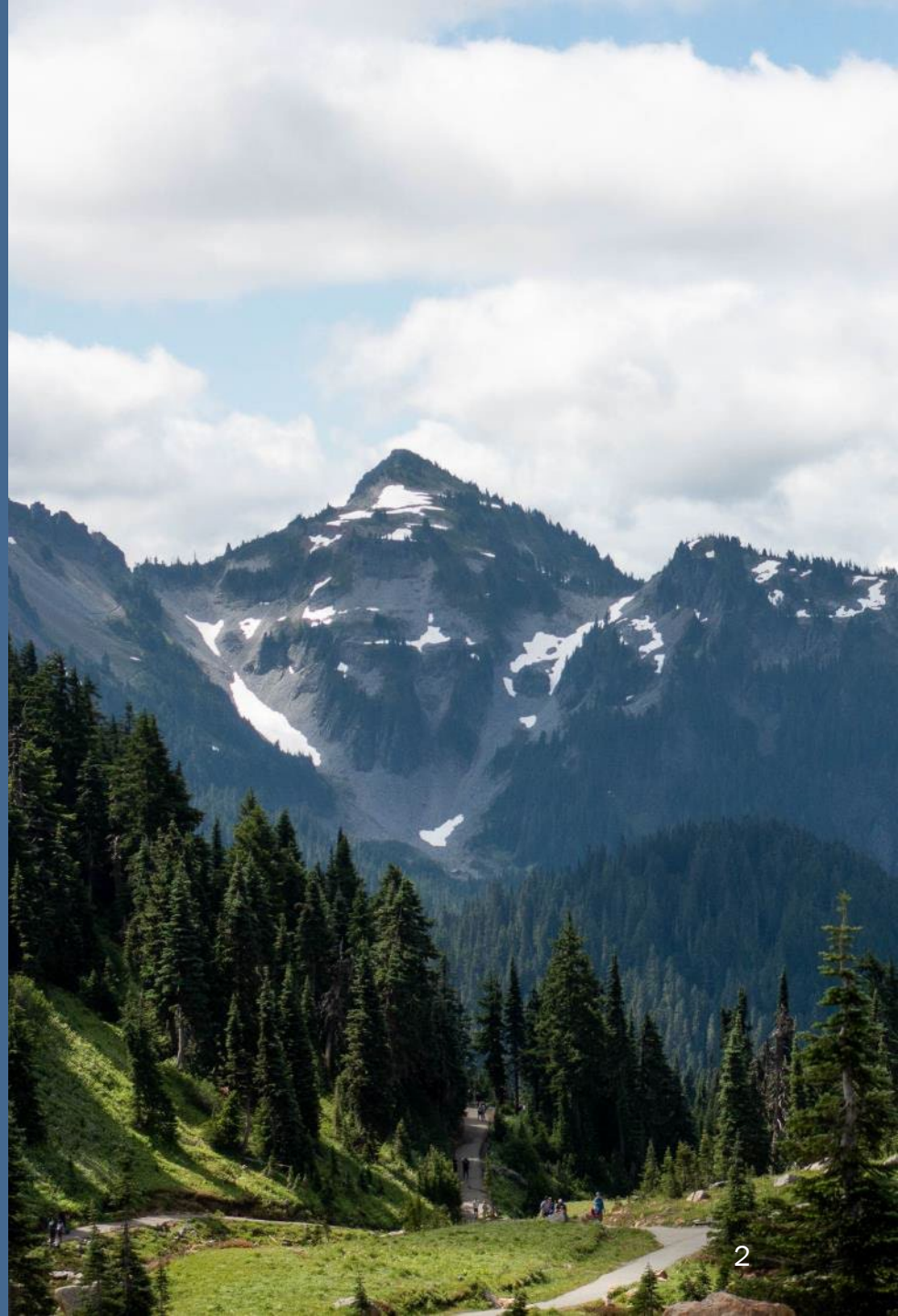
DEPARTMENT OF ECOLOGY
State of Washington

Water Supply Availability Committee

July 10, 2025

Water Resources Program

Recording!



Agenda

Time	Agenda item	Responsible
10:00 a.m.	Welcome and agenda Recap: Drought declaration process and implications	Caroline Mellor, Ecology
10:10 a.m.	Regional Climate Setting / ENSO	Karin Bumbaco, WSCO
10:30 a.m.	Streamflow and Groundwater	Nick Sutfin. USGS
10:45 a.m.	Yakima Project Update	~~Teresa Hauser, BOR~~
11:55 a.m.	Water Supply Forecasts	Amy Burke, NWRFC
11:10 a.m.	Discussion: What water supply concerns do folks have for Water Year 2025?	All participants 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 summer of Water Year 2025 is now in full swing.

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

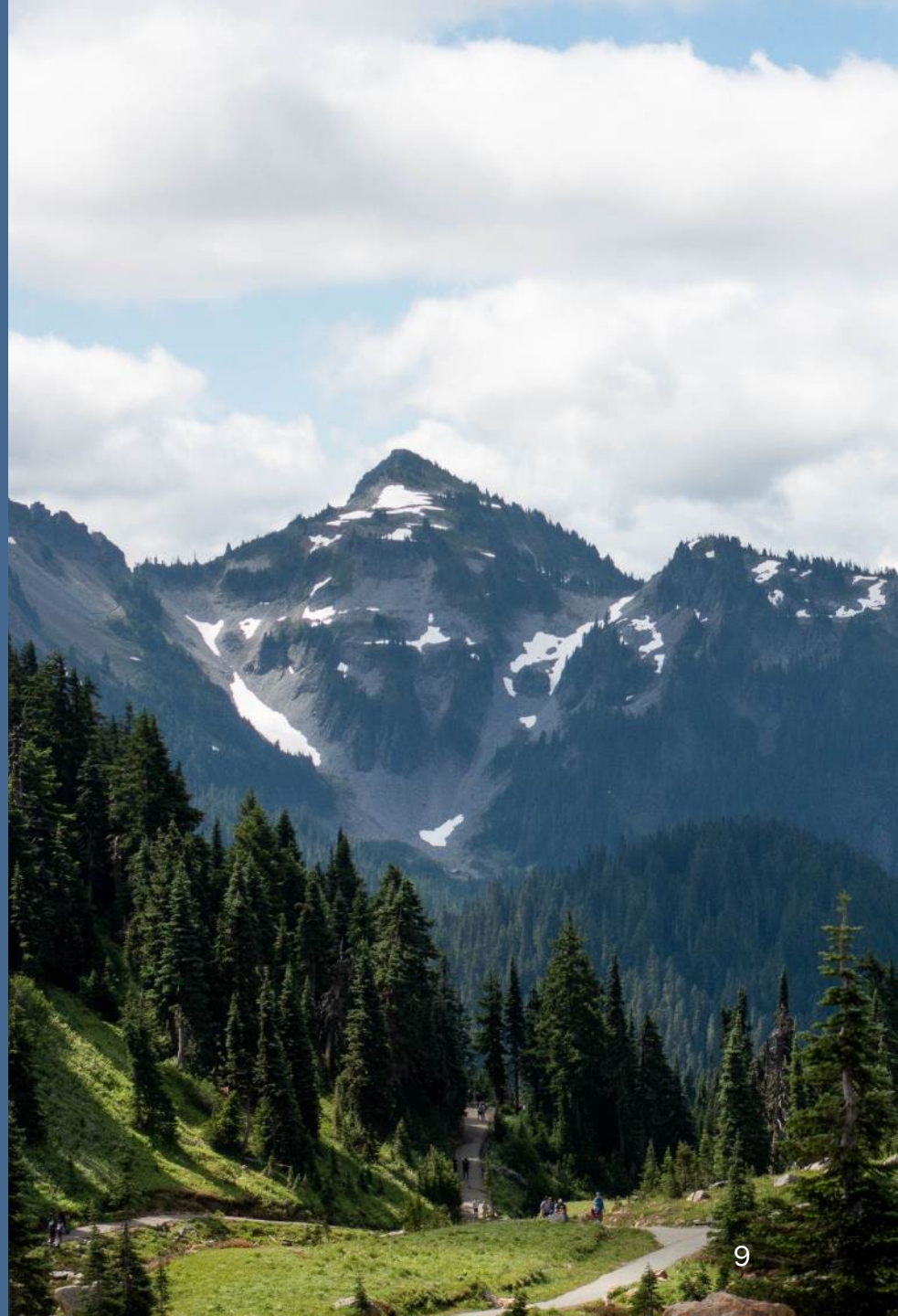
Forecasts

- Streamflow
- Precipitation
- Temperature
- Soil moisture

Hydrologic threshold for drought was met in 2025

Rimrock Reservoir, November 2024

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

Drought response grants - Washington State Department of Ecology

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

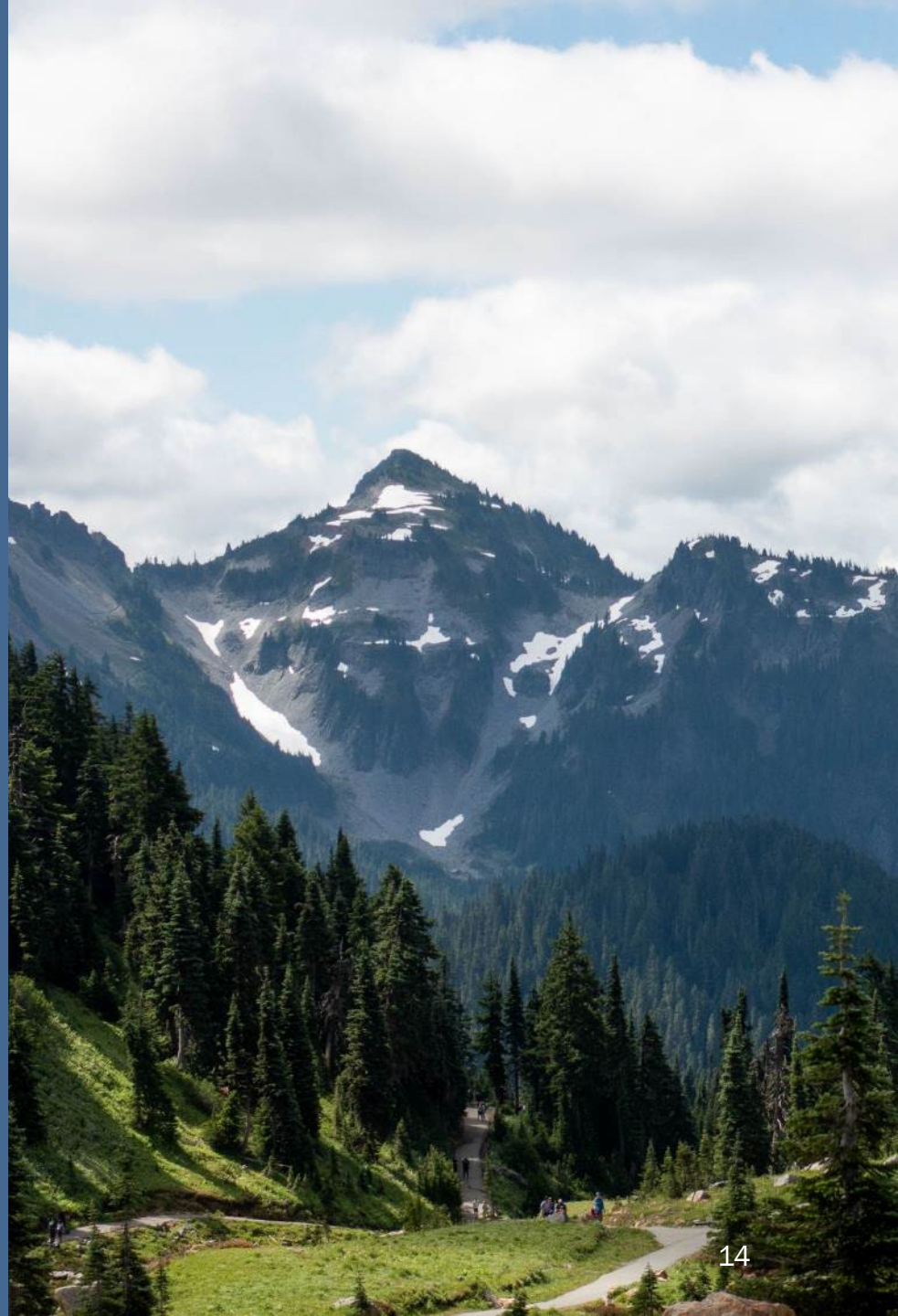
Important communications tool

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

See: 2025 Drought Emergency Response Grant Funding Guidance (wa.gov)

Presenters



Discussion Question

For all meeting attendees:

What concerns do folks have for Water Year 2025?

Drought Info

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

Thank you

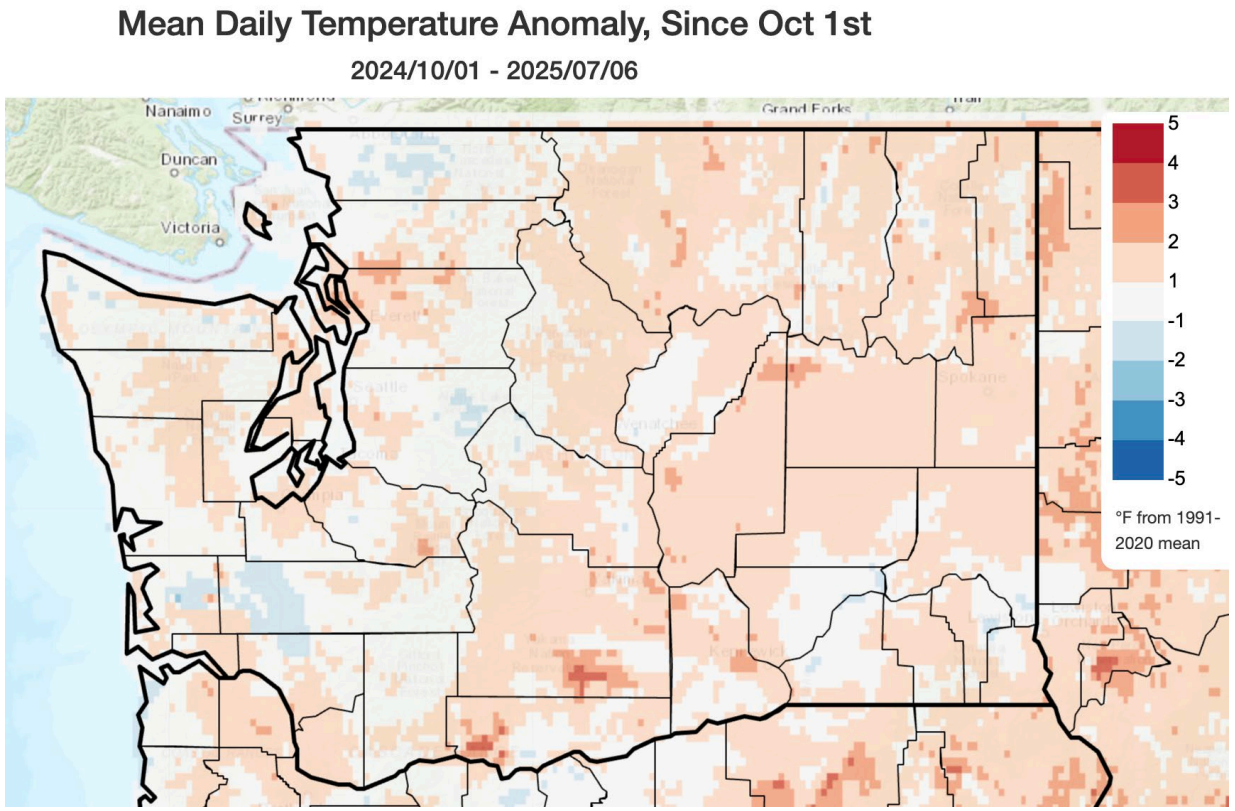
Contact: WSAC Committee Chair
Caroline Mellor
Statewide Drought Lead
Caroline.Mellor@ecy.wa.gov

Current Conditions and Seasonal Outlook

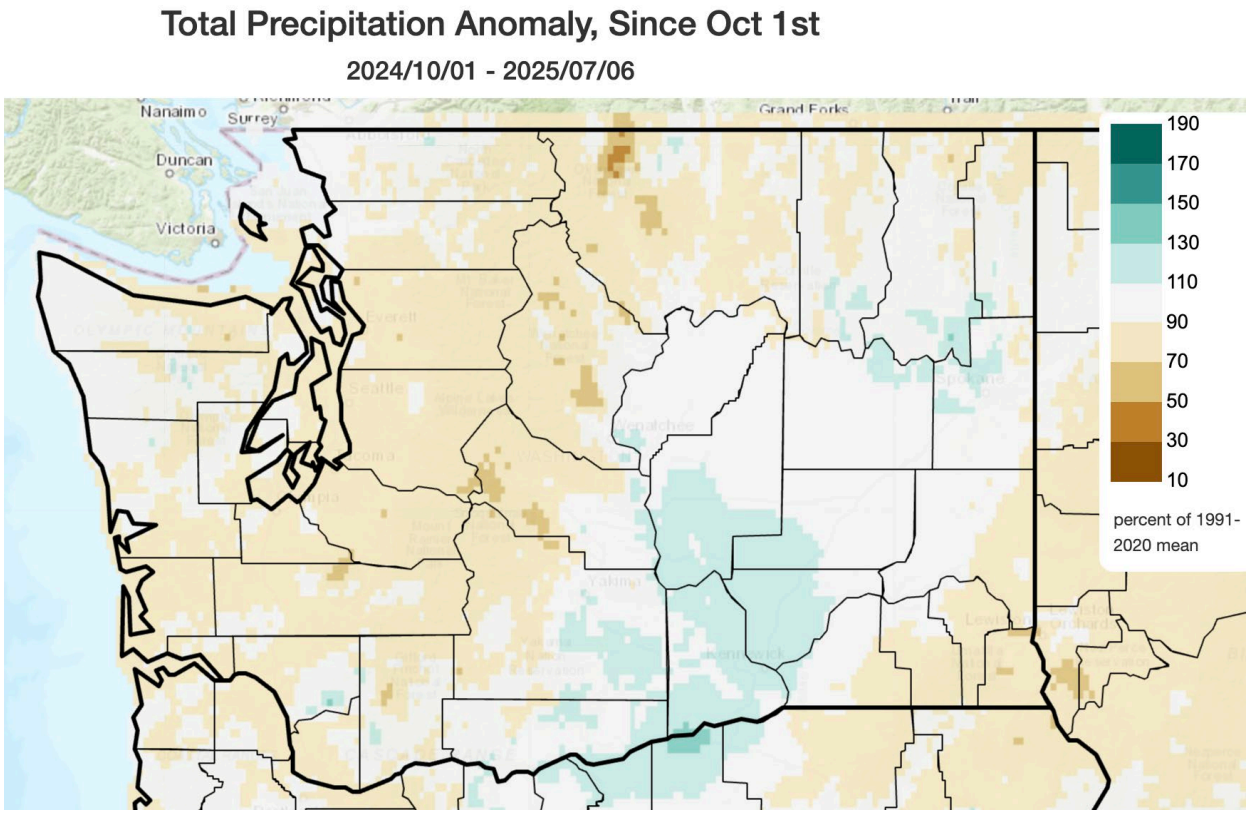
Karin Bumbaco
Washington State Climate Office
Climate Impacts Group
University of Washington
July 10, 2025

Water Year 2025

Temperature



Precipitation

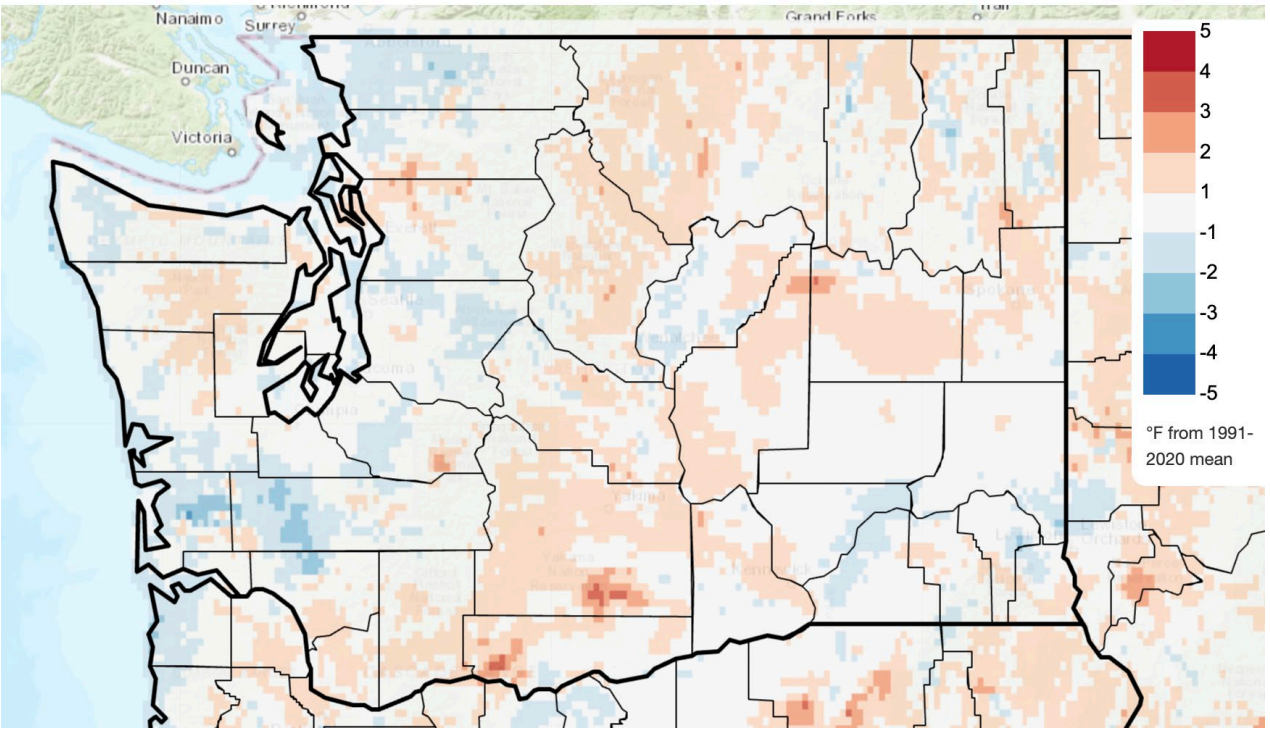


- Averaged statewide, Oct-Jun temperatures were above normal (+1.0°F), tying 1941 and 1998 as the 13th warmest on record*
- Averaged statewide, Oct-Jun precipitation was below normal (88% of normal), ranking as the 39th driest

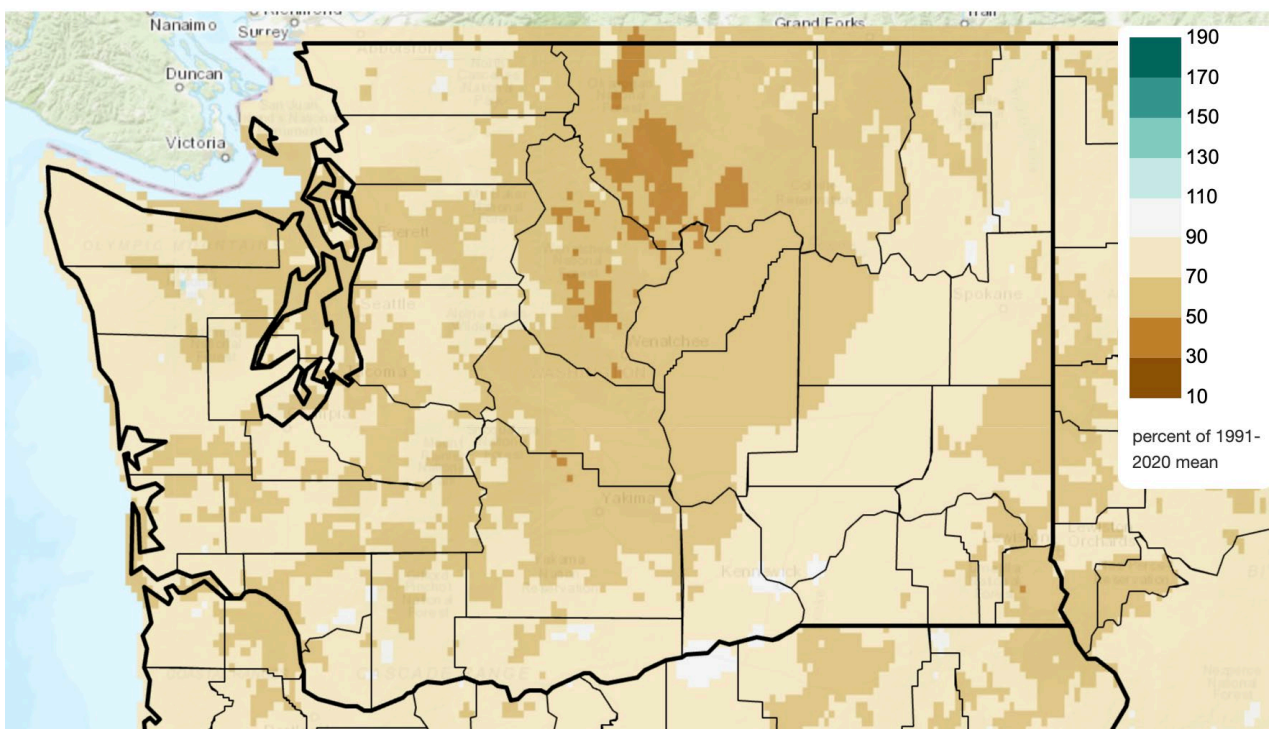
*Records since 1895; Normal is 1991-2020

Since January 1

Temperature



Precipitation

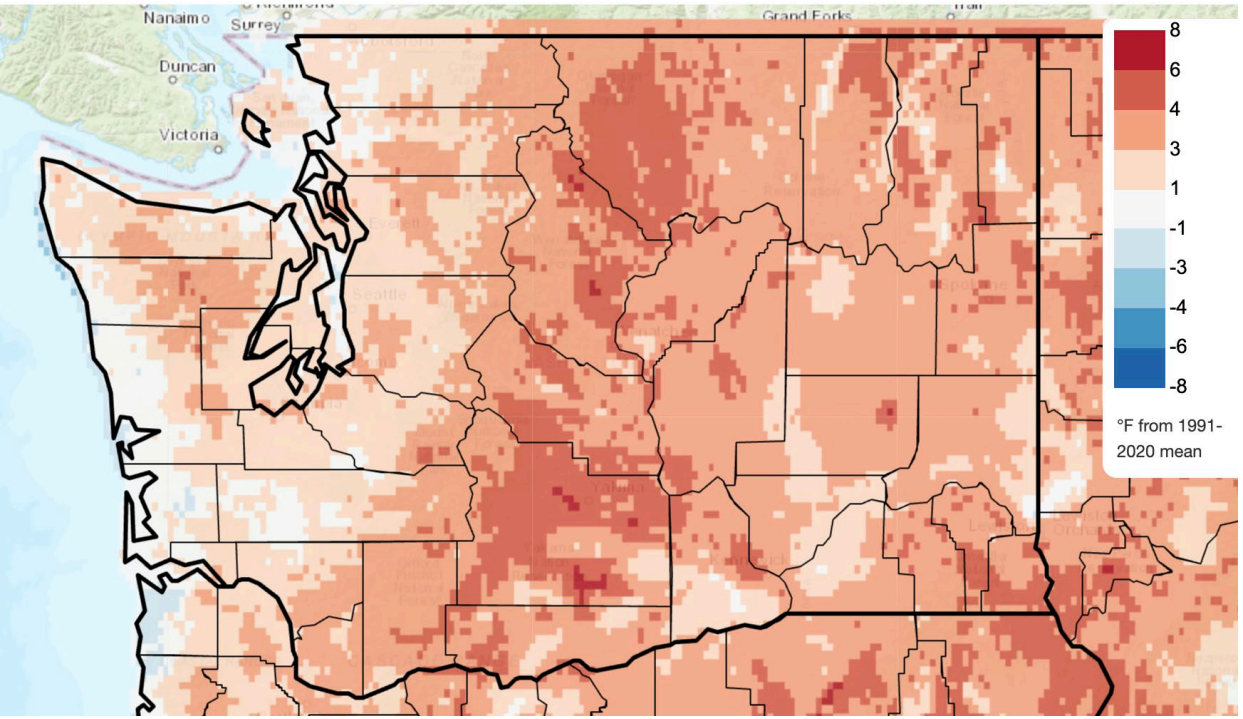


- Averaged statewide, Jan-Jun temperatures were near-normal (+0.4°F)*
- Averaged statewide, Jan-Jun precipitation was below normal (71% of normal), ranking as the 7th driest* (-6.58”)

