

# LIBBY DAM WATER MANAGEMENT MARCH 2025 KVRI UPDATE

Leon Basdekas  
Upper Columbia River Senior Water  
Manager

17 March 2025



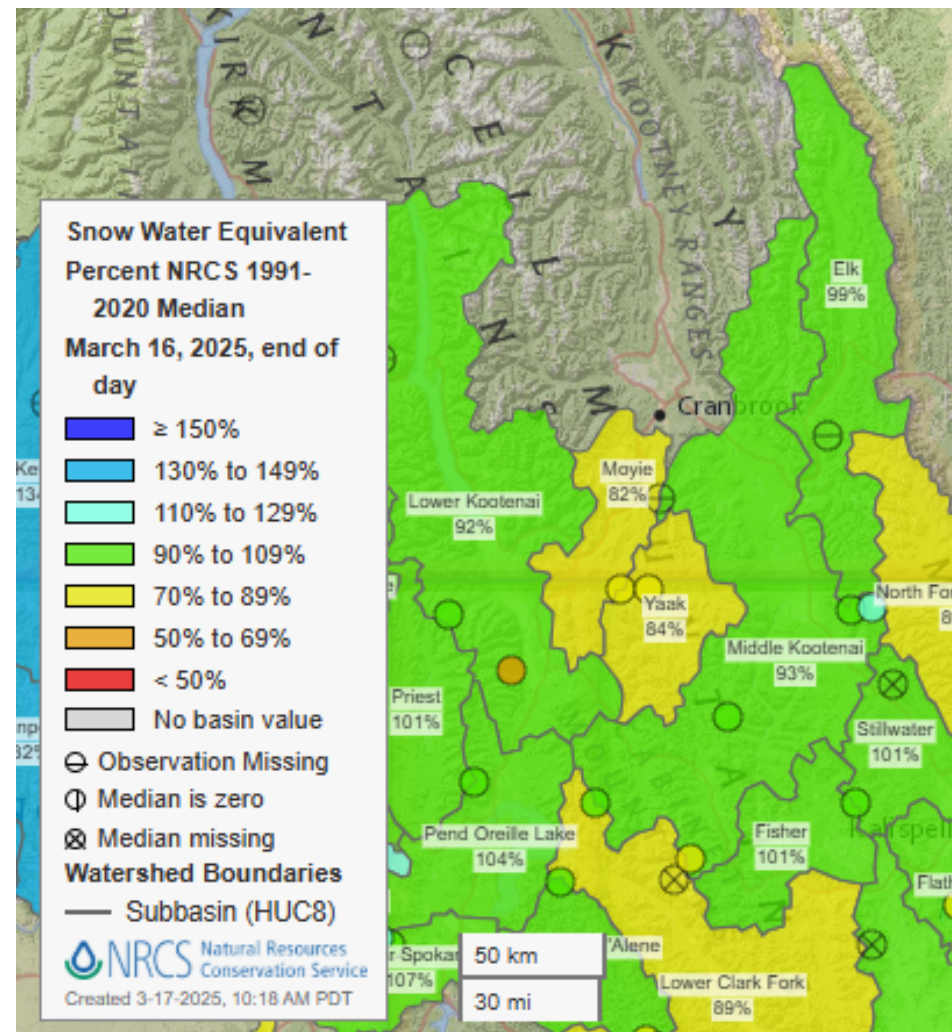
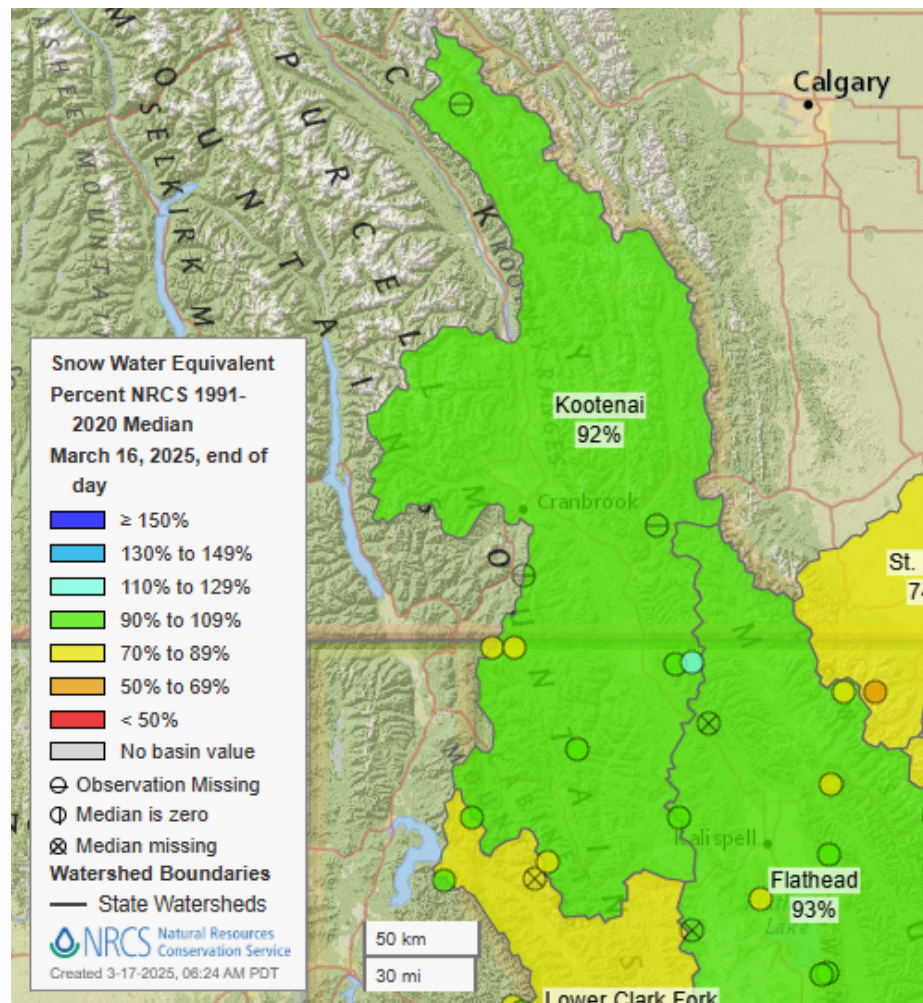
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**US Army Corps  
of Engineers®**



