Oregon Water Supply Availability Committee June 15, 2022

H. Scott Oviatt
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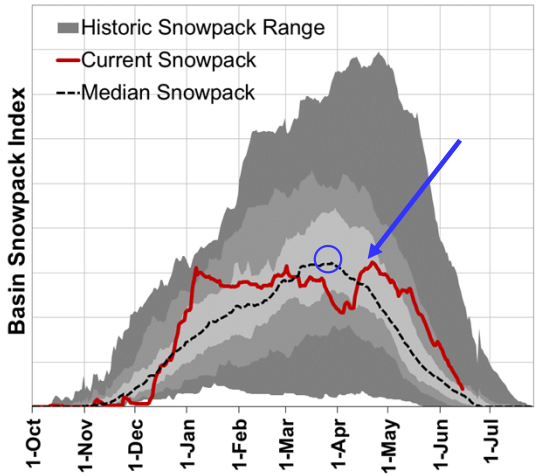
scott.oviatt@usda.gov
541-429-2359

OREGON SNOWPACK GRAPHS – June 14, 2022

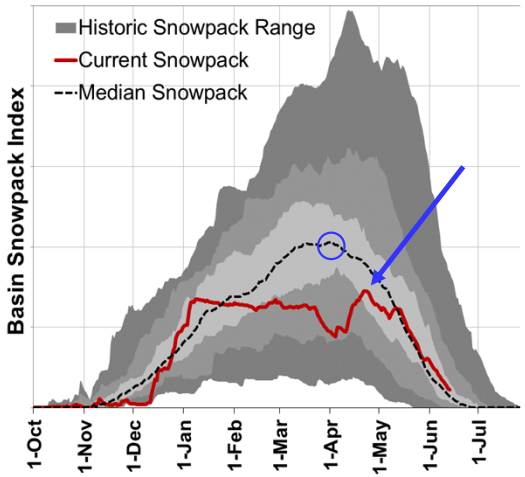
Willamette



Late Peak – Near Median

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

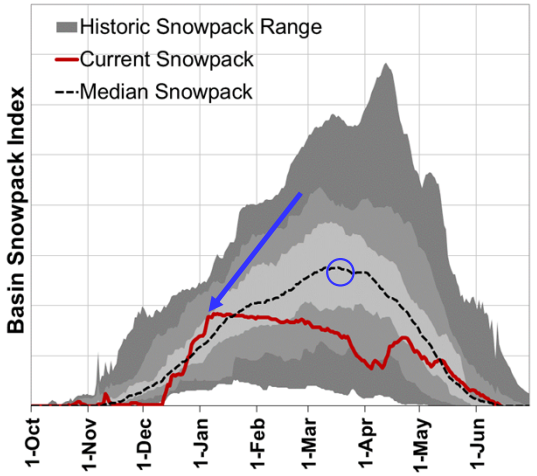
Rogue-Umpqua



Late Peak – Below Median

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

Klamath

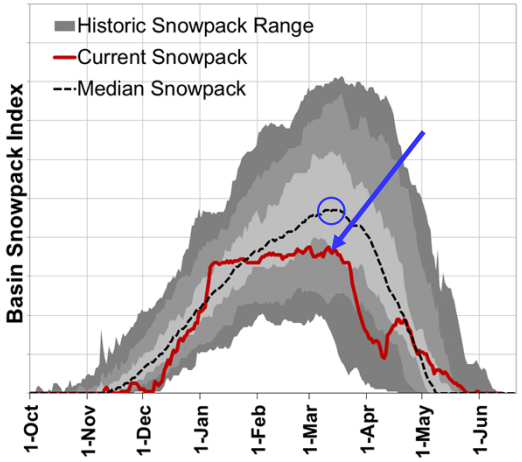


Early Peak – Below Median

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

OREGON SNOWPACK GRAPHS – June 14, 2022

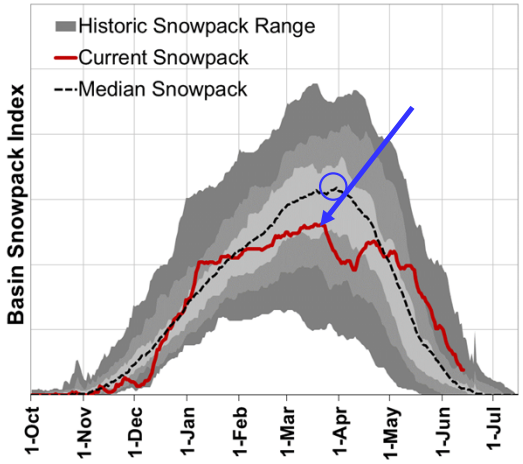
John Day



Near-Normal Peak Date Below Median

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

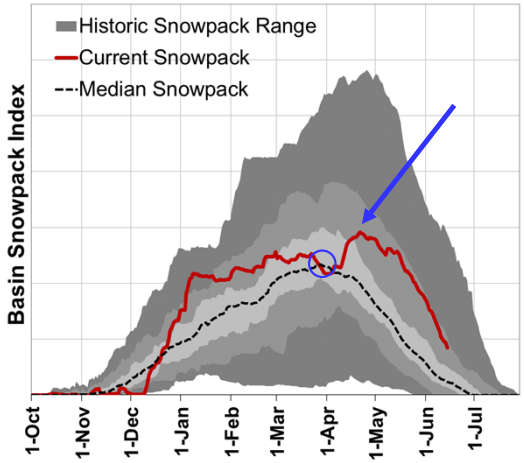
Grande Ronde-Burnt-Powder-Imnaha



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).

Hood-Sandy-Lower Deschutes

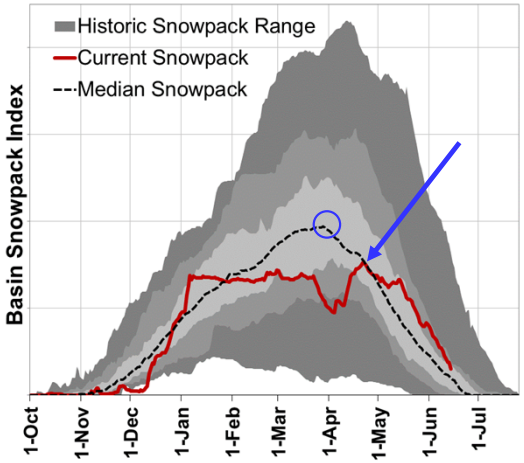


Late Peak – Above Median

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

OREGON SNOWPACK GRAPHS – June 14, 2022

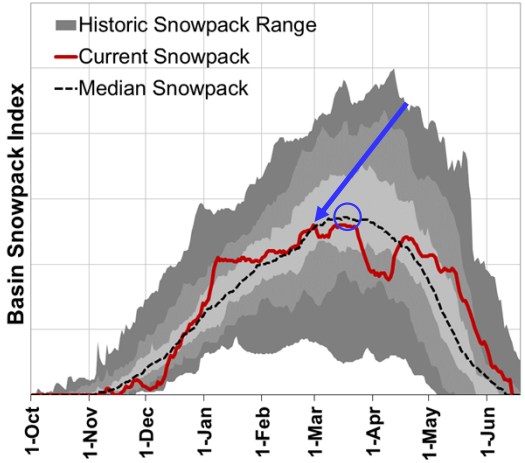
Upper Deschutes-Crooked



Late Peak - Below Median

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

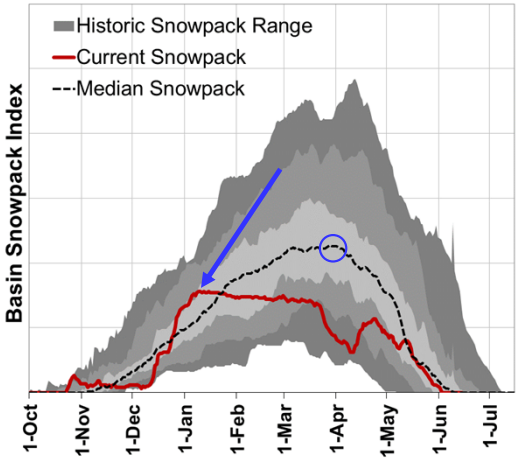
Umatilla-Walla Walla-Willow



Near-Normal Peak

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

Lake County-Goose Lake

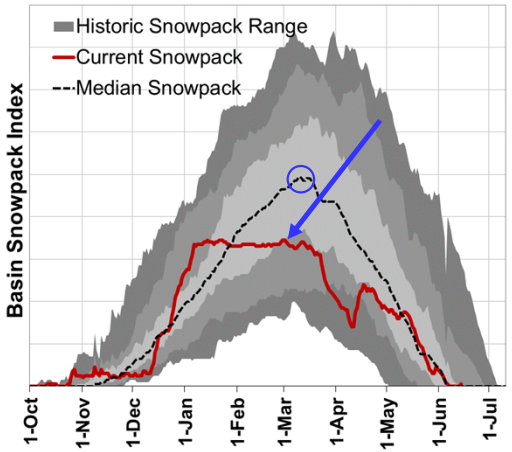


Early Peak – Below Median

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

OREGON SNOWPACK GRAPHS – June 14, 2022

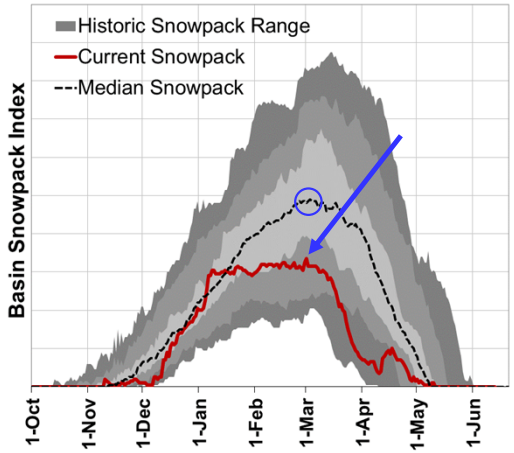
Harney



Early Peak – Below Median

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

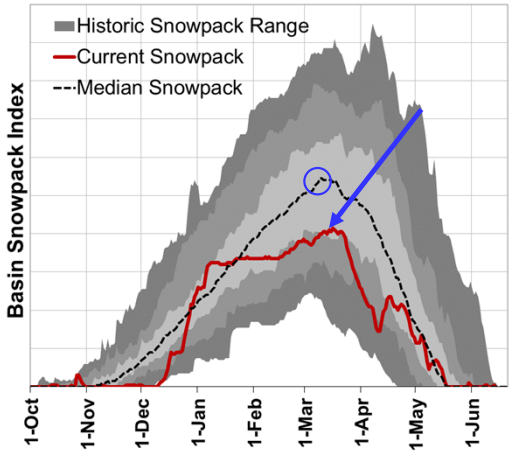
Malheur



Near-Normal Peak Below Median

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

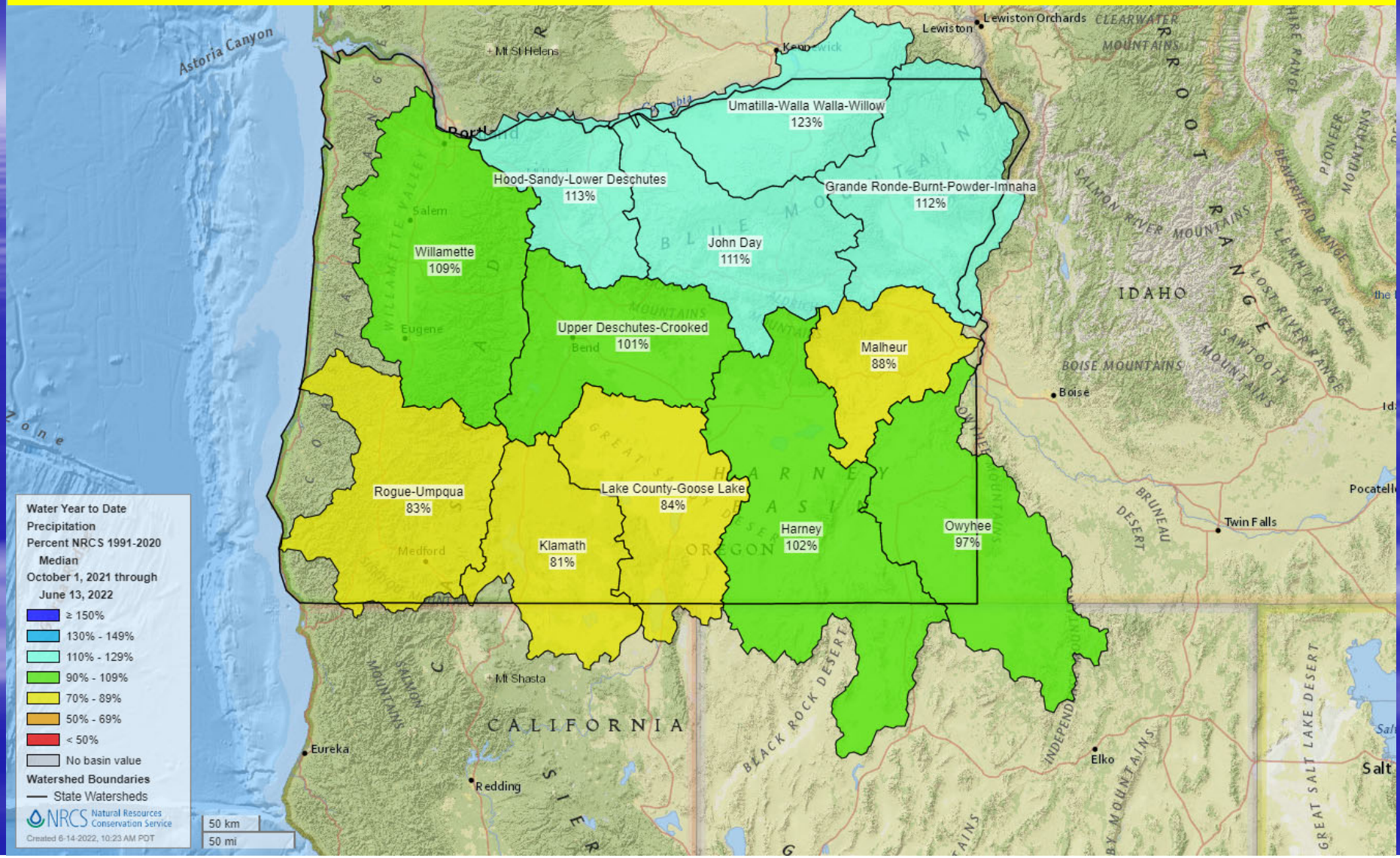
Owyhee



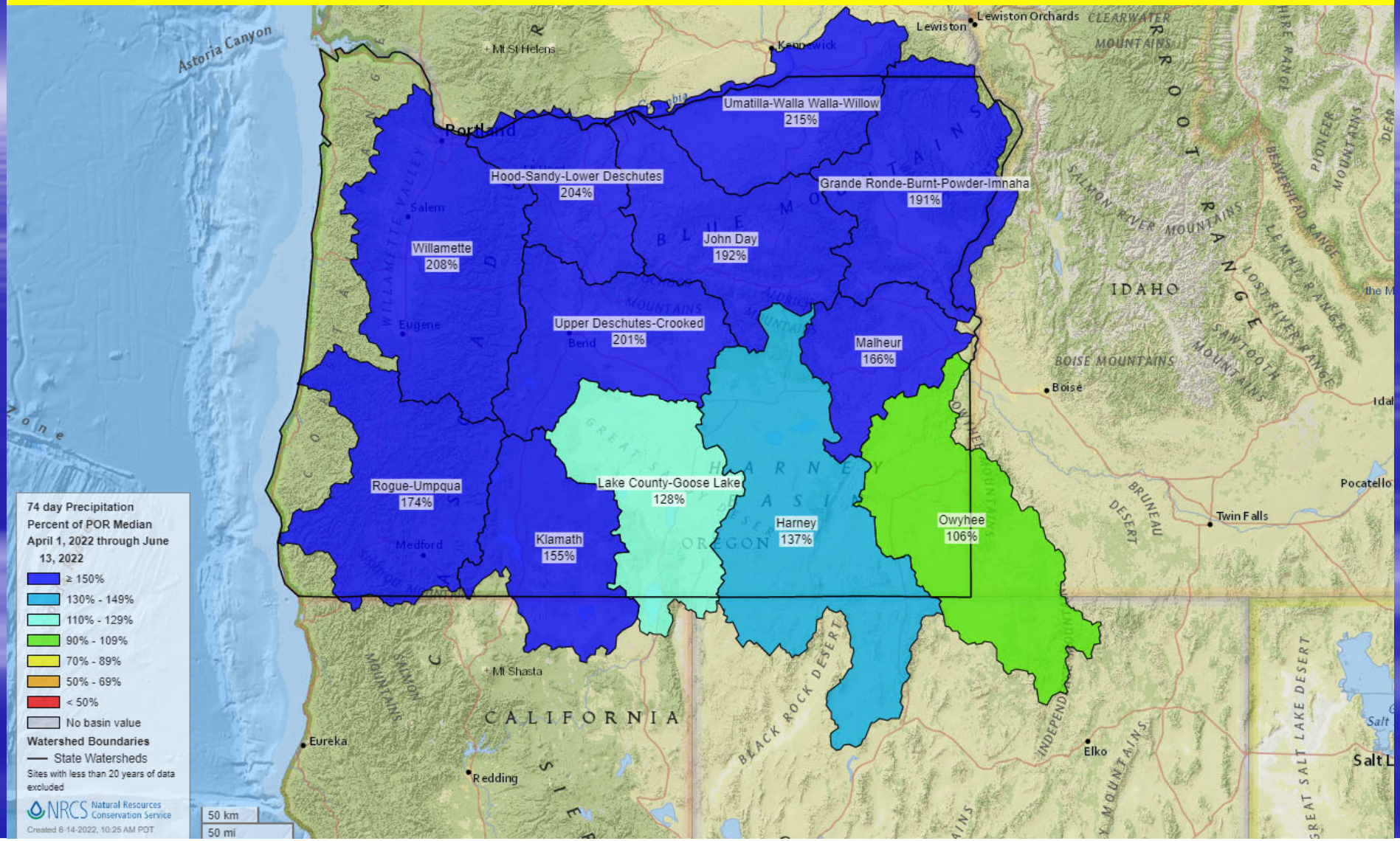
Early Peak Below Median

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

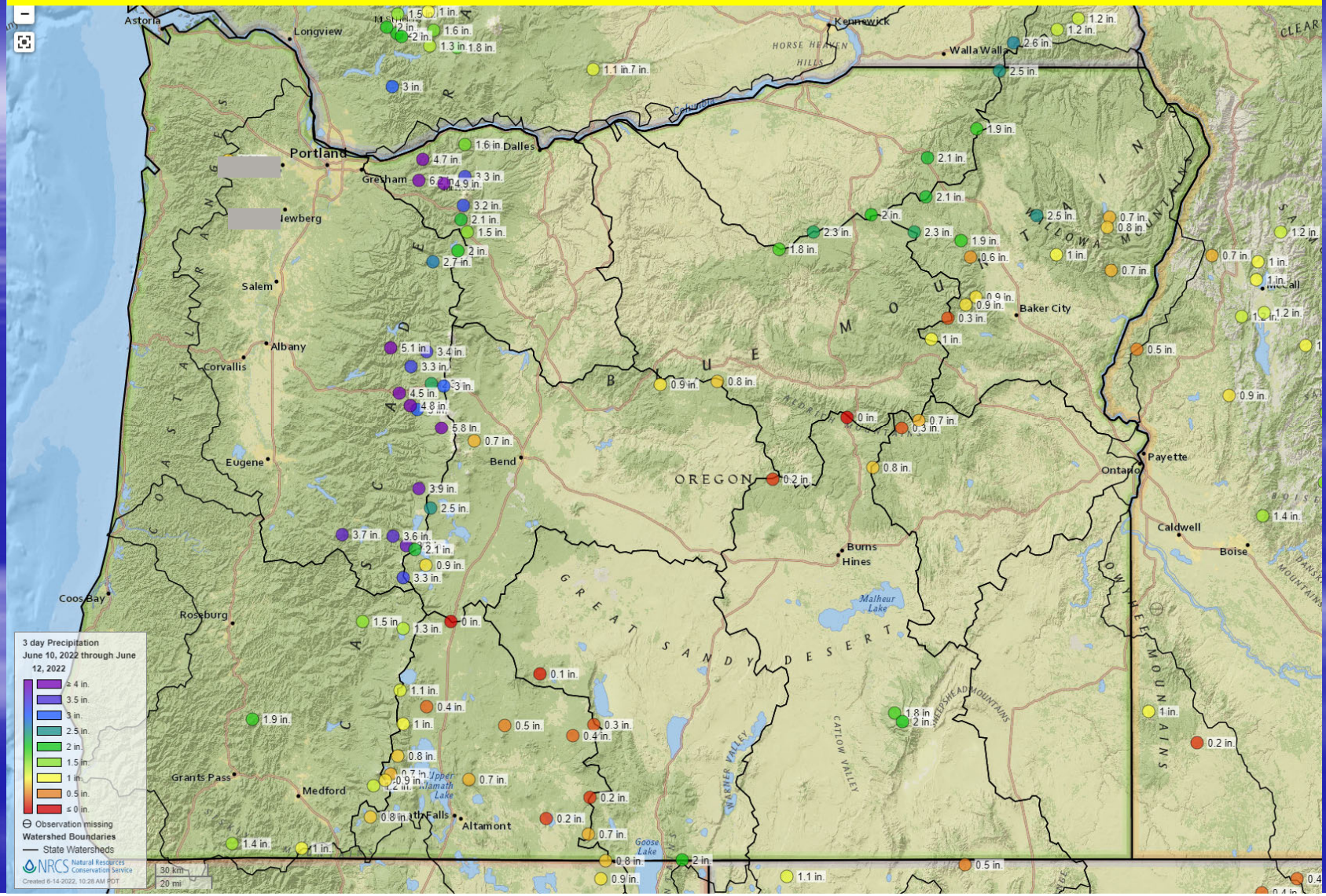
June 14, 2022, SNOTEL Water Year Precipitation is 105% of 1991-2020 median



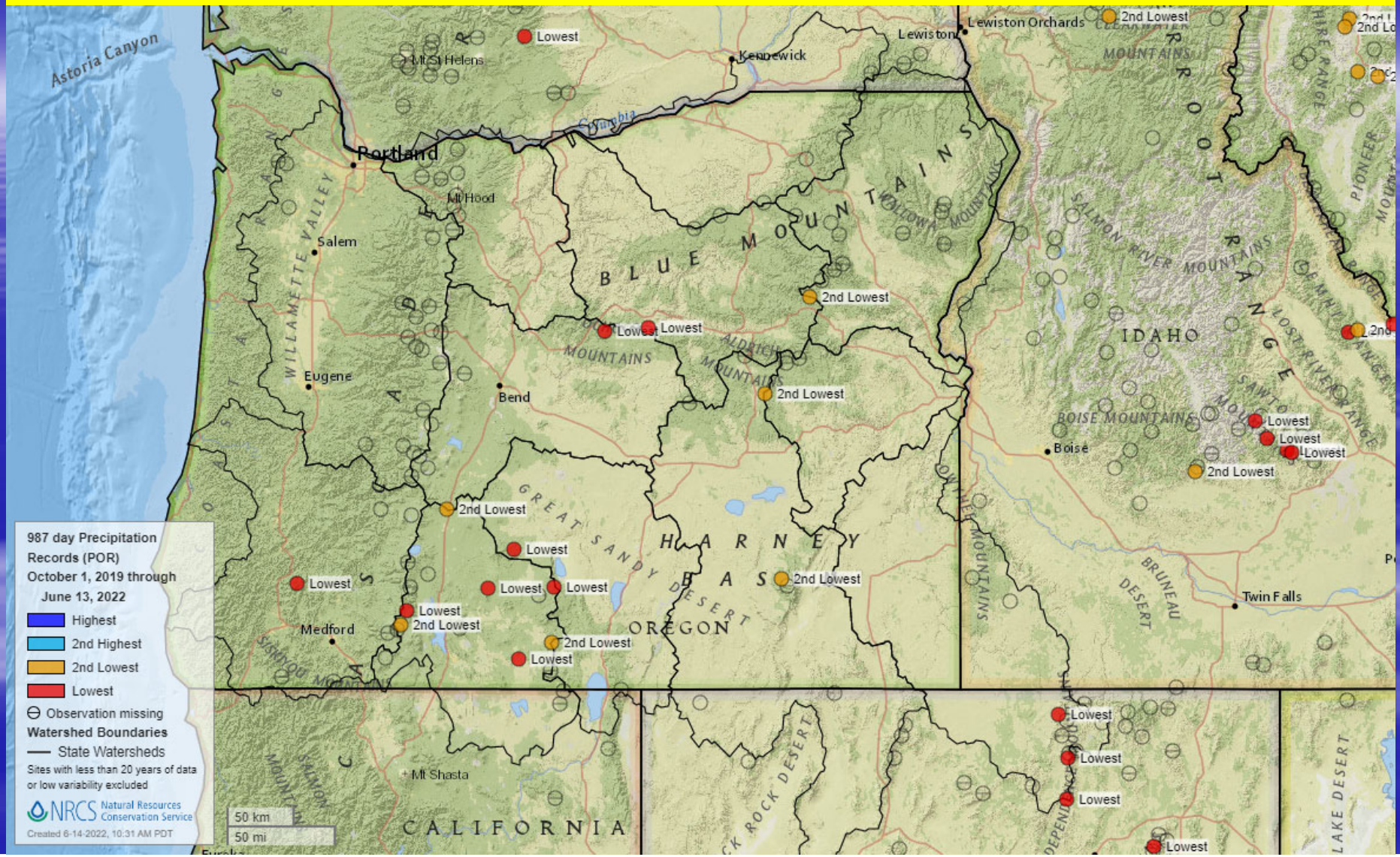
April 1, 2022 - June 14, 2022, SNOTEL Precipitation % Period of Record Median



