

#### STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

#### Water Supply Availability Committee (WSAC)

Thursday, June 12, 2025, 10 a.m. - 11:30 p.m.

Zoom: Click to join. (Call-in: 253.205.0468; Meeting ID: 816 5686 6078; Passcode: 038972)

#### Meeting Objectives – June:

• Share pertinent info and assess water supply conditions in Washington for winter.

#### Agenda

Time	Agenda item	Responsible
10:00 a.m.	Welcome and agenda review	Caroline Mellor, Ecology
	Recap: Drought Declaration and implications	
10:10 a.m.	Regional Climate Setting/ ENSO	Karin Bumbaco, WASCO
10:25 a.m.	Mountain Conditions	Matt Warbritton, NRCS
10:40 a.m.	Streamflow and Groundwater	Nick Sutfin, USGS
10:55 a.m.	Yakima Project	Teresa Hauser, BOR
11:05 a.m.	Water Supply Forecasts	Amy Burke, NWRFC/NWS
11:20 a.m.	Discussion: What concerns do folks have for	All participants
	drought and Water Year 2025?	Ecology facilities
11:25 a.m.	Wrap-up	Caroline Mellor, Ecology

#### Committee Purpose

WSAC provides an important consultative and advisory role to Ecology related to current and forecasted water supply conditions and whether the hydrologic drought threshold has been met or is forecasted to be met: seventy-five percent of normal water supply within a geographic area (RCW 43.83B.405 and WAC 173-166-050).

#### Resources

WSAC Website: <u>Water Supply Availability Committee - WA State Department of Ecology</u> Ecology Drought homepage: Drought response - WA State Department of Ecology

#### Contact

Committee Chair: Caroline Mellor, Statewide Drought Lead, WA Department of Ecology Caroline.Mellor@ecy.wa.gov | (c) 360.628.4666





# Water Supply Availability Committee

June 12, 2025 Water Resources Program



# Recording!



# Agenda



Time	Agenda item	Responsible
10:00 a.m.	Welcome and agenda	Caroline Mellor, Ecology
	Recap: Drought declaration process and implications	
10:10 a.m.	Regional Climate Setting / ENSO	Karin Bumbaco, WSCO
10:25 a.m.	Mountain Conditions	Matt Warbritton, NRCS
10:40 a.m.	Streamflow and Groundwater	Nick Sutfin. USGS
10:55 a.m.	Yakima Project	Teresa Hauser, BOR
11:05 a.m.	Water Supply Forecasts	Brent Bower, NWS
11:20 a.m.	Discussion: What concerns do folks have for drought	All participants
	recovery and Water Year 2025?	Ecology facilitates
11:25 a.m.	Wrap-up and next steps	Ecology



### Committee Role

WSAC provides an important consultative and advisory role to Ecology related to:

- Current and forecasted water supply conditions;
- Whether the hydrologic drought threshold has been met or is likely to be met.



# Meeting Objectives

• Share pertinent info and assess water supply conditions in Washington state as we enter summer of Water Year 2025.

### **Drought Emergency Declaration**



On June 5, 2025, Ecology issued a drought emergency declaration in the North and Central Cascade Mountains and parts of the Puget Sound area, due to low snowpack, early and rapid snowmelt and a dry April and May.

This served as an expansion of the April 8, 2025, drought declaration for the Yakima Basin watersheds.

\*The utilities of Everett, Seattle and Tacoma do not expect issues for their customers.



See: https://ecology.wa.gov/water-shorelines/water-supply/water-availability/statewide-conditions/drought-response



# Drought Conditions

Drought conditions - two requirements:

- 1. Hydrologic threshold An area is receiving, or is projected to receive, less than seventy-five percent of normal water supply.
- 2. Hardship threshold Water users and the environment are or are expected to experience undue hardship.

This Committee advises on the hydrologic threshold.

See: RCW 43.83B.405 and WAC 173-166-050.

### **Water Supply Factors**



Water year to date

- Snowpack
- Precipitation
- Temperature
- Soil moisture

Streamflow

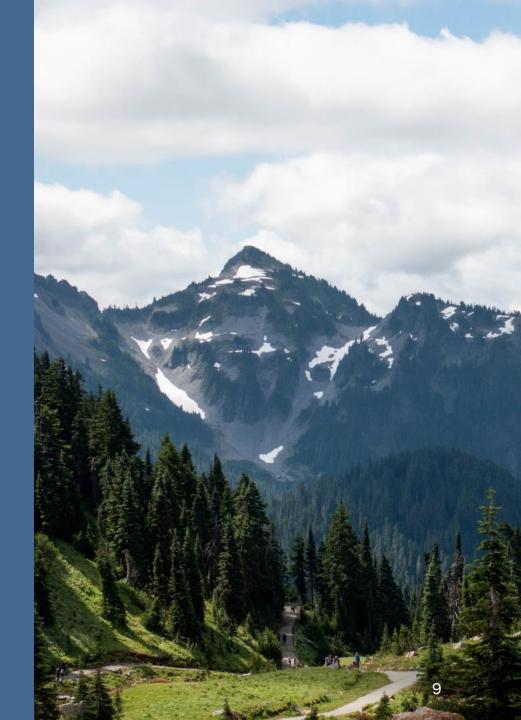
- Precipitation
- Temperature
- Soil moisture

Hydrologic threshold for drought was met in 2025





# Implications of a Drought Declaration





# What Does a Declaration Do?

# Provides Ecology with the authority to:

- 1. Expedite emergency water transfer applications.
- 2. Establish a grant program to mitigate hardships to water users and the environment.





# Drought Response Funding

#### Grants to governmental entities:

- Federally recognized Tribes
- Counties, cities, and towns
- Water and sewer districts
- Public utility districts
- Port districts
- Conservation districts
- Irrigation districts
- Watershed management partnerships



# Additional Implications

State agencies – Ecology can enter into interagency agreements to fund drought response efforts

• Examples: DOH, DFW, SCC, AGR

Eligibility for federal drought funding

Important communications tool



# Example Drought Response Grant Projects

# Agriculture or livestock

- Purchasing or leasing water or water rights
- Replacing intakes, pumps, and related accessories

Public water supply

- Transporting emergency water supplies
- Implementing water conservation strategies

Fisheries and wildlife

- Eliminating migration barriers
- Modifying stream channels adjacent to a hatchery



# Presenters





# Discussion Question

For all meeting attendees:

What concerns do folks have for Water Year 2025?



### Drought Info

- Updated drought website: <u>Drought Response</u>
  - Washington State Department of Ecology
    - New Declaration: <u>Order of Determination</u>
       by the <u>Director</u>
    - Press release: <u>June 5 Drought -</u>
       <u>Washington State Department of Ecology</u>
- Water Supply Availability Committee (WSAC) website



## Thank you

Contact: WSAC Committee Chair Caroline Mellor Statewide Drought Lead Caroline.Mellor@ecy.wa.gov







# Current Conditions and Seasonal Outlook

Karin Bumbaco
Washington State Climate Office
Climate Impacts Group
University of Washington
June 12, 2025

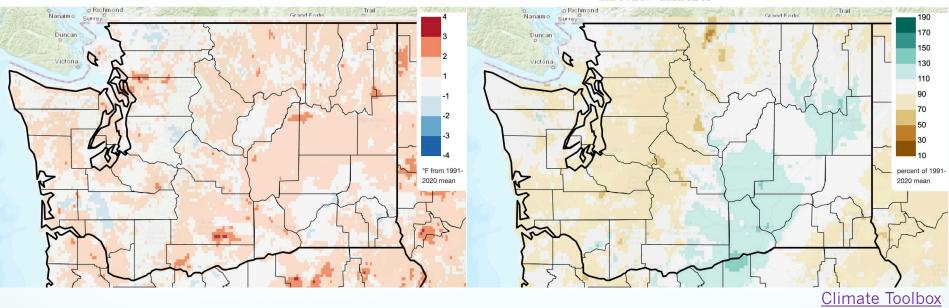
### Water Year 2025

#### Temperature

Precipitation

Mean Daily Temperature Anomaly, Since Oct 1st 2024/10/01 - 2025/06/09

Total Precipitation Anomaly, Since Oct 1st 2024/10/01 - 2025/06/09



- Averaged statewide, Oct-May temperatures were slightly above normal (+0.7°F), ranking as the 19<sup>th</sup> warmest on record\*
- Averaged statewide, Oct-May precipitation was near-normal (91% of normal)

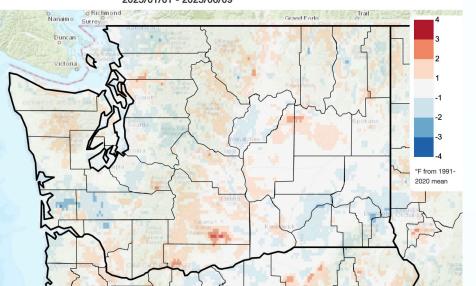
\*Records since 1895; Normal is 1991-

# Since January 1

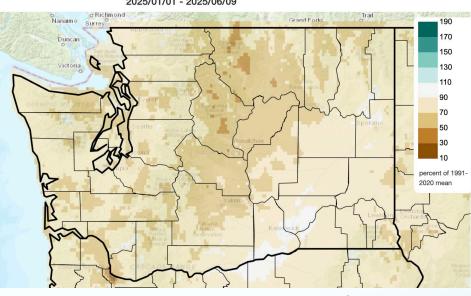
Temperature

Precipitation









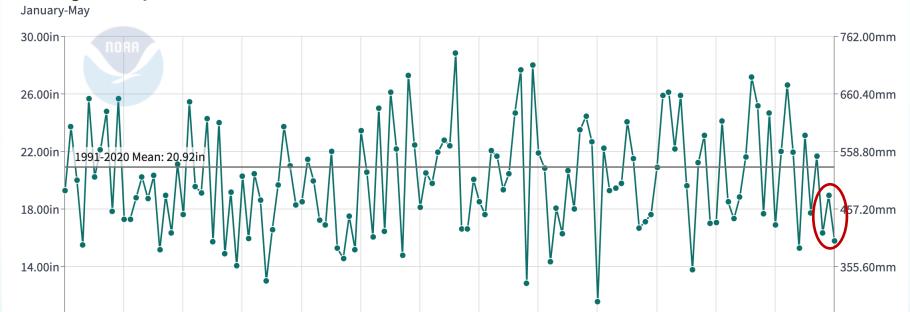
Climate Toolbox

- Averaged statewide, Jan-May temperatures were near-normal (-0.2°F)\*
- Averaged statewide, Jan-May precipitation was below normal (76% of normal), ranking as the 16<sup>th</sup> driest\*

# January-May Precipitation

#### **Washington Precipitation**

10.00in



254.00mm

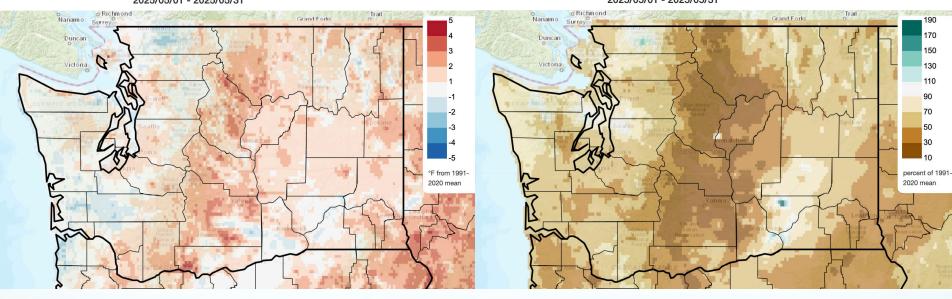
# May 2025

#### Temperature

#### Precipitation

Mean Daily Temperature Anomaly, Last Full Month 2025/05/01 - 2025/05/31

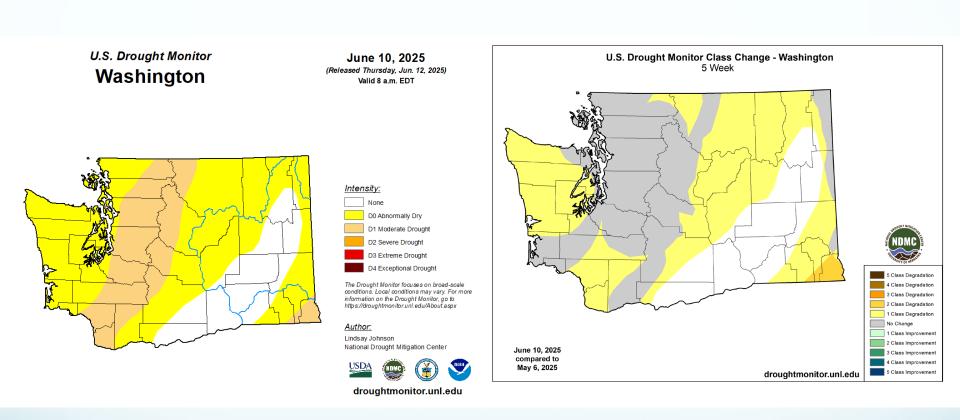
Total Precipitation Anomaly, Last Full Month 2025/05/01 - 2025/05/31