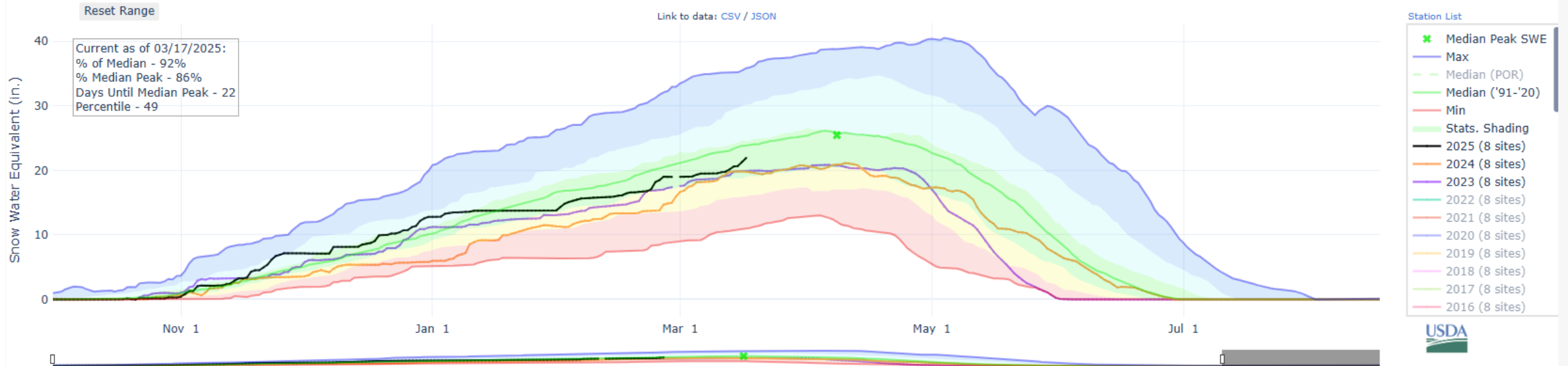
# SNOW WATER EQUIVALENT



- Snowpack is below average (92%) for Mid-March in the Kootenai Basin.
- Predictive ability this early in the snow season is low for summer flows.



# SNOW WATER EQUIVALENT KOOTENAI





# UNOFFICIAL WATER SUPPLY FORECAST (APRIL EARLYBIRD 2025) – AVG REMAINDER OF MONTH

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Libby : April Runoff Forecast & Flood Risk Management Calculation

WY 2025

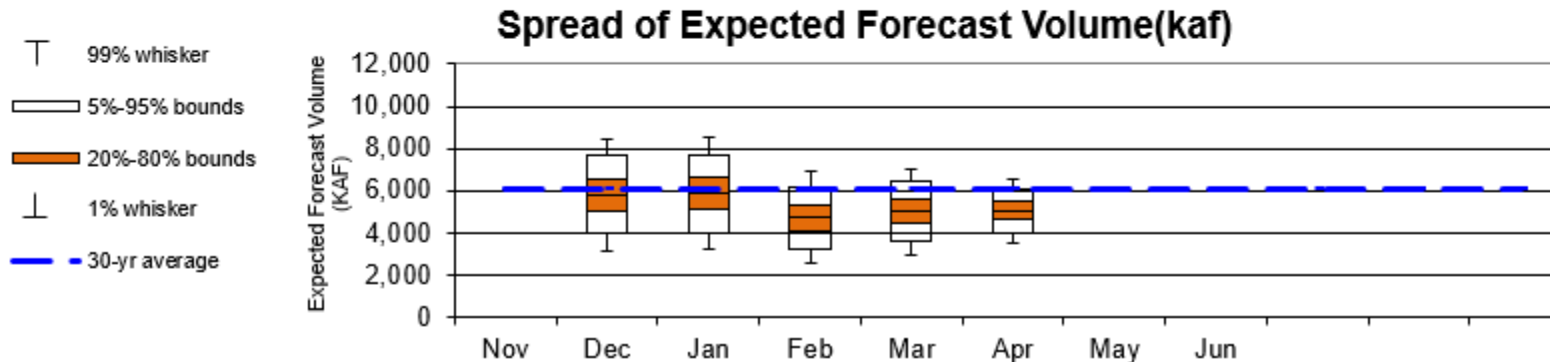
Runoff Forecast	April	1991-2020 Average	1991 - 2020 Percent of Average	1929-2020 Average	1929 - 2020 Percent of Average
Most Probable Runoff Volume: Apr-Aug (kaf)	5035	6080	83%	6259	80%
Most Probable Runoff Volume: Apr-Jul (kaf)	4613	5570	83%	5708	81%
Most Probable Runoff Volume: May-Jul (kaf)	4152	5014	83%	5183	80%