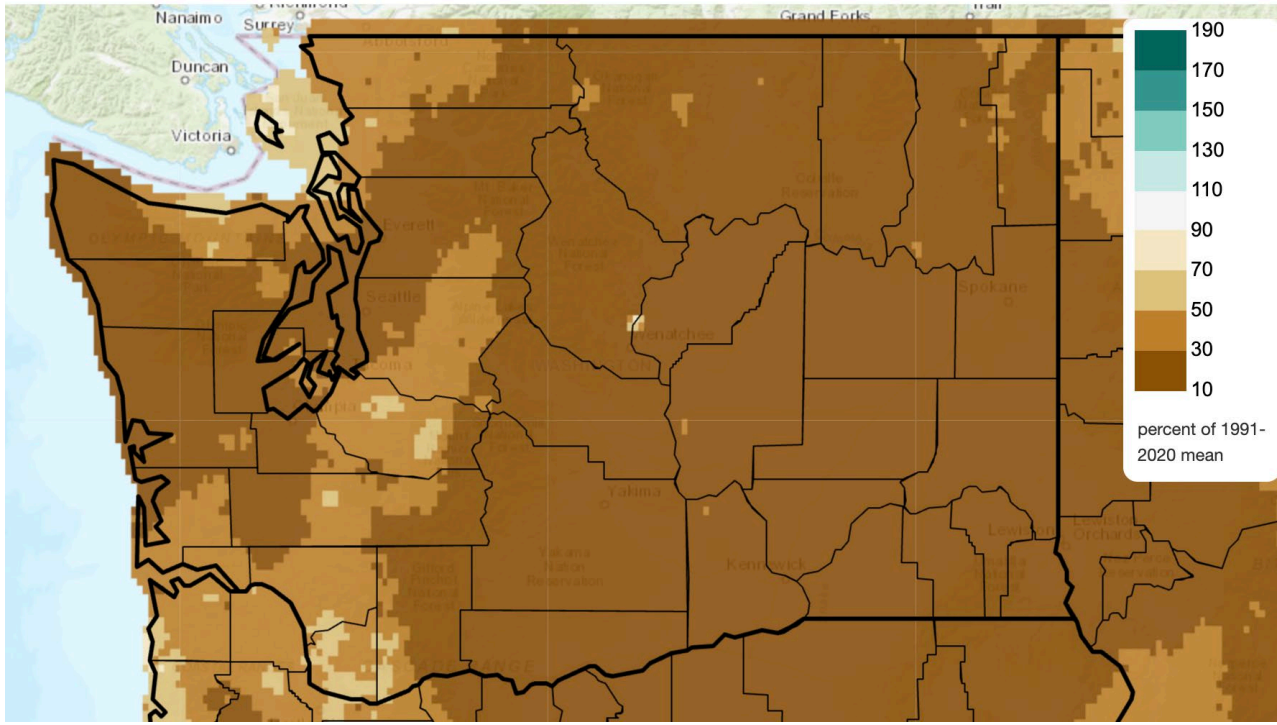
*Records since 1895; Normal is 1991-2020

June 2025

Temperature



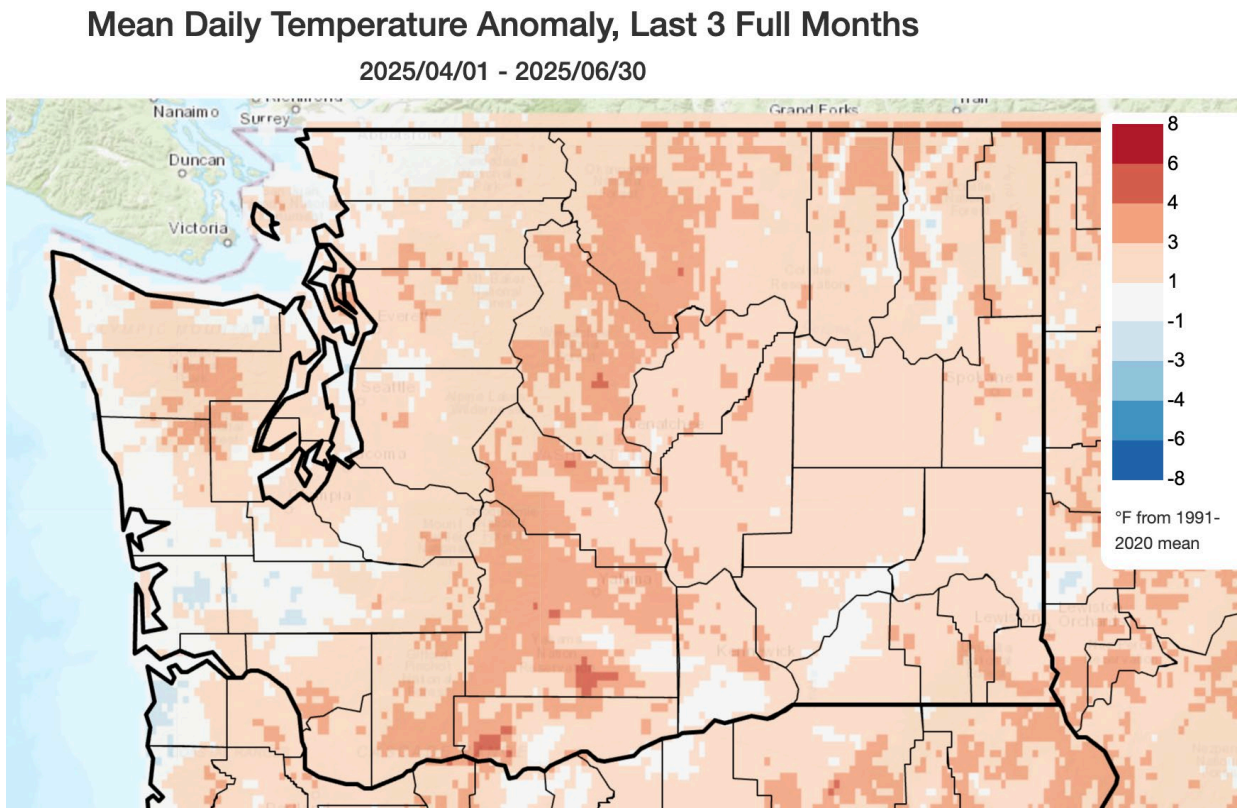
Precipitation

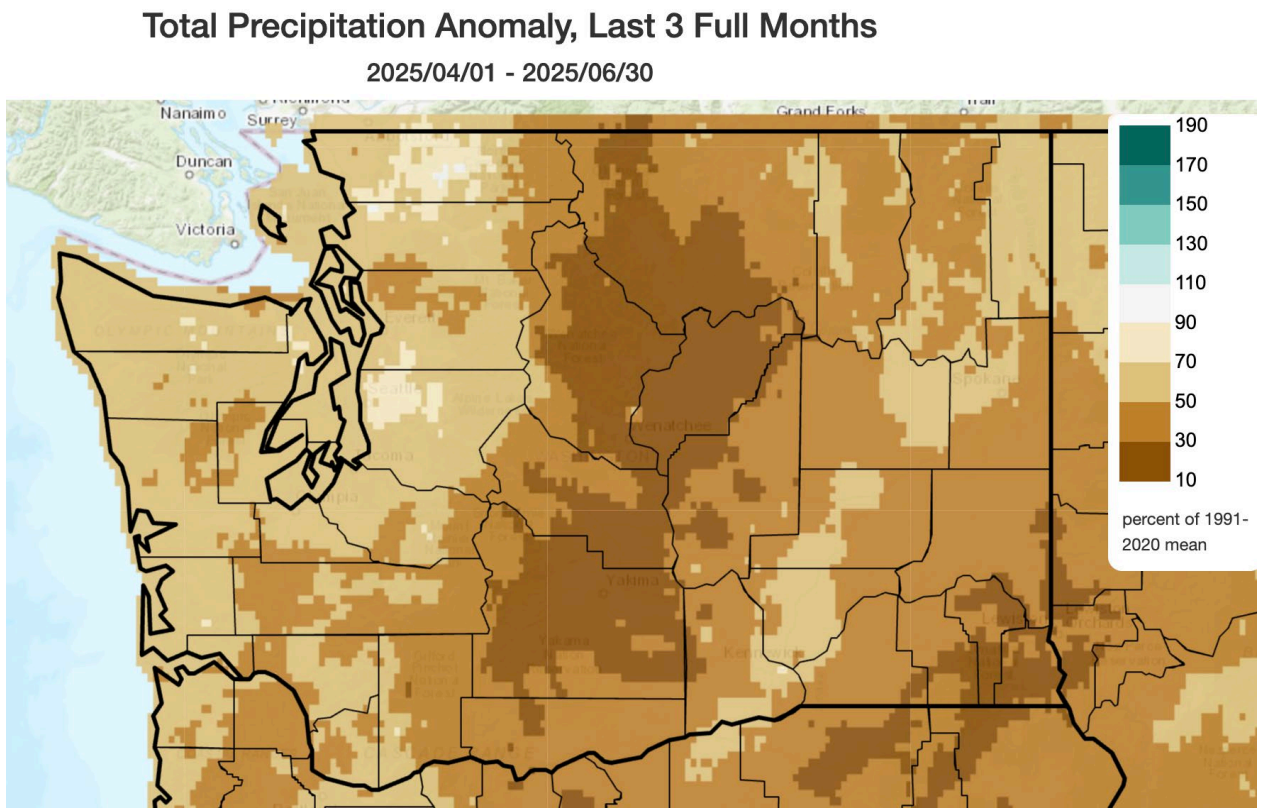


- Averaged statewide, June temperatures ranked as the 10th warmest (+3.1°F) on record*
- Averaged statewide, June precipitation ranked as the 3rd driest on record*, with 23% of normal precipitation (-1.48”)

*Records since 1895; Normal is 1991-2020

April-June 2025

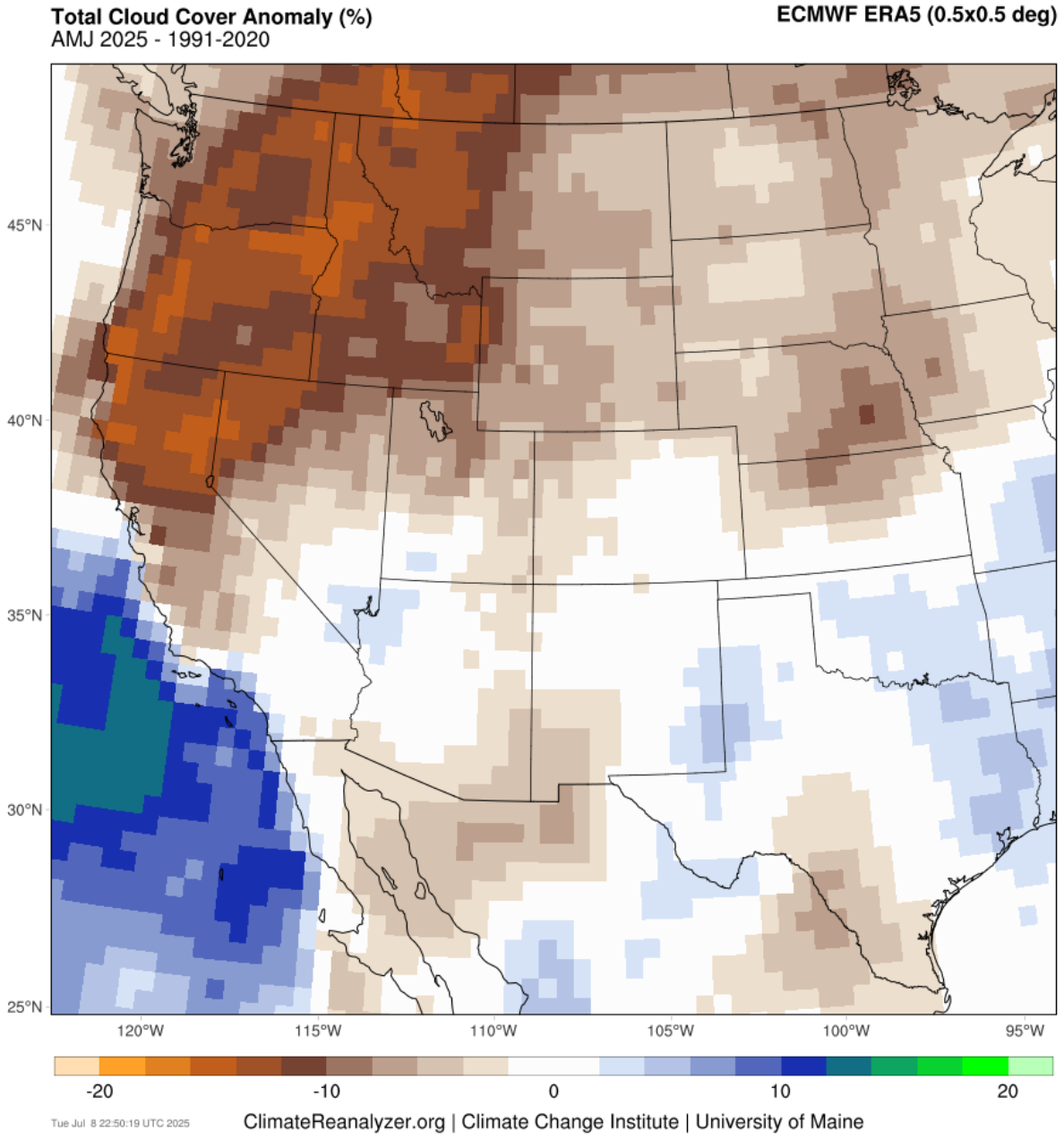




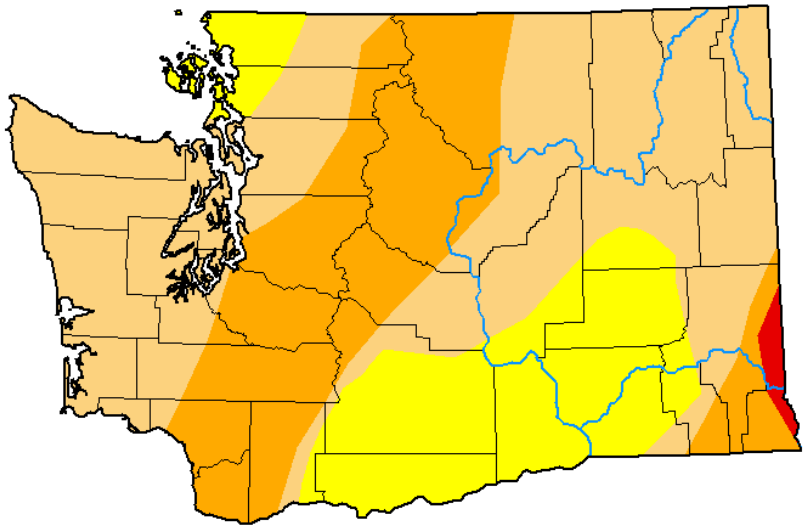
- Averaged statewide, Apr-Jun temperatures tied 2023 as the 11th warmest (+1.8°F) on record*
- Averaged statewide, Apr-Jun precipitation ranked as the 6th driest on record*, with 50% of normal precipitation (-3.83”)

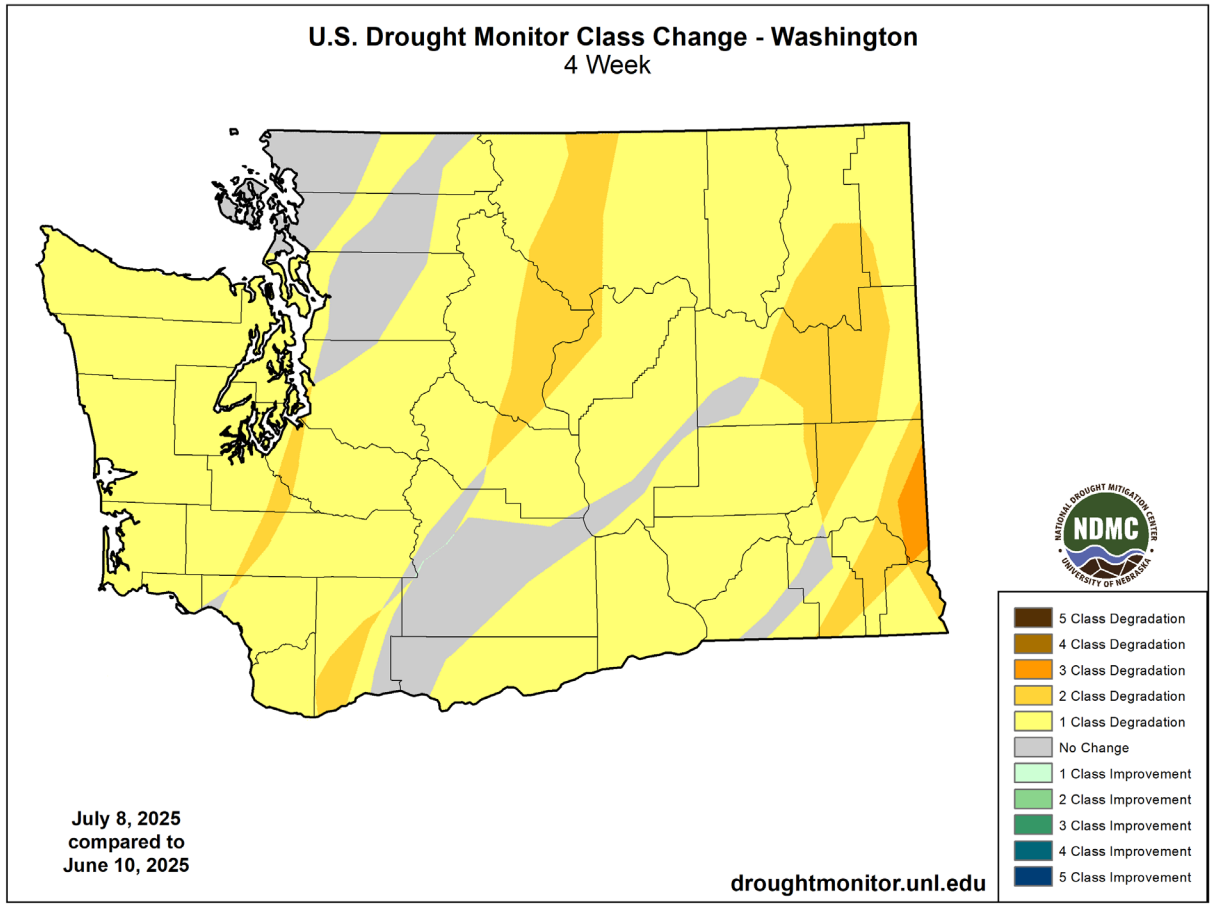
*Records since 1895; Normal is 1991-2020

Lack of Clouds



U.S. Drought Monitor

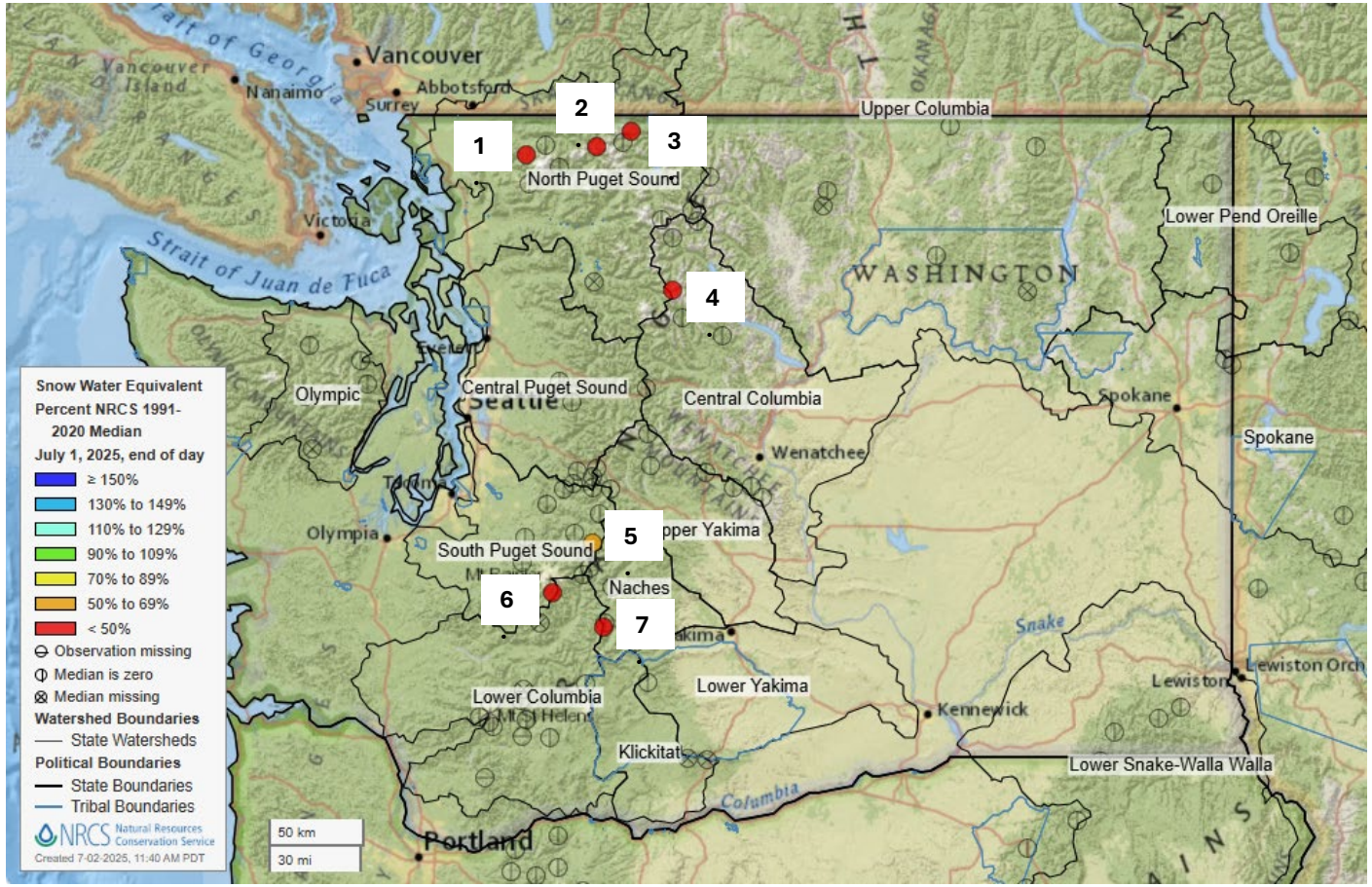




SWE in Washington

% of Normal (1991-2020 median)

United States Department of Agriculture
Natural Resources Conservation Service



Snowpack at sites that historically have snow July 1 has either melted out or is well below normal

Melt Out at SNOTEL Stations

1.	*MF Nooksack* – melt out	13 days early
2.	*Easy Pass* – project melt out	~12 days early
3.	*Brown Top* – melt out	19 days early
4.	*Lyman Lake* – melt out	21 days early
5.	*Corral Pass* – melt out	31 days early
6.	*Paradise* – project melt out	~11 days early
7.	*Pigtail Peak* – melt out	17 days early

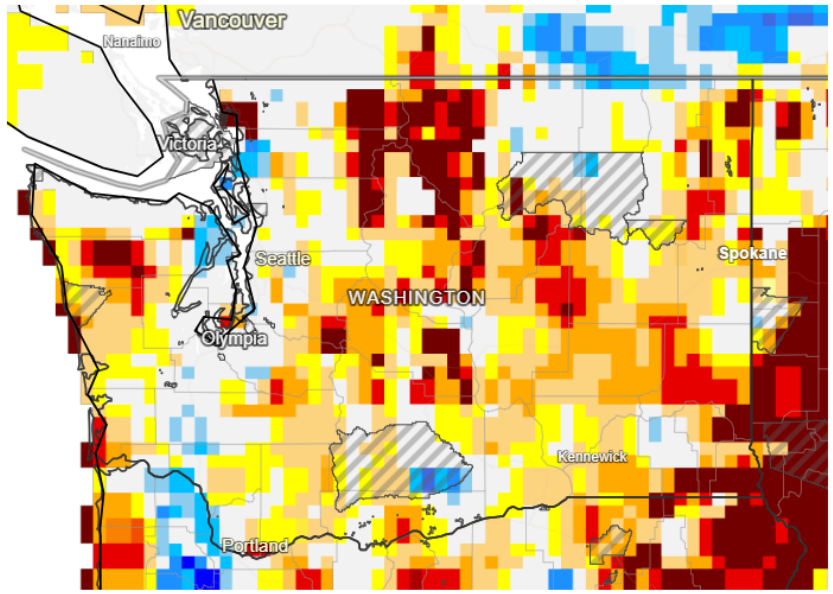
Slide provided by Matt Warbritton (NRCS)

Soil Moisture

NASA GRACE and SPoRT-LiS, Topofire

United States Department of Agriculture
Natural Resources Conservation Service

Root Zone



Root Zone Soil Moisture: Wetness Percentile

0 2 5 10 20 30 70

30 70 80 90 95 98 100

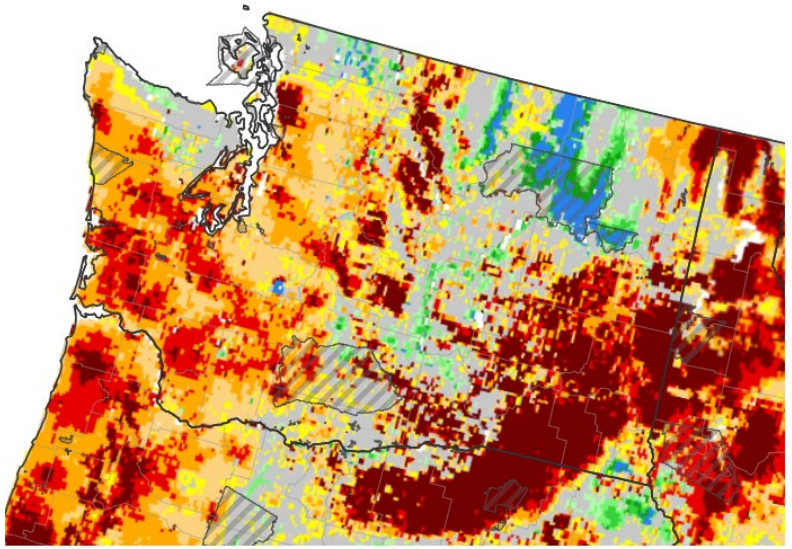
Tribal Nations

Tribal Nation Boundaries

Last Updated: 06/28/25

Drought.gov

0–100 cm Soil Moisture Percentile



0–100 cm Soil Moisture Percentile

0 2 5 10 20 30 70

70 80 90 95 98 100

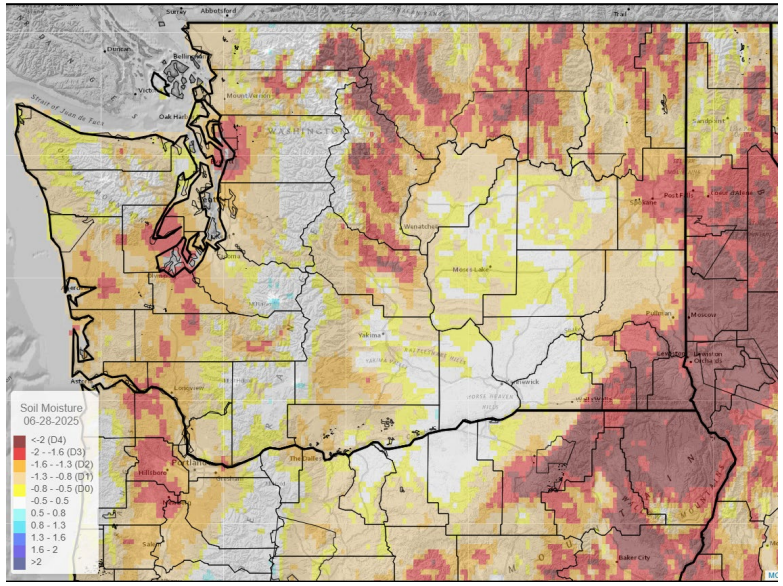
Tribal Nations

Tribal Nation Boundaries

Source(s): NASA
Data Valid: 07/01/25

Drought.gov

Topofire Soil Moisture for 06-28-2025



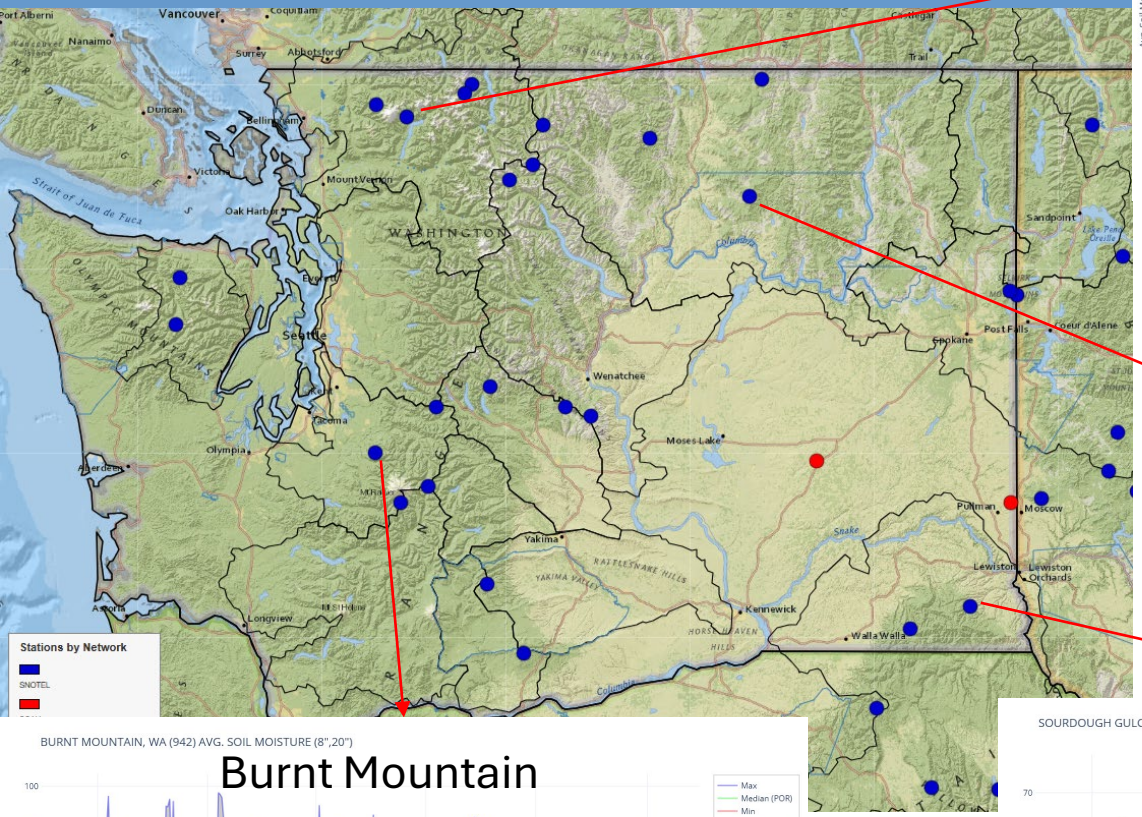
Slide provided by Matt Warbritton (NRCS)

