

Oregon Water Supply Availability Committee - October 19, 2022



New Fifteenmile SNOTEL
Installed 09/22/2022
Elevation 5970'
Hood River County
Hood-Sandy-Lower Deschutes Basin

H. Scott Oviatt
Snow Survey Supervisory Hydrologist
USDA Natural Resources Conservation Service
Oregon State Office
Scott.Oviatt@usda.gov
503-414-3271

January 1, 2022

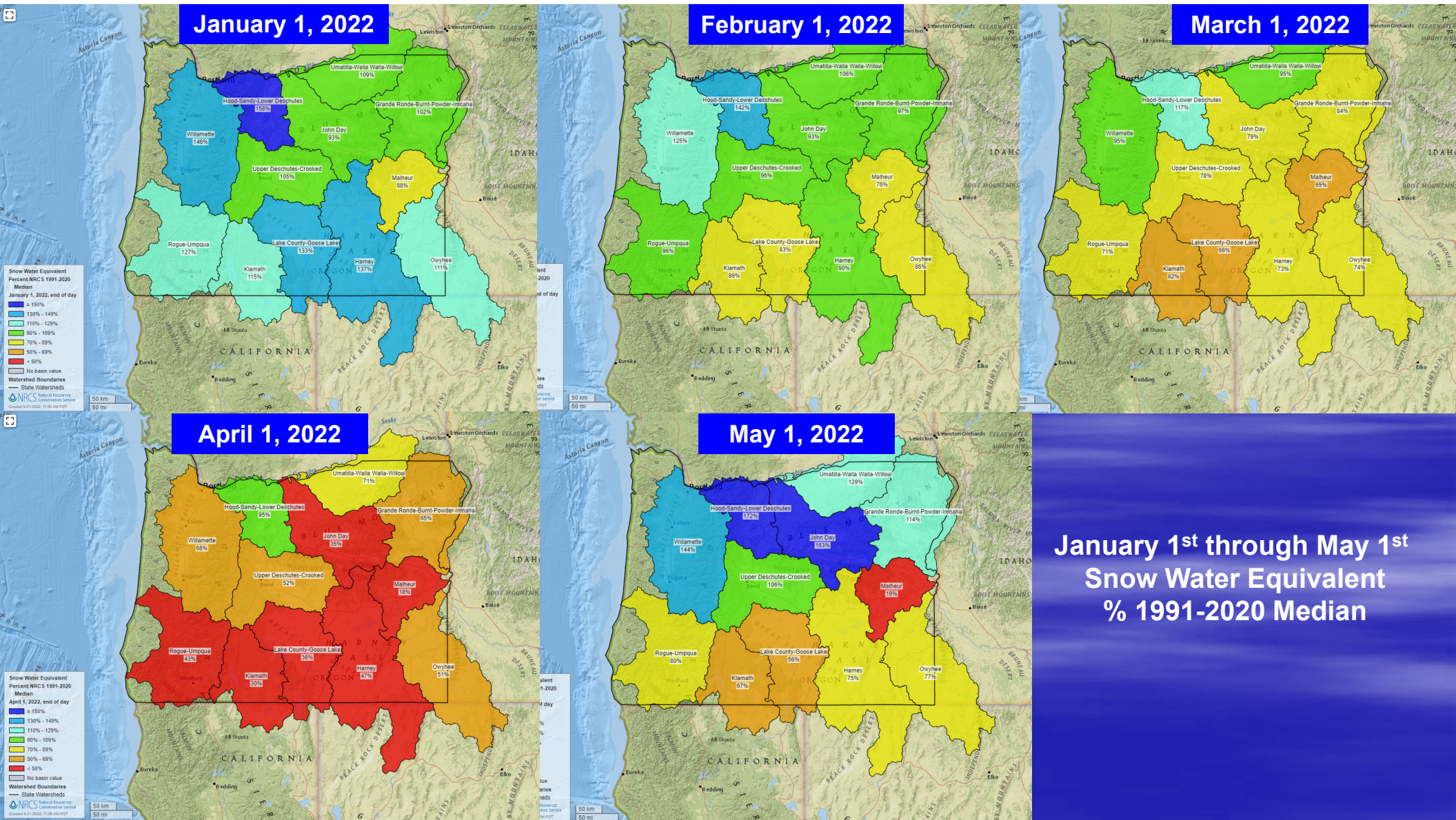
February 1, 2022

March 1, 2022

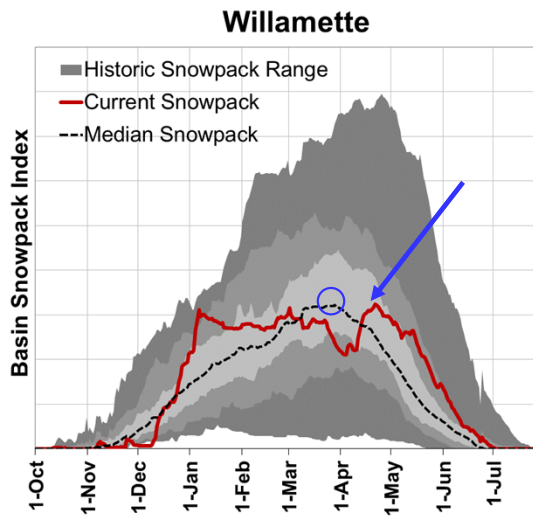
April 1, 2022

May 1, 2022

January 1st through May 1st
Snow Water Equivalent
% 1991-2020 Median

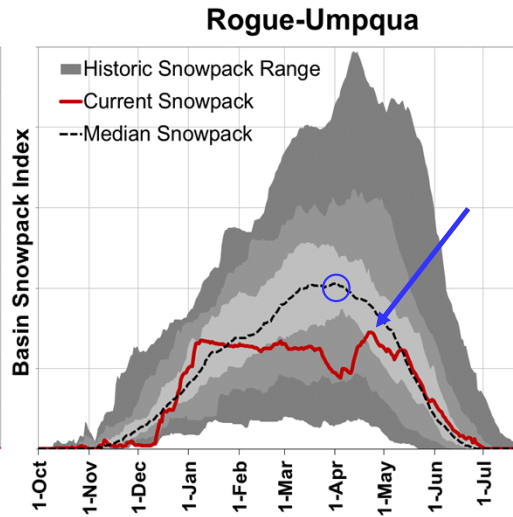


OREGON SNOWPACK GRAPHS WY2022



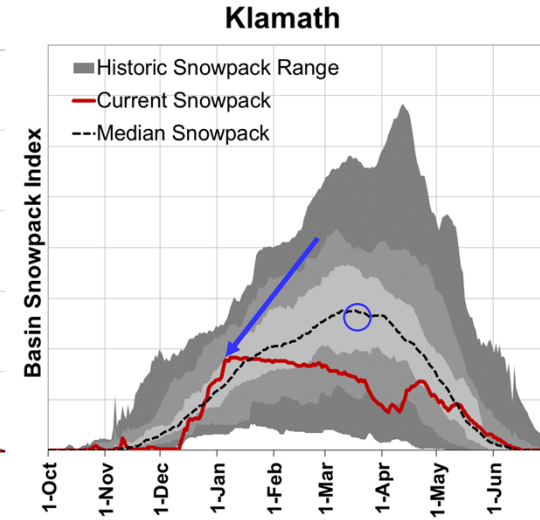
Late Peak – Near Median

Willamette Peak Snowpack was on April 21 at 100% of Normal Median peak (March 28).



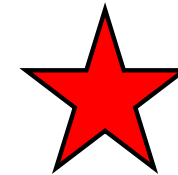
Late Peak – Below Median

Rogue-Umpqua Peak Snowpack was on April 23 at 70% of Normal Median peak (April 1).

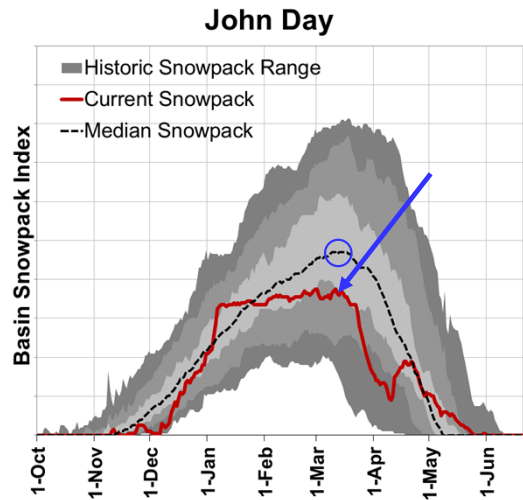


Early Peak – Below Median

Klamath Peak Snowpack was on January 8 at 67% of Normal Median peak (March 17).

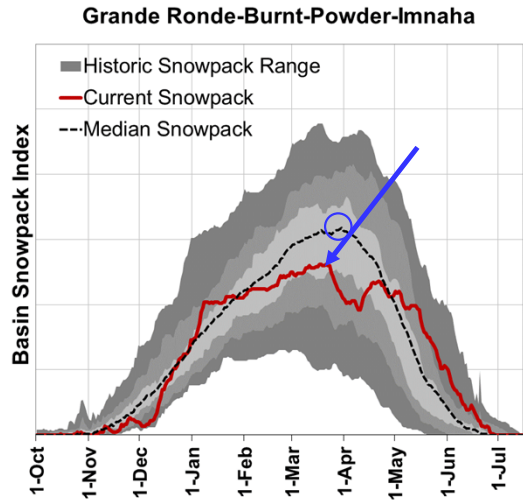


OREGON SNOWPACK GRAPHS WY2022



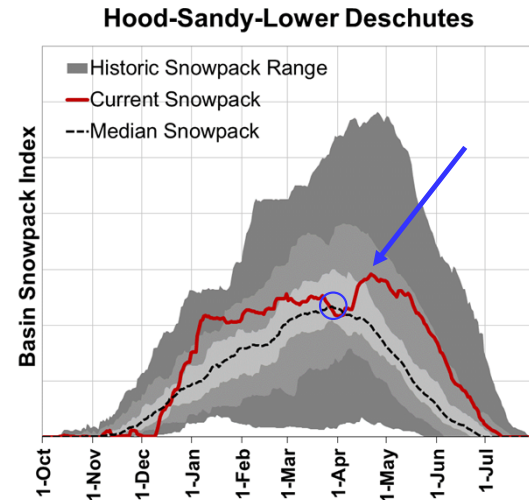
**Near-Normal Peak Date
Below Median**

John Day Peak Snowpack was on March 11 at 80% of Normal Median peak (March 17).



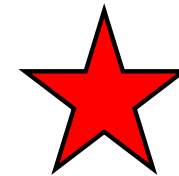
**Near-Normal Peak Date
Below Median**

Grande Ronde-Burnt-Powder-Imnaha Peak Snowpack was on March 23 at 82% of Normal Median peak (March 30).

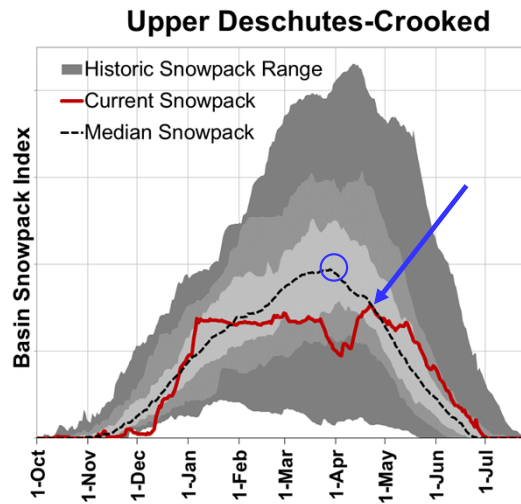


Late Peak – Above Median

Hood-Sandy-Lower Deschutes Peak Snowpack was on April 21 at 124% of Normal Median peak (March 28).

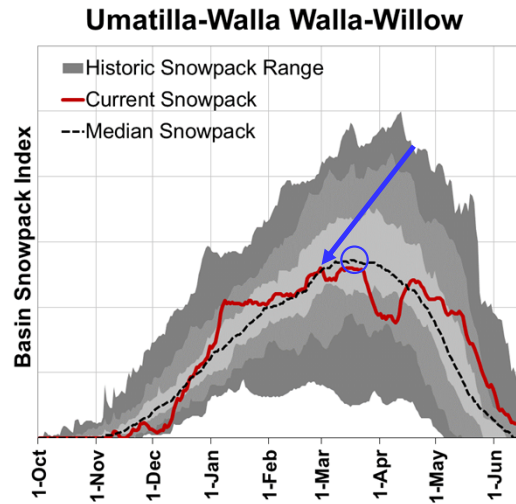


OREGON SNOWPACK GRAPHS WY2022



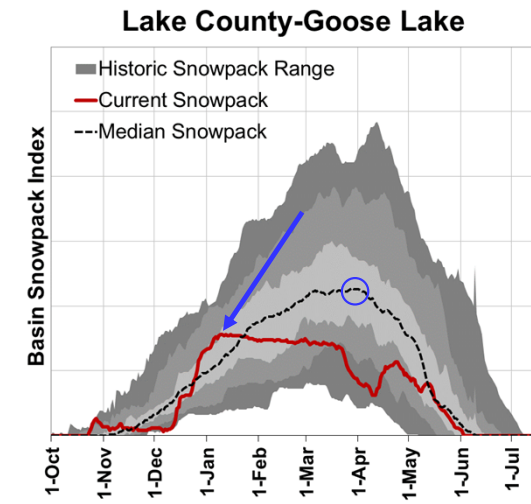
Late Peak - Below Median

Upper Deschutes-Crooked Peak Snowpack was on April 23 at 78% of Normal Median peak (March 28).



Near-Normal Peak

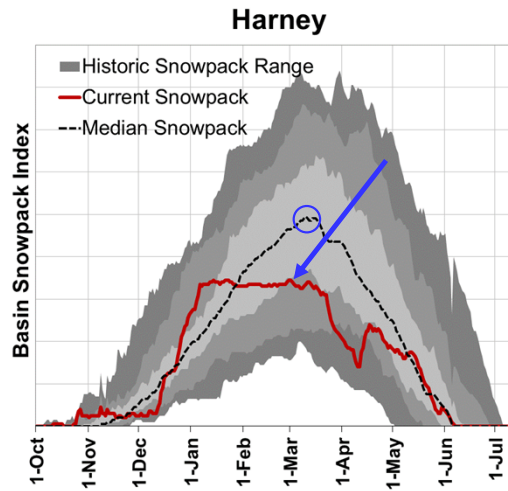
Umatilla-Walla Walla-Willow Peak Snowpack was on March 1 at 95% of Normal Median peak (March 18).



Early Peak – Below Median

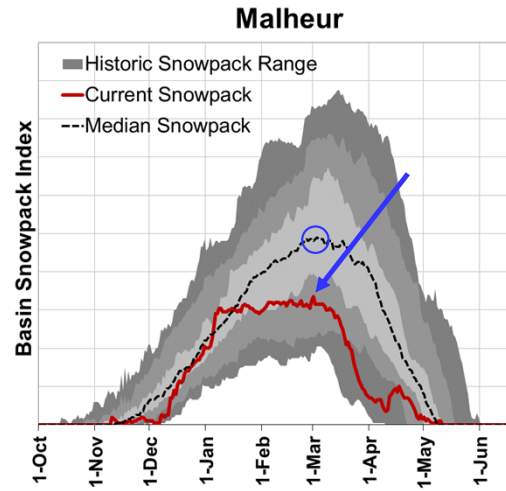
Lake County-Goose Lake Peak Snowpack was on January 9 at 68% of Normal Median peak (March 28).

OREGON SNOWPACK GRAPHS WY2022



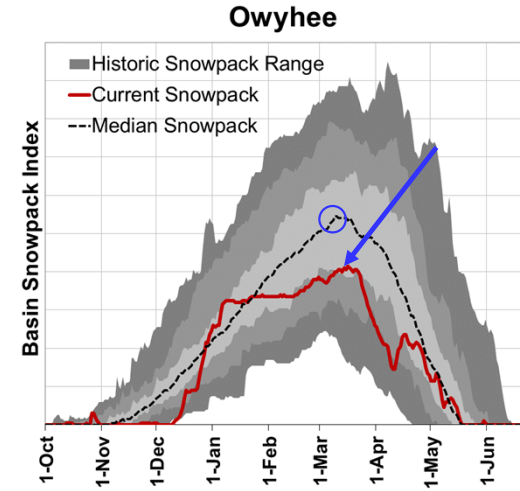
Early Peak – Below Median

Harney Peak Snowpack was on February 28 at 70% of Normal Median peak (March 10).



Near-Normal Peak Below Median

Malheur Peak Snowpack was on March 1 at 69% of Normal Median peak (March 4).

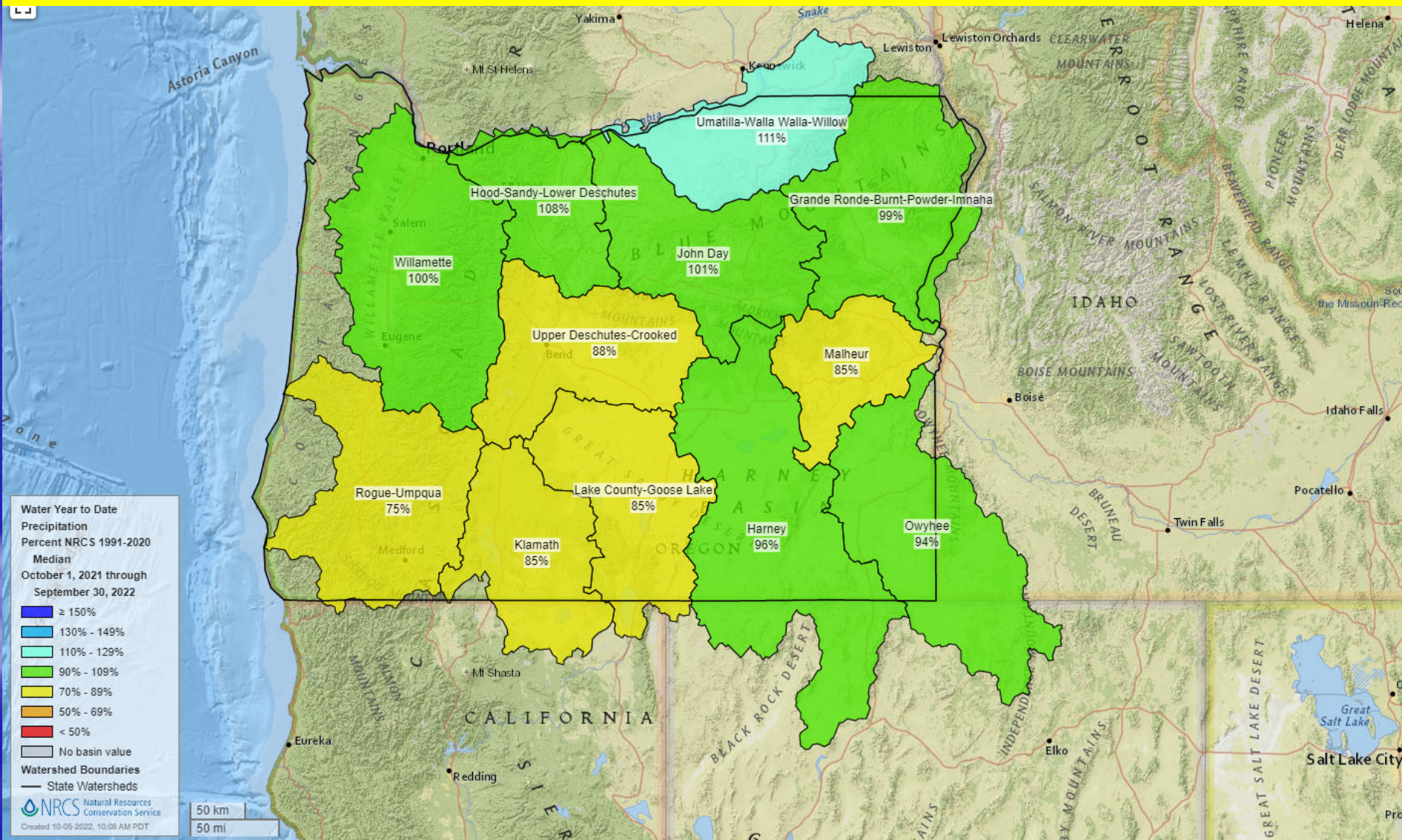


Early Peak Below Median

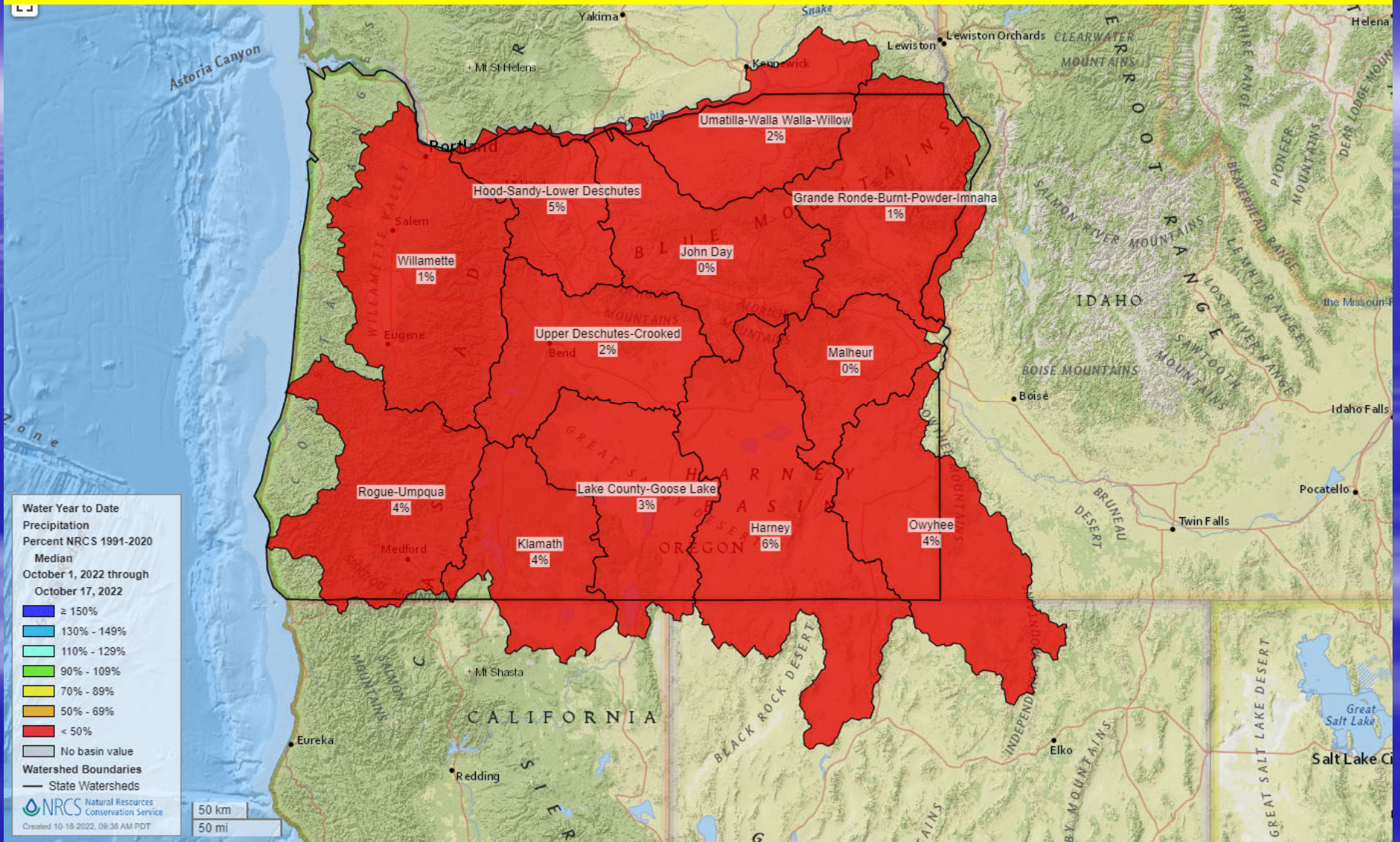
Owyhee Peak Snowpack was on March 16 at 76% of Normal Median peak (March 10).