June 10, 2022, through June 12, 2022, (End of day) 3-Day SNOTEL (Inches)



SNOTEL 987-Day Precipitation Records – October 1, 2019, through June 13, 2022

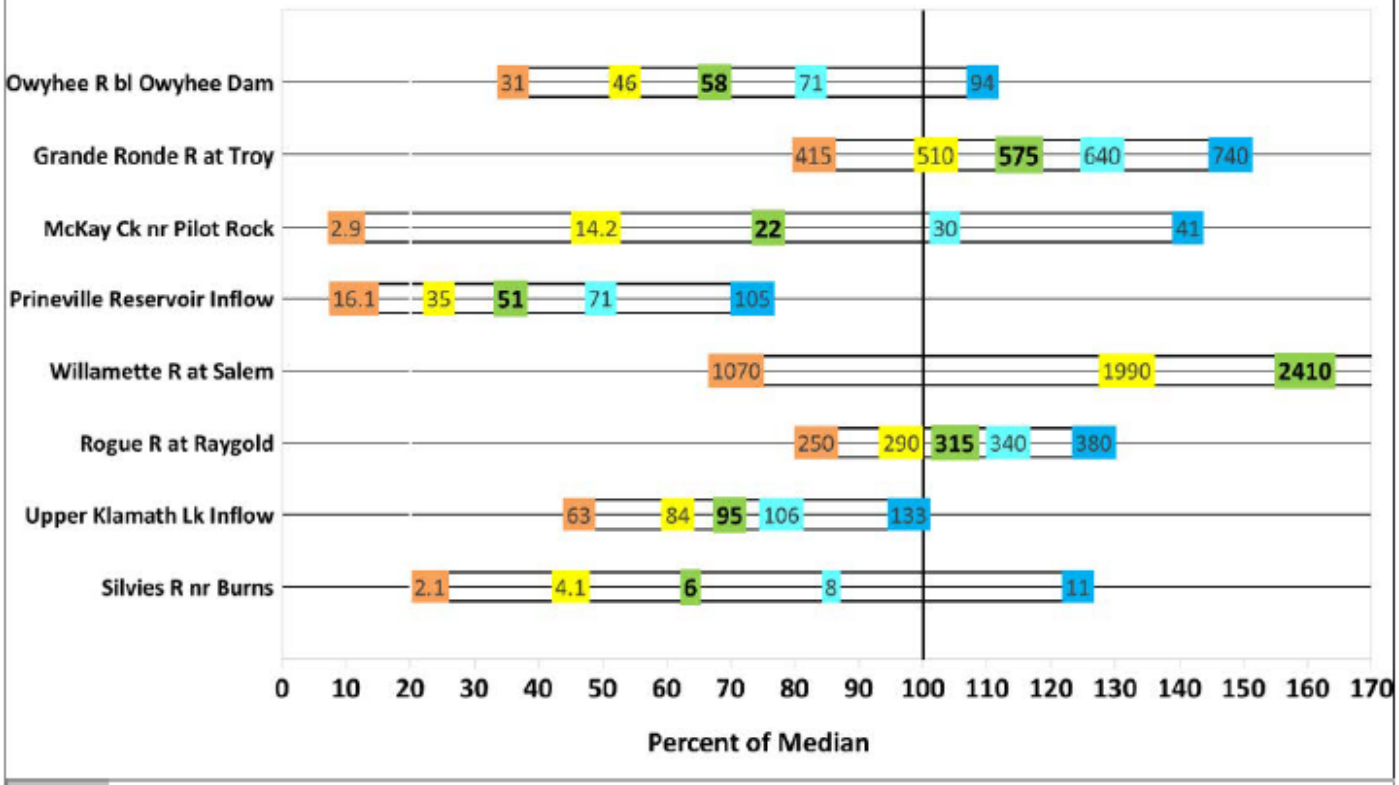


June 2022

Summary of Streamflow Forecasts across Oregon

June through September Forecast Volumes at a Selection of Streamflow Points

(Volumes listed in KAF)



Legend: ←----------Drier----------**Future Conditions**----------Wetter----------→

90% Exceedance Forecast (KAF)	70% Exceedance Forecast (KAF)	50% Exceedance Forecast (KAF)	30% Exceedance Forecast (KAF)	10% Exceedance Forecast (KAF)
There is a 90% chance that flows will exceed this volume.	There is a 70% chance that flows will exceed this volume.	There is a 50% chance that flows will exceed this volume.	There is a 30% chance that flows will exceed this volume.	There is a 10% chance that flows will exceed this volume.

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 June 15, 2022

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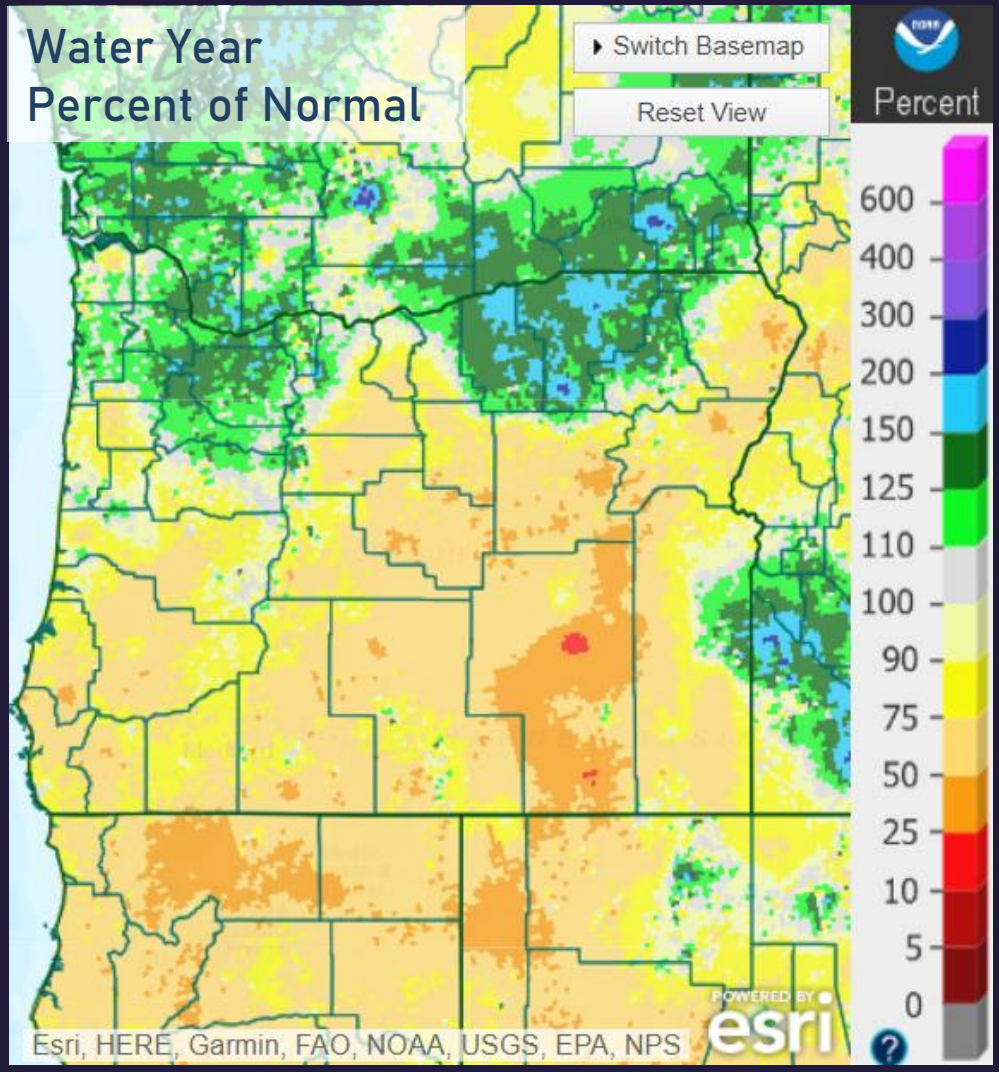
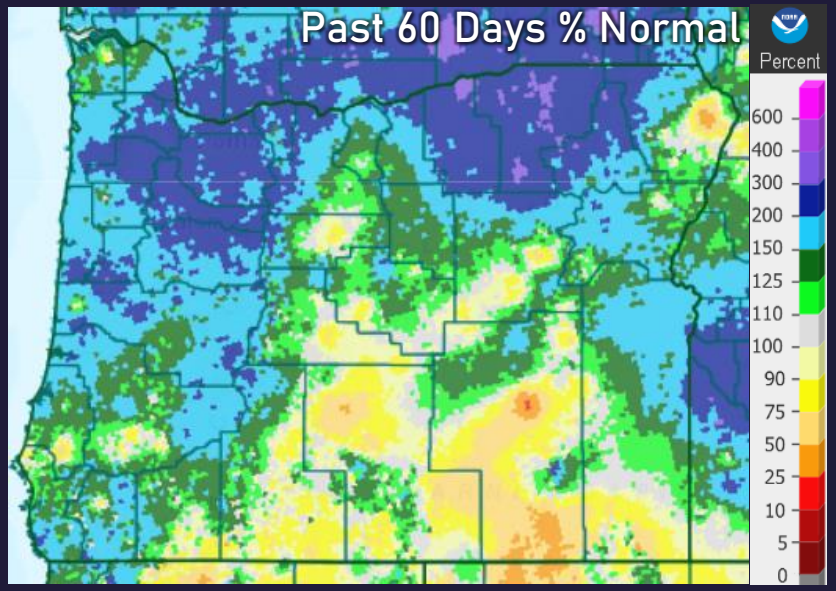
USDA – Natural Resources Conservation Service
scott.oviatt@usda.gov
541-429-2359

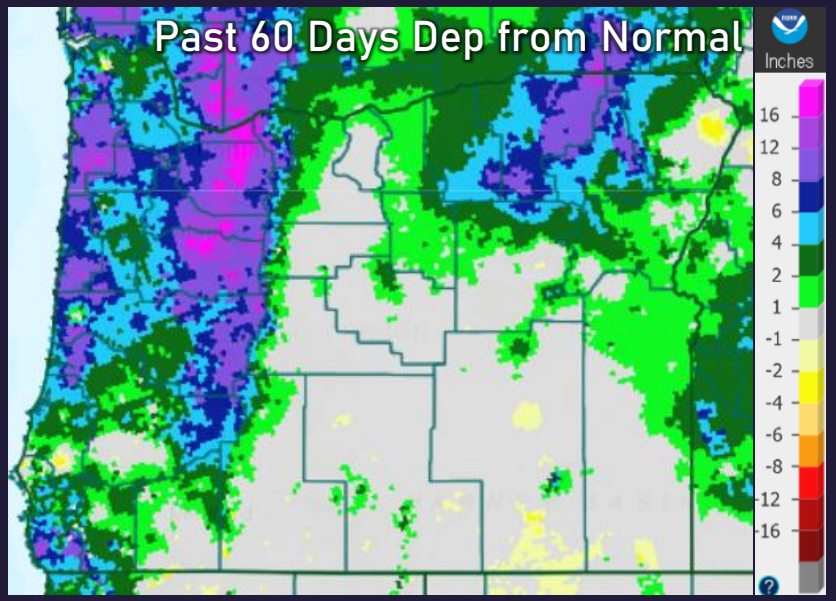
June 2022 Update for Precipitation & Temperatures

Andy Bryant
Service Hydrologist
NOAA/NWS Portland
Weather Forecast Office

Precipitation





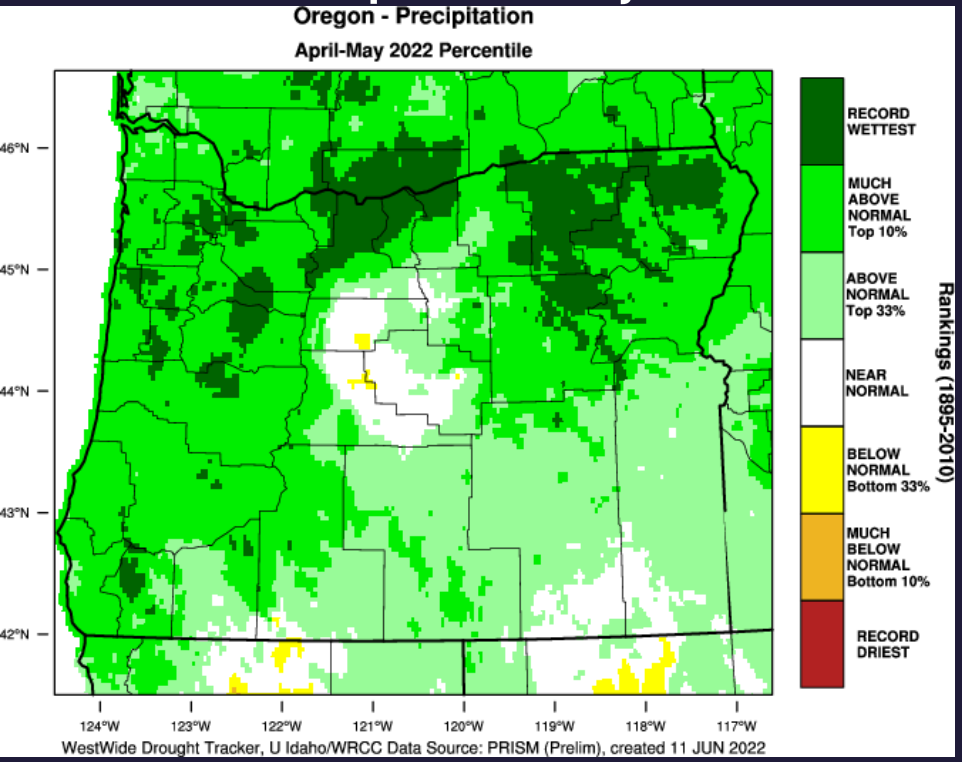


Precipitation Data as of June 14, 2022

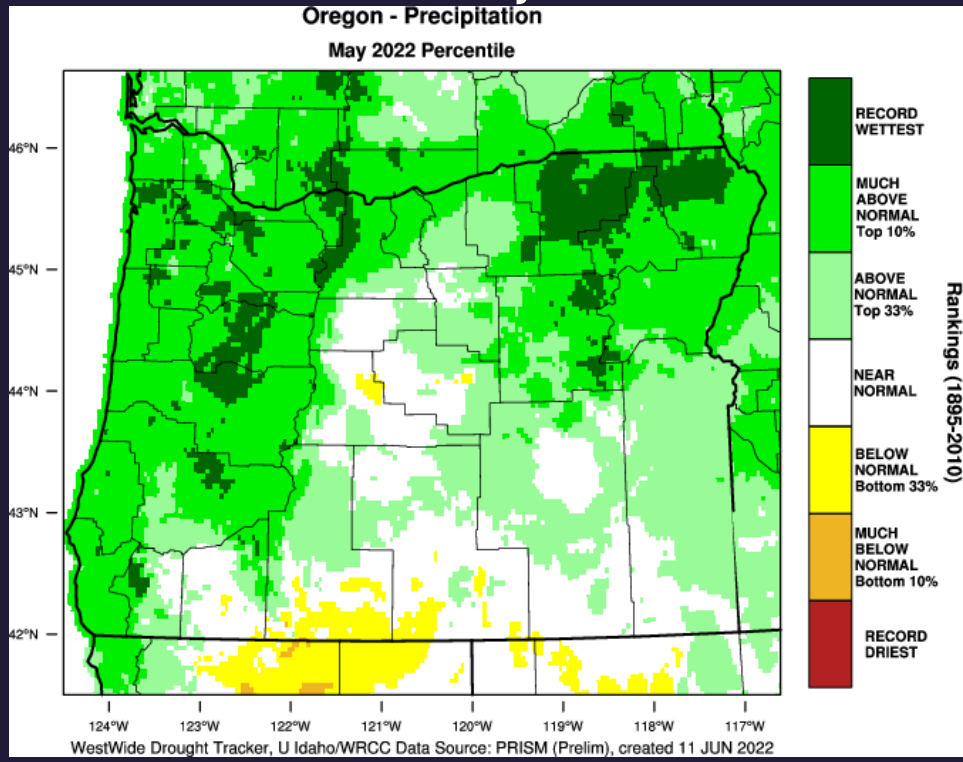
water.weather.gov/precip/index.php

Precipitation – Percentile / Ranking

April + May



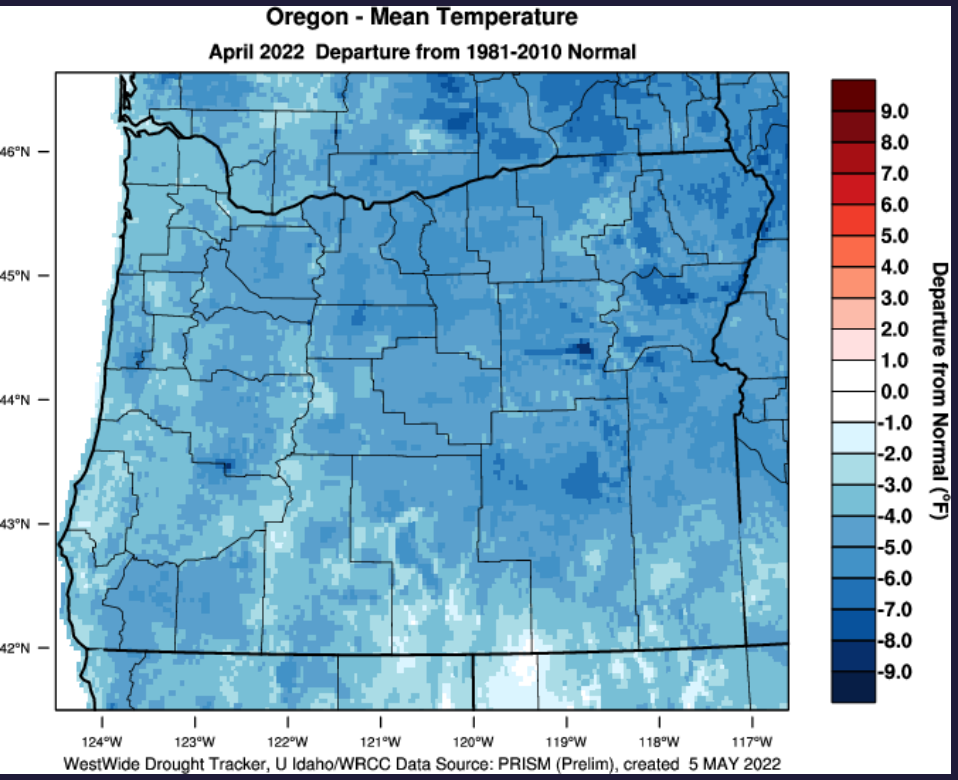
May



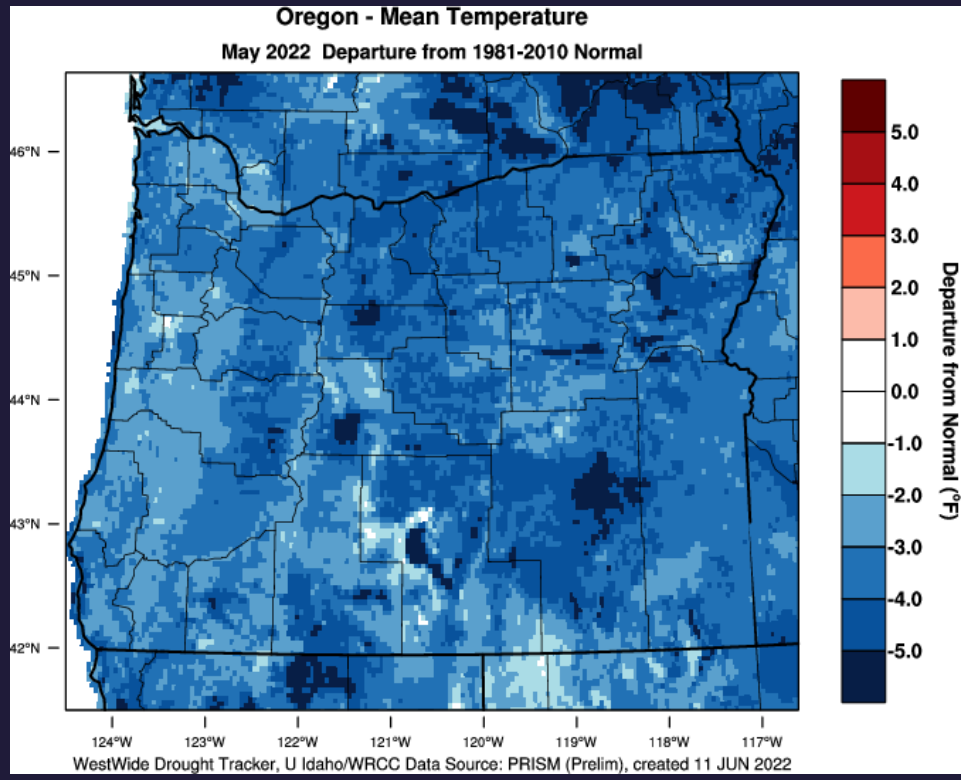
https://wrcc.dri.edu/wwdt/index.php?region=pnw