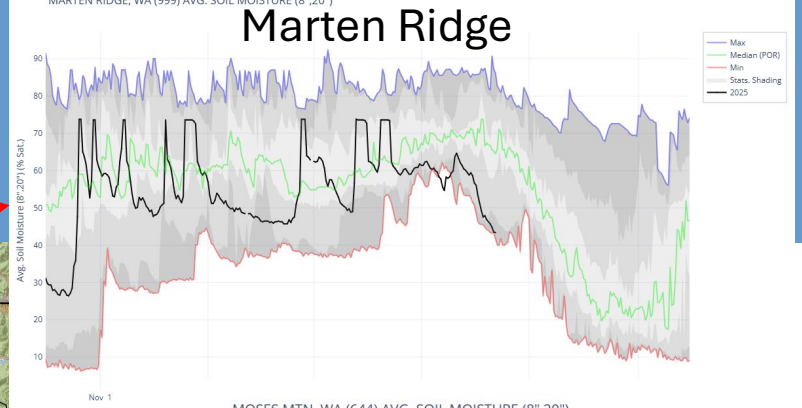
Soil Moisture

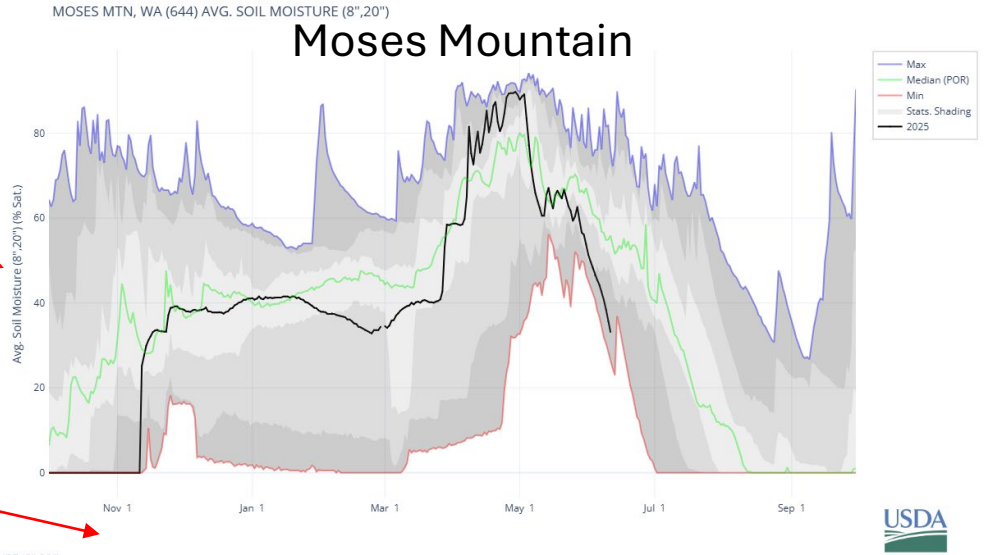
SNOTEL Data

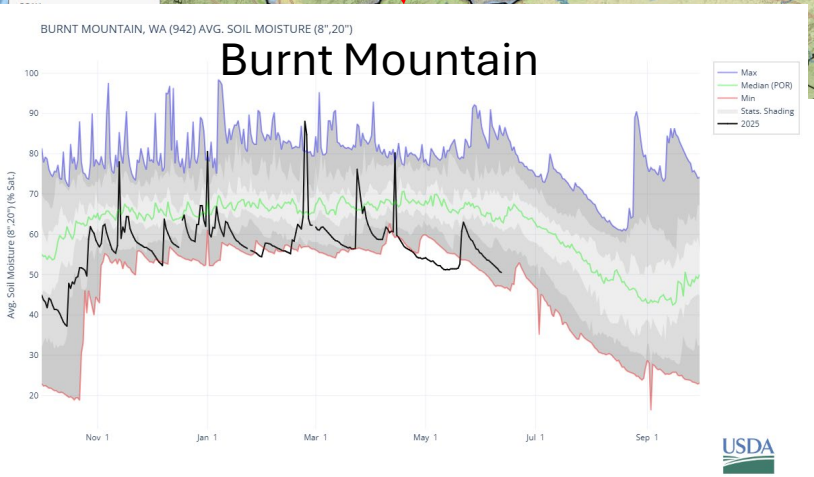
United States Department of Agriculture

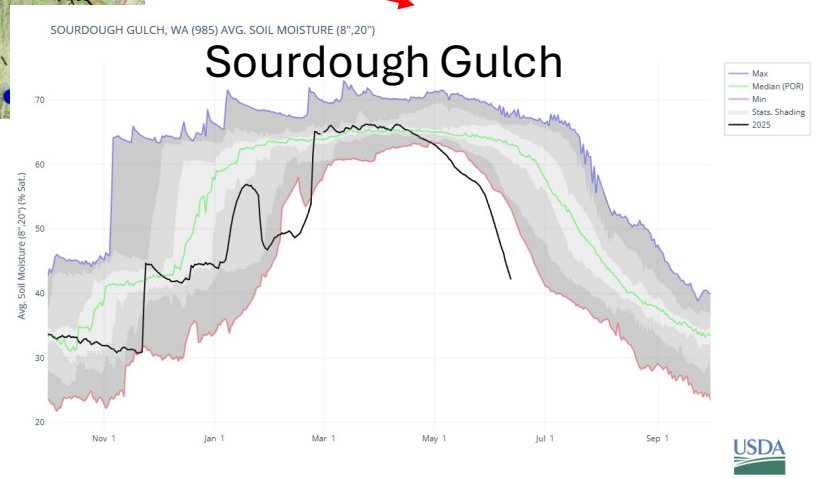
Natural Resources Conservation Service







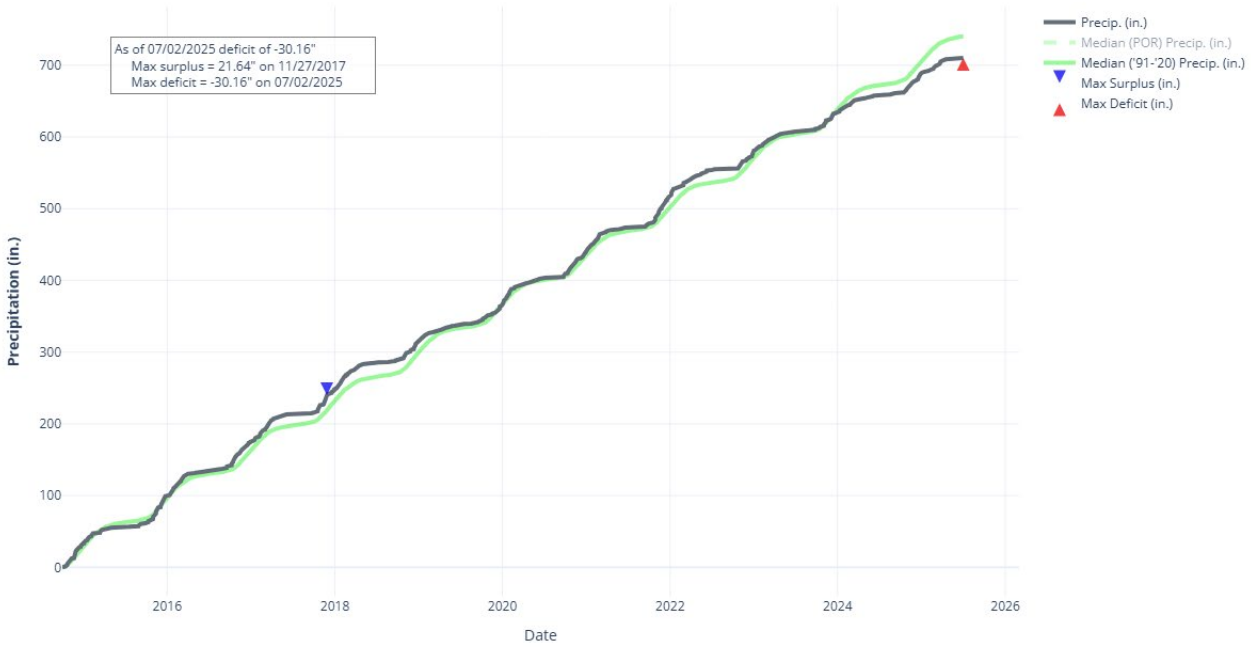




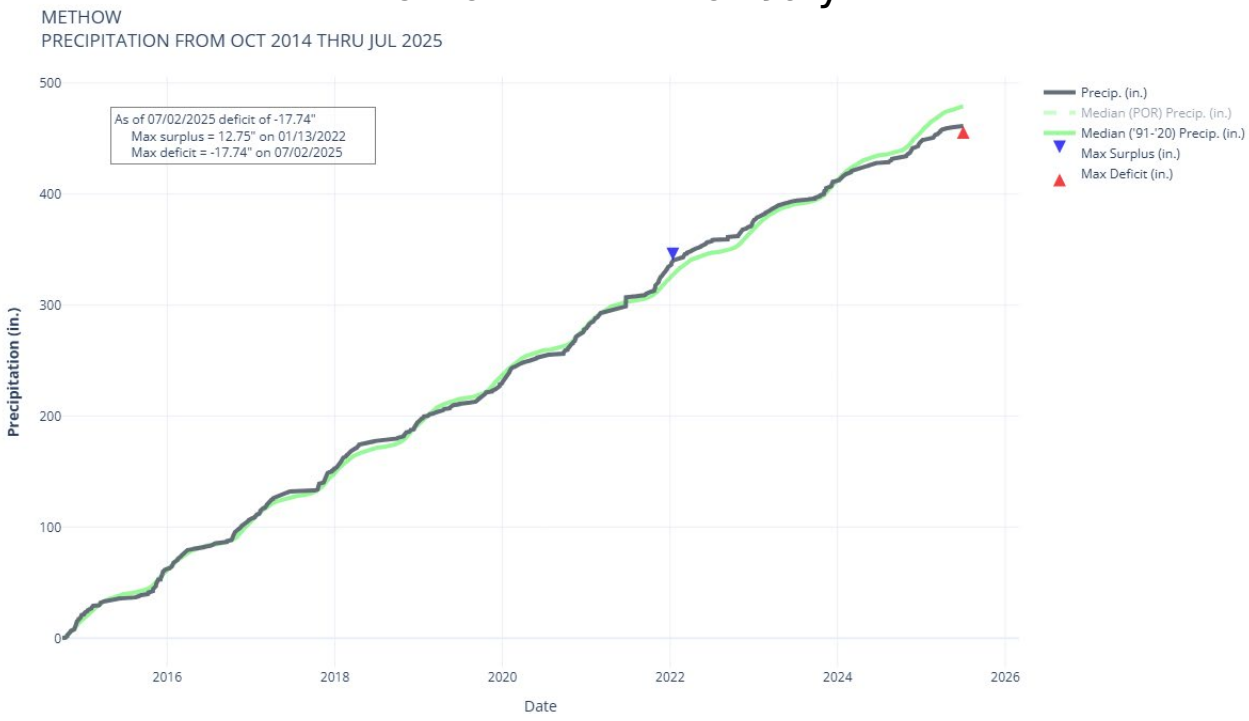
Slide provided by Matt Warbritton (NRCS)

Methow and Lake Chelan

Lake Chelan: -30.16” on July 2



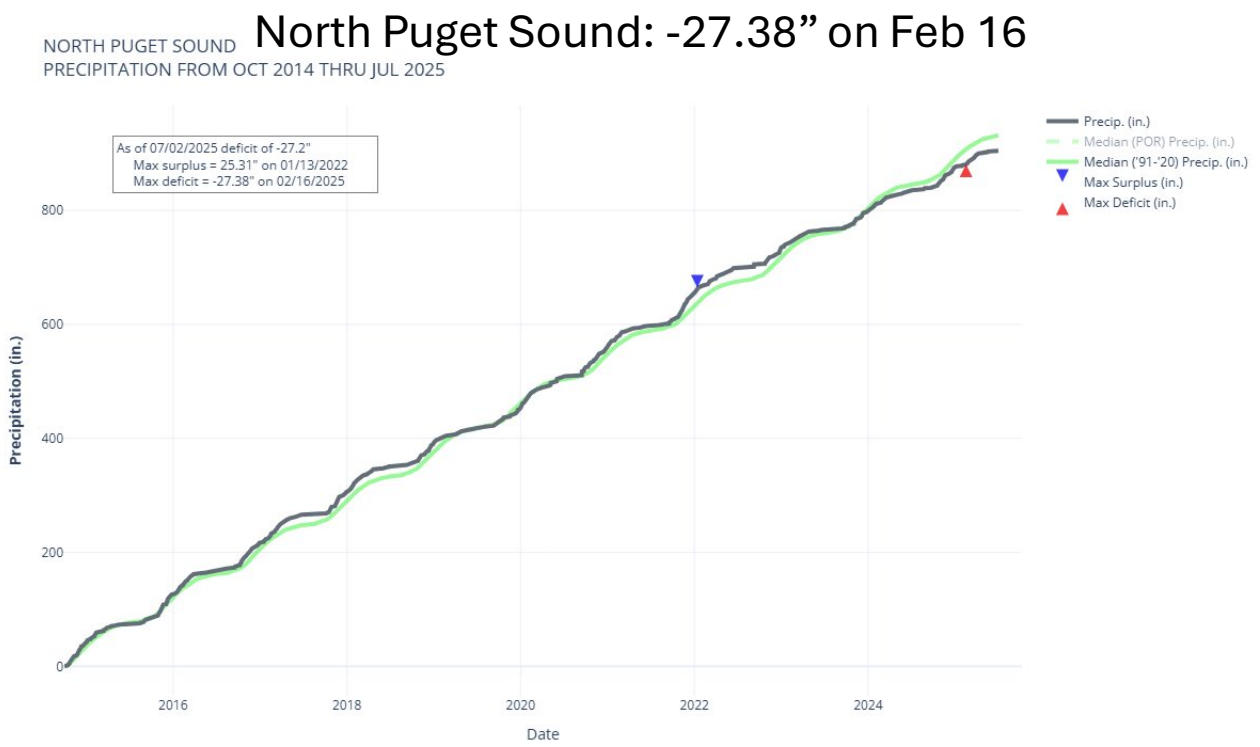
Methow: -17.74” on July 2



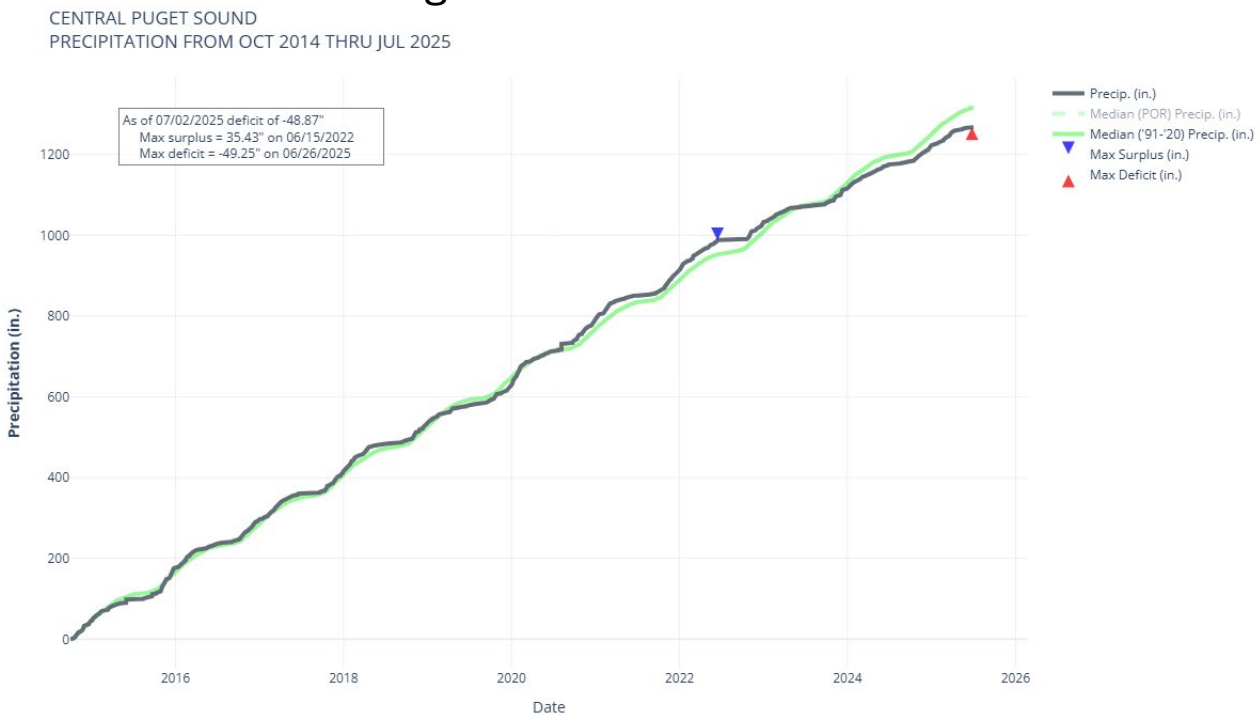
Slide provided by Matt Warbritton (NRCS)

Central and Northern Puget Sound

North Puget Sound: -27.38” on Feb 16



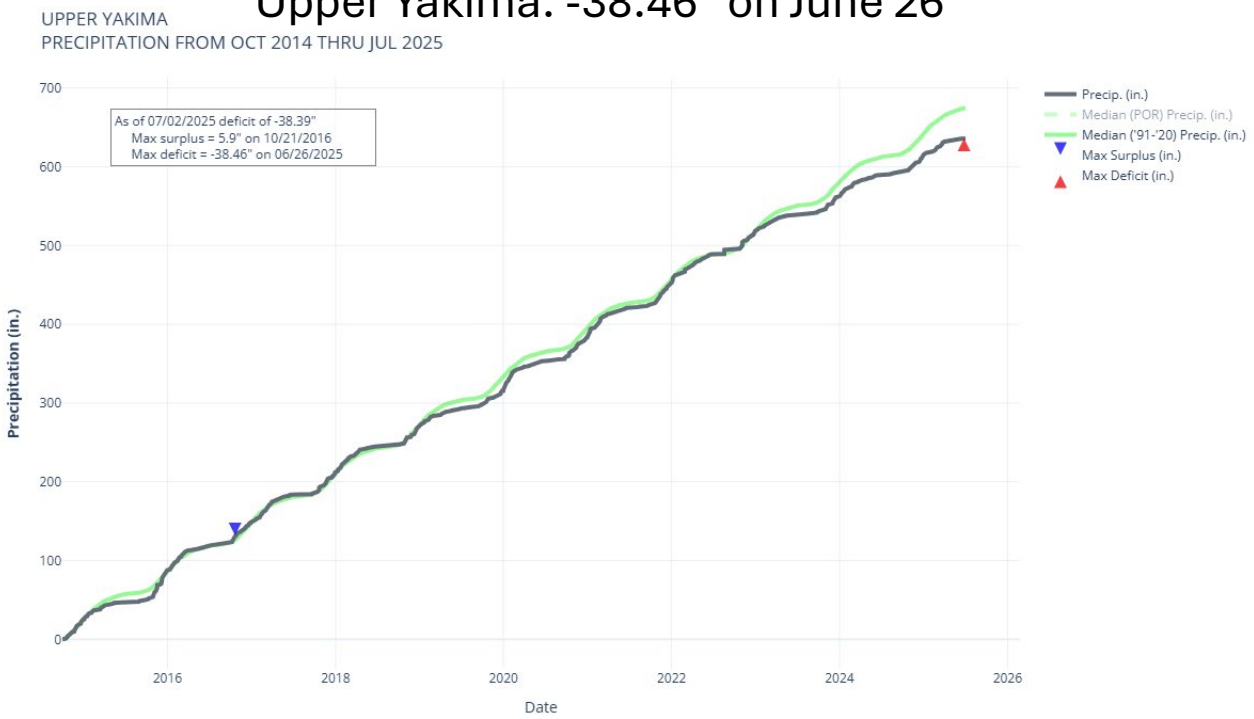
Central Puget Sound: -49.25” on June 26



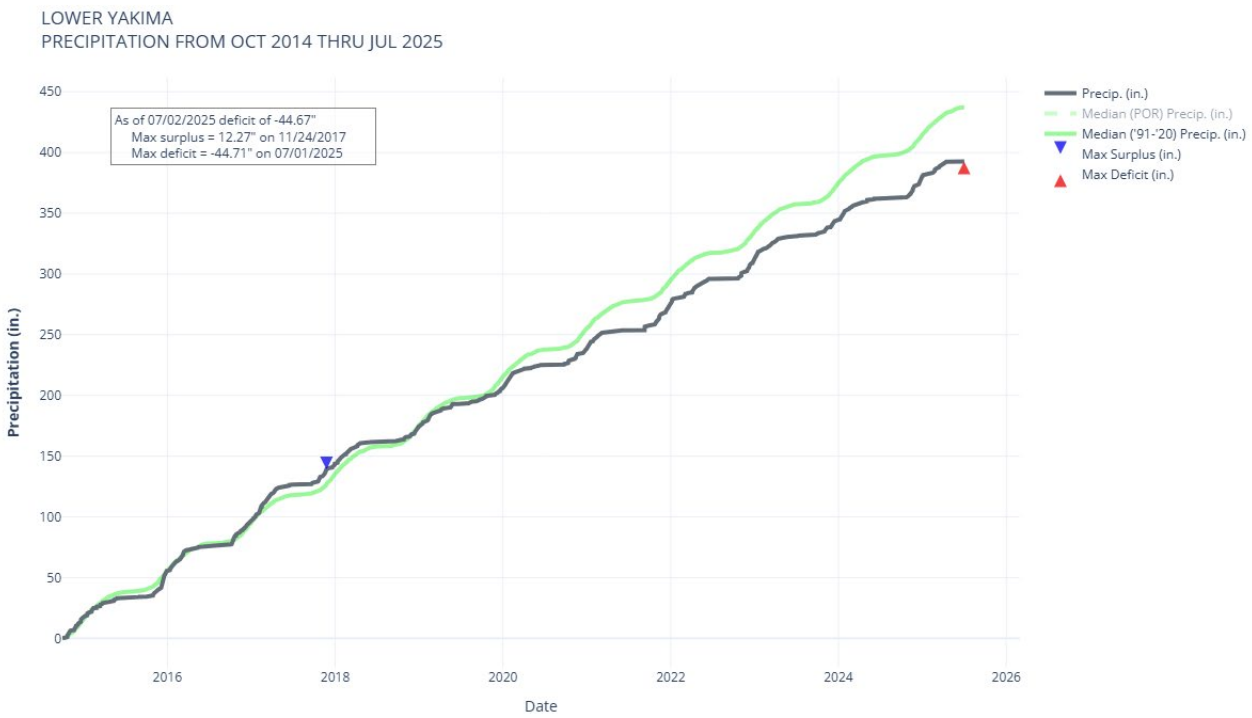
Slide provided by Matt Warbritton (NRCS)

Upper and Lower Yakima

Upper Yakima: -38.46” on June 26



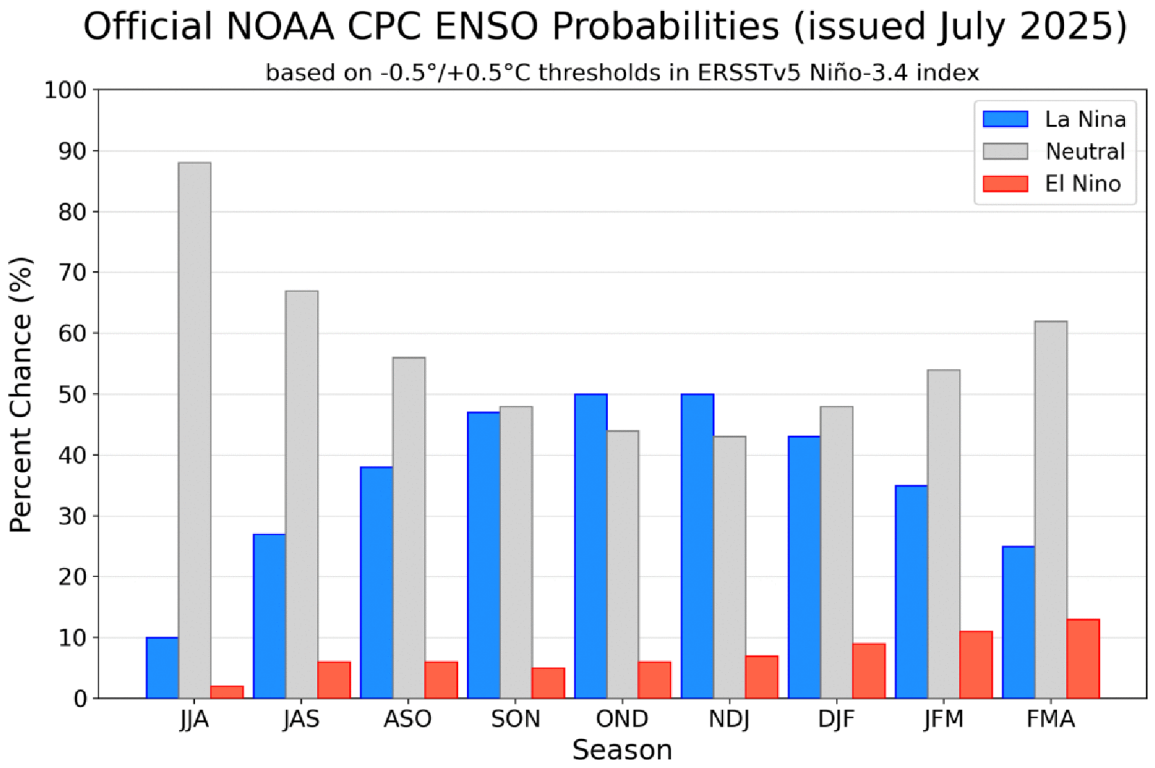
Lower Yakima: -44.71” on July 1



Slide provided by Matt Warbritton (NRCS)

