LIBBY DAM WATER MANAGEMENT
MARCH 2025 KVRI UPDATE

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Upper Columbia River Senior Water Manager

17 March 2025

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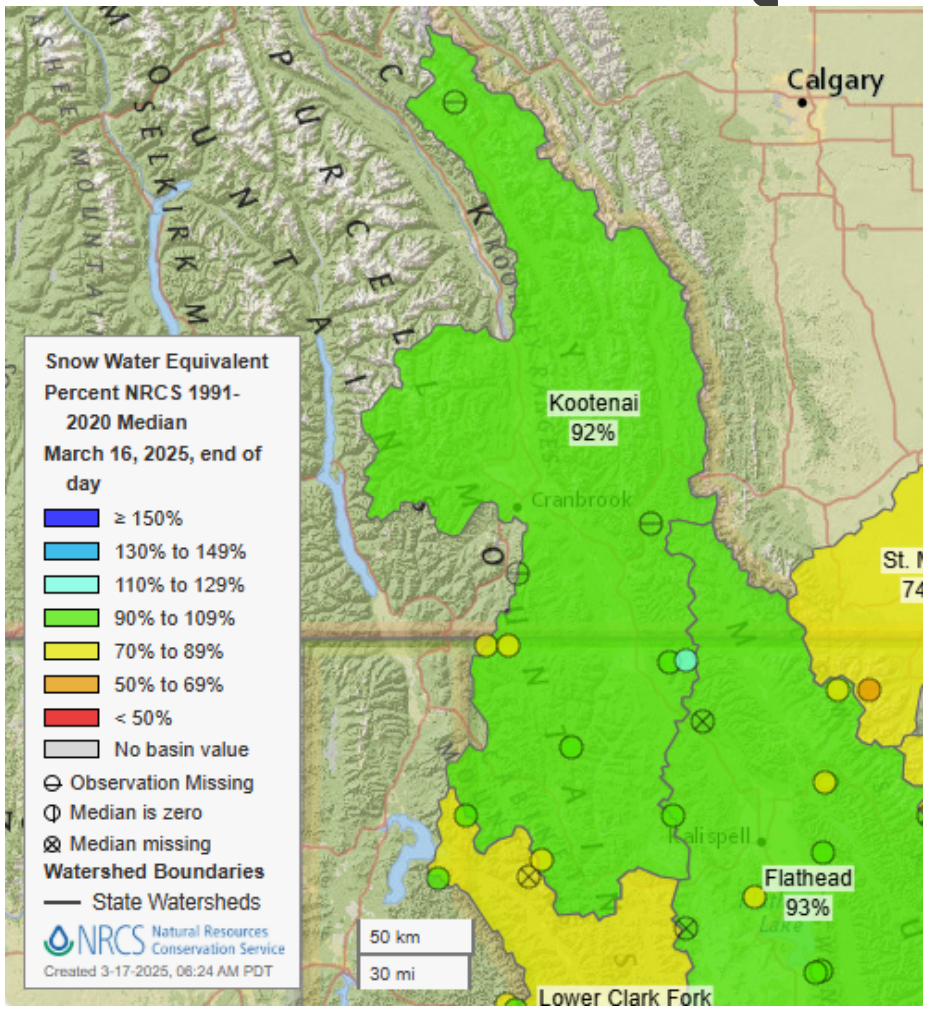
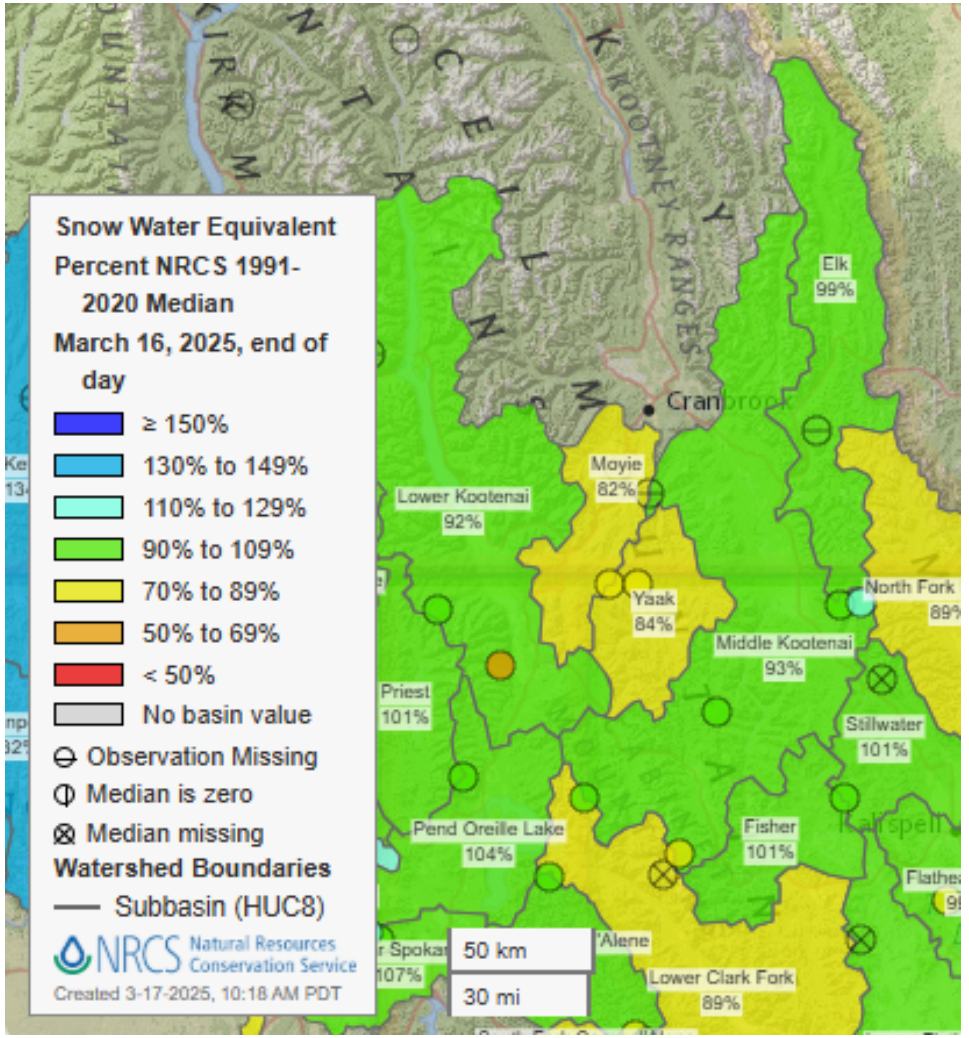
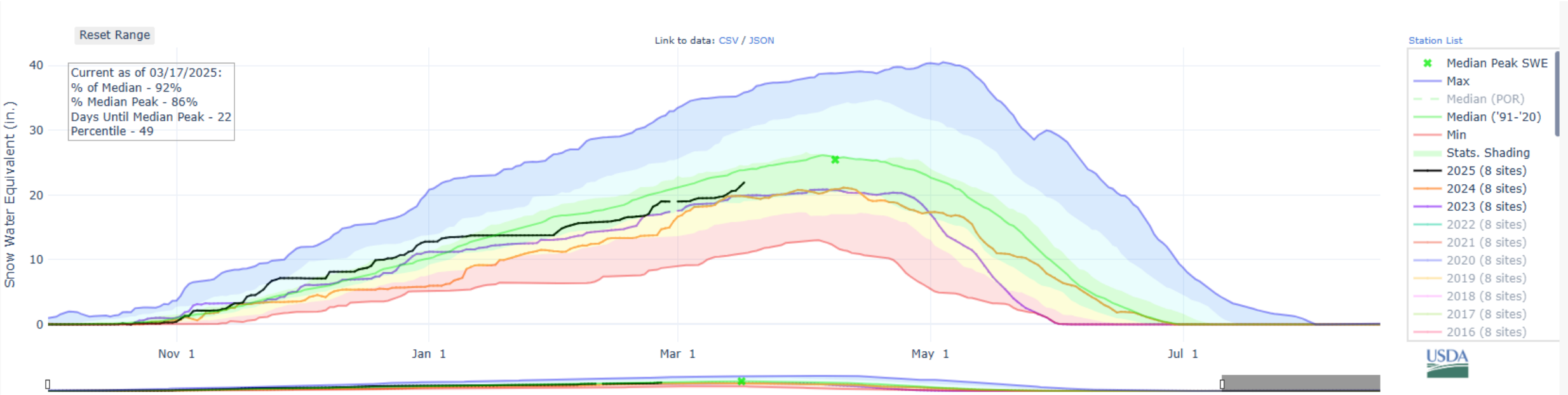
SNOW WATER EQUIVALENT





