

Kootenai Basin Operations for 2016

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Seattle District

21 March 2016



US Army Corps of Engineers
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Winter 2015

Hydrologic Conditions

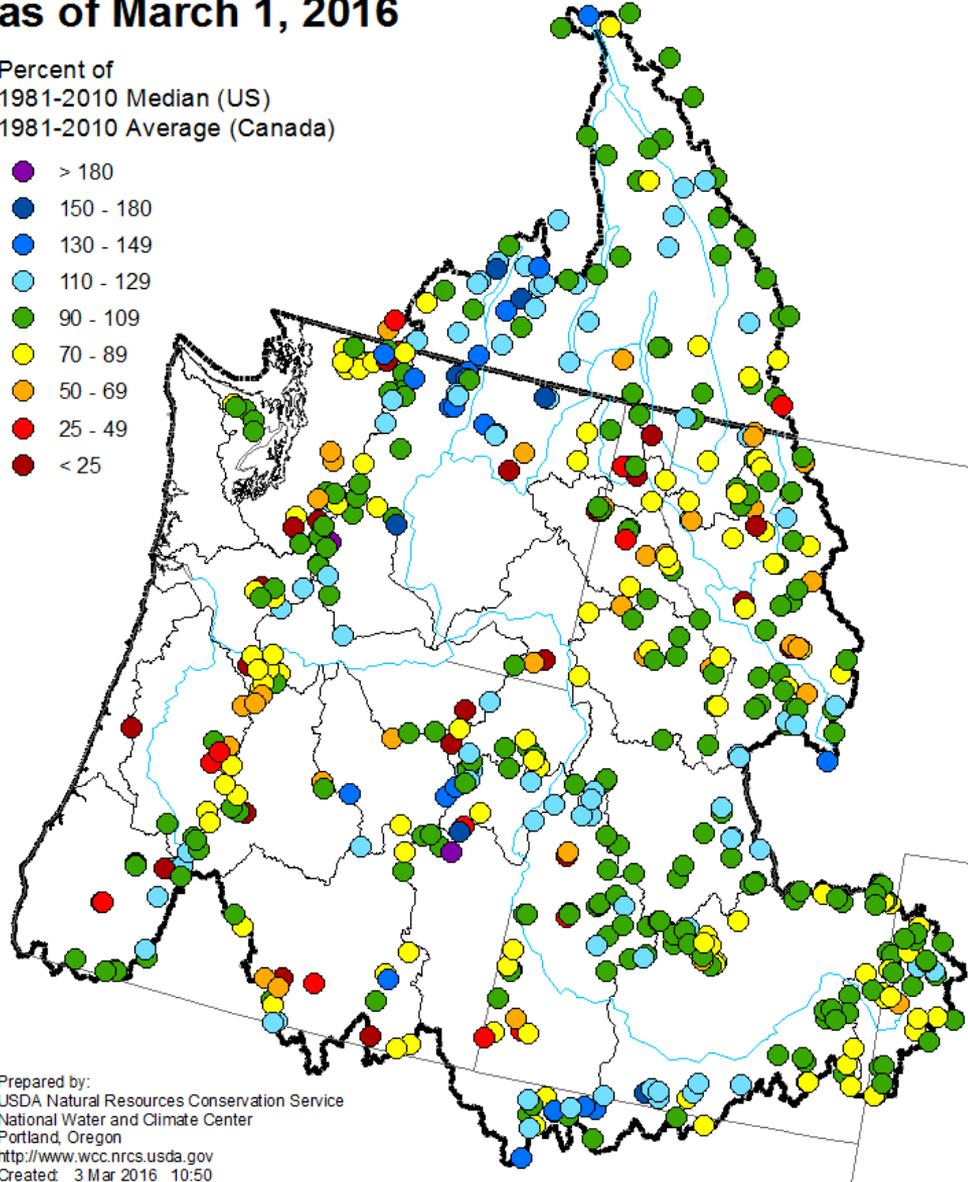
- Current Apr-Aug inflow for Libby Dam
 - ▶ 6.5 million-acre-feet (110% of average)
- Average snowpack – but ripe and low snowpack in the lower elevations
- 126% of average precipitation in upper Kootenai Watershed
- Higher temperatures than normal