Recent Temperatures

April



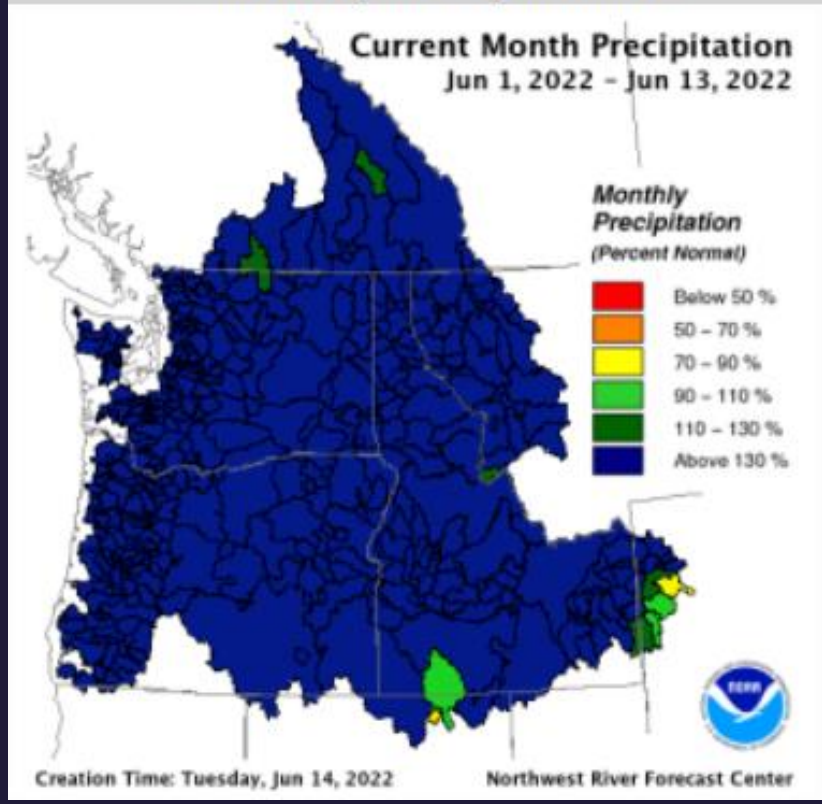
May



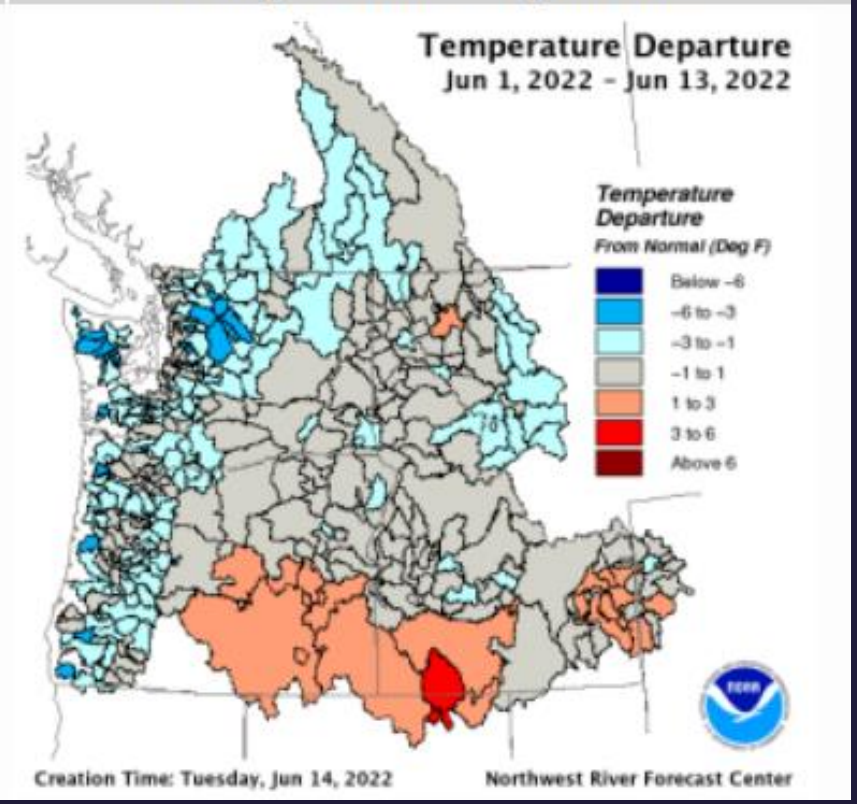
https://wrcc.dri.edu/wwdt/index.php?region=pnw

June thus far

Monthly Precipitation

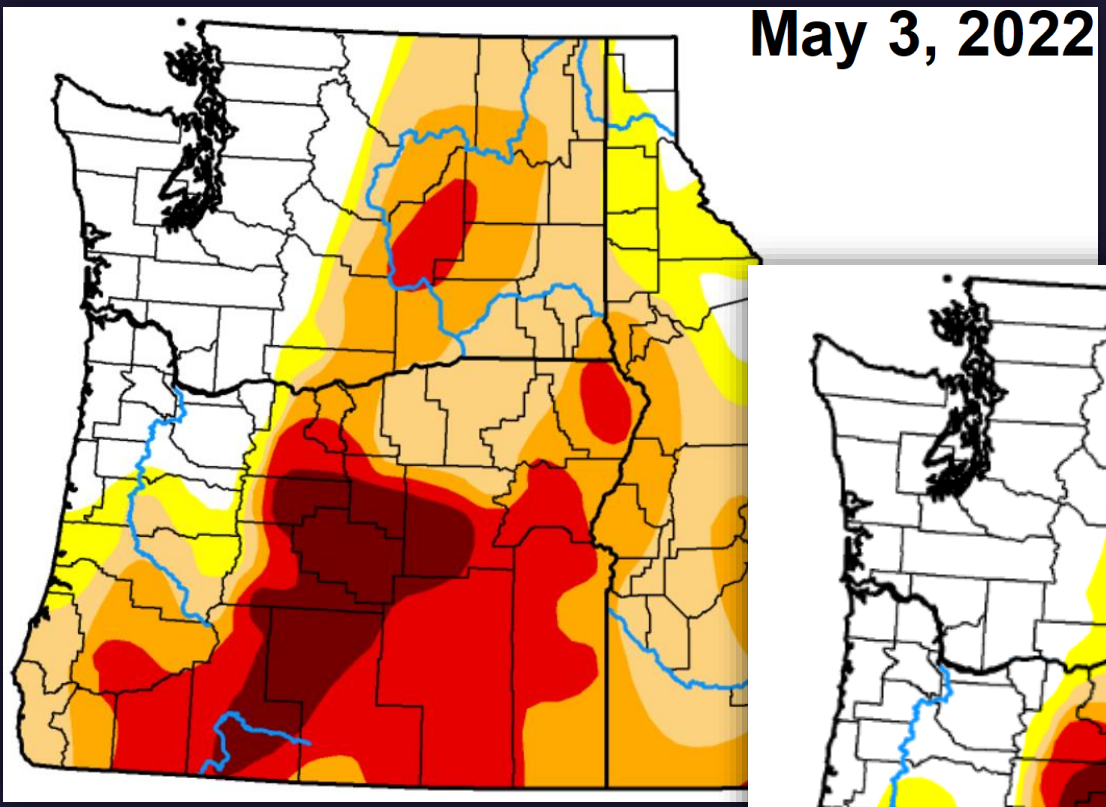


Temperature Departure

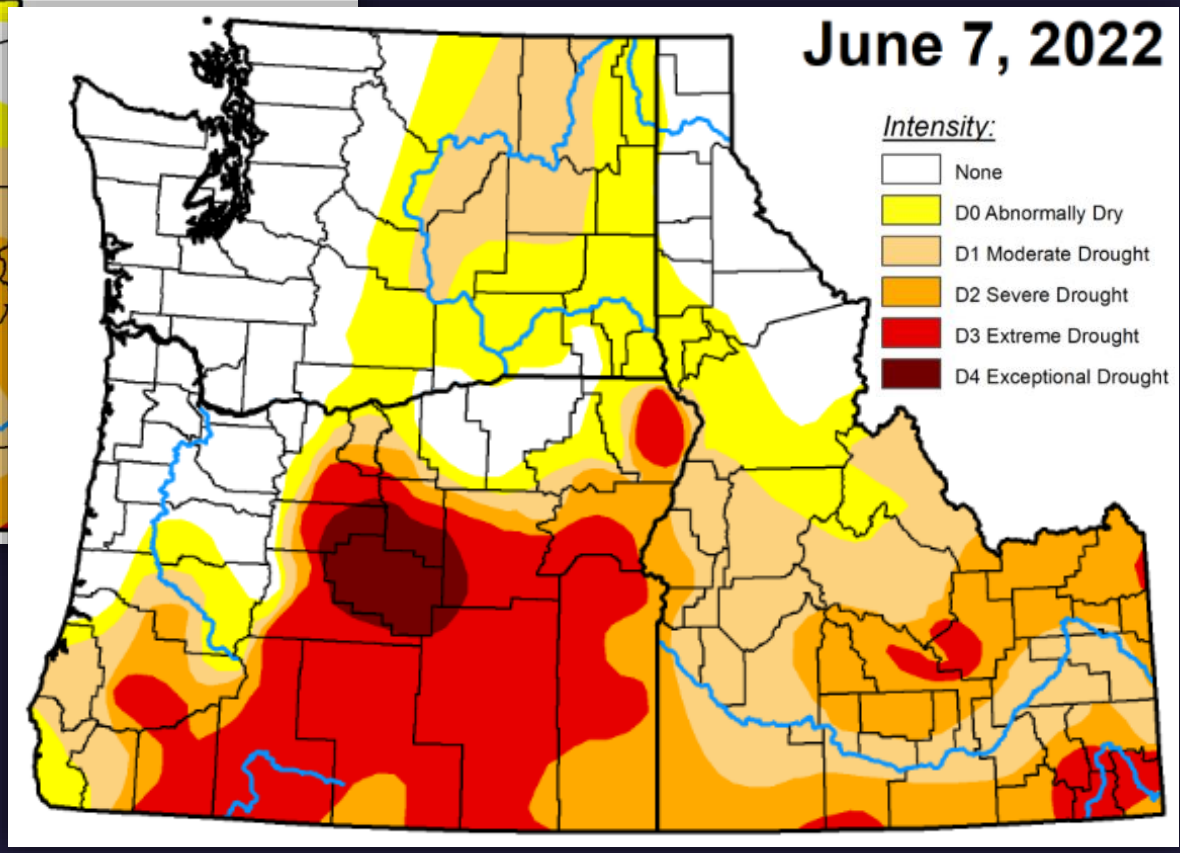


https://www.nwrfc.noaa.gov/water_supply/wy_summary/wy_summary.php?tab=2

Drought Monitor



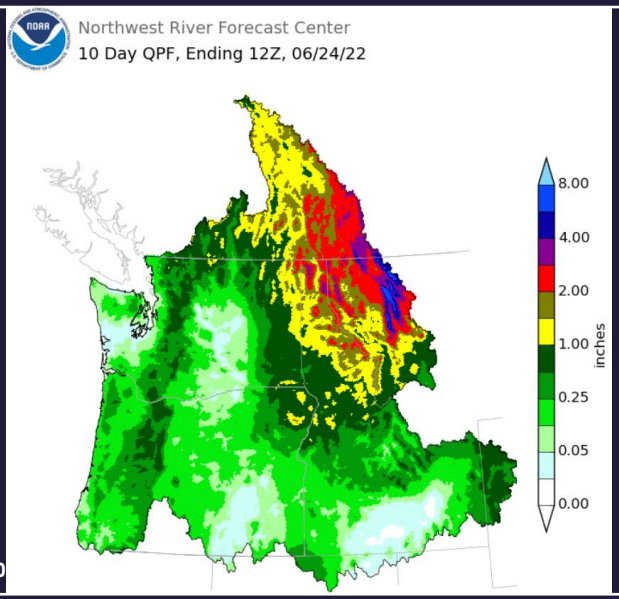
https://droughtmonitor.unl.edu

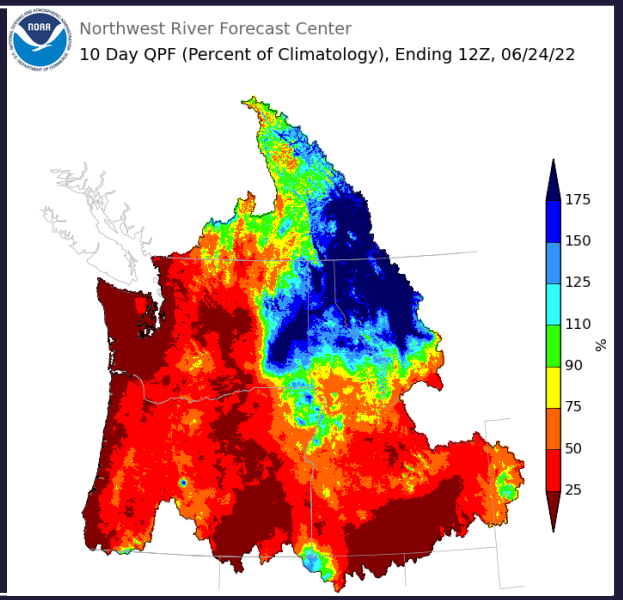


Mid June Outlook

NWRFC
10-DAY
PRECIPITATION
FORECAST

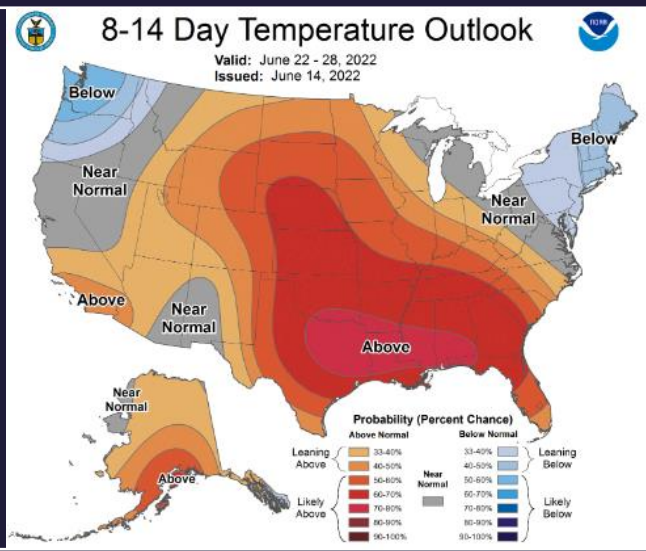
www.nwrfc.noaa.gov/water_supply/wy_summary/wy_summary.php