Current Status: Neutral

No ENSO Alert



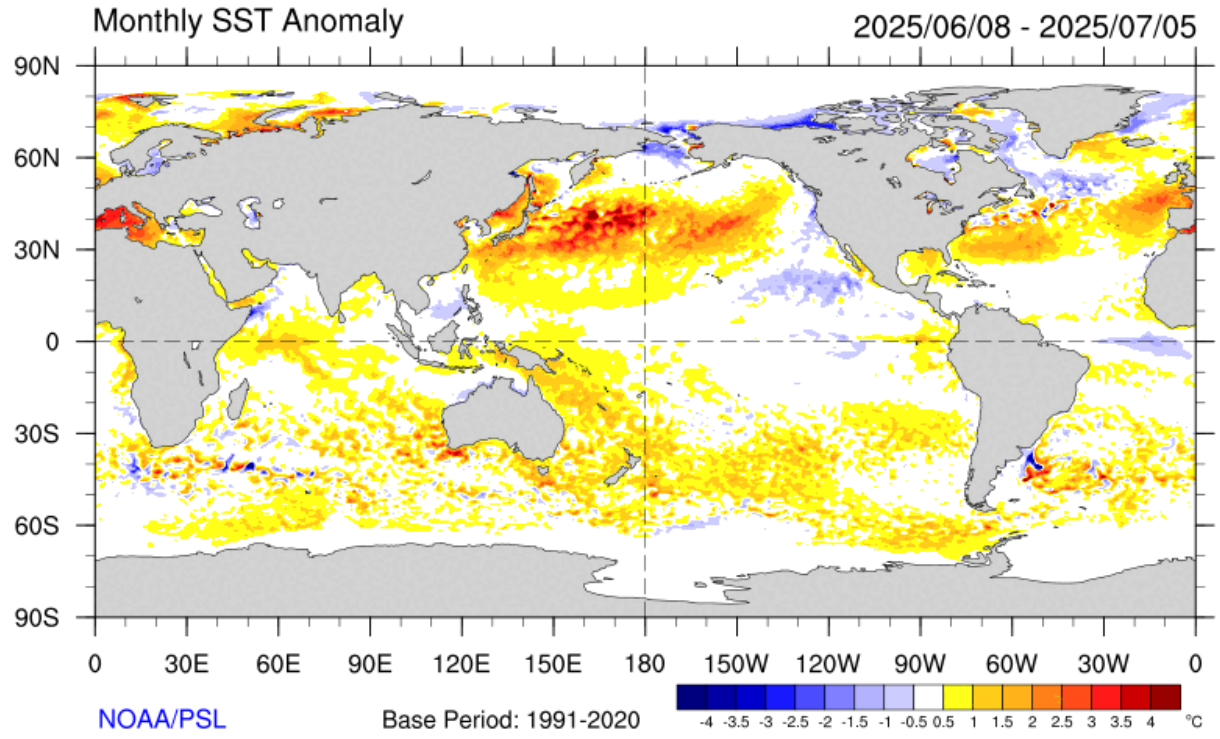
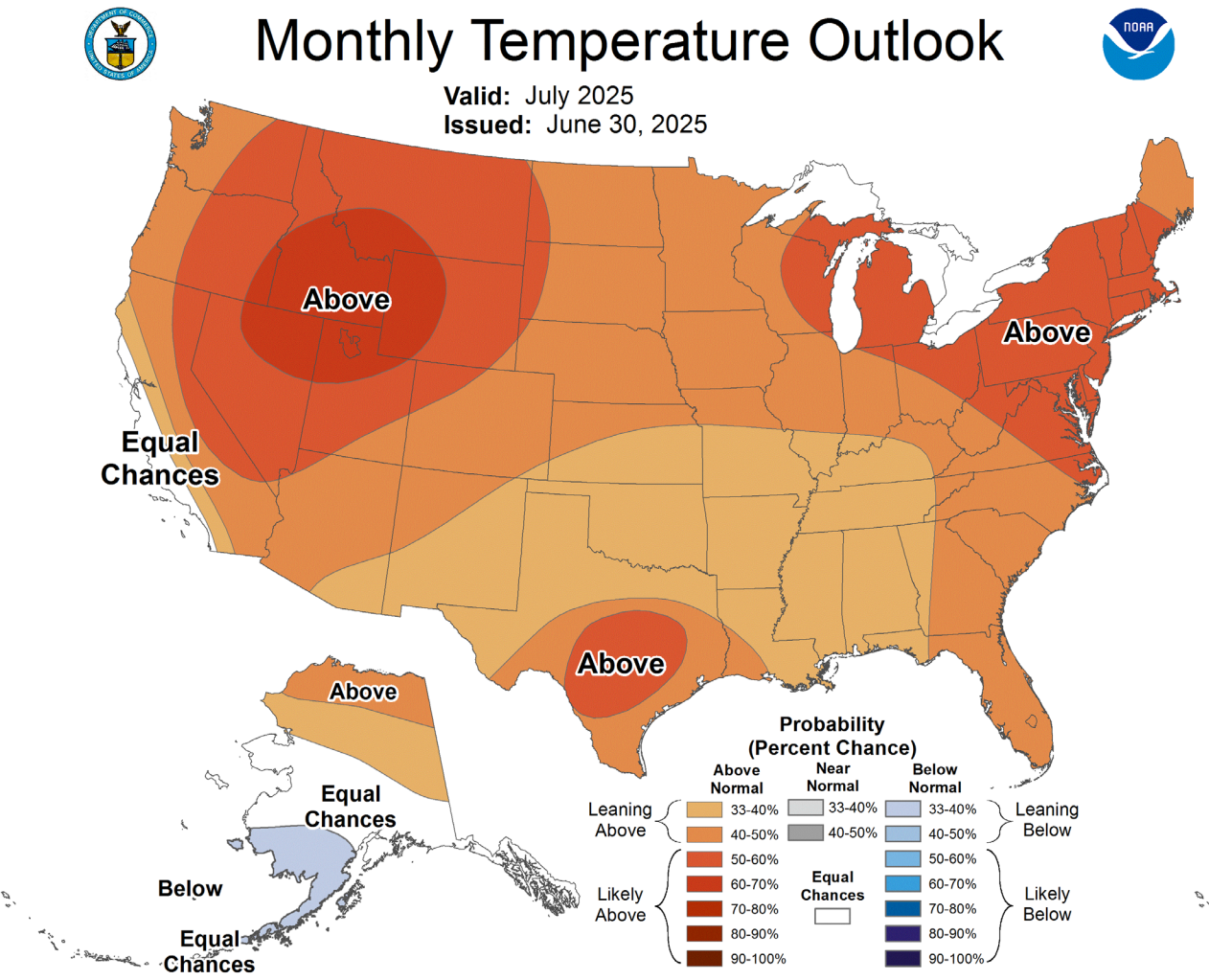
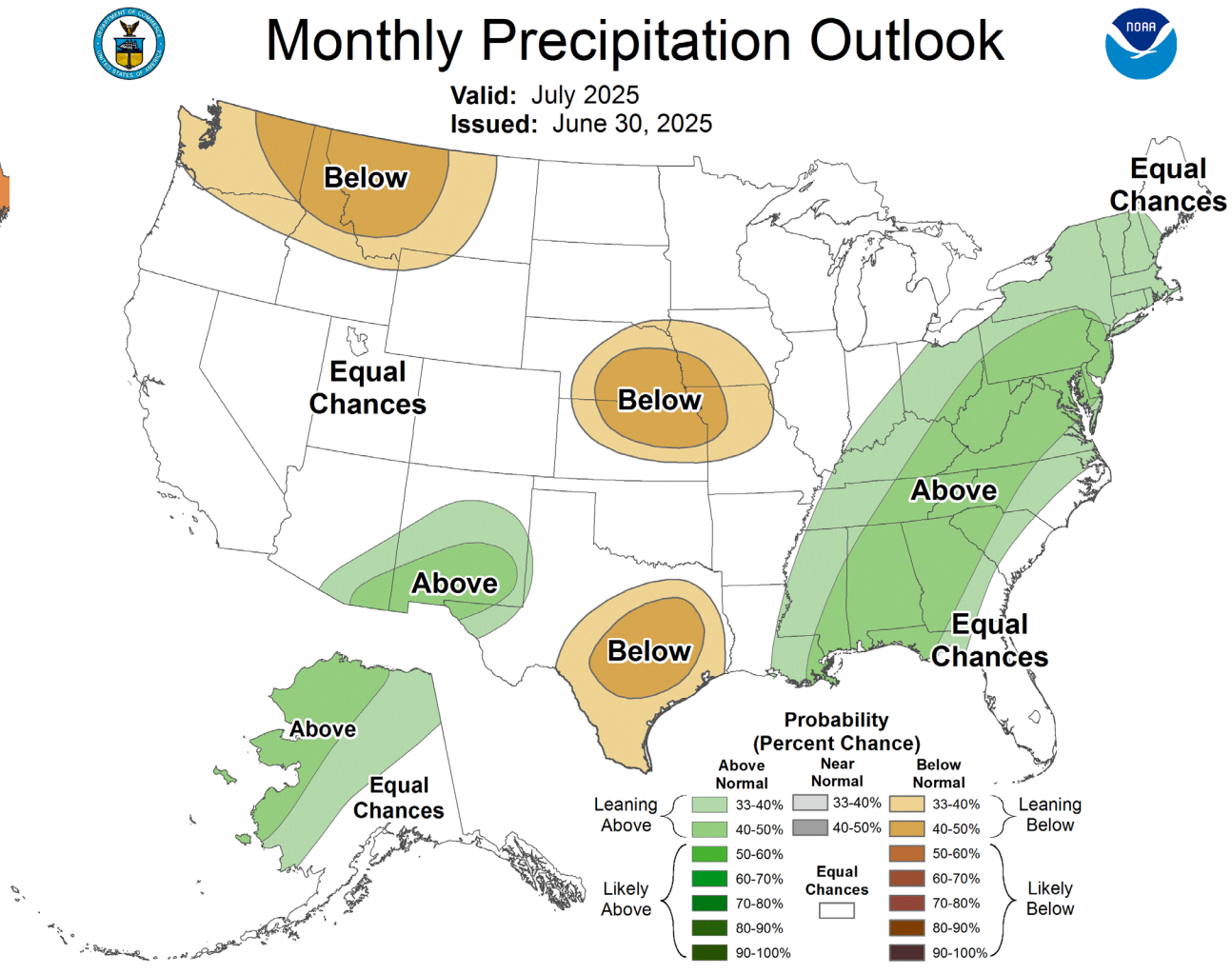


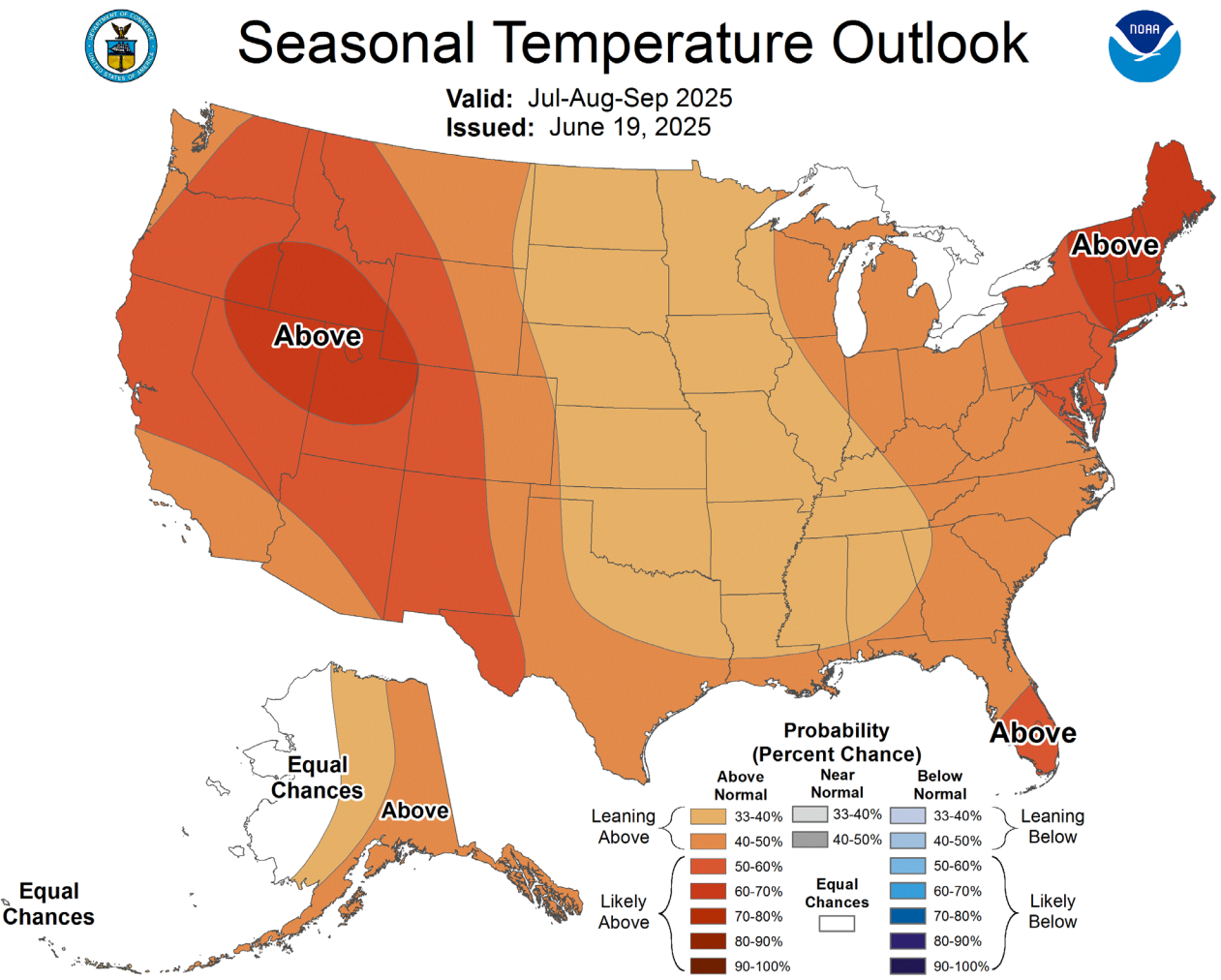
Figure 7. Official ENSO probabilities for the Niño 3.4 sea surface temperature index (5°N-5°S, 120°W-170°W). Figure updated 10 July 2025.

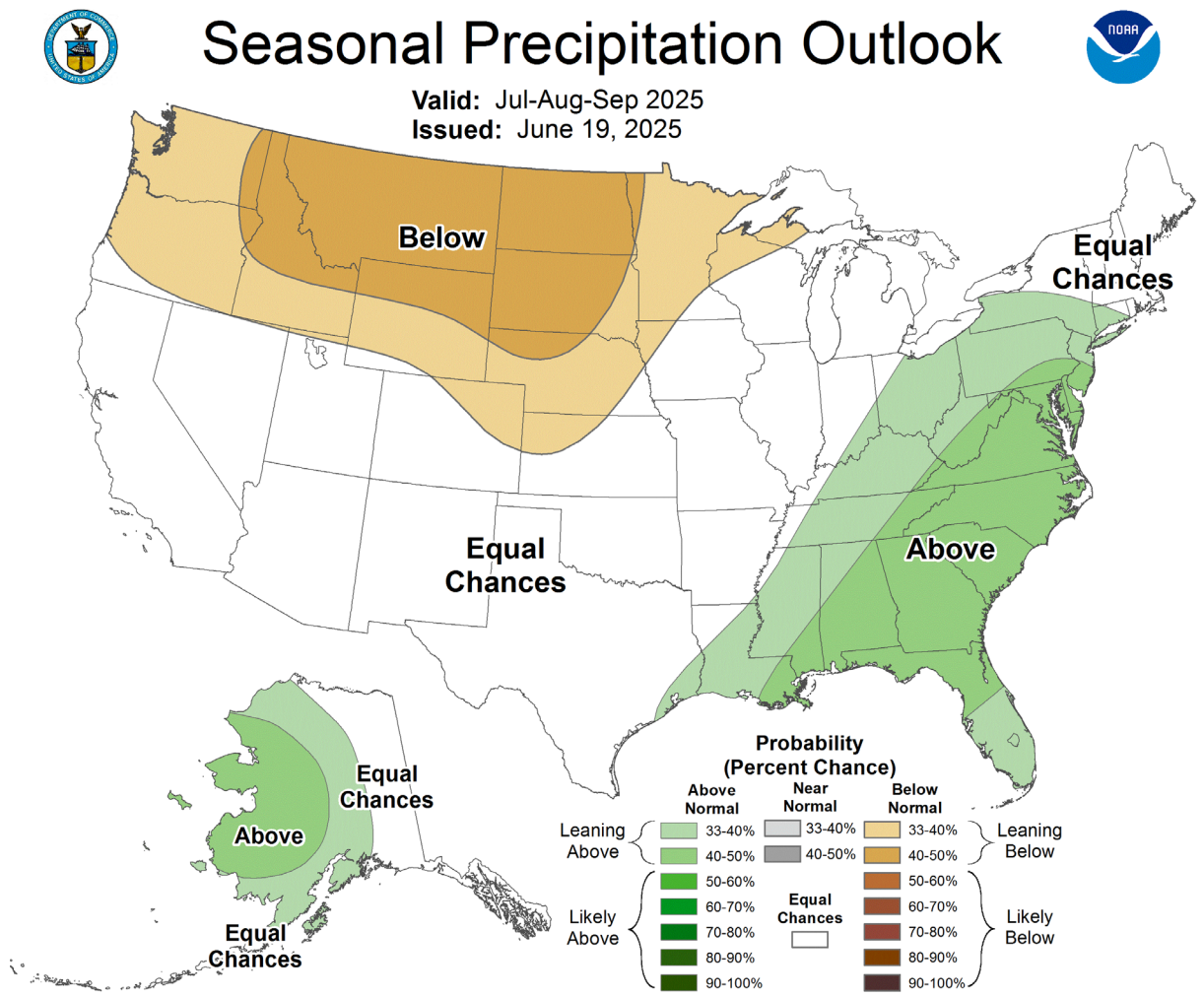
Climate Prediction Center: **July** Outlook





Climate Prediction Center Outlook: **July-Sept**





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

Summary

- Averaged statewide, water year temperatures have been above normal and precipitation has been below normal
  - Regional variations: water year precipitation has been below normal for western WA, including the Cascade Mountains
- Drier than normal conditions have been more widespread across the state since January and conditions have deteriorated rapidly this spring
  - Jan-Jun: 7th driest on record
  - Apr-Jun: 6th driest on record
  - June: 3rd driest on record
- Soils are drying and multi-year precipitation deficits are the worst in the Lower Yakima Basin
- 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 July-August-September period

USGS
science for a changing world

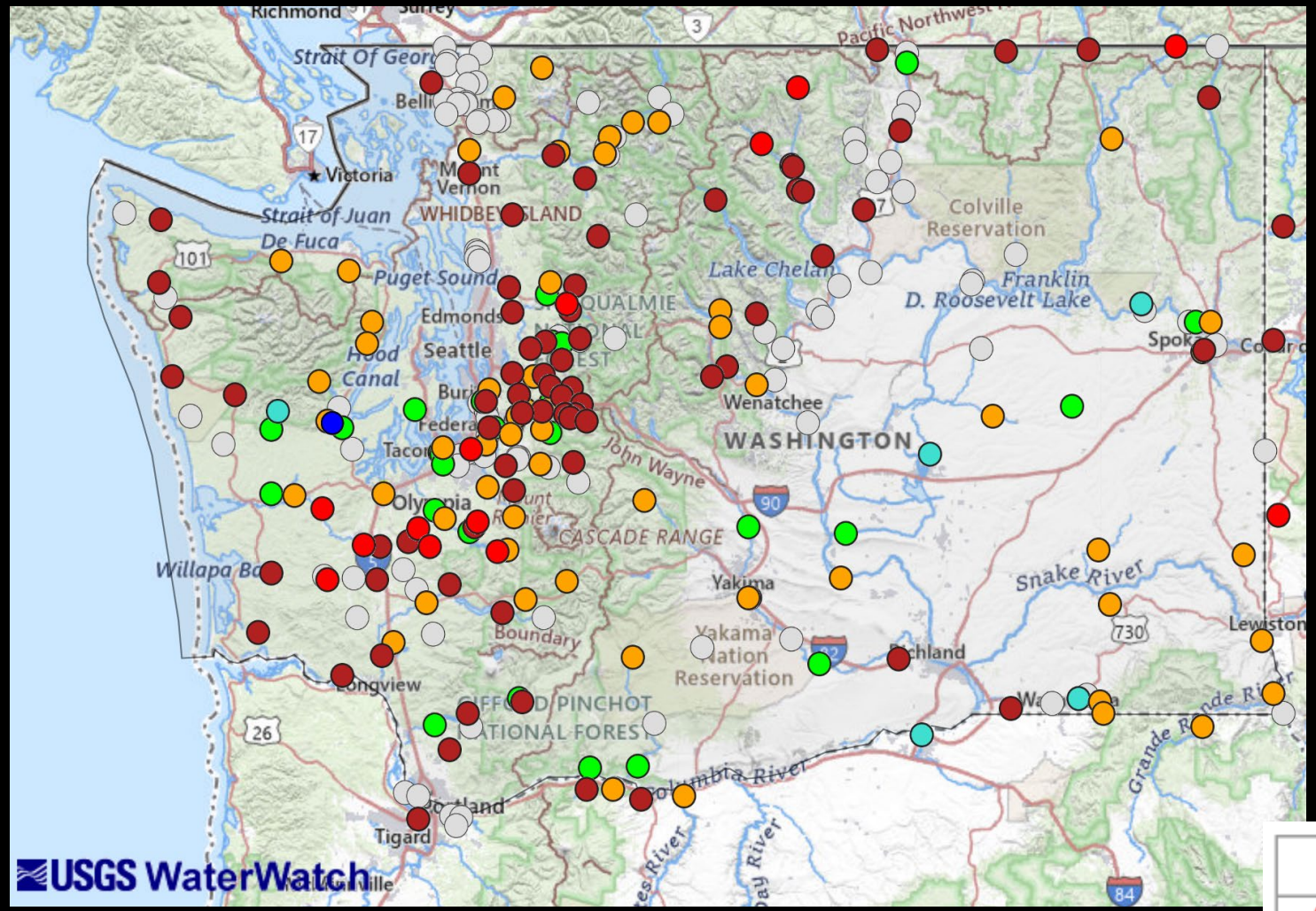
Streamflow & Groundwater Conditions in Washington State as of 9 July 2025

Presented on 10 July 2025
to the Washington Water Supply Availability Committee
by Nicholas Sutfin,
nsutfin@usgs.gov
USGS Washington Water Science Center

Photo by Porsche Kittner: Fred Reed measuring streamflow with an ADCP

7-day Average Streamflow

Conditions as of 9 July 2025



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

WaterWatch is scheduled to be discontinued in 2026

Explanation - Percentile classes							
Record Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	Record High	Not-ranked

https://waterwatch.usgs.gov/index.php?id=pa07d&sid=w__gmap&r=wa

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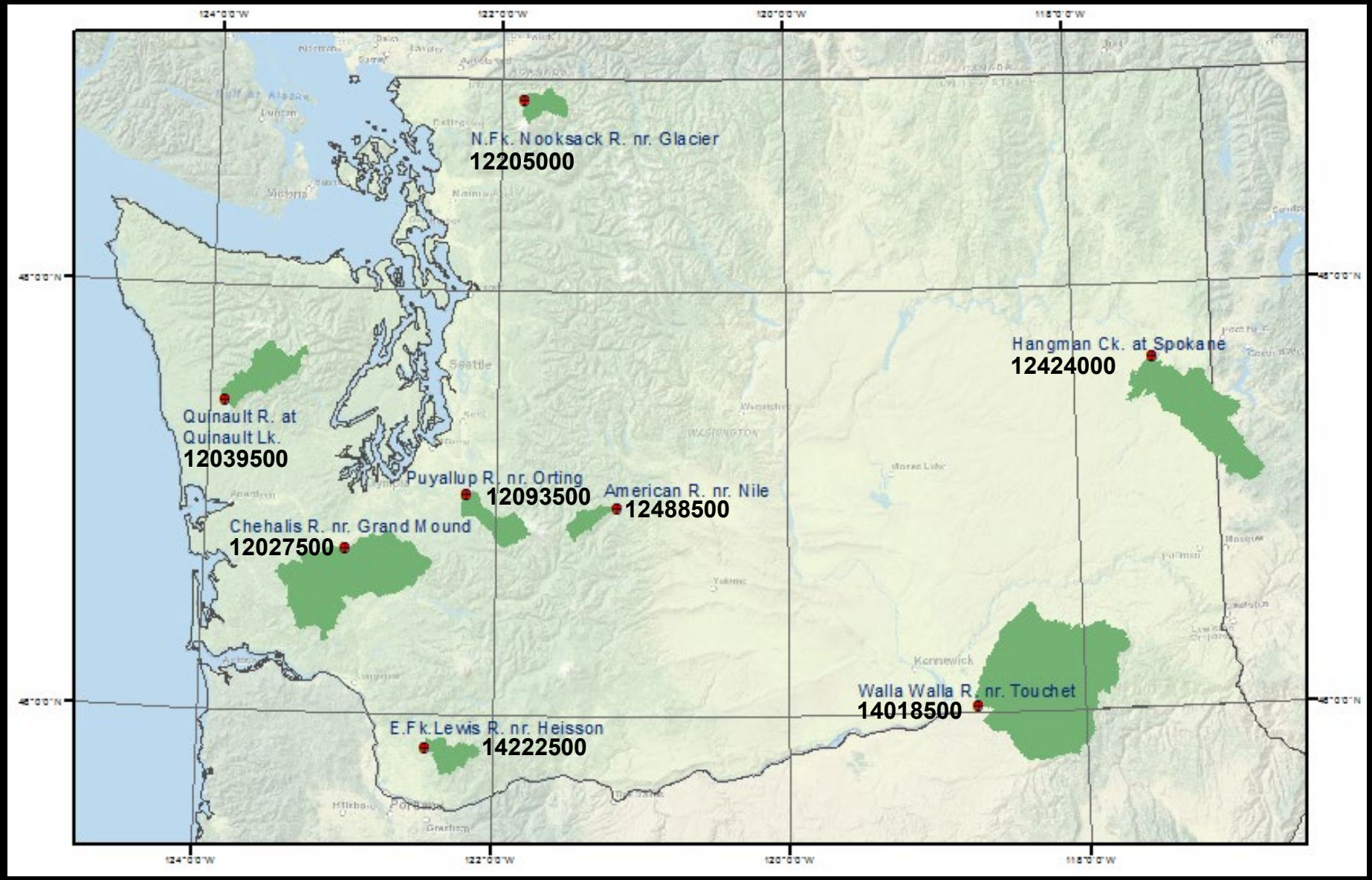
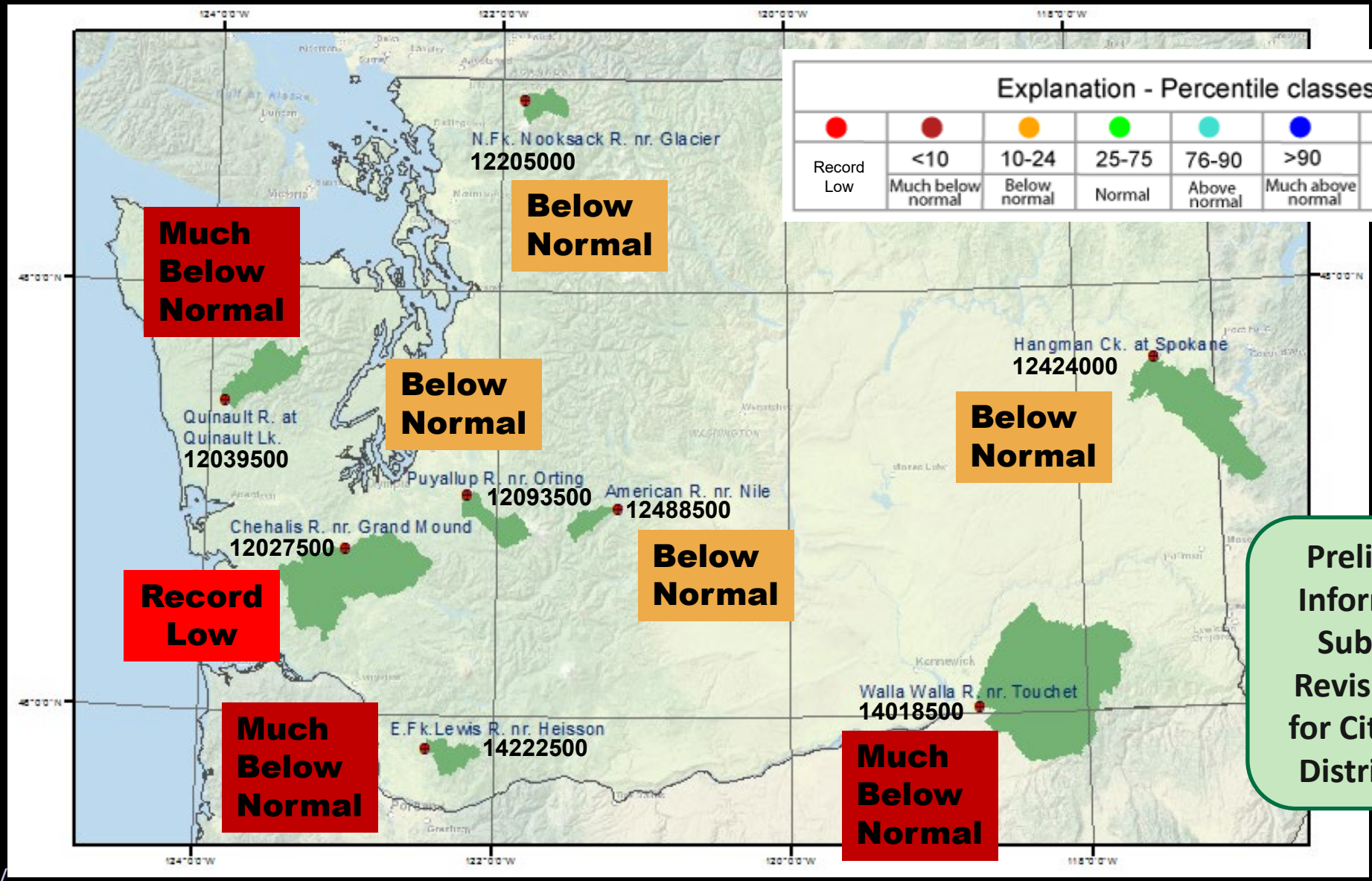
Index Gaging Stations