Columbia River and Pacific Coastal Basins Mountain Snowpack as of March 1, 2016

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



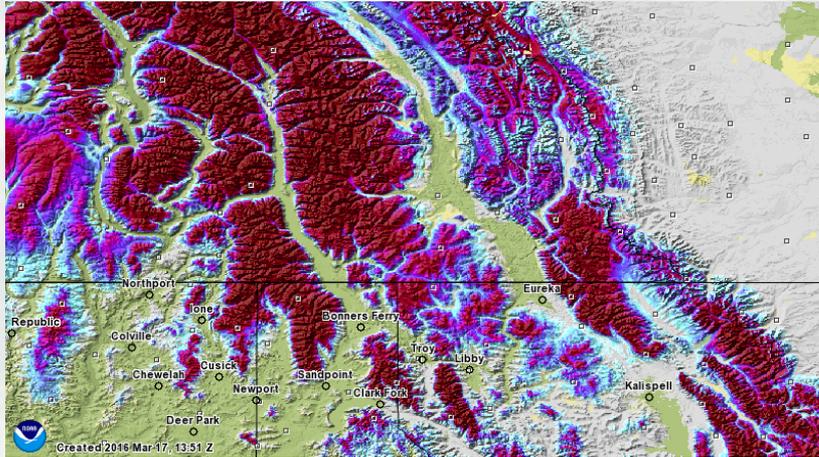
Prepared by:
USDA Natural Resources Conservation Service
National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>
Created: 3 Mar 2016 10:50



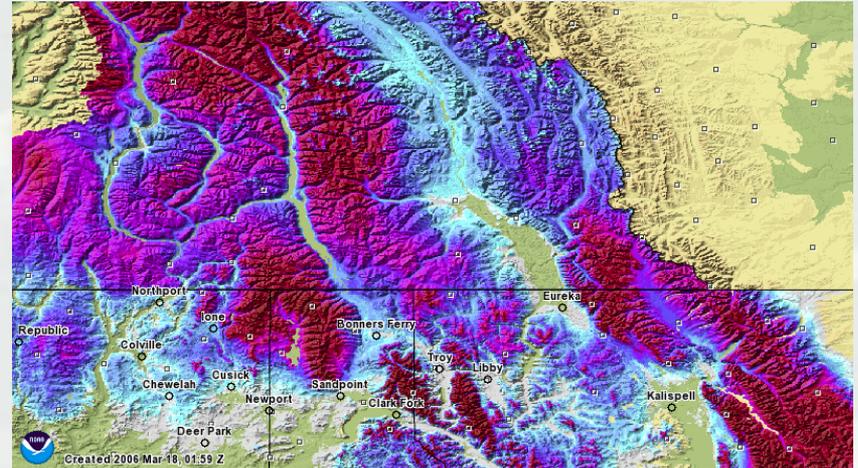
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Snowpack Maps for 6.5 MAF years