- 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

Libby : April Runoff Forecast & Flood Risk Management Calculation — **WY 2025**

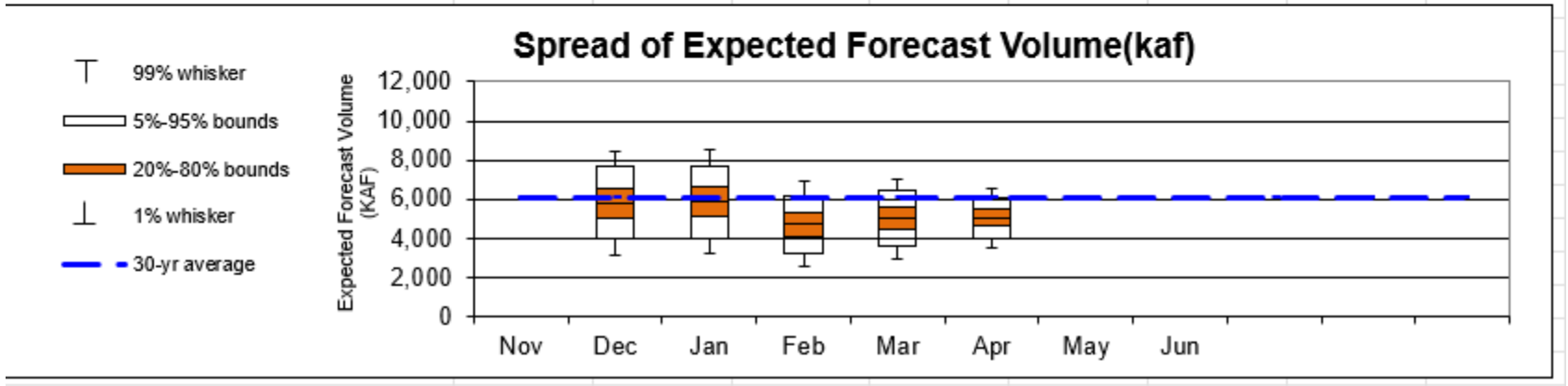
Runoff Forecast	April	1991-2020 Average	1991 - 2020 Percent of Average	1929-2020 Average	1929 - 2020 Percent of Average
Most Probable Runoff Volume: Apr-Aug (kaf)	5035	6080	83%	6259	80%
Most Probable Runoff Volume: Apr-Jul (kaf)	4613	5570	83%	5708	81%
Most Probable Runoff Volume: May-Jul (kaf)	4152	5014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

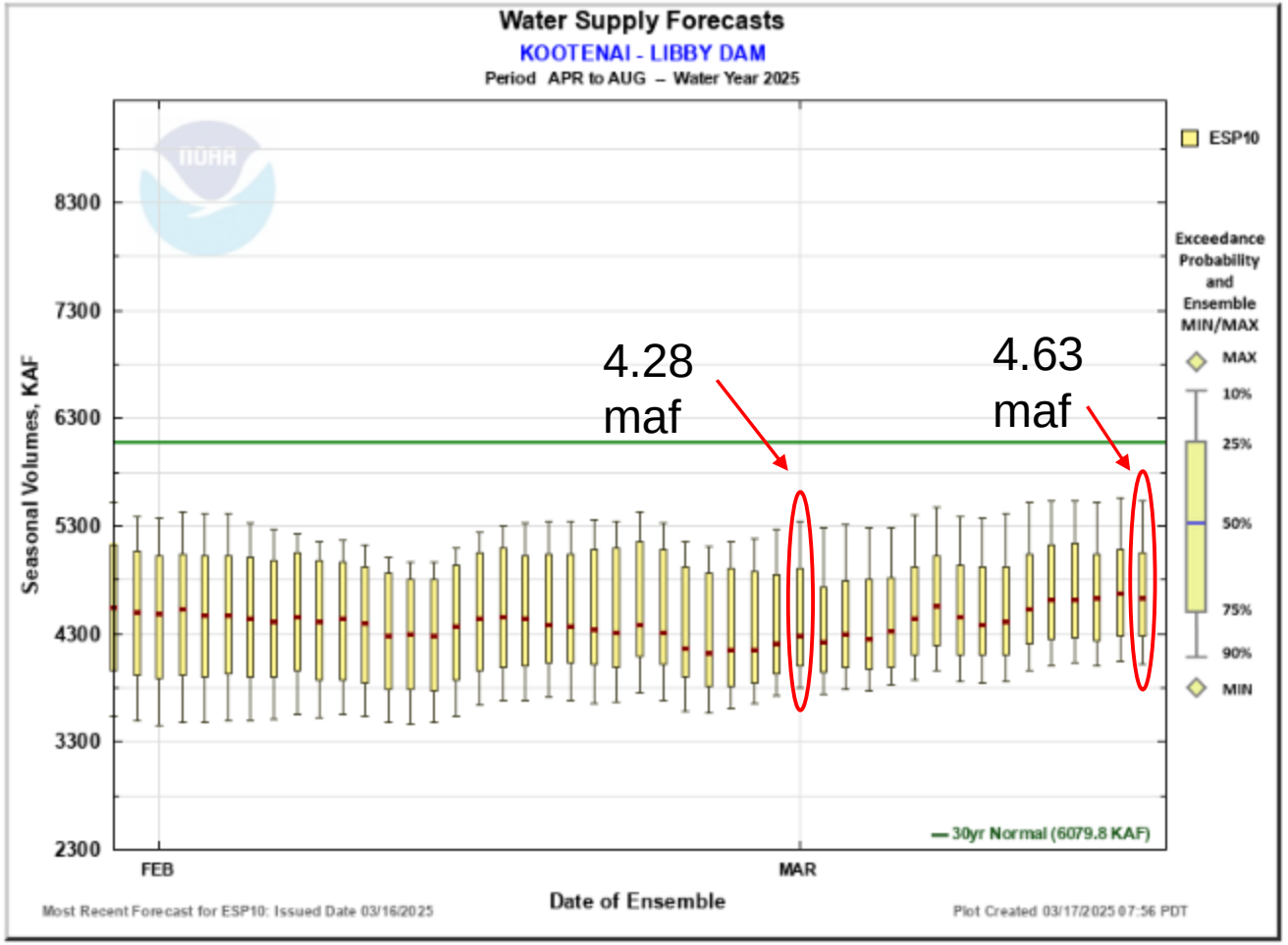
Choose Date: 03/17/2025 Archive: Water Year