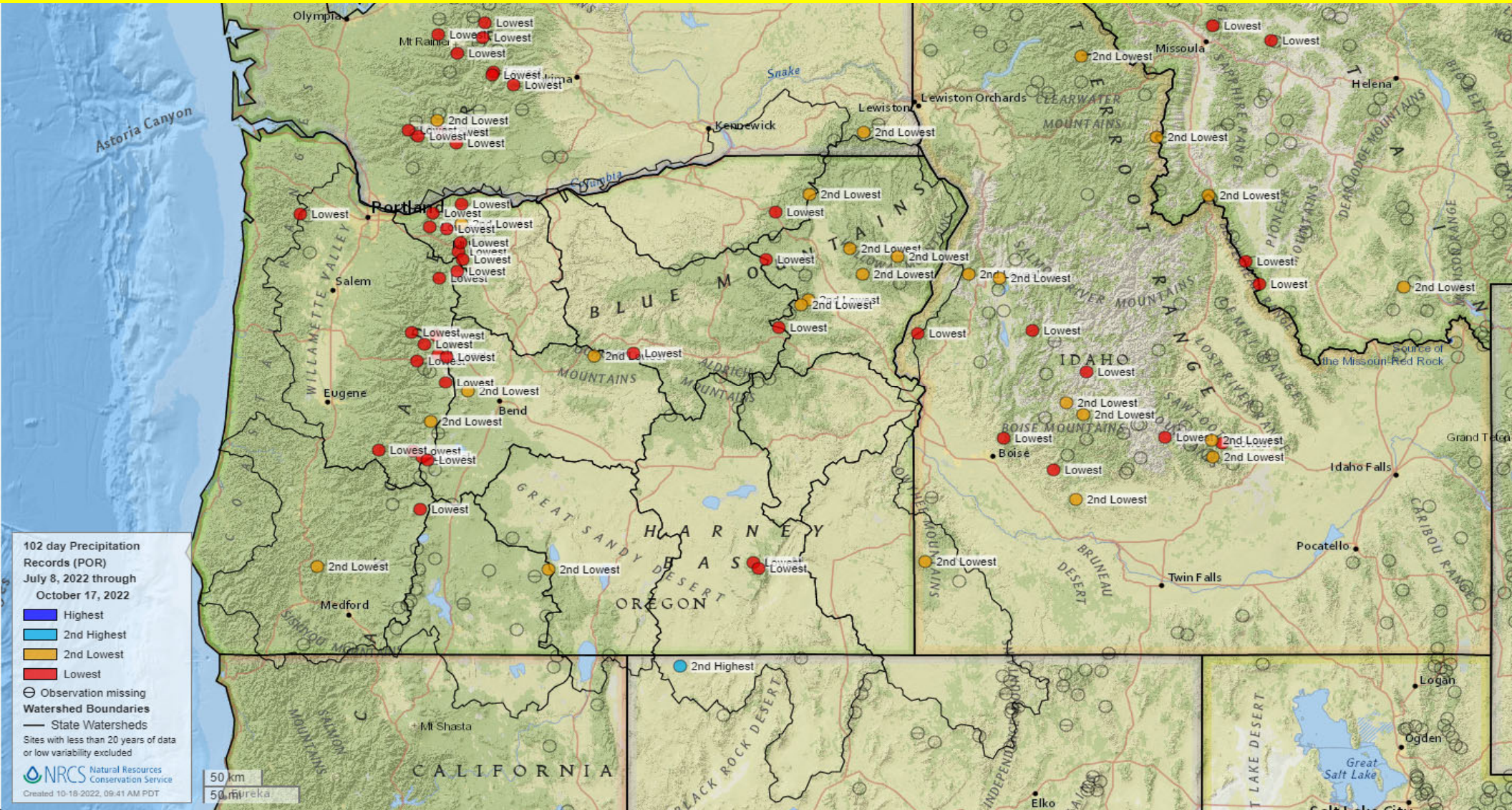
2022 SNOTEL Water Year Precipitation % of 1991-2020 median



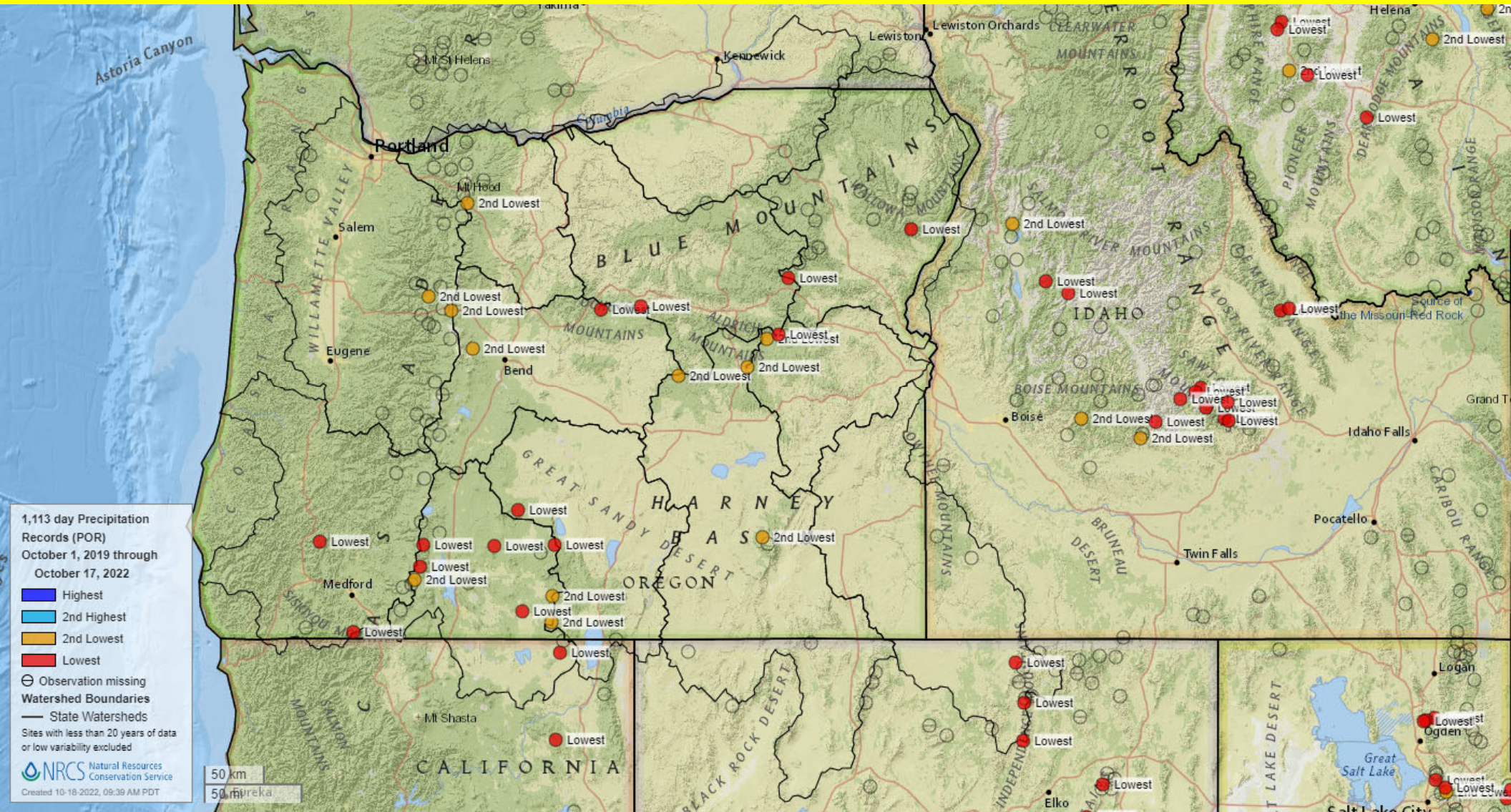
2023 SNOTEL Water Year Precipitation % of 1991-2020 median



SNOTEL Precipitation (POR) Records – July 8, 2022 – October 17, 2022

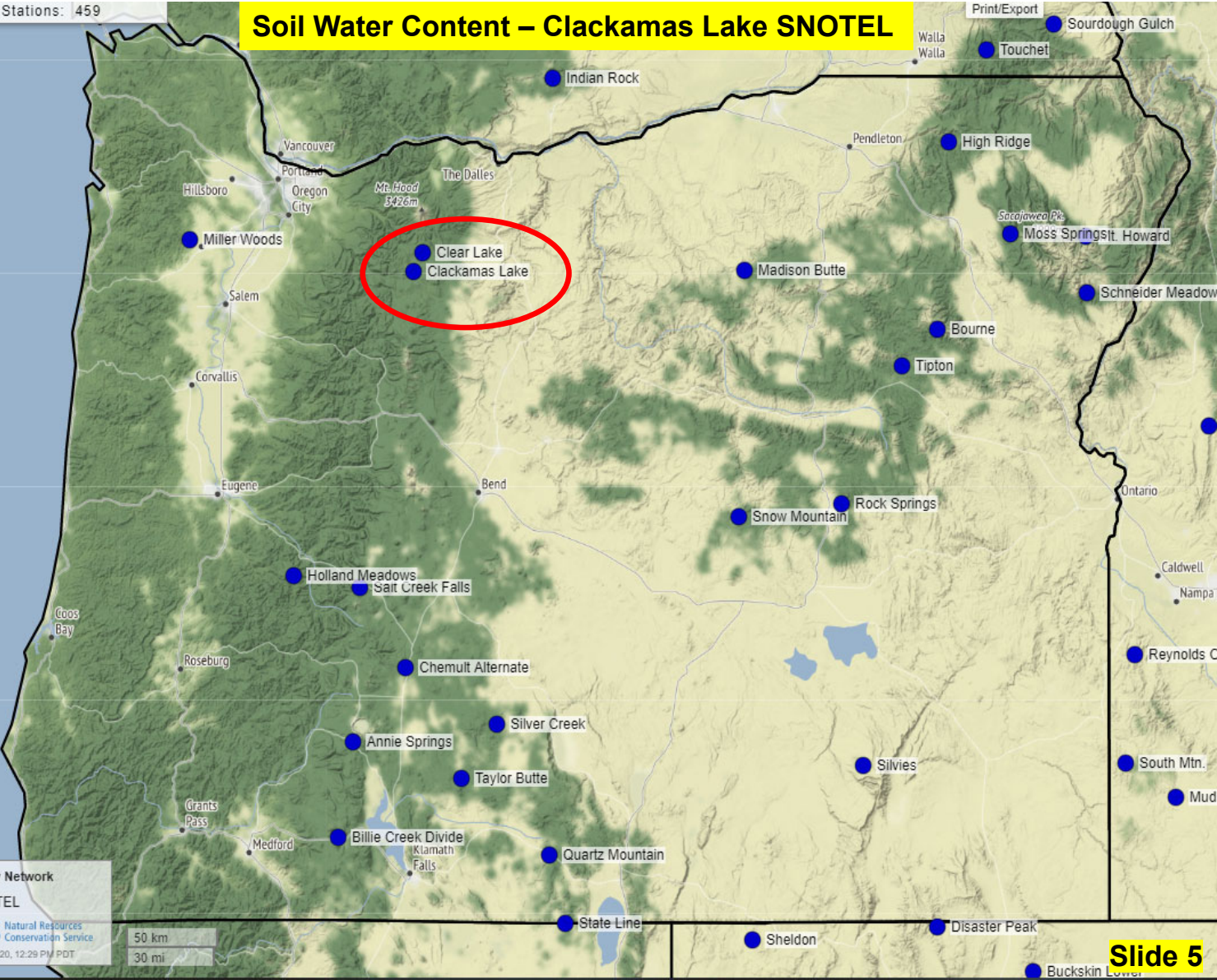


SNOTEL Precipitation (POR) Records – October 1, 2019 – October 17, 2022



Selected Stations: 459

Soil Water Content – Clackamas Lake SNOTEL



Stations by Network

- SNOTEL

NRCS Natural Resources Conservation Service
Created 7-07-2020, 12:29 PM PDT

50 km
30 mi

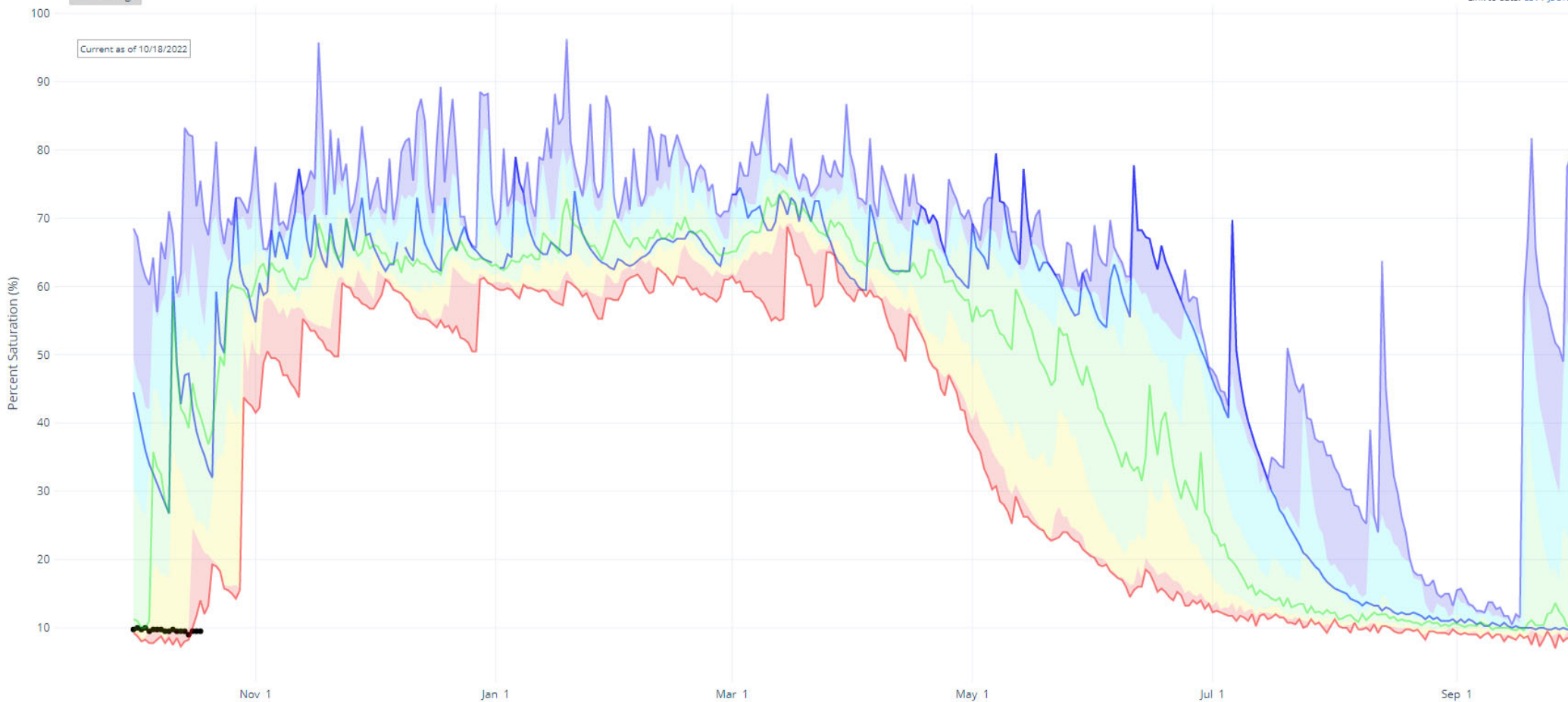
Soil Water Content – Clakamas Lake SNOTEL (2011-2022)

DEPTH AVERAGED SOIL SATURATION AT CLACKAMAS LAKE

Reset Range

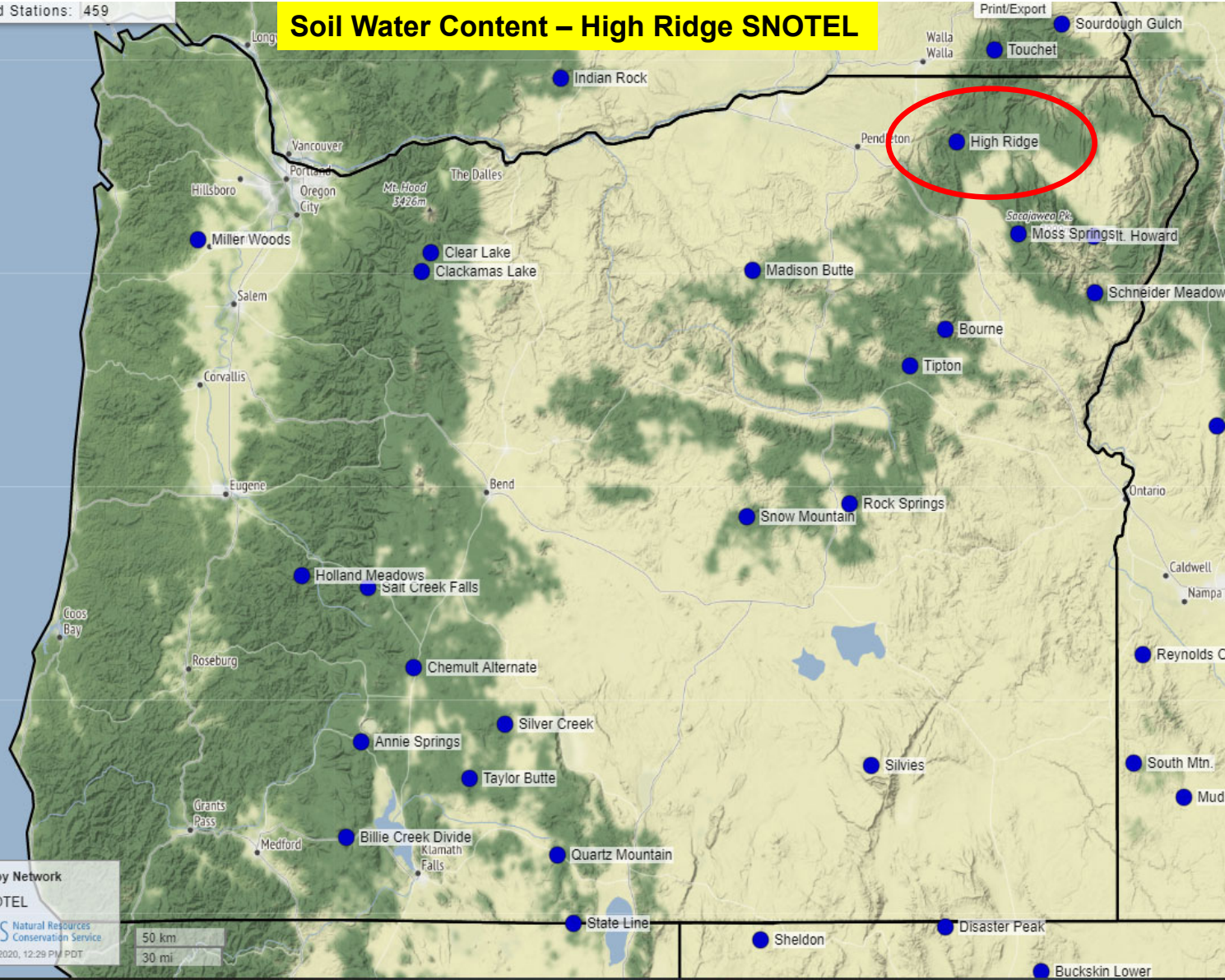
[Link to data: CSV / JSON](#)

Current as of 10/18/2022



Selected Stations: 459

Soil Water Content – High Ridge SNOTEL



Stations by Network
■ SNOTEL

Natural Resources Conservation Service
Created 7-07-2020, 12:29 PM PDT

50 km
30 mi

Print/Export

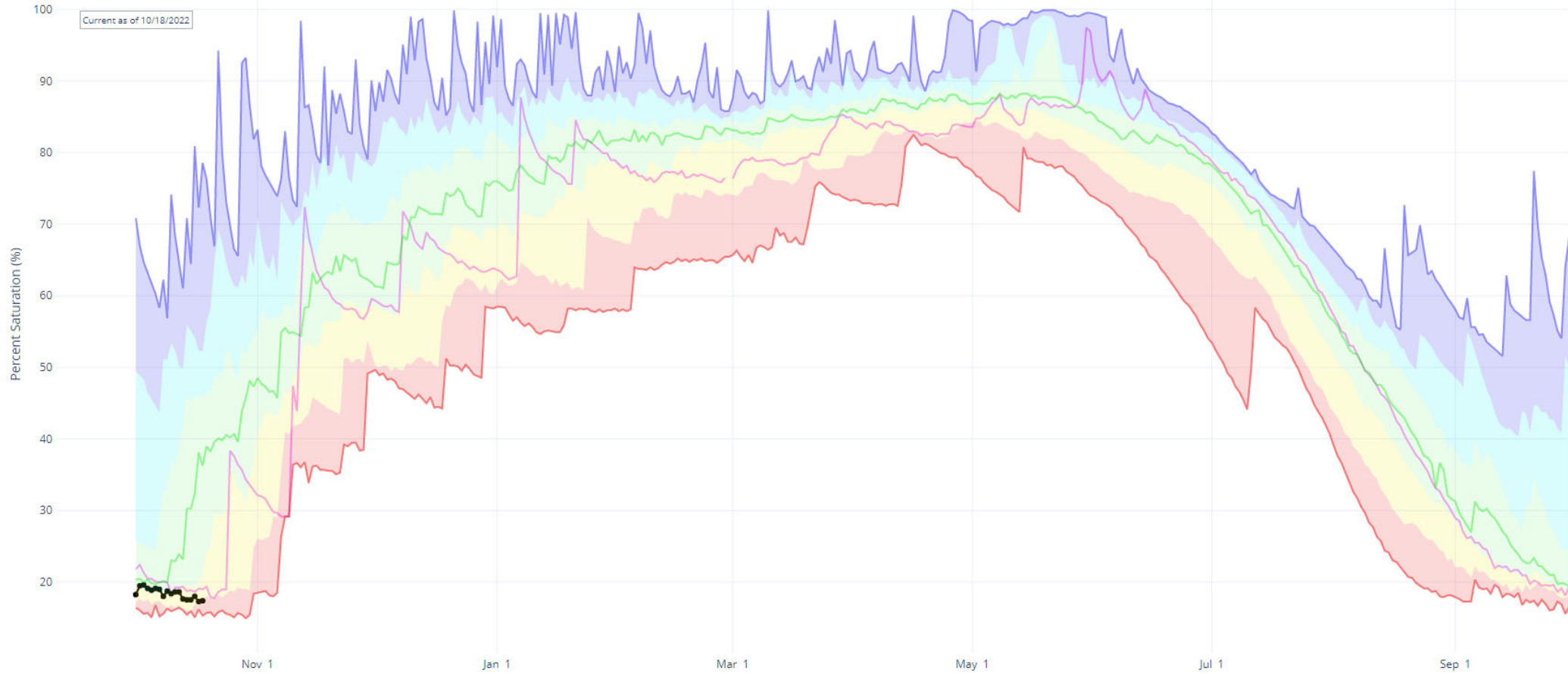
Soil Water Content – High Ridge SNOTEL (2004-2022)

DEPTH AVERAGED SOIL SATURATION AT HIGH RIDGE

Reset Range

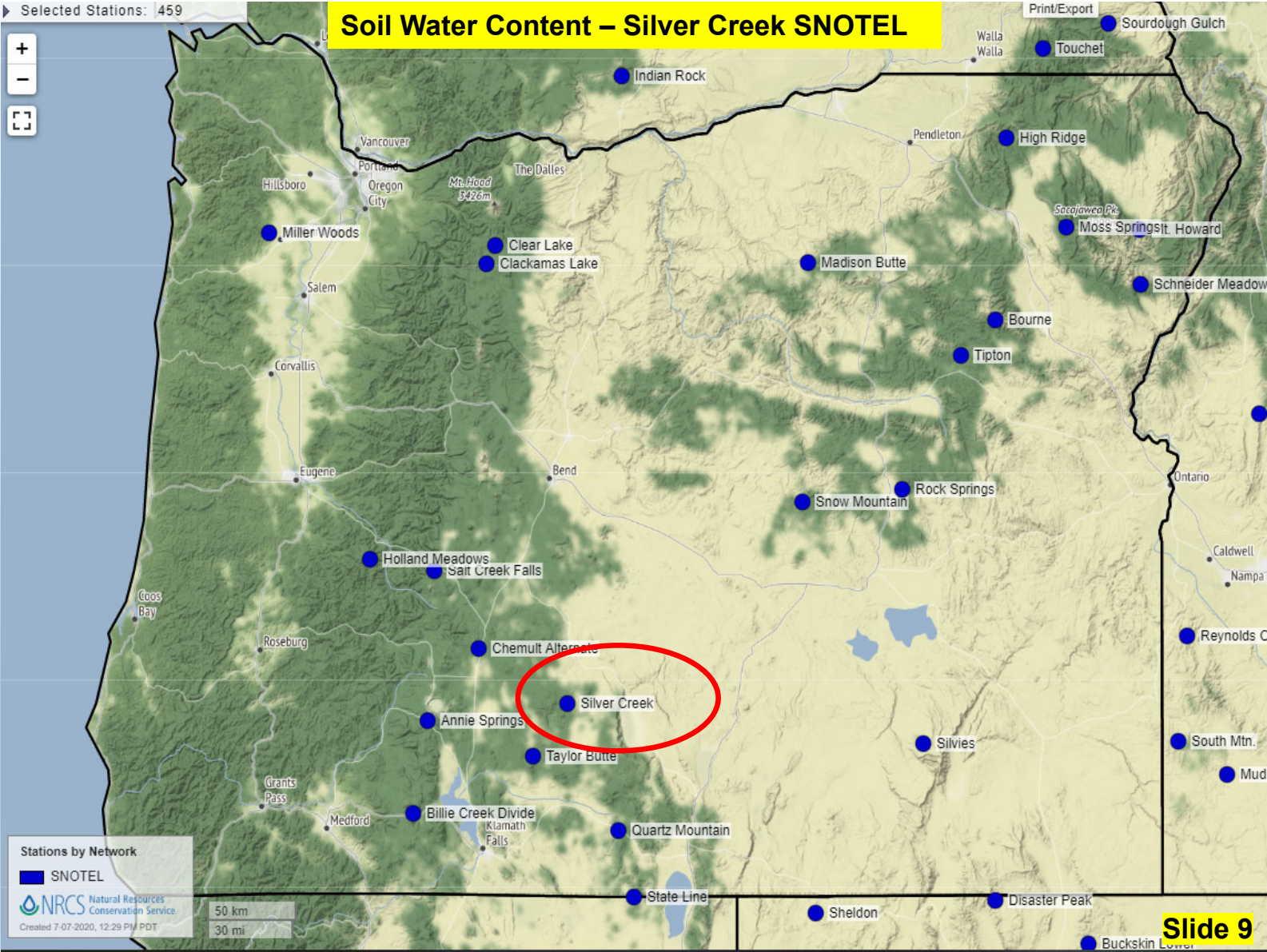
[Link to data: CSV / JSON](#)

Current as of 10/18/2022



Selected Stations: 459

Soil Water Content – Silver Creek SNOTEL



Stations by Network
■ SNOTEL

Natural Resources Conservation Service
Created 7-07-2020, 12:29 PM PDT

50 km
30 mi

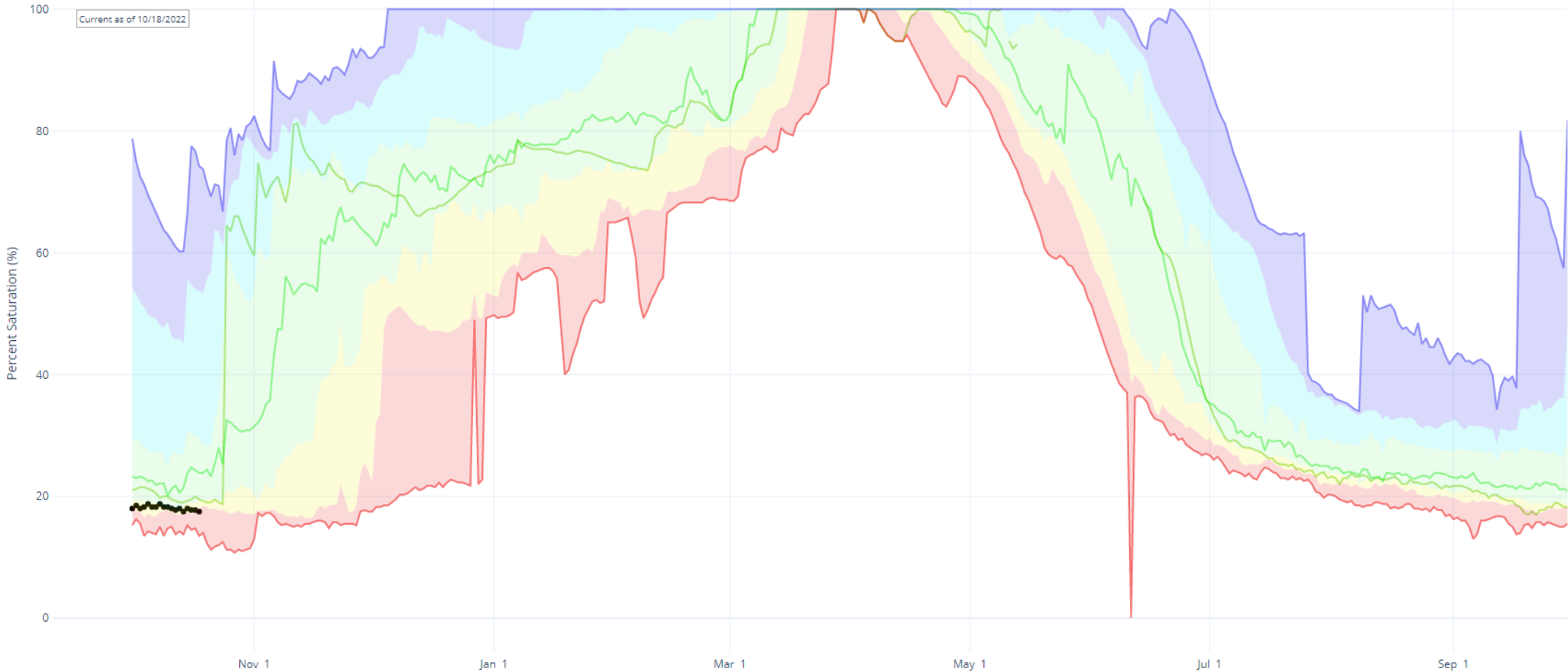
Soil Water Content – Silver Creek SNOTEL (2004-2022)

DEPTH AVERAGED SOIL SATURATION AT SILVER CREEK

Reset Range

[Link to data: CSV / JSON](#)