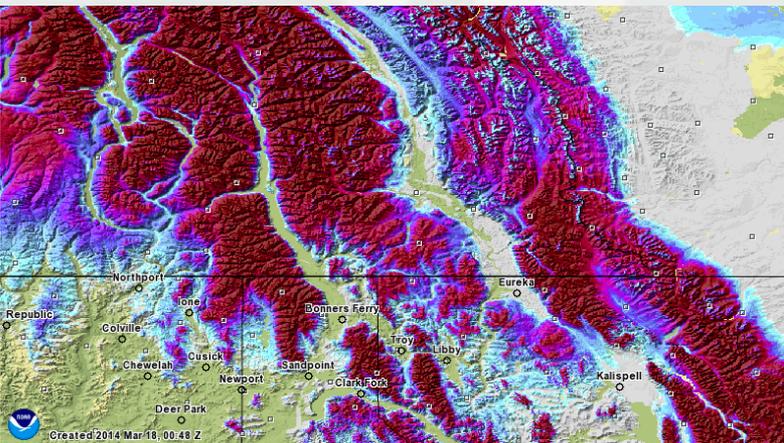
2016



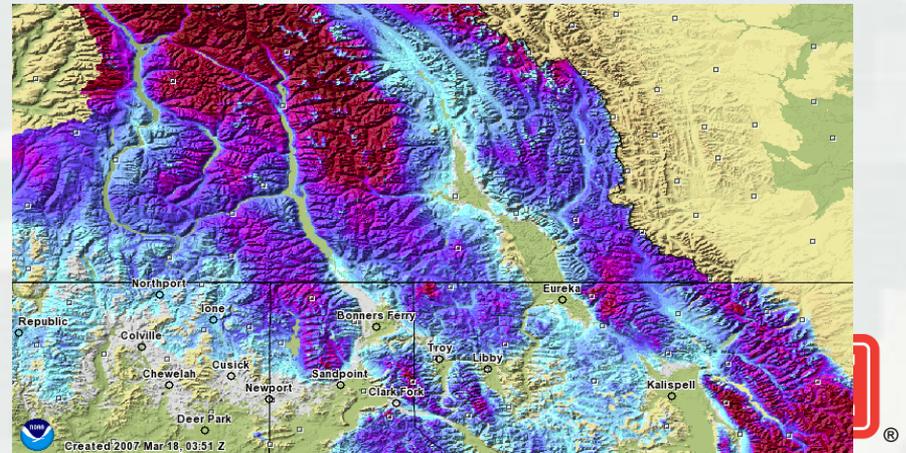