Flood Risk Management	April
30-Apr Flood Risk Management Space (kaf)	1665
30-Apr Flood Risk Management Elevation (ft)	2419.9

Last year - March avg earlybird was 5.00 maf

Forecast/Reservoir Data	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast (kaf)		5812	5871	4728	5004	5035		
First-of-Month Elev (ft)	2447.5	2436.1	2414.4	2410.9	2407.0	2405.3		

Seasonal FRM Requirements	30-Nov	31-Dec	31-Jan	28-Feb	31-Mar	30-Apr		
Flood Risk Management Space (kaf)	500	1867	1983	1541	1647	1665		
Flood Risk Management Elevation (ft)	2448.0	2414.6	2411.5	2423.1	2420.4	2419.9		





# NORTHWEST RIVER FORECAST CENTER

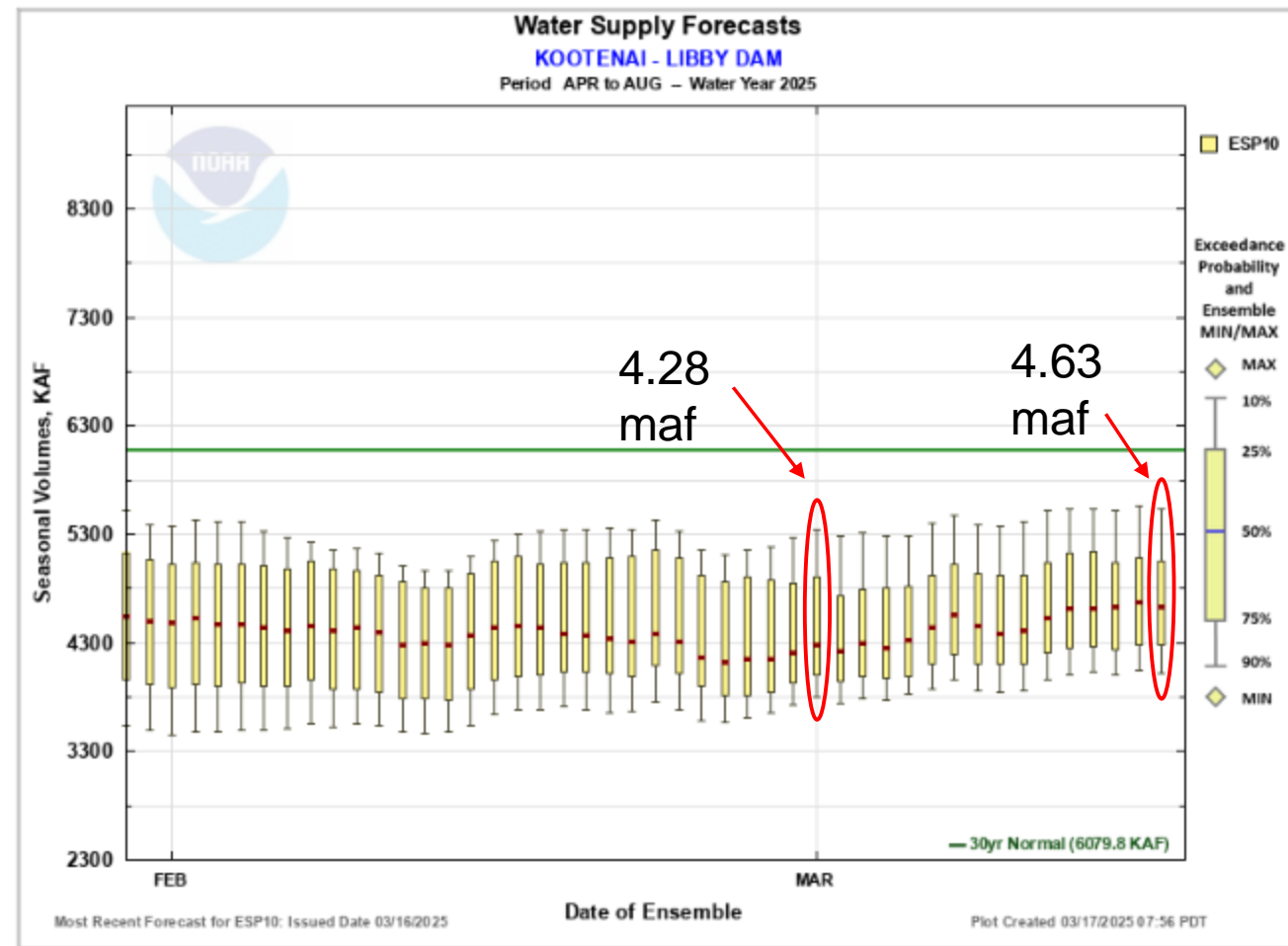
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Choose Date: 03/17/2025 Archive: Water Year