Climate Toolbox

- Averaged statewide, May temperatures were near normal (+0.3°F)\*
- Averaged statewide, May precipitation was below normal (60% of normal), ranking as the 26<sup>th</sup> driest

# U.S. Drought Monitor



### Current Status: Neutral

#### No ENSO Alert

#### Official NOAA CPC ENSO Probabilities (issued June 2025) based on -0.5°/+0.5°C thresholds in ERSSTv5 Niño-3.4 index

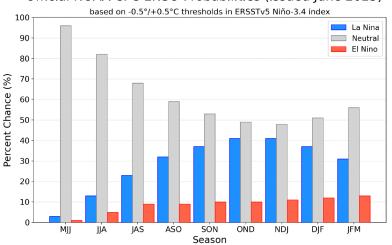
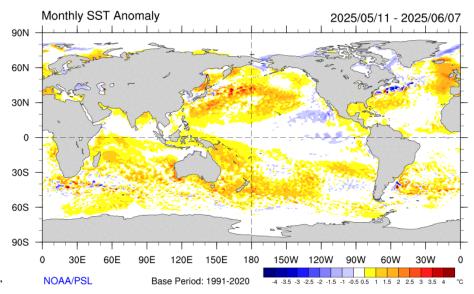
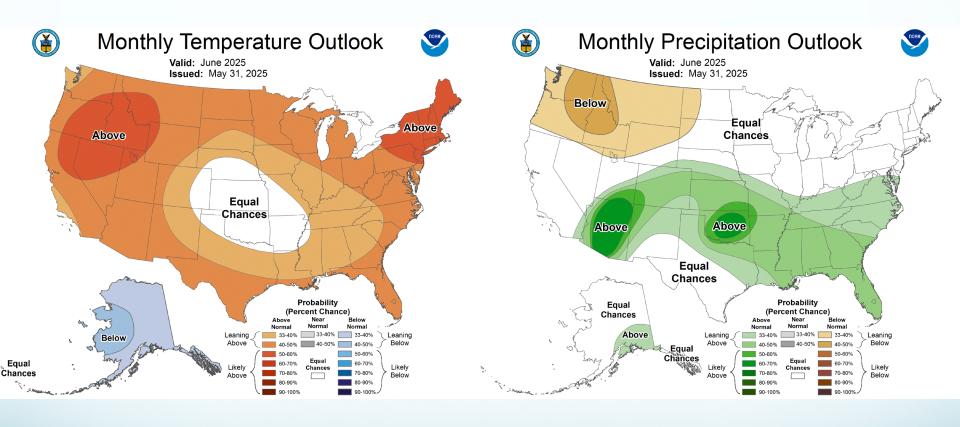


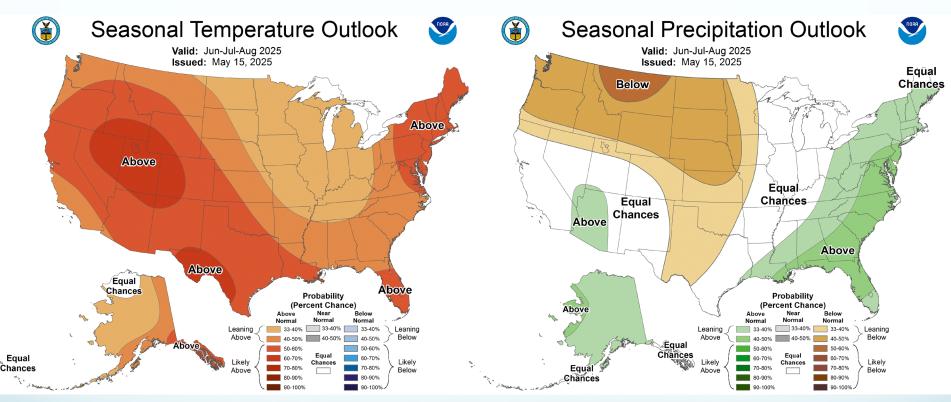
Figure 7. Official ENSO probabilities for the Niño 3.4 sea surface temperature index (5°N-5°S, 120°W-170°W). Figure updated 12 June 2025.



#### Climate Prediction Center: June Outlook



#### Climate Prediction Center Outlook: Jun-Aug



Aug-Oct: Higher odds of above normal temperatures; uncertain for precipitation

# Summary

- Averaged statewide, water year temperatures have been slightly above normal and precipitation has been near-normal
  - Regional variations: water year precipitation has been below normal for western WA, including the Cascade Mountains
- Drier than normal conditions continued for May
- Averaged statewide, Jan-May precipitation ranked as the 16<sup>th</sup> driest on record
- La Niña or neutral are more likely outcomes for next winter; no impact on our summer weather
- There are higher chances of a warmer and drier than normal June and June-July-August period





# USDA Natural Resources Conservation Service Snow Survey and Water Supply Forecasting Program

# Washington Water Supply Availability Committee

June 12, 2025

#### **Matt Warbritton**

Supervisory Hydrologist USDA NRCS SSWSF Portland Data Collection Office <u>matt.warbritton@usda.gov</u> 503-307-2829





#### **Snowpack Conditions**

#### **Statewide Snow Water Equivalent (SWE)**

Seasonal Profile for SWE



#### SNOW WATER EQUIVALENT IN STATE OF WASHINGTON

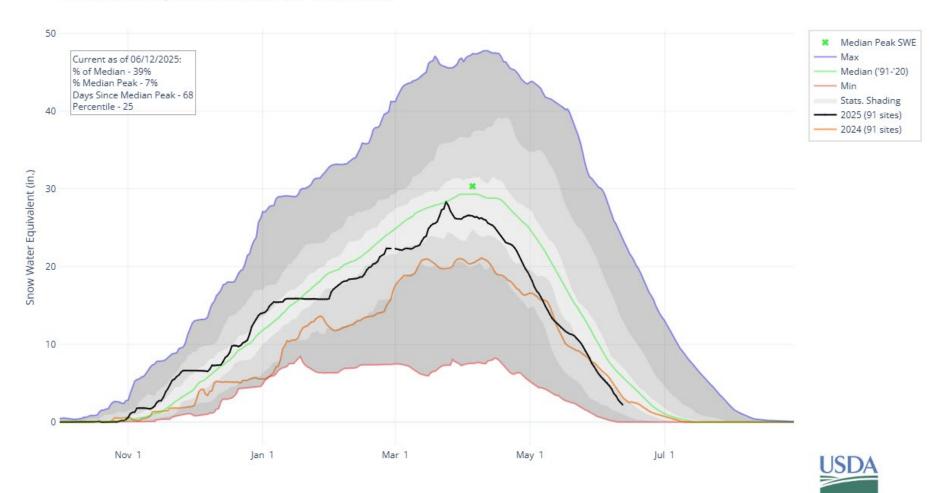
Statewide Snowpack: **39%** of Normal

25<sup>th</sup> Percentile

Median date for peak snowpack: **Apr. 5** 

WY 2025 peak snowpack:

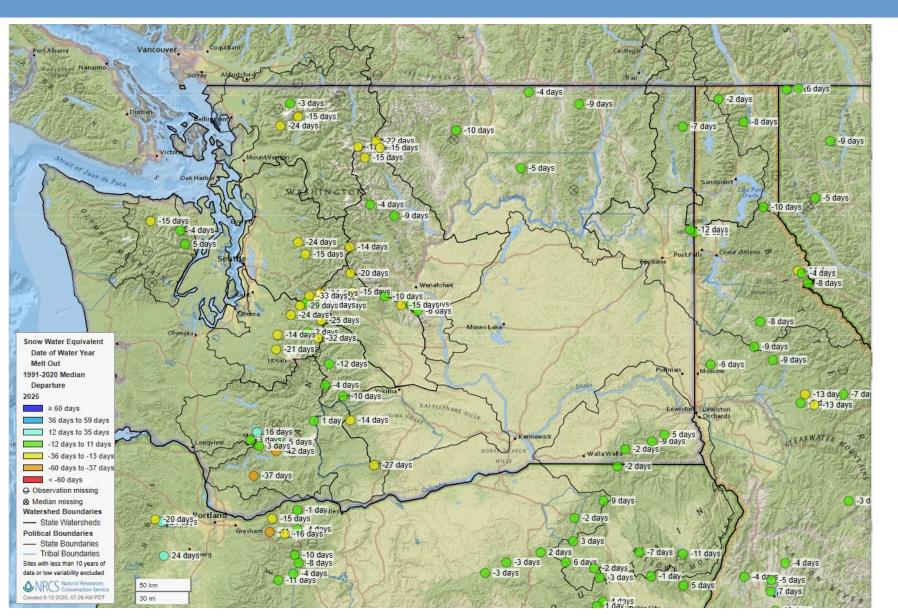
Mar. 24



#### **Date of WY Snow Melt-Out**

1991-2020 Median Departure





**Notable Melt-Out Timing** 

**Swamp Creek SNOTEL** -22 days

Fish Lake SNOTEL -20 days

**Corral Pass SNOTEL** -32 days

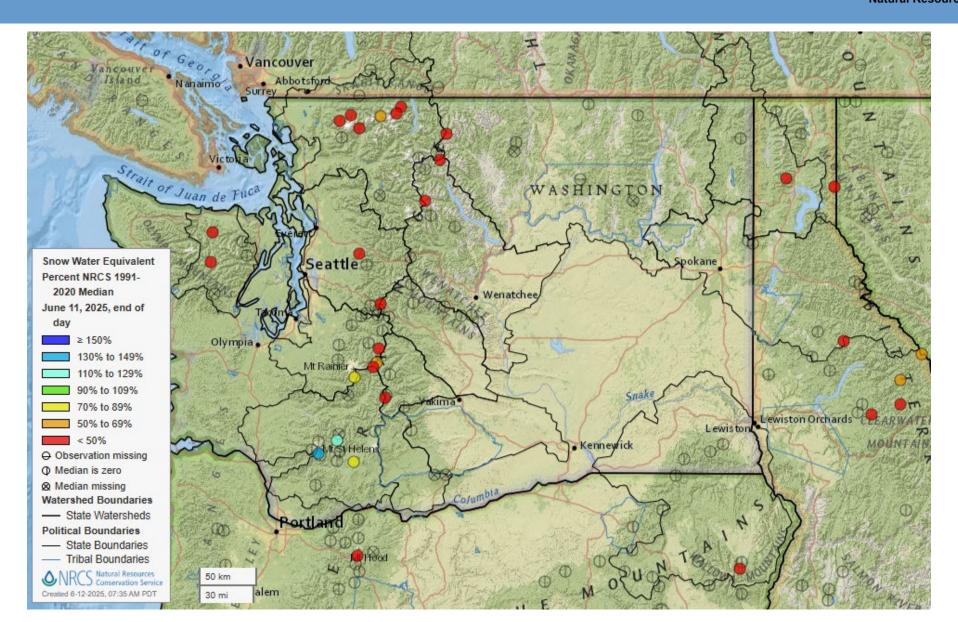
**Grouse Camp SNOTEL** -15 days

June Lake SNOTEL +3 days

#### **SWE in Washington**

% of Normal (1991-2020 median)

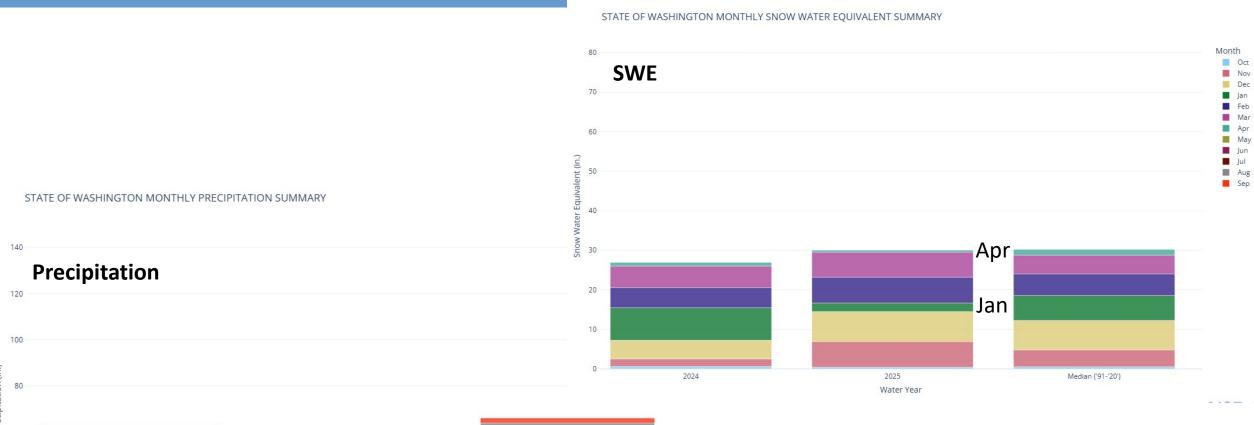


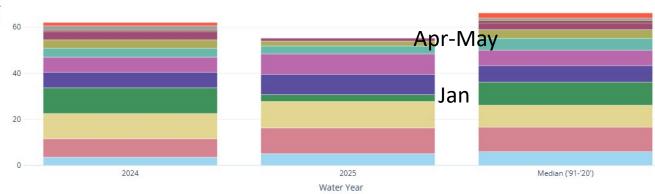


#### **Monthly SWE and Precipitation Summary**

WY 2024 and 2025 vs. Median (1991-2020)