(Stations that measure natural or near-natural streamflow)



Index Gaging Stations

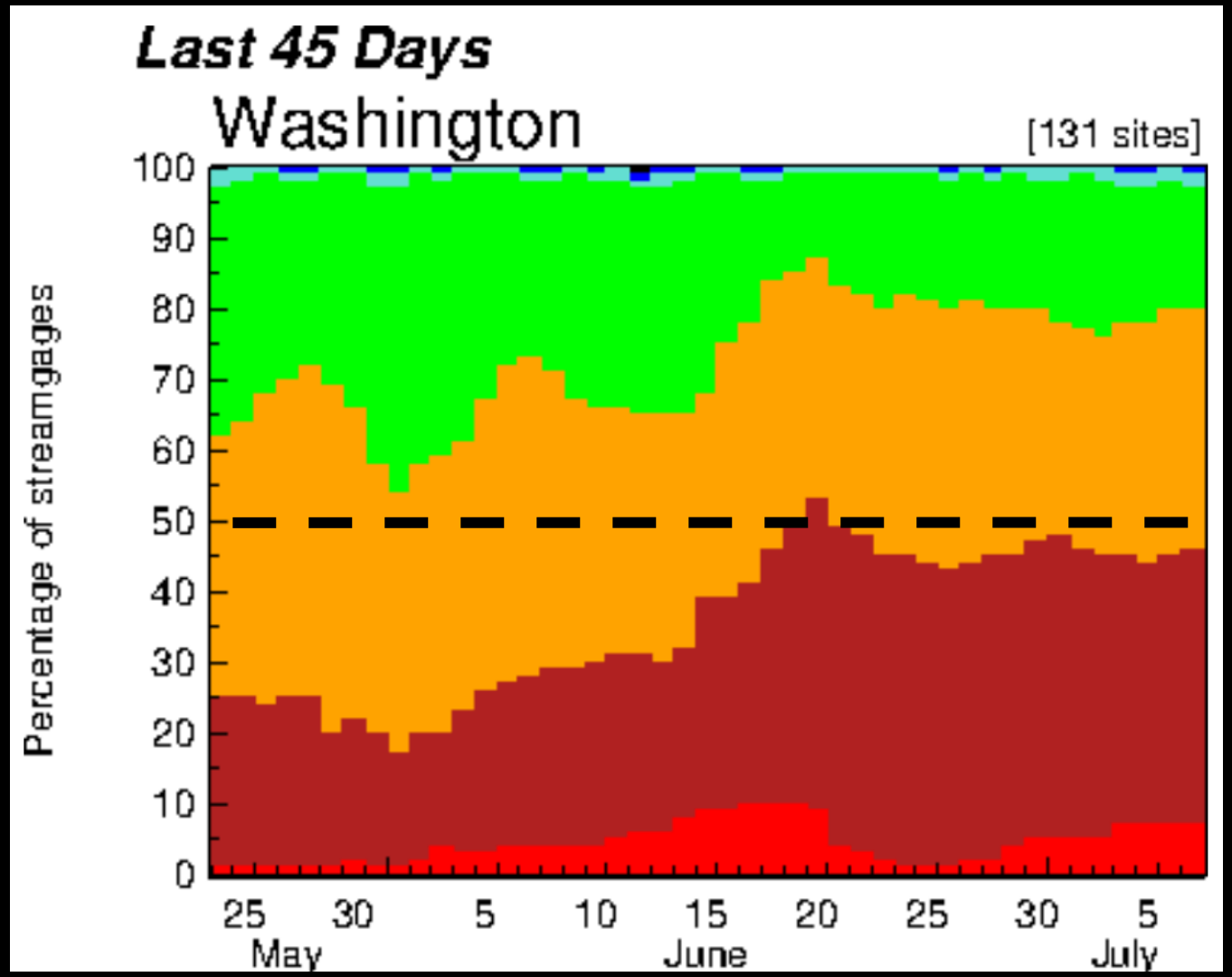
7-day average streamflow as of 9 July 2025



https://waterwatch.usgs.gov/

7-day average streamflow

Most USGS stream gages **below normal** as of 9 July 2025



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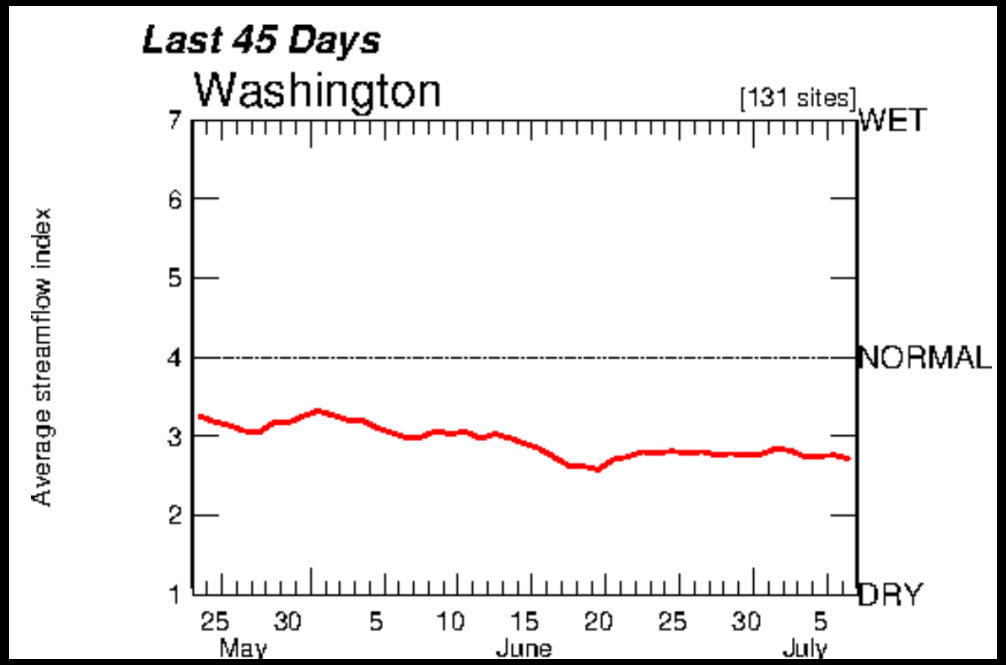

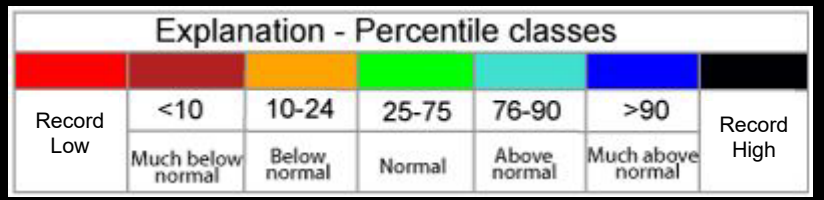

https://waterwatch.usgs.gov/

USGS
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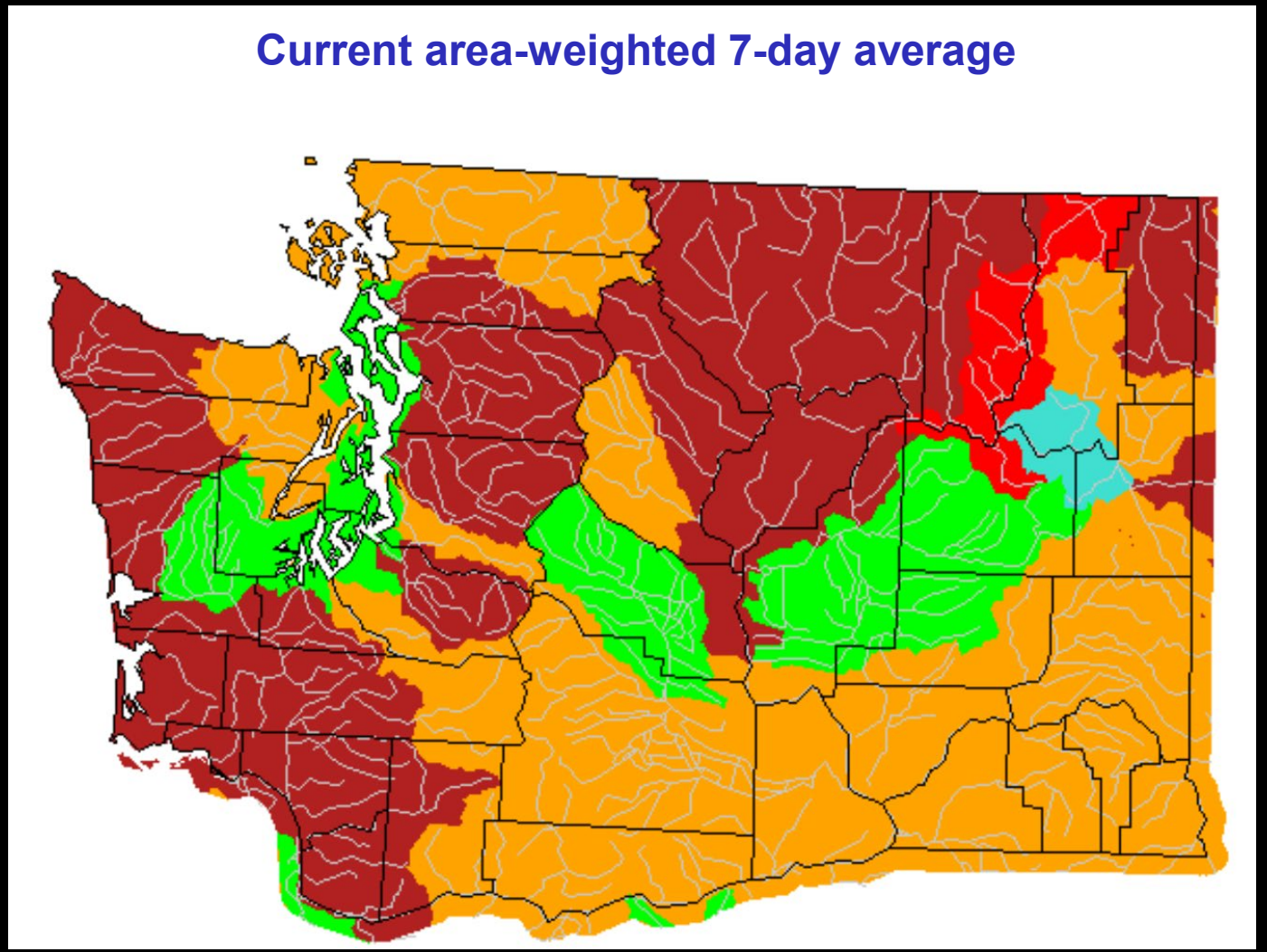
Average streamflow
compared to historical streamflow

Current area-weighted 7-day average



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

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

https://waterwatch.usgs.gov/

USGS
science for a changing world

Monthly average streamflow

compared to historical streamflow

Explanation - Percentile classes						
Record Low	<10	10-24	25-75	76-90	>90	Record High
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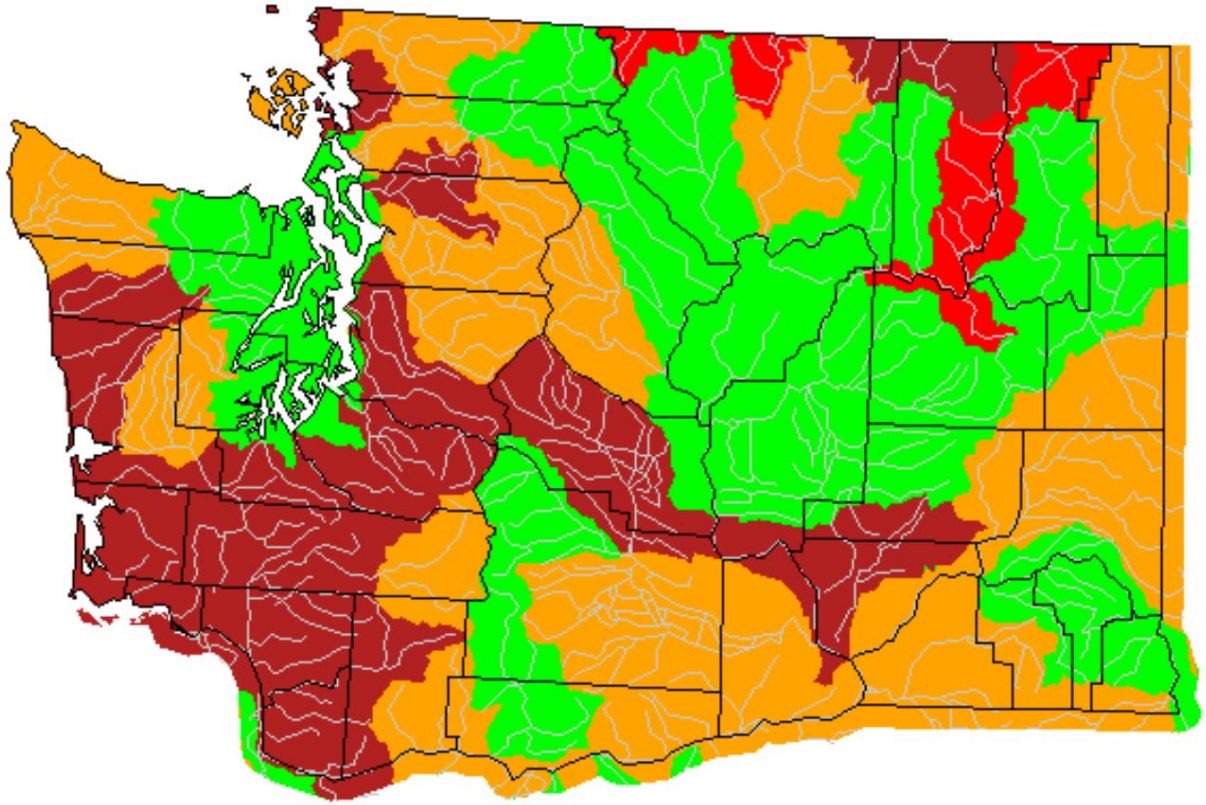
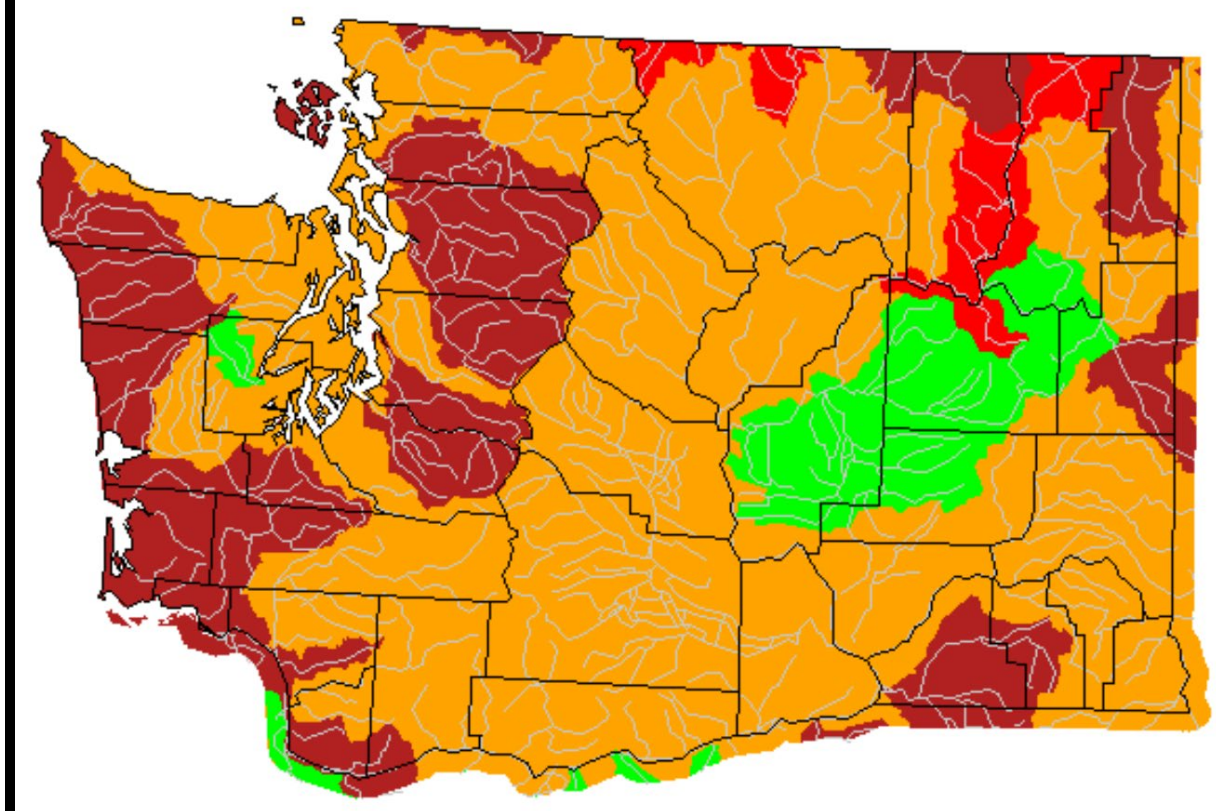
May 2025



June 2025



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

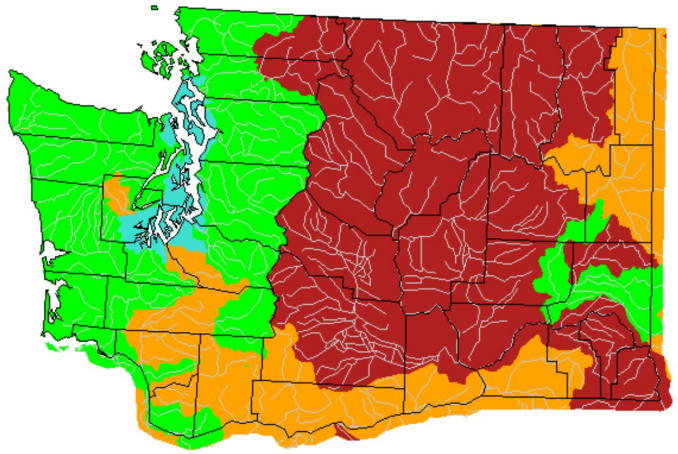
https://waterwatch.usgs.gov/

USGS
science for a changing world

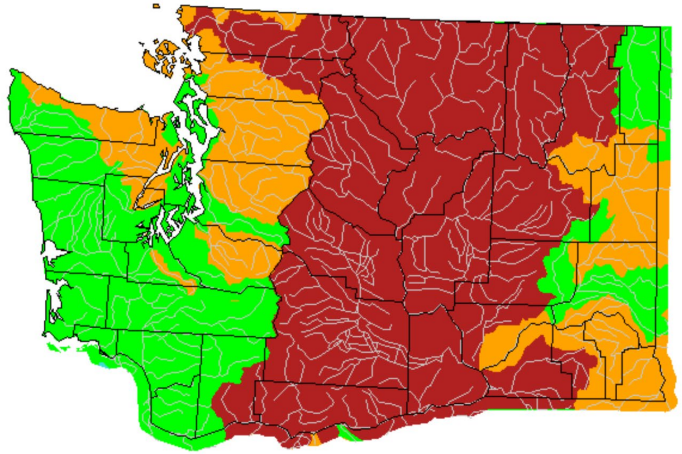
Monthly average streamflow

compared to historical streamflow

June 2001



June 2005



Explanation - Percentile classes						
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https://waterwatch.usgs.gov/

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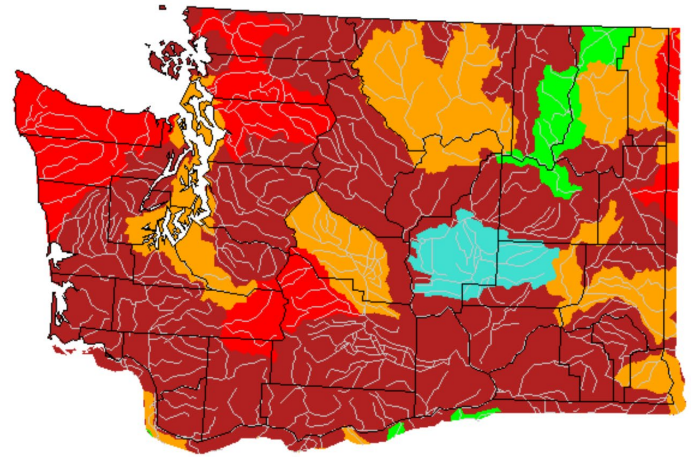
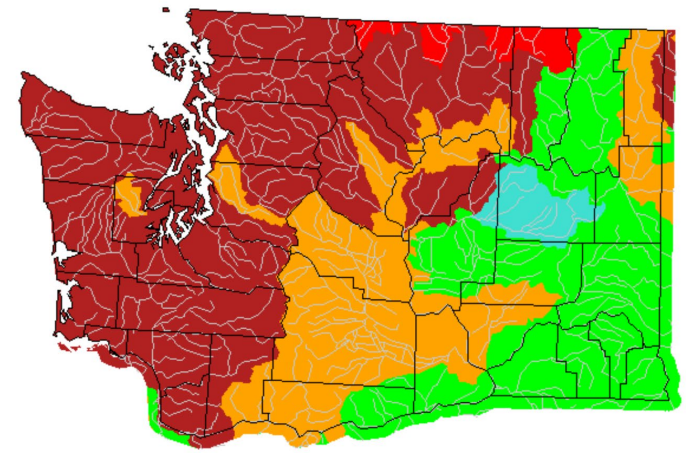
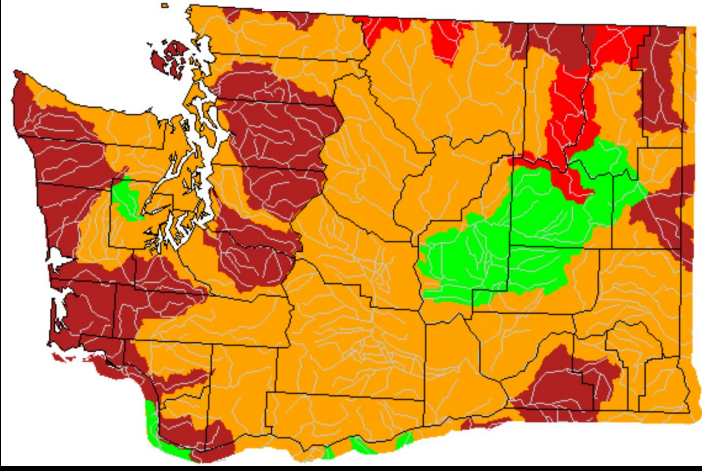
June 2015



June 2019

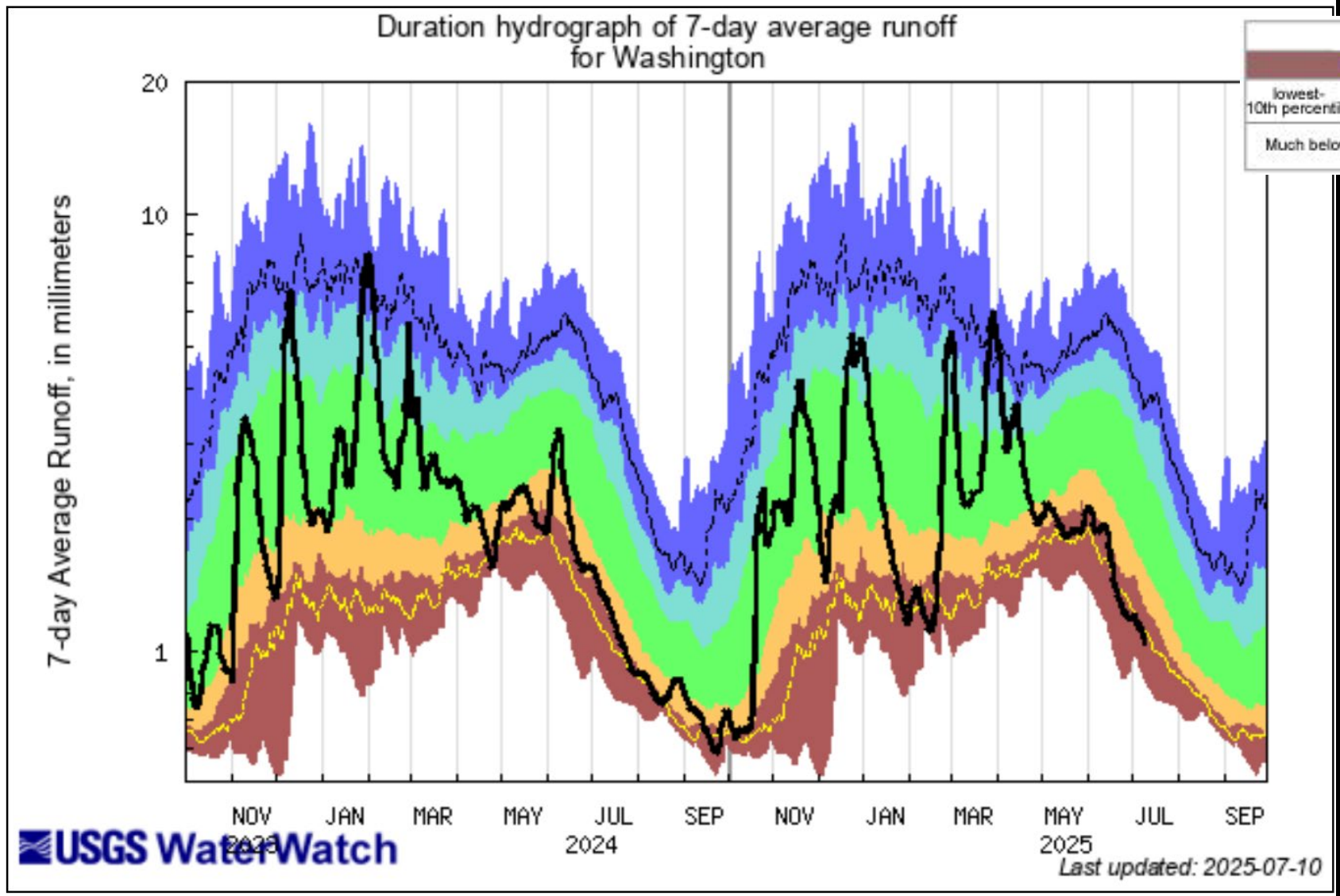


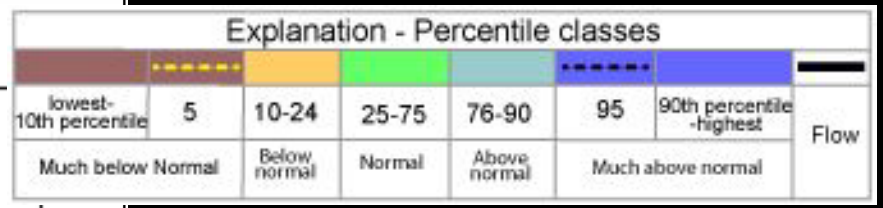
June 2025



Area-Based Runoff Duration Hydrograph

7-day average streamflow





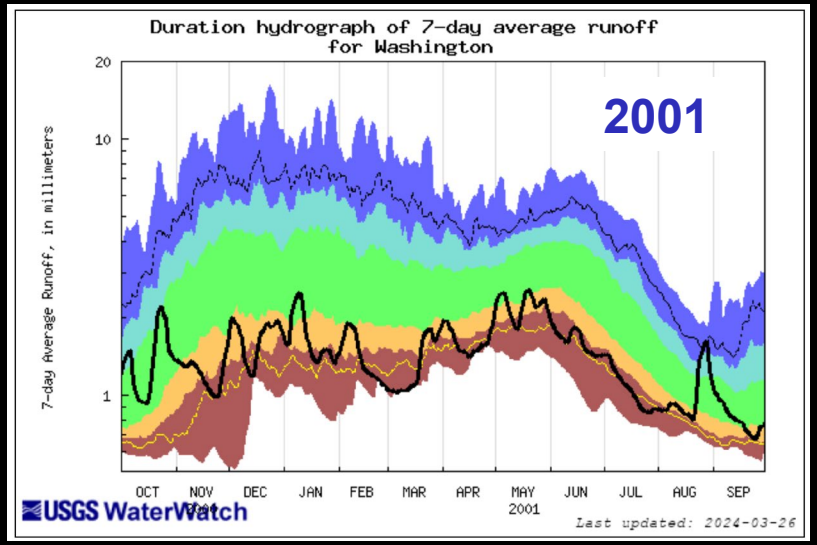
Preliminary Information- Subject to Revision. Not for Citation or Distribution.