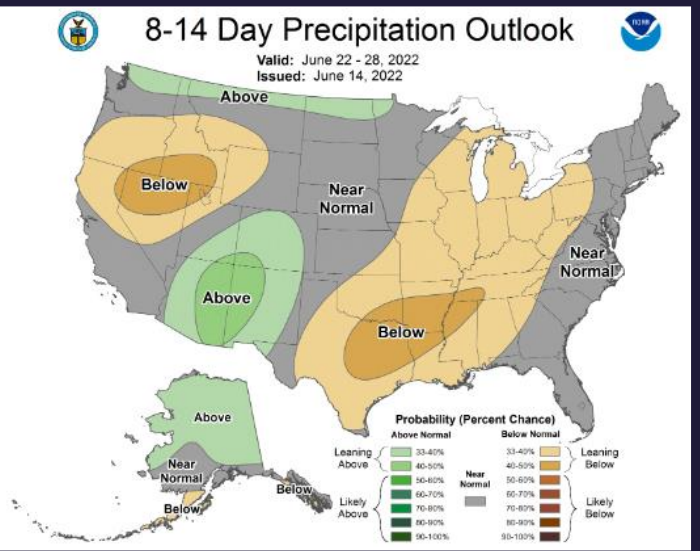




CPC
8 – 14 DAY
OUTLOOK

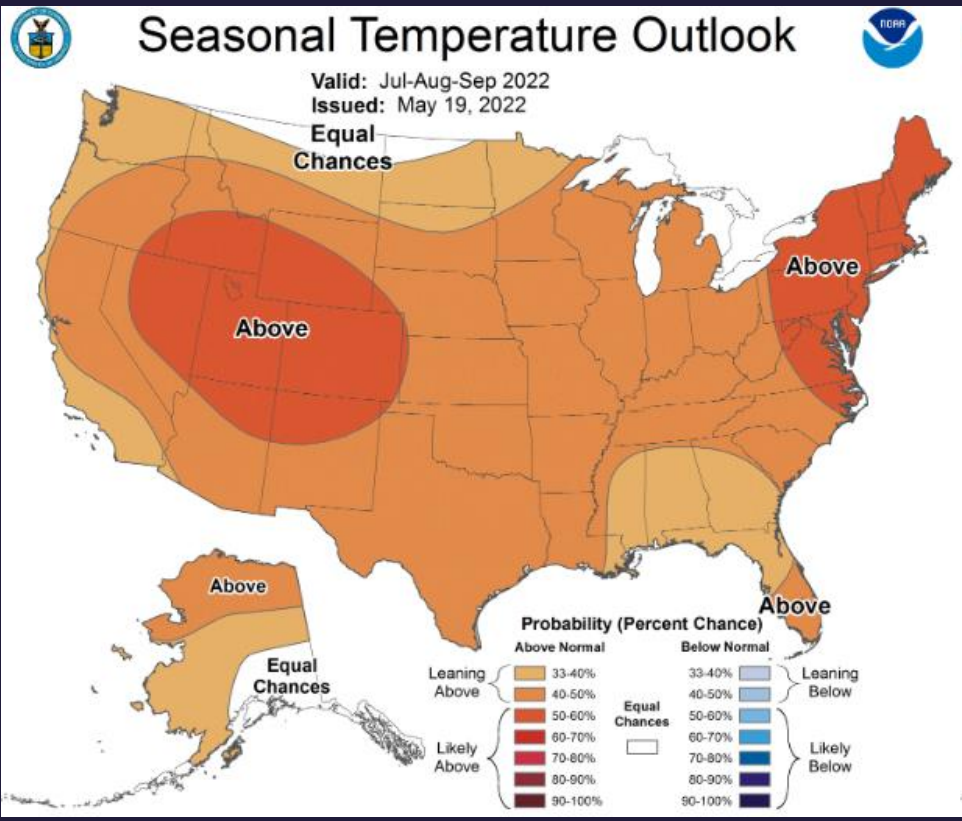
www.cpc.ncep.noaa.gov

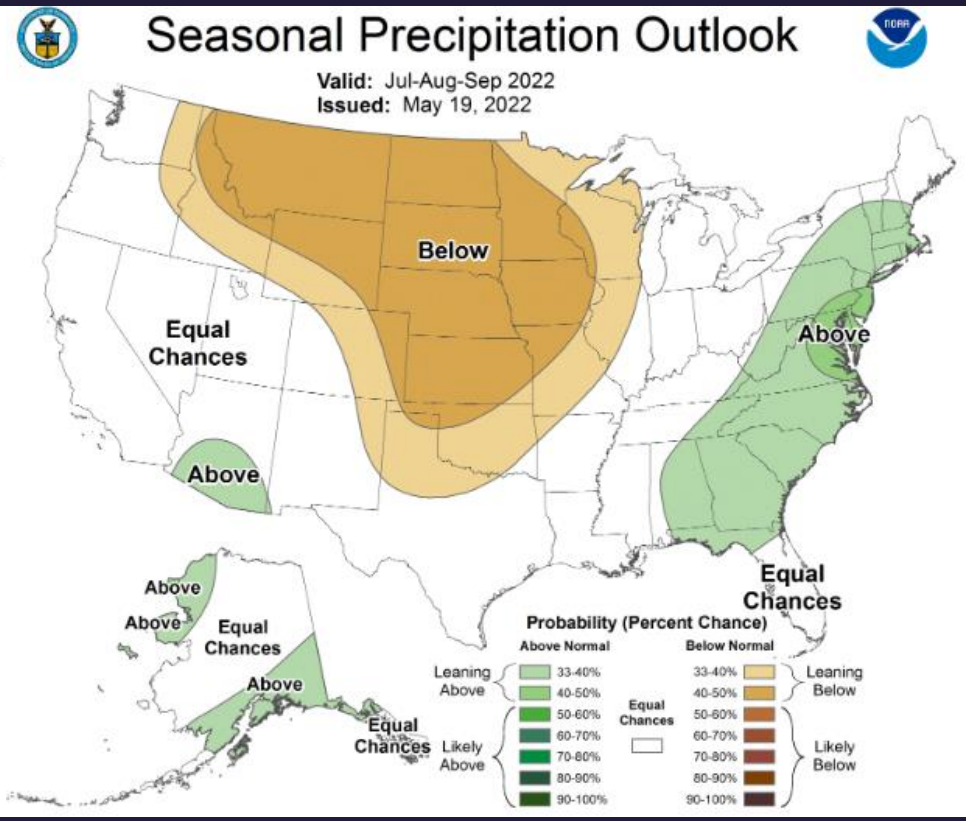




Climate Prediction Center Outlook

July-August-September 2022

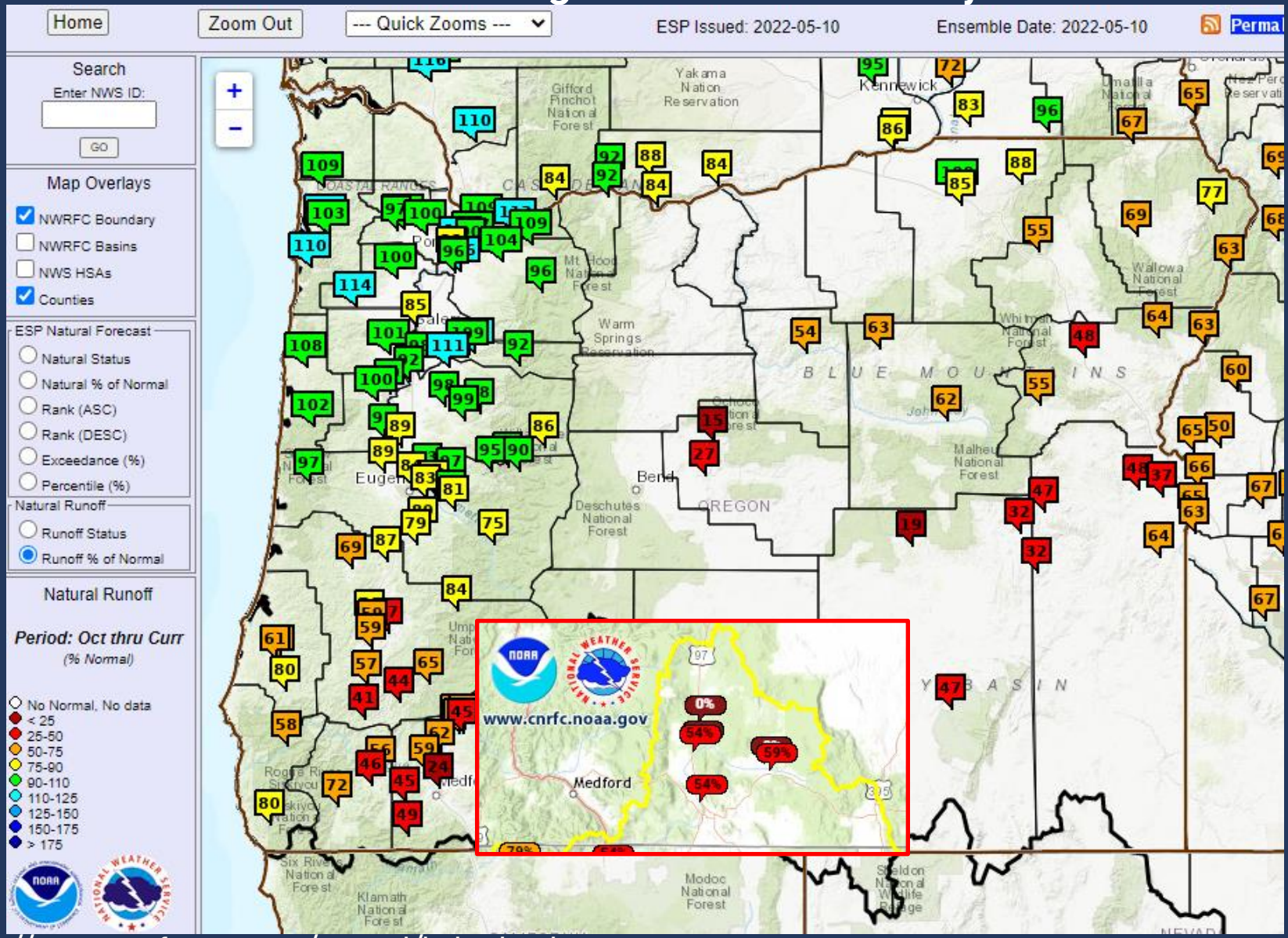




www.cpc.ncep.noaa.gov

Current WY Runoff

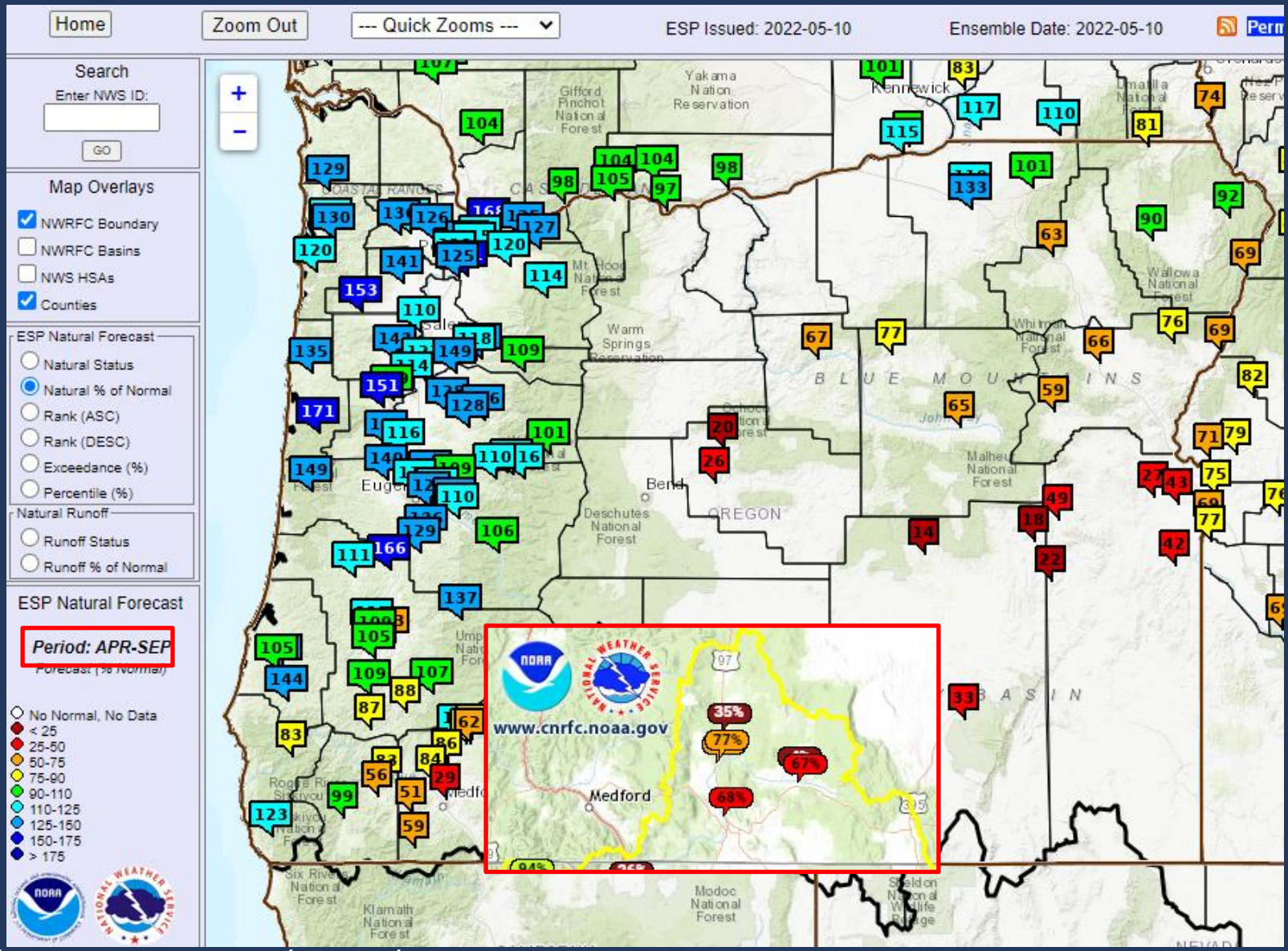
% of Average from Oct 1 – May 10



https://www.nwrfc.noaa.gov/natural/index.html

Seasonal Volume Forecast

April – September ESP Natural - % of Average



https://www.nwrfc.noaa.gov/natural/index.html

Streamflow WY Volume Forecast

Willamette at Salem

WILLAMETTE - AT SALEM (SLMO3)
Forecasts for Water Year 2022

Official Water Supply

ESP with 10 Days QPF ***Ensemble:*** 2022-05-10 ***Issued:*** 2022-05-10

Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	% Average	10 %	
APR-SEP	5401	5646	110	6345	5119
APR-JUL	4949	5177	114	5821	4554
JAN-SEP	10636	10881	89	11580	12224
JAN-JUL	10184	10412	89	11056	11659
OCT-SEP	14619	14864	90	15563	16605

Experimental Water Supply

HEFS with 15 days EQPF ***Ensemble:*** 2022-05-10 ***Issued:*** 2022-05-10

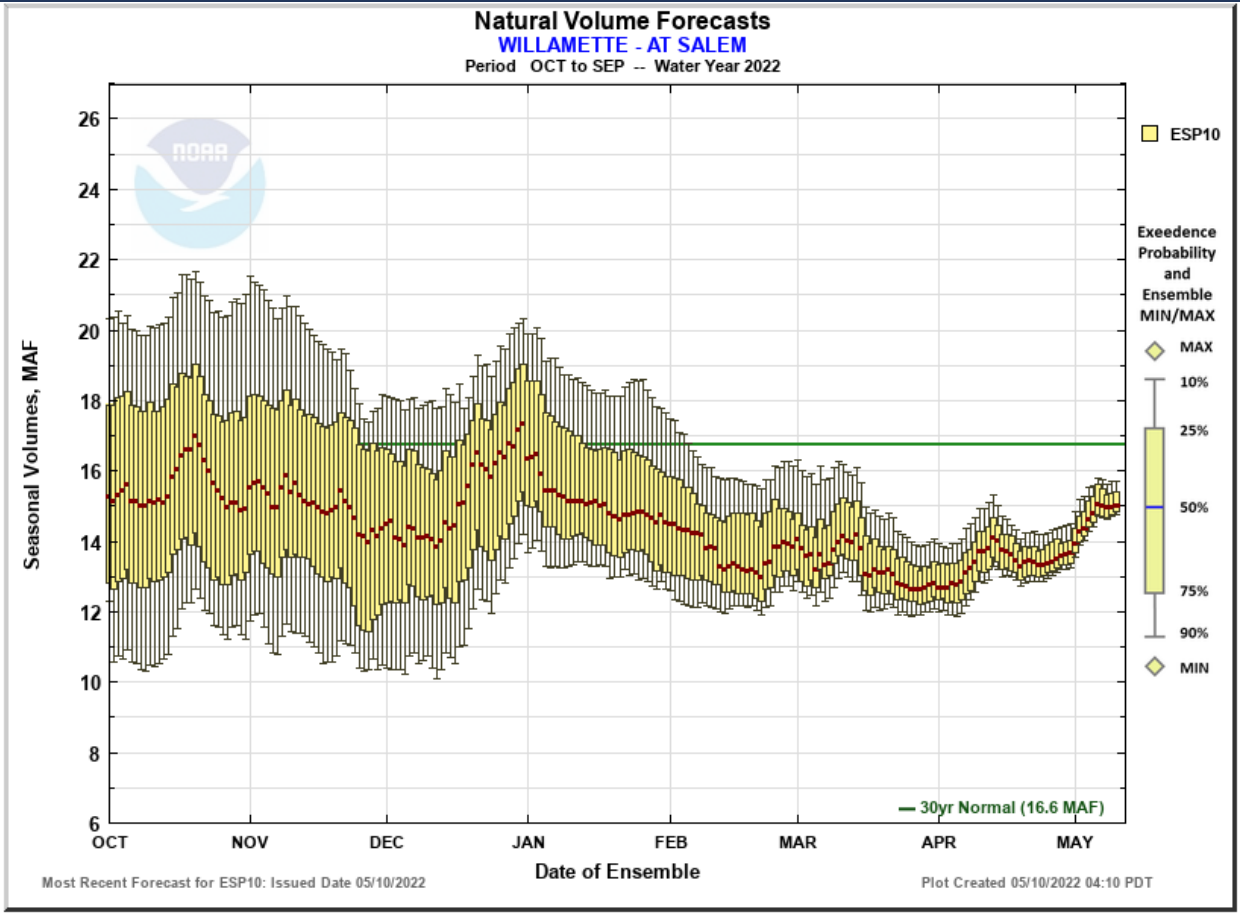
APR-SEP	5408	5891	115	6828	5119
APR-JUL	4926	5368	118	6301	4554
JAN-SEP	10643	11126	91	12063	12224
JAN-JUL	10161	10603	91	11536	11659
OCT-SEP	14626	15109	91	16046	16605

Reference

ESP with 0 Days QPF ***Ensemble:*** 2022-05-10 ***Issued:*** 2022-05-10

APR-SEP	5335	5816	114	6735	5119
APR-JUL	4878	5276	116	6187	4554
JAN-SEP	10570	11051	90	11970	12224
JAN-JUL	10114	10511	90	11422	11659
OCT-SEP	14553	15034	91	15954	16605

Move the mouse over the desired "Forecast Period" to display a graph.



https://www.nwrfc.noaa.gov/natural/plot/nat_forecasts.php?id=SLMO3

Streamflow WY Volume Forecast

ESP 10-day

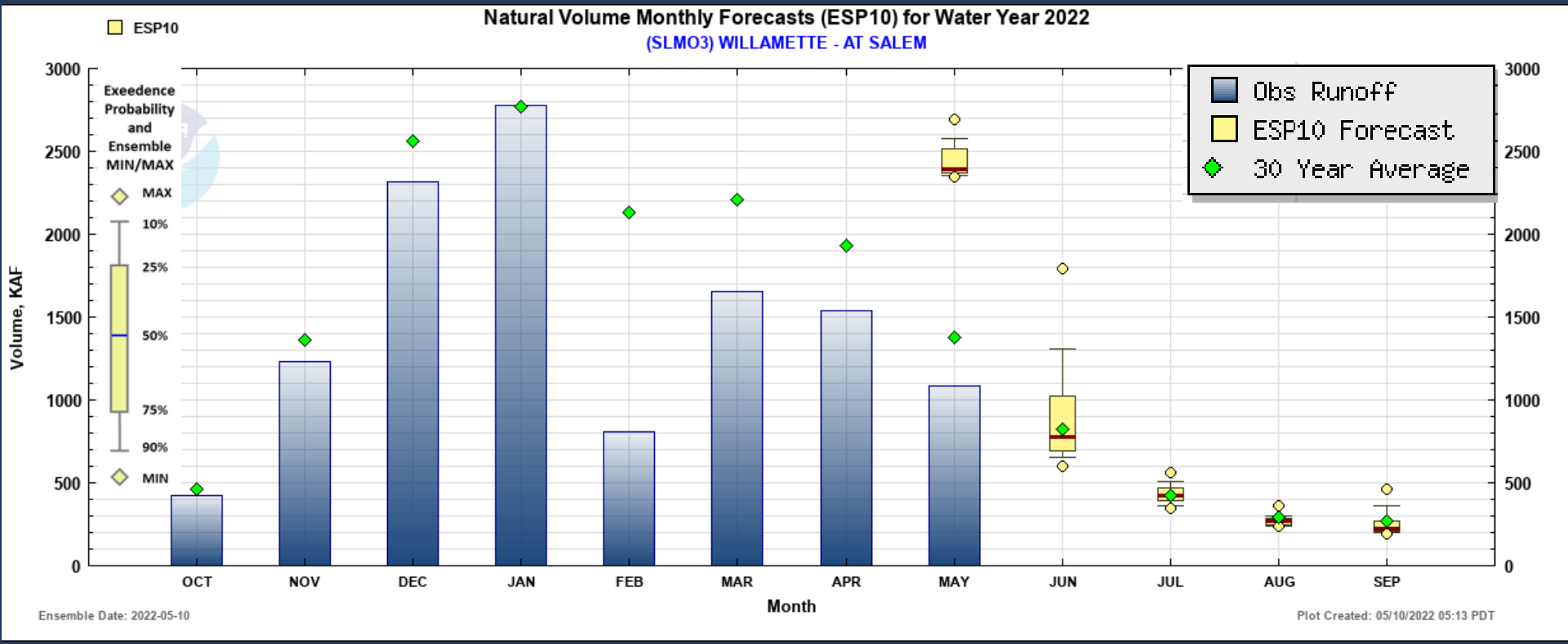
Site	Last month's 10-day forecast % normal	This month's 10-day forecast % normal
Willamette R at Salem	82	90
Rogue R at Raygold	62	66
Umatilla R nr Umatilla	78	93
John Day R at Service Creek	58	60
Owyhee Dam	69	58

Mostly improvements, with the most pronounced in the North (i.e., Willamette and Umatilla).

Owyhee Dam precipitation did not translate to runoff.

Streamflow WY Monthly Volume Forecast

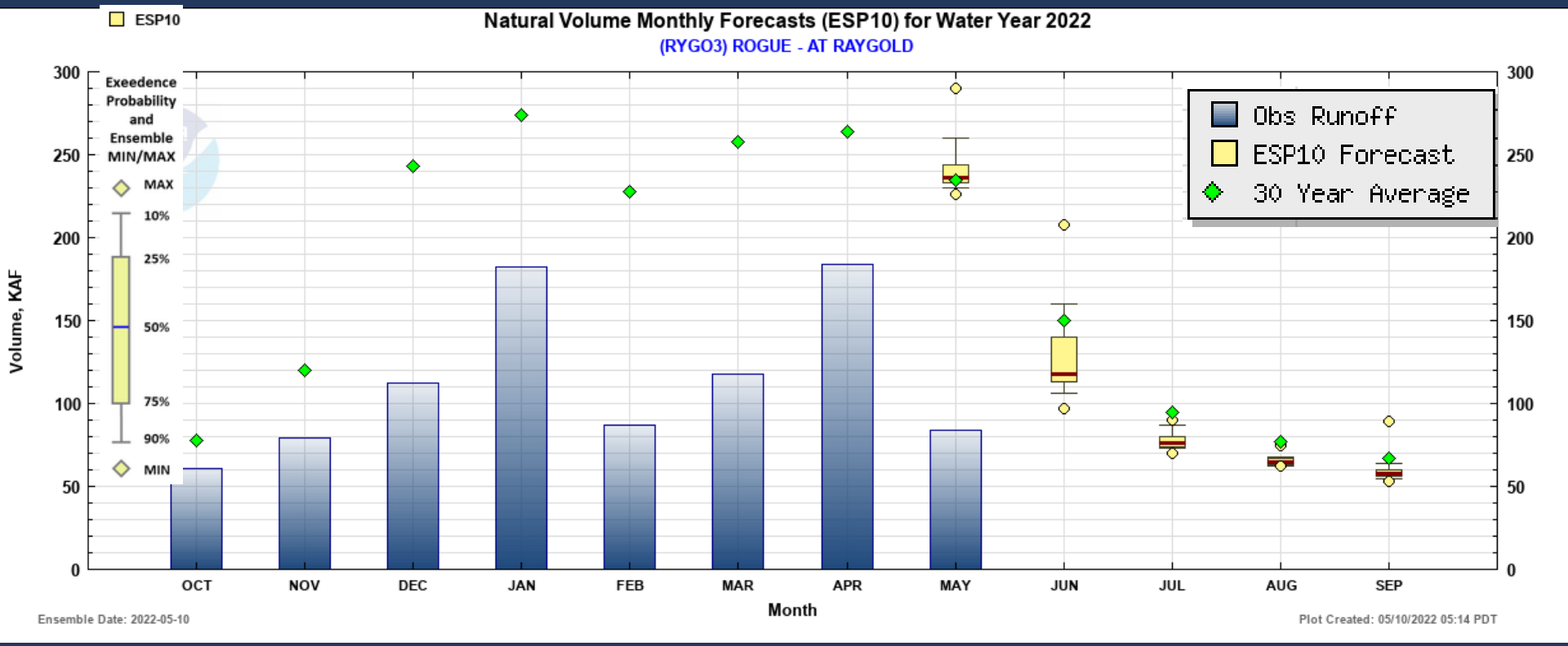
Willamette R at Salem



https://www.nwrfc.noaa.gov/natural/plot/monthly/monthly_natural_forecasts.php?id=SLMO3

Streamflow WY Monthly Volume Forecast

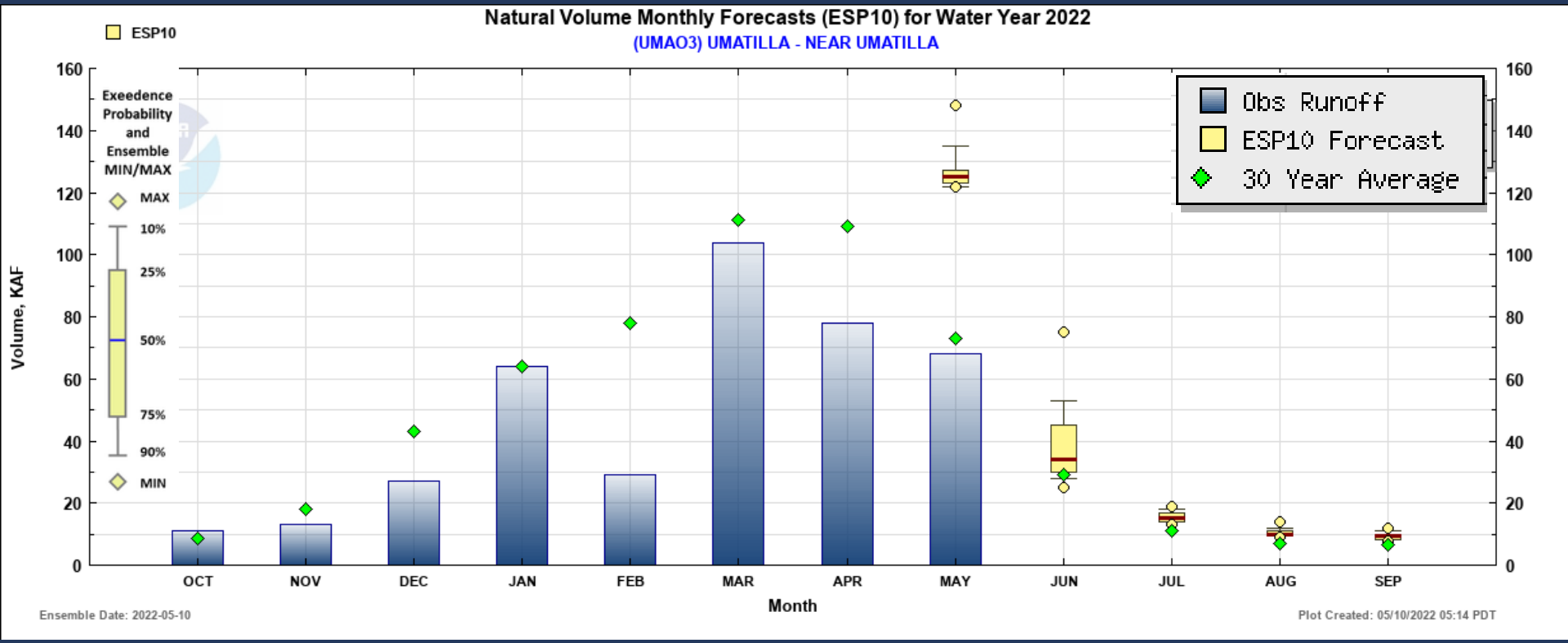
Rogue R near Raygold



https://www.nwrfc.noaa.gov/natural/plot/monthly/monthly_natural_forecasts.php?id=RYGO3

Streamflow WY Monthly Volume Forecast

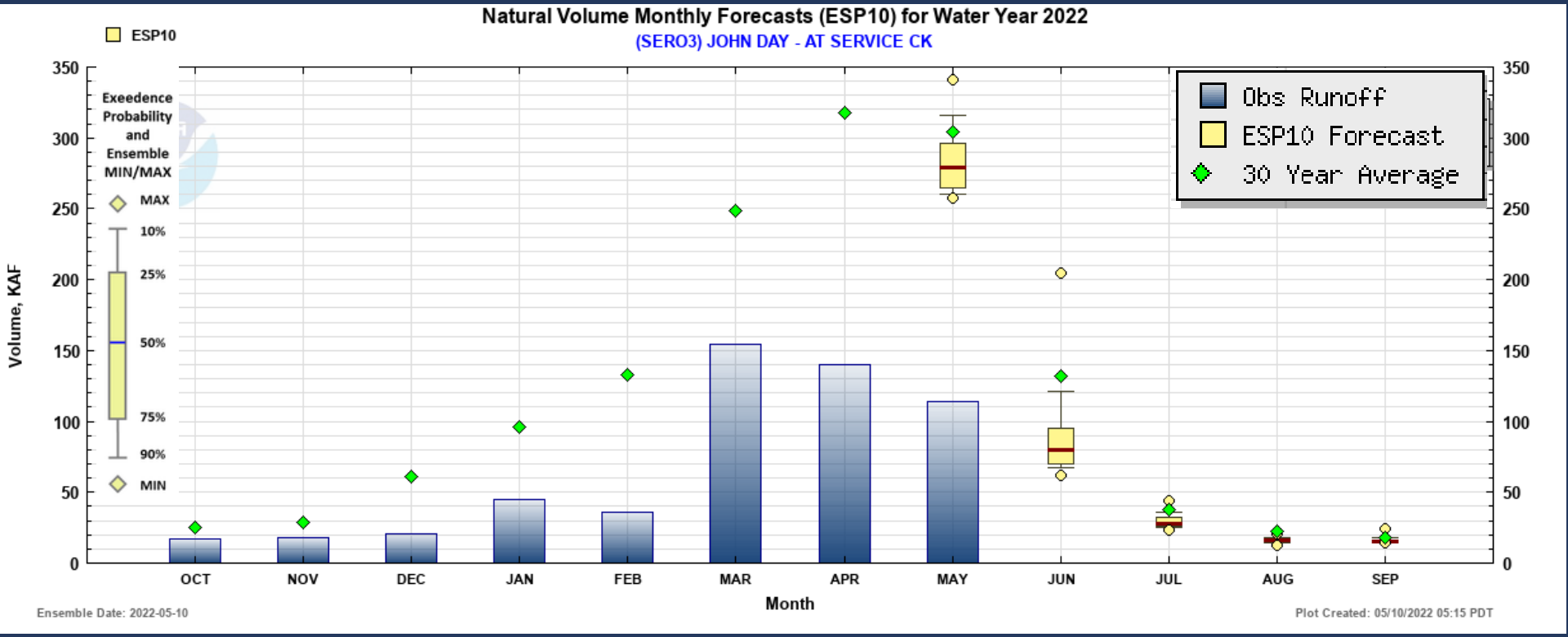
Umatilla R nr Umatilla



https://www.nwrfc.noaa.gov/natural/plot/monthly/monthly_natural_forecasts.php?id=UMAO3