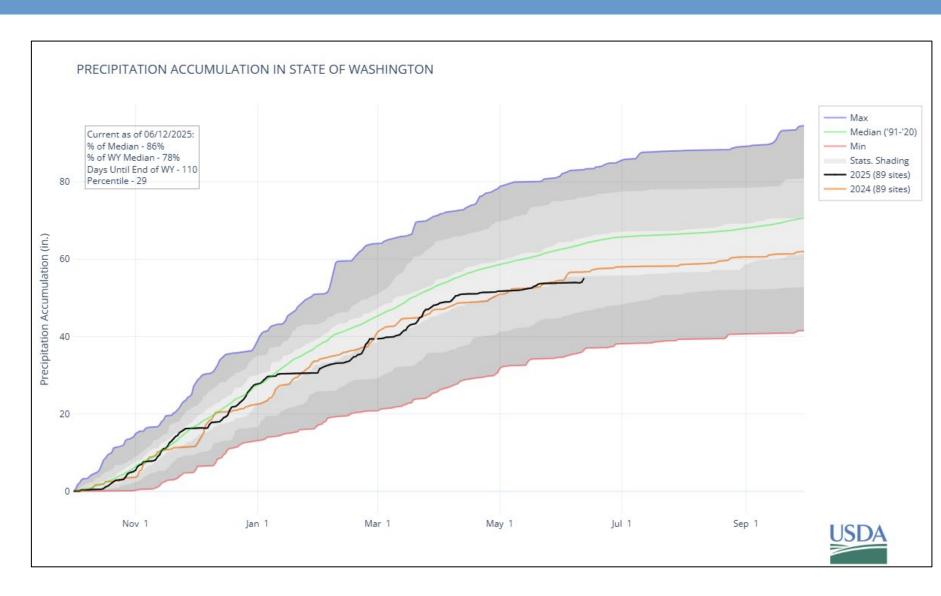
#### **Precipitation Conditions**

#### **Statewide WYTD Precipitation**



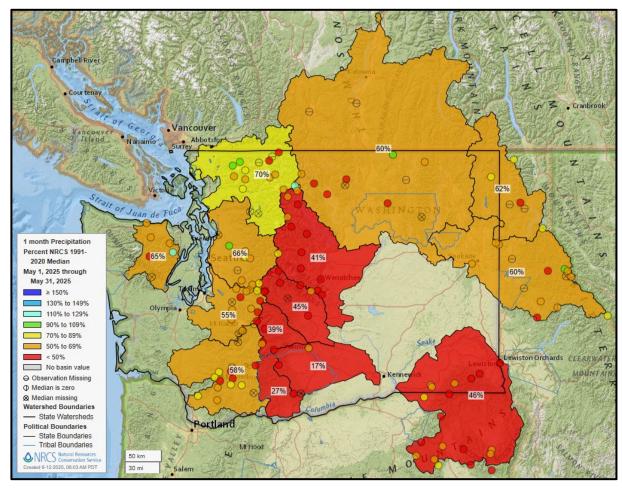
Statewide WYTD Precipitation: **86%** of normal