2006



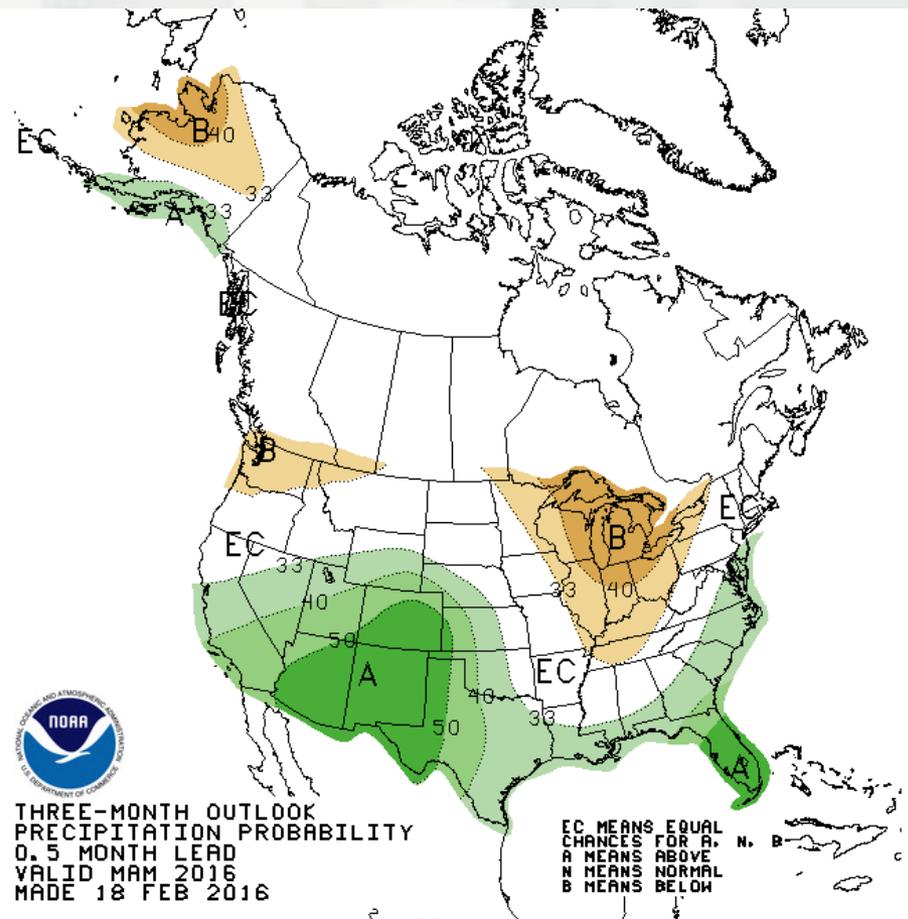
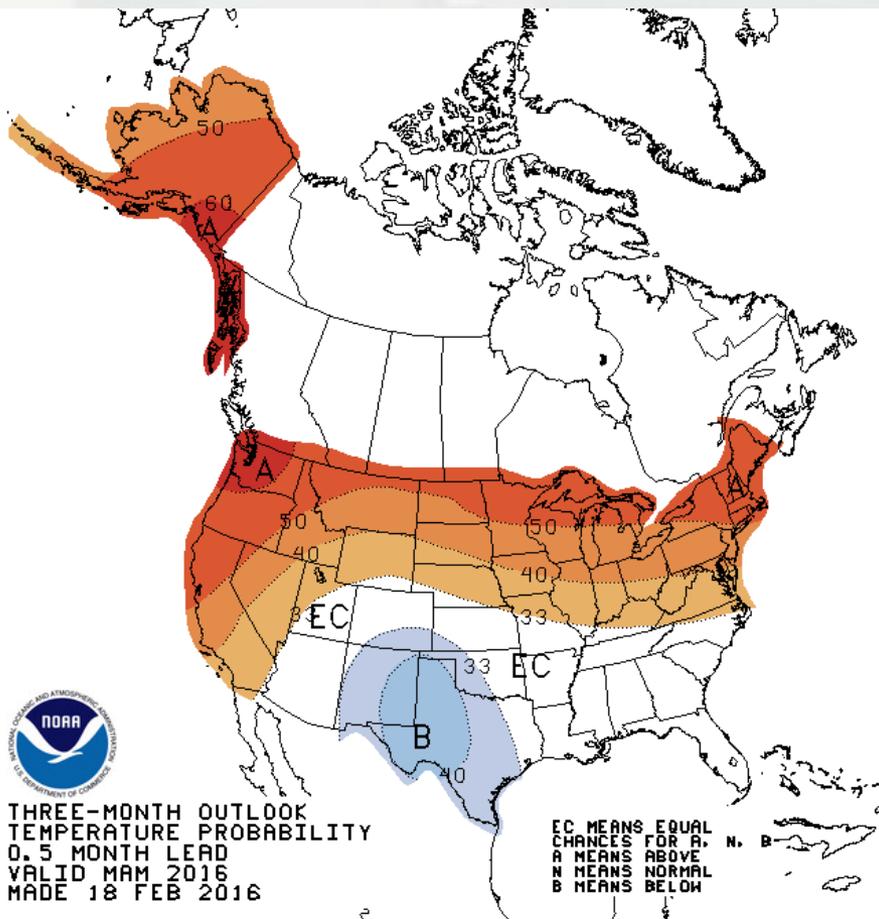
2014