Streamflow WY Monthly Volume Forecast

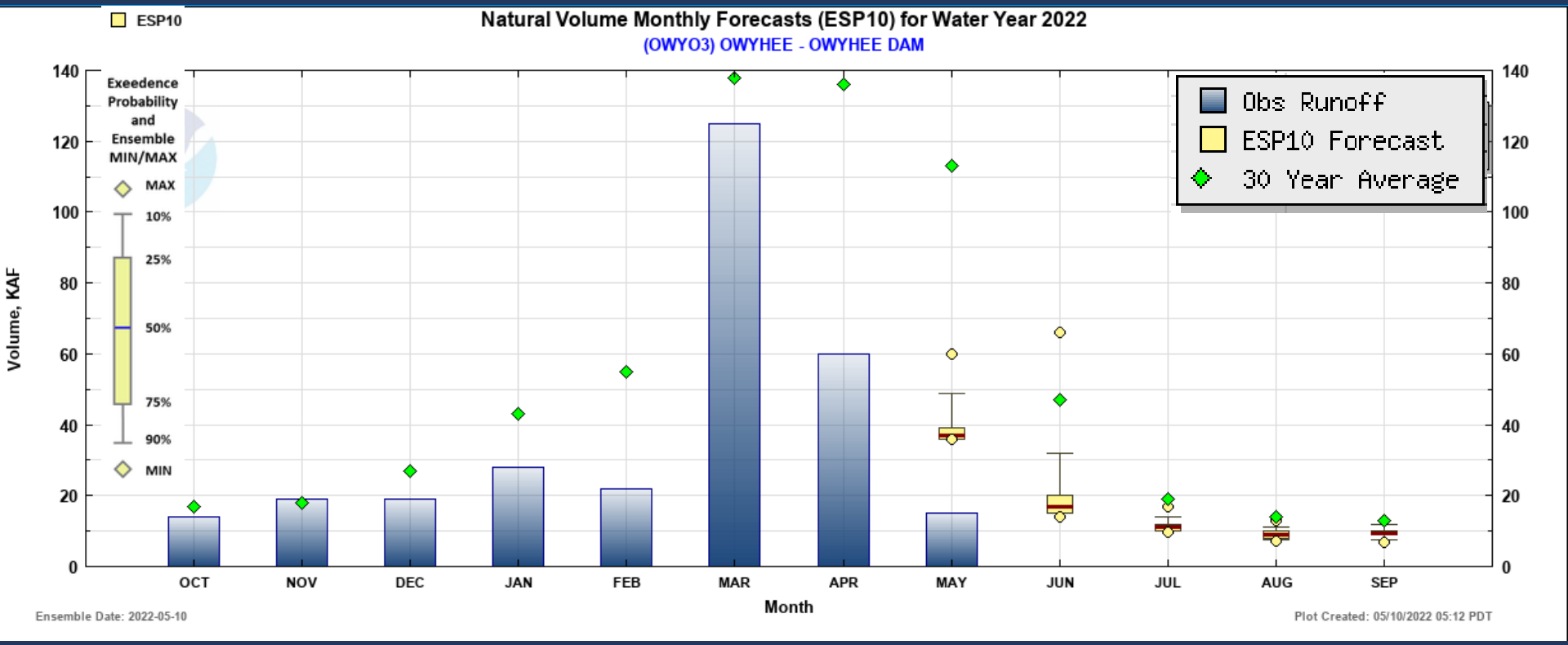
John Day R at Service Creek



https://www.nwrfc.noaa.gov/natural/plot/monthly/monthly_natural_forecasts.php?id=SERO3

Streamflow WY Monthly Volume Forecast

Owyhee Dam



https://www.nwrfc.noaa.gov/natural/plot/monthly/monthly_natural_forecasts.php?id=OWYO3

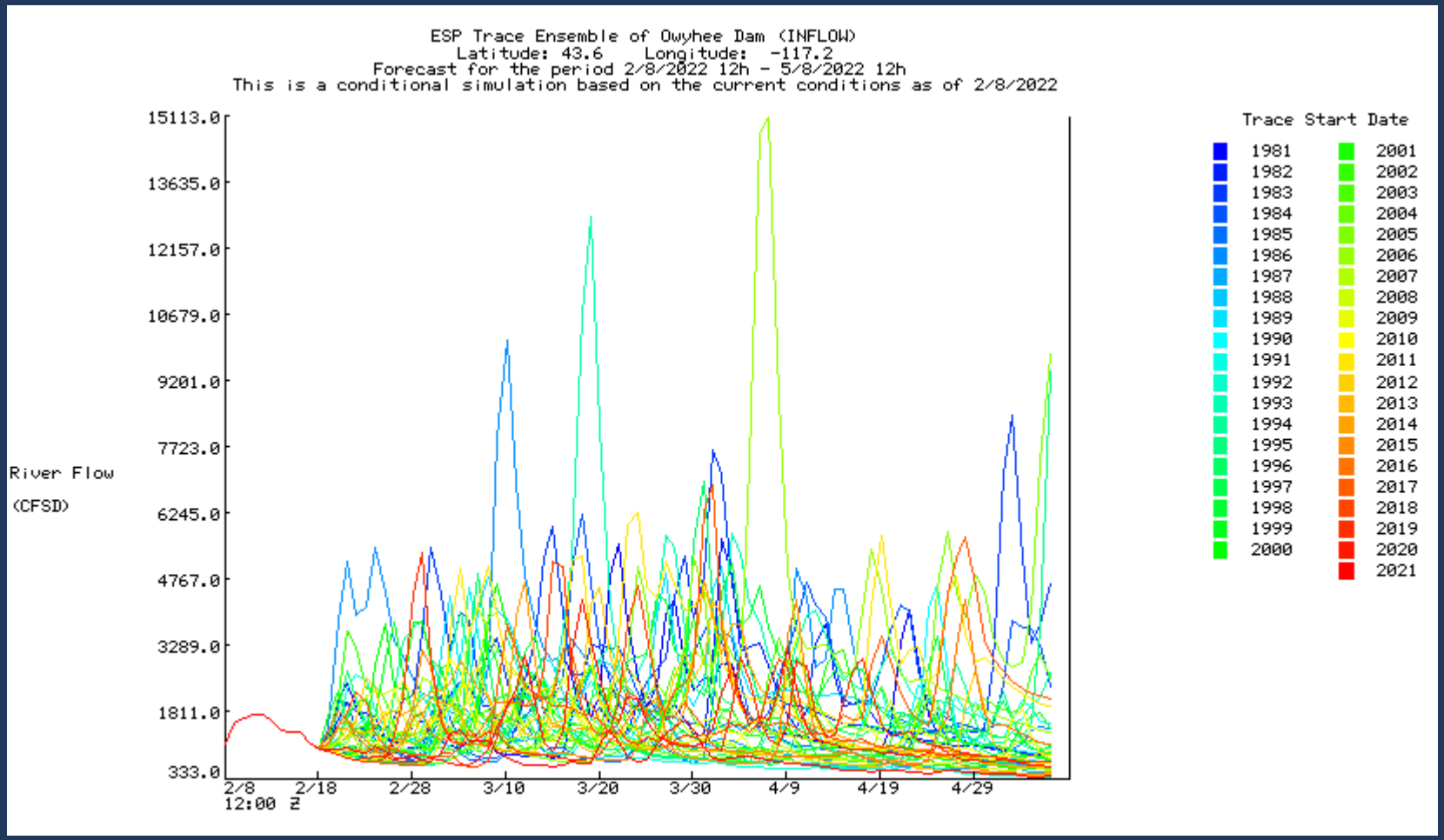
NWRFC Water Supply Briefings Schedule

2022 Schedule for *Live* Water Supply Briefings					
Jan	Feb	Mar	Apr	May	June
6	3	3	7	5	2
All presentations held at 10:00am PDT/PST, unless noted otherwise					
Click here for Registration Information					

https://www.nwrfc.noaa.gov/water_supply/ws_schd.cgi?version=20190204v1

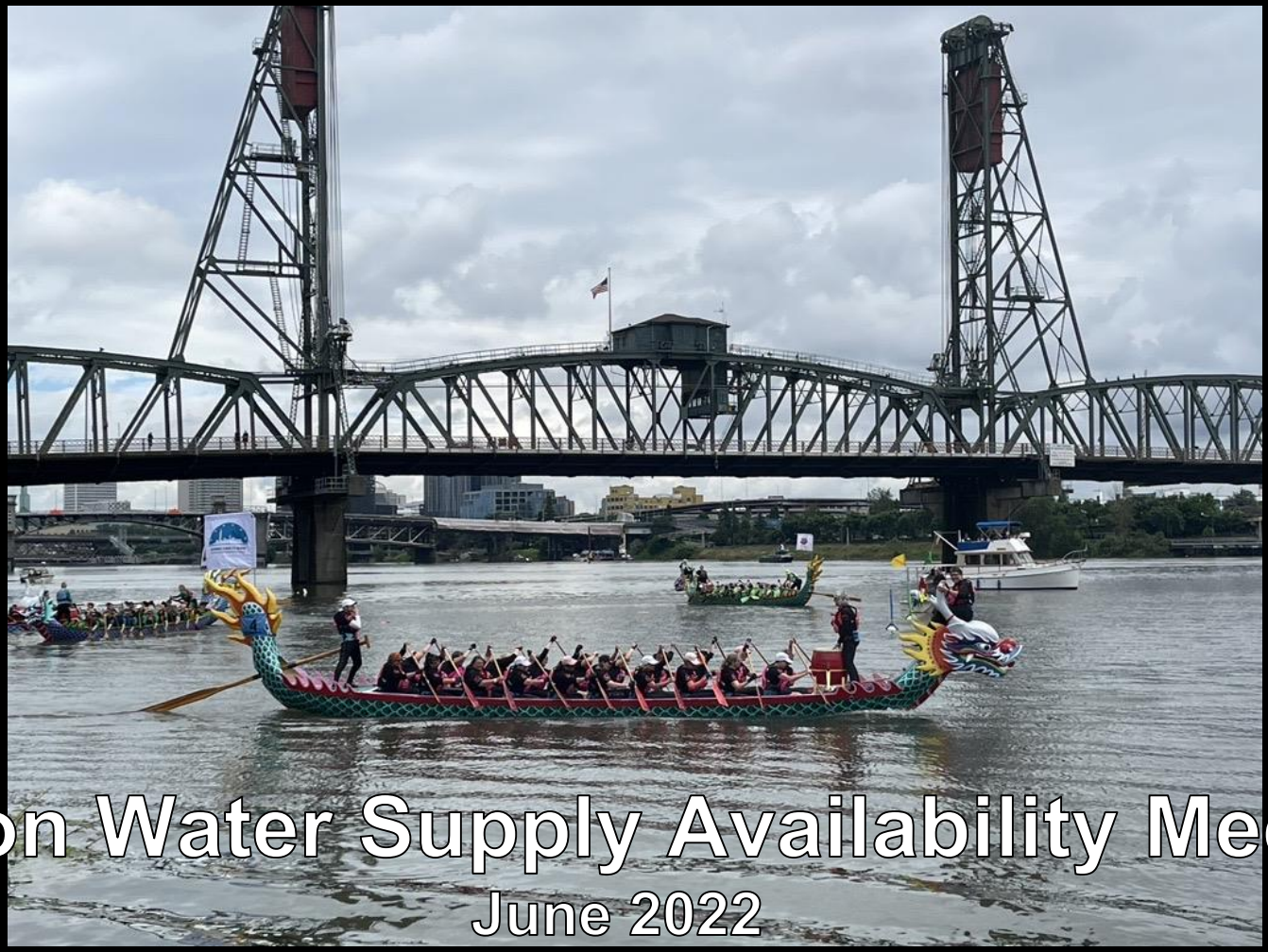
Extra slide- NWRFC ESP Traces

Owyhee Dam



https://www.nwrfc.noaa.gov/espadp/espadp.cgi

USGS
science for a changing world



Oregon Water Supply Availability Meeting

June 2022

U.S. Department of the Interior
U.S. Geological Survey

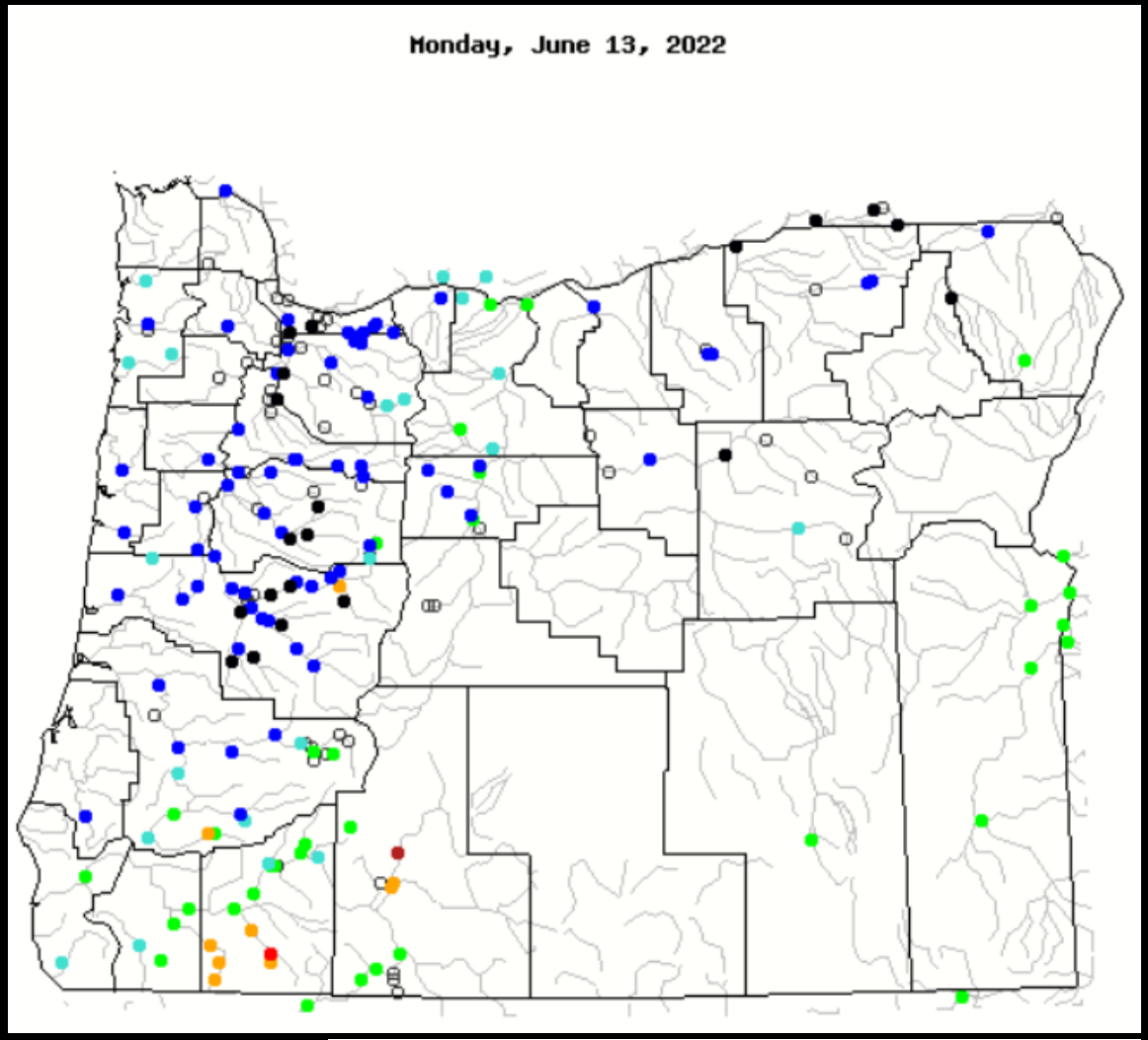
USGS Update on Surface Water Conditions

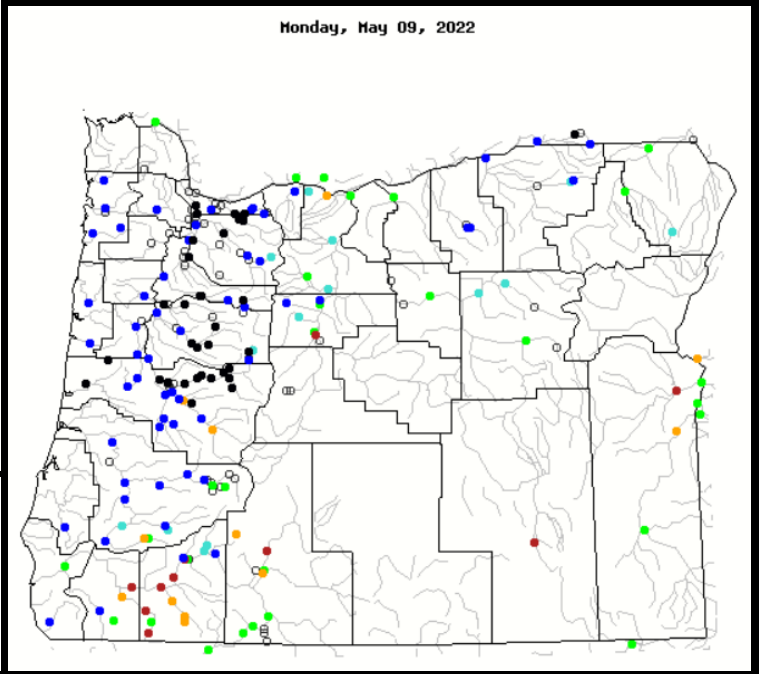
Carrie Boudreau & Marc Stewart
Oregon Water Science Center

Photo: Alex Etheridge

Streamflow Conditions

7-day Average Streamflow (as compared to Historical Record)



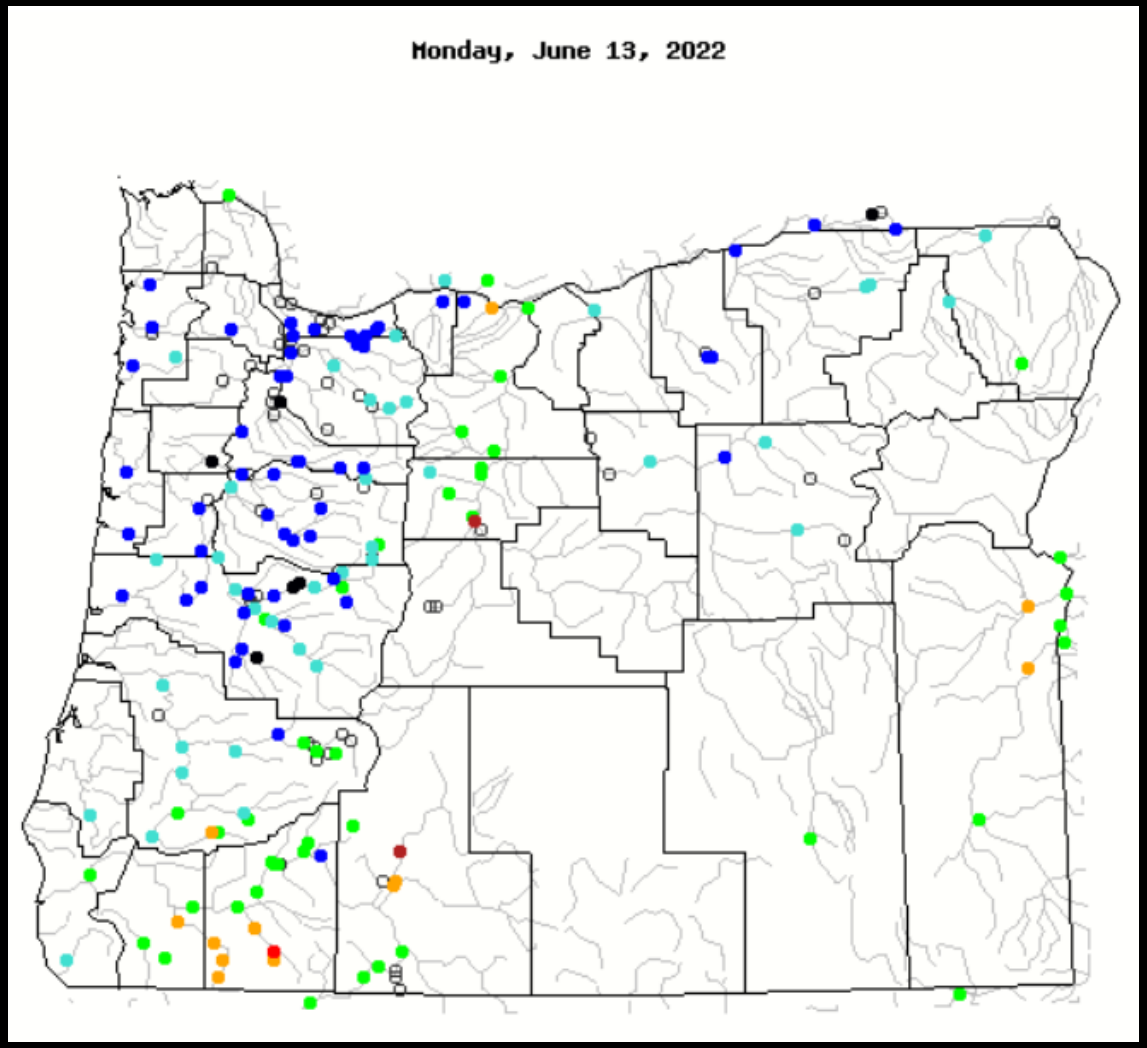


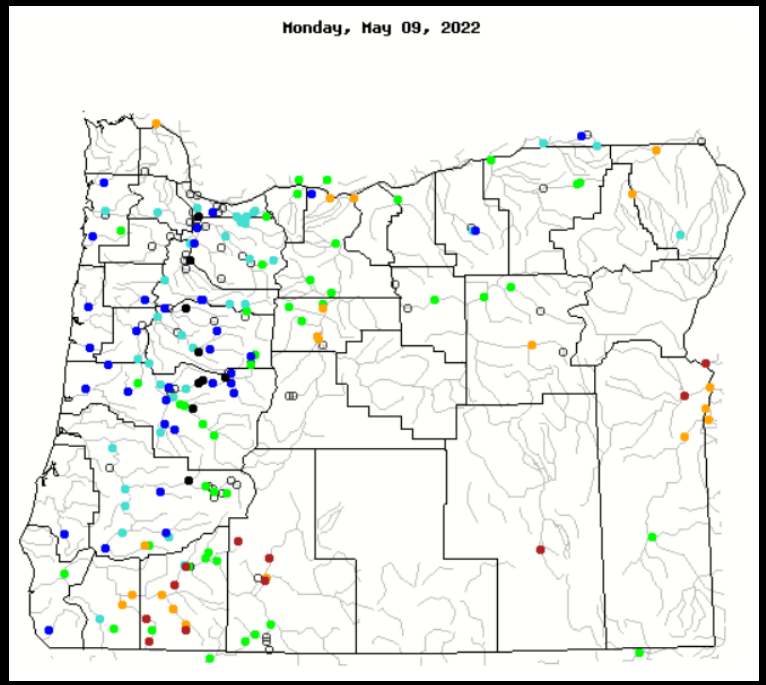
USGS

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

Streamflow Conditions

28-day Average Streamflow (as compared to Historical Record)