**29**<sup>th</sup> Percentile



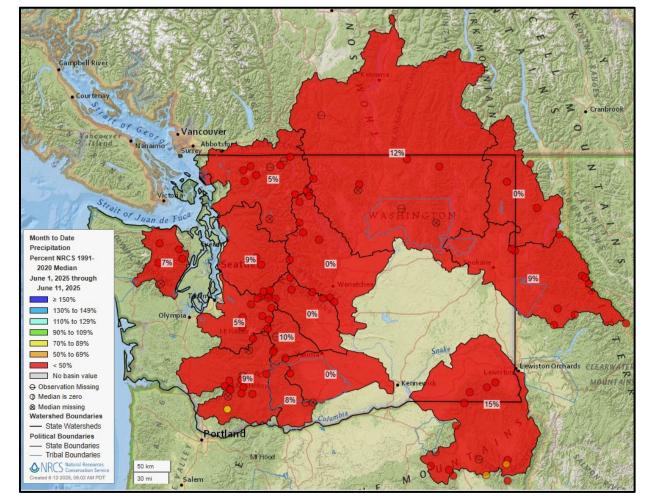
## **Month-to-Date Precipitation**





# May

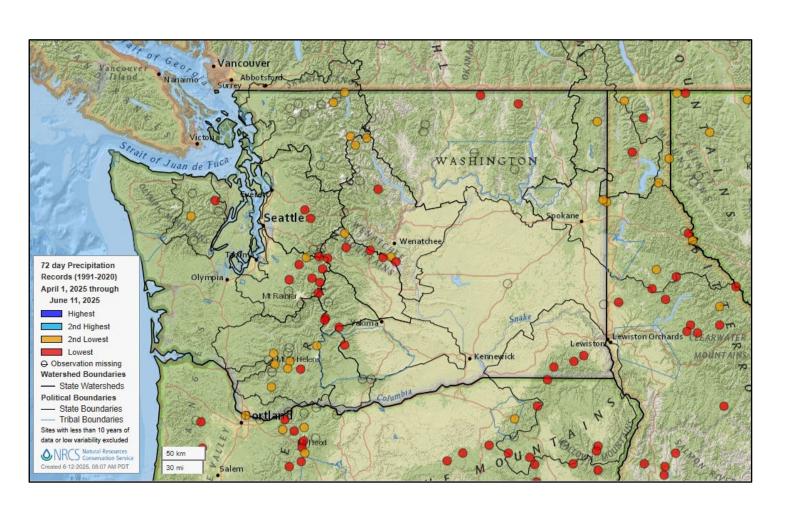
#### Month-to-Date

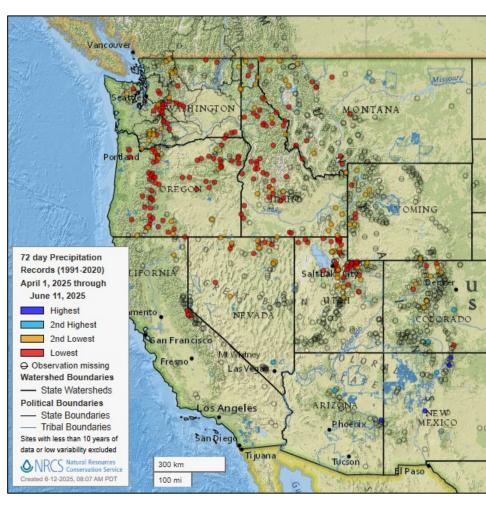


## **Spring and Early Summer Precipitation**

April 1 to June 11 Records



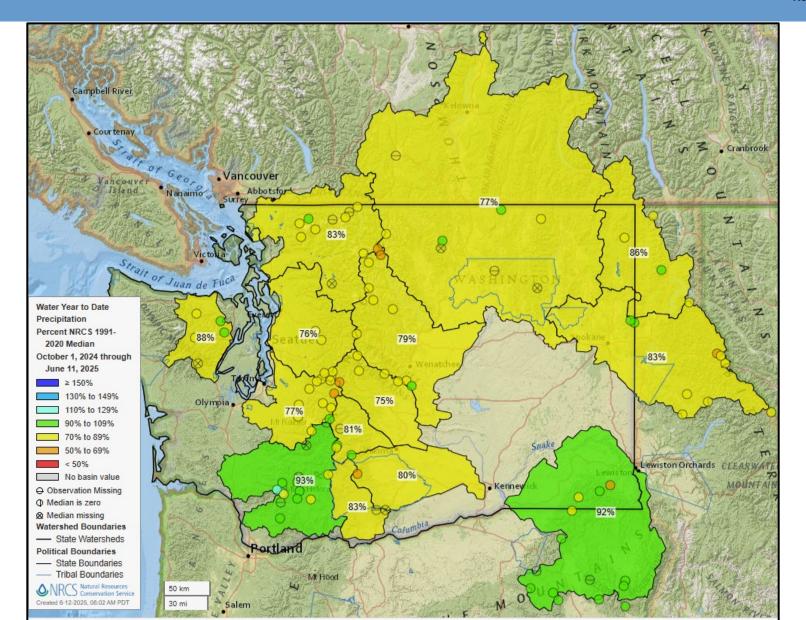




# **WYTD Precipitation**

% of Normal







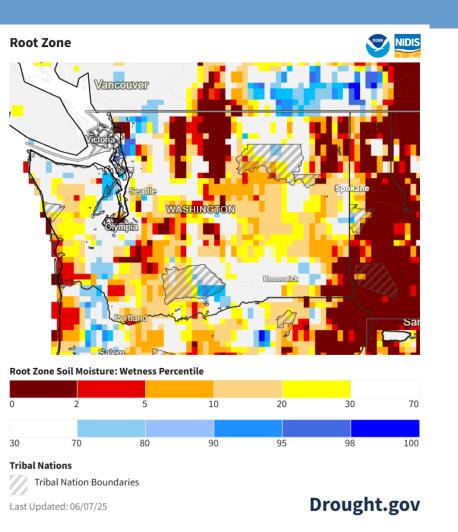


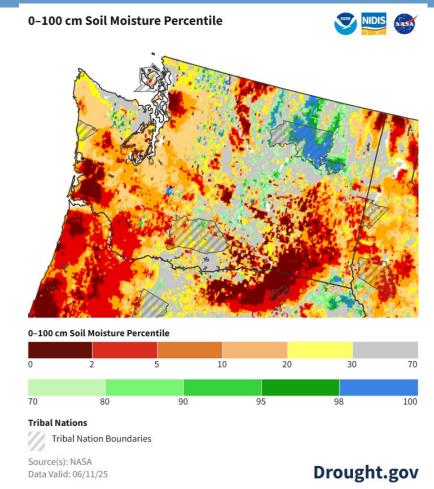
## **Soil Moisture**

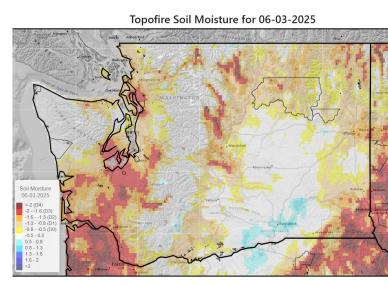
#### **Soil Moisture**

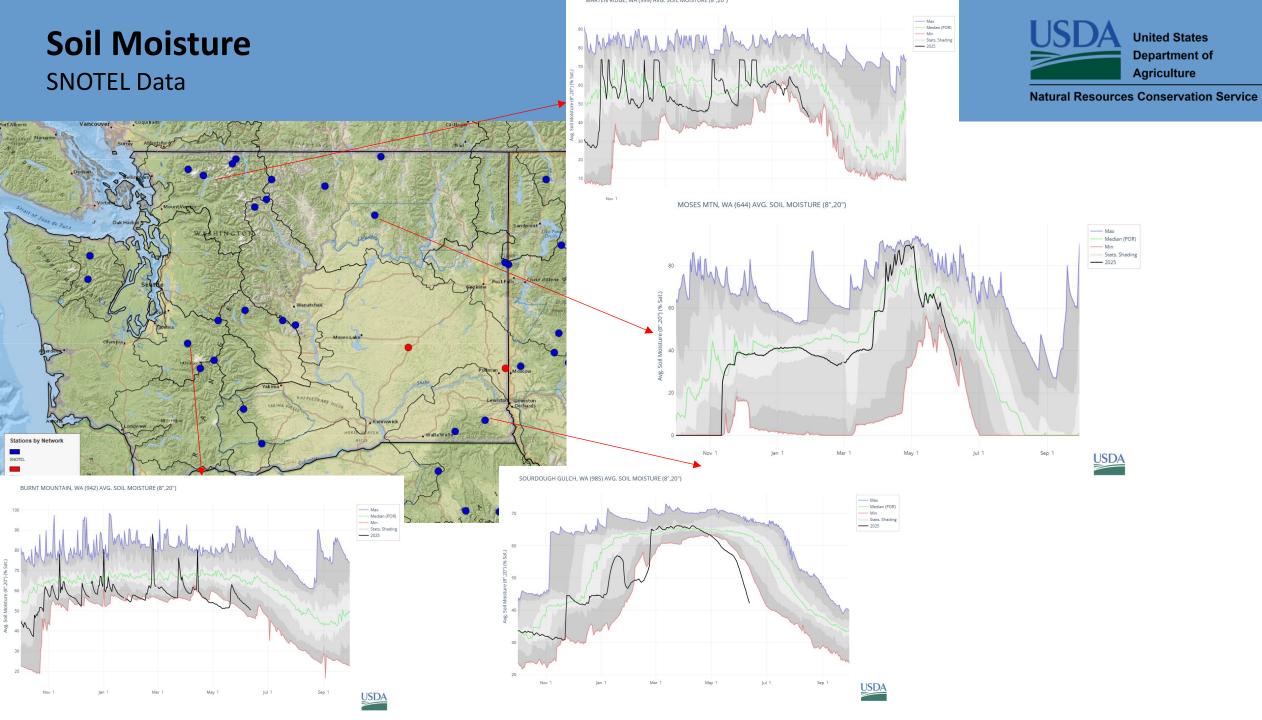
#### NASA GRACE and SPORT-LIS













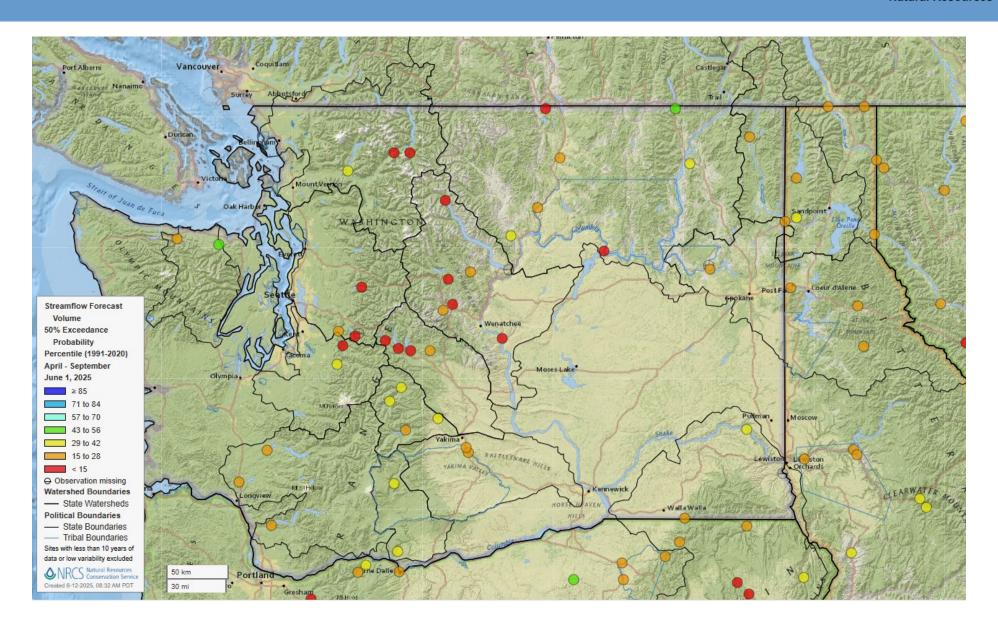


# Water Supply Outlook as of June 1

## **Water Supply Forecasts**

May 1 (May-July, May-September)







**Natural Resources Conservation Service** 



## Thank you!

Matt Warbritton
Supervisory Hydrologist
USDA NRCS SSWSF
Portland Data Collection Office
matt.warbritton@usda.gov
503-307-2829

Washington Snow Survey and Water Supply Program Website In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

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# Streamflow & Groundwater Conditions in Washington State as of 11 June 2025



Presented on 12 June 2025
to the Washington Water Supply
Availability Committee
by Nicholas Sutfin,
nsutfin@usgs.gov
USGS Washington Water
Science Center

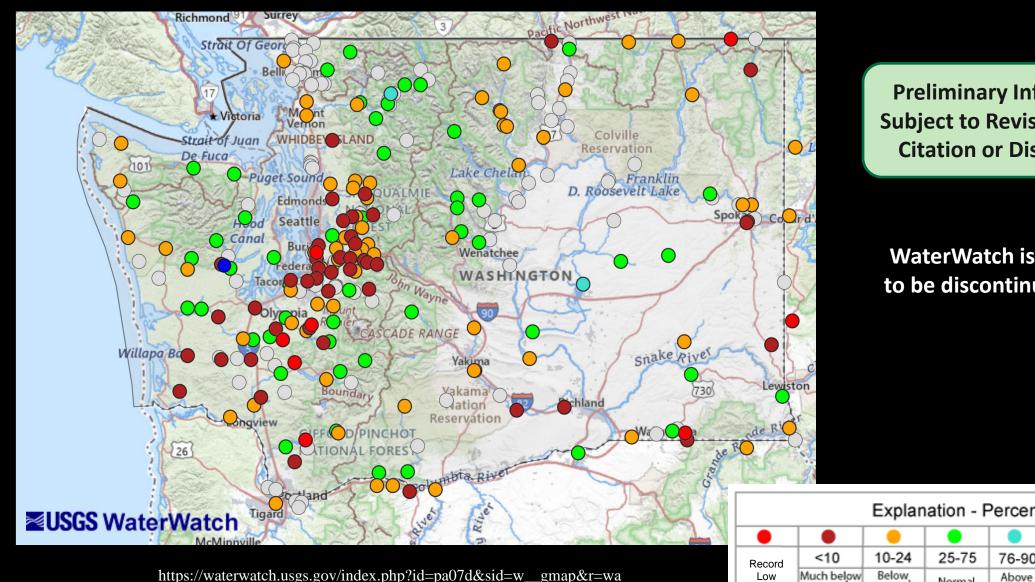
This information is preliminary and is subject to revision. It is being provided to meet the need for timely best science. The information is provided on the condition that neither the U.S. Geological Survey nor the U.S. Government shall be held liable for any damages resulting from the authorized or unauthorized use of the information.

Photo by Joe Gilbert: Wilson Overby conducting discharge measurements at Chelan River at Chelan, WA (12452500).



# 7-day Average Streamflow

Conditions as of 11 June 2025



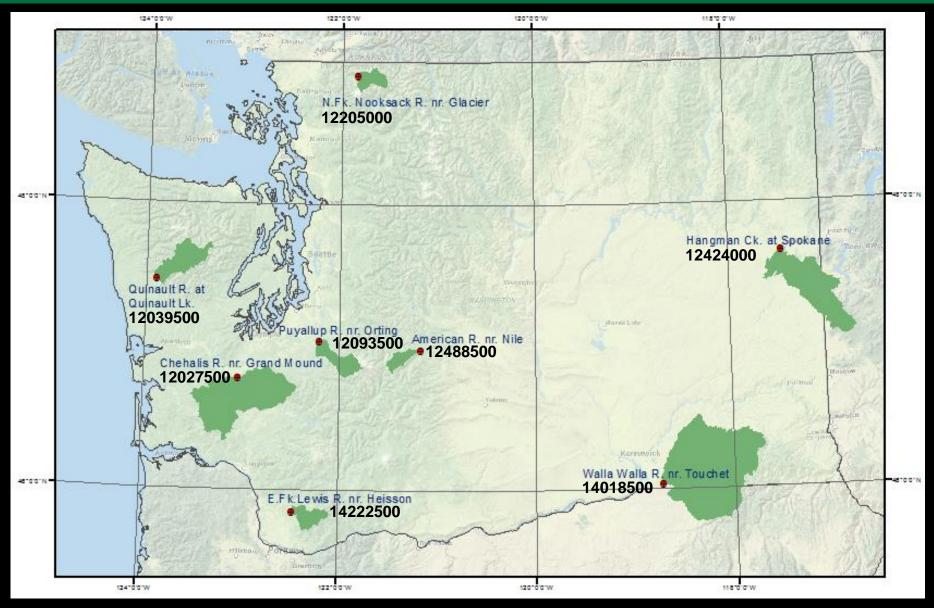
**Preliminary Information-**Subject to Revision. Not for Citation or Distribution.

WaterWatch is scheduled to be discontinued in 2026

Explanation - Percentile classes >90 76-90 Not-ranked Much below Below Much above Above Normal



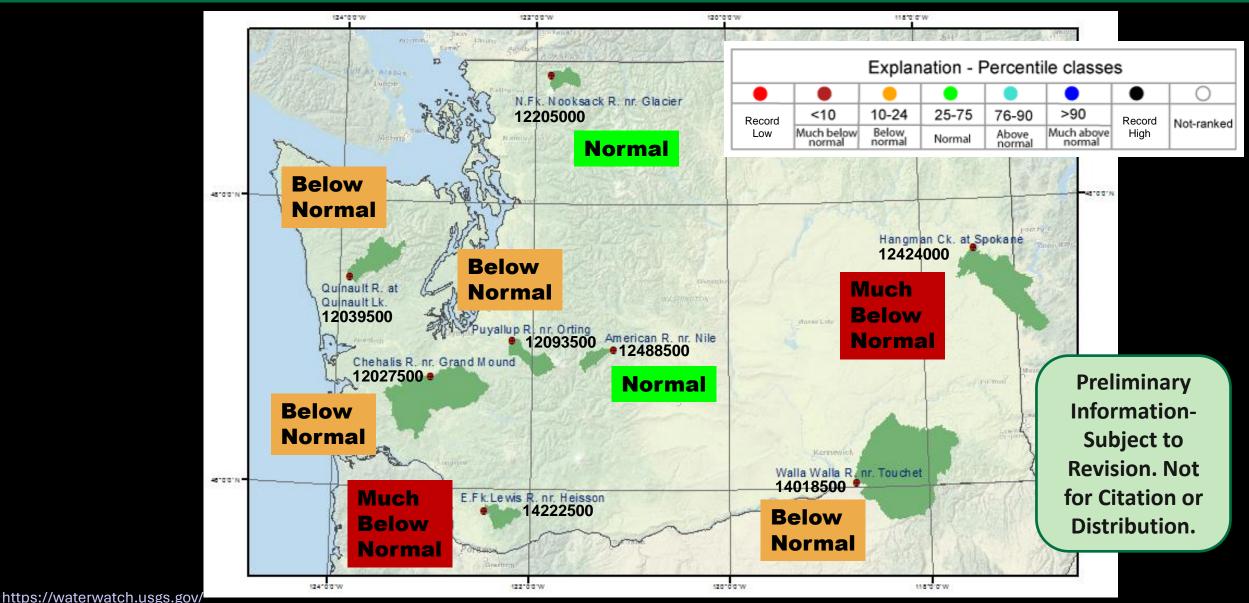
Index Gaging Stations
(Stations that measure natural or near-natural streamflow)





# **Index Gaging Stations**

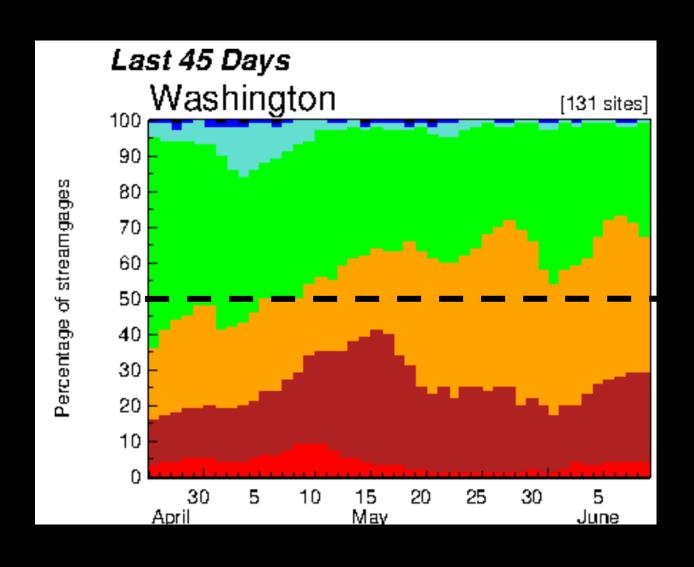
7-day average streamflow as of 11 June 2025