KOOTENAI - LIBBY DAM (LYDM8)
Forecasts for Water Year 2025

Official Water Supply

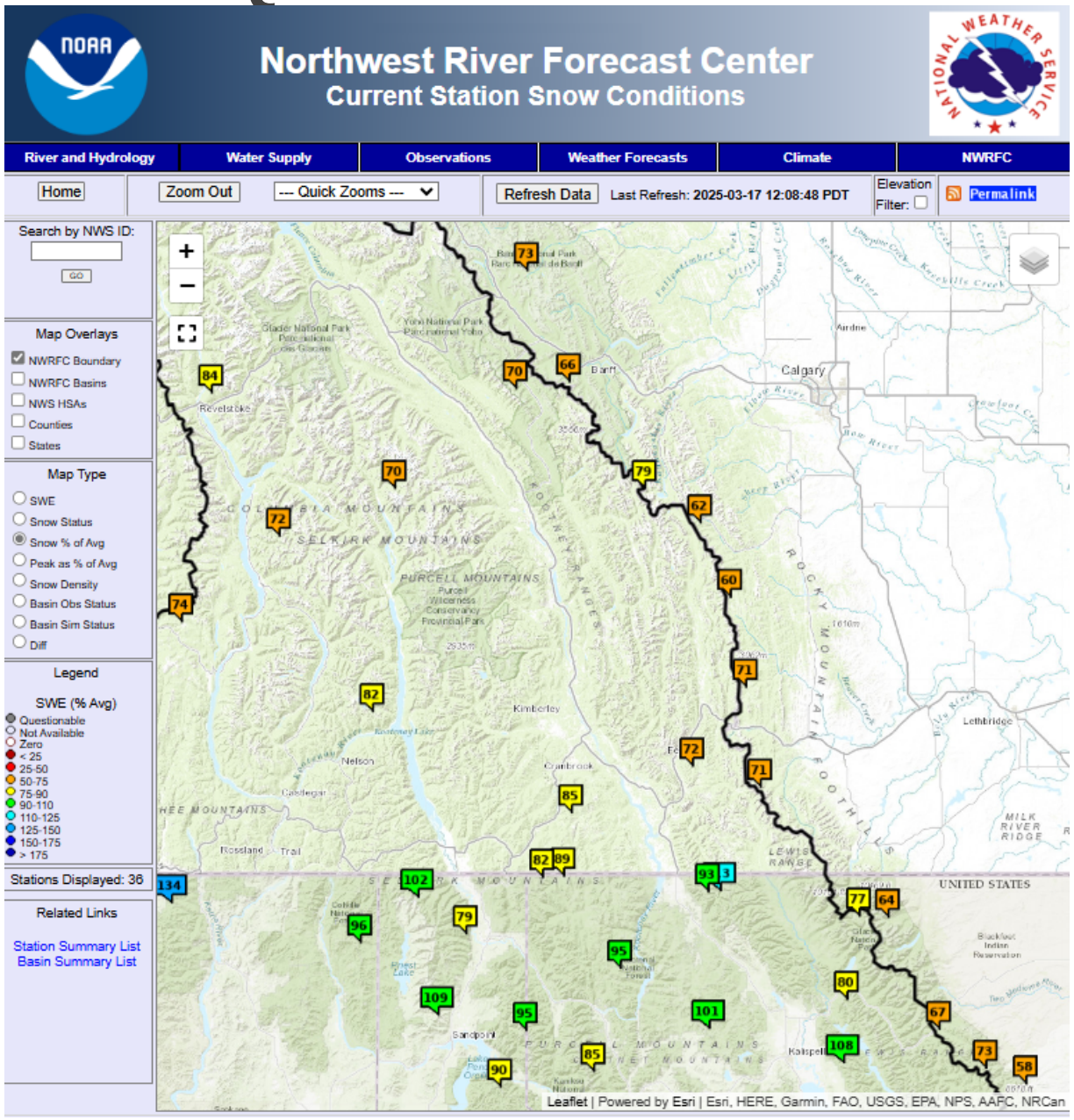
ESP with 10 Days QPF ***Ensemble:*** 2025-03-16 ***Issued:*** 2025-03-16