KOOTENAI - LIBBY DAM (LYDM8) Forecasts for Water Year 2025					
Official Water Supply					
ESP with 10 Days QPF Ensemble: 2025-03-16 Issued: 2025-03-16					
Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	% Average	10 %	
APR-SEP	4315	4990	78	5898	6429
APR-JUL	3639	4200	75	5058	5570
APR-AUG	4022	4629	76	5534	6080
JAN-SEP	4775	5454	77	6359	7086
JAN-JUL	4108	4658	75	5519	6227
OCT-SEP	5567	6246	78	7151	7981

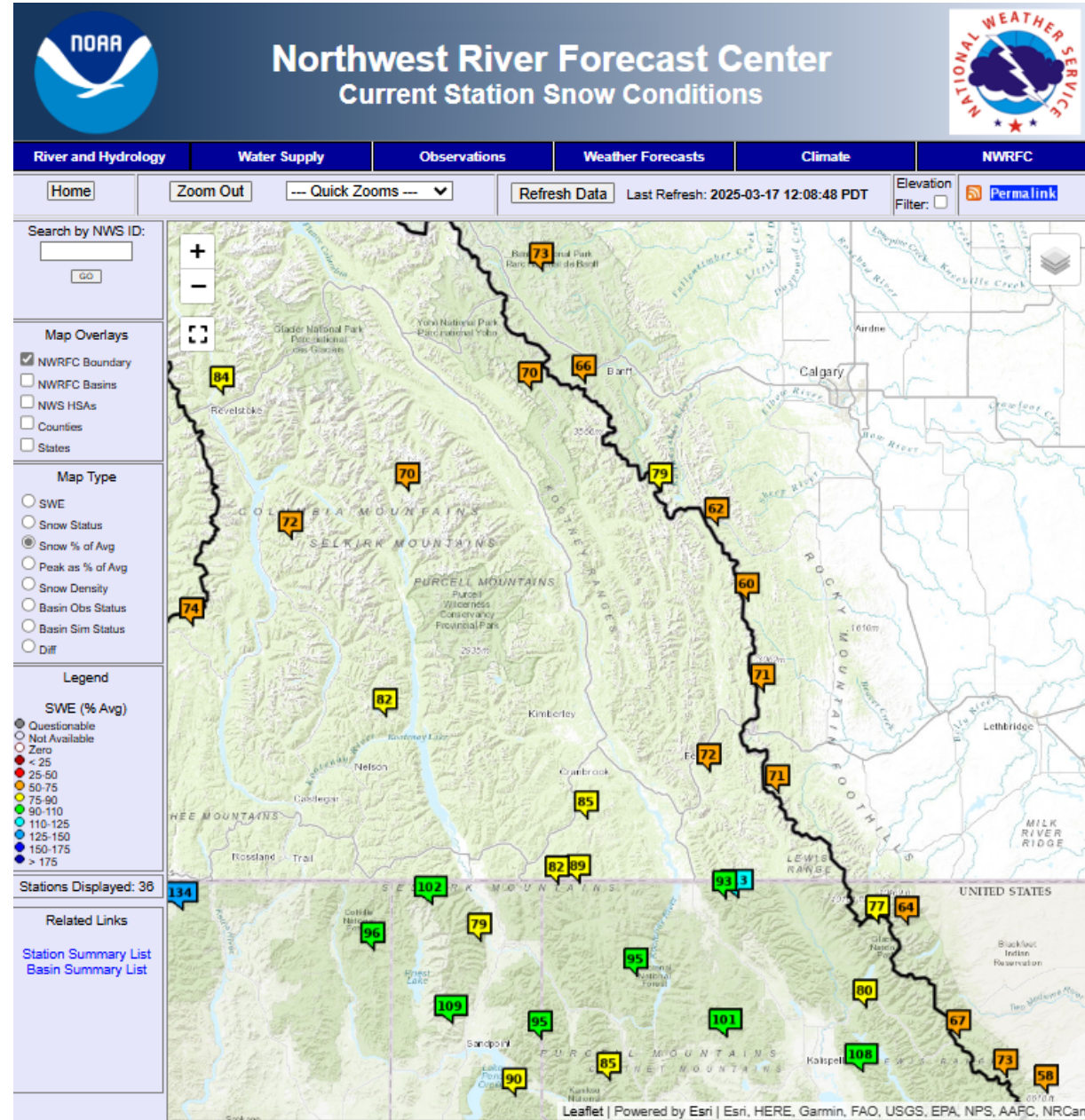
- Current ESP water supply forecast for Apr-Aug 2025 is below average.
- Still possible to have more snow accumulation this season.