Current as of 10/18/2022



Selected Stations: 459

Soil Water Content – Silvies SNOTEL

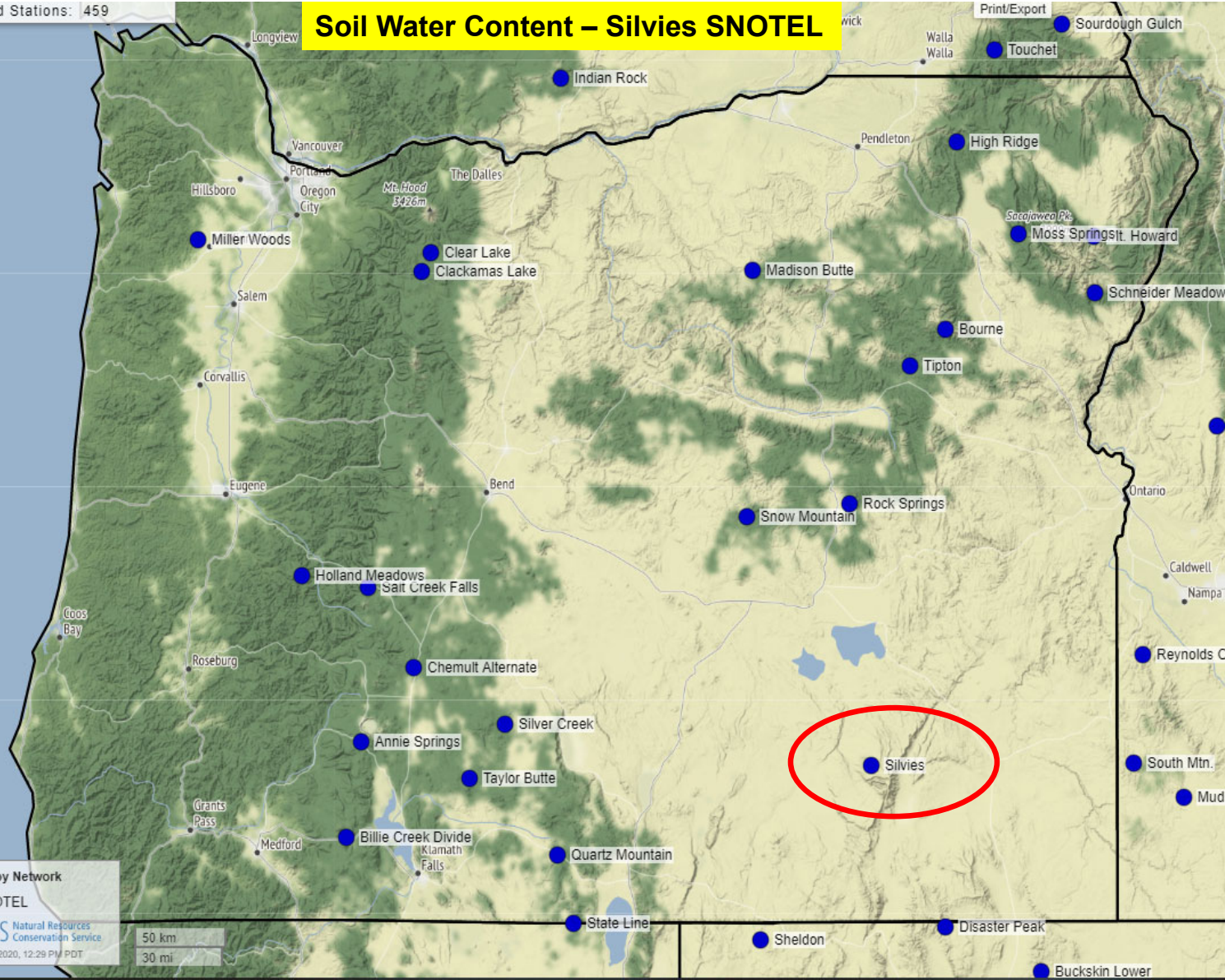


Stations by Network

- SNOTEL

NRCS Natural Resources Conservation Service
Created 7-07-2020, 12:29 PM PDT

50 km
30 mi



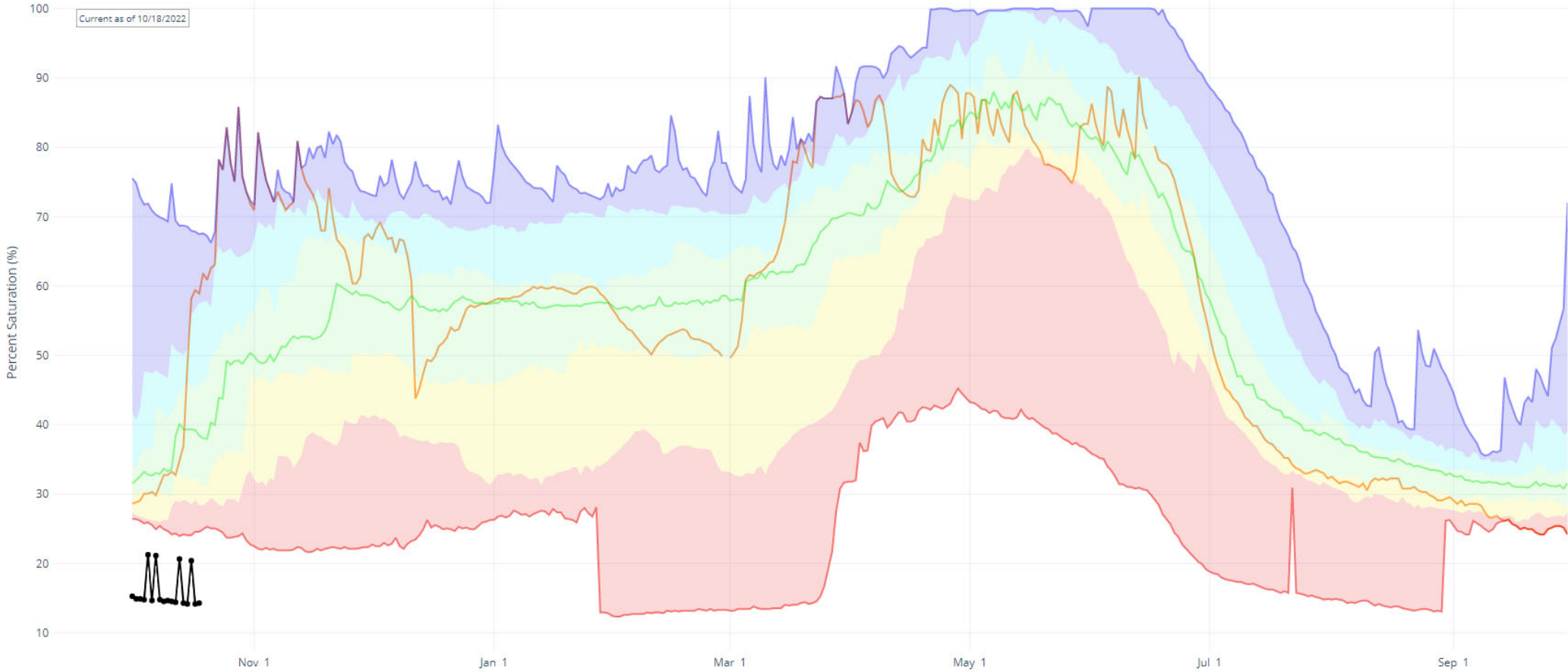
Soil Water Content – Silvies SNOTEL (1997-2022)

DEPTH AVERAGED SOIL SATURATION AT SILVIES

Reset Range

[Link to data: CSV / JSON](#)

Current as of 10/18/2022



Thank you

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To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

Oregon Water Supply Availability Committee - October 19, 2022



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Elevation 5970'
Hood River County
Hood-Sandy-Lower Deschutes Basin

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October 2022 NWRFC Update

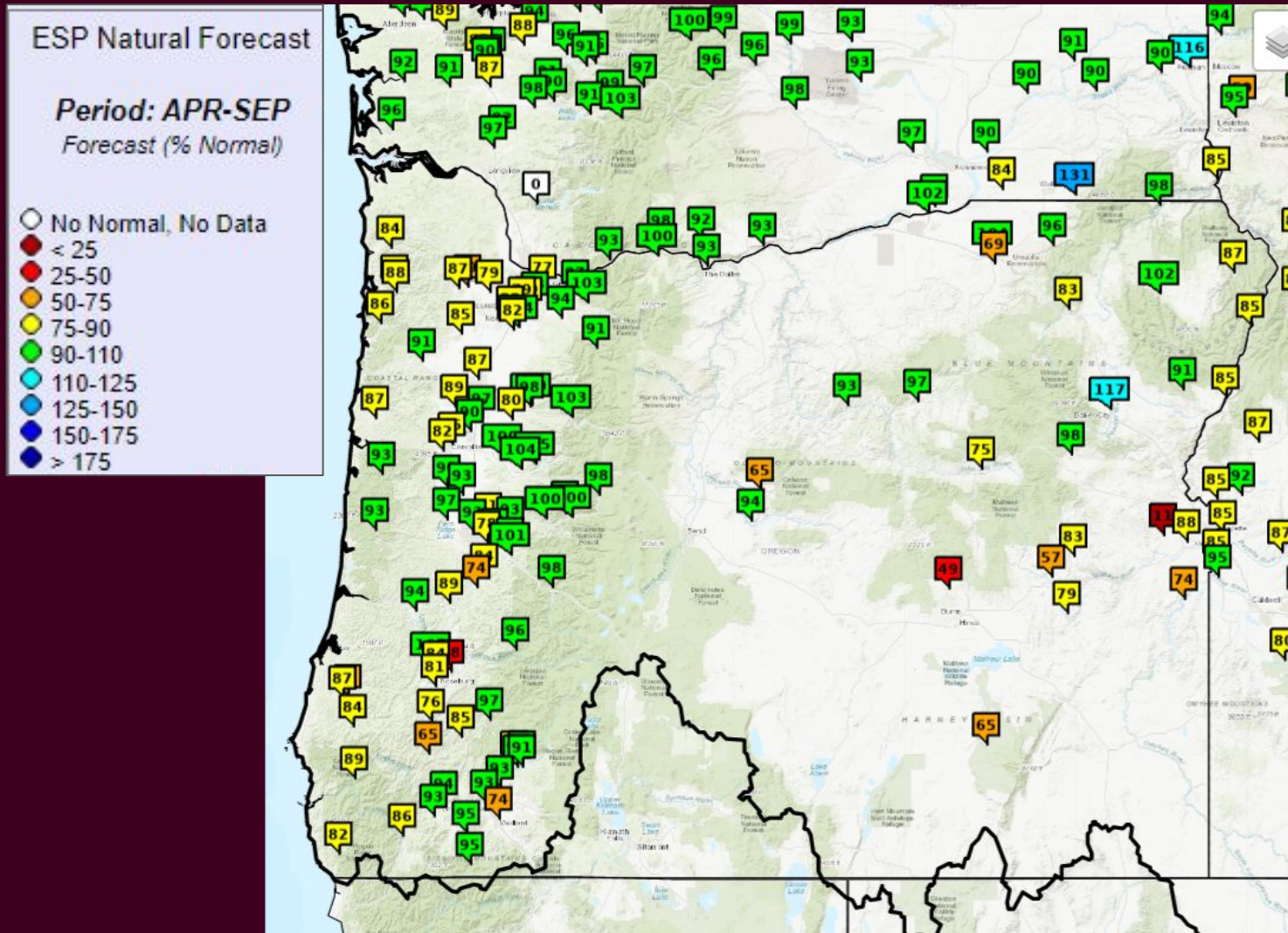
NOAA National Weather Service

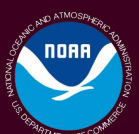
10/18/2022

weather.gov/portland &
www.nwrfc.noaa.gov

Seasonal Volume

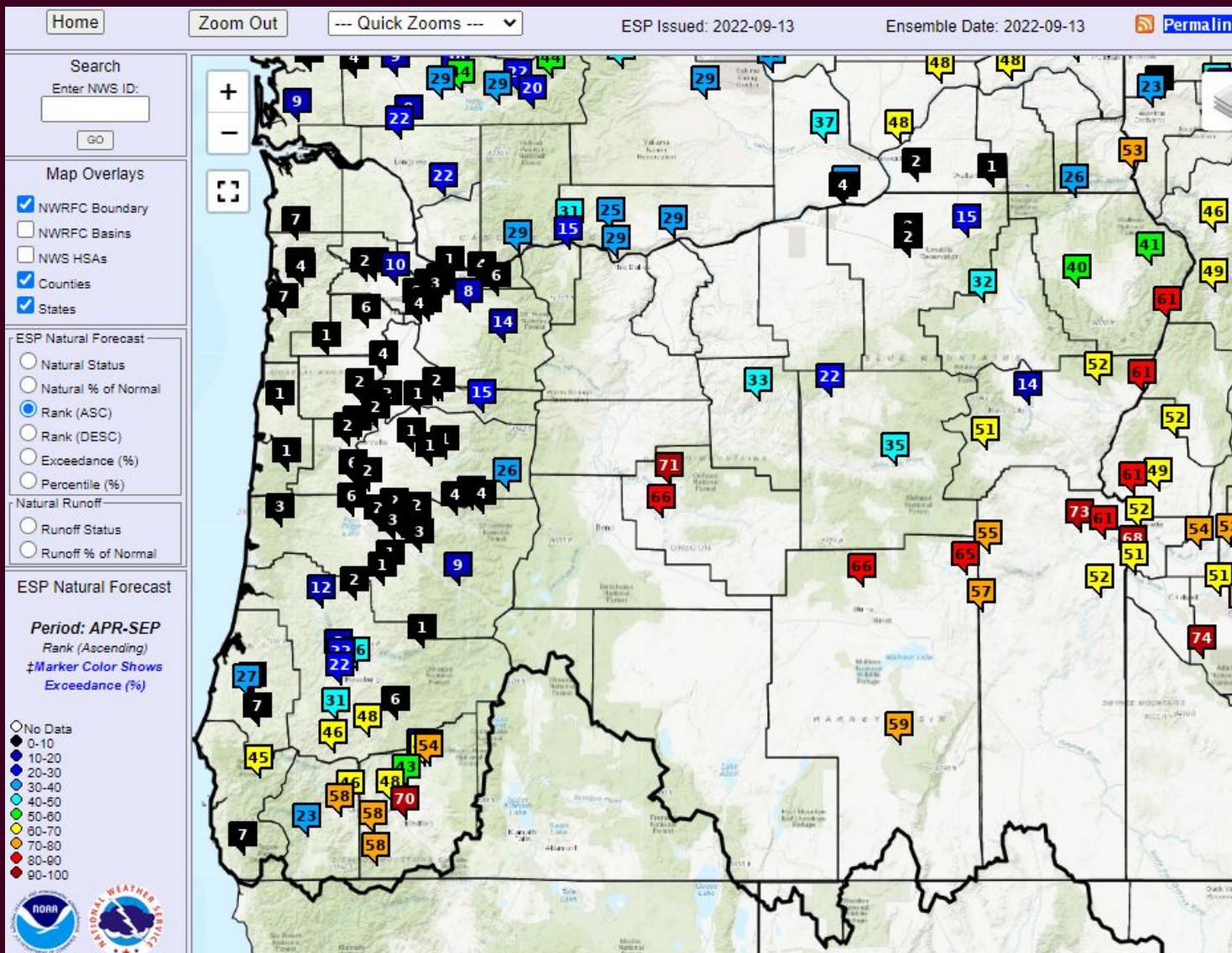
April – September % of Average





Seasonal Volume Rankings

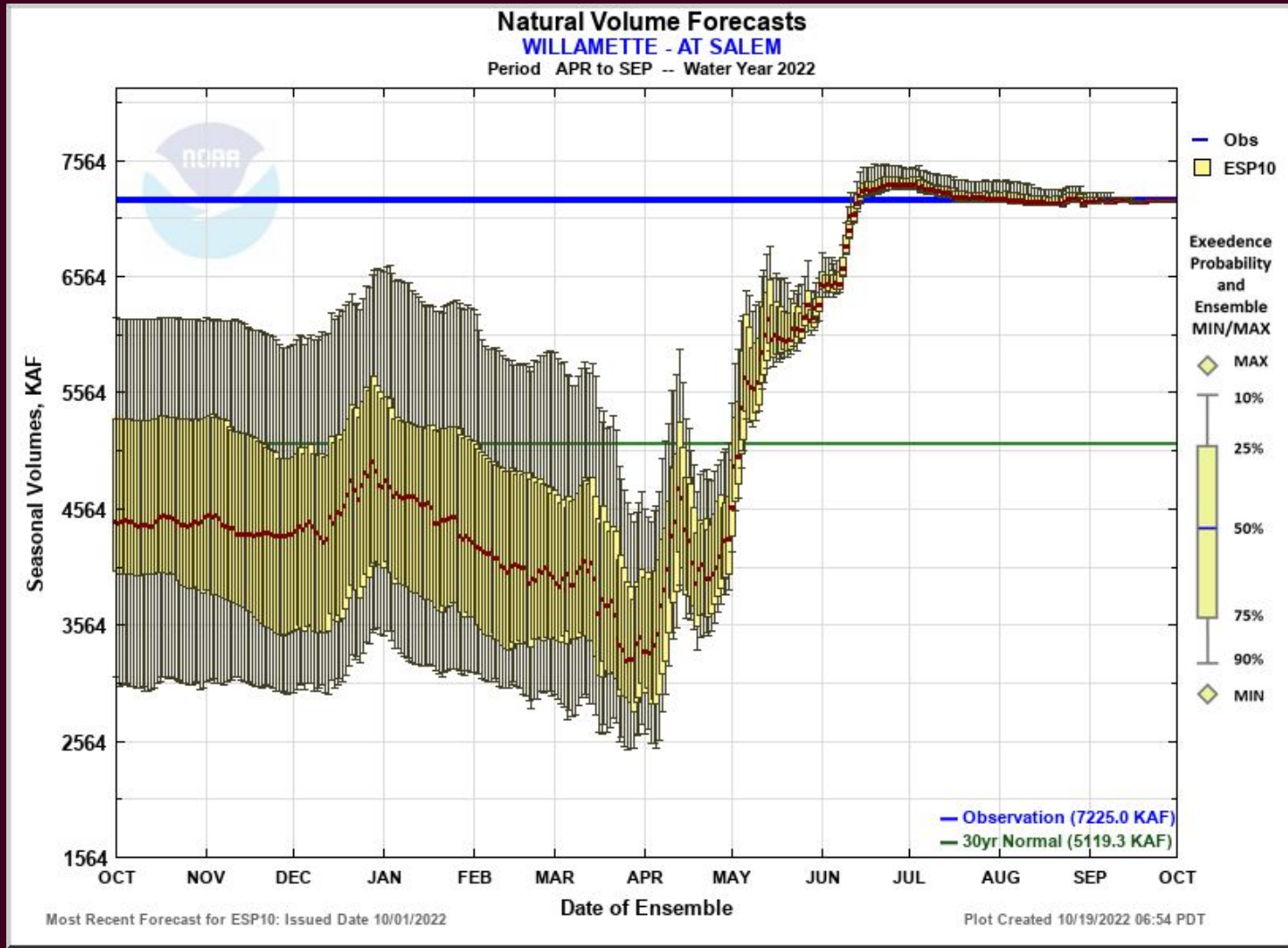
April – September (record 1949 on)





Natural Volume Forecast

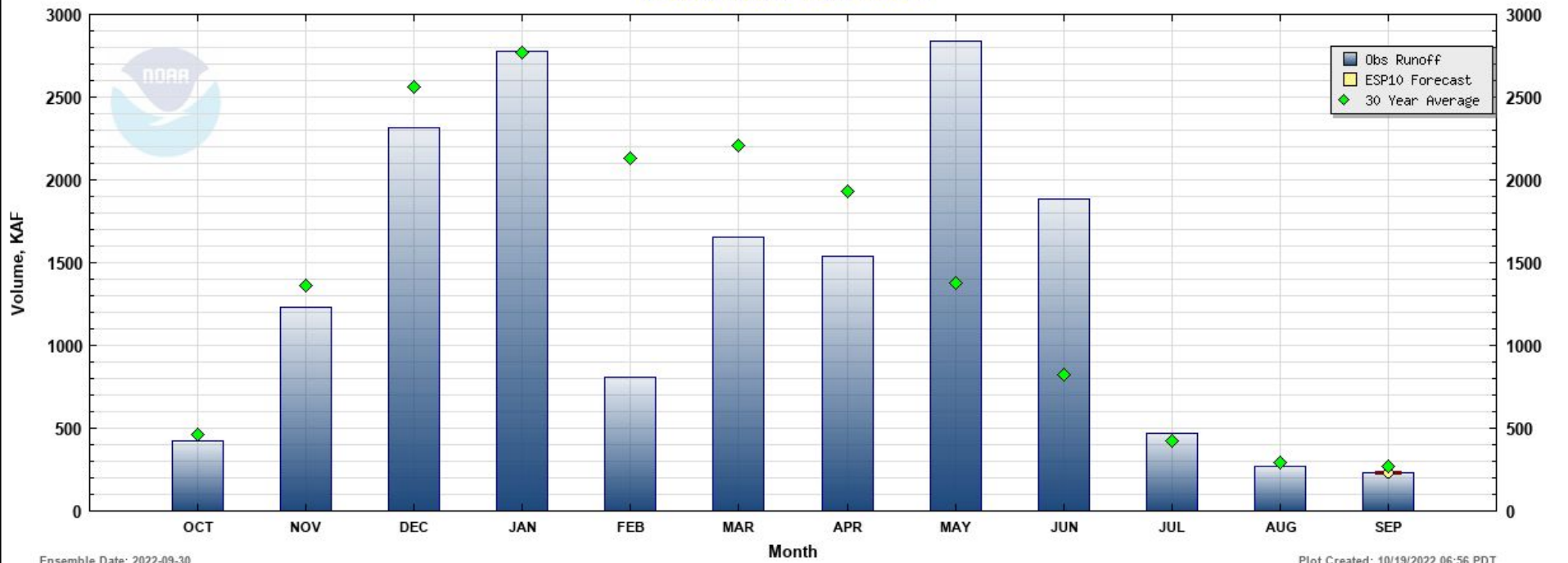
Willamette R at Salem





Monthly Natural Volumes Willamette R at Salem

Natural Volume Monthly Forecasts (ESP10) for Water Year 2022
(SLMO3) WILLAMETTE - AT SALEM

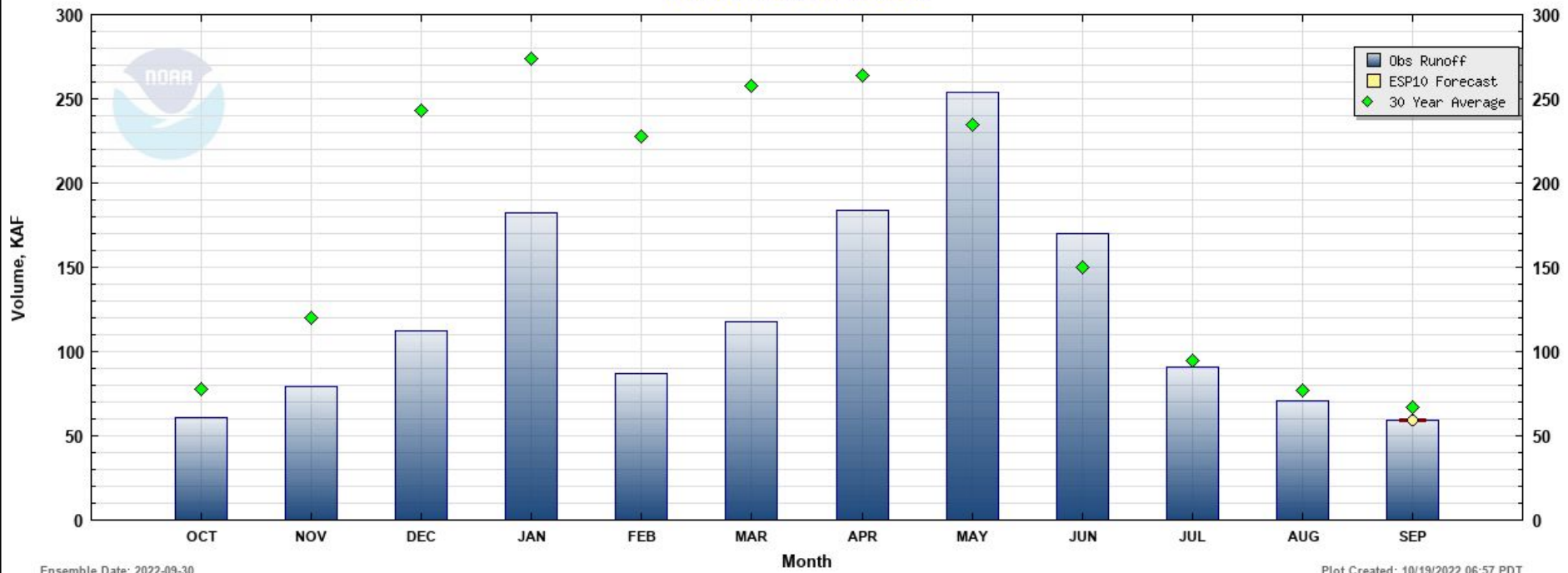




Monthly Natural Volumes

Rogue R near Raygold

Natural Volume Monthly Forecasts (ESP10) for Water Year 2022
(RYGO3) ROGUE - AT RAYGOLD

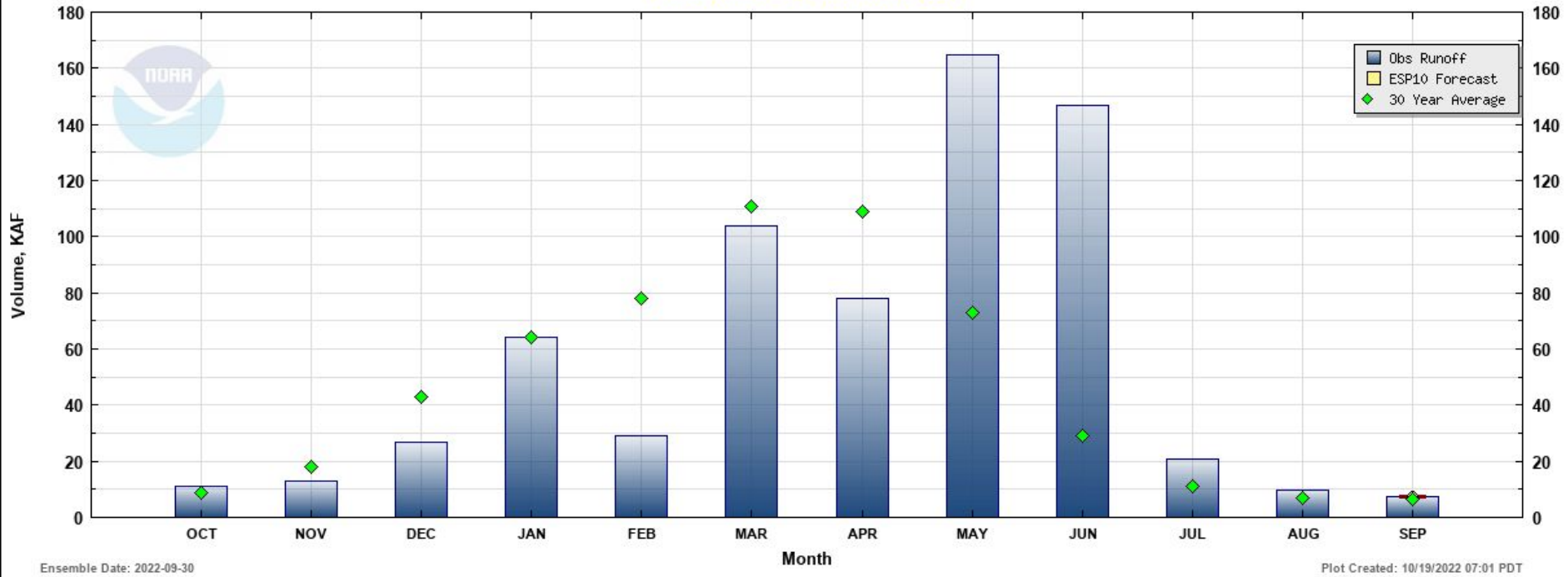




Monthly Natural Volumes

Umatilla R near Umatilla

Natural Volume Monthly Forecasts (ESP10) for Water Year 2022
(UMA03) UMATILLA - NEAR UMATILLA