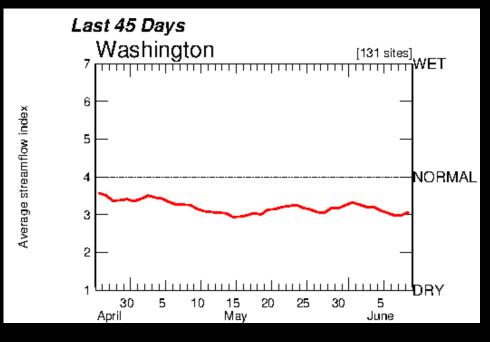


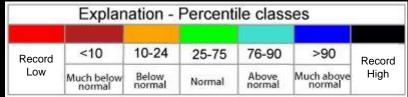


# 7-day average streamflow

Most USGS stream gages below normal as of 11 June 2025



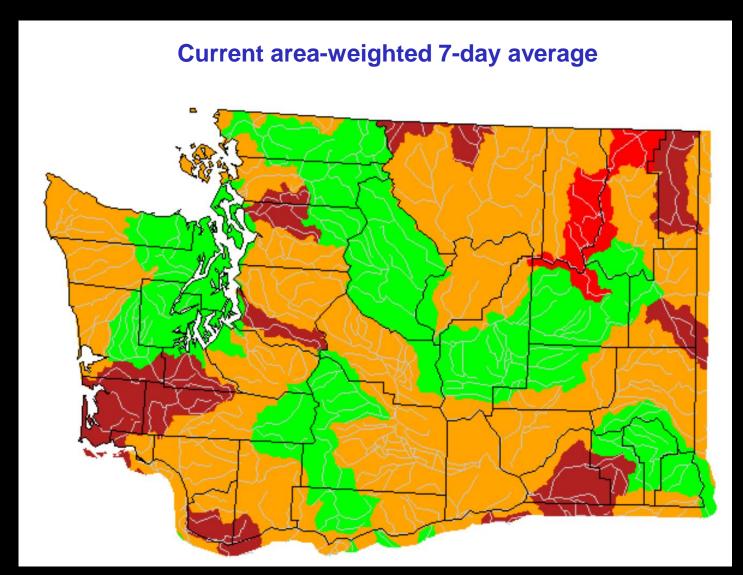






# **Average streamflow**

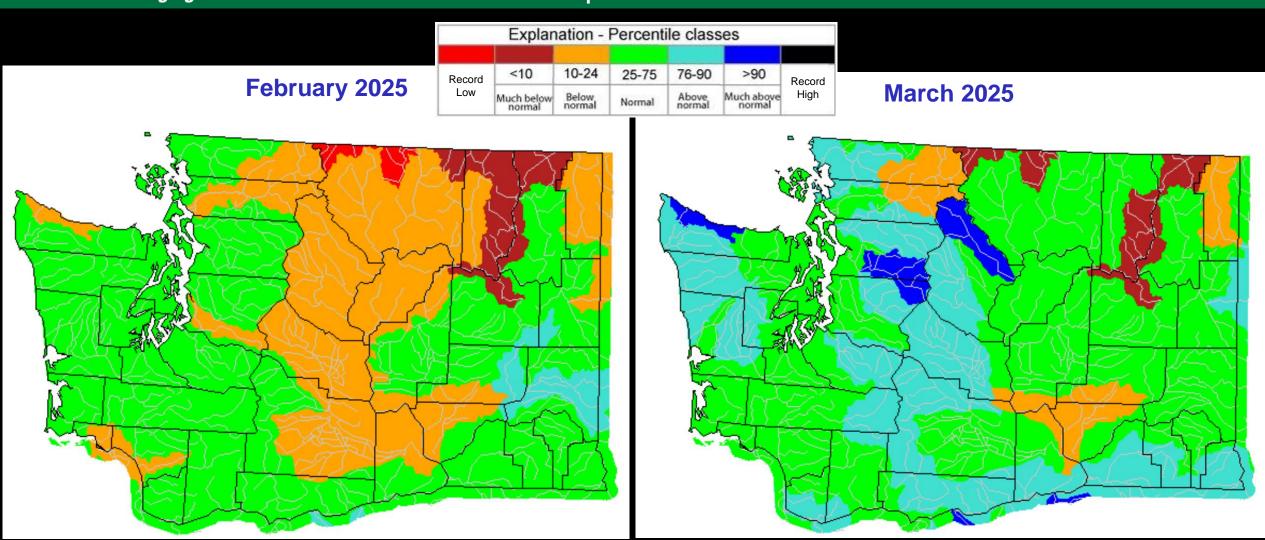
# compared to historical streamflow



Explanation - Percentile classes										
	Record Low	<10	10-24	25-75	76-90	>90	Record			
		Much below normal	Below normal	Normal	Above normal	Much above normal	High			