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

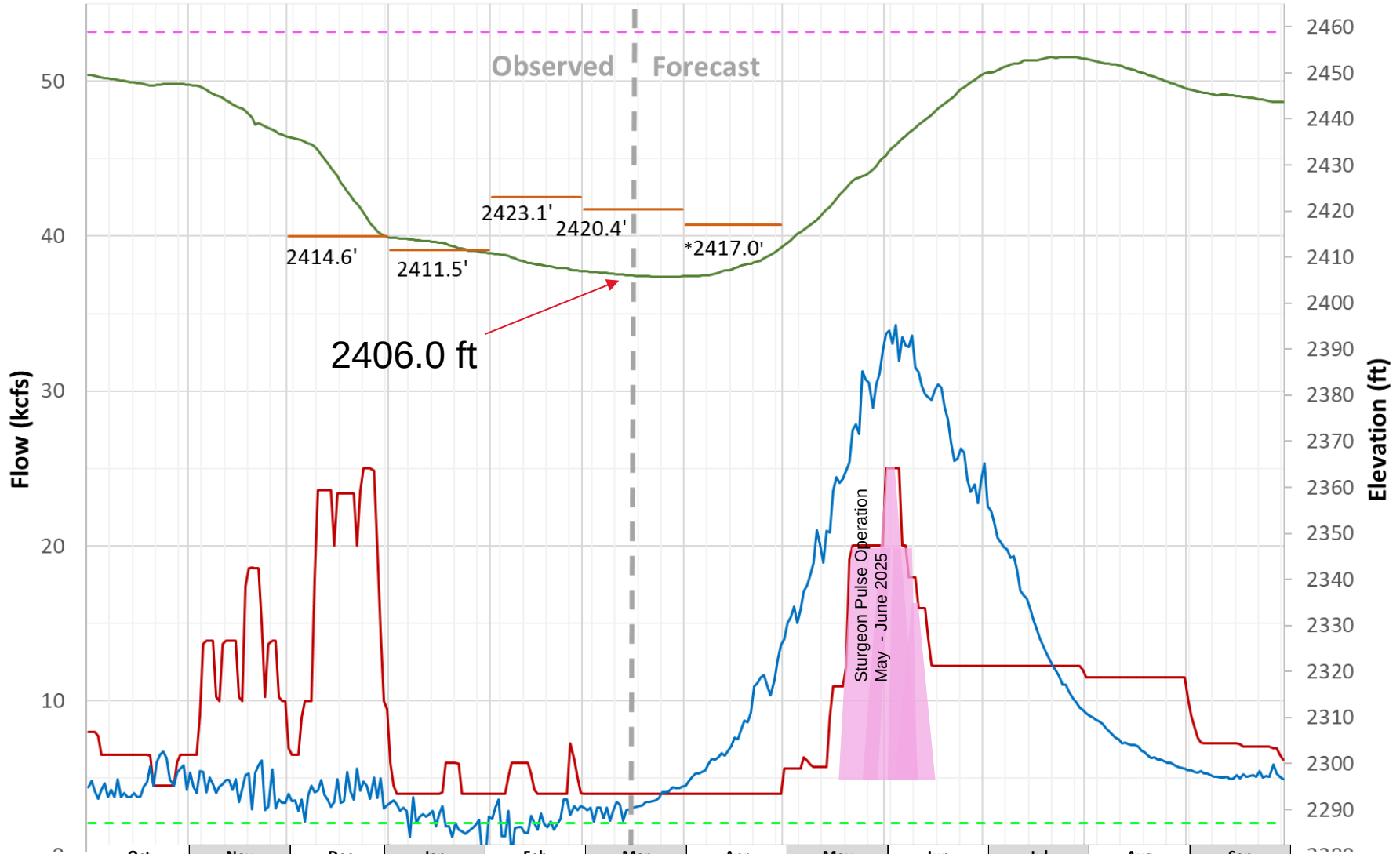


- Current ESP water supply forecast for Apr-Aug 2025 is below average.
- Still possible to have more snow accumulation this season.