Ensemble Date: 2022-09-30

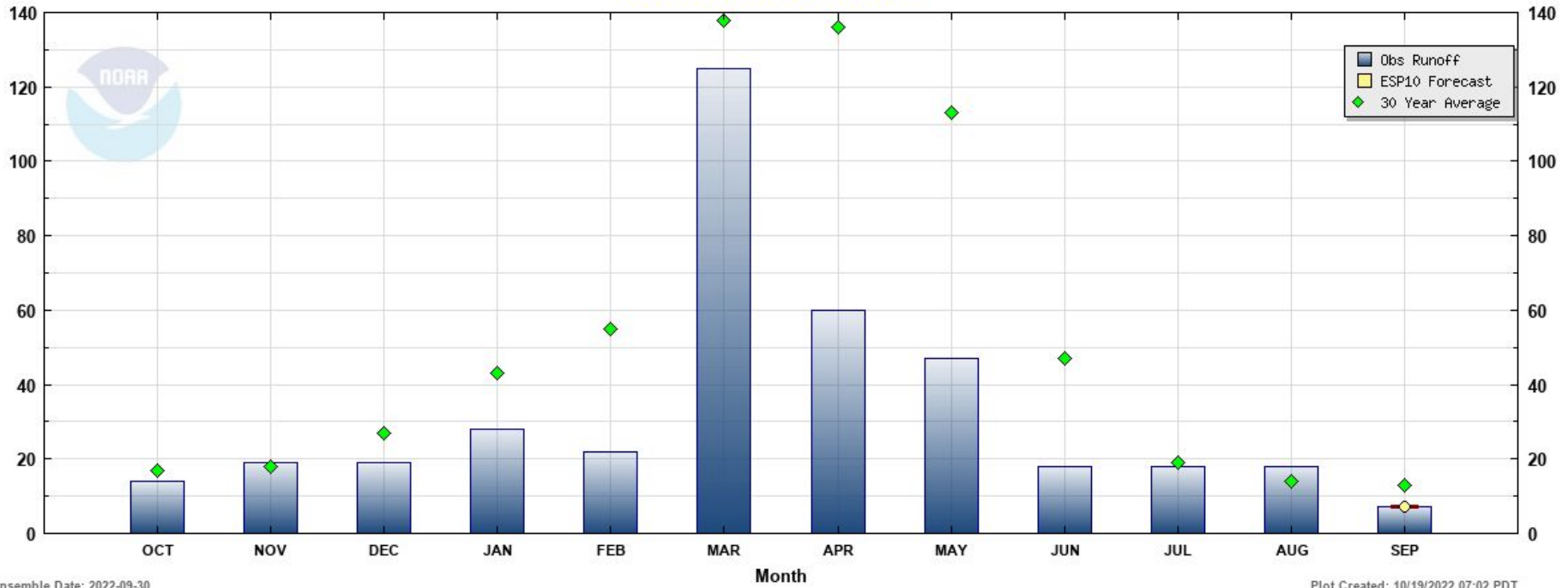
Plot Created: 10/19/2022 07:01 PDT



Monthly Natural Volumes

Owyhee R at Owyhee Dam

Natural Volume Monthly Forecasts (ESP10) for Water Year 2022
(OWYO3) OWYHEE - OWYHEE DAM



Ensemble Date: 2022-09-30

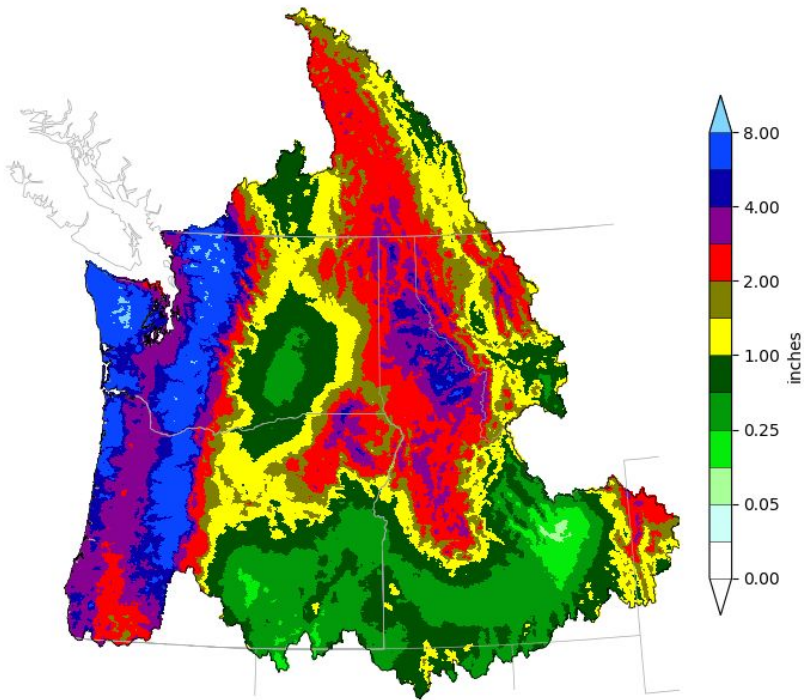
Plot Created: 10/19/2022 07:02 PDT



10 Day Precipitation Forecast



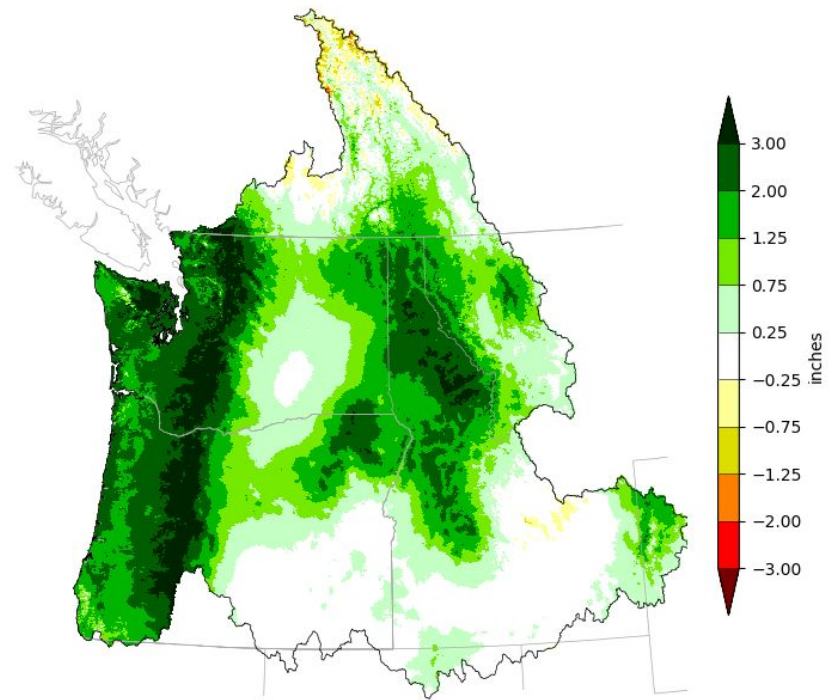
Northwest River Forecast Center
10 Day QPF, Ending 12Z, 10/29/22



Creation Time: Wed Oct 19 14:24:16 UTC 2022



Northwest River Forecast Center
10 Day QPF (Deviation from Climatology), Ending 12Z, 10/29/22



Creation Time: Wed Oct 19 14:25:51 UTC 2022

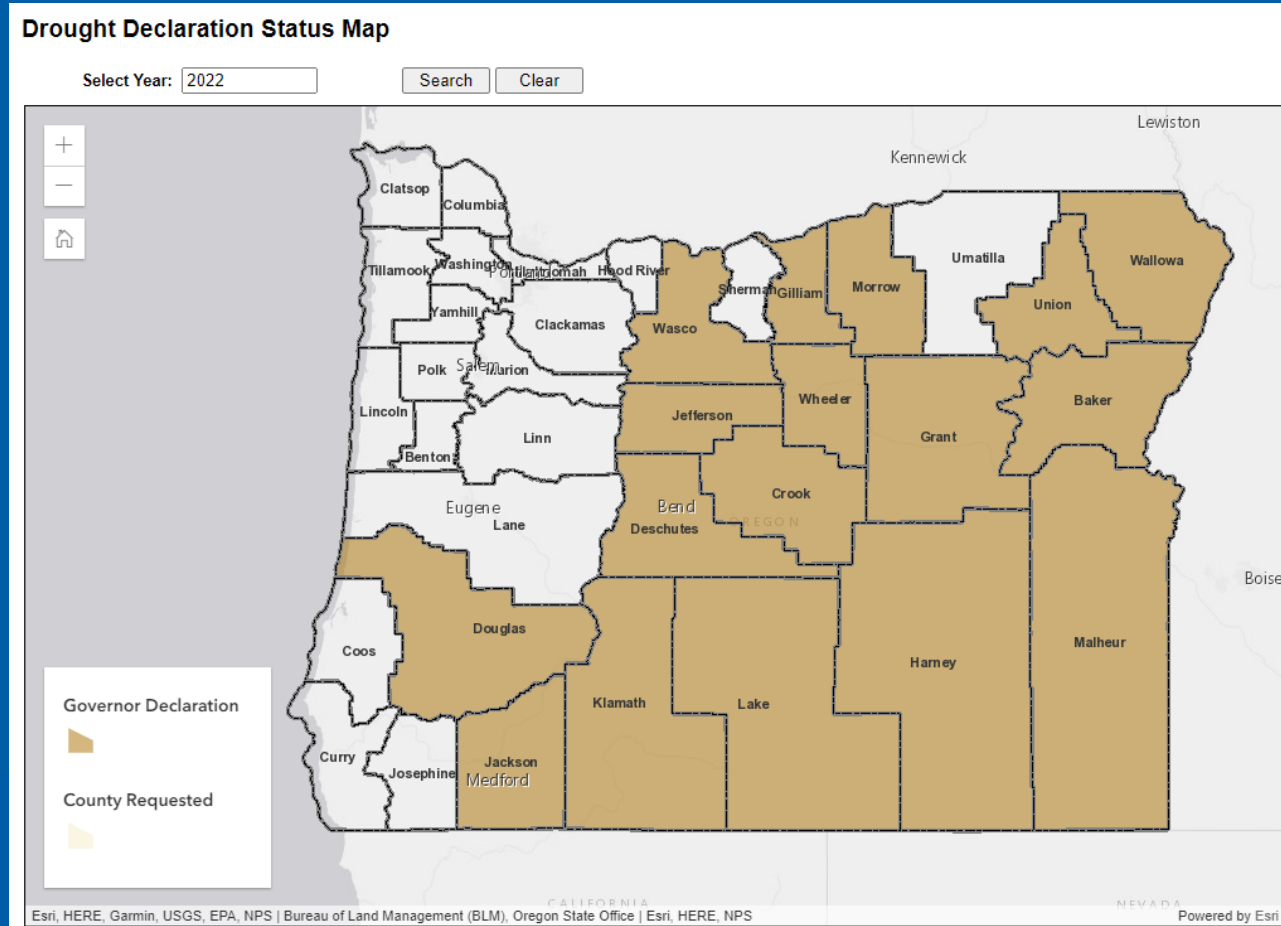


Water Supply Availability Committee
Oregon Water Resources Department
Ryan Andrews
October 19th, 2022

Drought Declarations



- 17 counties with ORS 536 declarations
- 29 counties with USDA crop disaster designations due to drought



September % of Average Streamflow - WY 2022

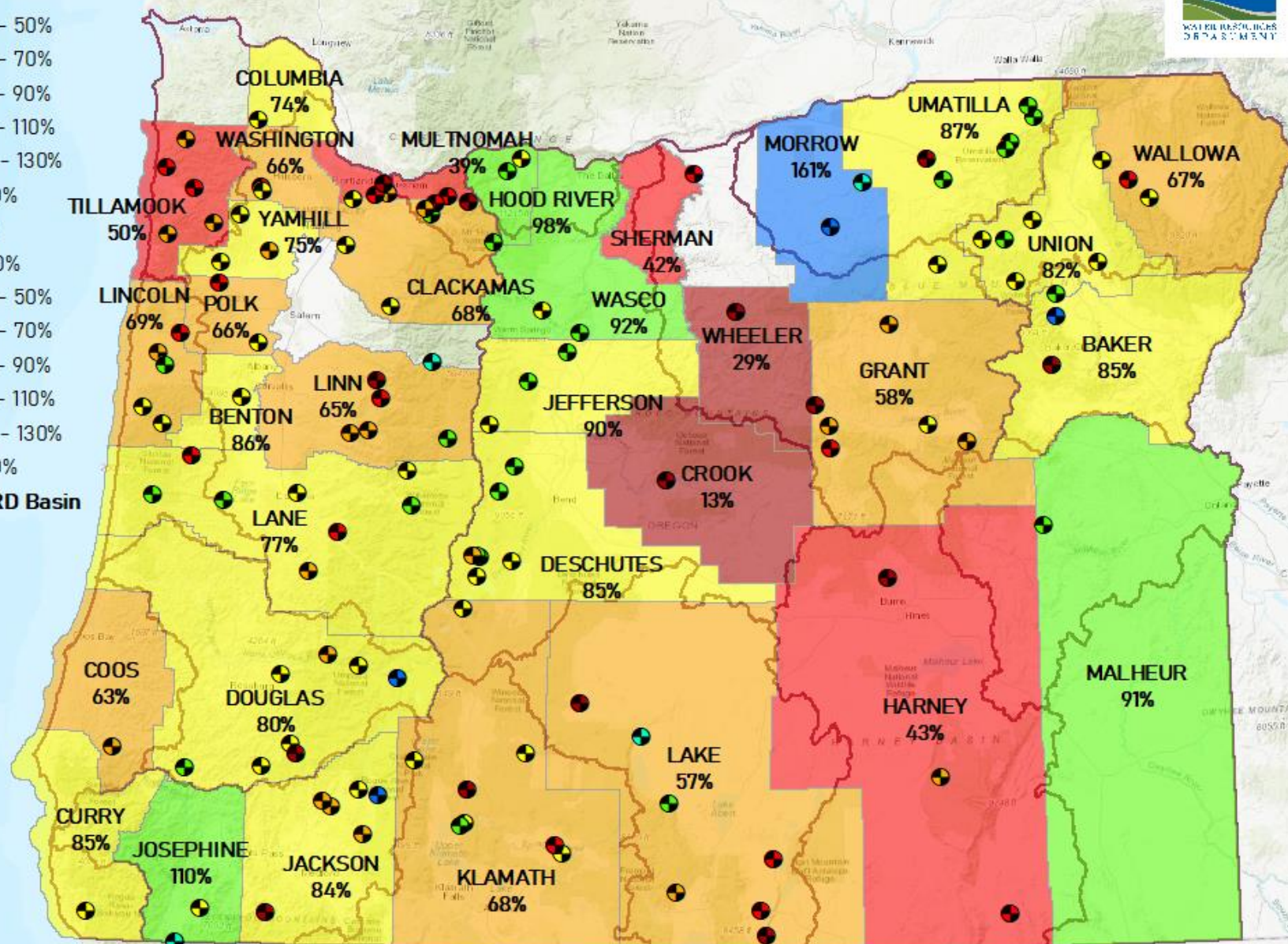


Stream Gage

- <= 30%
- 31% - 50%
- 51% - 70%
- 71% - 90%
- 91% - 110%
- 111% - 130%
- > 130%

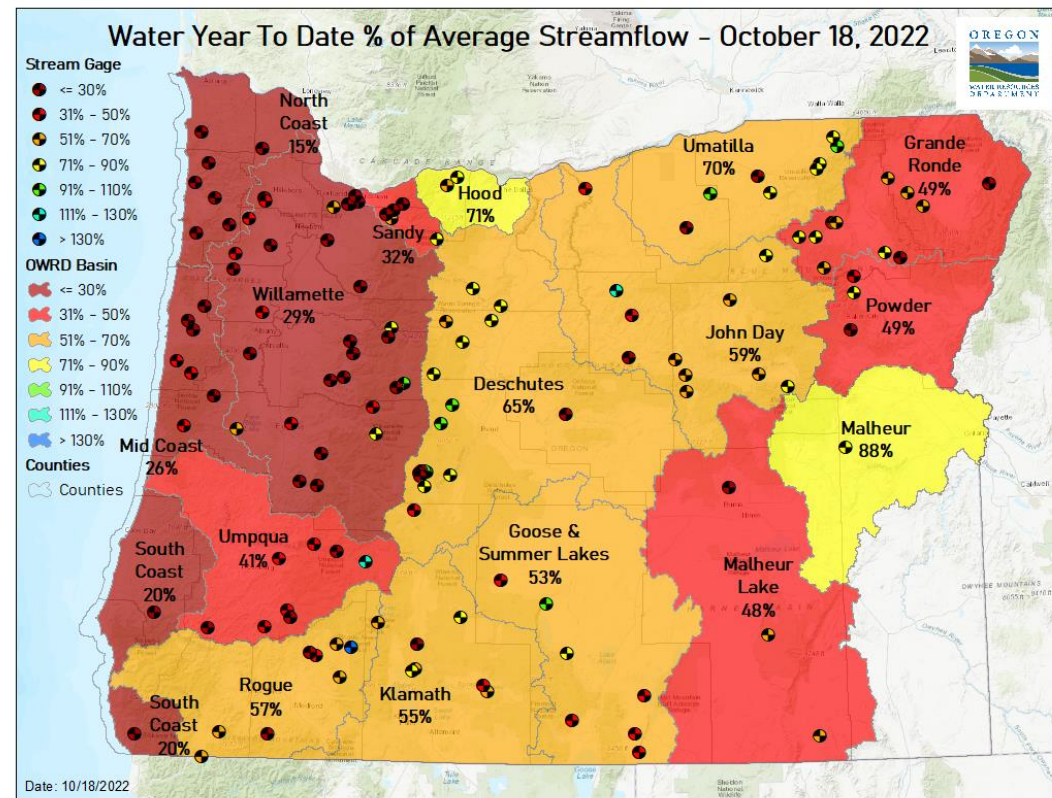
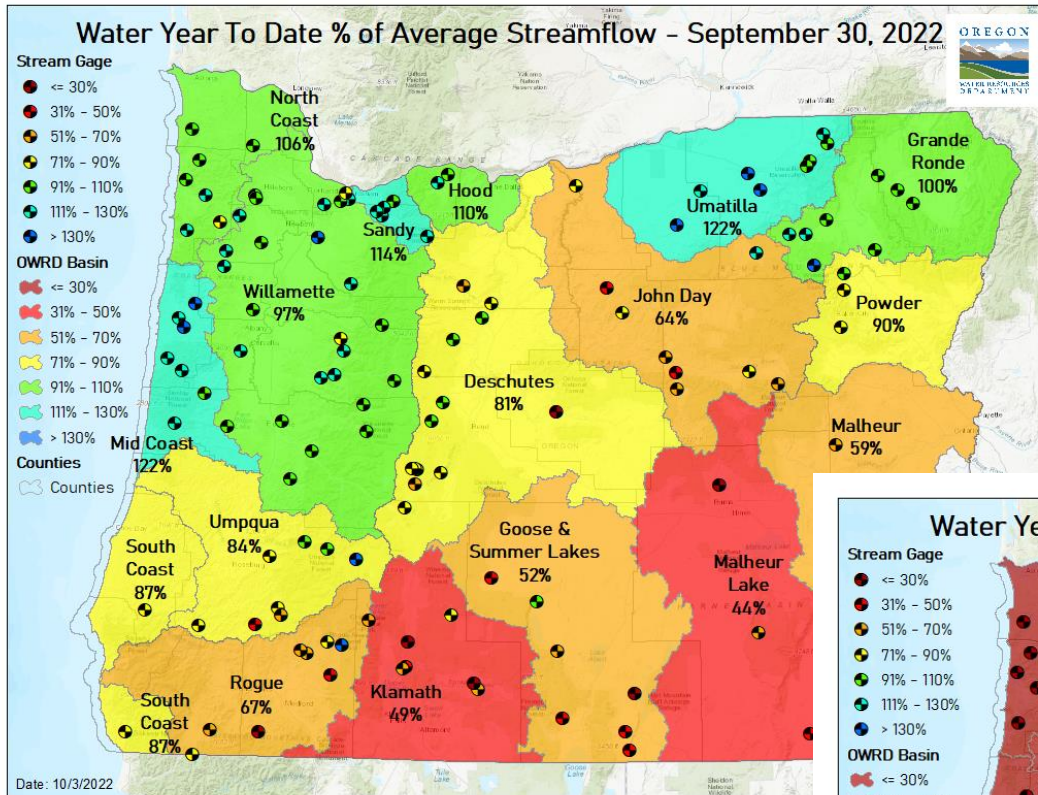
Counties

- <= 30%
- 31% - 50%
- 51% - 70%
- 71% - 90%
- 91% - 110%
- 111% - 130%
- > 130%
- OWRD Basin