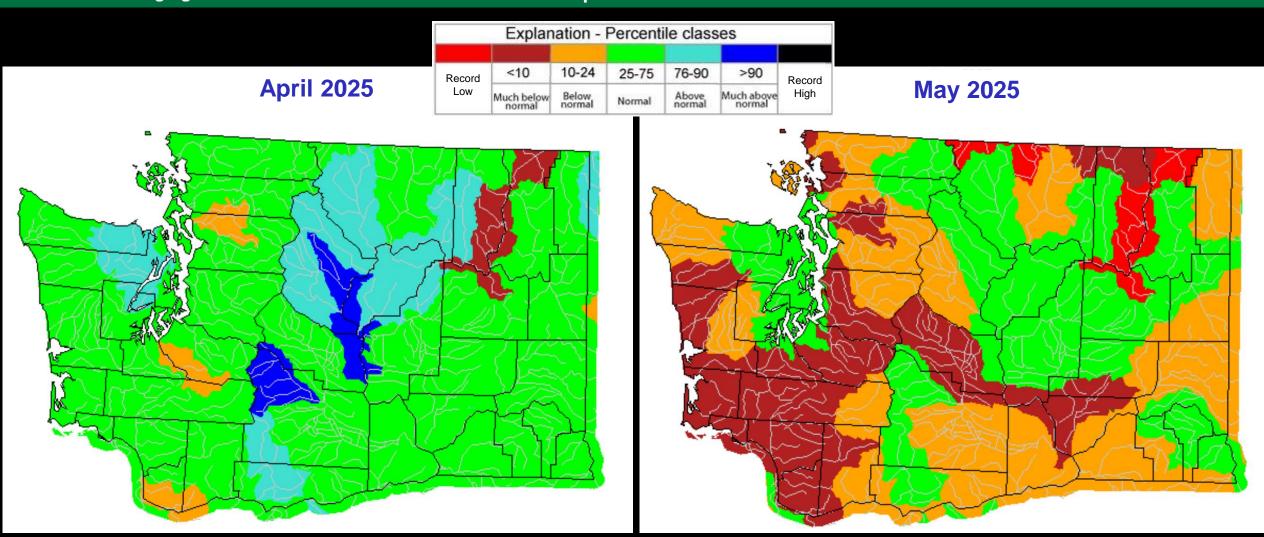


compared to historical streamflow



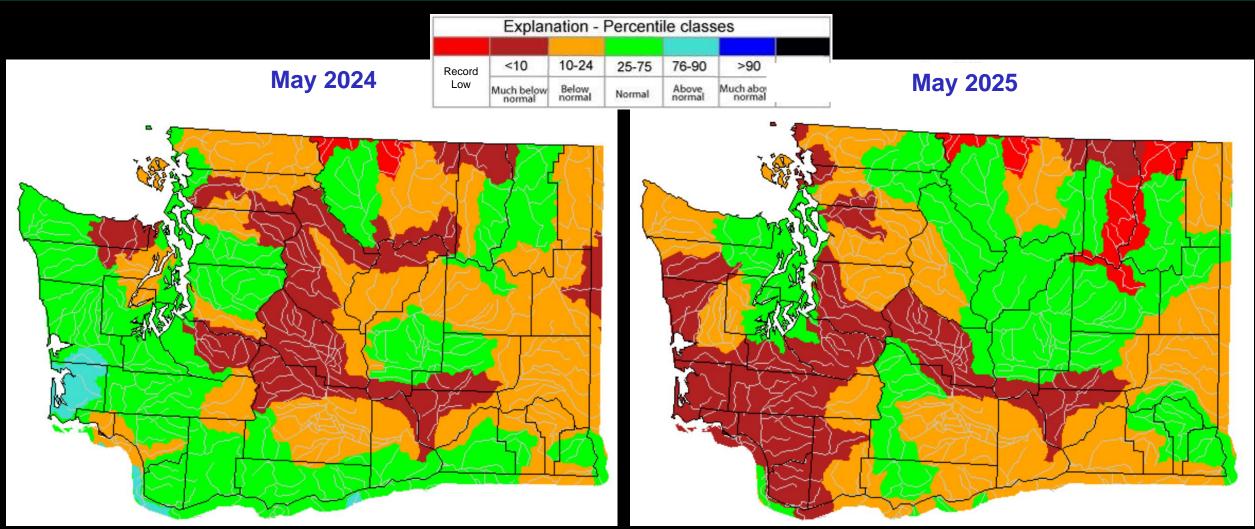


compared to historical streamflow



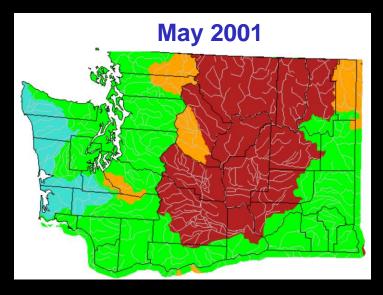


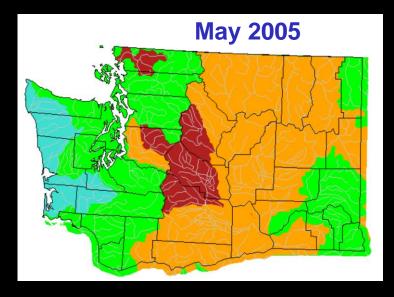
compared to historical streamflow

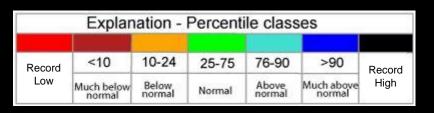




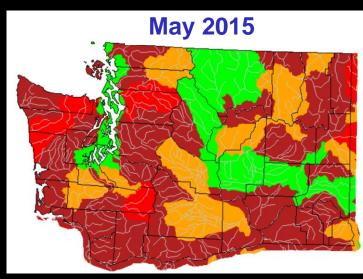
compared to historical streamflow

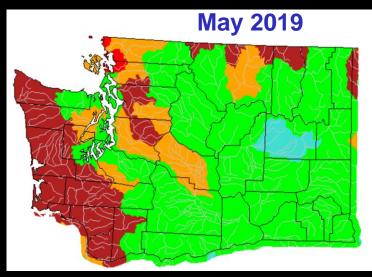


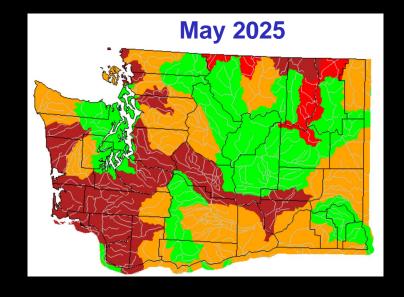




https://waterwatch.usgs.gov/



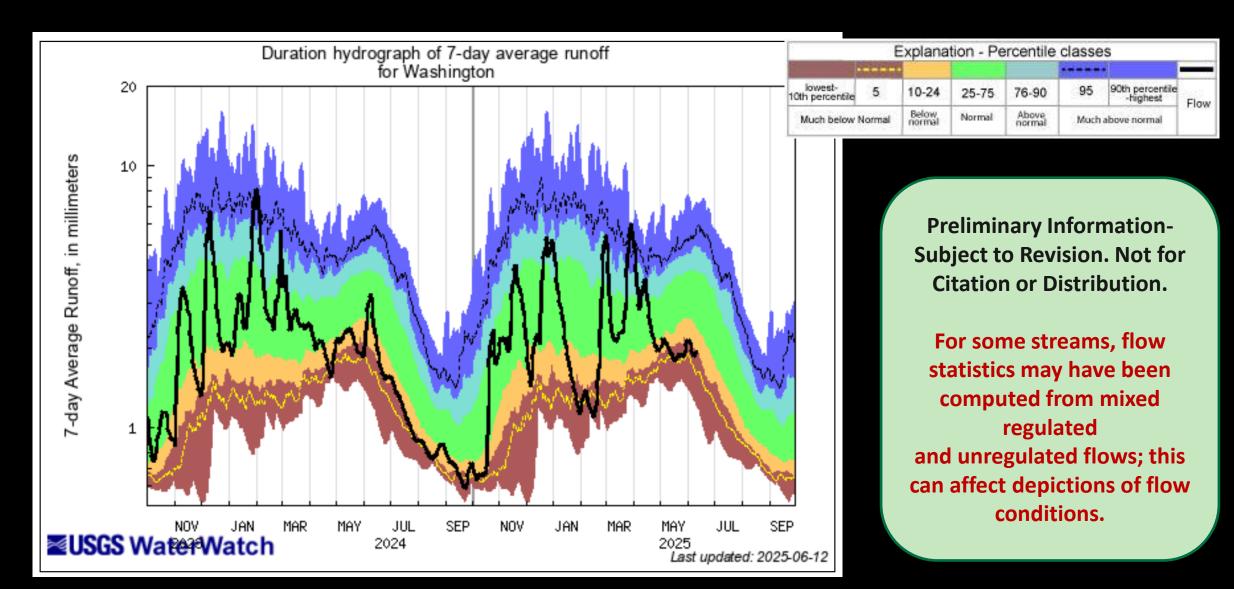






## **Area-Based Runoff Duration Hydrograph**

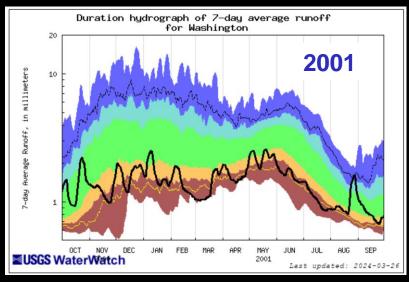
7-day average streamflow

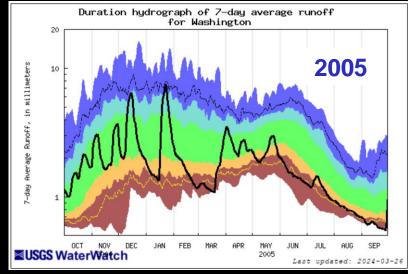


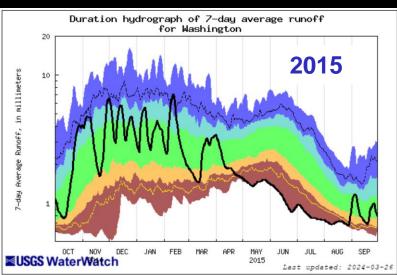


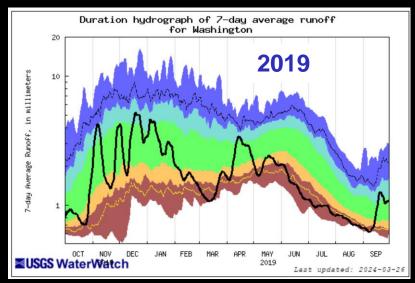
# Area-Based Runoff Duration Hydrograph

7-day average streamflow

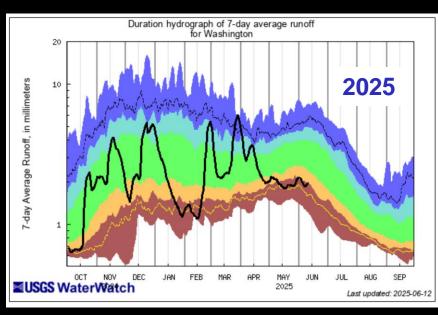








Duration hydrograph for the year compared to recent years of drought

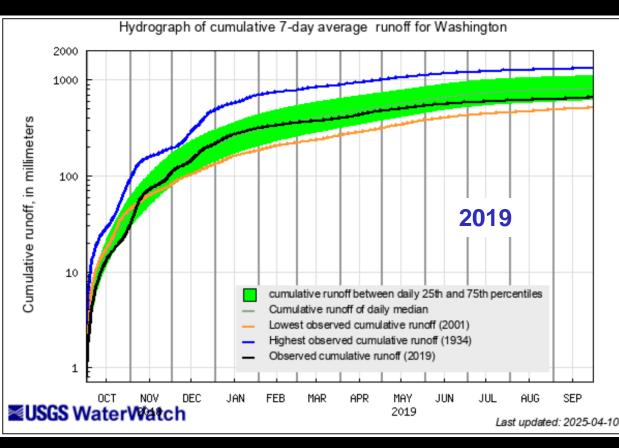


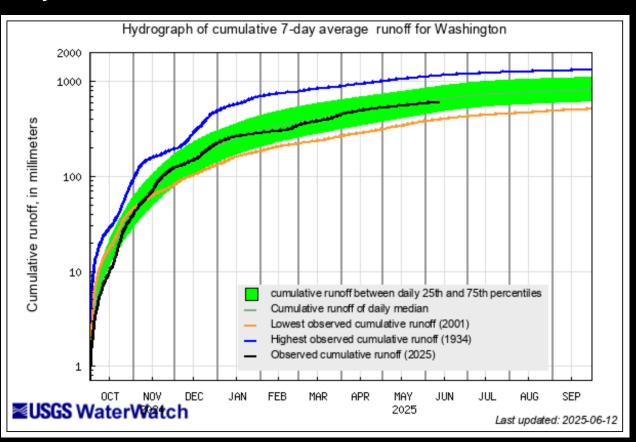
	E	xplana	tion - Pe	ercentile	classe:	S	
							_
lowest- 10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Flow
Much below Normal		Below normal	Normal	Above normal	Much above normal		1.1000



# Cumulative runoff hydrograph Area-based runoff based on 7-day average

#### Normal for 2025 water year as of 11 June





2024 water year

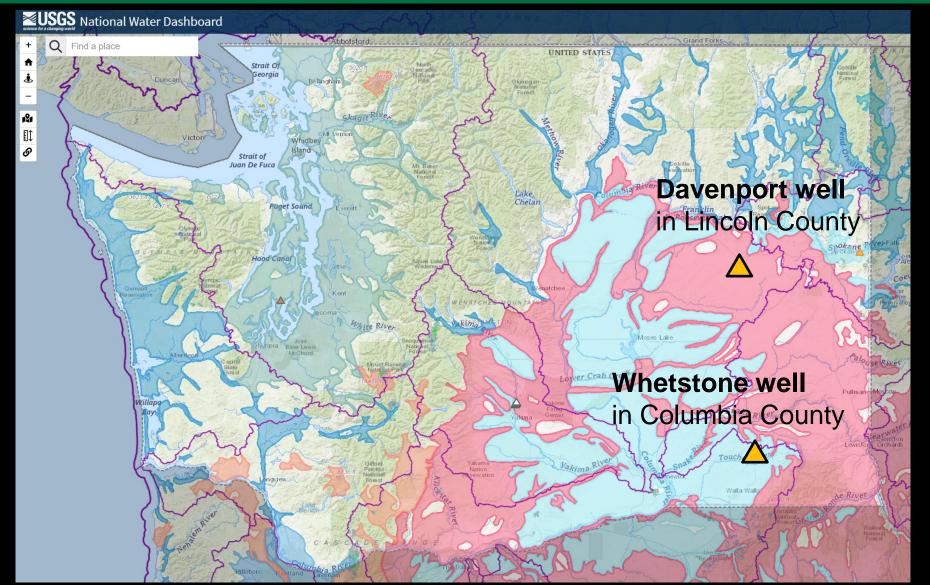
Area-based runoff may have been computed from mixed regulated and unregulated streamflows

https://waterwatch.usgs.gov/

2025 water year



# Two reference groundwater wells







# Davenport Well Groundwater Conditions



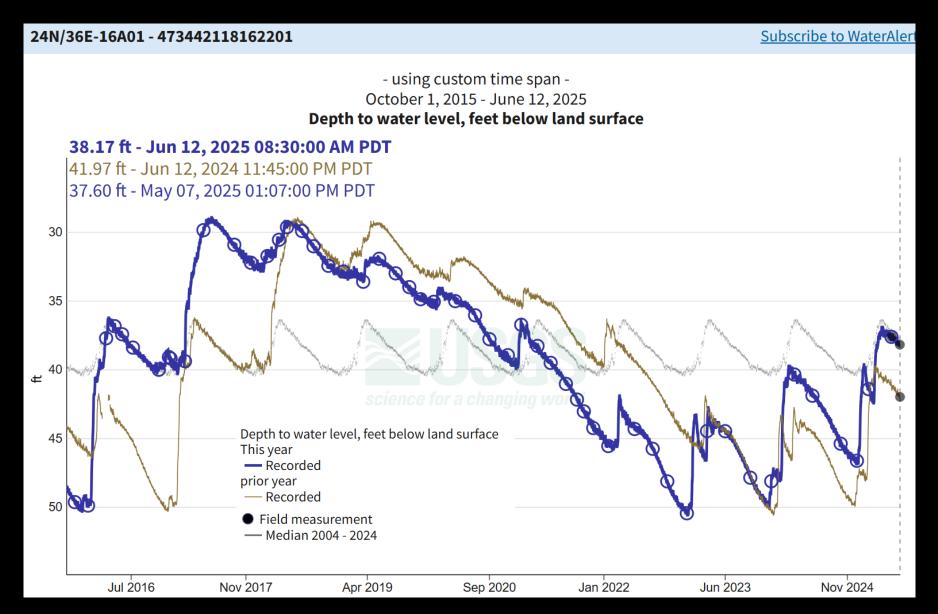
# **Davenport well**

Well Details

- Lincoln County
- 117-ft deep
- Wanapum Basalt



# **Davenport Well Groundwater Conditions**



#### Well Details

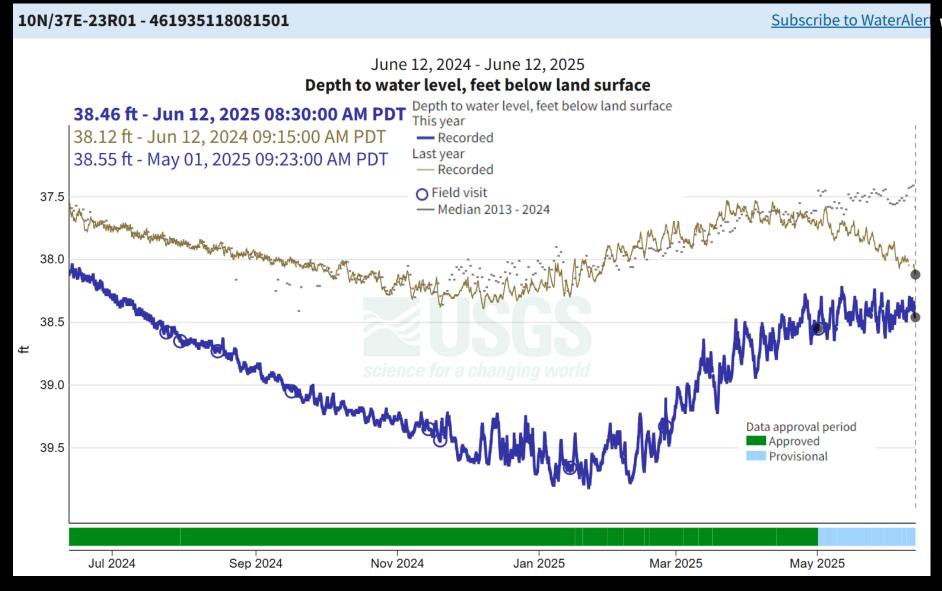
- Lincoln County
- 117-ft deep
- Wanapum Basalt

Preliminary
InformationSubject to
Revision. Not for
Citation or
Distribution.

https://dashboard.waterdata.usgs.go v/app/nwd/en/?aoi=state-wa



## Whetstone Well Groundwater Conditions



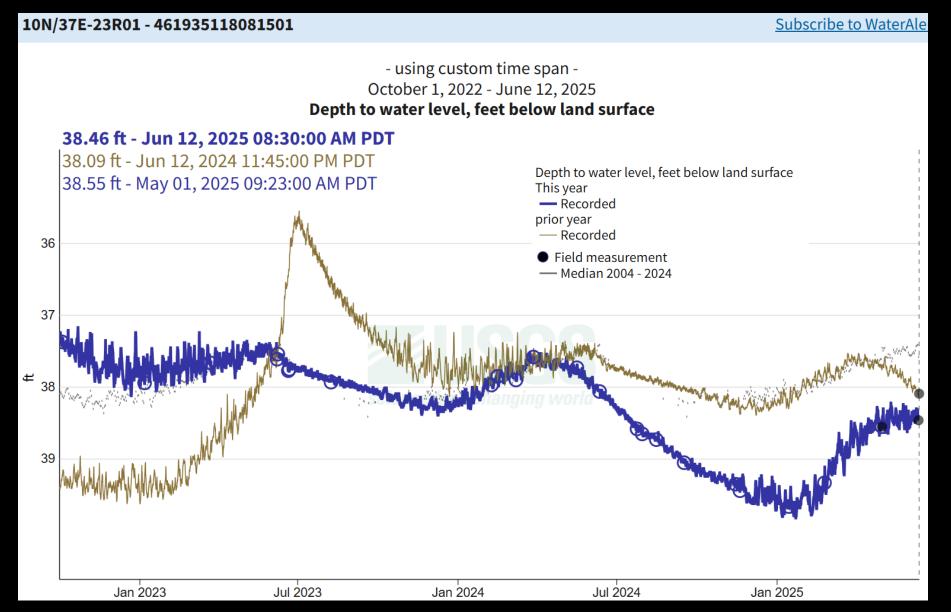
## Whetstone well

#### Well Details:

- ColumbiaCounty nearWaitsburg
- 172.5-ft deep
- Grande Ronde Basalt Formation



## **Whetstone Well Groundwater Conditions**



#### Well Details:

- Columbia County near Waitsburg
- 172.5-ft deep
- Grande Ronde Basalt Formation

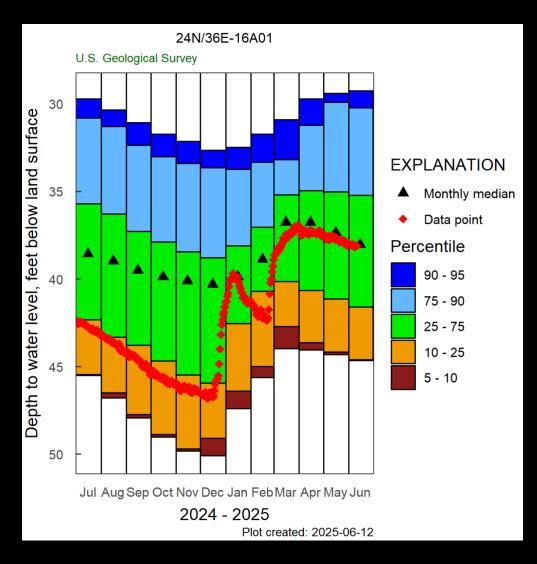
Preliminary
InformationSubject to
Revision. Not for
Citation or
Distribution.