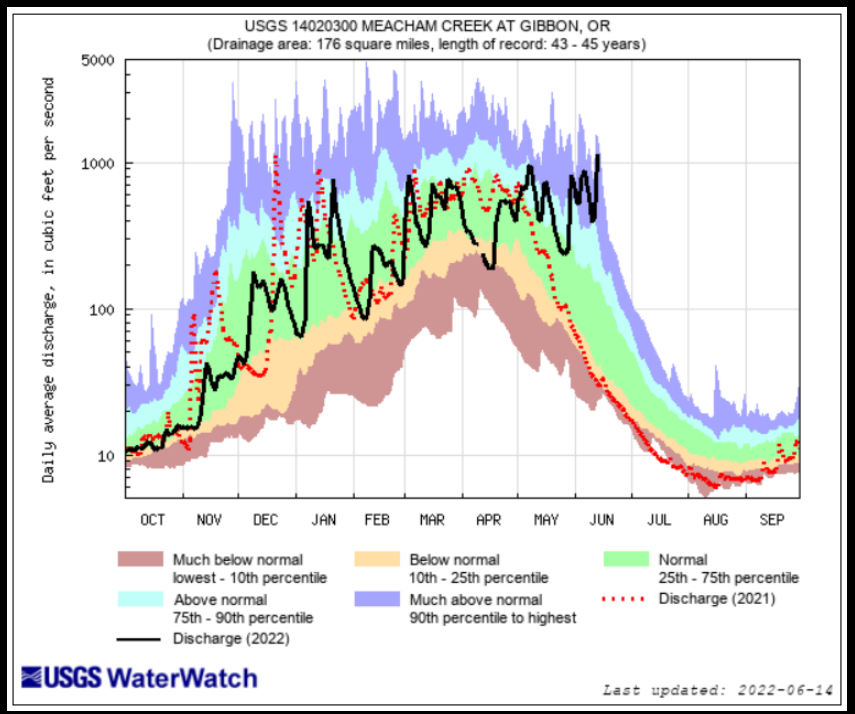


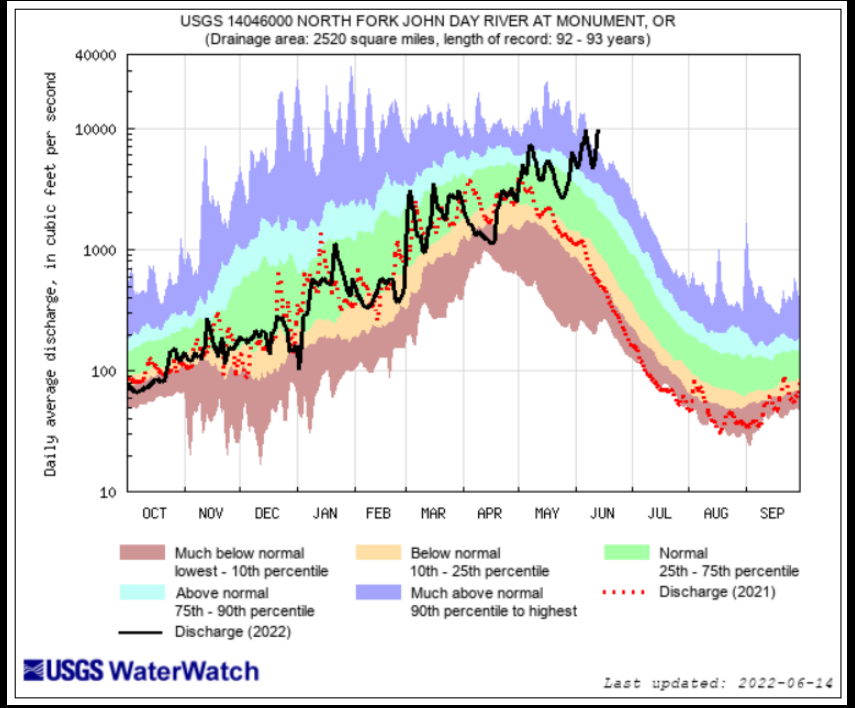


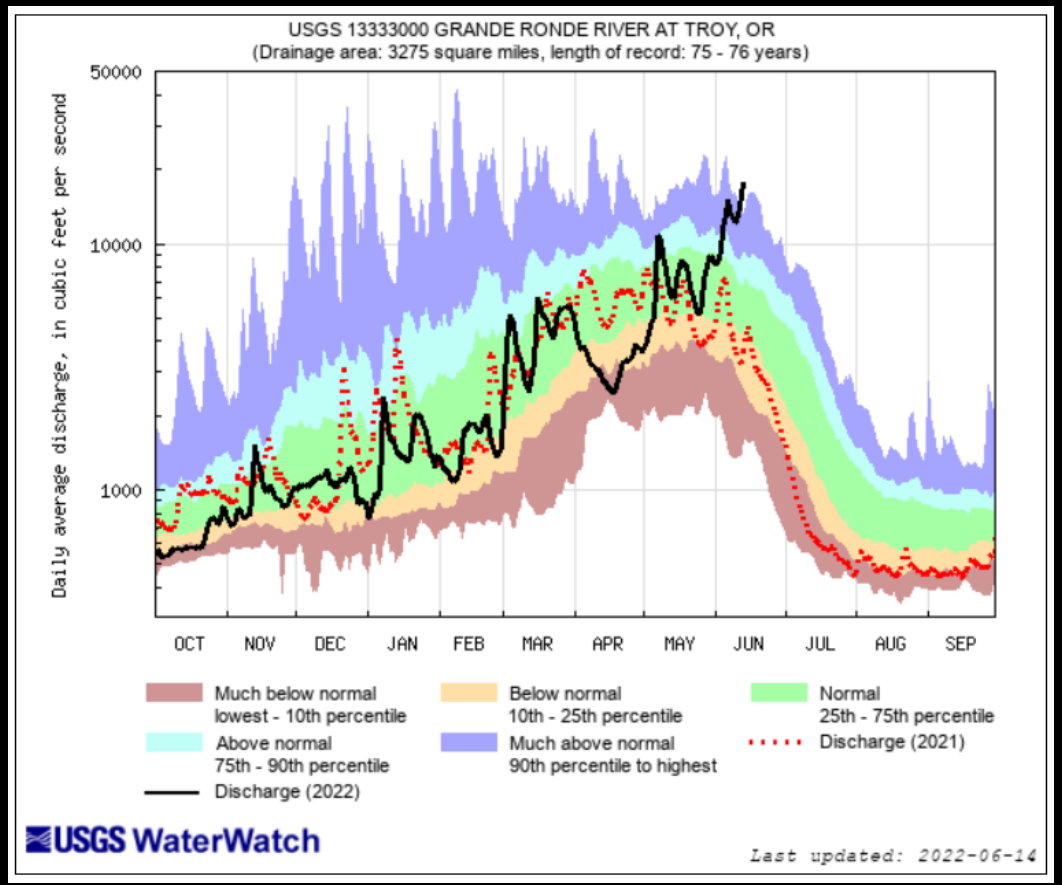
Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