SNOW WATER EQUIVALENT KOOTENAI

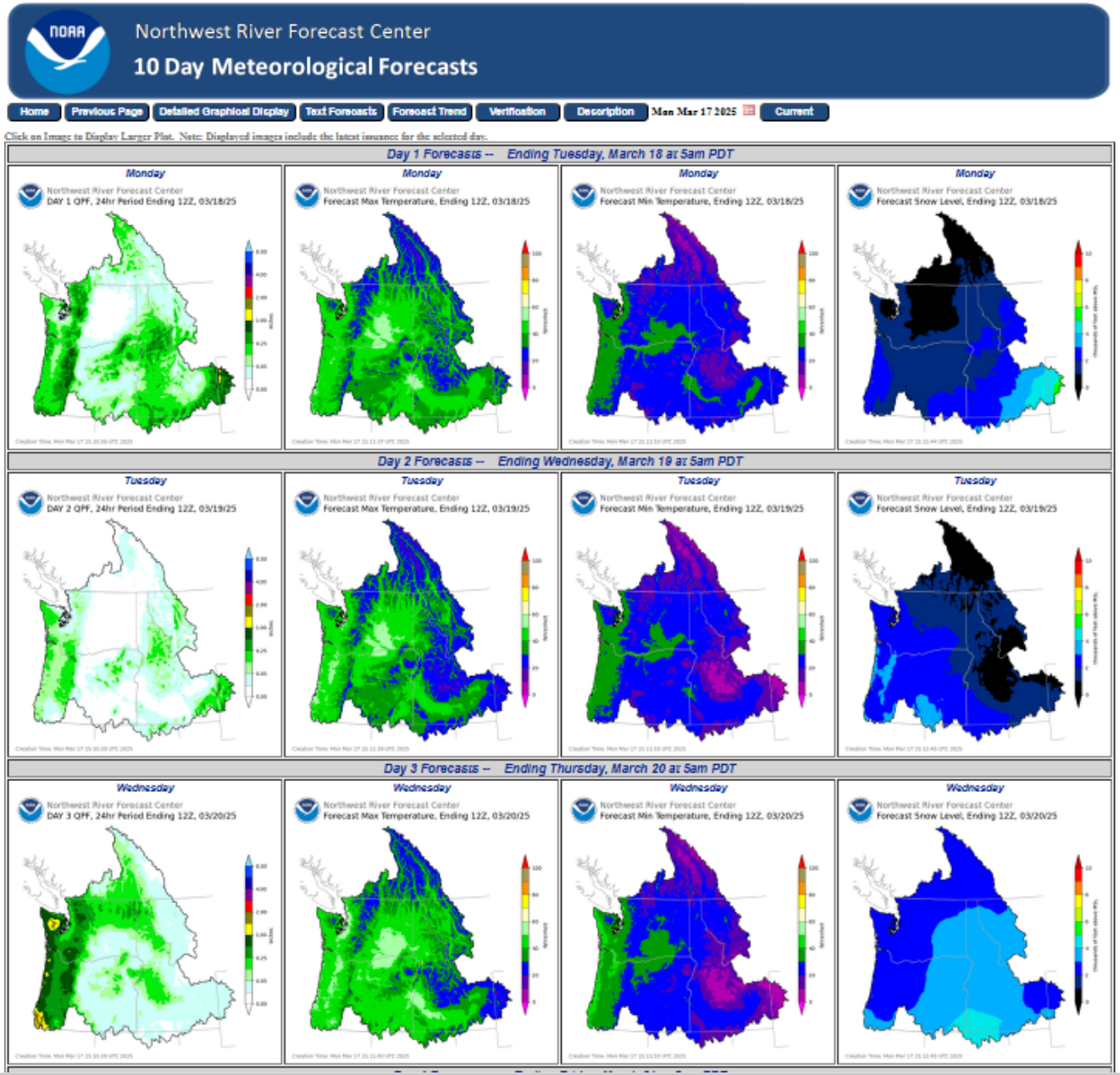


Koocanusa Reservoir Operations Water Year 2025



* Preliminary and subject to change

WEATHER THIS WEEK