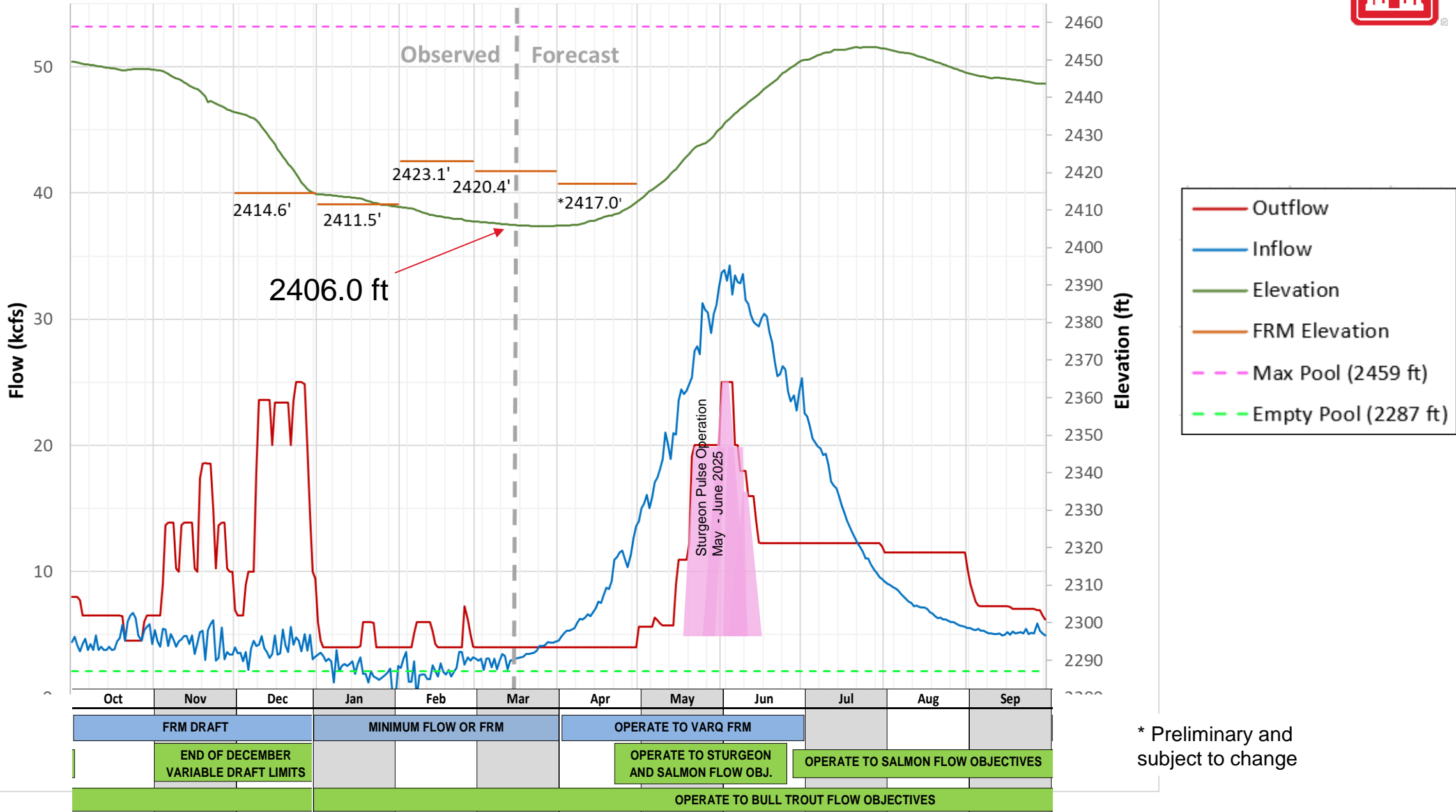


# SNOW WATER EQUIVALENT KOOTENAI





# Koocanusa Reservoir Operations Water Year 2025



\* Preliminary and subject to change



# WEATHER THIS WEEK

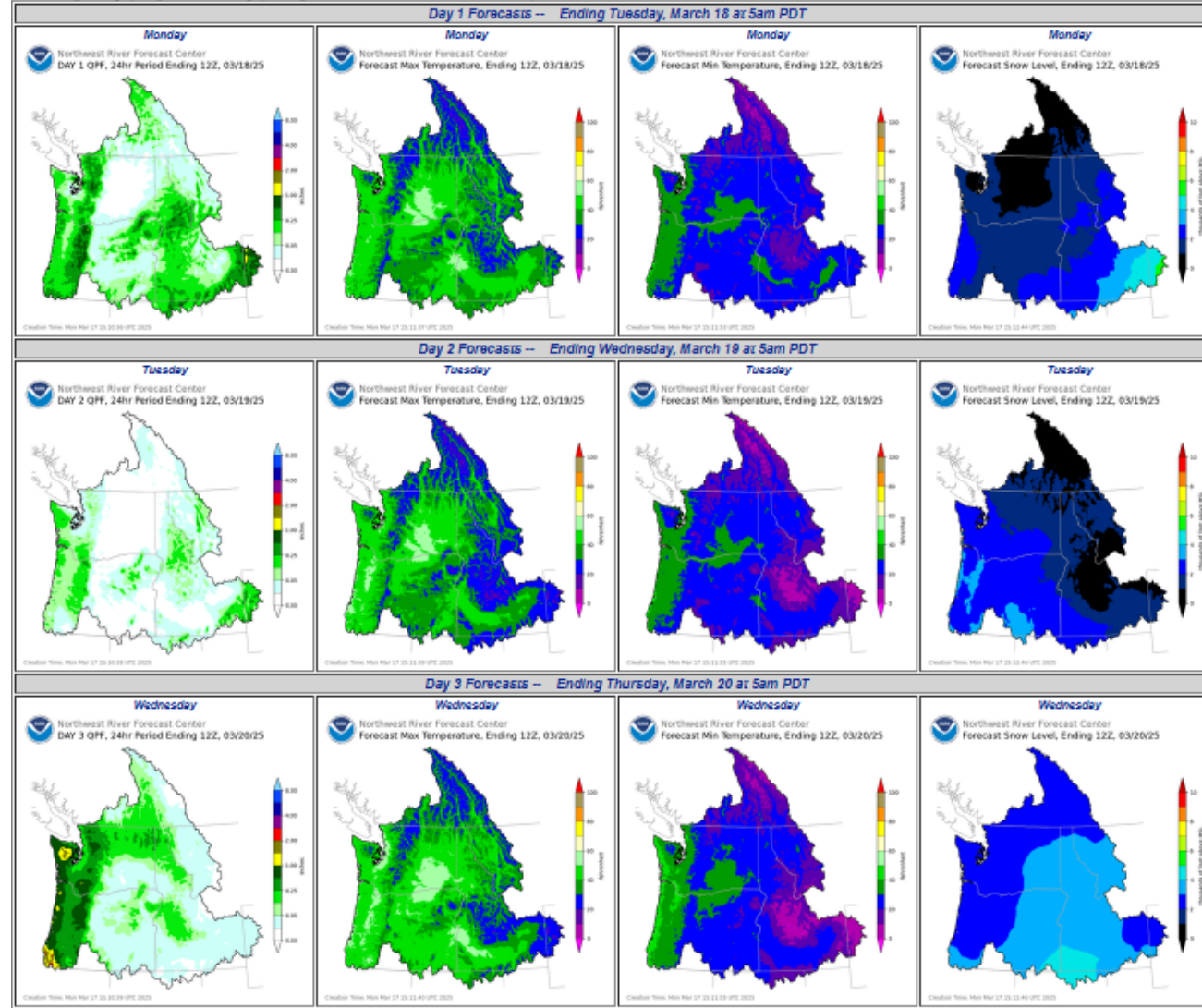
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## Northwest River Forecast Center 10 Day Meteorological Forecasts

