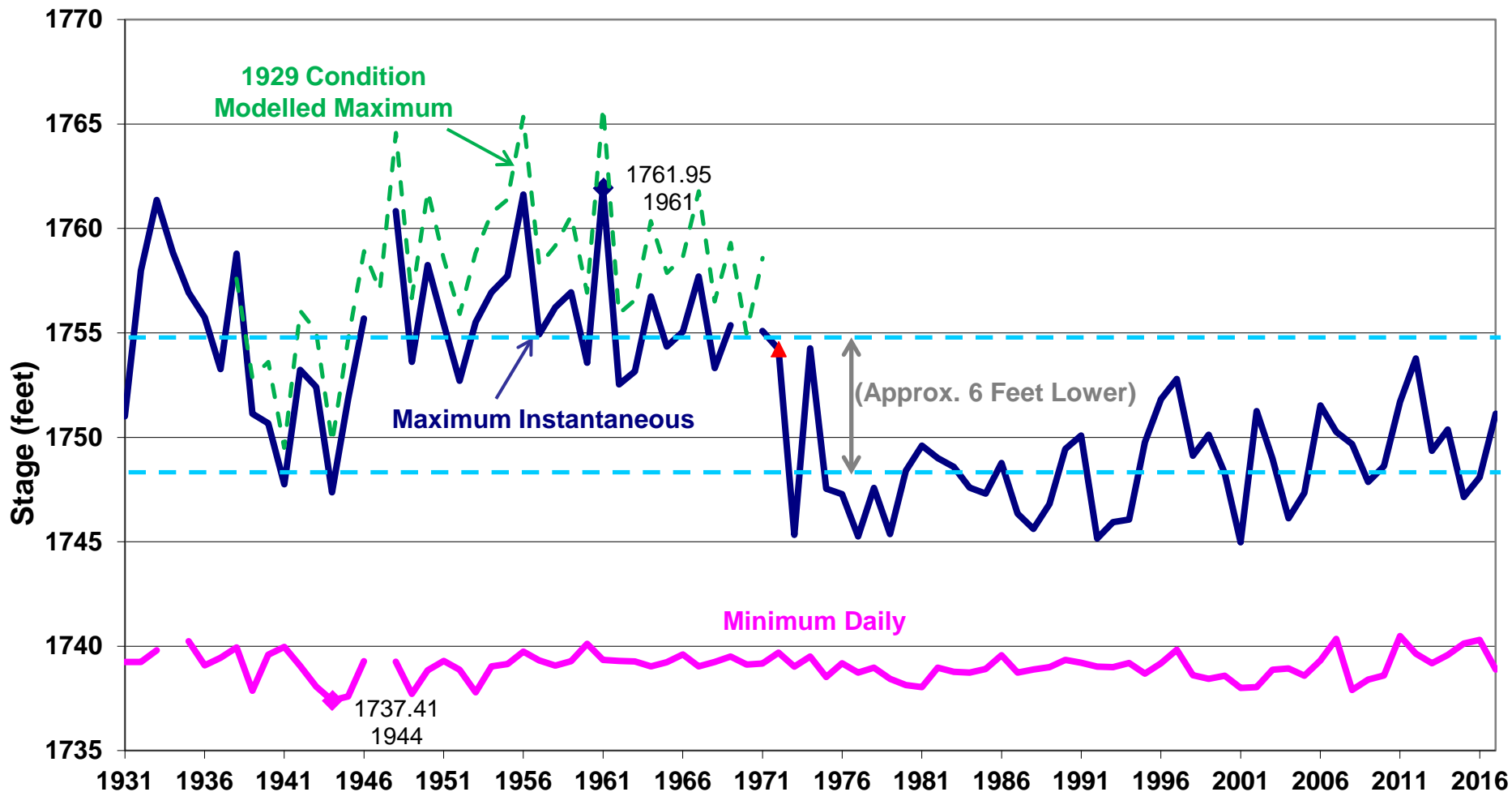
Koocanusa Reservoir Operations Water Year 2017



Kootenay Lake Operations Water Year 2017



Water Level Extremes: Kootenay Lake (Queen's Bay)



Questions?