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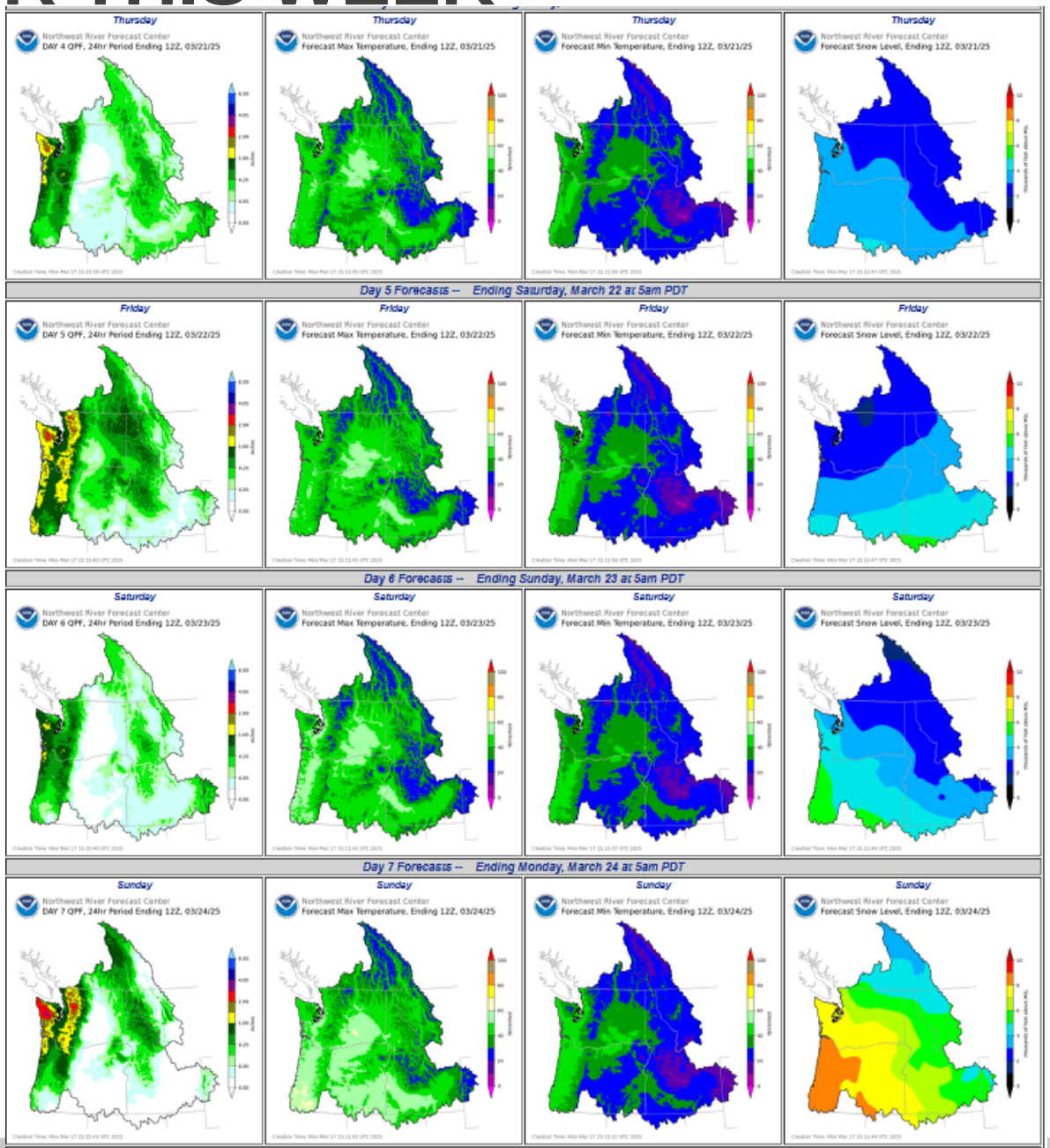
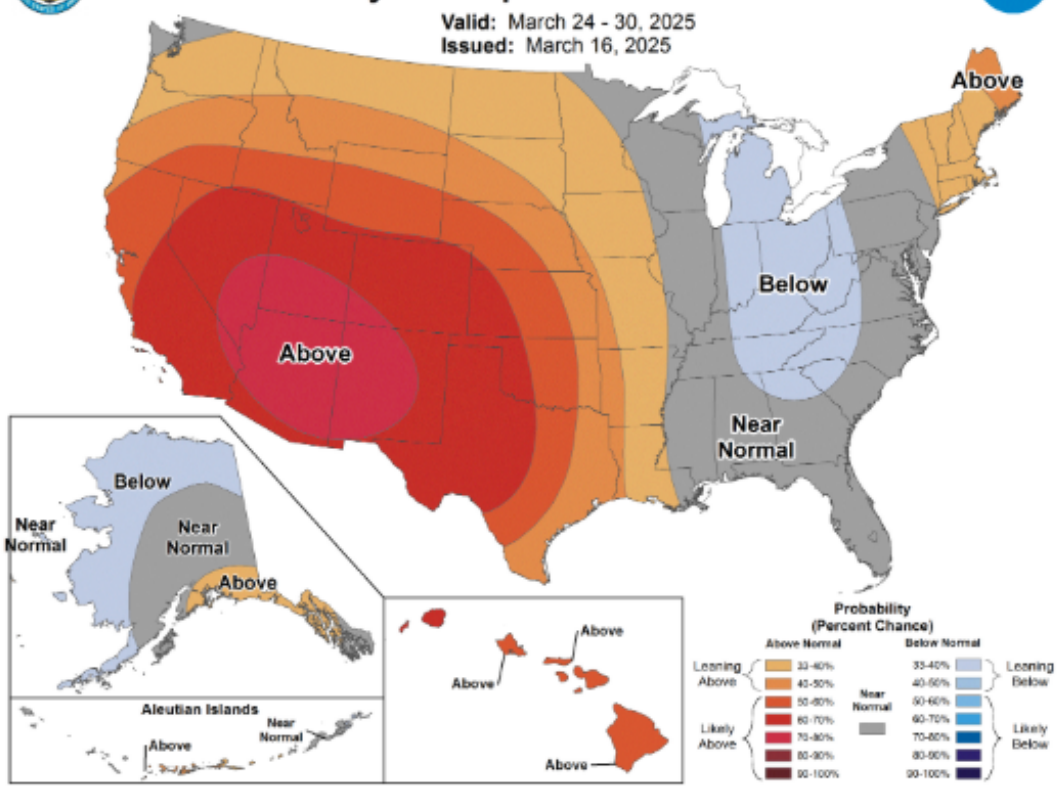
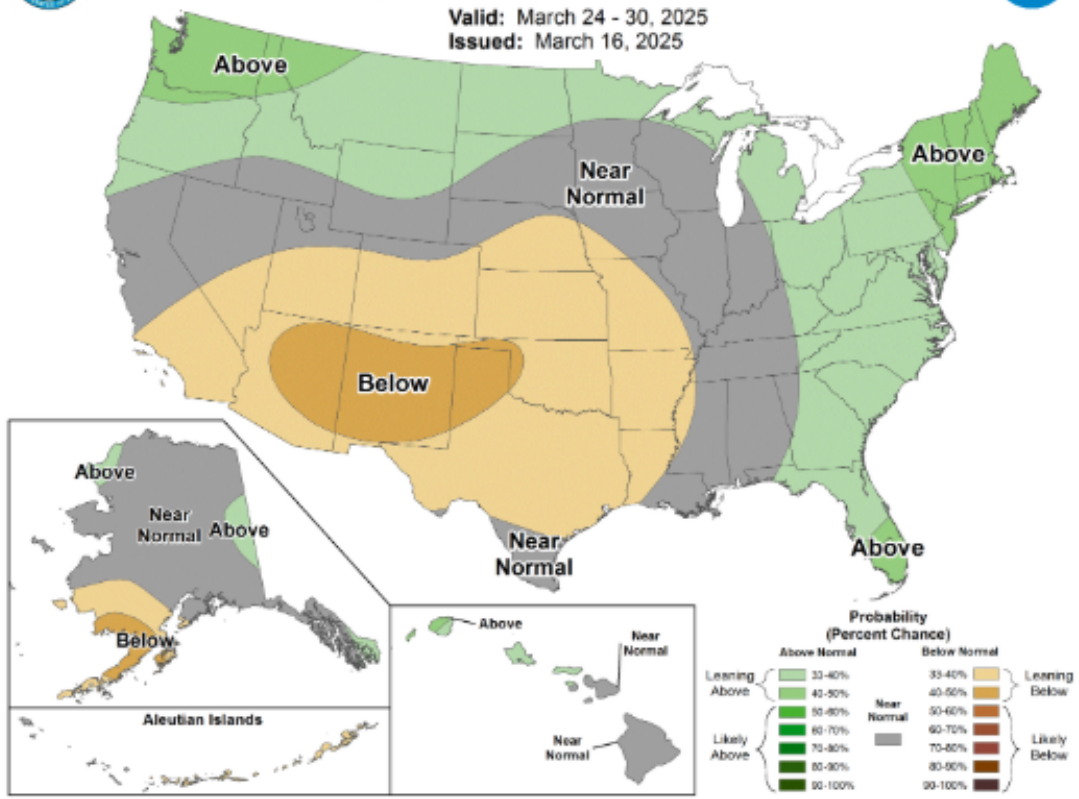