[Home](#) [Previous Page](#) [Detailed Graphical Display](#) [Text Forecasts](#) [Forecast Trend](#) [Verification](#) [Description](#) [Mon Mar 17 2025](#) [Current](#)

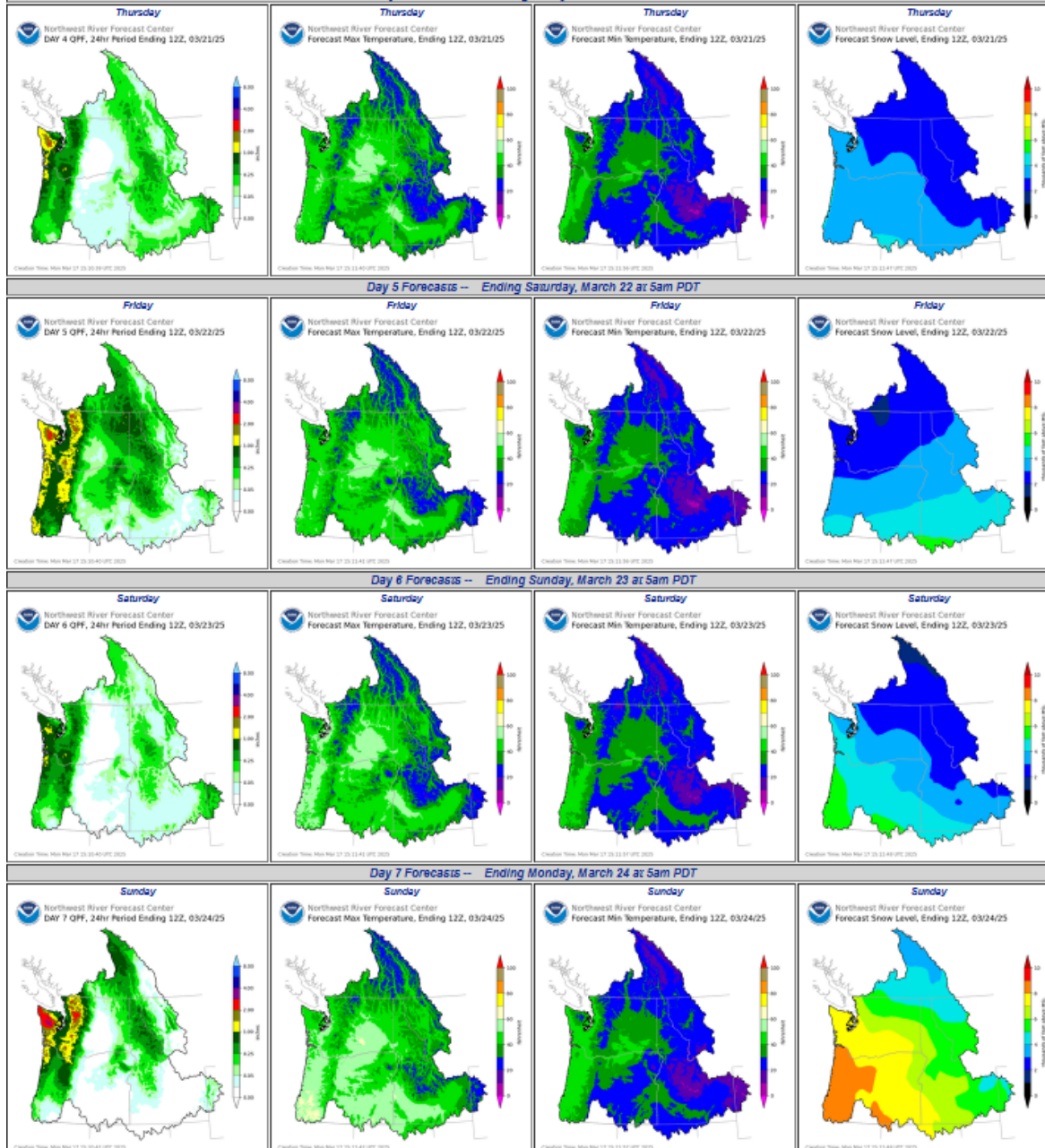
Click on Image to Display Larger Plot. Note: Displayed images include the latest issuance for the selected day.