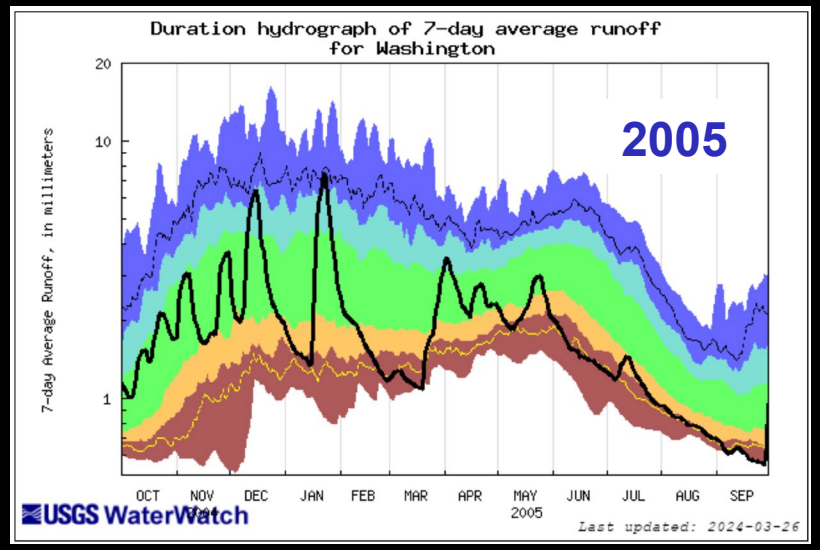
For some streams, flow statistics may have been computed from mixed regulated and unregulated flows; this can affect depictions of flow conditions.

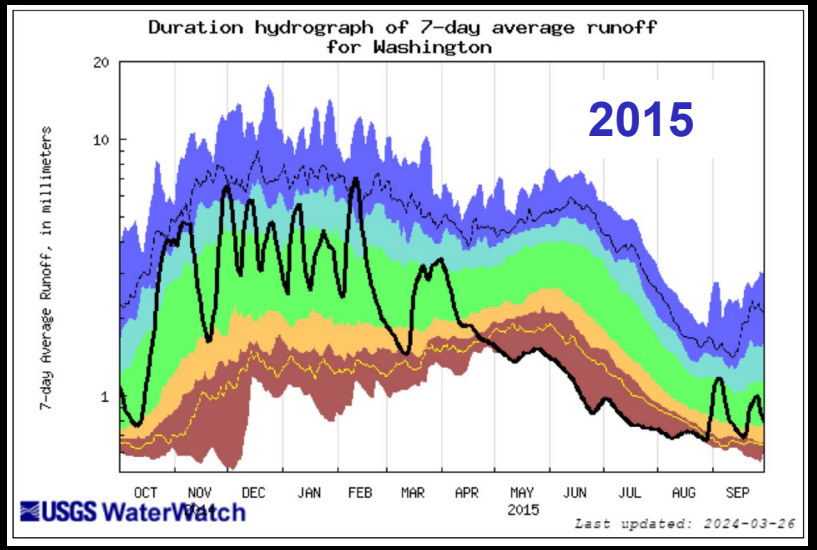
https://waterwatch.usgs.gov/

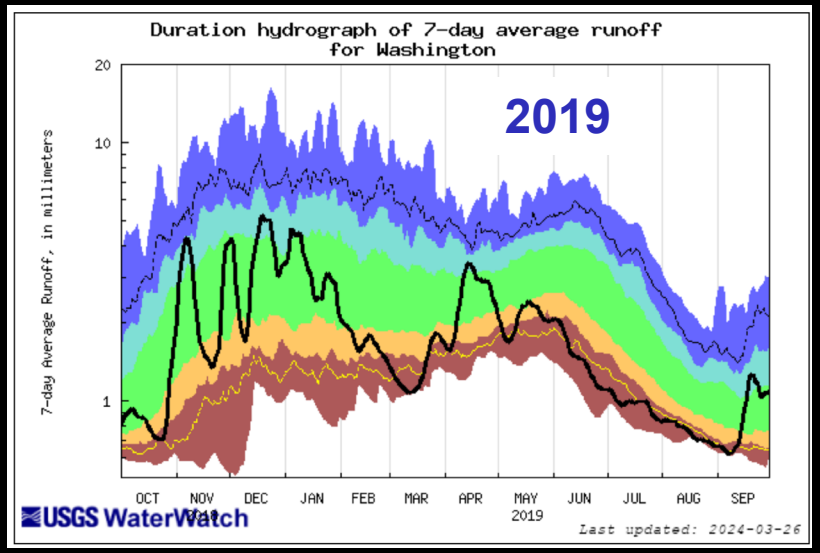
Area-Based Runoff Duration Hydrograph

7-day average streamflow

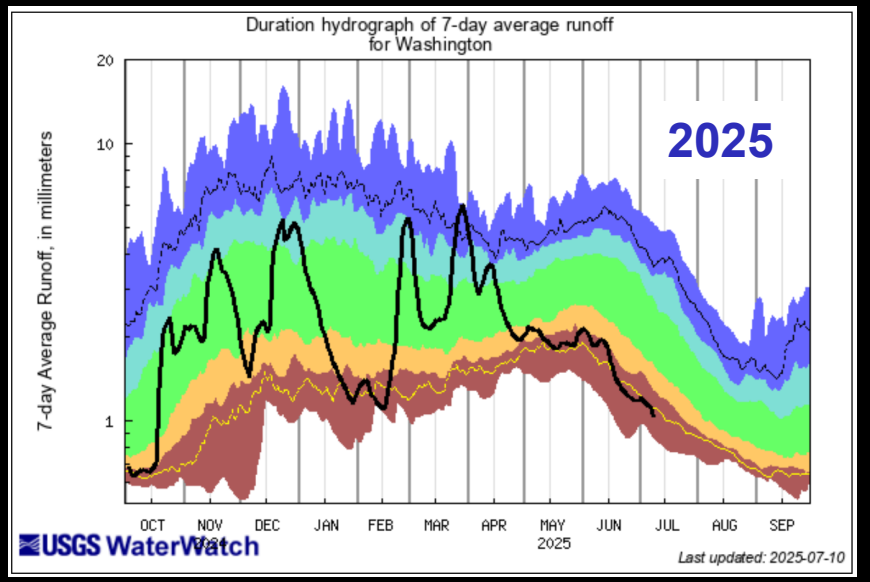


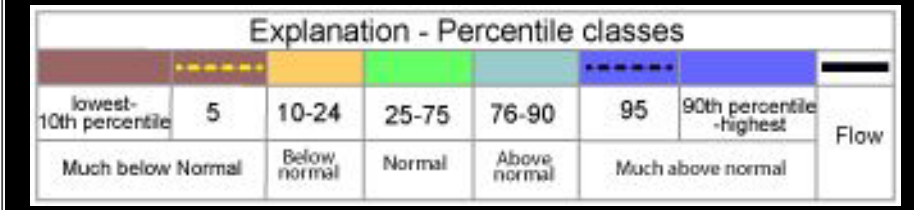






Duration hydrograph for the year compared to recent years of drought





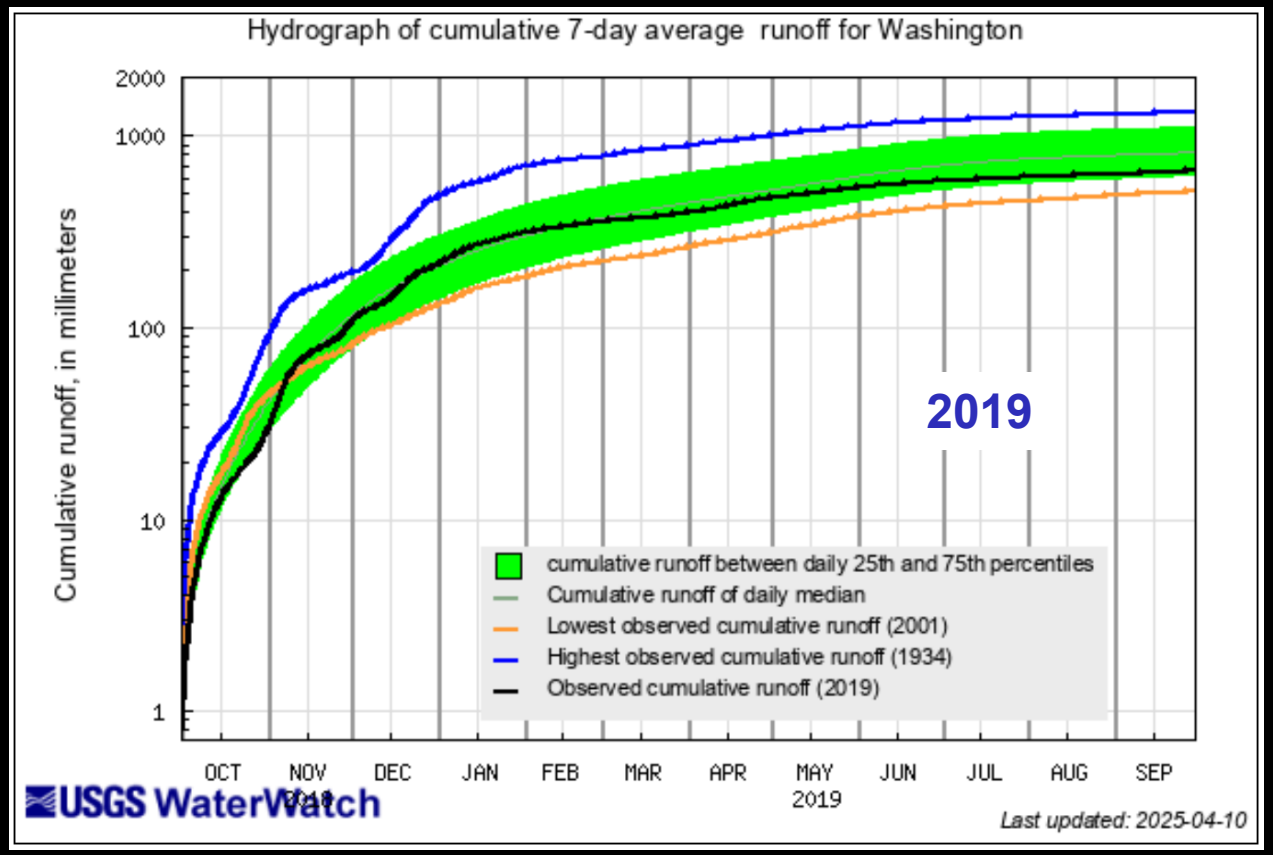
Preliminary Information-Subject to Revision. Not for Citation or Distribution.

https://waterwatch.usgs.gov/

Cumulative runoff hydrograph

Area-based runoff based on 7-day average

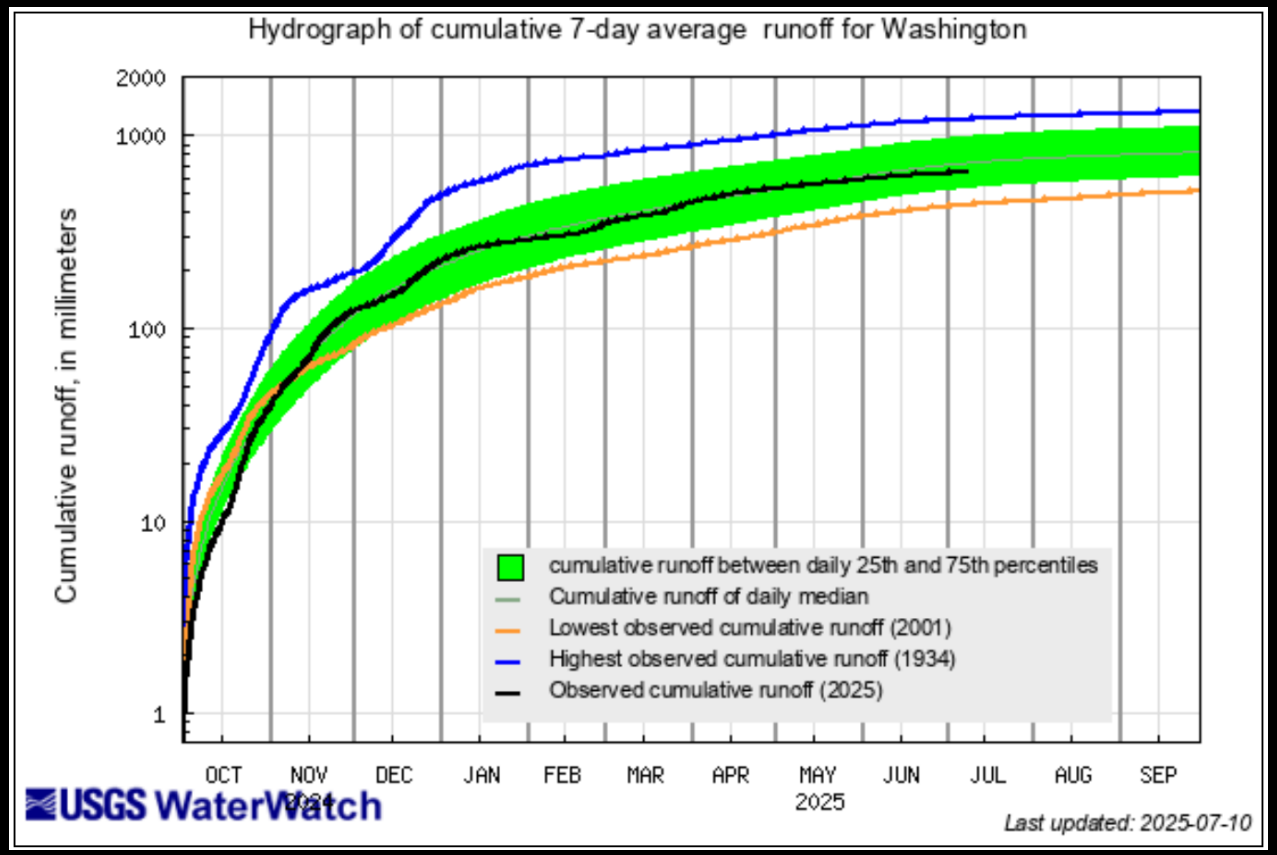
Normal for 2025 water year as of 10 July



2024 water year

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

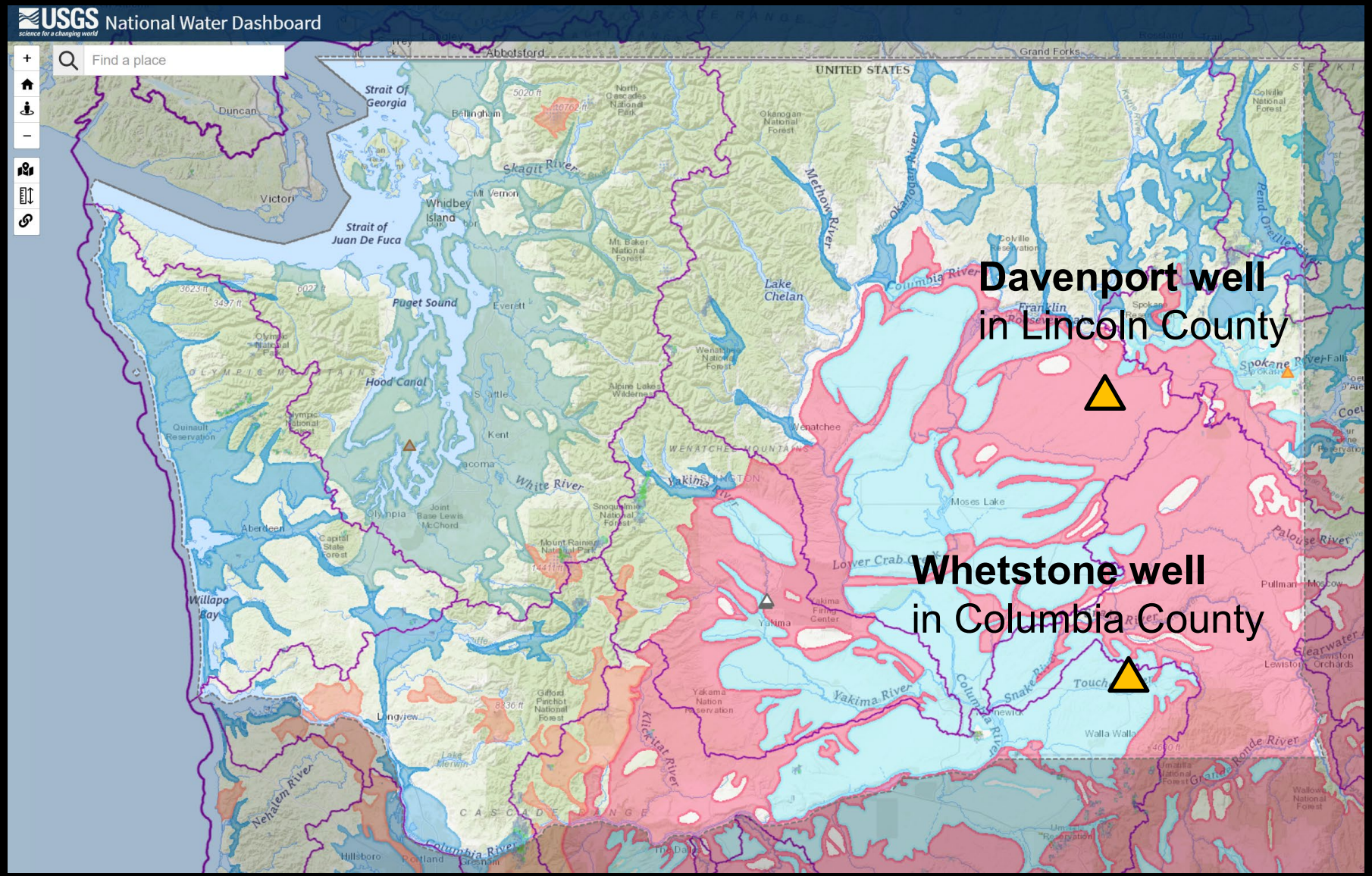
https://waterwatch.usgs.gov/



2025 water year

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

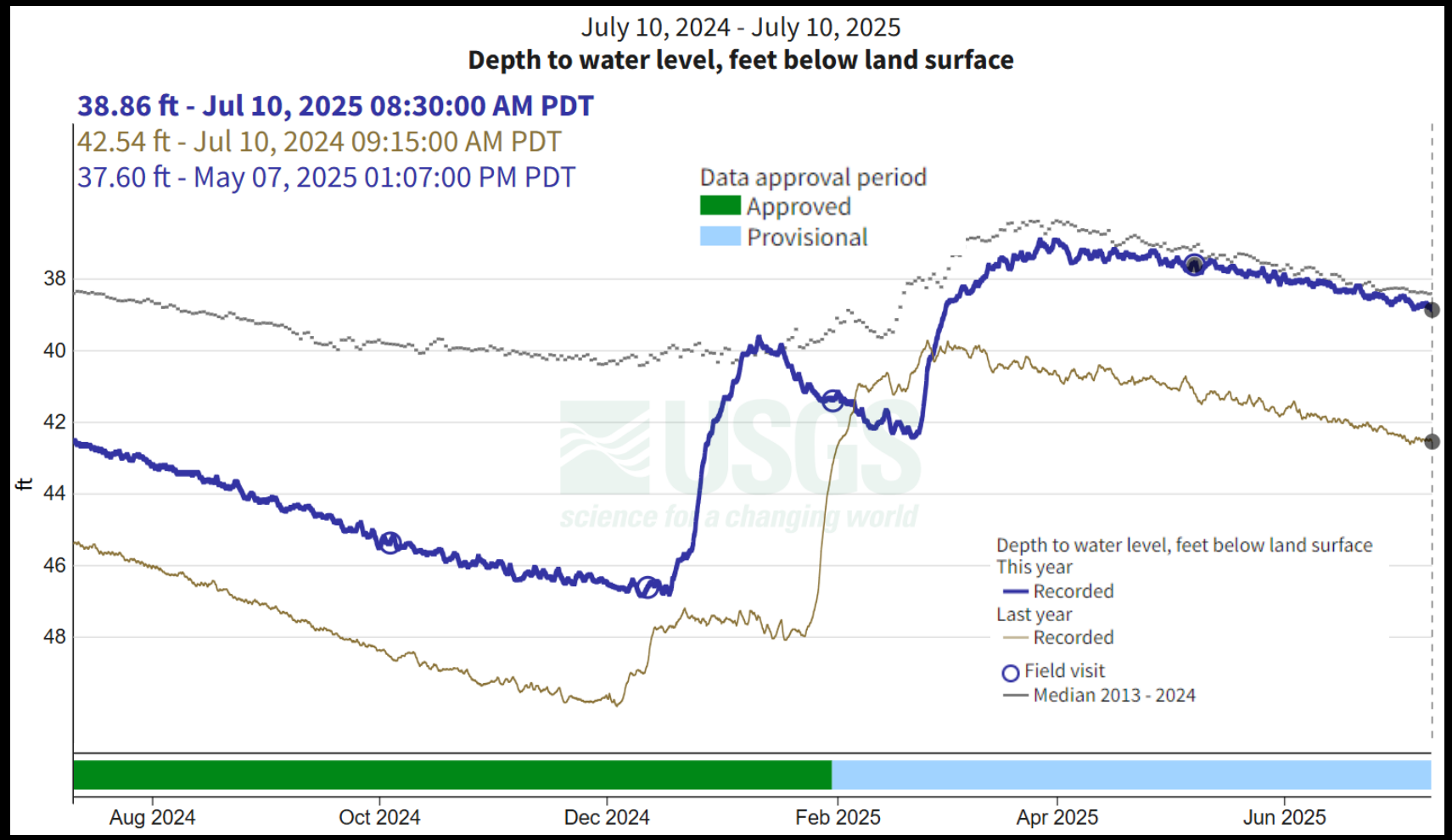
Two reference groundwater wells



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

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

Davenport Well Groundwater Conditions



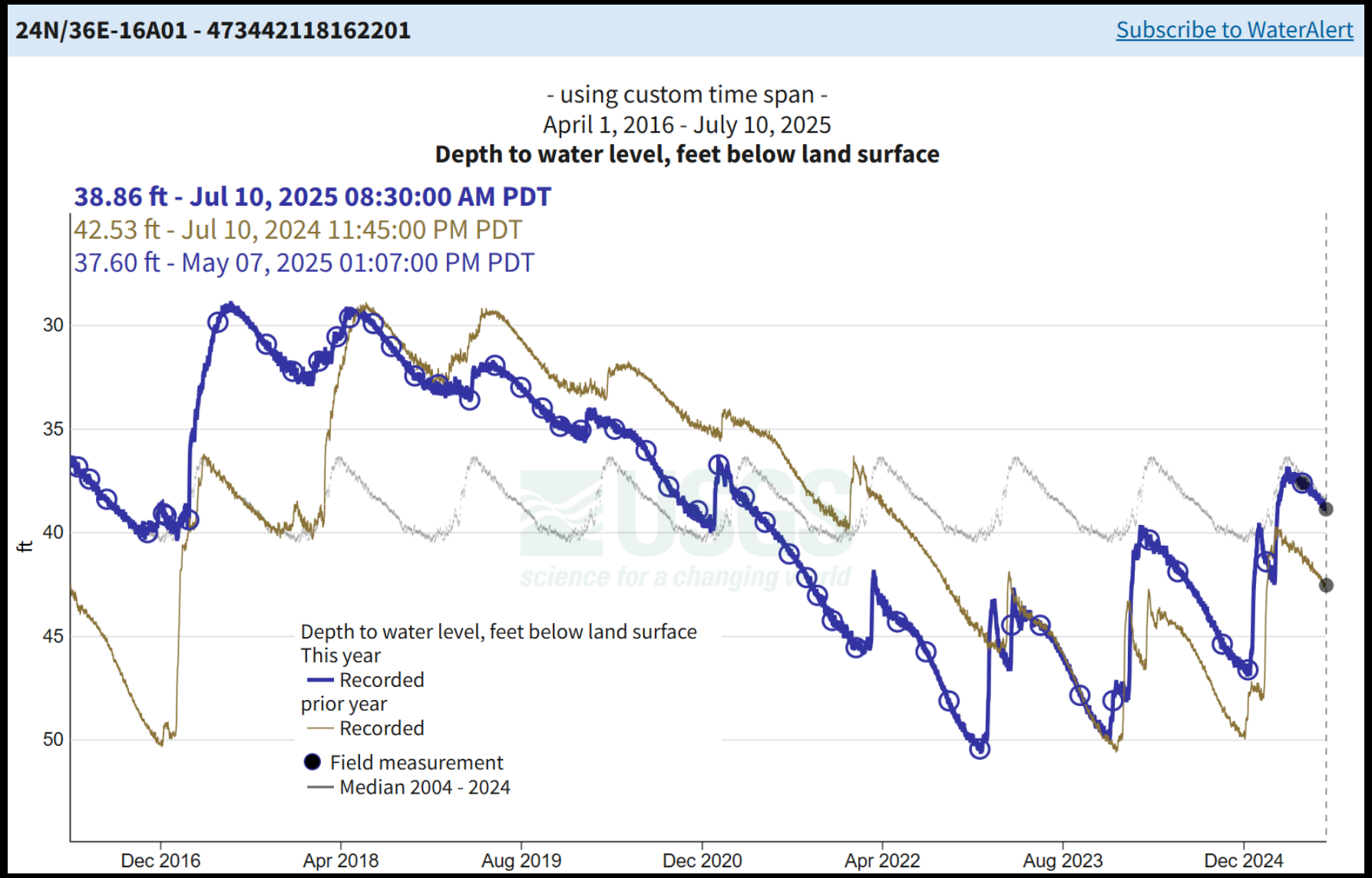
Davenport well

Well Details

- Lincoln County
- 117-ft deep
- Wanapum Basalt

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

Davenport Well Groundwater Conditions



Well Details

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- Wanapum Basalt

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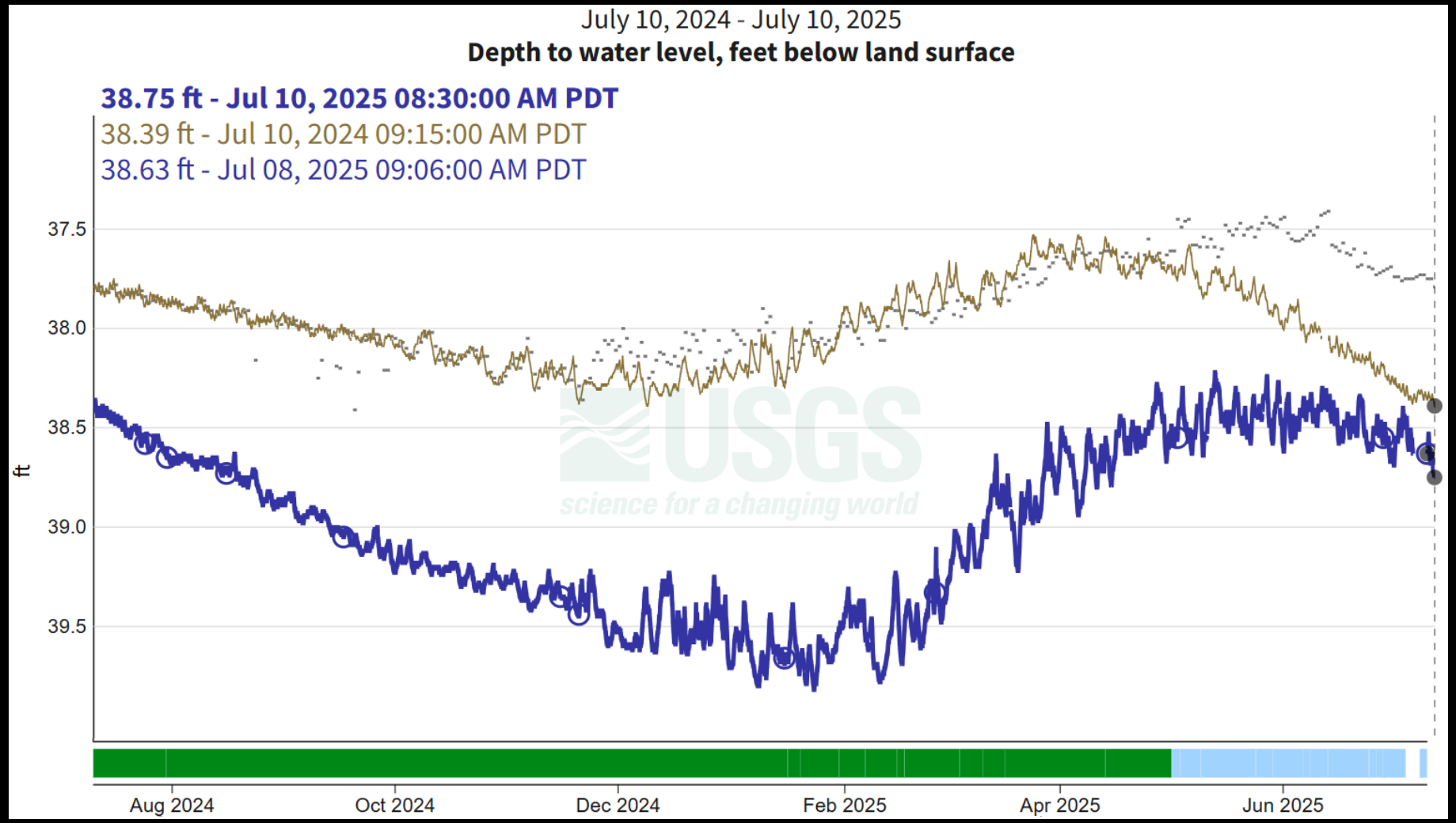
https://dashboard.waterdata.usgs.gov/app/nwd/en/?aoi=state-wa