Date: 10/3/2022

Water Year to Date

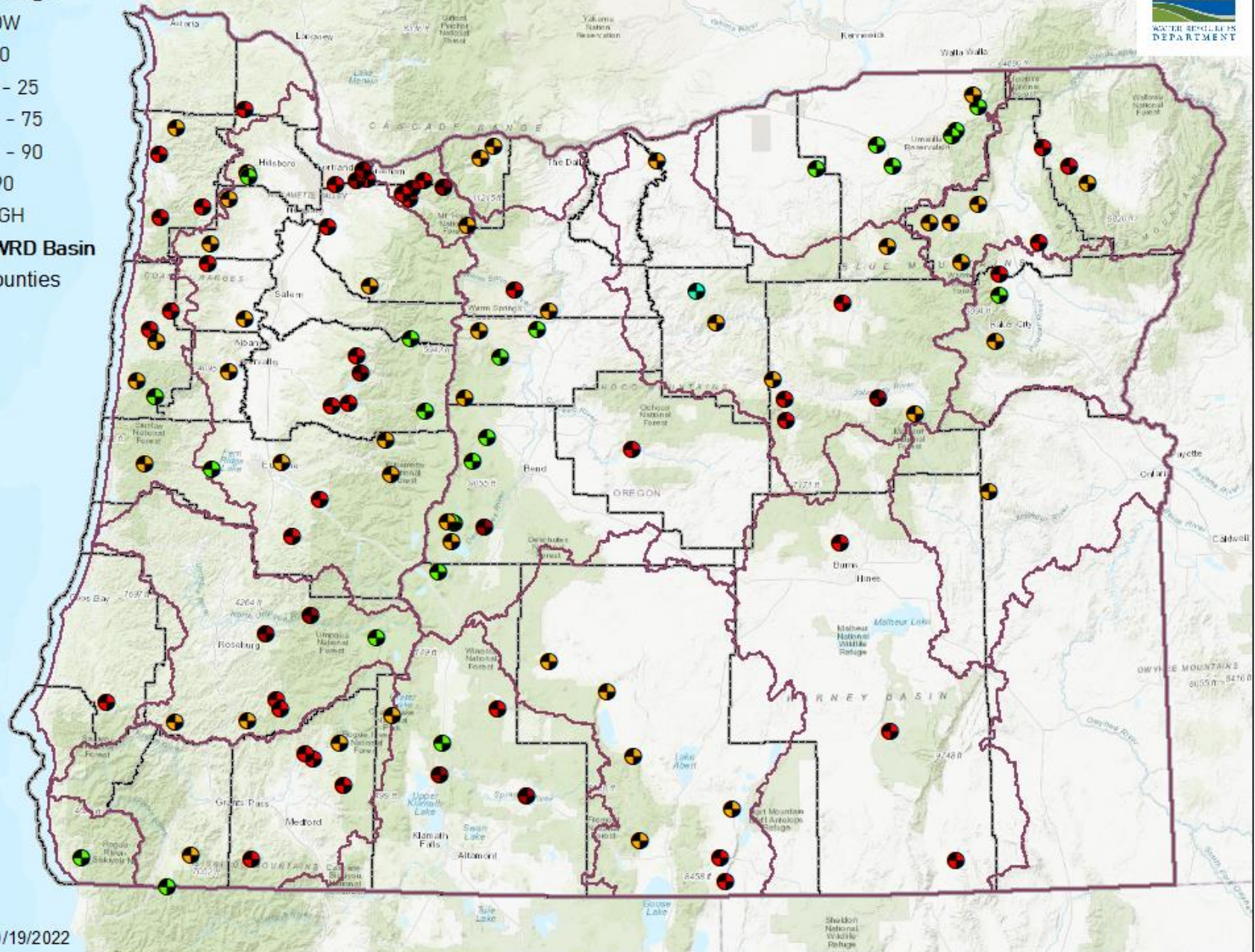


7-Day Streamflow Percentile - October 17, 2022



Stream Gage

- LOW
- < 10
- 10 - 25
- 25 - 75
- 75 - 90
- > 90
- HIGH
- OWRD Basin
- Counties



Date: 10/19/2022

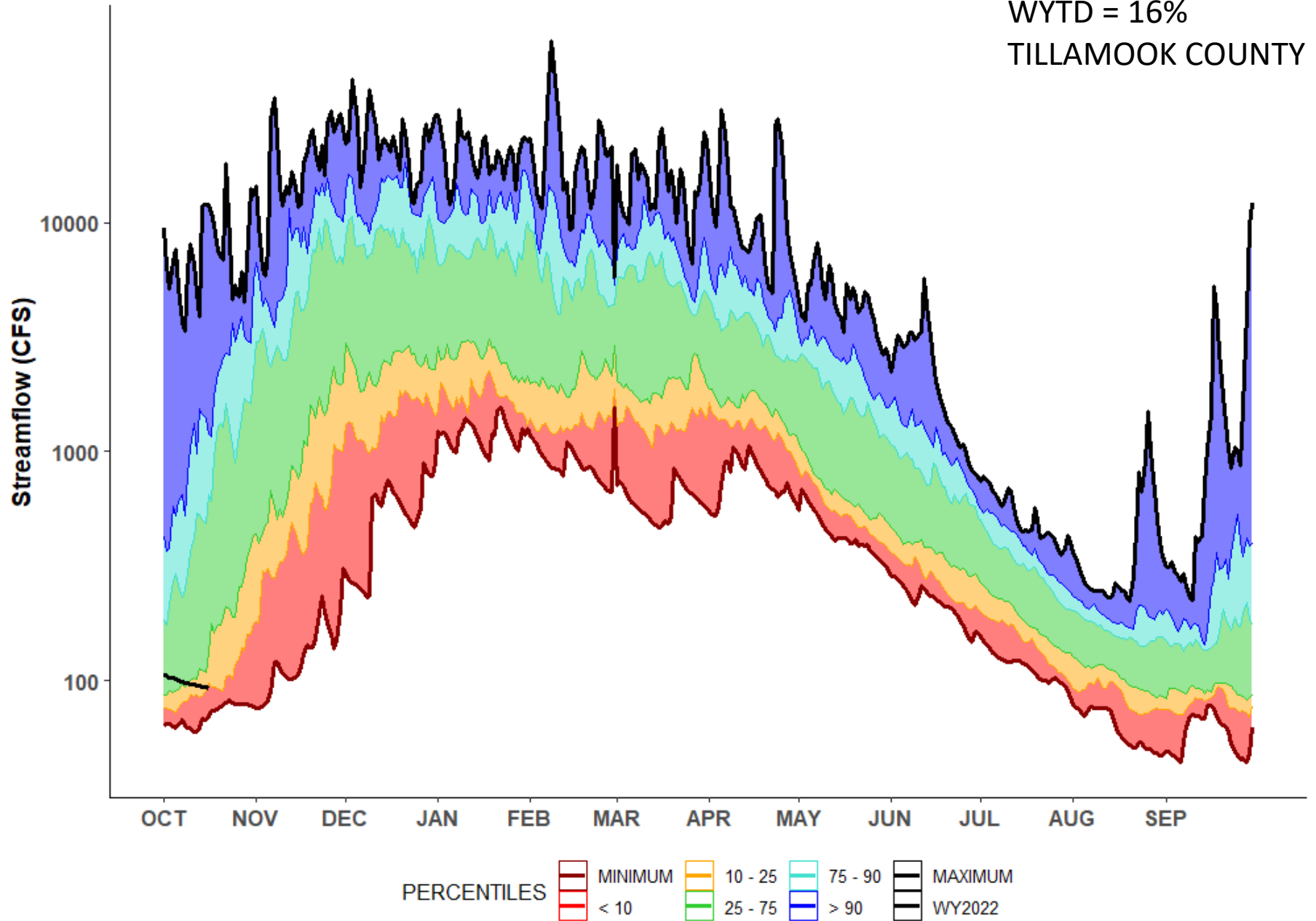
14301000 - NEHALEM R NR FOSS, OR

NORTH COAST BASIN

POR: 1991-2020

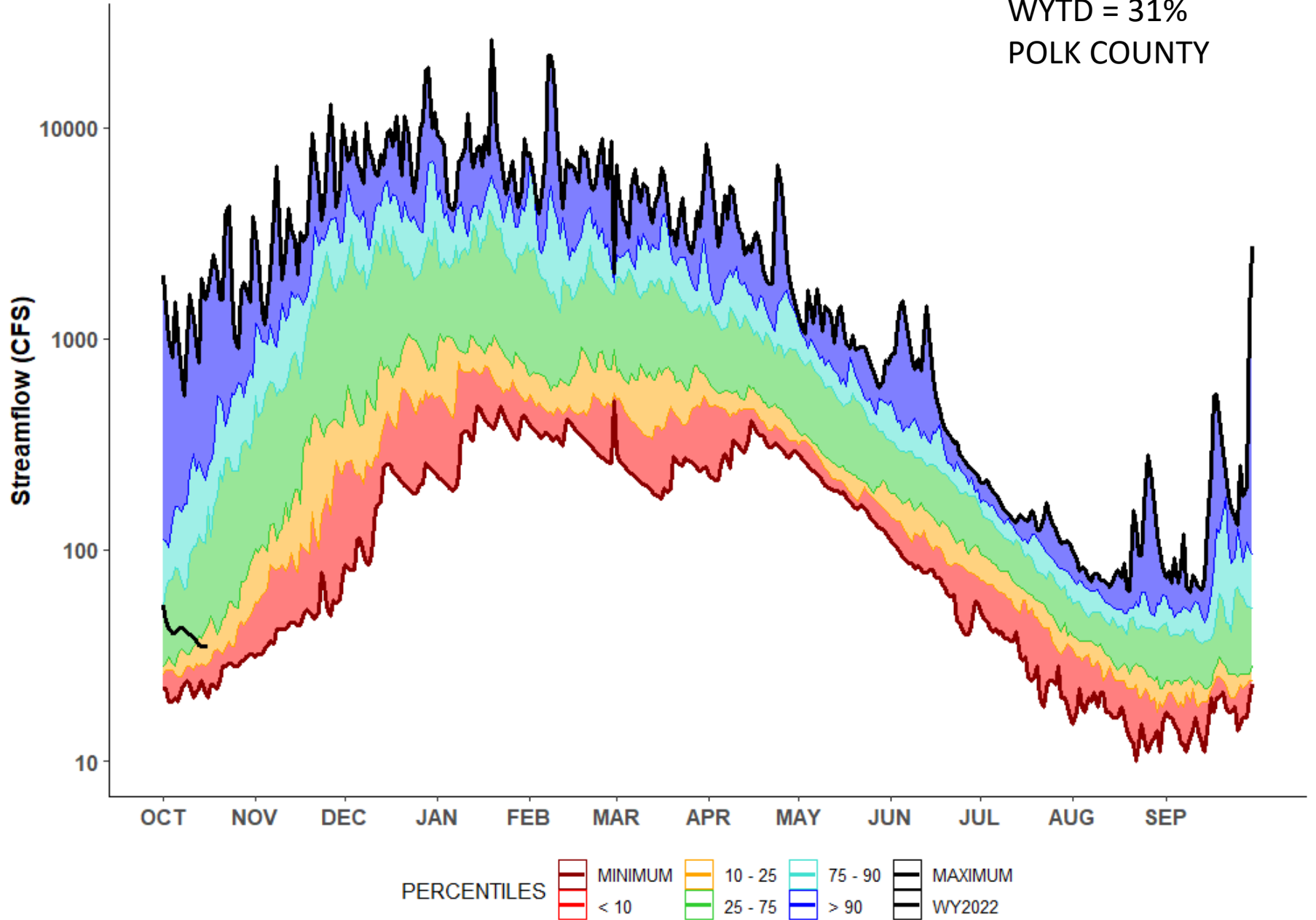
WYTD = 16%

TILLAMOOK COUNTY



14190500 - LUCKIAMUTE R NR SUVER, OR
WILLAMETTE BASIN
POR: 1991-2020

WYTD = 31%
POLK COUNTY



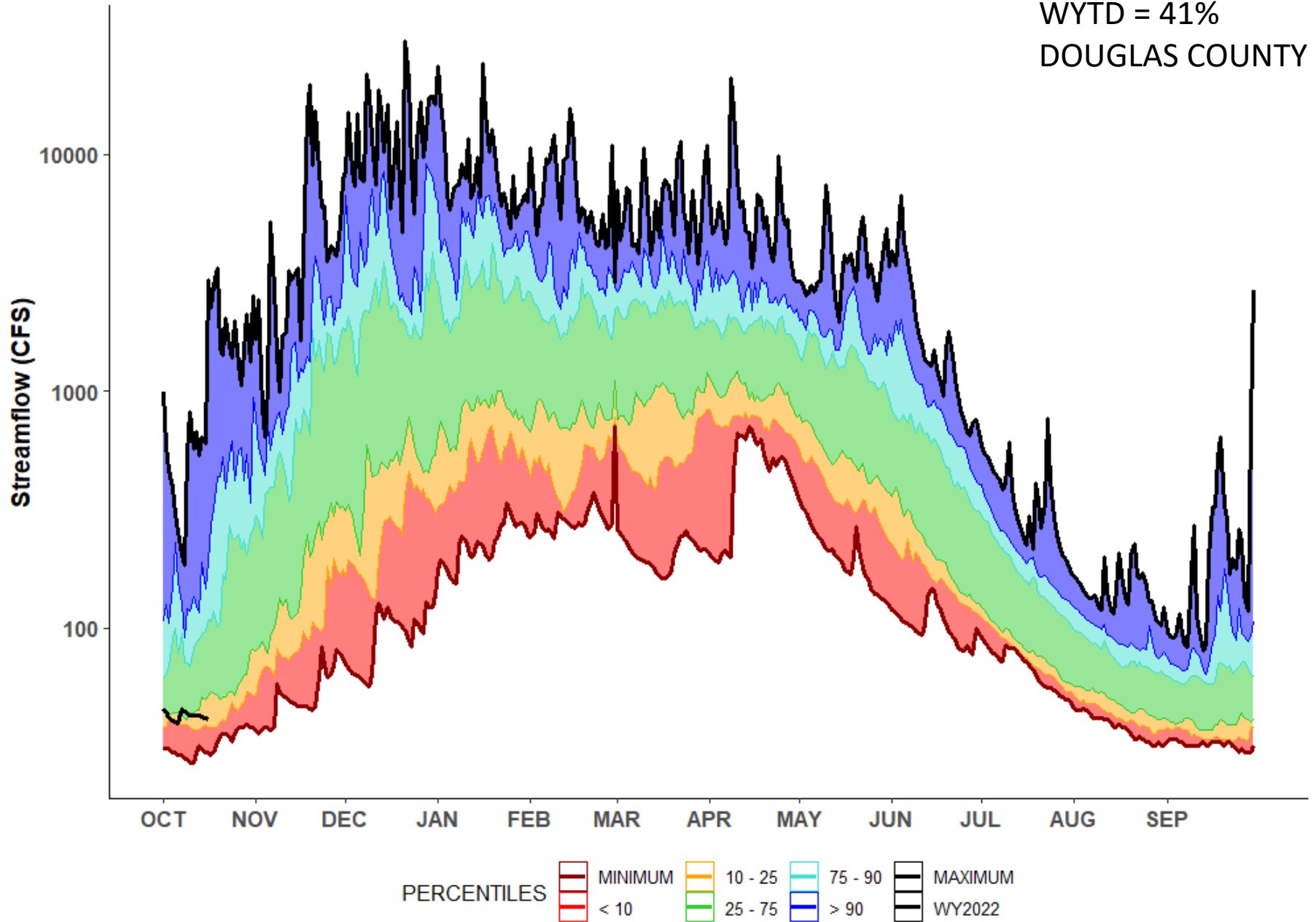
14308000 - S UMPQUA R AT TILLER, OR

UMPQUA BASIN

POR: 1991-2020

WYTD = 41%

DOUGLAS COUNTY



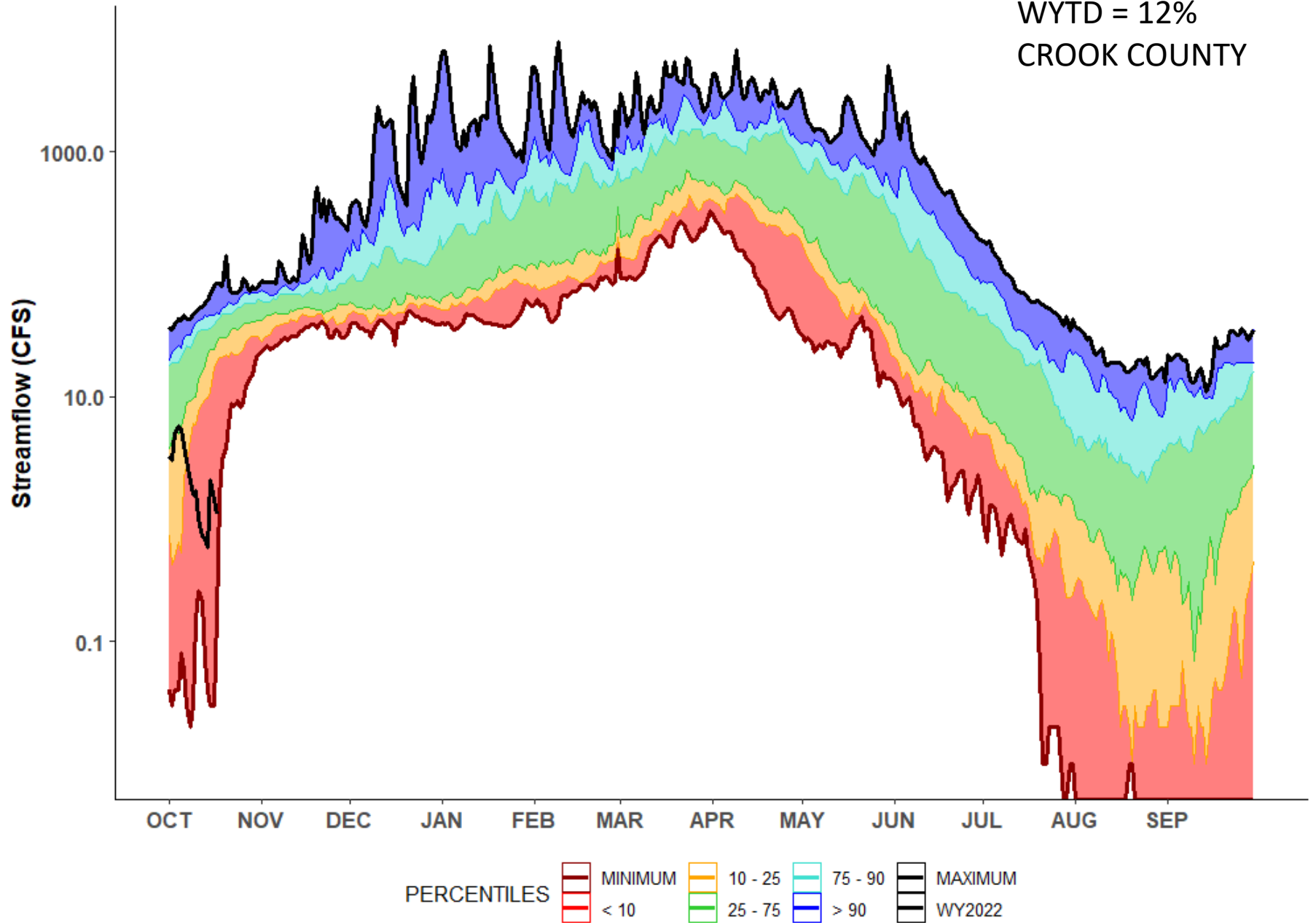
14079800 - CROOKED R AB PRINEVILLE RES NR POST, OR

DESCHUTES BASIN

POR: 1991-2020

WYTD = 12%

CROOK COUNTY



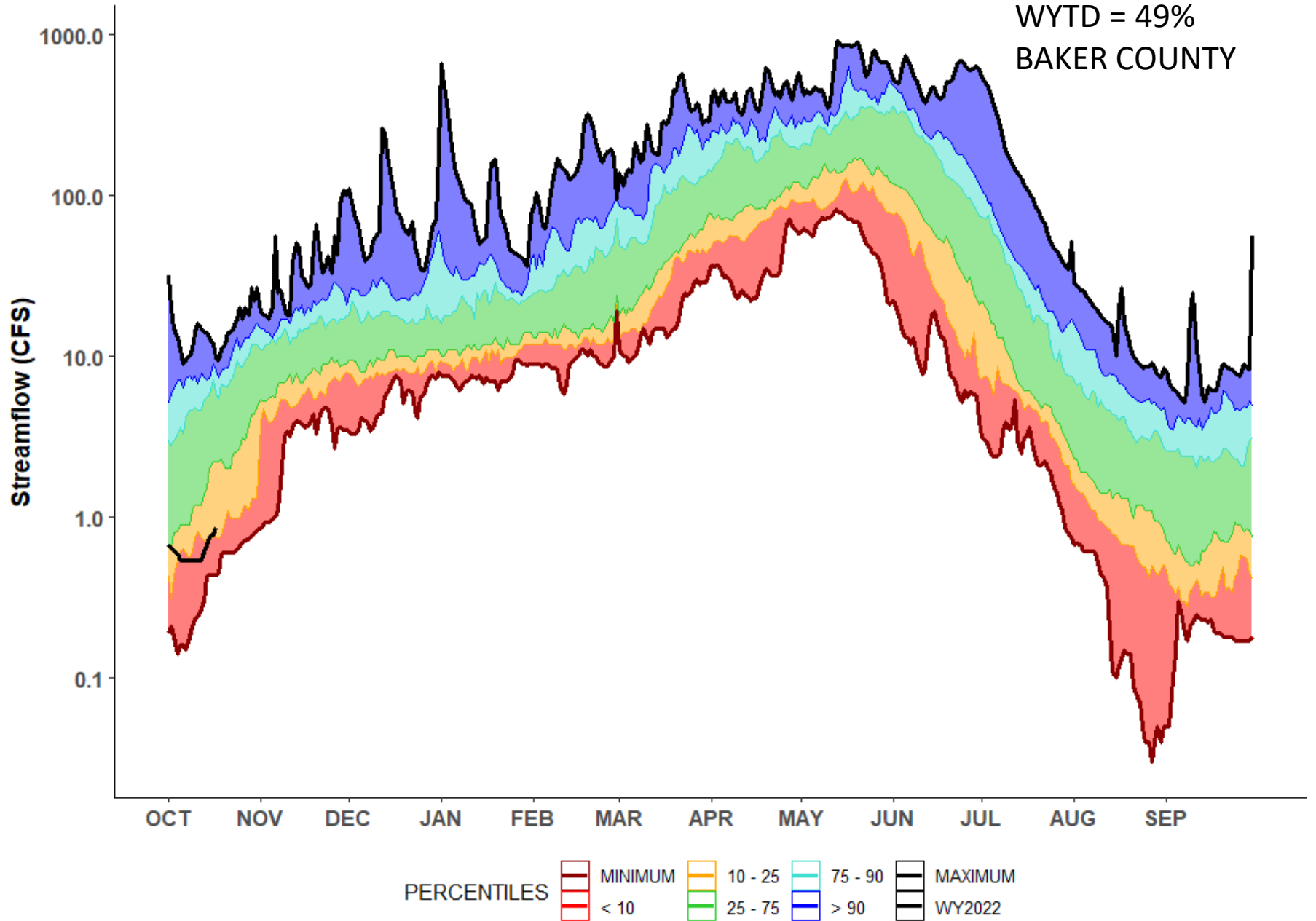
13275105 - POWDER R AT HUDSPETH LANE NR SUMPTER, OR

POWDER BASIN

POR: 1991-2020

WYTD = 49%

BAKER COUNTY



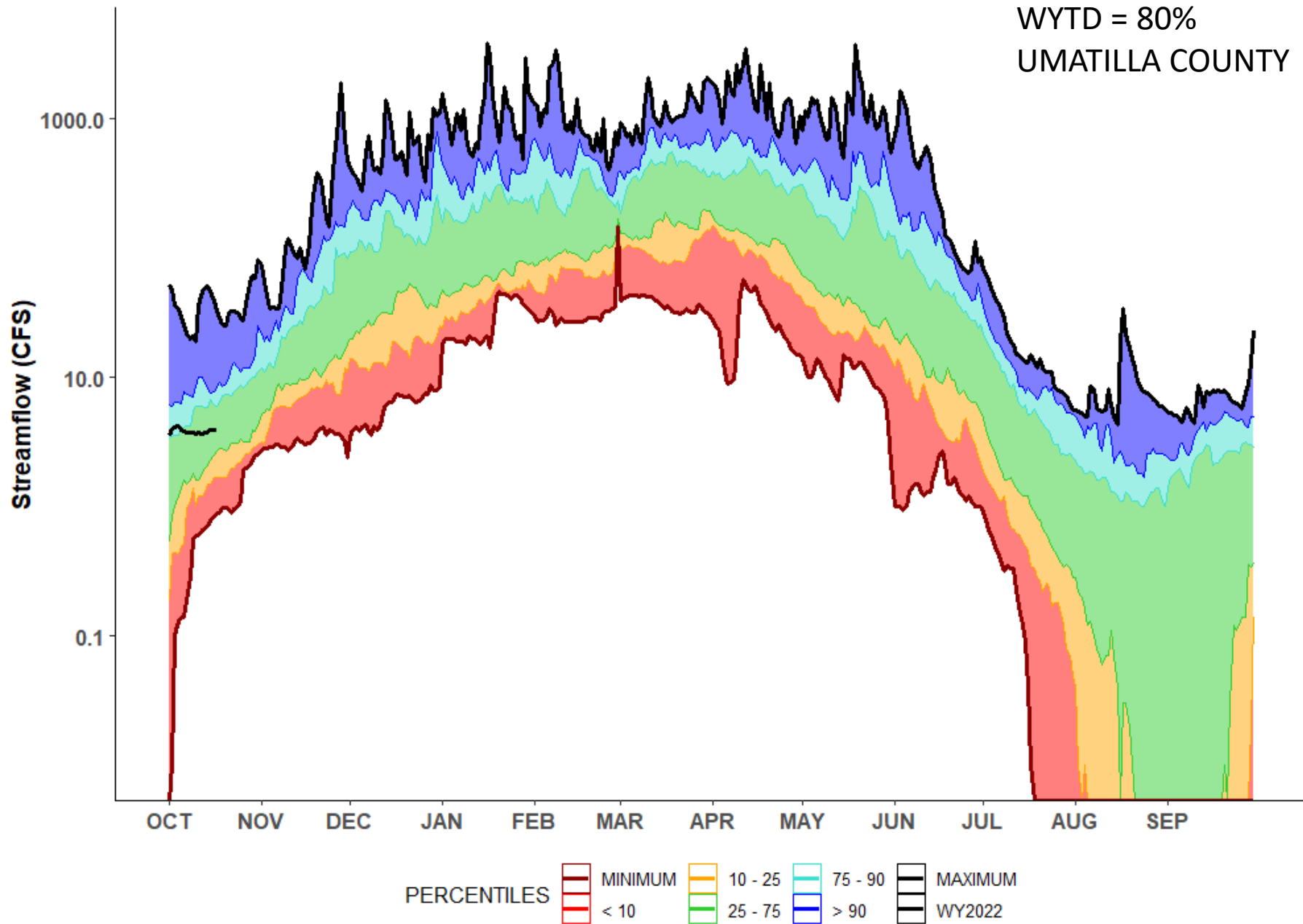
14022500 - MCKAY CR NR PILOT ROCK, OR

UMATILLA BASIN

POR: 1991-2020

WYTD = 80%

UMATILLA COUNTY



Summary



- Warm, dry conditions in late summer, early fall translated to well below average start to water year 2023
- Several record low flows east and west of Cascades

OREGON



WATER RESOURCES
DEPARTMENT

QUESTIONS?



— BUREAU OF —
RECLAMATION

Reclamation Storage Update

Oregon Water Supply Availability
Committee Meeting

October 19, 2022

Basin Operations Summary

- **Operations Activities:**

- Irrigation season has or is nearing an end
- Reservoirs are transitioning to winter minimum outflows to begin filling

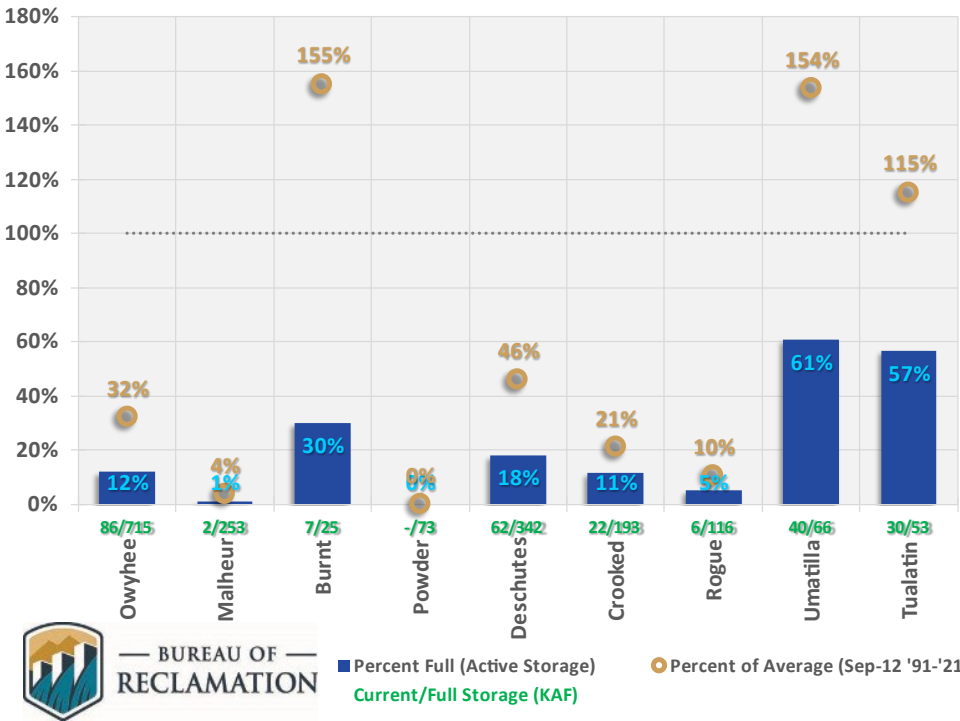
- **Water Supply Notes**

- Much below normal carryover at the end of the season in the southern, central and southeastern basins (Rogue, Deschutes, Crooked, Malheur, Powder, Owyhee) => similar to start of WY2022
- Above normal and higher carryover than WY2022 in the northern basins (Unity, McKay, Scoggins)

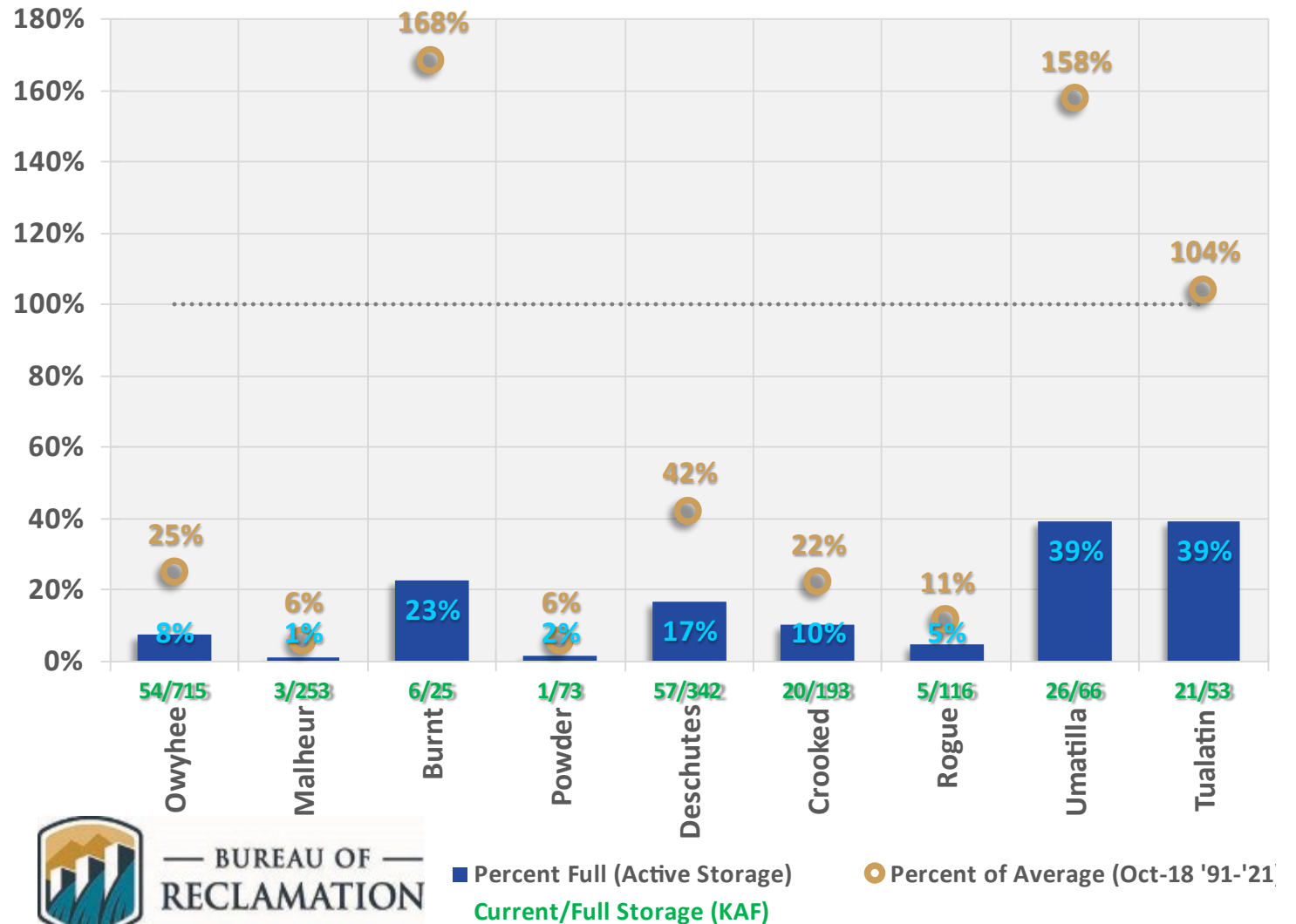


Storage Conditions

Oregon Reservoir Storage (Sep 12 2022)