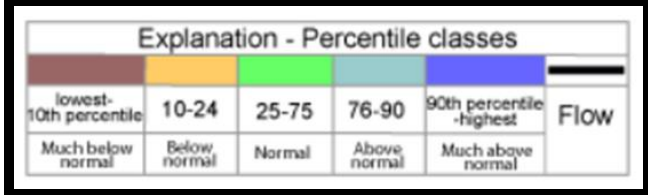
USGS

Northeastern OR

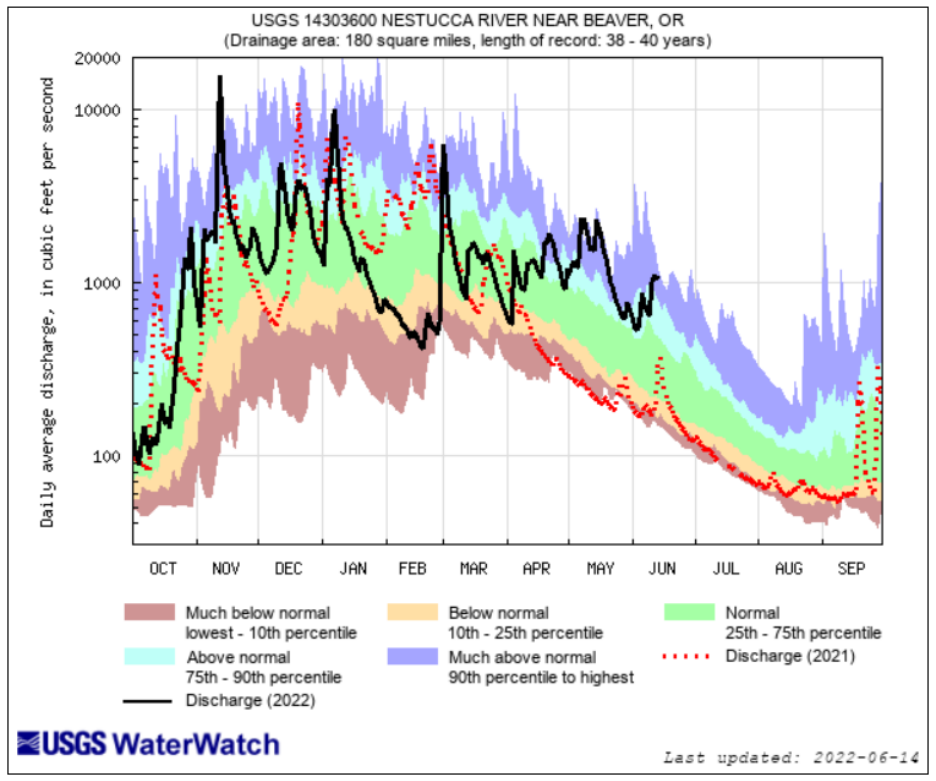


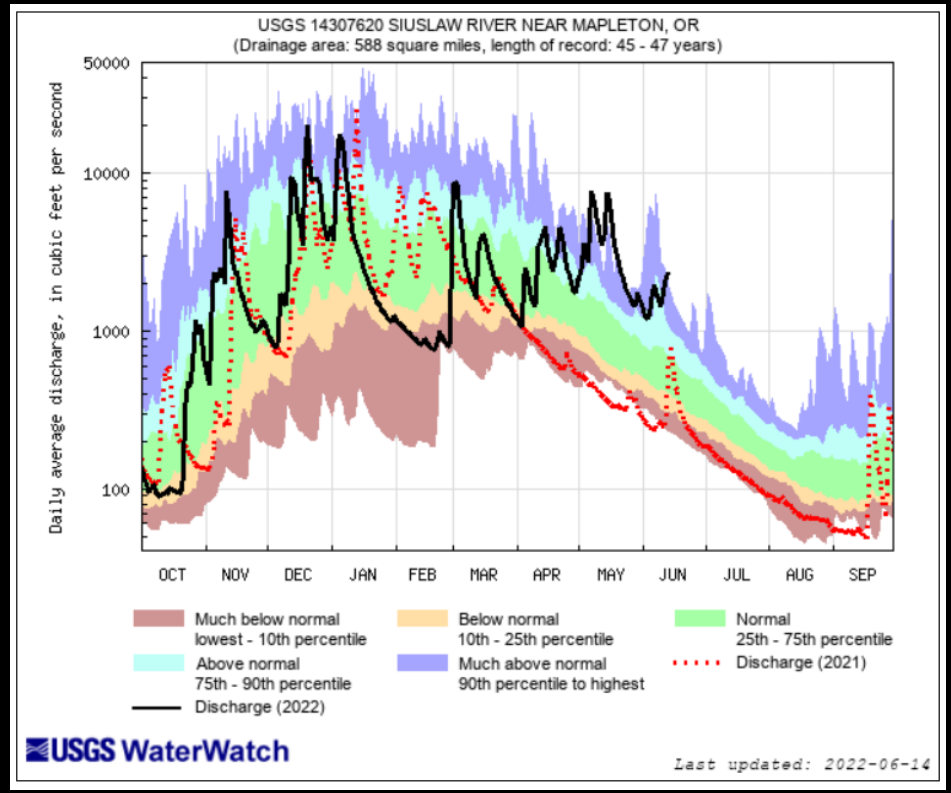


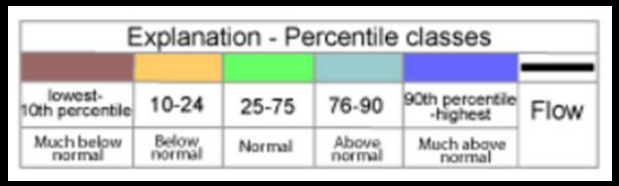




Northwestern OR

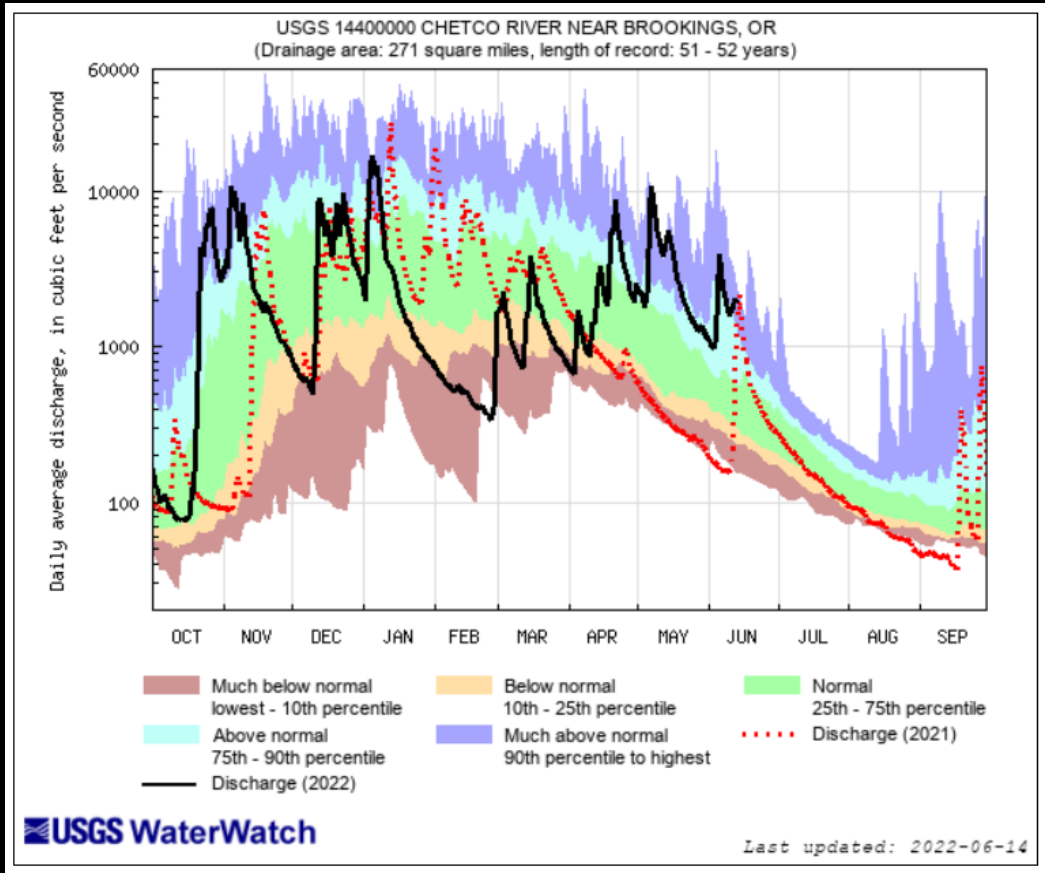


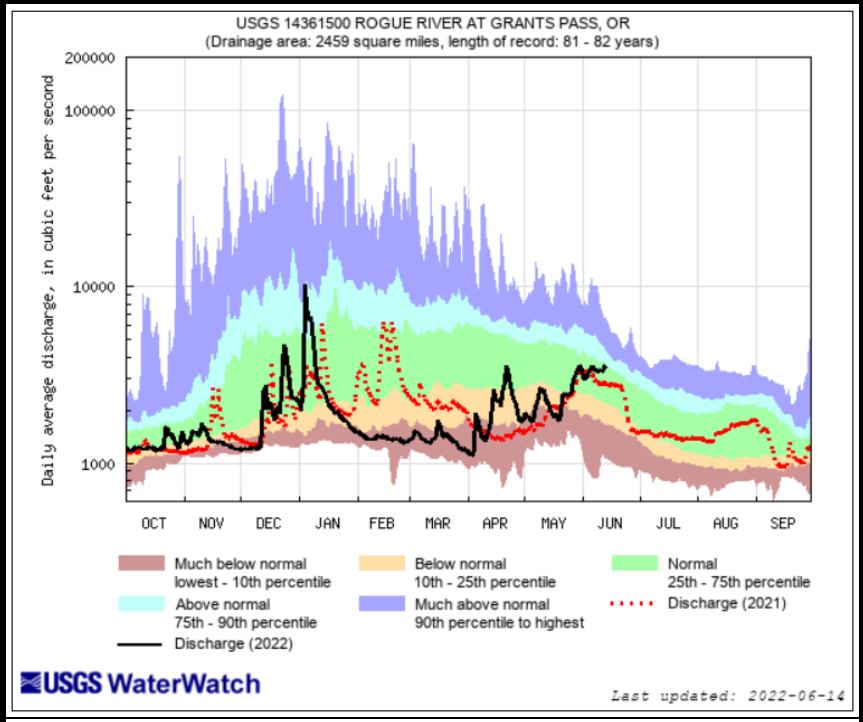


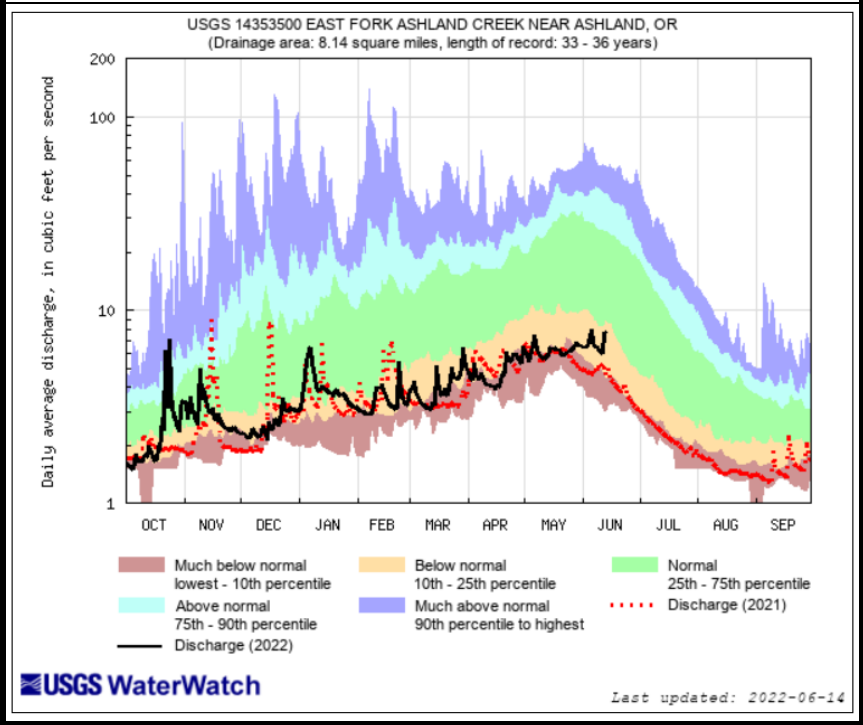


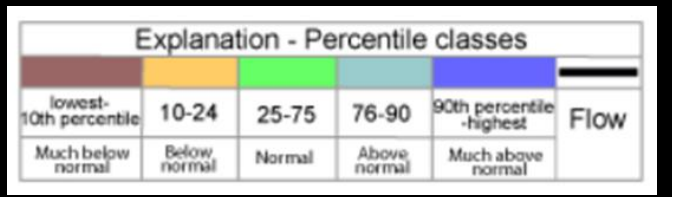
USGS

Southwestern OR



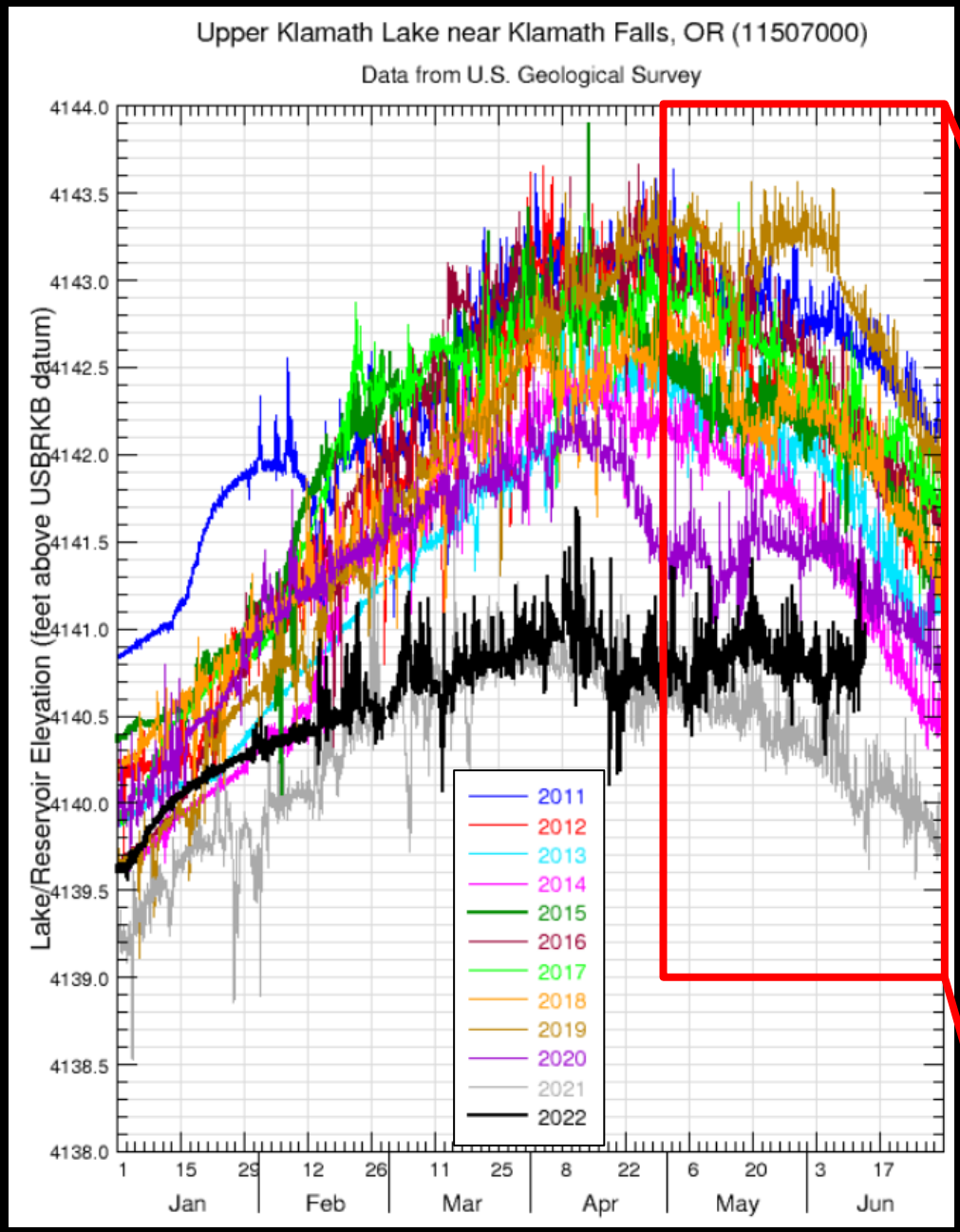


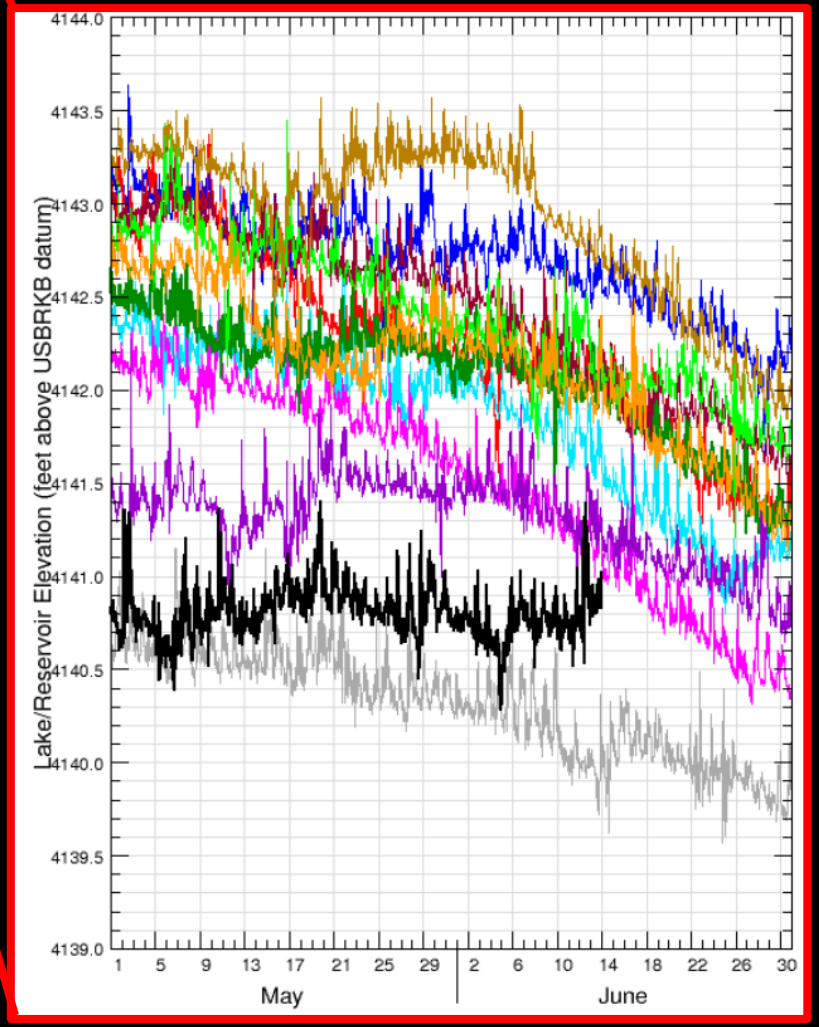




USGS

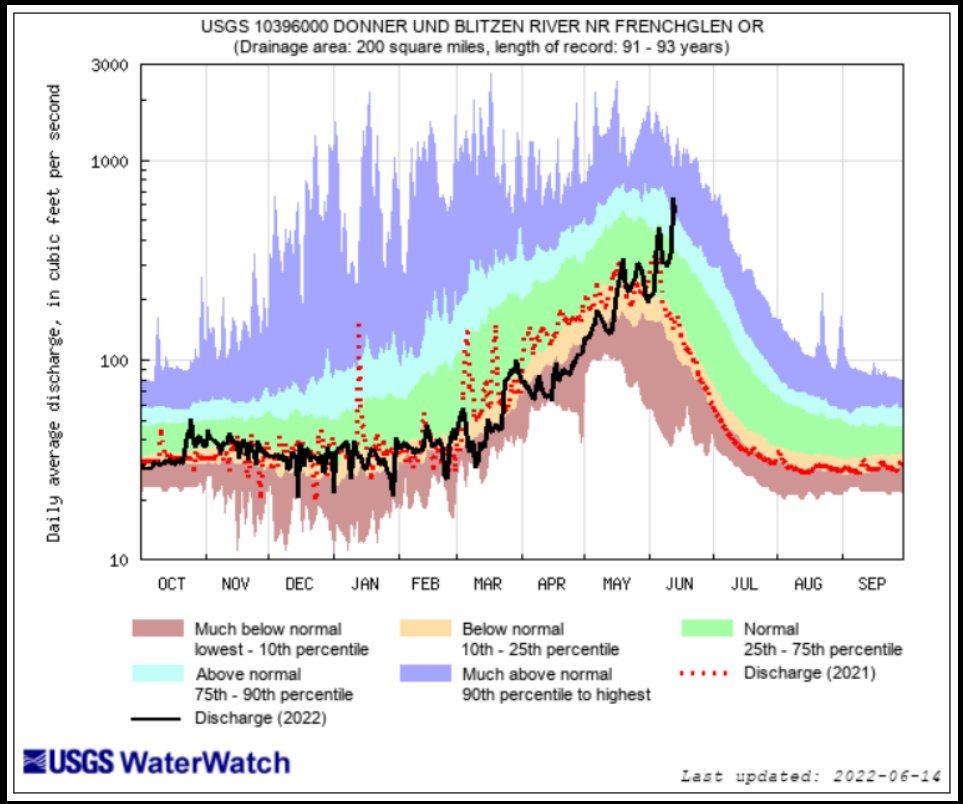
Klamath Lake

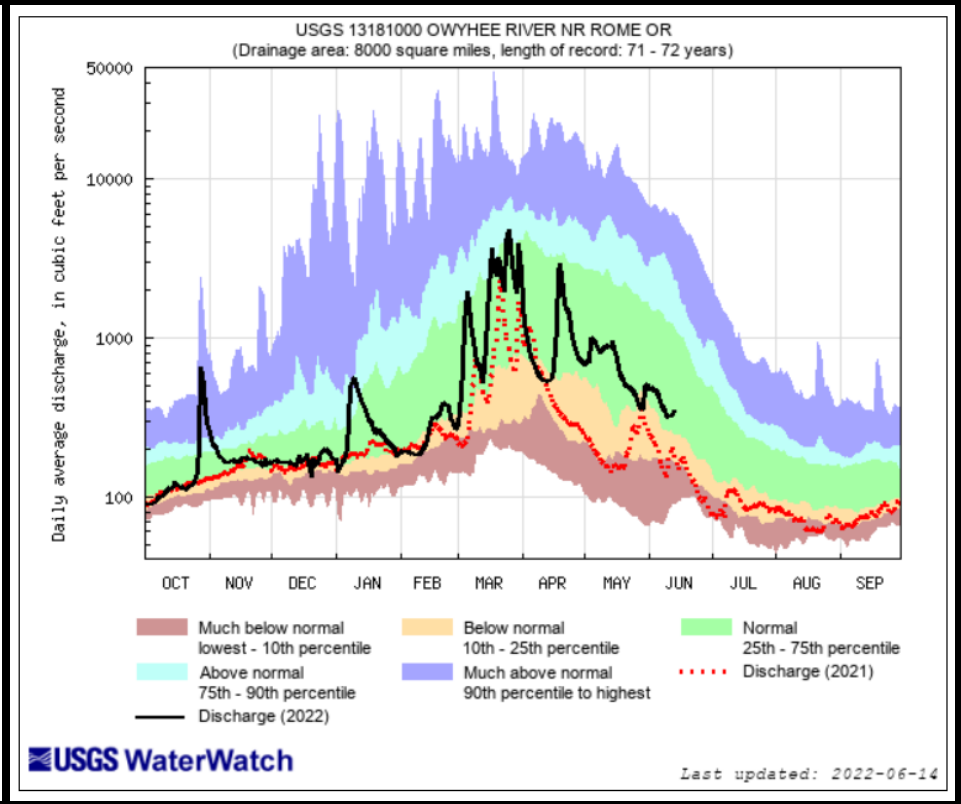


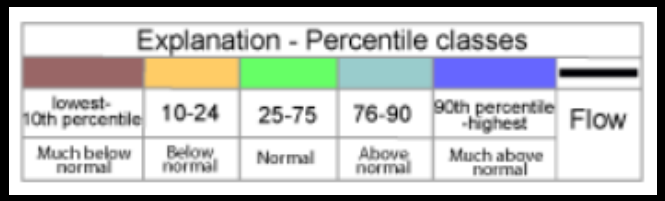


USGS

Southeastern OR







USGS

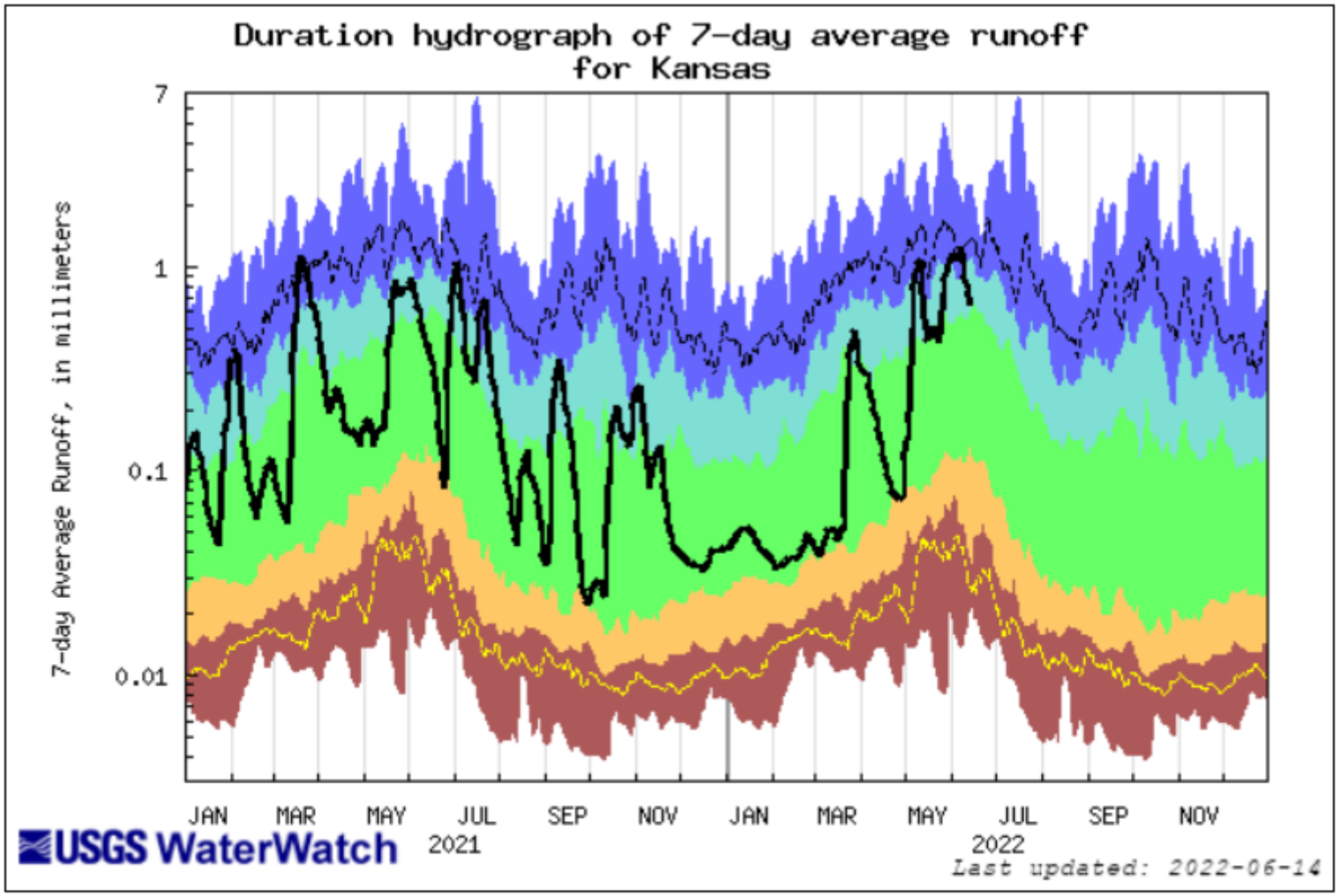
US GEOLOGICAL SURVEY, OREGON WATER SCIENCE CENTER
WATER AVAILABILITY REPORT FOR MAY 2022

Station	NRCS SWSI Basin	Monthly mean discharge: Cubic feet per second	Monthly mean discharge: Percent of average	Change in discharge from previous month (percent)	Accumulated Runoff For the Period Oct. to May: Percent of average
Donner Und Blitzen nr Frenchglen	Harney	202	53	146	51
(*)Deep Creek above Adel	Lake County	246	58	24	49
(*)Chewaucan River near Paisley	Lake County	267	56	14	64
Williamson River near Chiloquin	Klamath	799	56	9	59
Owyhee River near Rome	Owyhee	667	40	-36	61
(*)NF Malheur River near Beulah	Malheur	197	62	81	52
Grande Ronde R at Troy	Grande Ronde Powder/Burnt	6,960	96	112	74
Umatilla River nr Gibbon	Umatilla Lower John Day	724	155	120	92
John Day River at Service Crk	Upper John Day	5,430	109	129	62
(*)Little Deschutes River nr LaPine	Upper Deschutes	200	64	77	43
Hood River nr Hood River	Lower Deschutes Mt.Hood	1,750	148	67	97
Willamette River at Salem	Willamette	43,000	211	92	99
Wilson River near Tillamook	North Coast	1,370	221	13	116
Umpqua River near Elkton	Rogue/Umpqua	11,500	185	25	75
Rogue River near Agness	Rogue/Umpqua	4,180	77	0	55
SF Coquille River at Powers	South Coast	1,100	262	3	84
Chetco River near Brookings	South Coast	3,250	252	27	83

All data should be considered provisional and subject to revision.
Percent of average computed using 30-year base period, water years 1991-2020.
(*) provided by Oregon Water Resources Department

06/03/2022

USGS



Explanation - Percentile classes							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Runoff
Much below Normal		Below normal	Normal	Above normal	Much above normal		

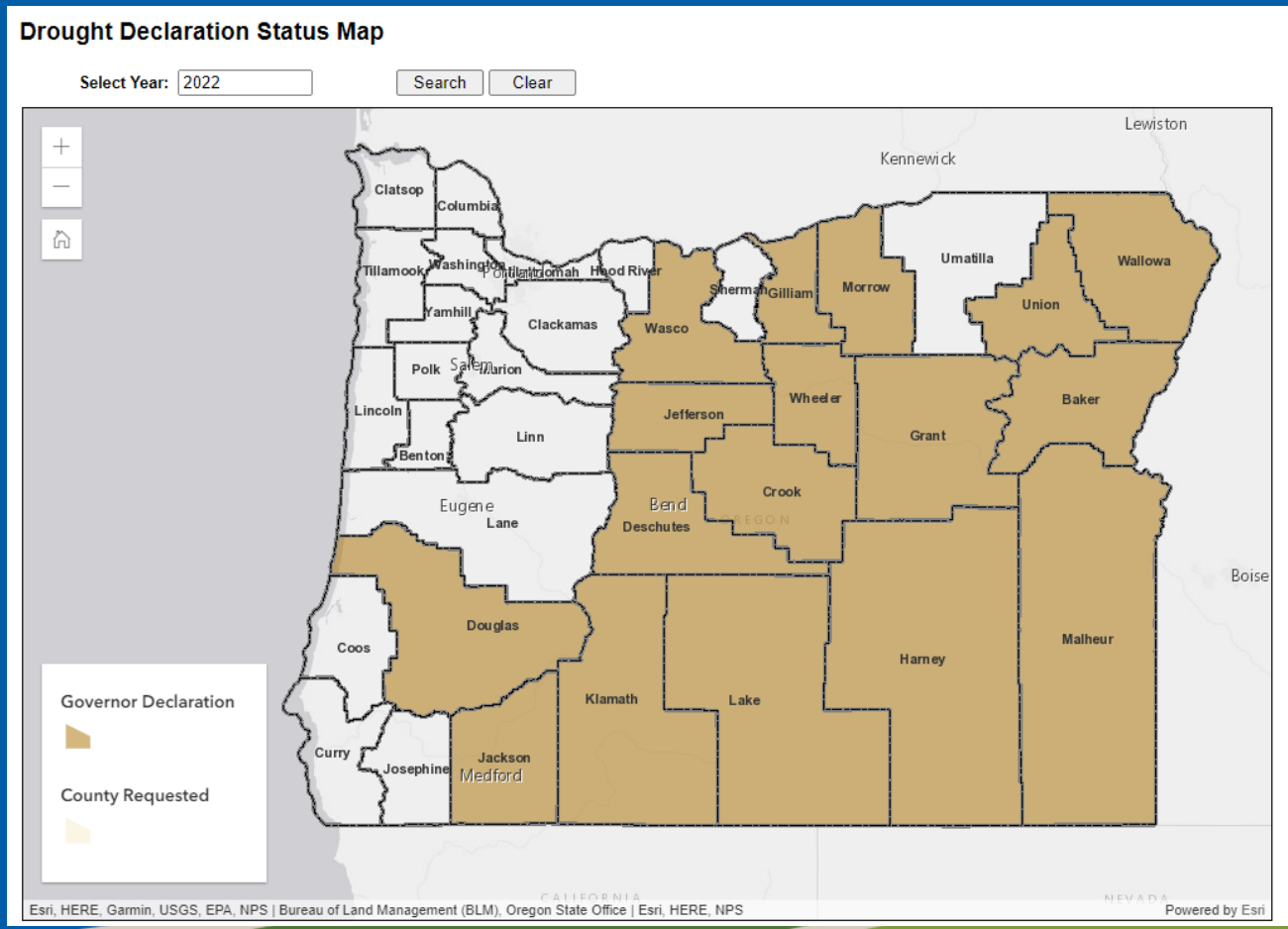
USGS

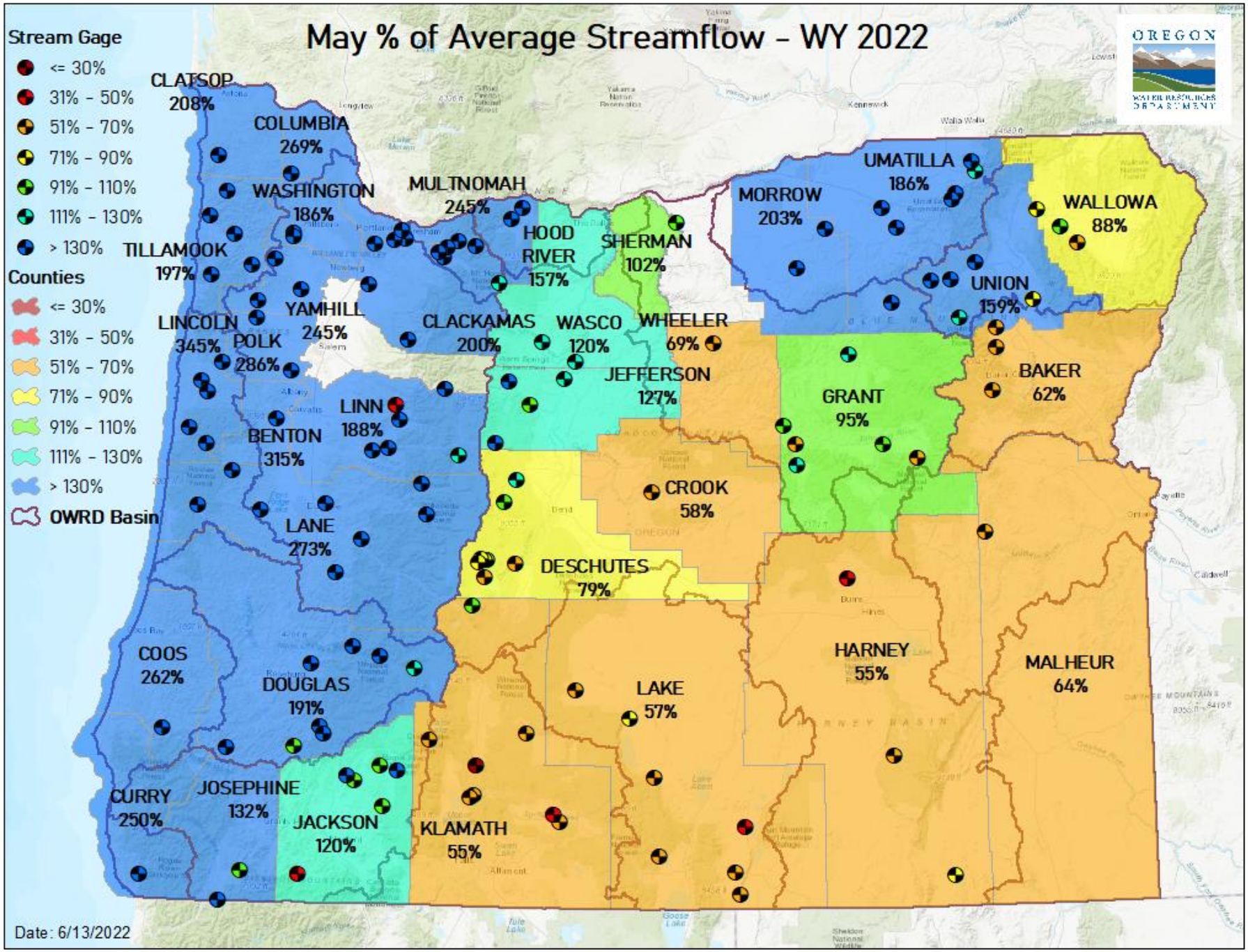
Water Supply Availability Committee
Oregon Water Resources Department
Ryan Andrews
June 15th, 2022

Annie Creek

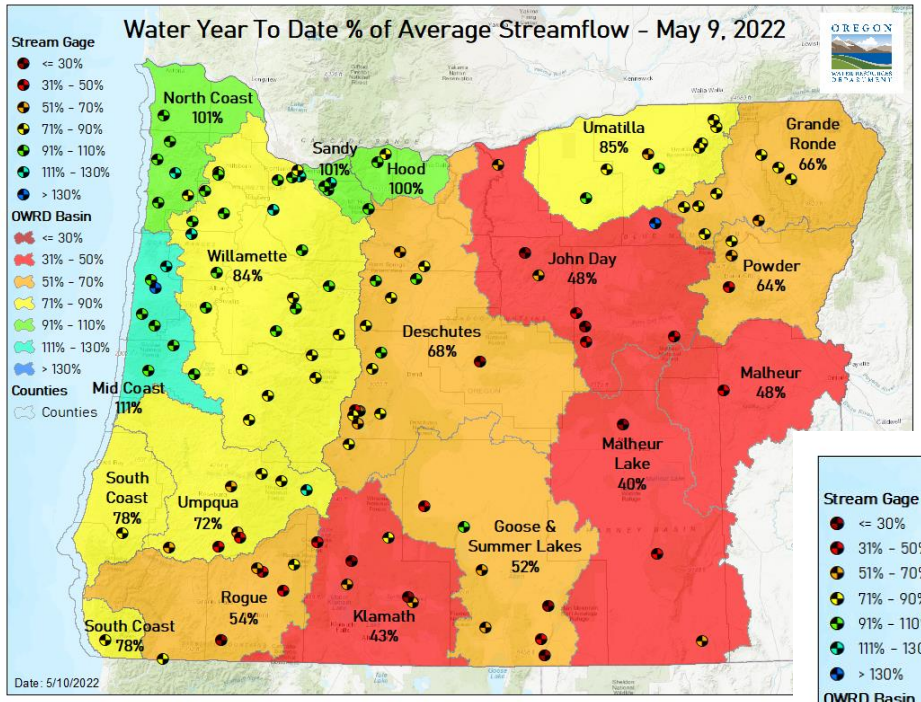
Drought Declarations

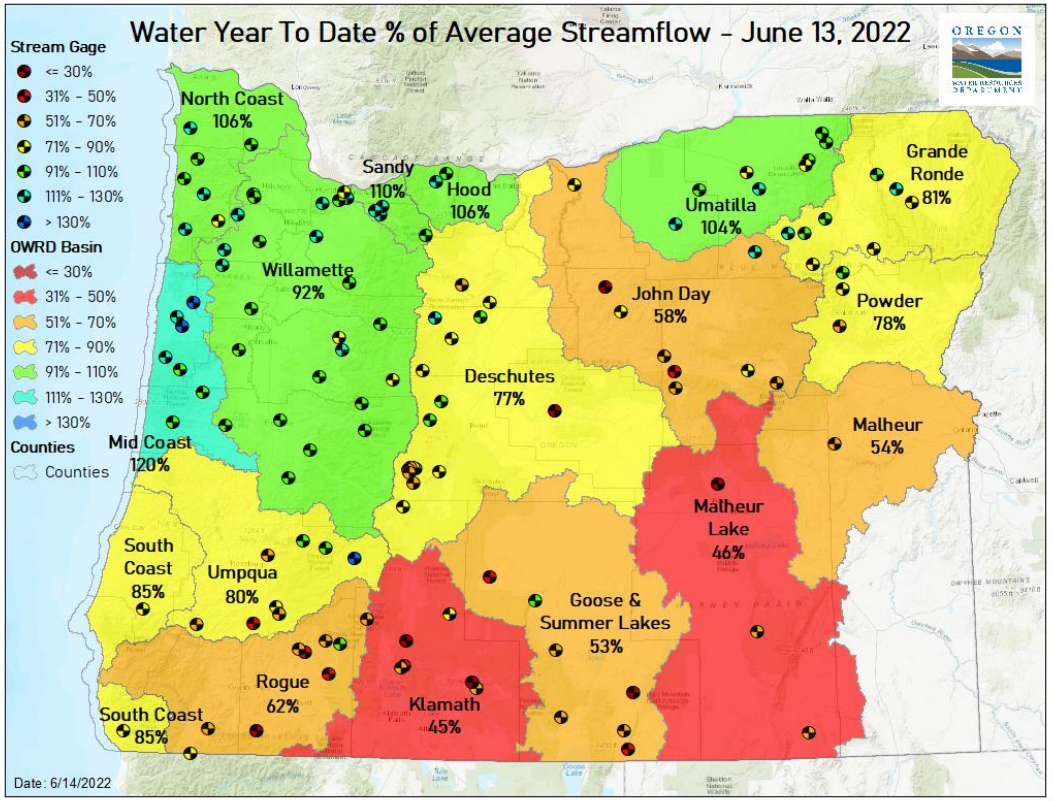
- 17 counties with ORS 536 declarations
- 29 counties with USDA crop disaster designations due to drought