Whetstone Well Groundwater Conditions



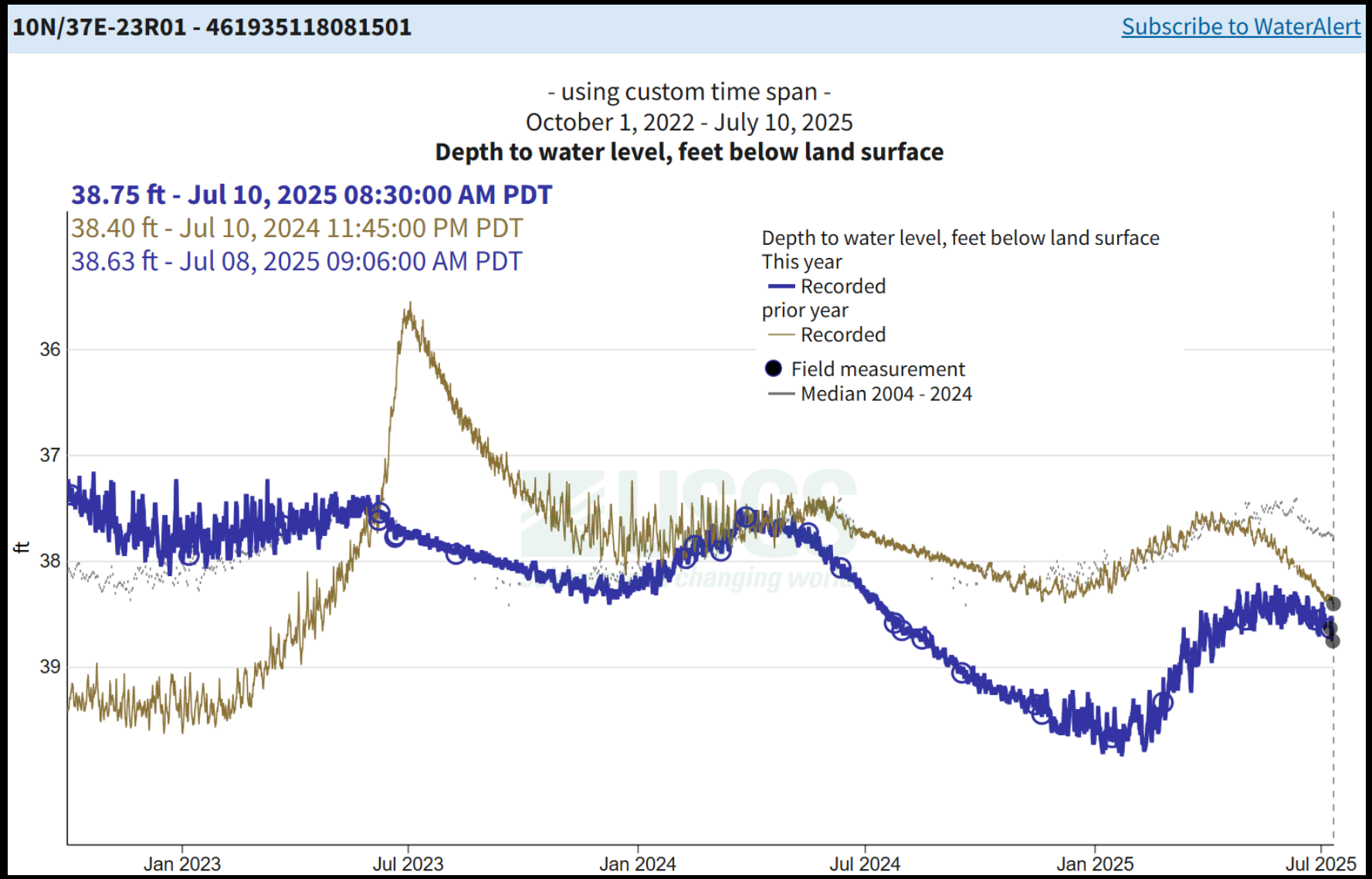
Whetstone well

Well Details:

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

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

Whetstone Well Groundwater Conditions



Well Details:

- Columbia County near Waitsburg
- 172.5-ft deep
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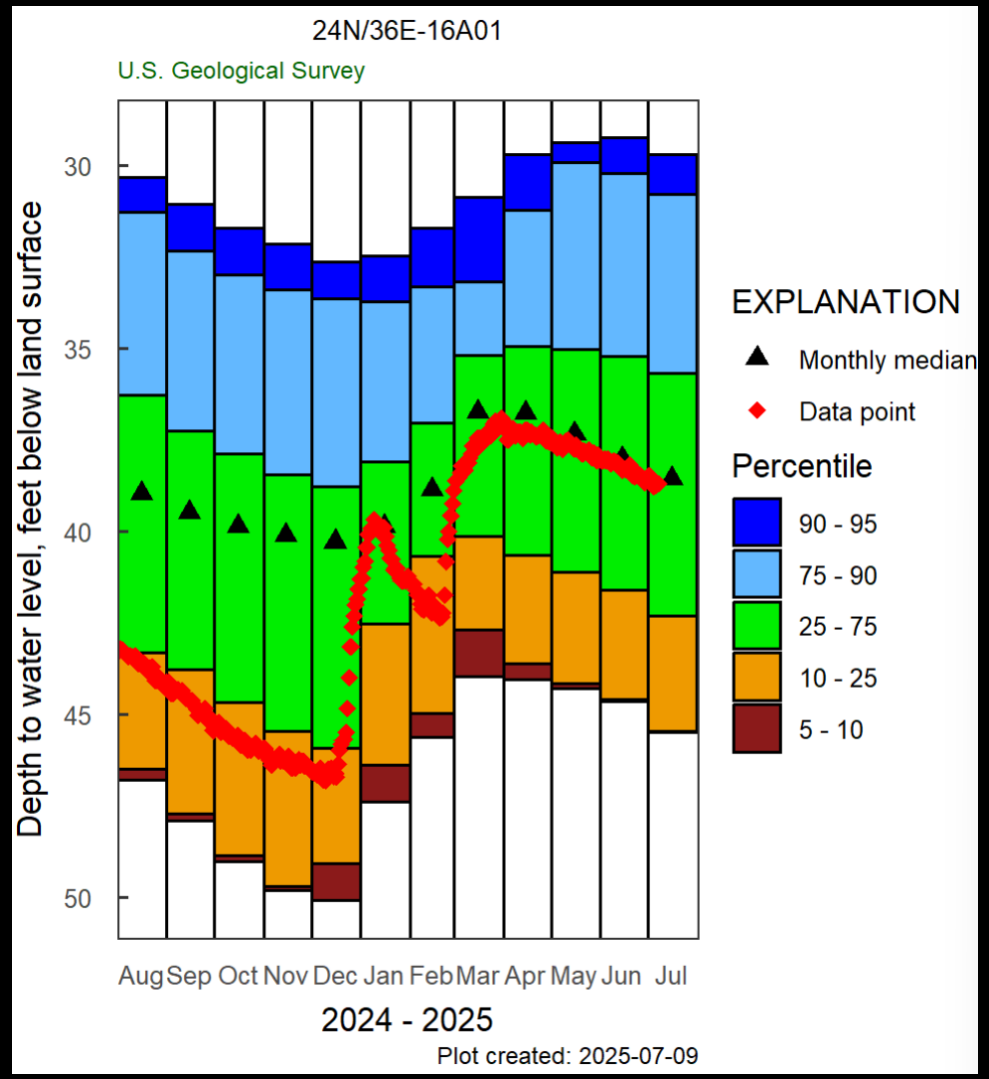
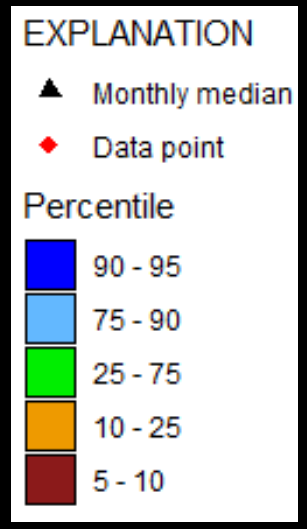
https://dashboard.waterdata.usgs.gov/app/nwd/en/?aoi=state-wa

Groundwater Conditions

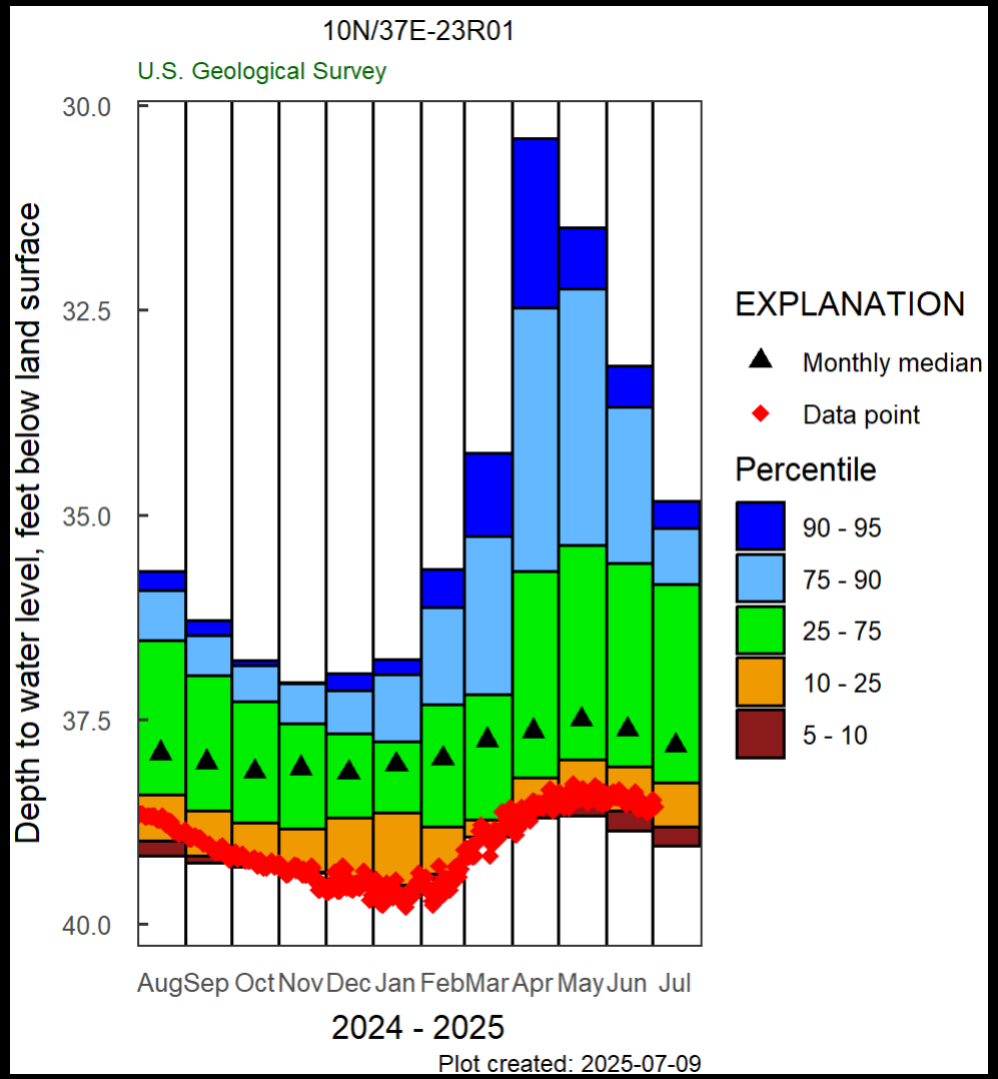
Davenport well





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

Whetstone well



Summary of Washington Streamflow and Groundwater Conditions as of 10 July 2025

7-day average streamflow at eight index gaging stations:

Below Normal

- Nooksack River
- Puyallup River nr. Orting
- American River
- Hangman Creek

Much Below Normal

- Quinault River
- Chehalis River nr. Grand Mound (record low)
- EF Lewis River
- Walla Walla River

Monthly average groundwater conditions:

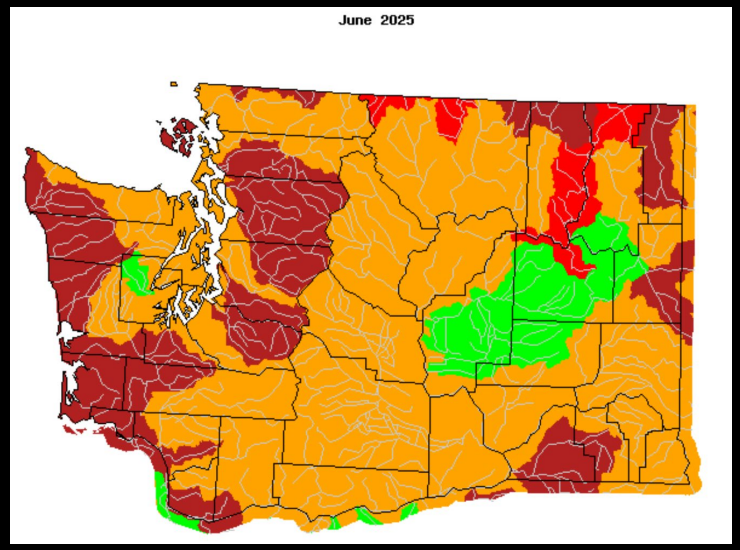
- Davenport well
  - Normal
- Whetstone well
  - Below normal

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

Summary of Washington Streamflow and Groundwater Conditions as of 10 July 2025

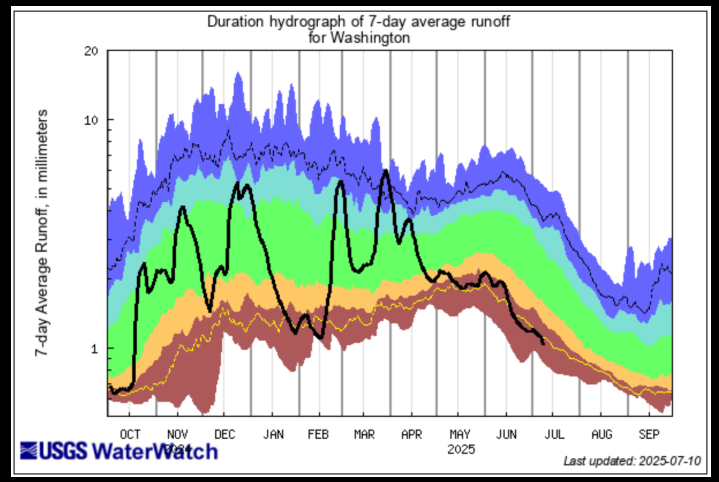
Monthly average area-based runoff in June below normal

- Record lows in Roosevelt Lake and Similkameen
- Much below normal in the southeastern WA and
  - Hoh/Quillayute
  - Queets/Quinault
  - Chehalis
  - Stillaguamish
  - South and parts of Central Puget Sound
  - Walla Walla



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

- Typical for June in past drought years



Cumulative Runoff

- Normal for water year 2025

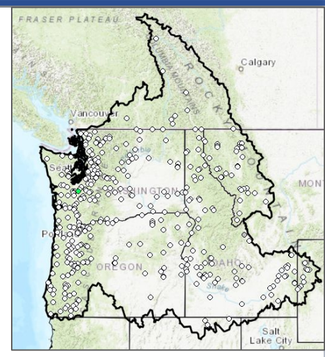
Preliminary Information-Subject to Revision. Not for Citation or Distribution.

NWS

July 2025 Washington Water Supply

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

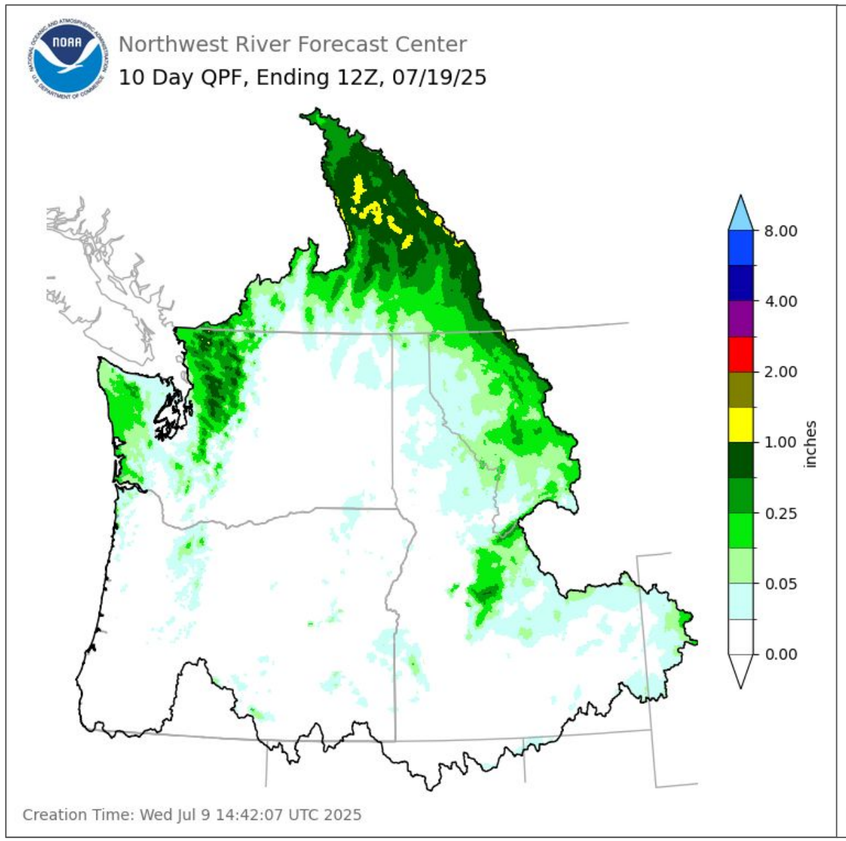
Brent Bower, Sr Service Hydrologist Seattle
Tanja Fransen, Meteorologist In Charge Portland
Charlotte Dewey, Warning Coordination Meteorologist Spokane
George Perry, Service Hydrologist Pendleton Pendleton

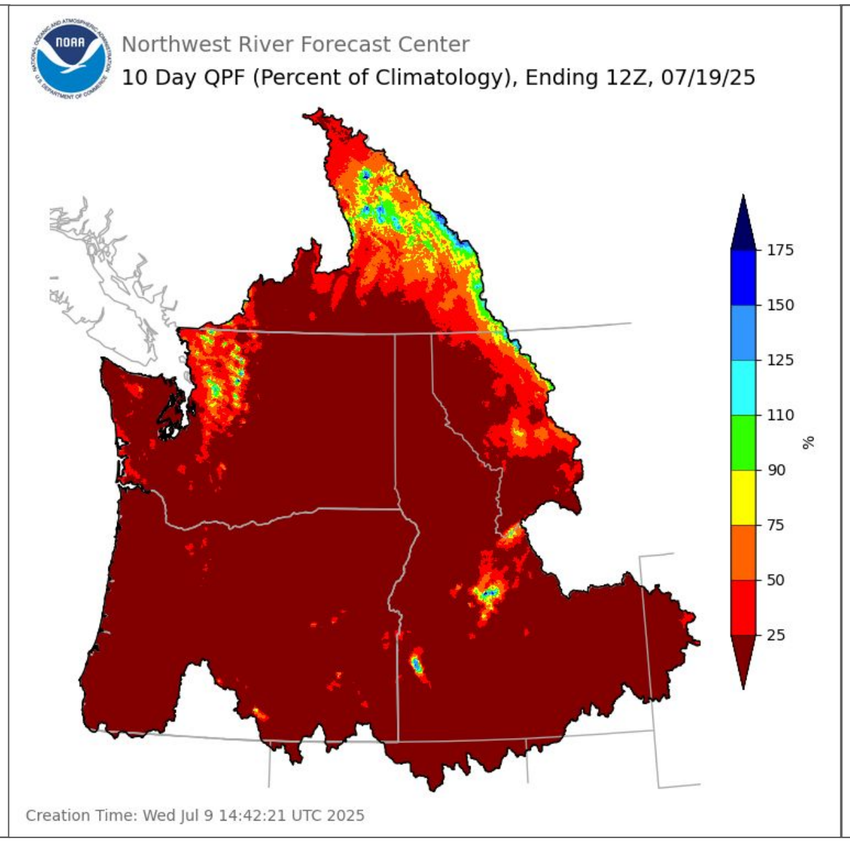


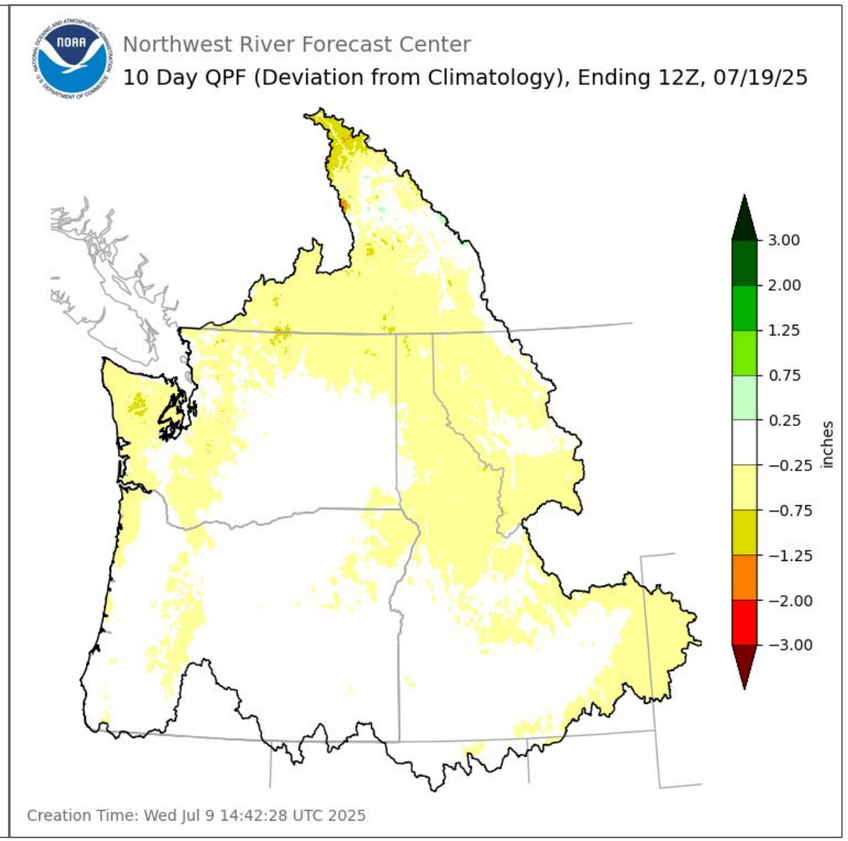
Washington State - Areas of Responsibility

- 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



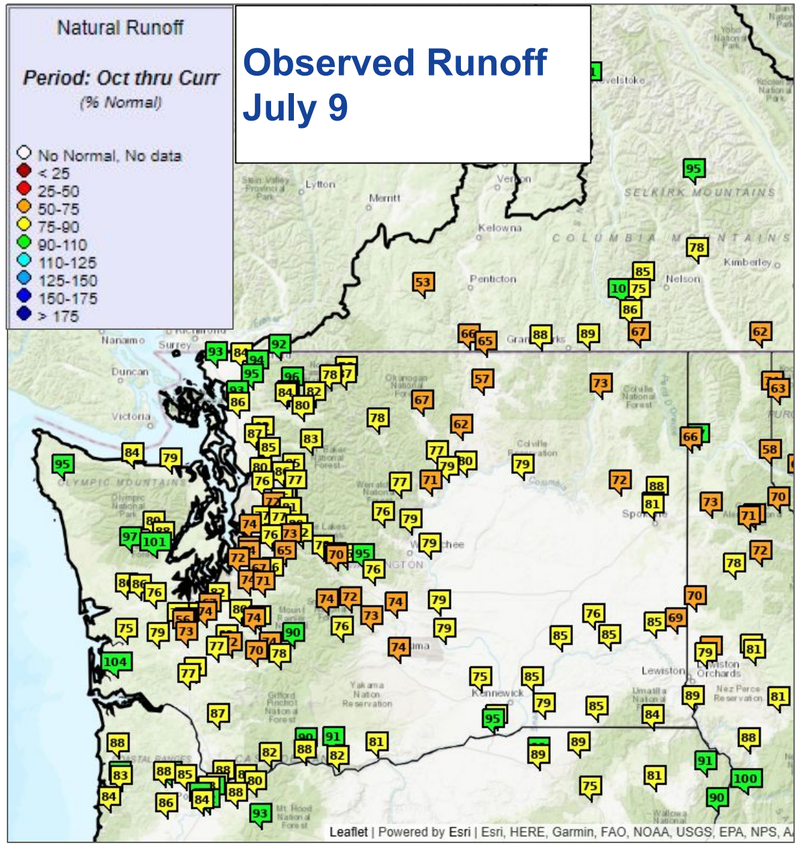


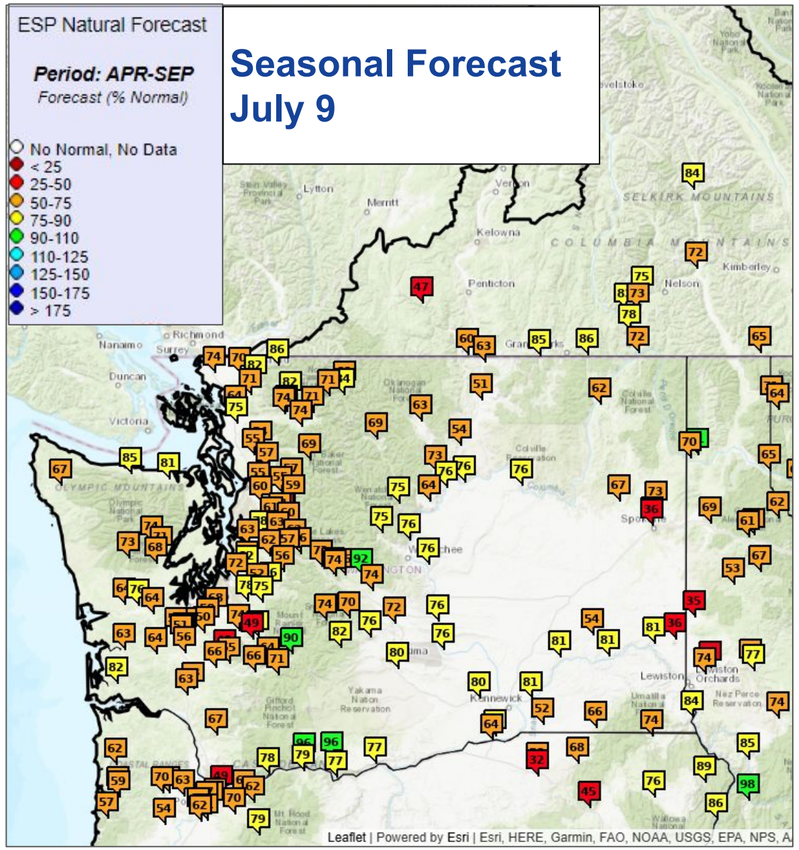


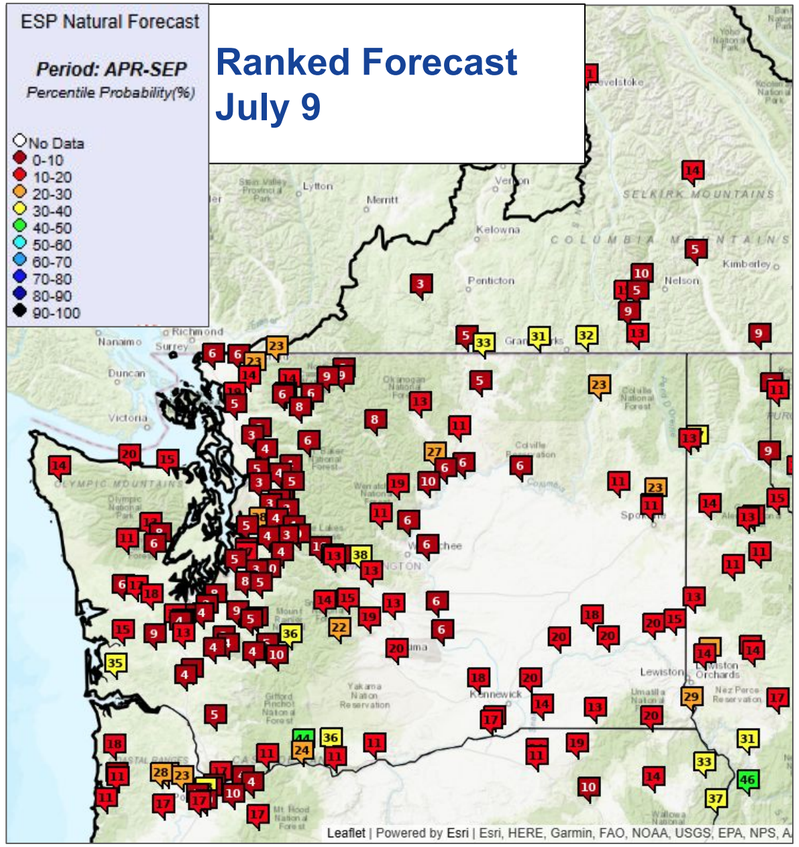
Quantitative Precipitation Forecast (QPF) Sources:

- 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).