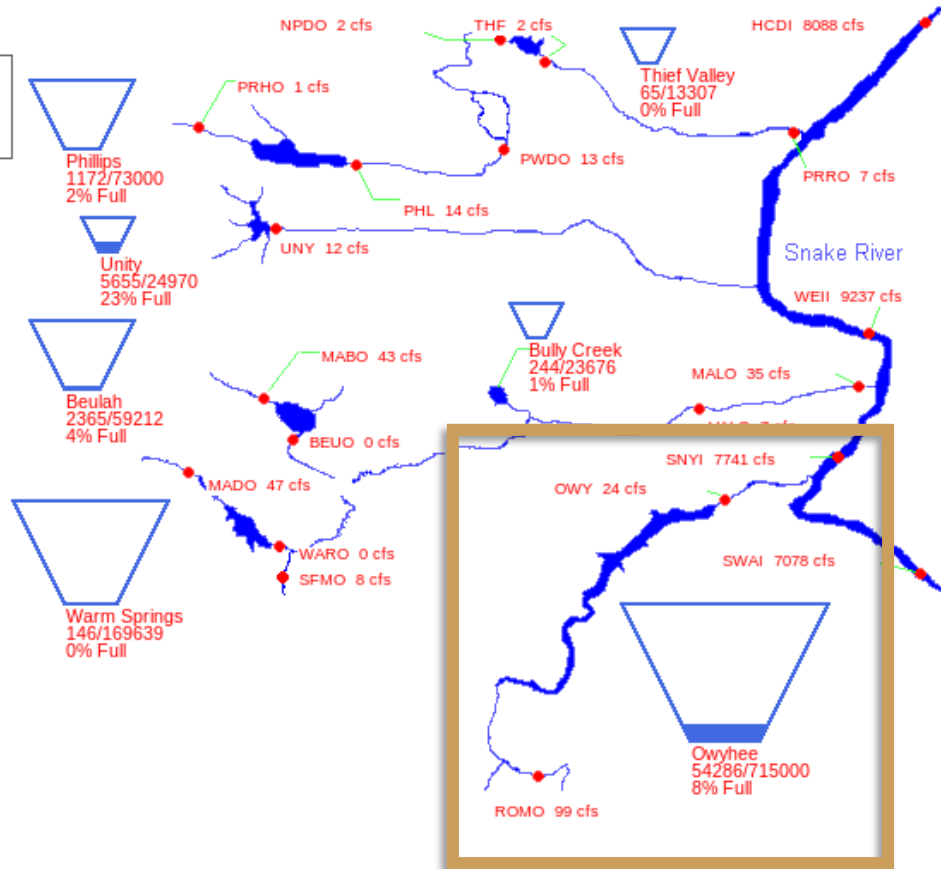
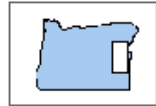


Oregon Reservoir Storage (Oct 18 2022)

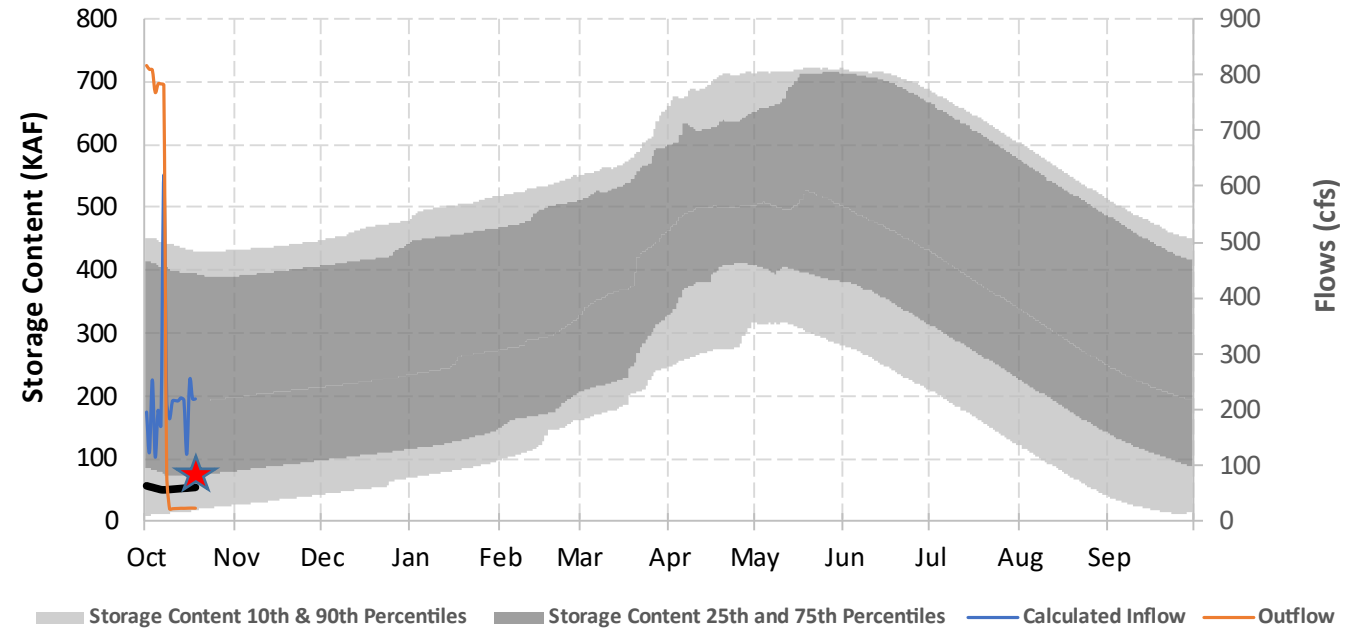


Owyhee River Basin

10/18/2022



Owyhee Dam and Reservoir

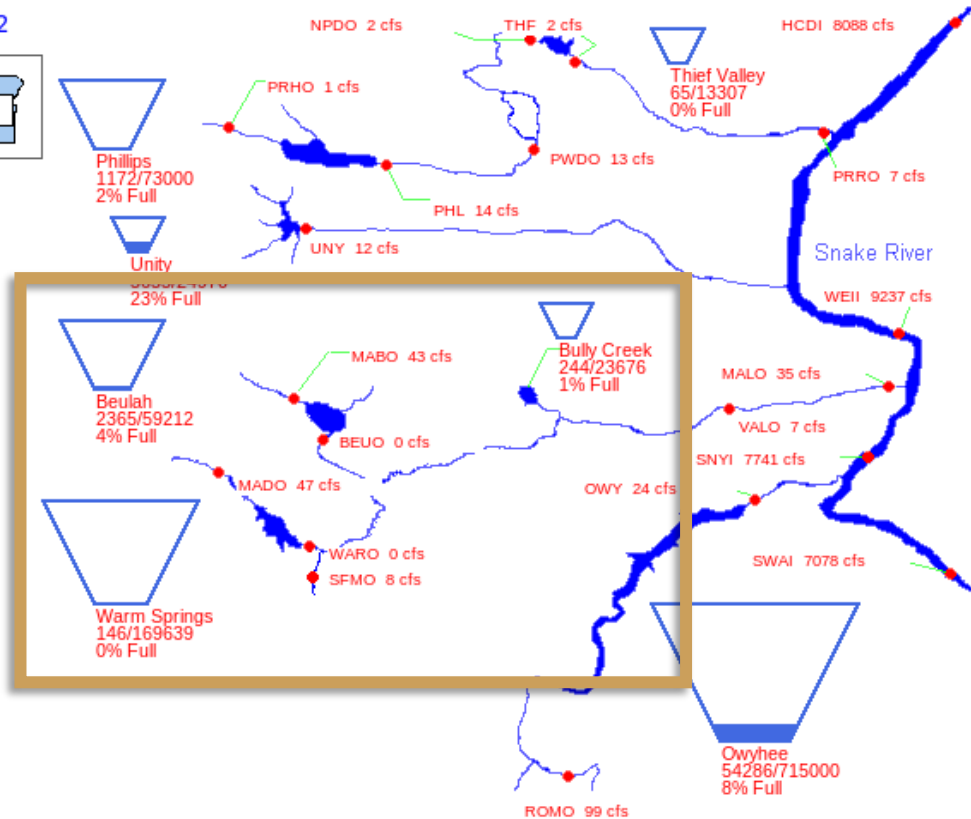
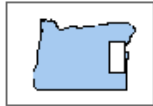


★ WY2022 Storage Content

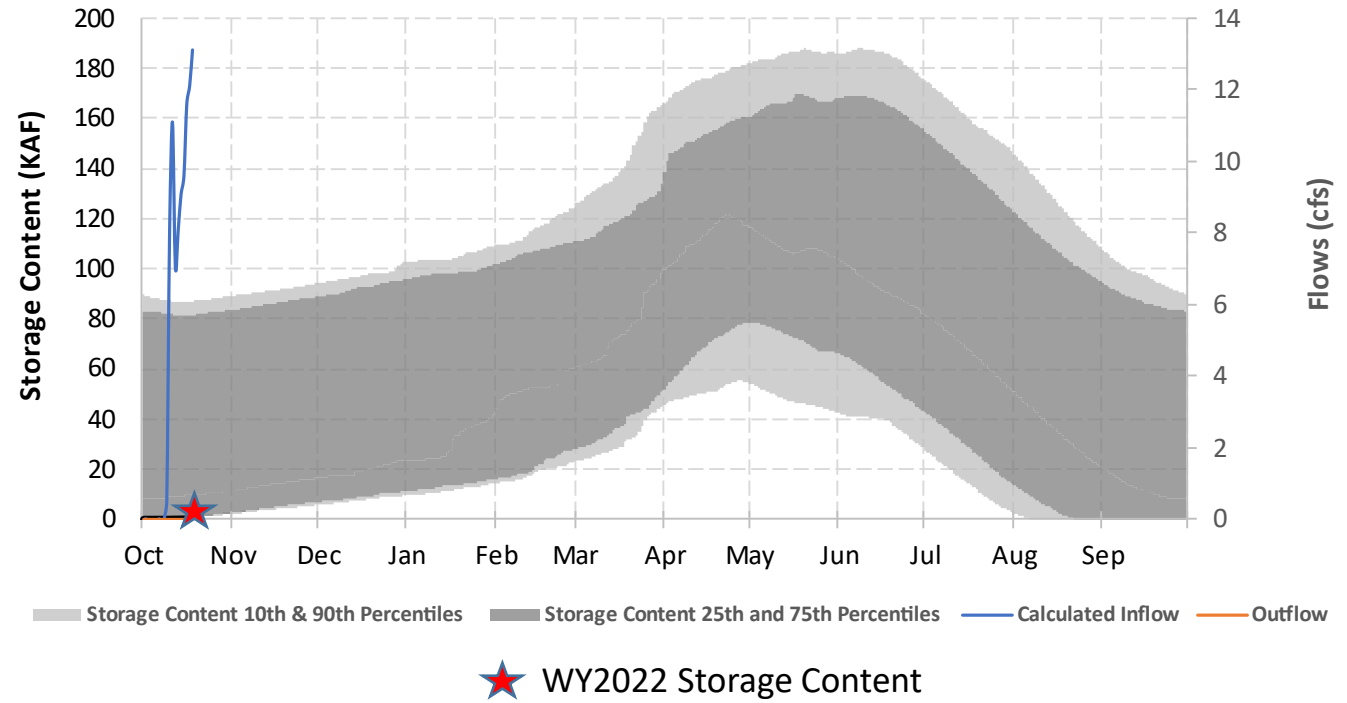


Malheur River Basin

10/18/2022

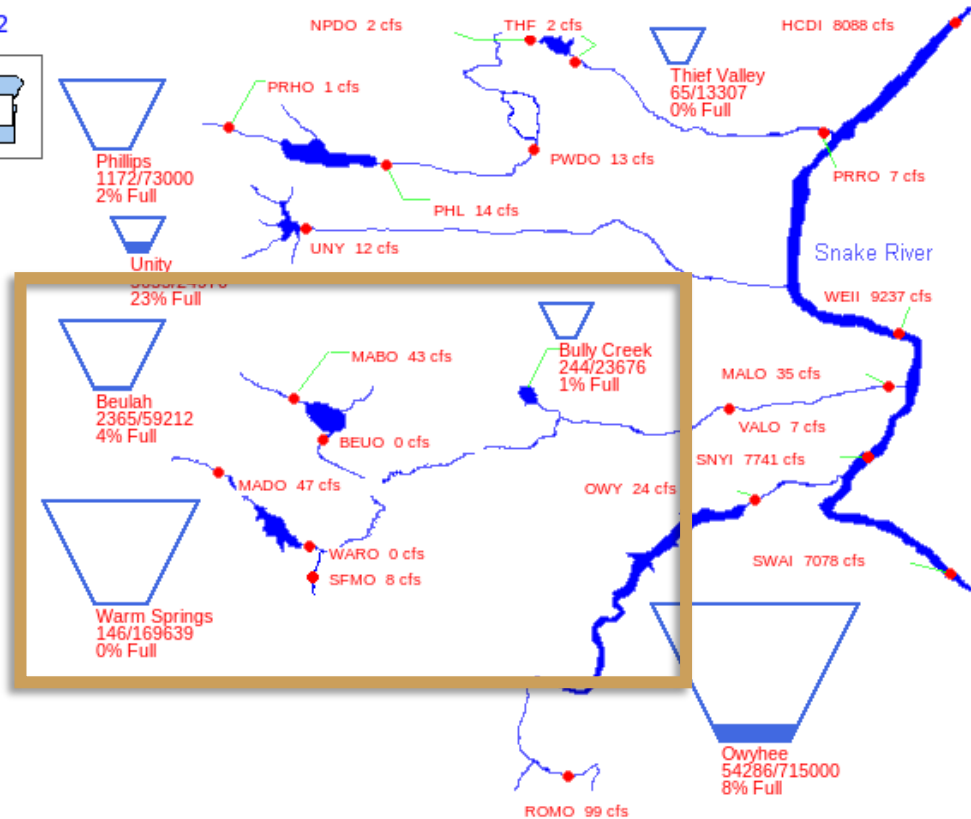
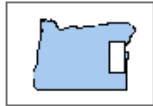


Warm Springs Dam and Reservoir

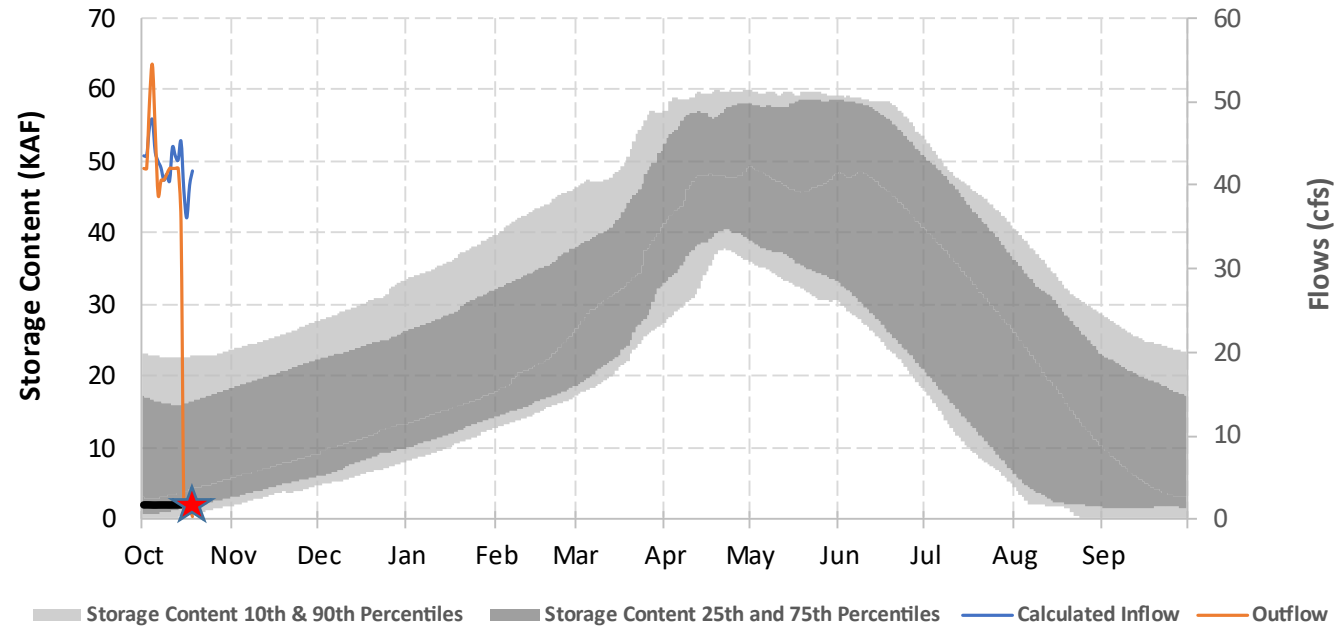


Malheur River Basin

10/18/2022



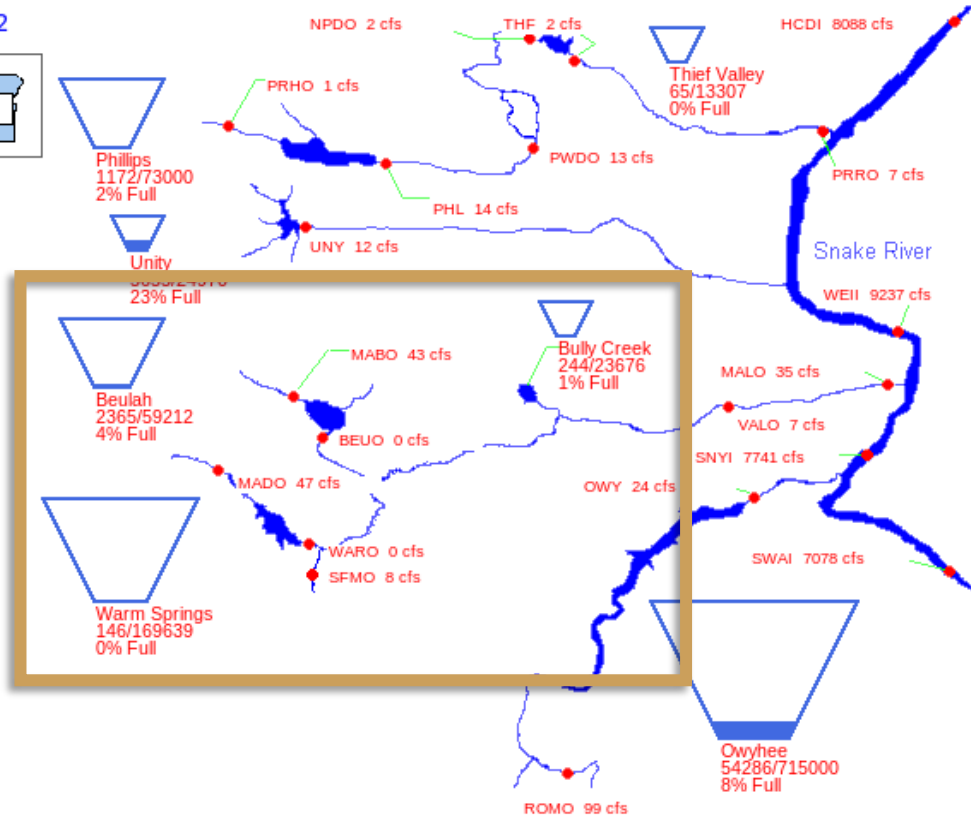
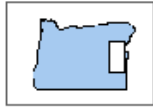
Beulah Dam and Reservoir



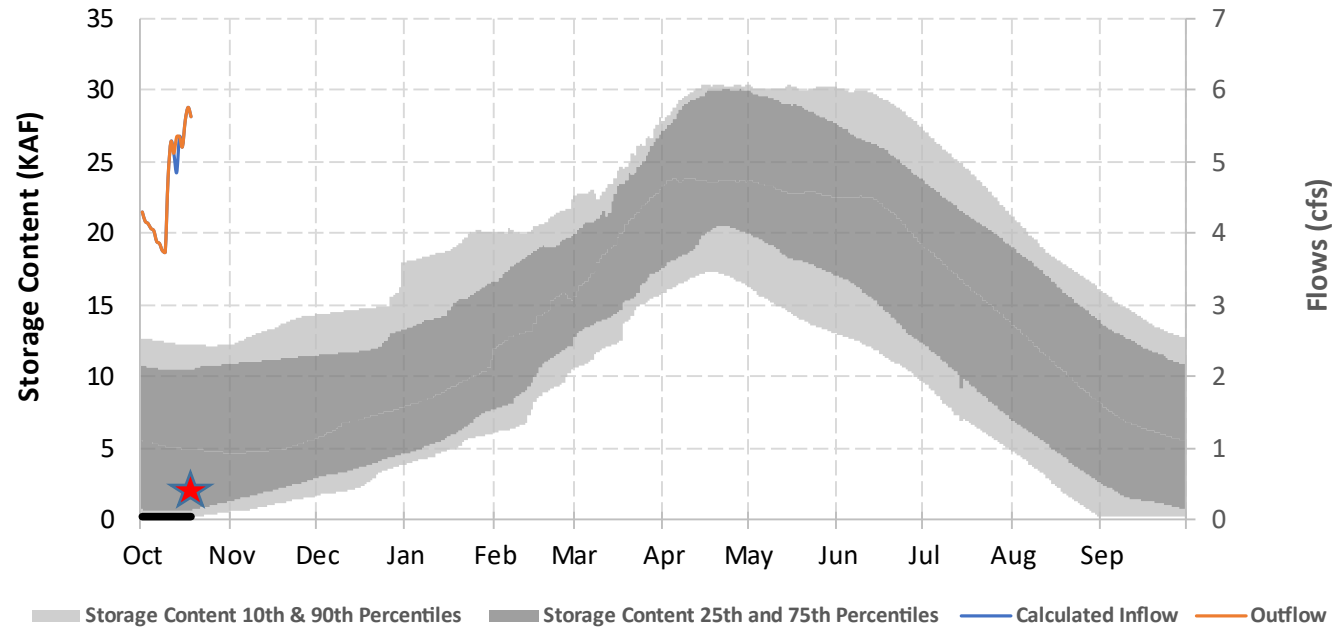
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Malheur River Basin

10/18/2022



Bully Creek Dam and Reservoir

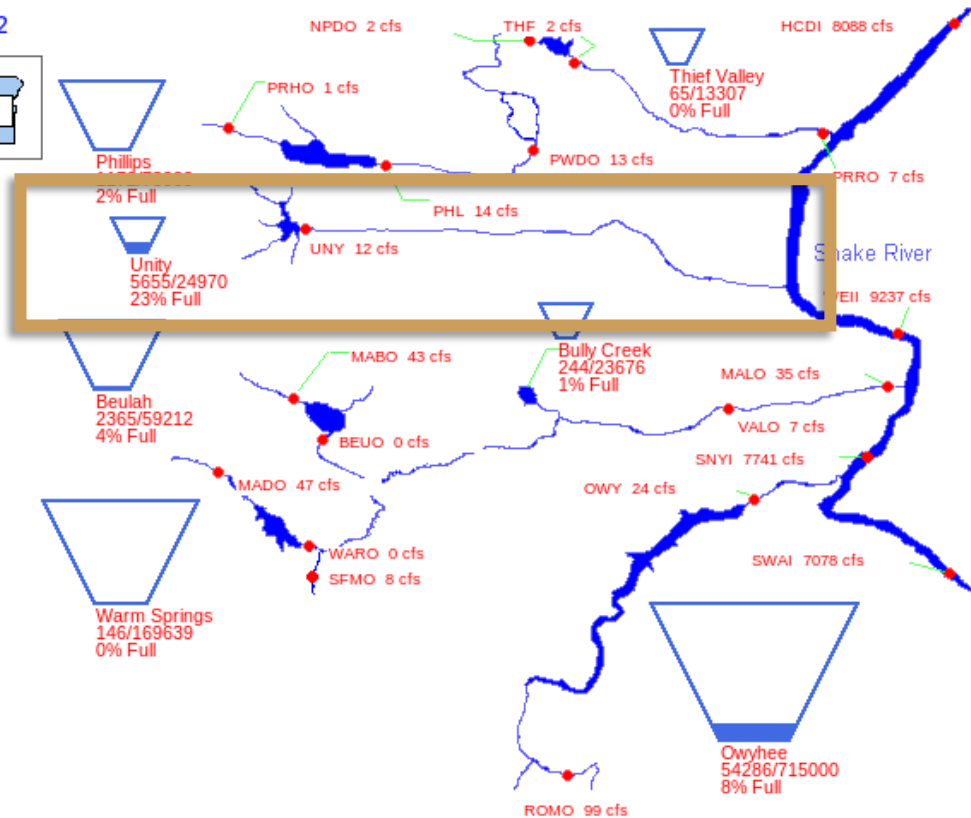
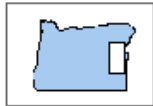


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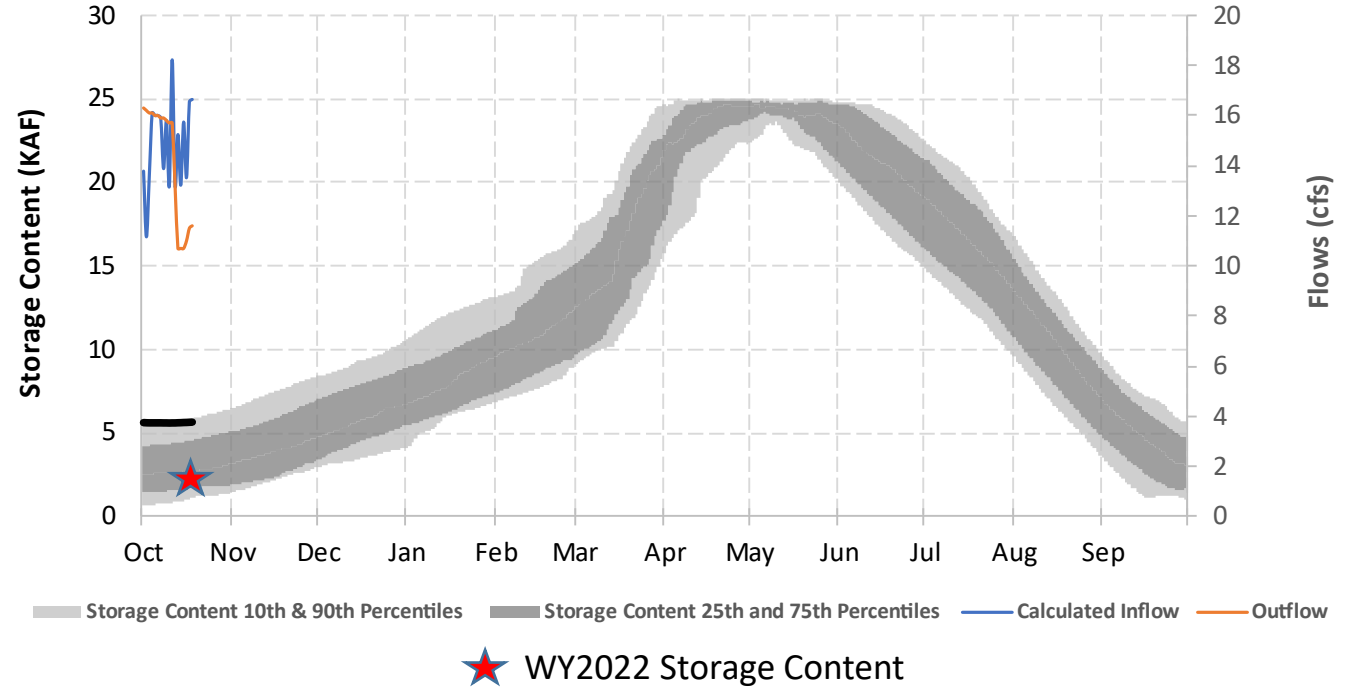