https://dashboard.waterdata.usgs.go v/app/nwd/en/?aoi=state-wa



### **Groundwater Conditions**

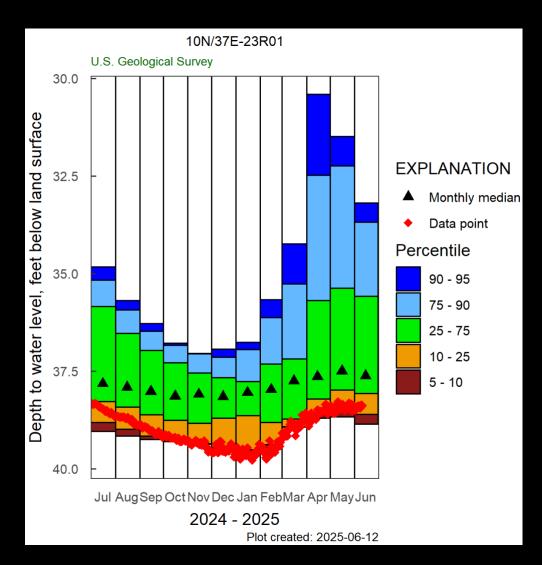
#### **Davenport well**



# EXPLANATION ▲ Monthly median ◆ Data point Percentile 90 - 95 75 - 90 25 - 75 10 - 25 5 - 10

Preliminary
InformationSubject to
Revision. Not
for Citation or
Distribution.

#### Whetstone well





# **Summary of Washington Streamflow and Groundwater Conditions as of 11 June 2025**

# 7-day average streamflow at eight index gaging stations:

#### **Normal**

- Nooksack River
- American River

#### **Below Normal**

- Quinault River
- Puyallup River nr. Orting
- Chehalis River nr. Grand Mound
- Walla Walla River

#### **Much Below Normal**

- Hangman Creek
- EF Lewis River

#### **Monthly average groundwater conditions:**

- Davenport well
  - Normal
- Whetstone well
  - Below normal



# **Summary of Washington Streamflow and Groundwater Conditions as of 11 June 2025**

#### Monthly average area-based runoff in May below normal

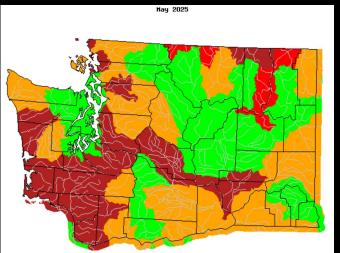
- Record lows in Roosevelt Lake and Similkameen
- Much below normal in the southeastern WA and
  - Stillaguamish
  - South and parts of Central Puget Sound
  - Queets/Quinault
  - Kettle
  - Upper Columbia-Priest Rapids
  - Upper Yakima

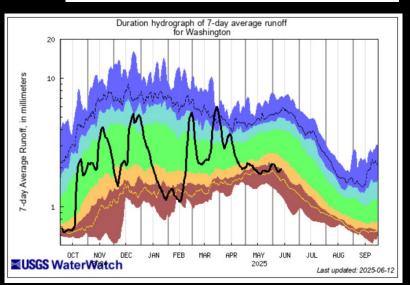
# 7-Day Area-based runoff <u>below normal to much-below</u> <u>normal</u> in May to June

Lower flow conditions than past drought years

#### **Cumulative Runoff**

Normal for water year 2025



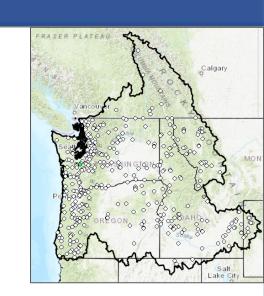




# NWS

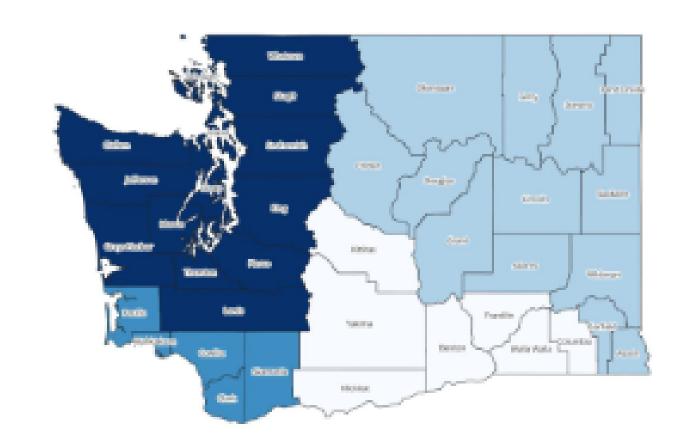
# June 2025 Washington Water Supply

Brent Bower for Amy Burke, Sr Hydrologist - Northwest River Forecast Center NWRFC.watersupply@noaa.gov



Brent Bower, Sr Service Hydrologist Seattle

Andy Bryant, Sr Service Hydrologist Portland Tanja Fransen, Meteorologist In Charge Robin Fox, Service Hydrologist Spokane Charlotte Dewey, Warning Coordination Meteorologist George Perry, Service Hydrologist Pendleton





Northwest Washington - NWS Seattle - nws.seattle@noaa.gov

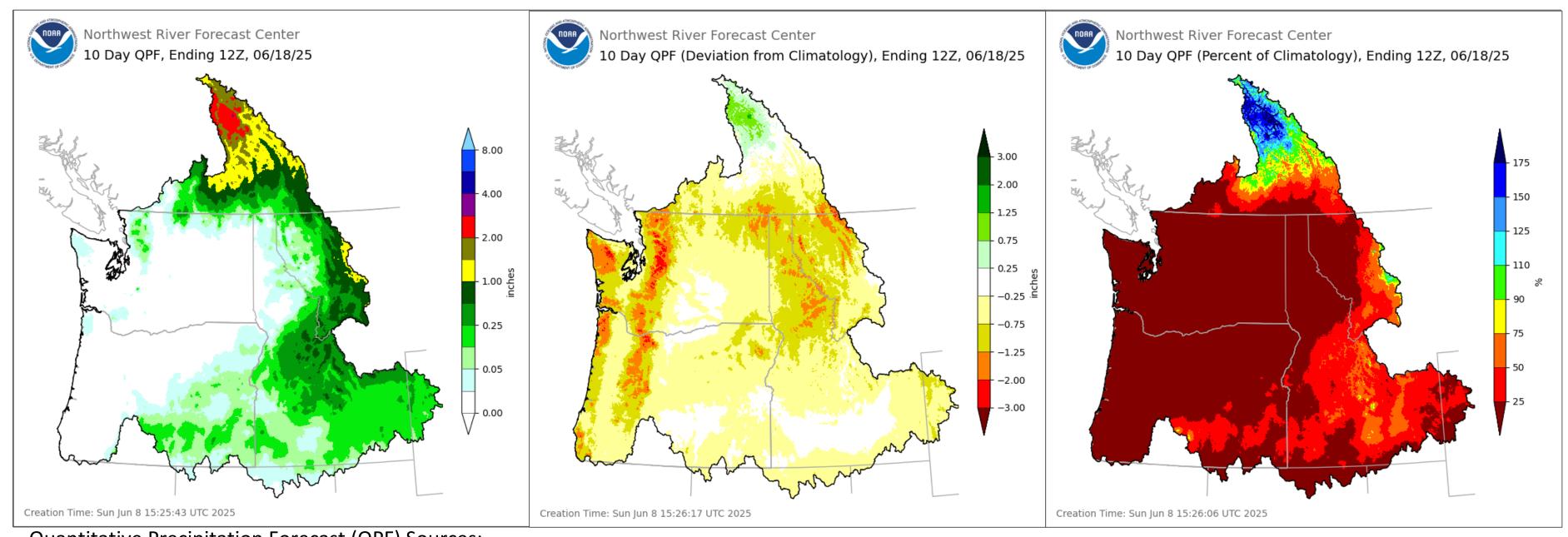
Southwest Washington - NWS Portland - nws.portland@noaa.gov

Northeast Washington - NWS Spokane - nws.spokane@noaa.gov

Southeast Washington - NWS Pendleton - pdt.operations@noaa.gov



# 10 Day Precipitation Forecast used in ESP10

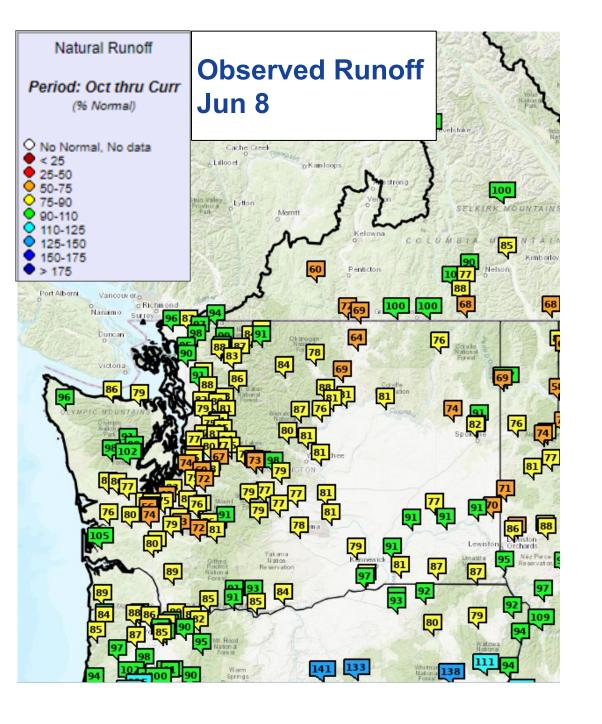


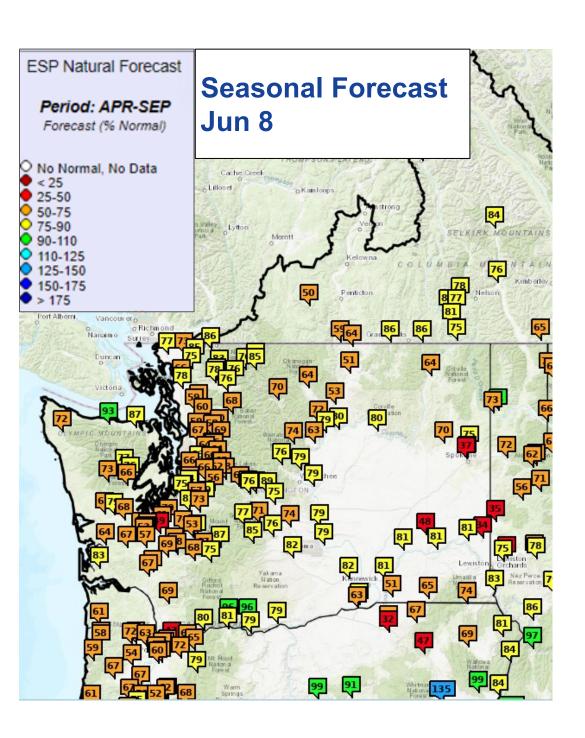
Quantitative Precipitation Forecast (QPF) Sources:

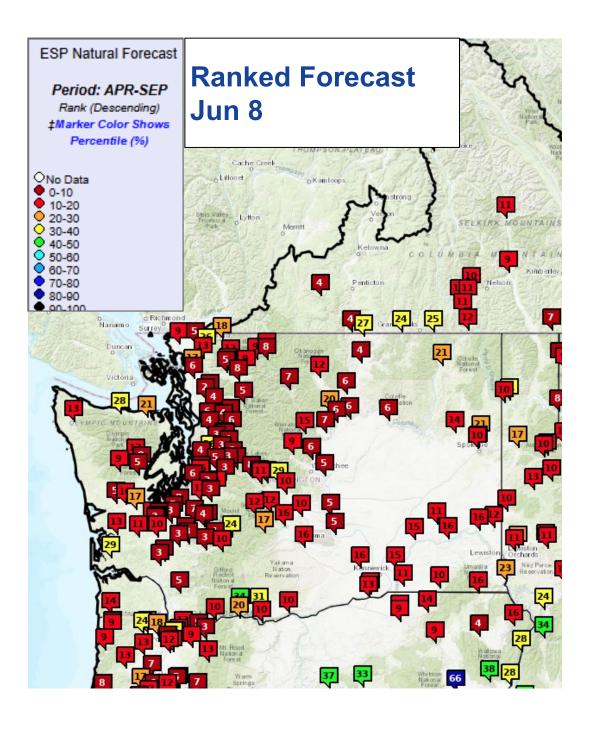
Days 1 - 2 NWS Weather Forecast Offices (WFO) in the US, WPC in BC. Days 3 - 7 NWS Weather Prediction Center (WPC).
Days 8 - 10 NWS National Blend of Models (NBM).