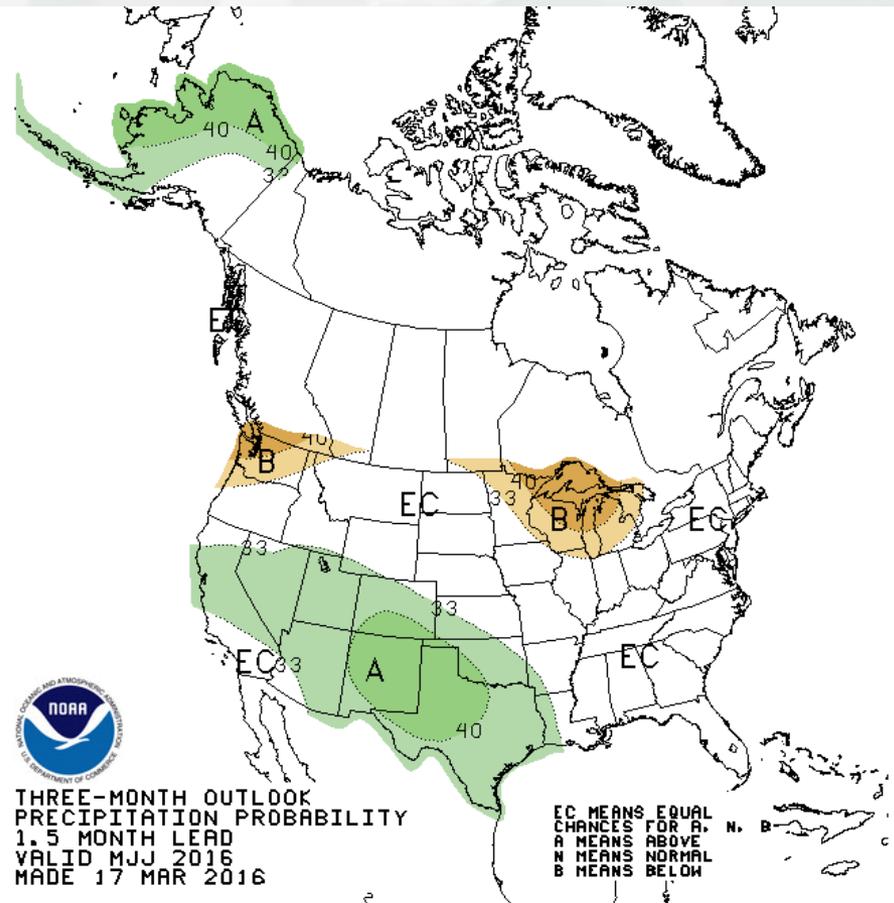
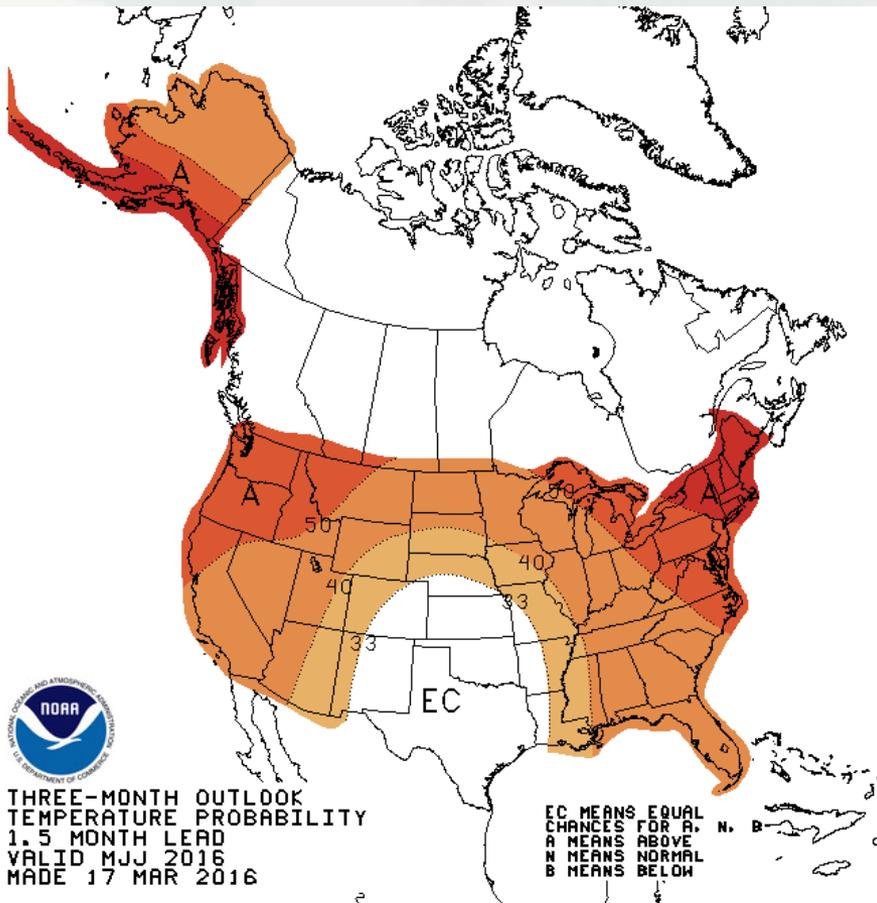
2007