Burnt River Basin

10/18/2022

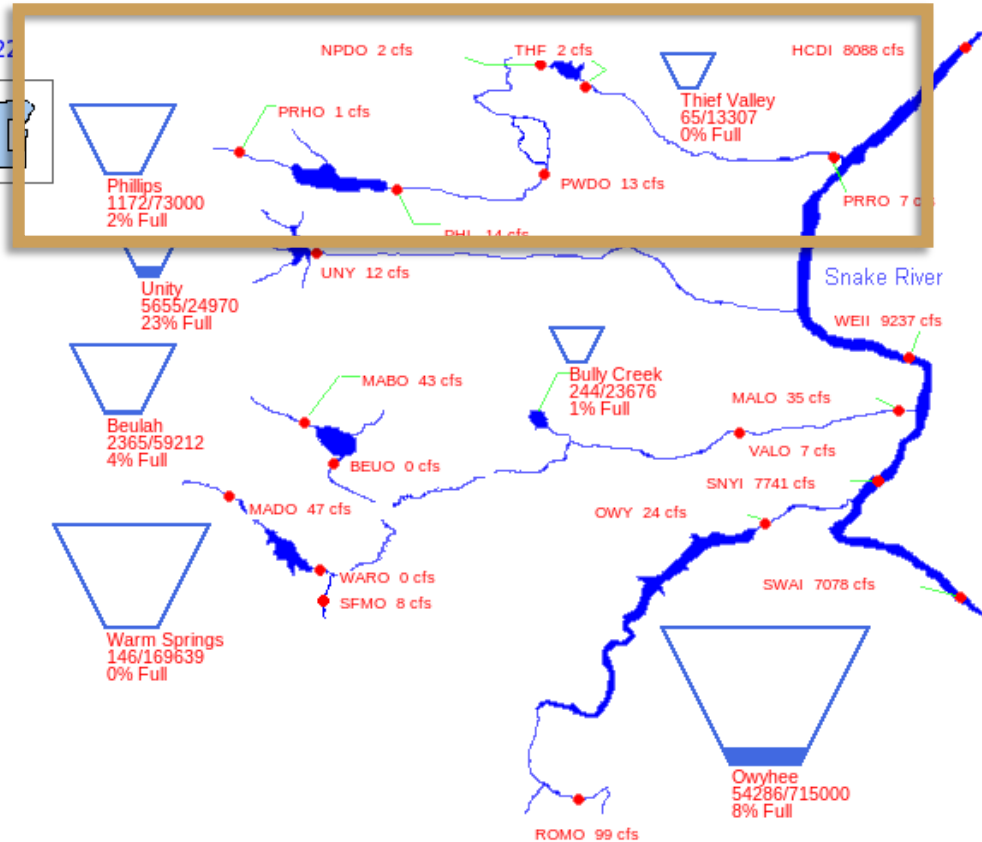


Unity Dam and Reservoir

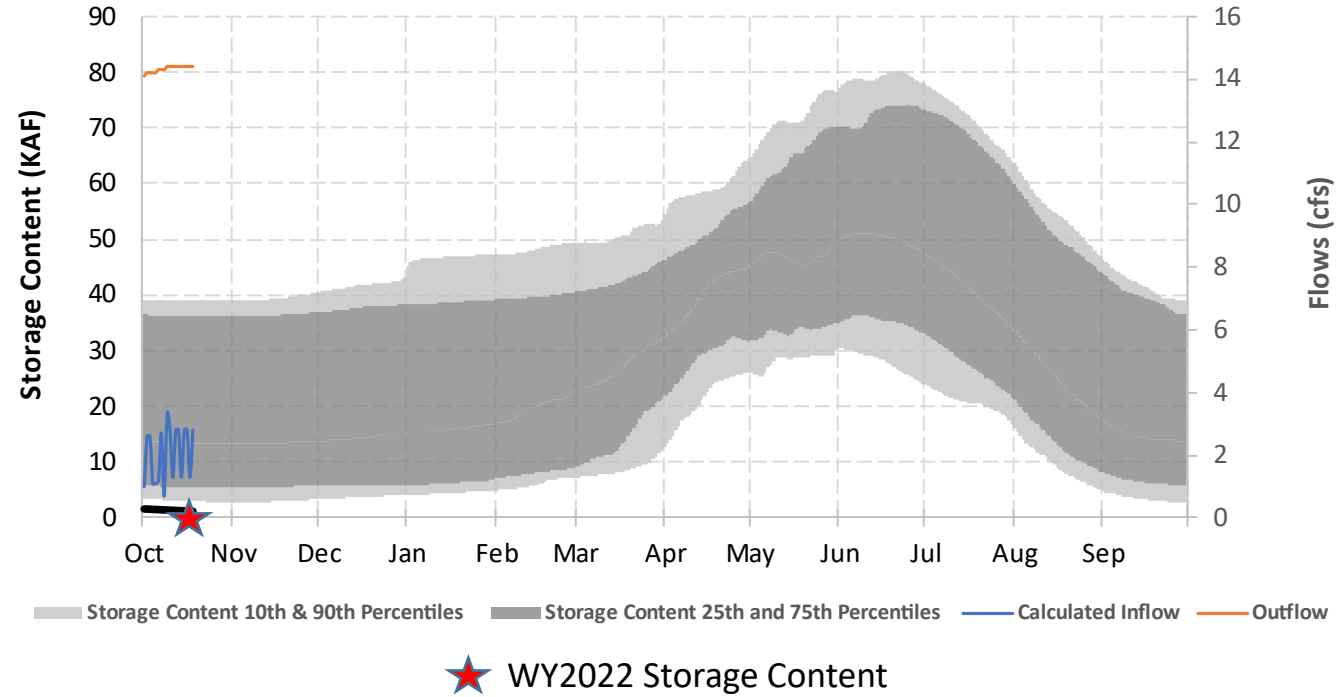


Powder River Basin

10/18/2022

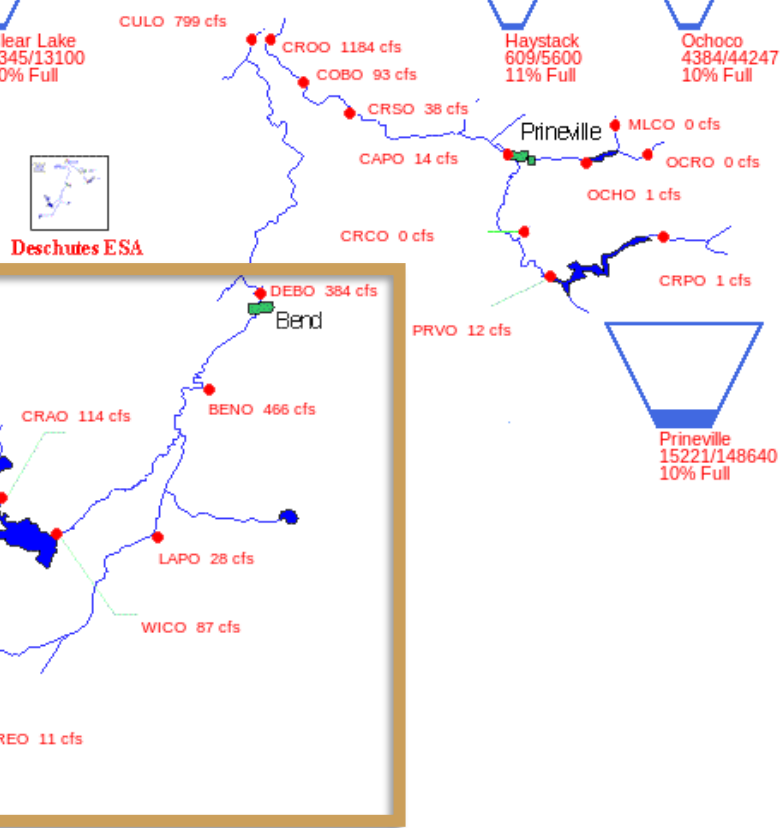
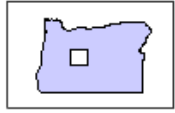


Mason Dam - Phillips Lake



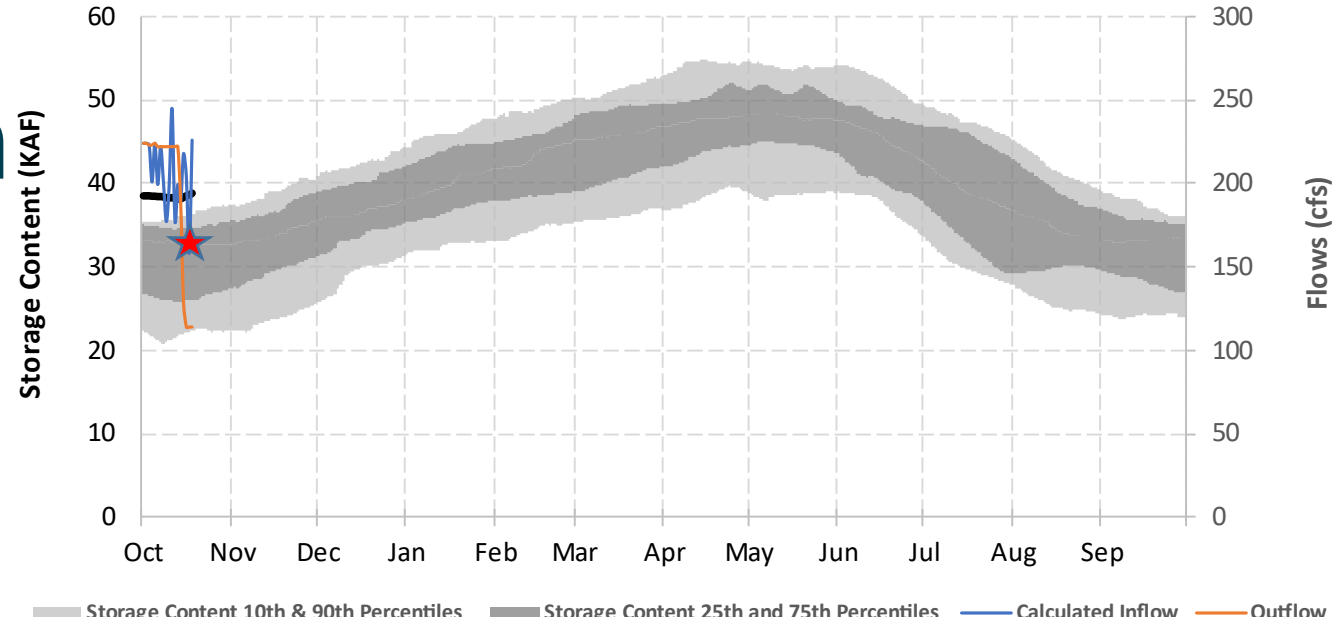
Deschutes River Basin

10/18/2022

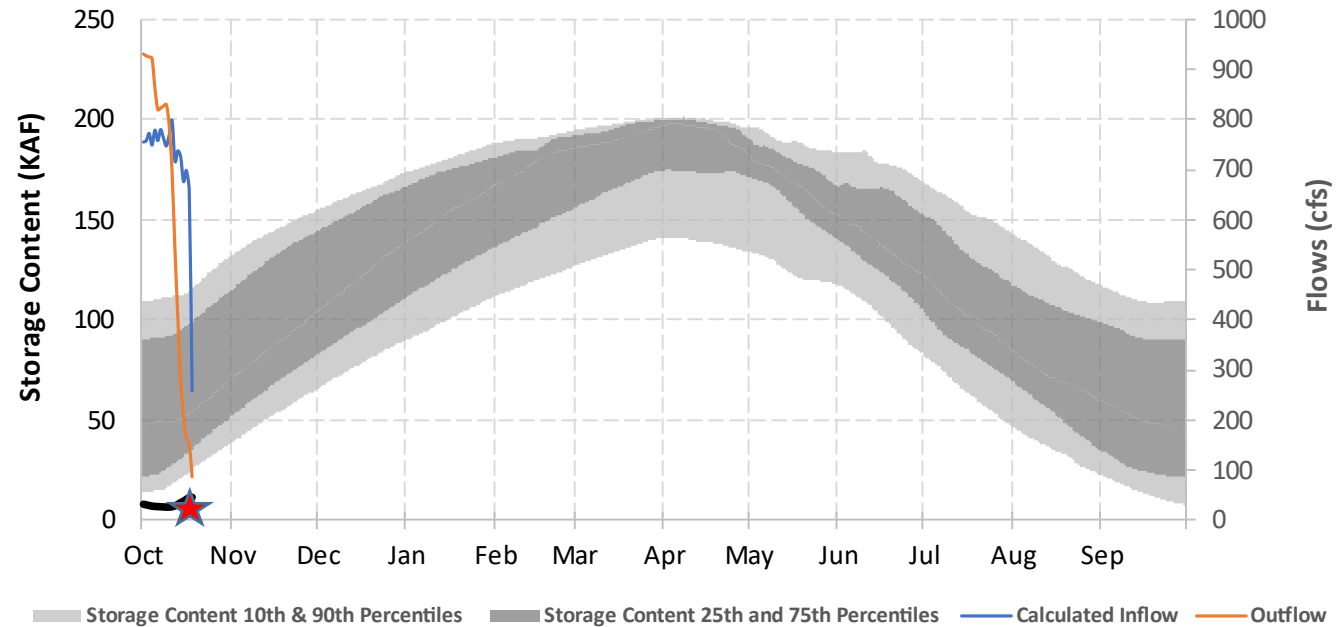


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Crane Prairie Dam and Reservoir

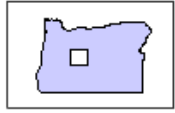


Wickiup Dam and Reservoir

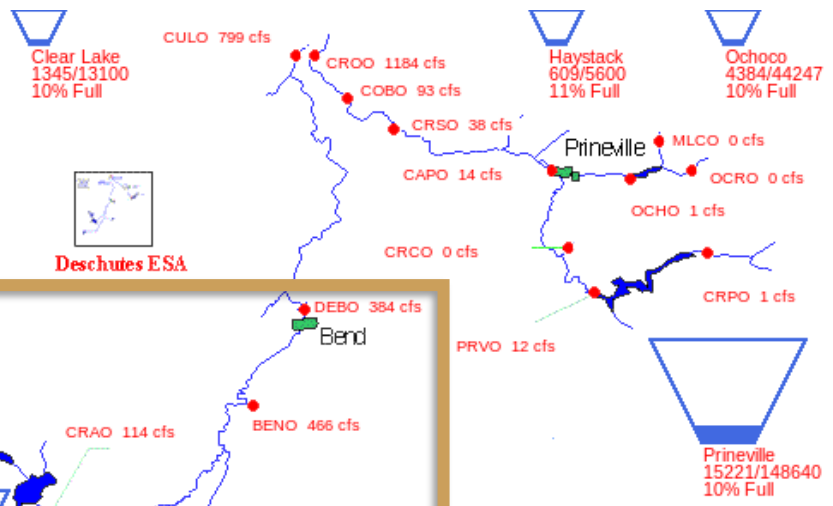
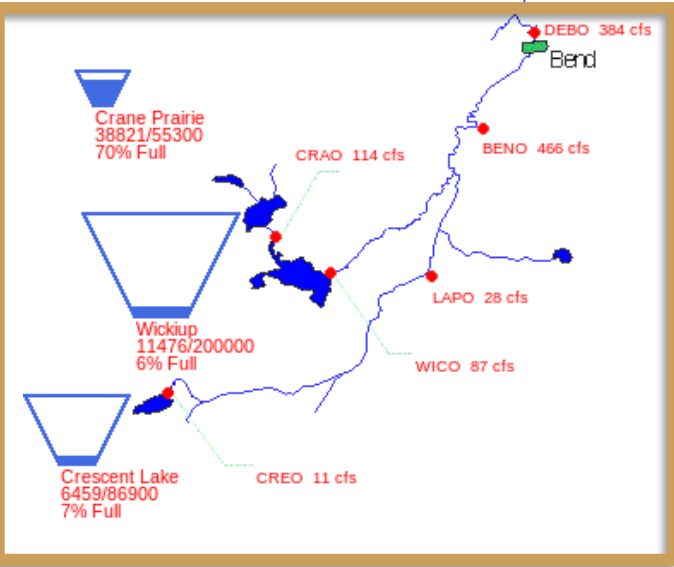


Deschutes River Basin

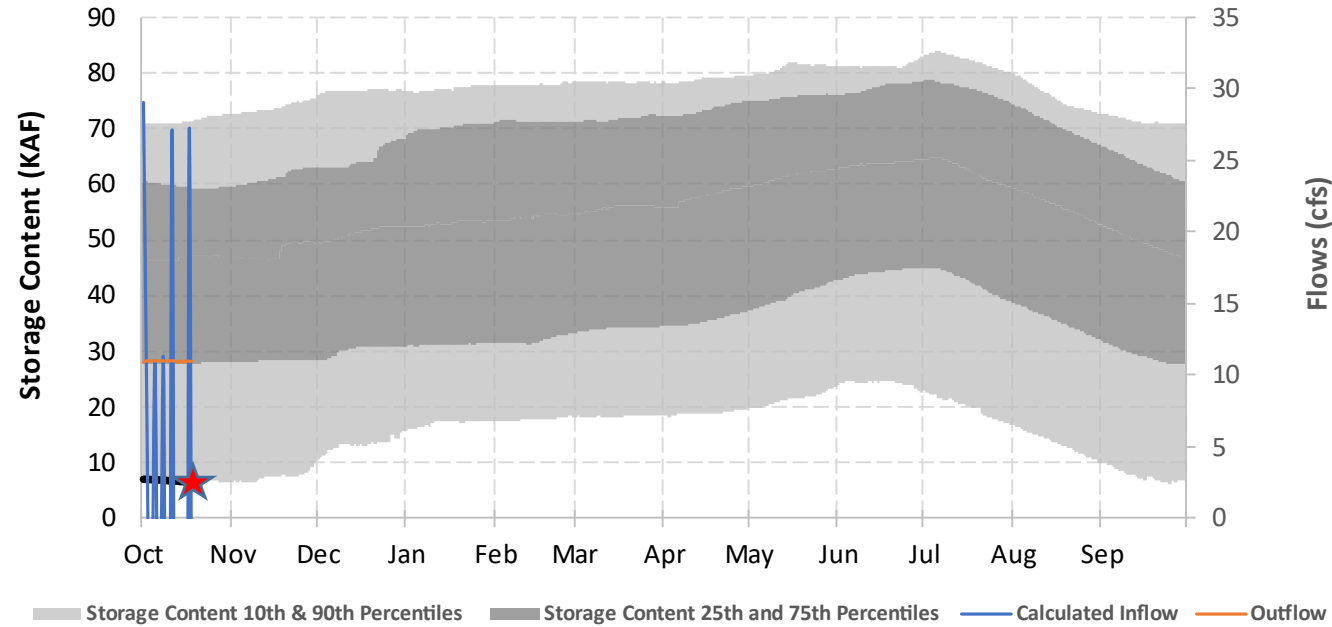
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Deschutes ESA



Crescent Lake Dam

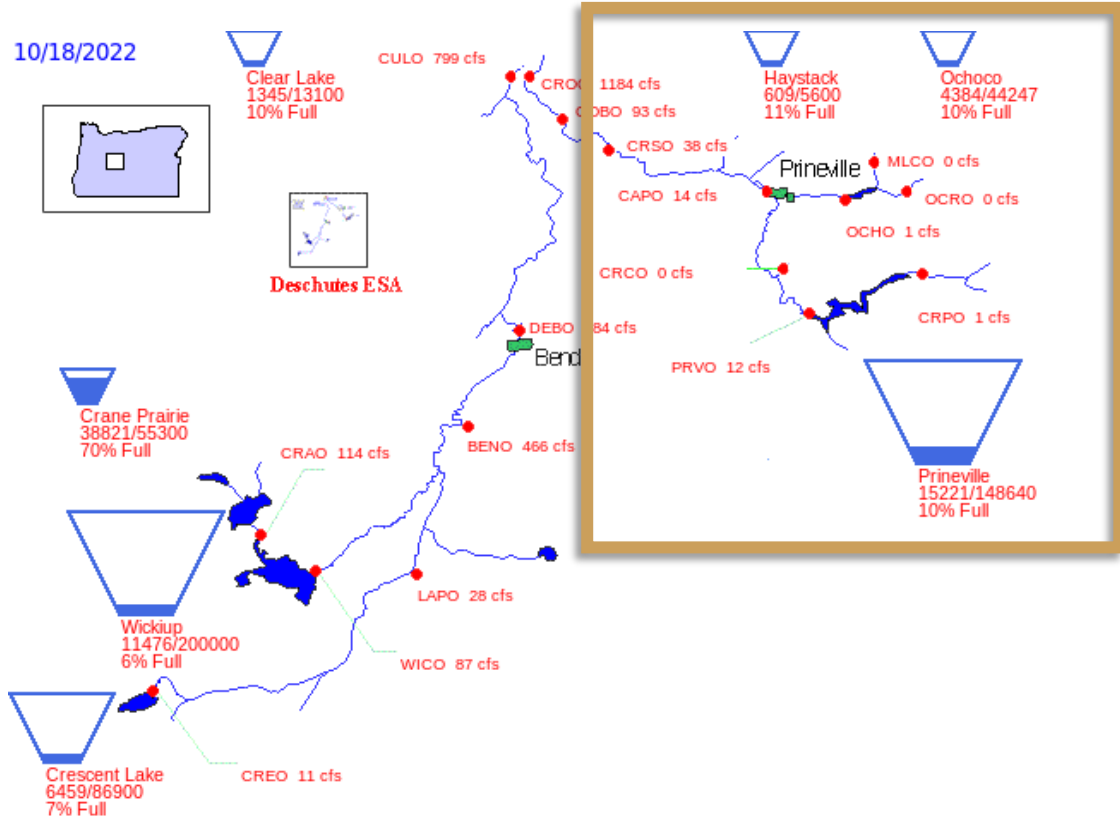


★ WY2022 Storage Content

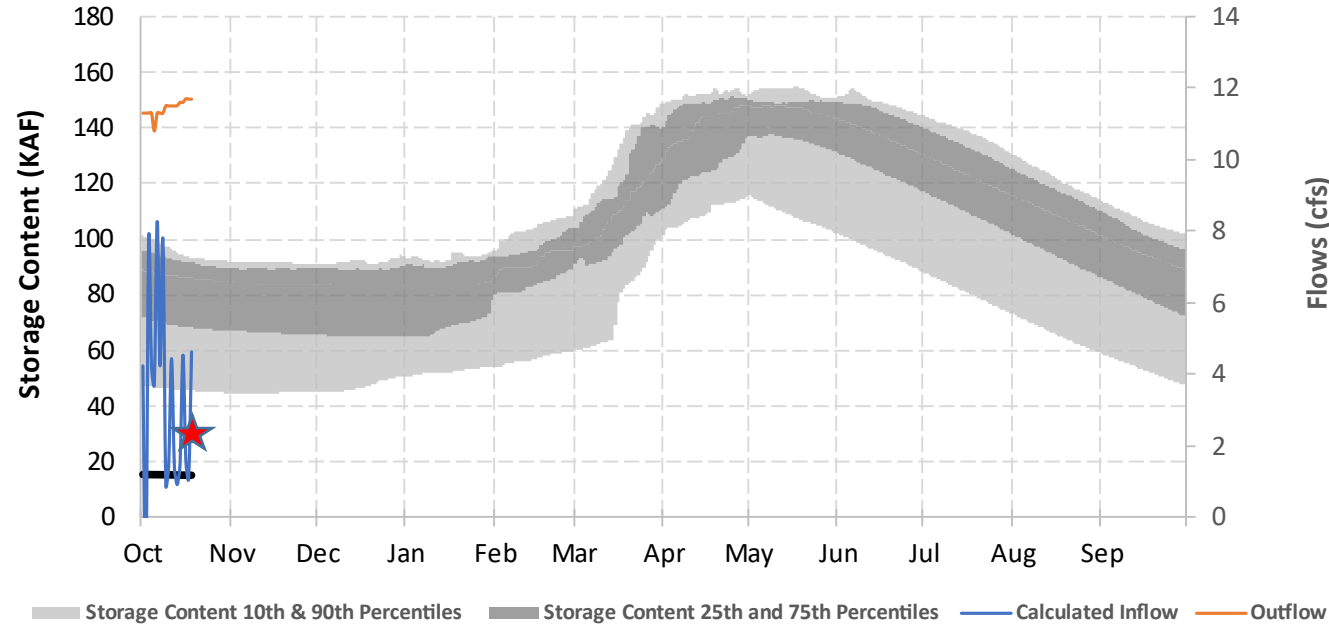


Crooked River Basin

10/18/2022



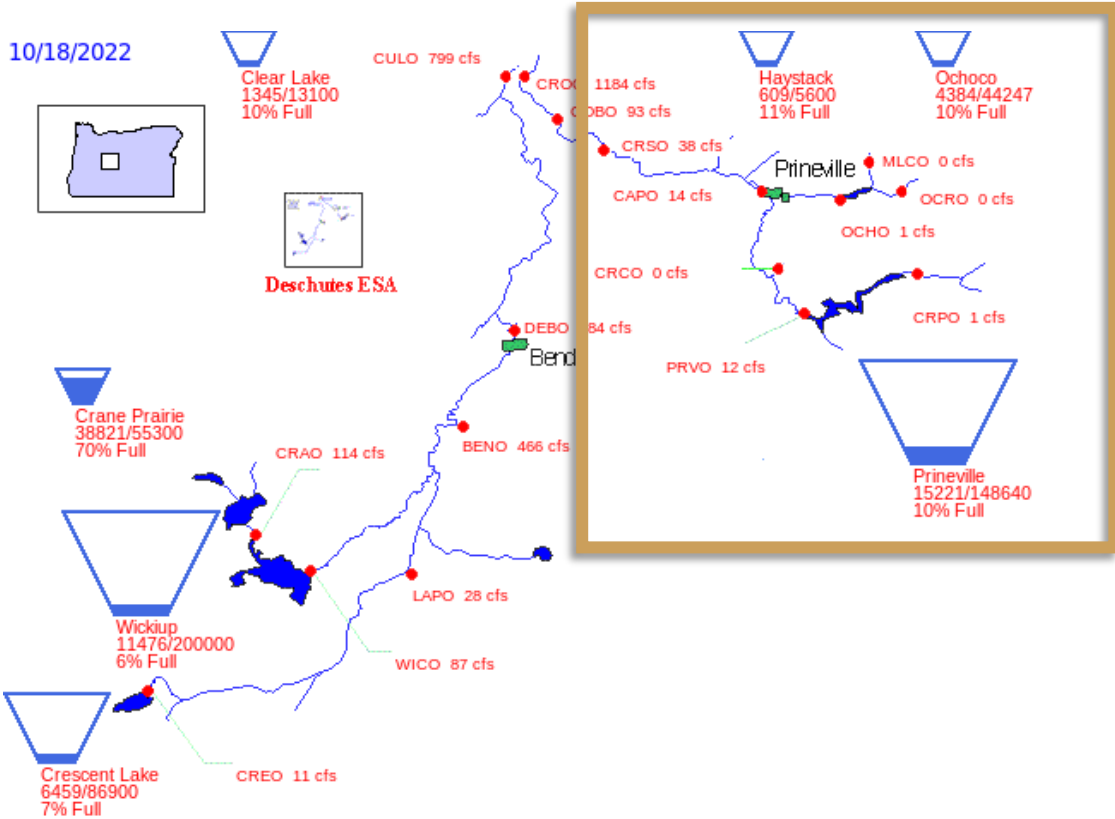
Bowman Dam - Prineville Reservoir



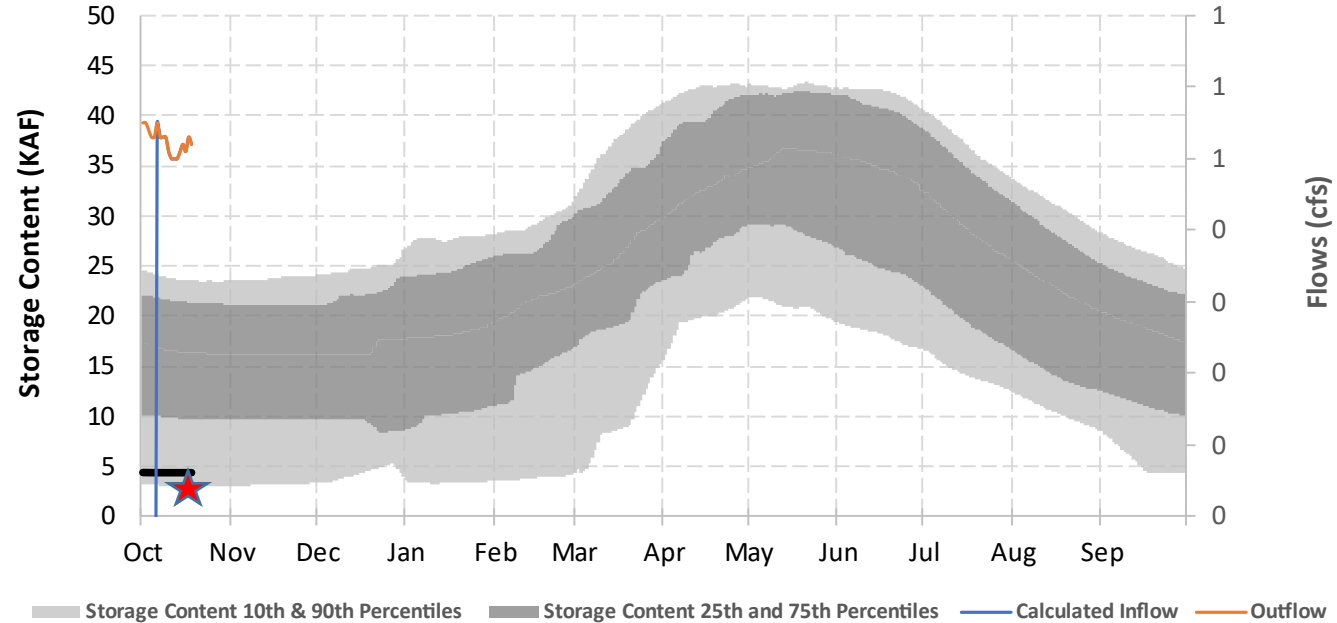
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Crooked River Basin