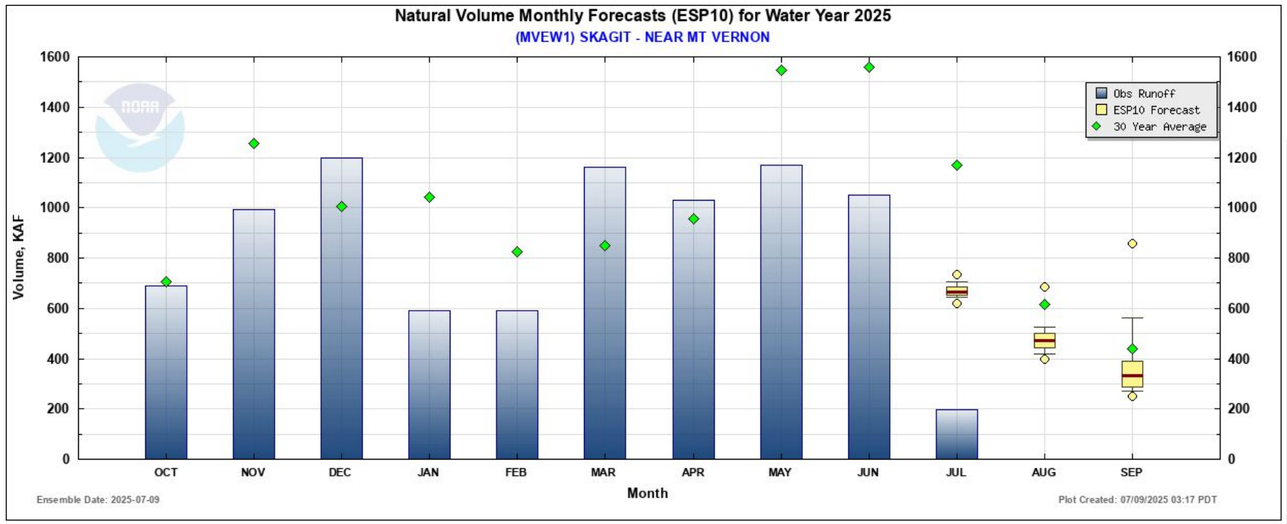
WY Runoff and Apr - Sep Forecasts

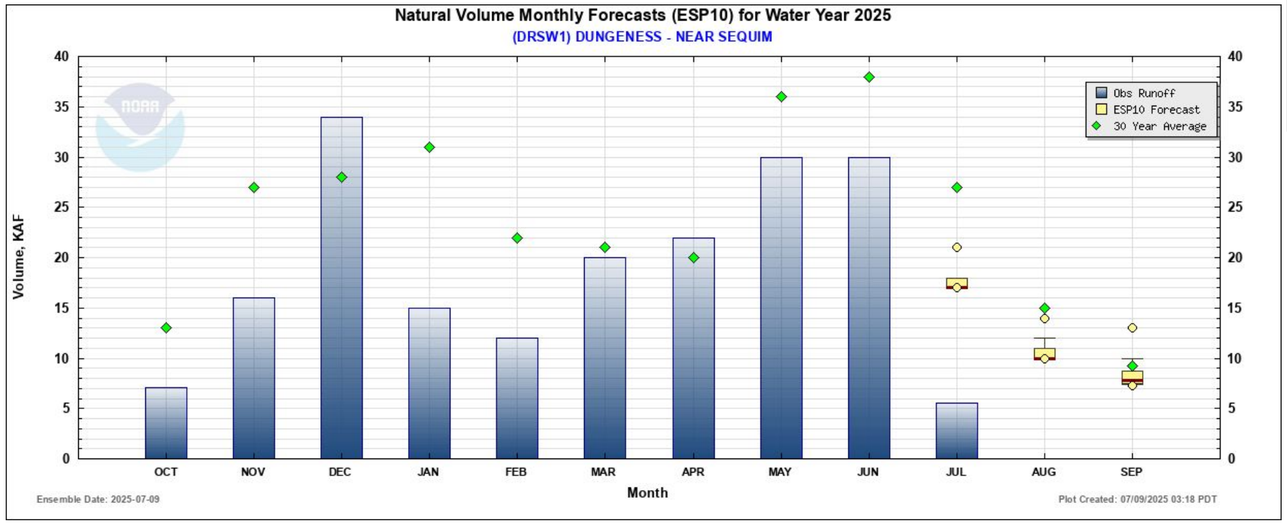


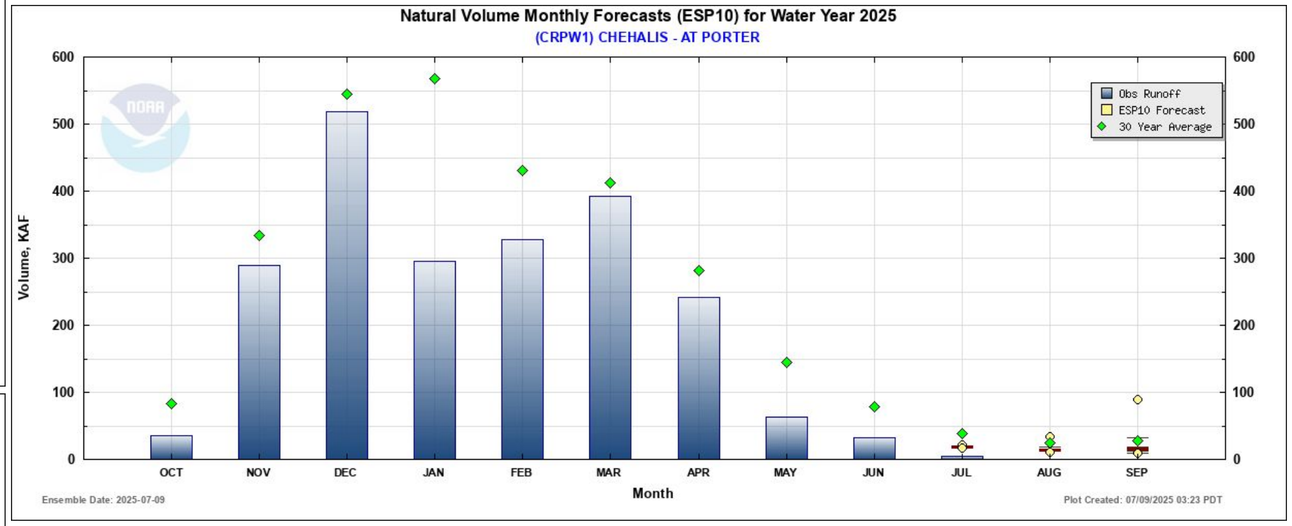




West Side Forecasts

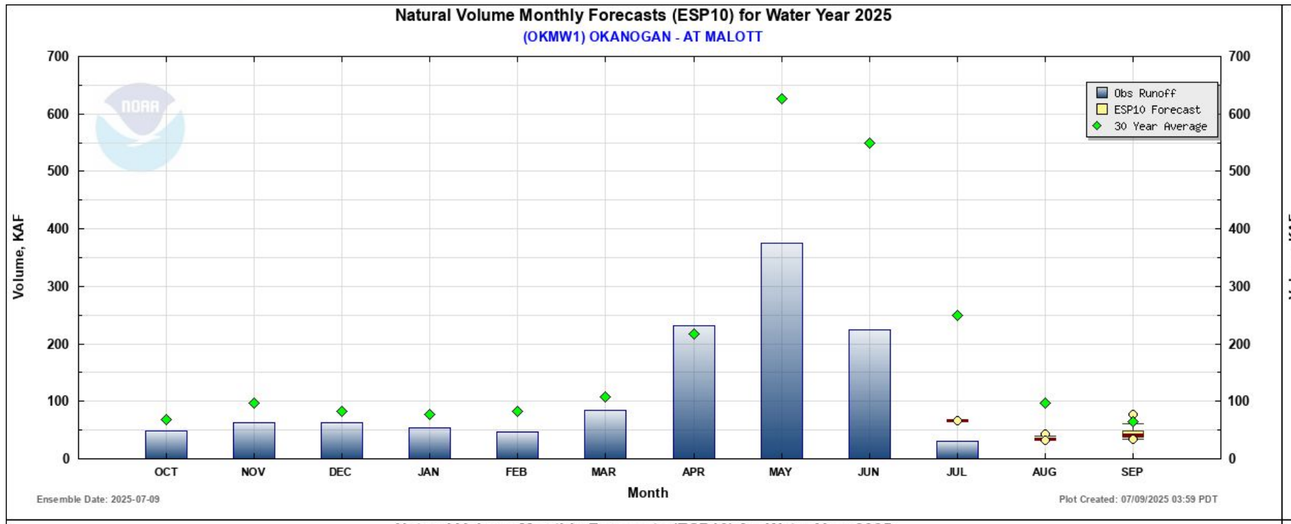


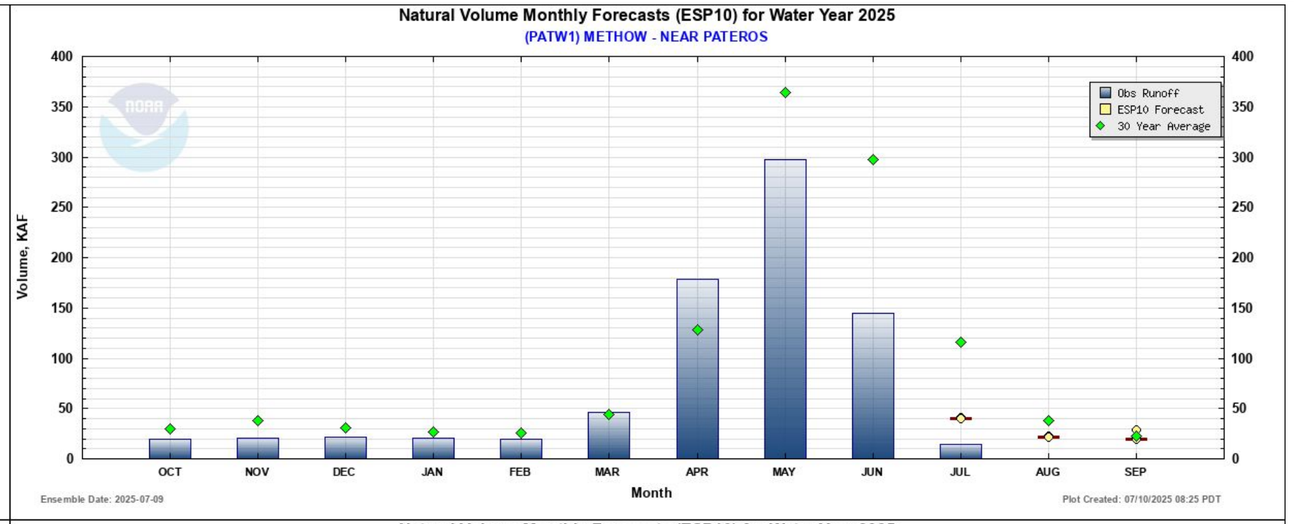


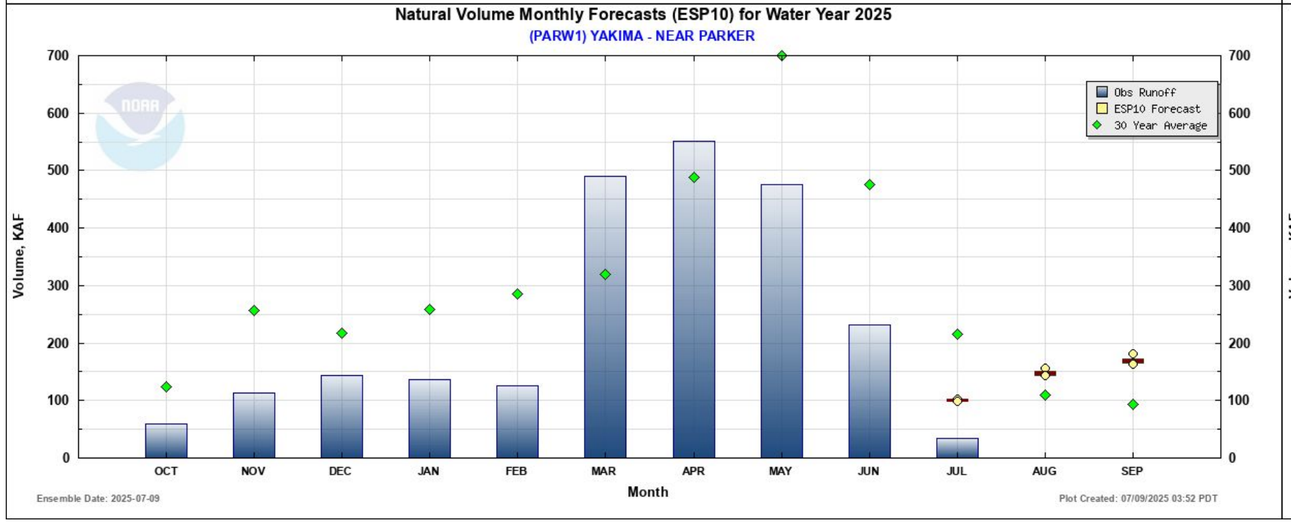


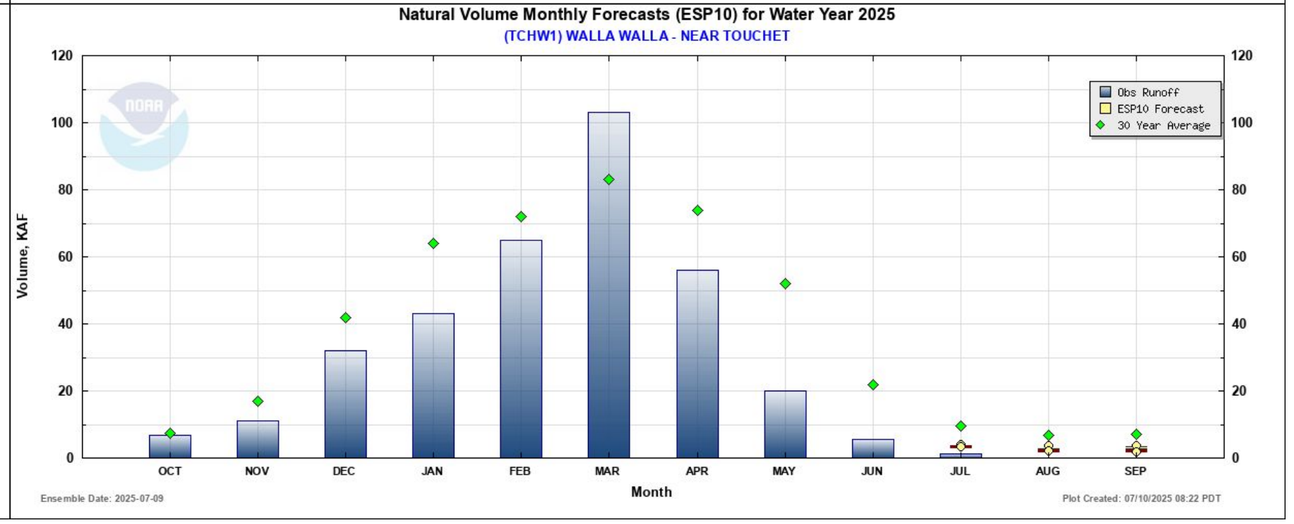
- Runoff was below normal in May and June
- Expect continued below normal monthly runoff volumes

East Side Forecasts



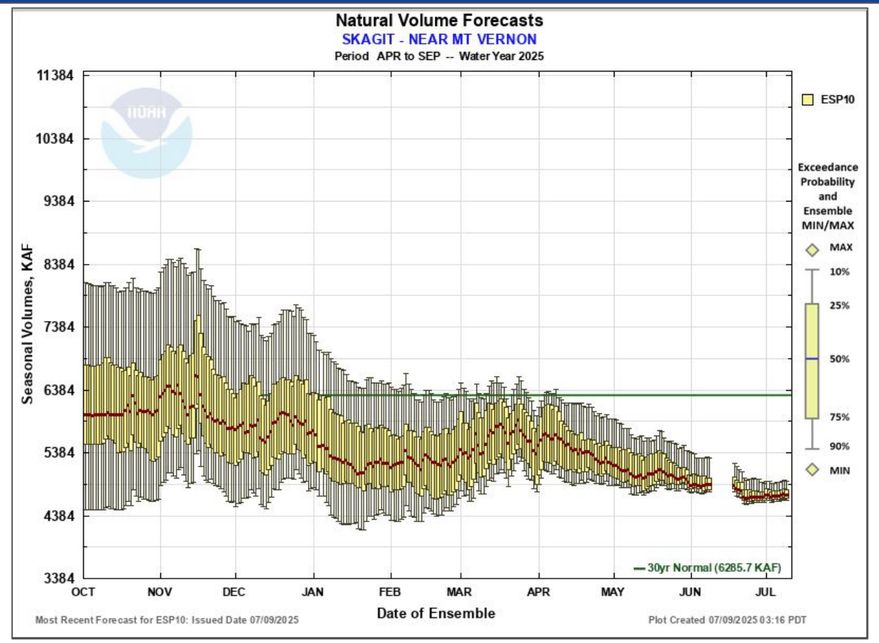


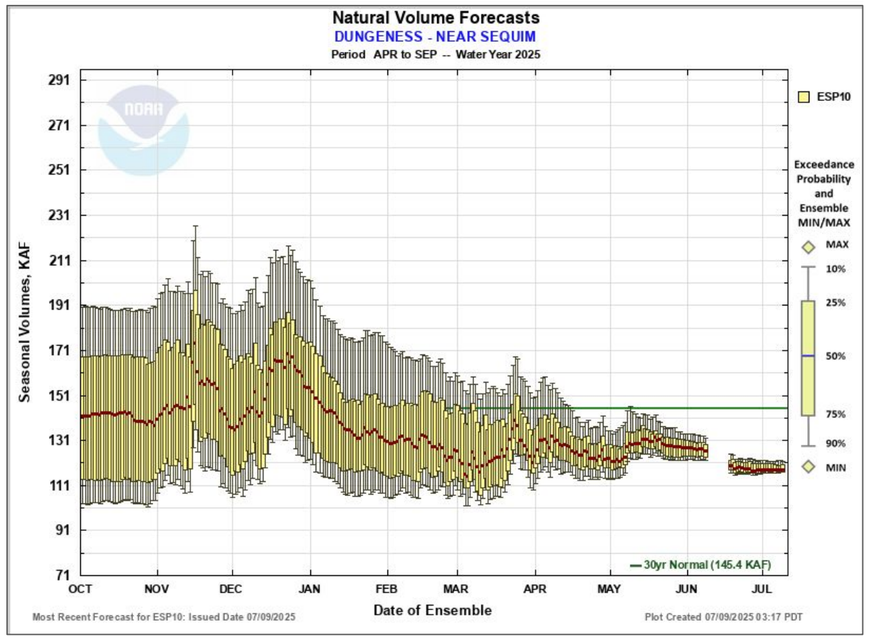


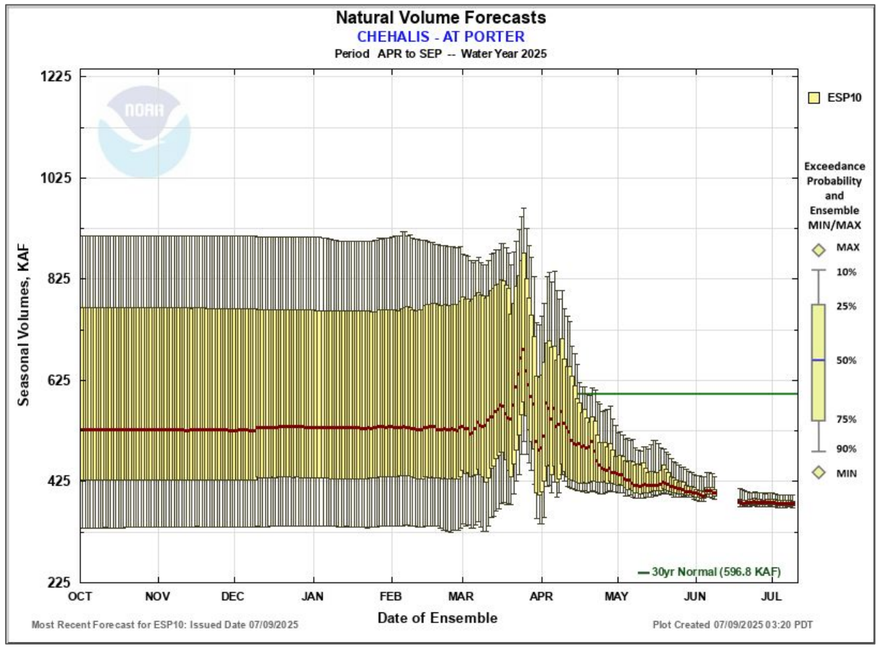


- Speculation: early snowmelt runoff caused the normal to above normal volumes for March and possibly some of April's
- Runoff was below normal in May and June
- Expect continued below normal monthly runoff volumes

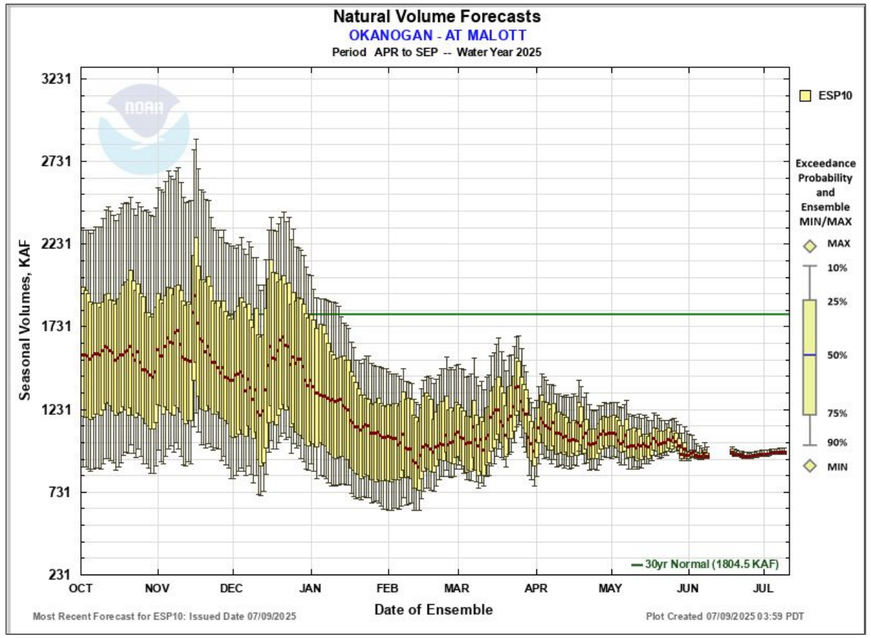
Apr - Sep Forecasts: West Side

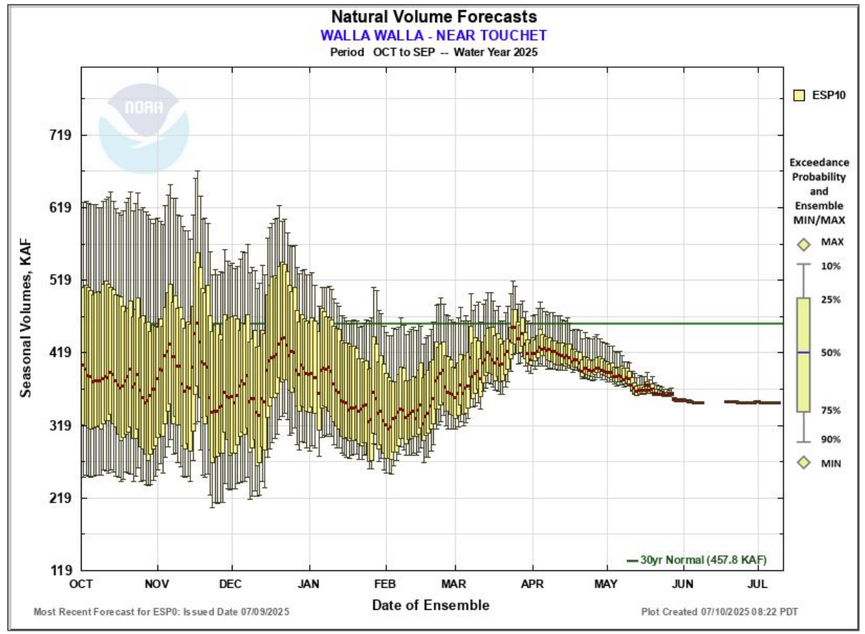


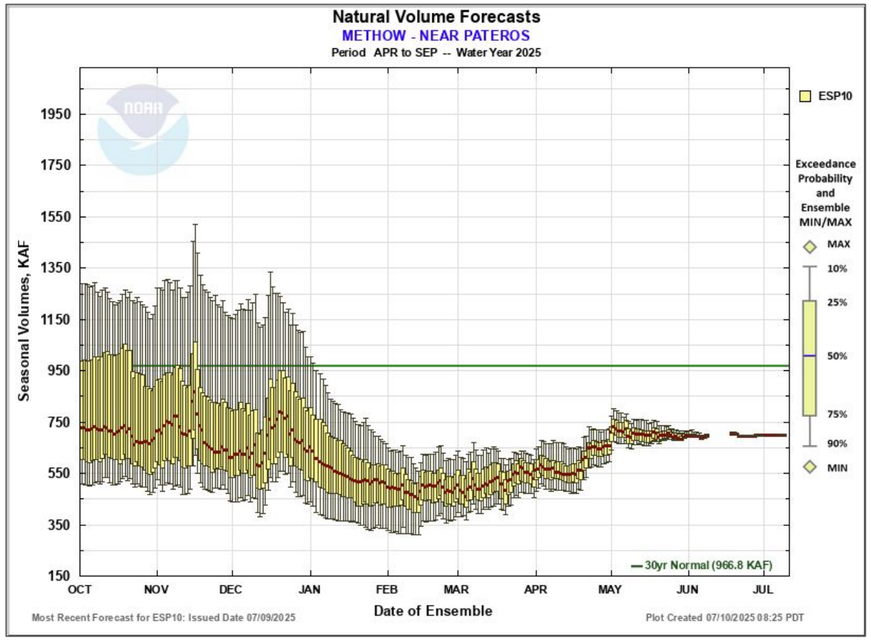


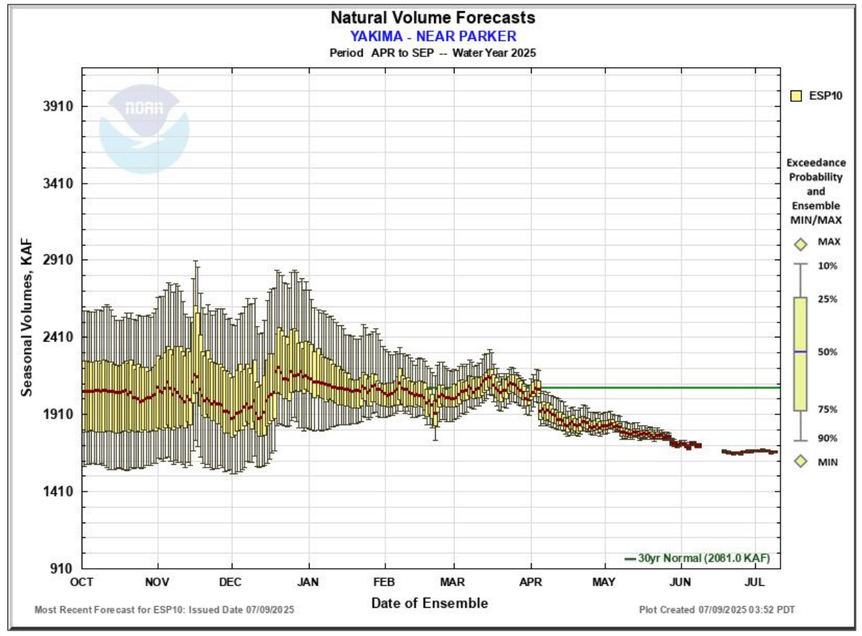


Apr - Sep Forecasts: East Side









Takeaways

- April through June have been dry and warm compared to normal.
- May and June runoff was below normal.
- Precipitation forecasts for the next 10 days is below normal.
- Apr-Sep river forecasts are significantly lower than normal.