Mar-May Outlook Temperature and Precipitation



May-July Outlook Temperature and Precipitation

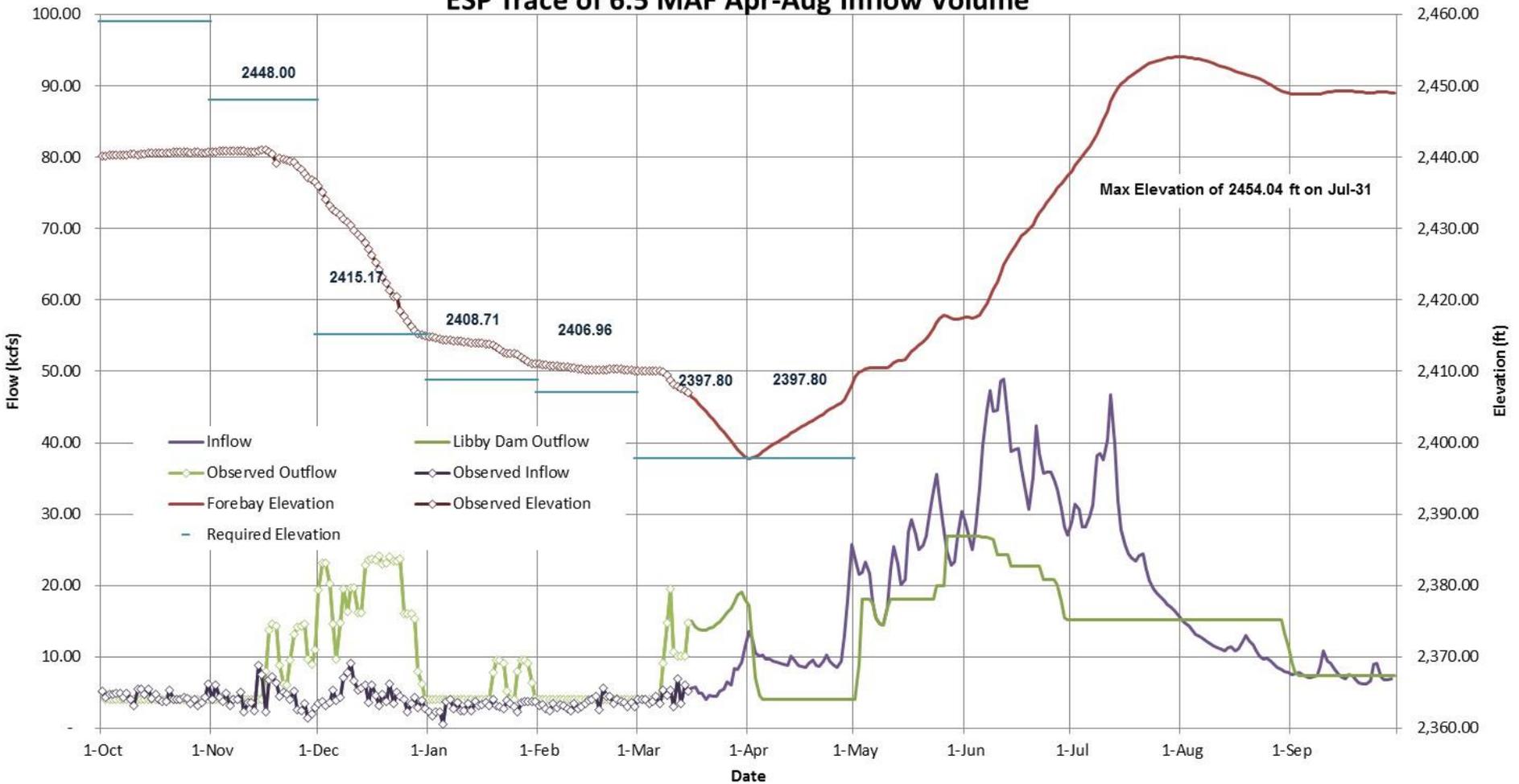


Operations

- Current Elevation is 2404.5 ft (~2.2 MAF of Space)
 - ▶ End of month target 2397.8 ft
 - ▶ Could see a further draft in April
- Flows targeting end of month target
 - ▶ Inflows to Libby Dam May cause higher releases this month
 - ▶ VarQ releases would also cause release to increase
- Upcoming Operations
 - ▶ Sturgeon Pulse
 - No spill
 - May come as early as mid May
 - Peak powerhouse releases of 14 days minimum
 - ▶ Summer Operations
 - Coordinating with tribe and TMT