WEEK TWO OUTLOOK

Temperature Probability



Precipitation Probability



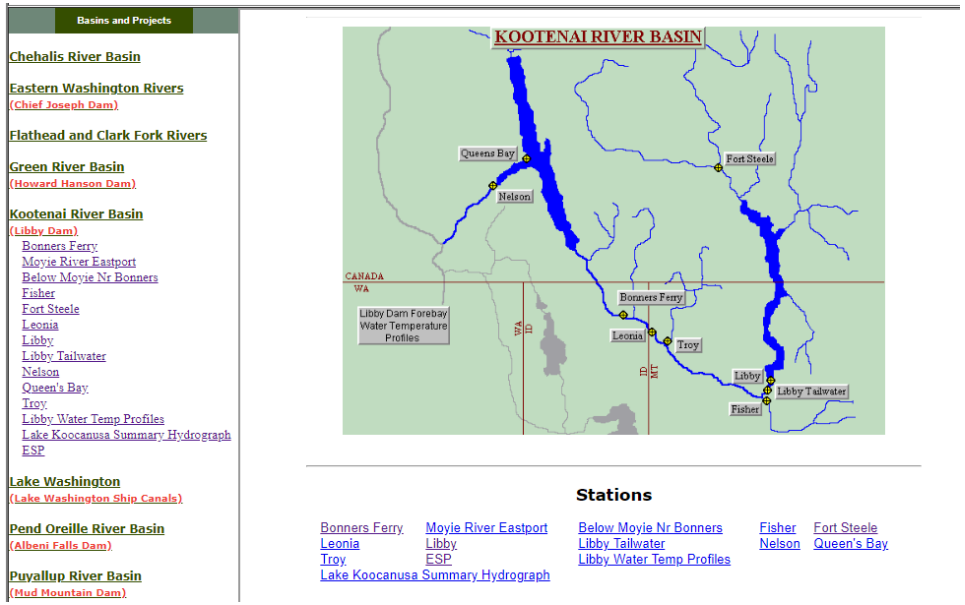
QUESTIONS?

For emails regarding release changes and lake level updates email

- UpperColumbiaWM@usace.army.mil
- 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#



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

https://www.nwrfc.noaa.gov/water_supply/ws_help.cgi