# WEATHER THIS WEEK

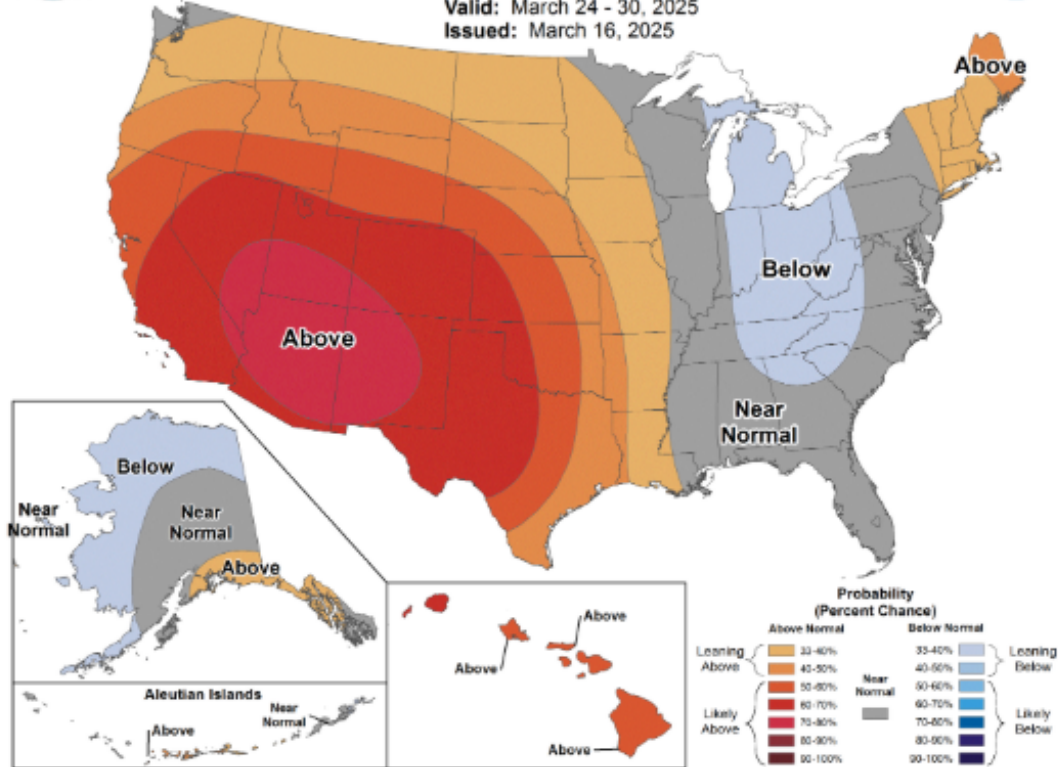


## Temperature Probability



### 8-14 Day Temperature Outlook

Valid: March 24 - 30, 2025  
Issued: March 16, 2025

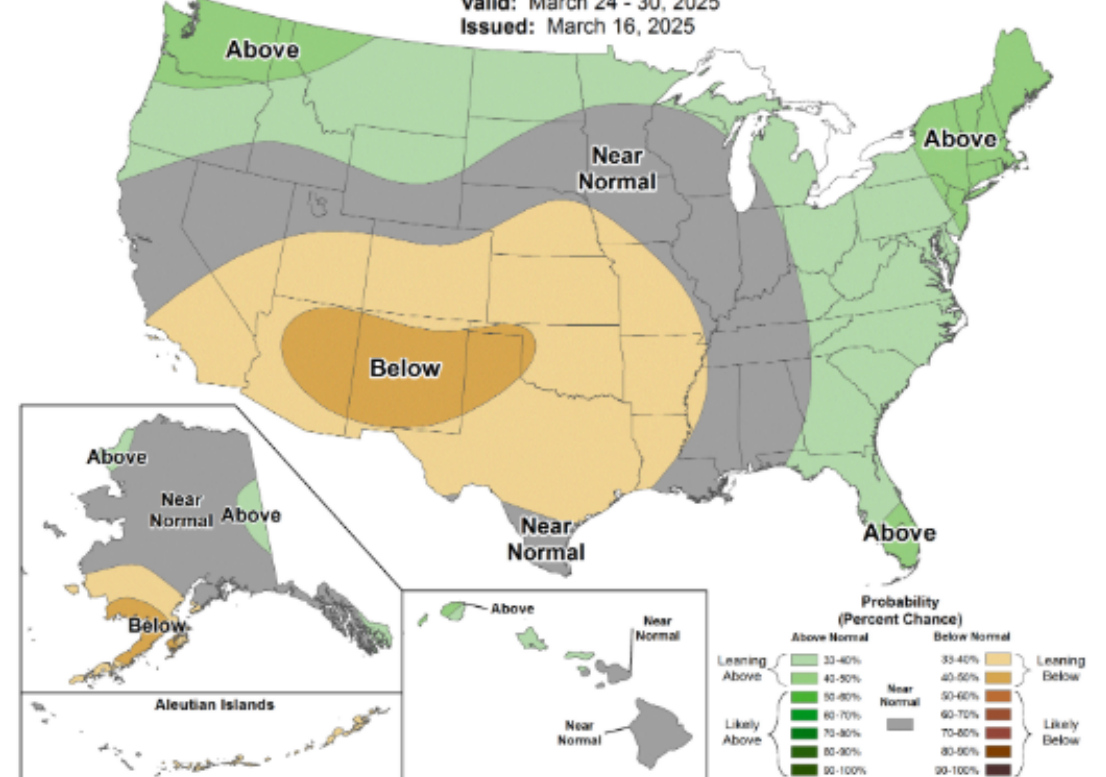


## Precipitation Probability



### 8-14 Day Precipitation Outlook

Valid: March 24 - 30, 2025  
Issued: March 16, 2025





# QUESTIONS?

For emails regarding release changes and lake level updates email

- [UpperColumbiaWM@usace.army.mil](mailto:UpperColumbiaWM@usace.army.mil)
- [leon.basdekas@usace.army.mil](mailto:leon.basdekas@usace.army.mil)

General Queries call (206) 764-6702

Seattle District water management data website :

<http://www.nwd-wc.usace.army.mil/nws/hh/www/index.html#>

**Reservoir Control Center**  
**SEATTLE DISTRICT**  
Water Management Section  
US Army Corps of Engineers

HOME ABOUT MEDIA AND CONTACTS LINKS GLOSSARY

**Basins and Projects**

- Chehalis River Basin
- Eastern Washington Rivers (Chief Joseph Dam)
- Flathead and Clark Fork Rivers
- Green River Basin (Howard Hanson Dam)
- Kootenai River Basin (Libby Dam)**
- Lake Washington (Lake Washington Ship Canals)
- Pend Oreille River Basin (Albani Falls Dam)
- Puyallup River Basin (Mud Mountain Dam)
- Skagit River Basin
- Water Quality Data

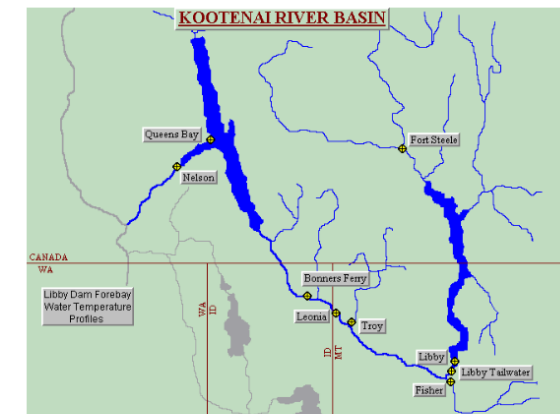
**Water Management**

The Water Management Section of the Seattle District Corps of Engineers is responsible for monitoring and/or regulating several rivers in the Puget Sound region. This has required the implementation of a complex computer network to collect data from multiple locations and gages every hour. The Water Management Section compiles data from several of its water control projects. The data that are provided here come from those projects and a variety of other sources including:

- National Weather Service (NWS)
- U.S. Geological Survey (USGS)
- U.S. Bureau of Reclamation (USBR)
- Seattle City Light (SCL)
- Tacoma Public Utilities (TPU)
- Puget Sound Energy (PSE)

**Basins and Projects**

- Chehalis River Basin
- Eastern Washington Rivers (Chief Joseph Dam)
- Flathead and Clark Fork Rivers
- Green River Basin (Howard Hanson Dam)
- Kootenai River Basin (Libby Dam)**
  - Bonners Ferry
  - Moyie River Eastport
  - Below Moyie Nr Bonners
  - Fisher
  - Fort Steele
  - Leonia
  - Libby
  - Libby Tailwater
  - Nelson
  - Queen's Bay
  - Troy
  - Libby Water Temp Profiles
  - Lake Koocanusa Summary Hydrograph
  - ESP
- Lake Washington (Lake Washington Ship Canals)
- Pend Oreille River Basin (Albani Falls Dam)
- Puyallup River Basin (Mud Mountain Dam)



## Stations

Bonners Ferry Moyie River Eastport Below Moyie Nr Bonners Fisher Fort Steele  
Leonia Libby Libby Tailwater Nelson Queen's Bay  
Troy ESP Libby Water Temp Profiles  
Lake Koocanusa Summary Hydrograph





# ENSEMBLE STREAMFLOW PREDICTION (ESP)



- Northwest River Forecast Center (NWRFC) currently uses ESP technique to make water supply forecasts for the Columbia River Basin.
- Modeling system to simulate soil moisture, snowpack, regulation, and streamflow.
  - Uses the current hydrologic conditions, and
  - Then uses historical meteorological data to create equally likely sequences of future hydrological conditions, each starting with the current hydrological conditions.
- Statistical analysis is performed on these sequences to generate probabilistic forecasts of seasonal water supply