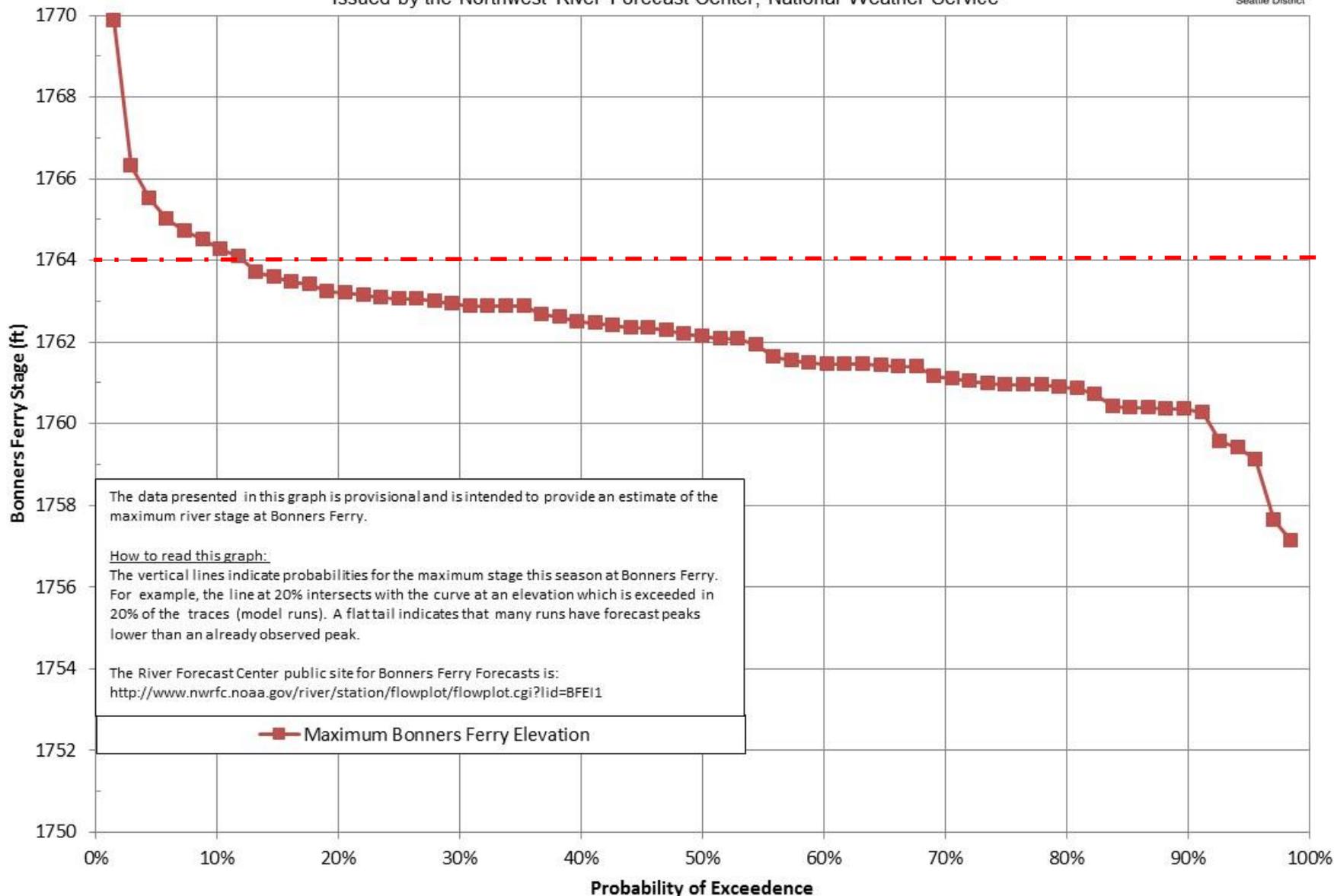


Lake Koocanusa Operations ESP Trace of 6.5 MAF Apr-Aug Inflow Volume



Maximum April-August Bonners Ferry Stage - Probability Chart

Corps of Engineers Projections Based on the 67 Ensemble Streamflow Prediction Traces
 Issued by the Northwest River Forecast Center, National Weather Service



Summary

- Flood Risk moderate
 - ▶ Based on lack of snowpack that feeds tributaries below Libby Dam
 - ▶ Likely to only see any significant peak about Libby Dam from snow melt
- June precipitation is the wild card