10/18/2022

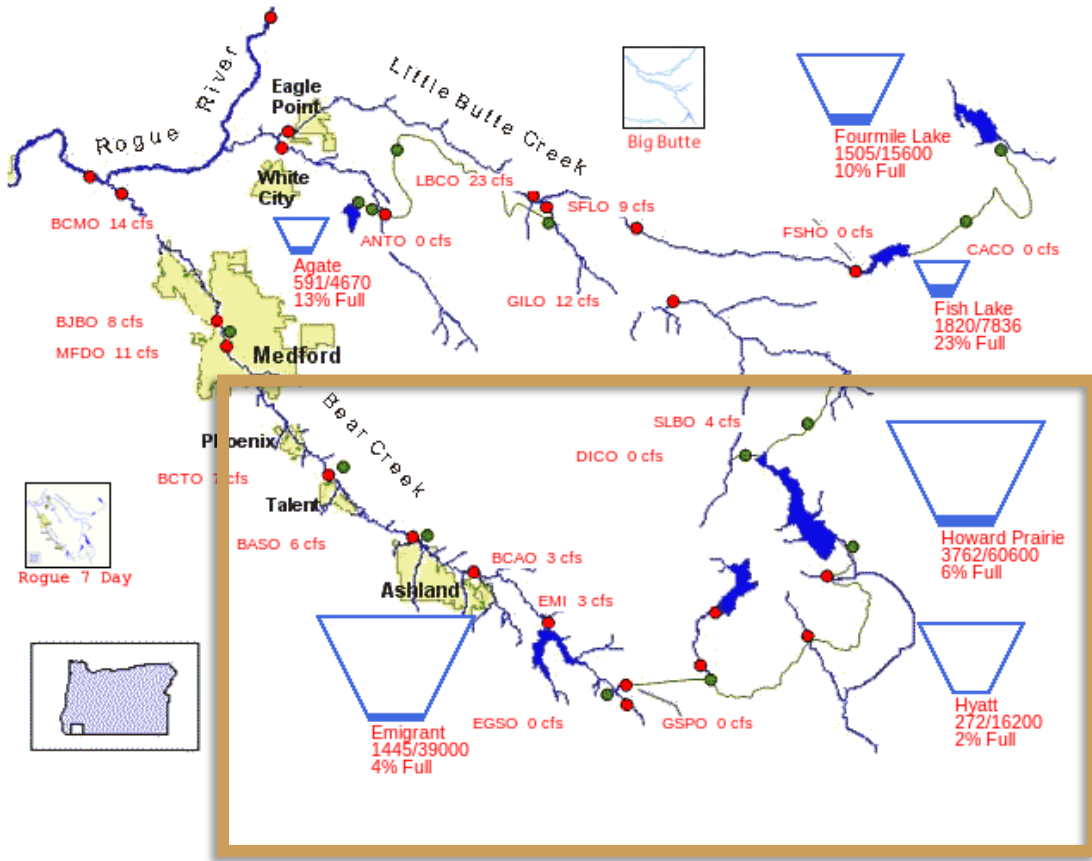


Ochoco Dam and Reservoir



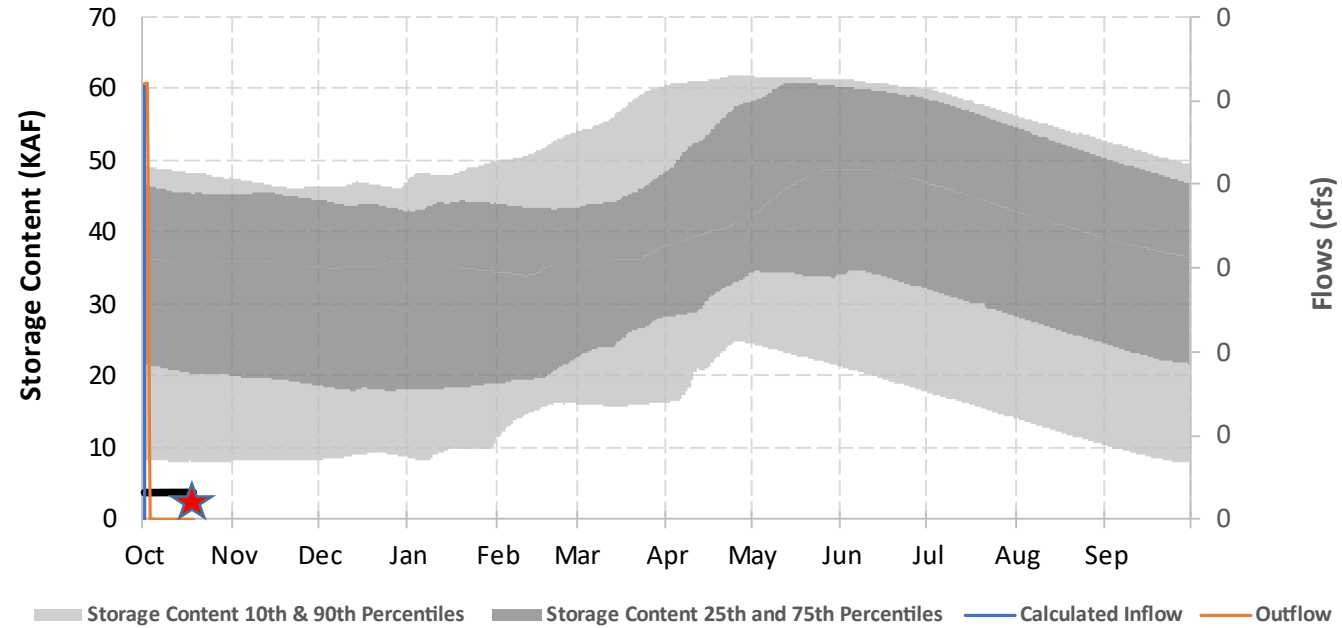
Rogue River Basin

10/18/2022



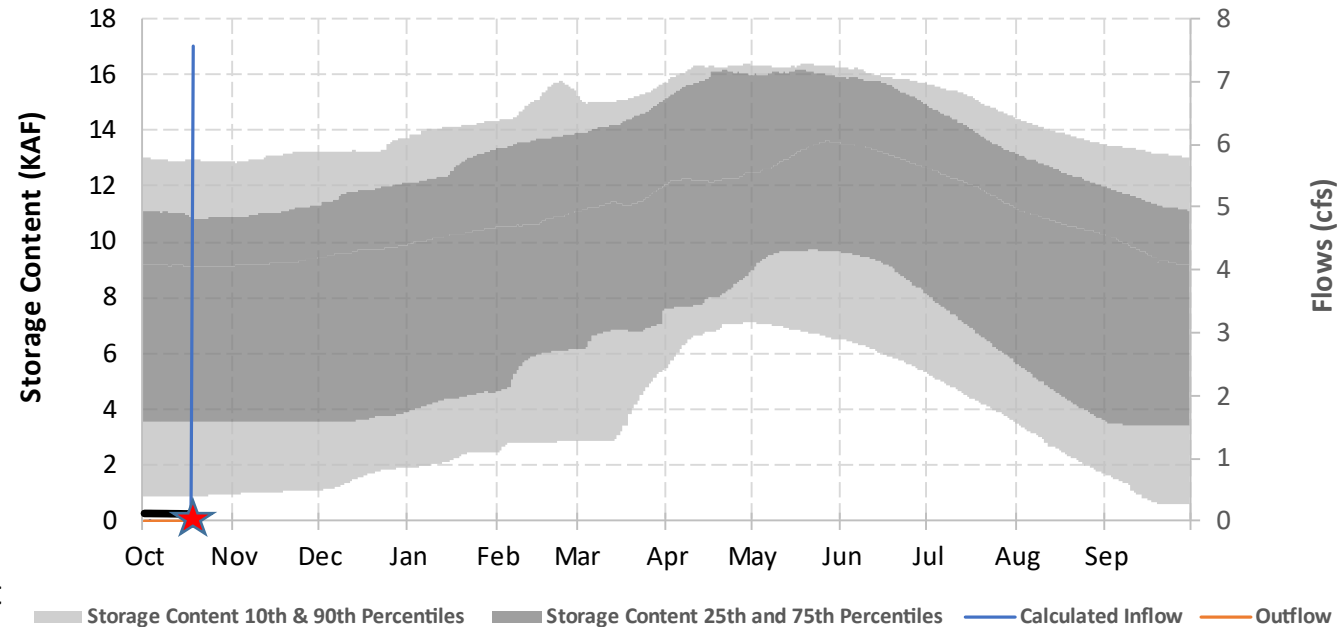
★ WY2022 Storage Content

Howard Prairie Dam and Lake



Storage Content 10th & 90th Percentiles Storage Content 25th and 75th Percentiles Calculated Inflow Outflow

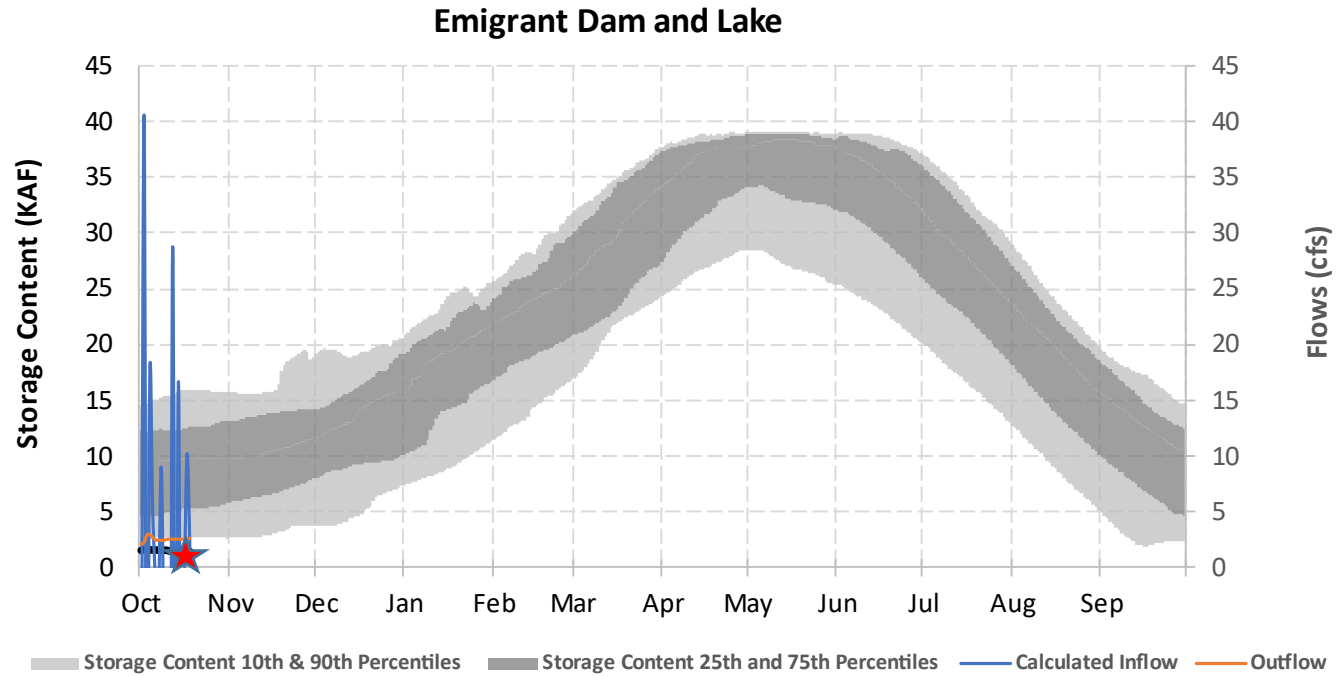
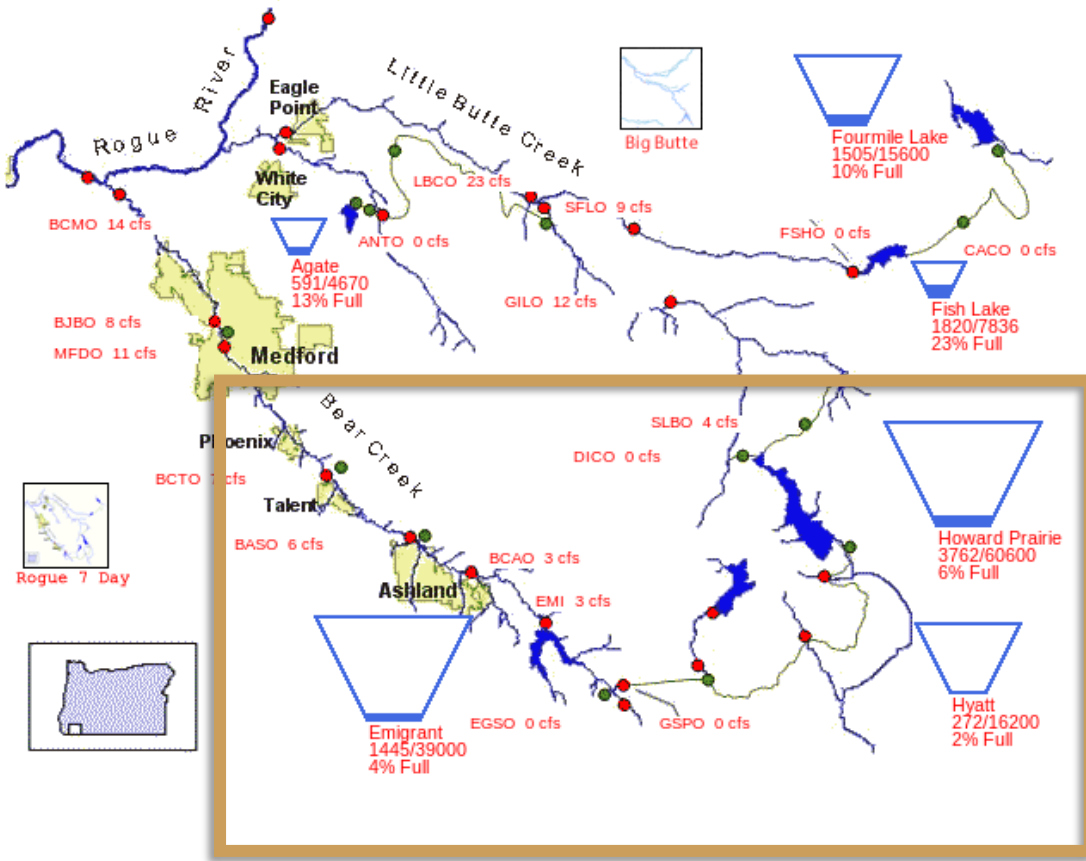
Hyatt Dam and Reservoir



Storage Content 10th & 90th Percentiles Storage Content 25th and 75th Percentiles Calculated Inflow Outflow

Rogue River Basin

10/18/2022

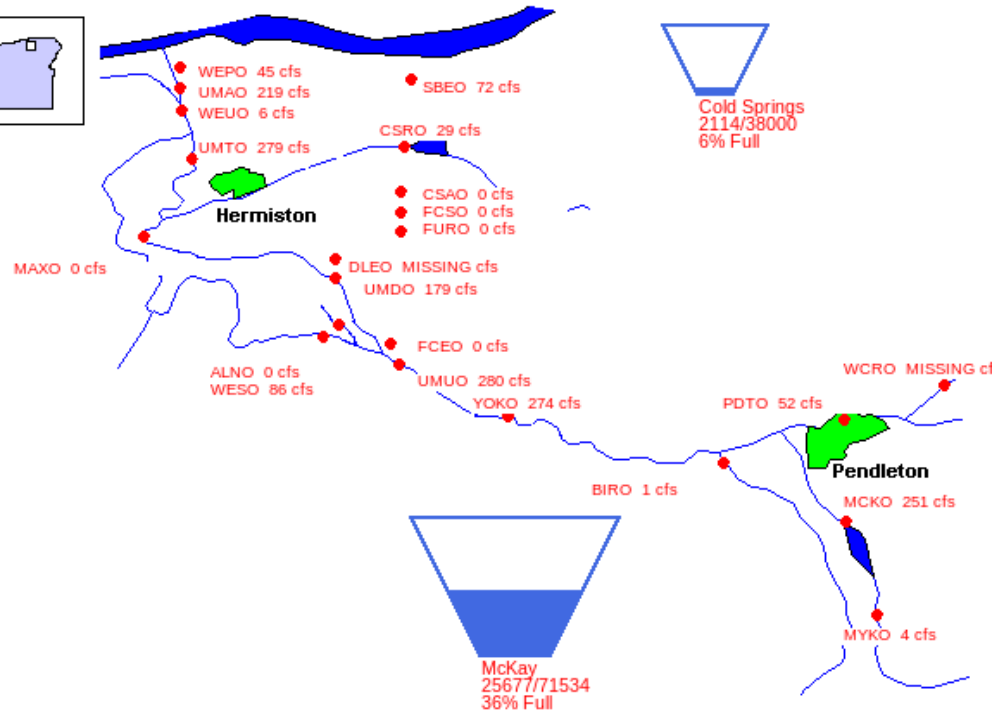
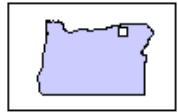


★ WY2022 Storage Content

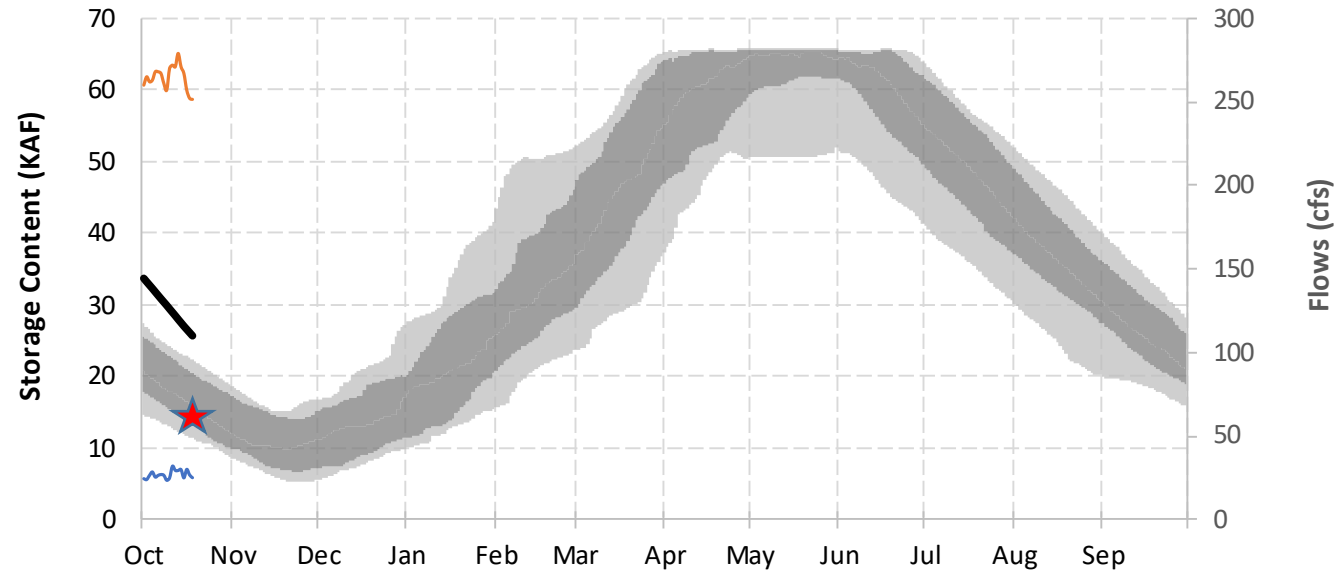


Umatilla River Basin

10/18/2022



McKay Dam and Reservoir



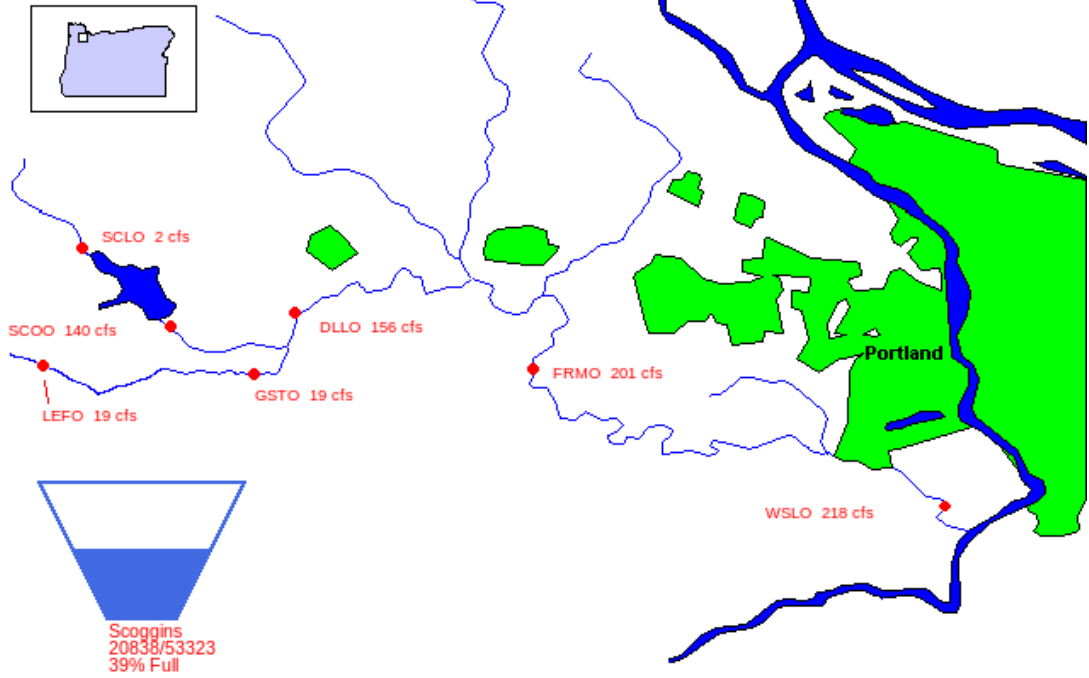
Storage Content 10th & 90th Percentiles
 Storage Content 25th and 75th Percentiles
 Calculated Inflow
 Outflow

★ WY2022 Storage Content

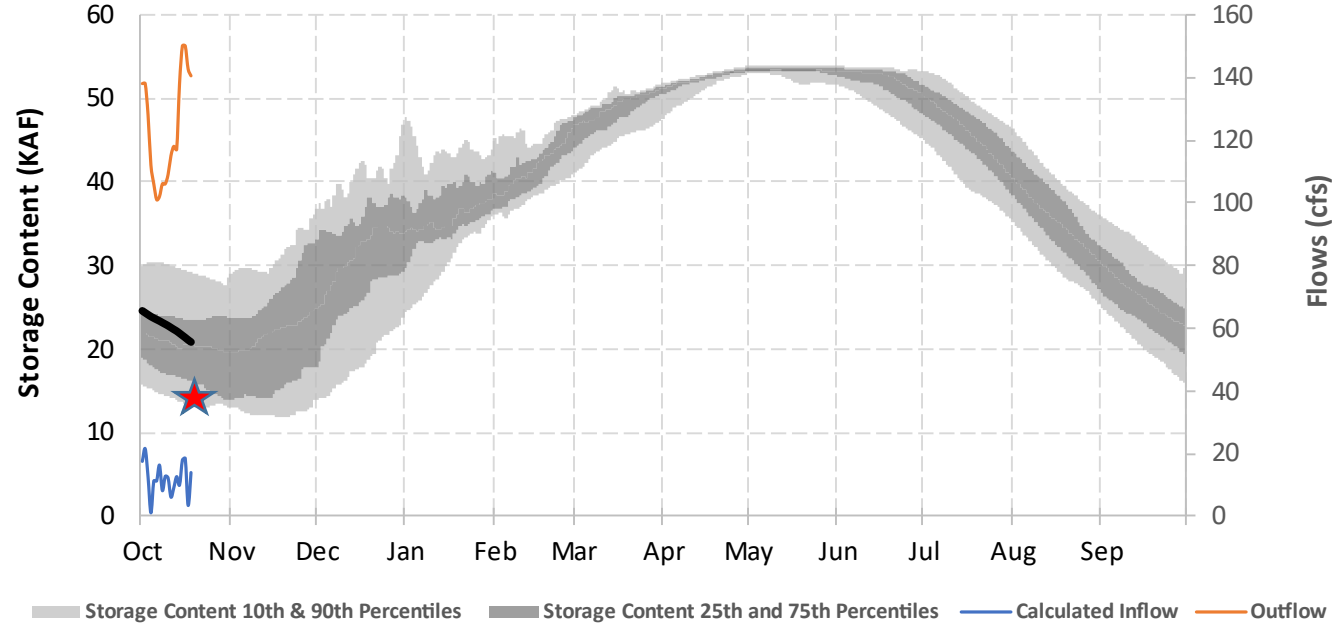


Tualatin River Basin

10/18/2022



Scoggins Dam - Henry Hagg Lake



★ WY2022 Storage Content



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— BUREAU OF —
RECLAMATION