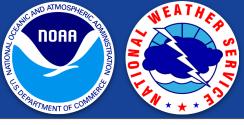


# WY Runoff and Apr - Sep Forecasts









# West Side Forecasts

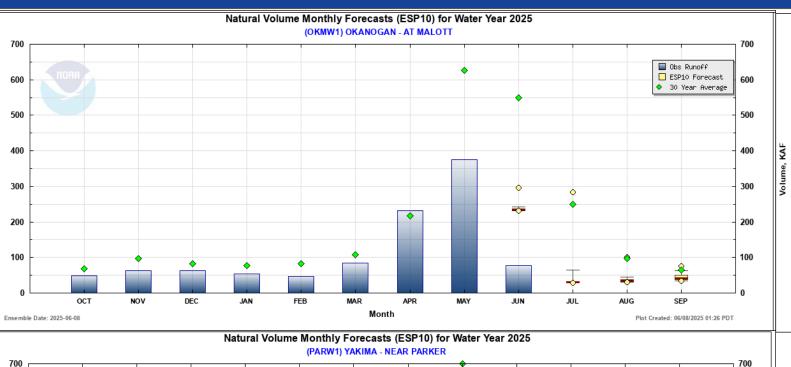
- Runoff was below normal in January and Feb
- March and April runoff was a mix of higher and lower than normal
- Monthly runoff May was below normal
- Expect the rest of the year will be below normal

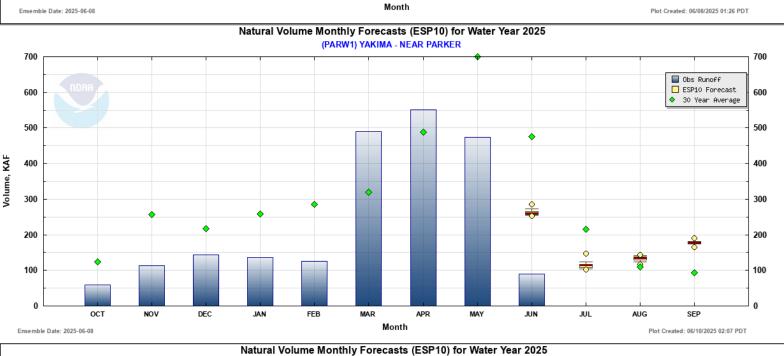


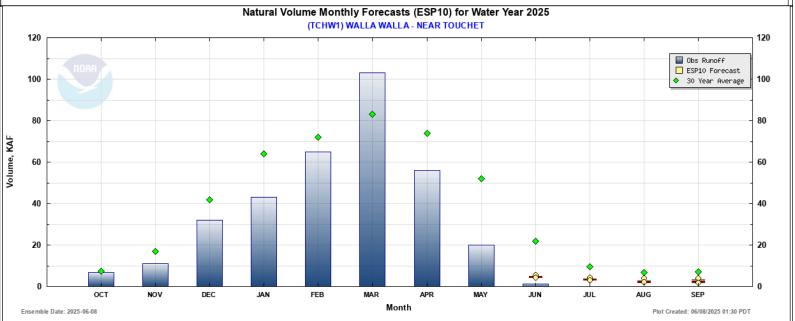


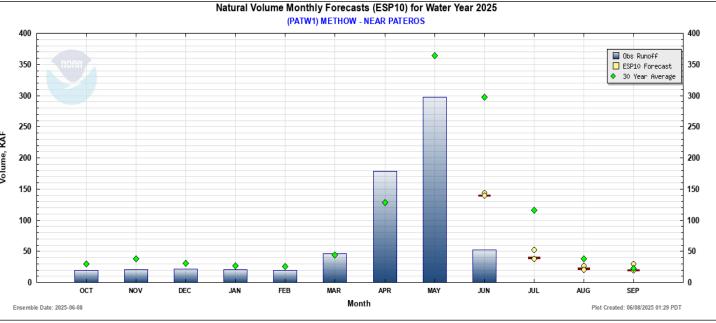
# East Side Forecasts

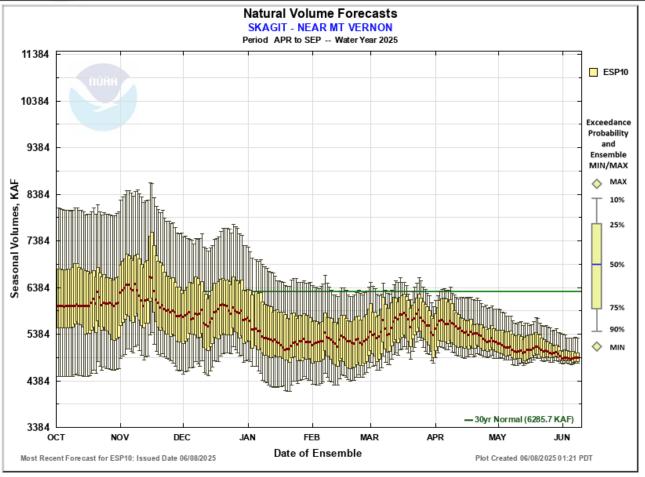
- March and April runoff was a mix of higher and lower than normal
- Speculation: snow melt runoff being shifted earlier in spring caused the normal to above normal volumes for March and possibly some of April's
- Monthly runoff May was well below normal
- Expect the rest of the year will be below normal

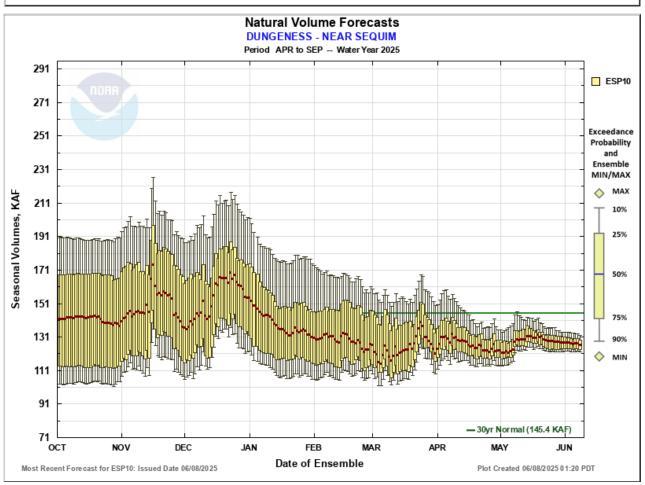


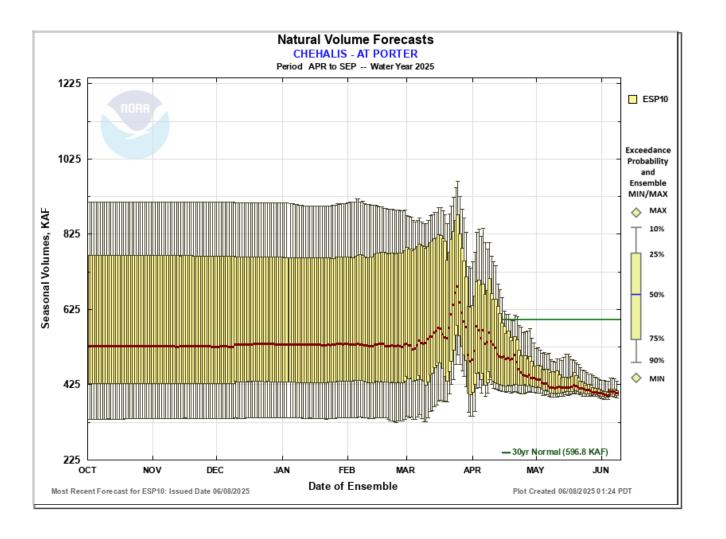


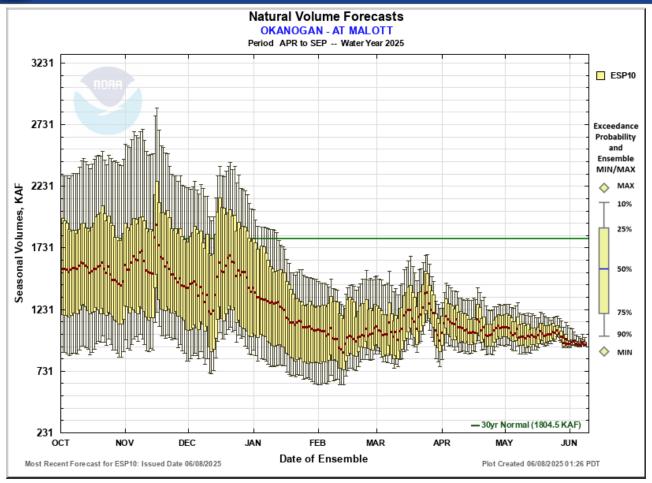


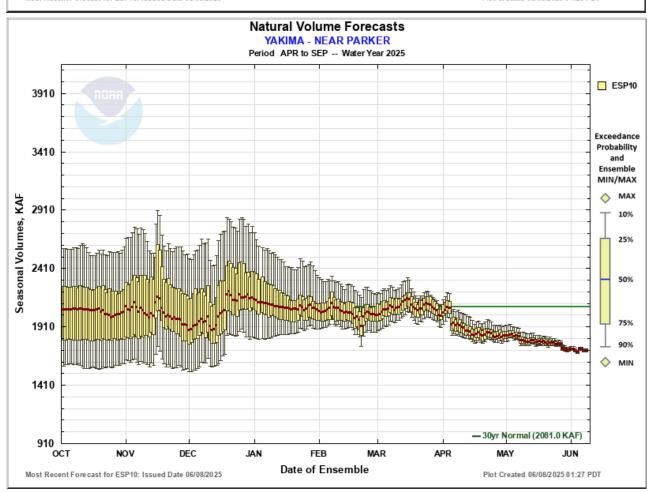


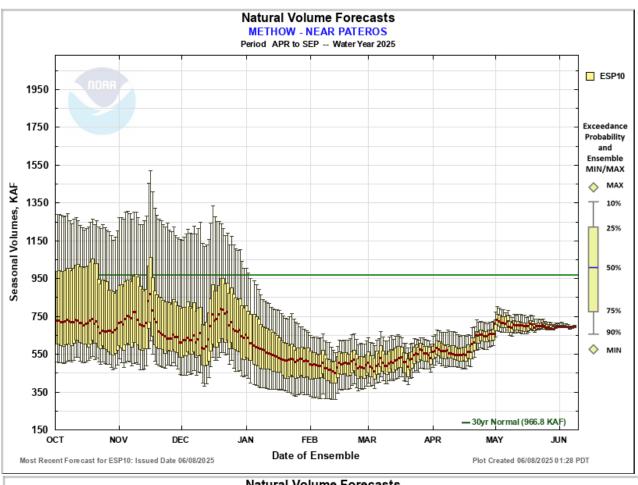


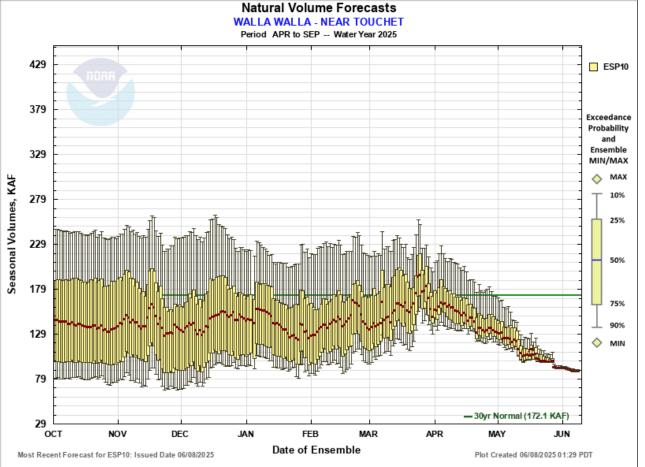












May was dry compared to normal

May runoff was below normal. Low snowmelt driven, timing.

Precipitation forecasts for the next 10 days is well below normal.

 Apr-Sep river forecasts are significantly lower than normal, lower than last month, and continue the trend to lower volumes.