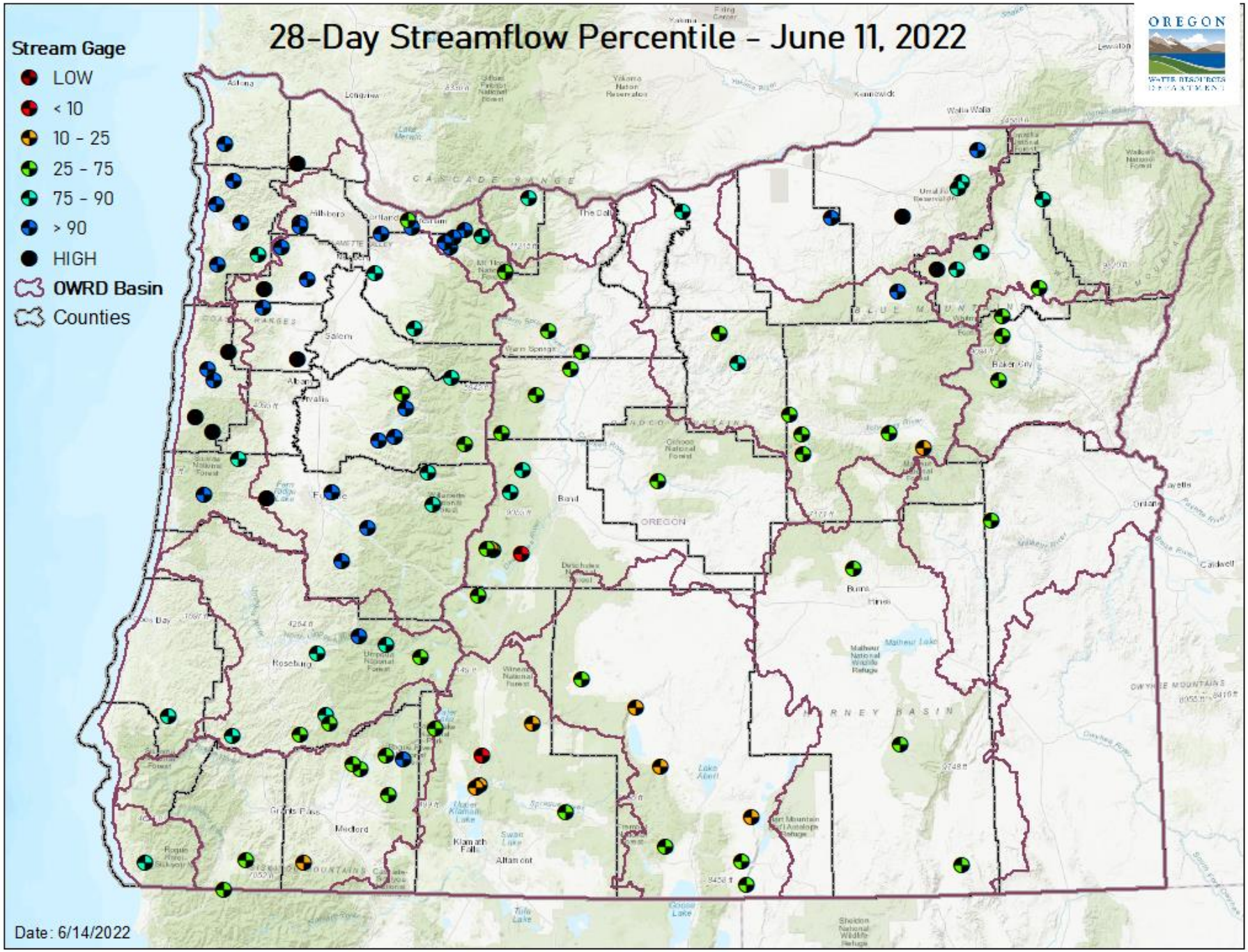


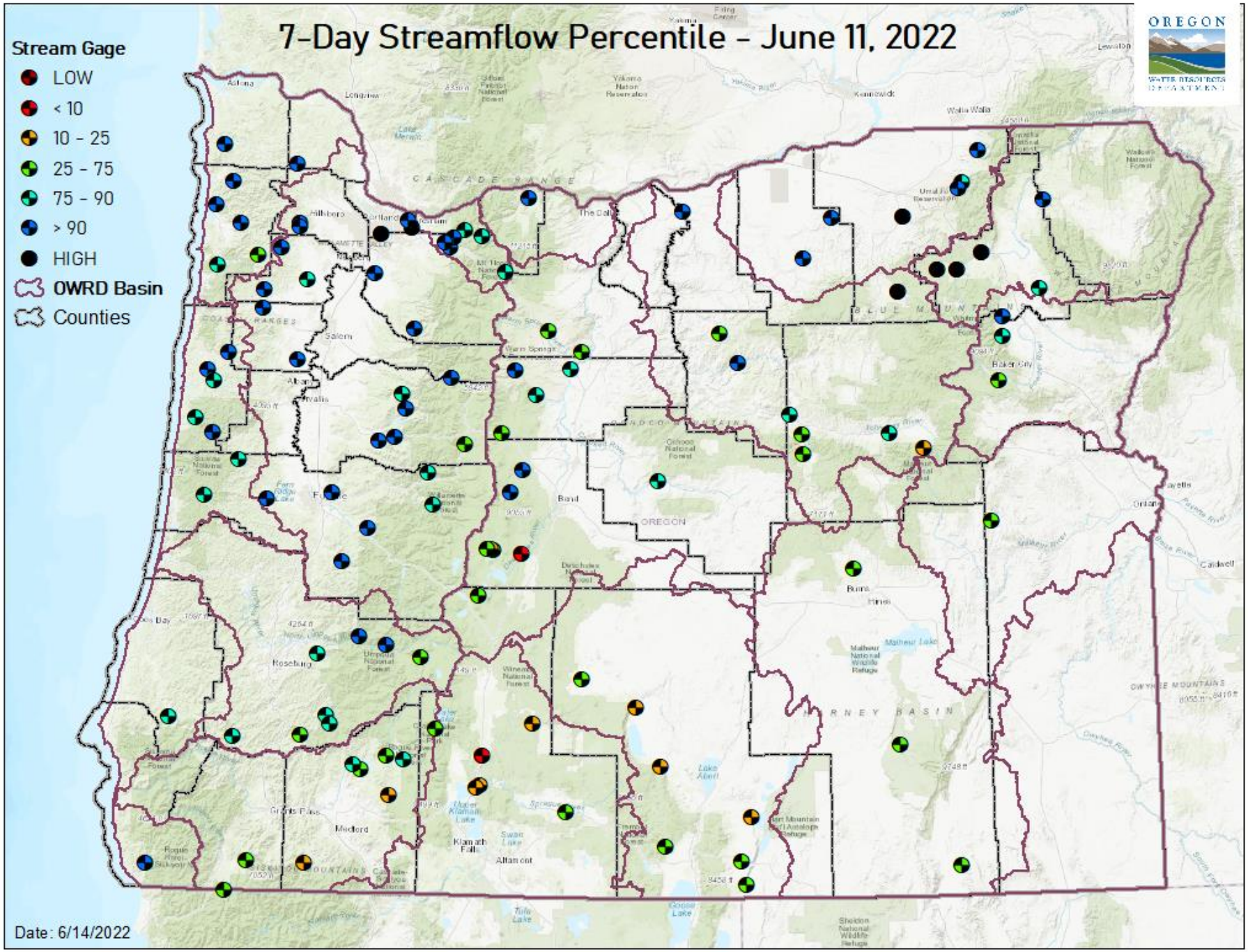

May % of Average Streamflow - WY 2022
Stream Gage
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
Counties
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
OWRD Basin
OREGON
WATER RESOURCES DEPARTMENT
CLATSOP 208%
COLUMBIA 269%
WASHINGTON 186%
TILLAMOOK 197%
MULTNOMAH 245%
HOOD RIVER 157%
SHERMAN 102%
UMATILLA 186%
MORROW 203%
WALLOWA 88%
UNION 159%
YAMHILL 245%
LINCOLN 345%
POLK 286%
CLACKAMAS 200%
WASCO 120%
WHEELER 69%
JEFFERSON 127%
BAKER 62%
GRANT 95%
LINN 188%
BENTON 315%
CROOK 58%
LANE 273%
DESCHUTES 79%
COOS 262%
DOUGLAS 191%
HARNEY 55%
MALHEUR 64%
LAKE 57%
CURRY 250%
JOSEPHINE 132%
JACKSON 120%
KLAMATH 55%
Date: 6/13/2022

Water Year to Date

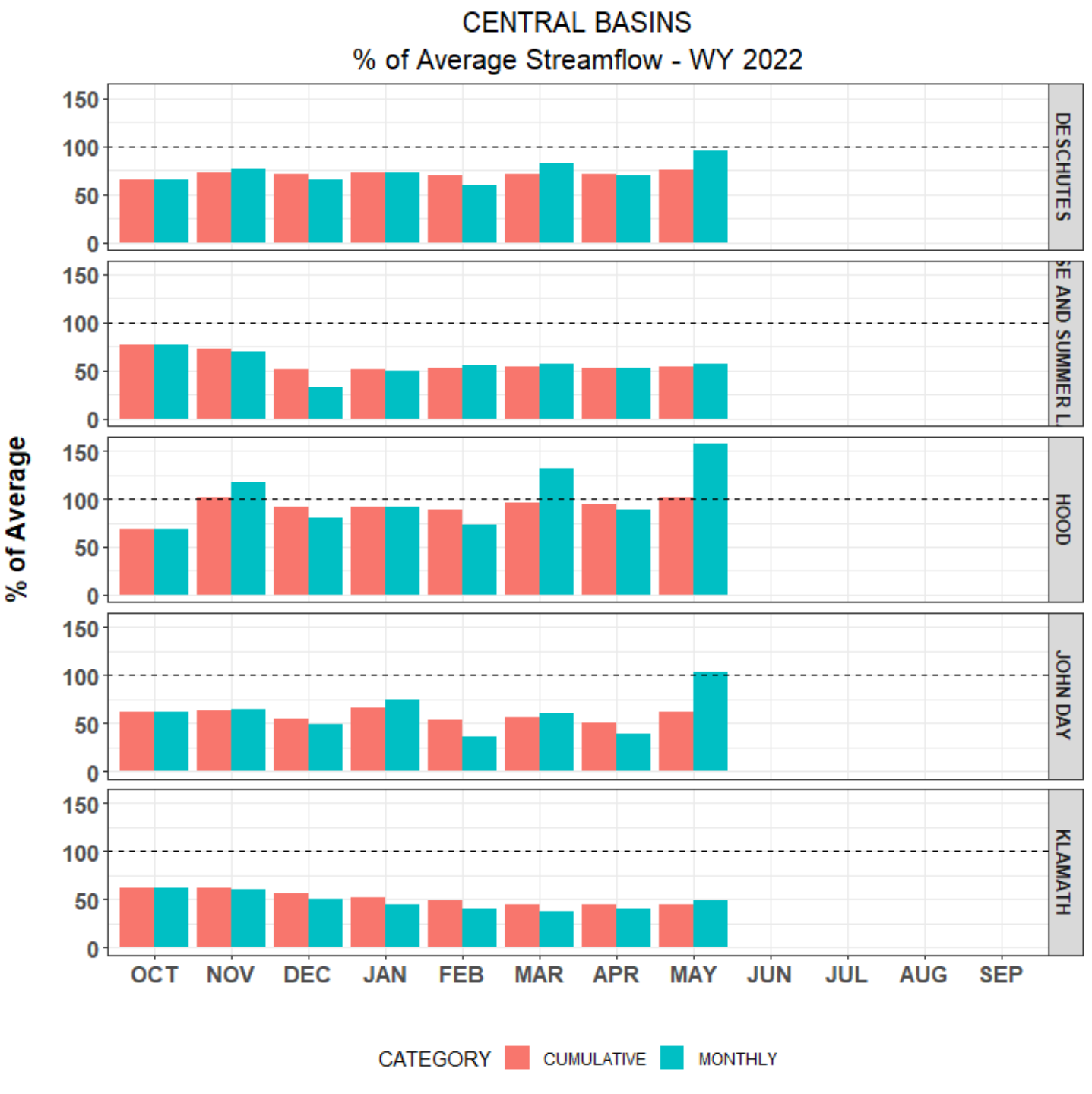




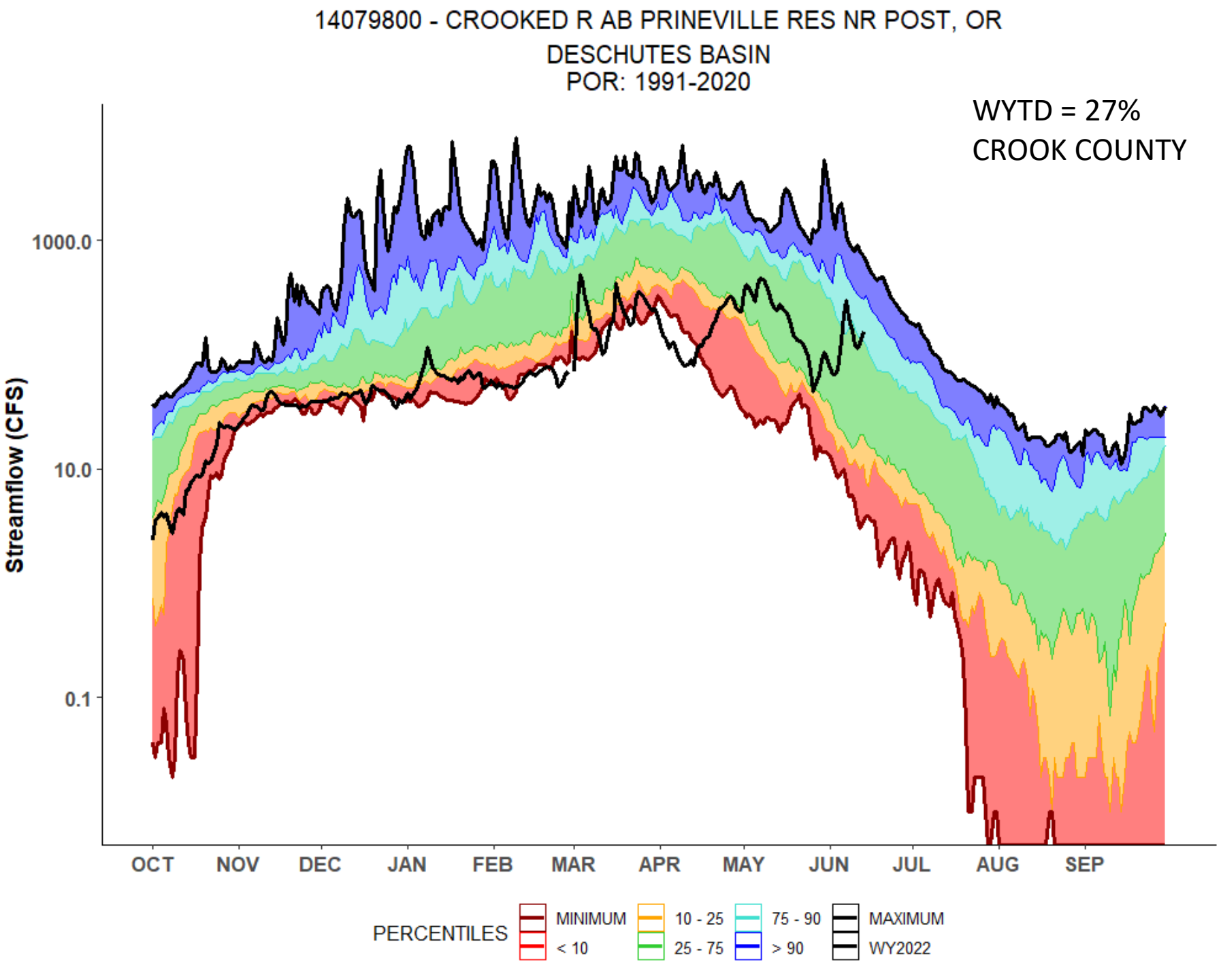

28-Day Streamflow Percentile - June 11, 2022
Stream Gage
LOW
< 10
10 - 25
25 - 75
75 - 90
> 90
HIGH
OWRD Basin
Counties
OREGON
WATER RESOURCES DEPARTMENT
Date: 6/14/2022

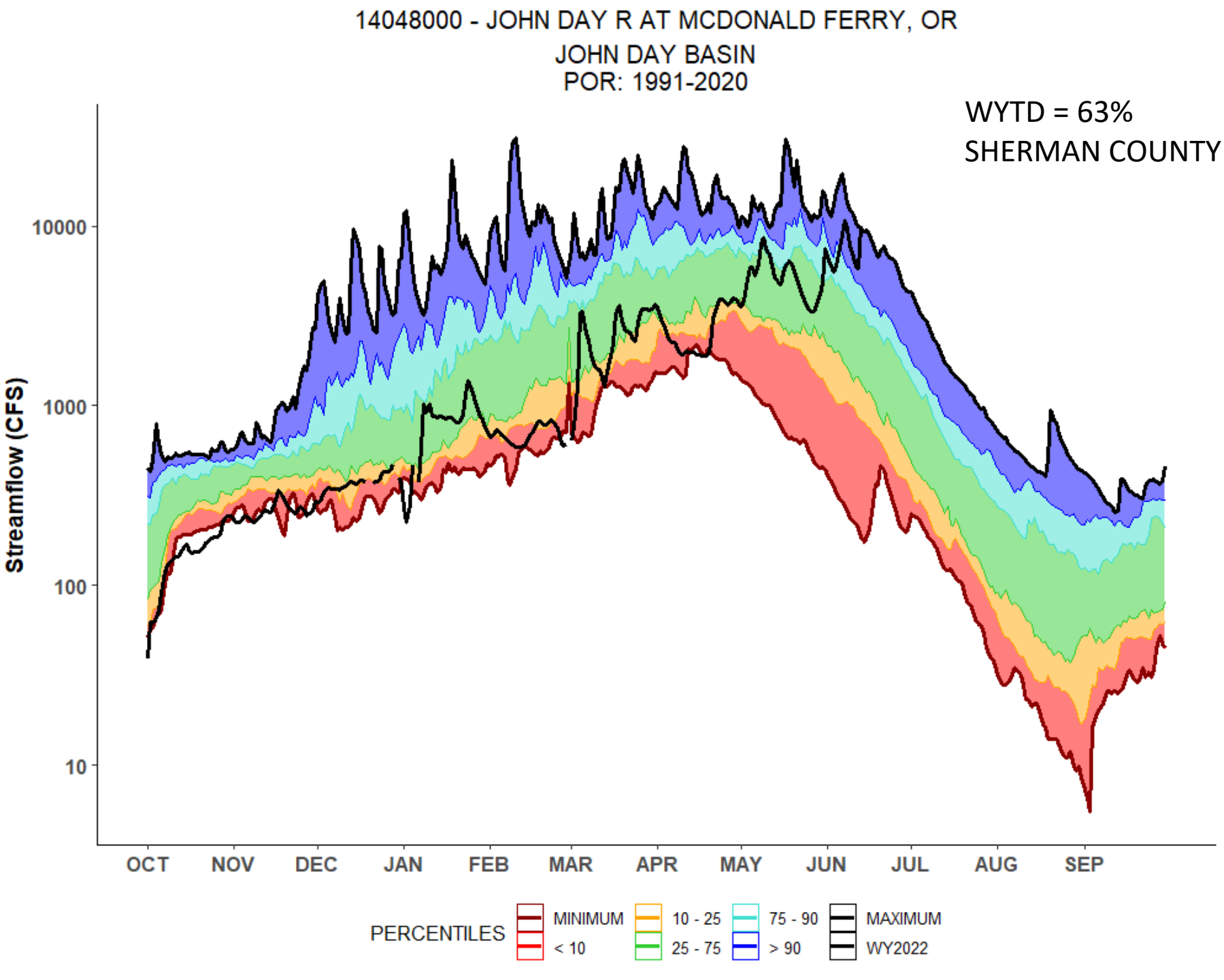

7-Day Streamflow Percentile - June 11, 2022
Stream Gage
LOW
< 10
10 - 25
25 - 75
75 - 90
> 90
HIGH
OWRD Basin
Counties
OREGON
WATER RESOURCES DEPARTMENT
Date: 6/14/2022

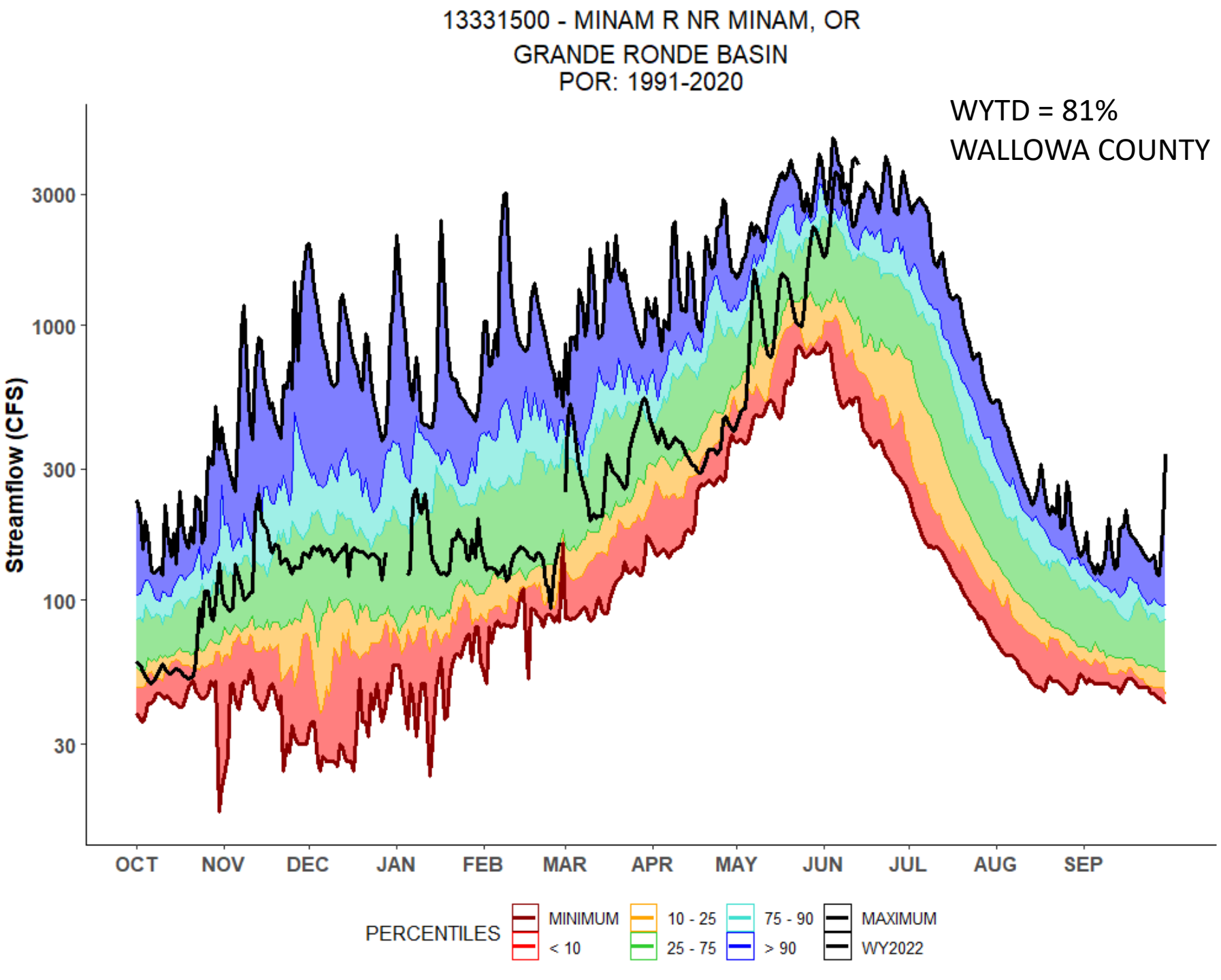

WESTERN BASINS
% of Average Streamflow - WY 2022
% of Average
300
200
100
0
MID COAST
NORTH COAST
ROGUE
SANDY
SOUTH COAST
UMPQUA
WILLAMETTE
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
CATEGORY
CUMULATIVE
MONTHLY

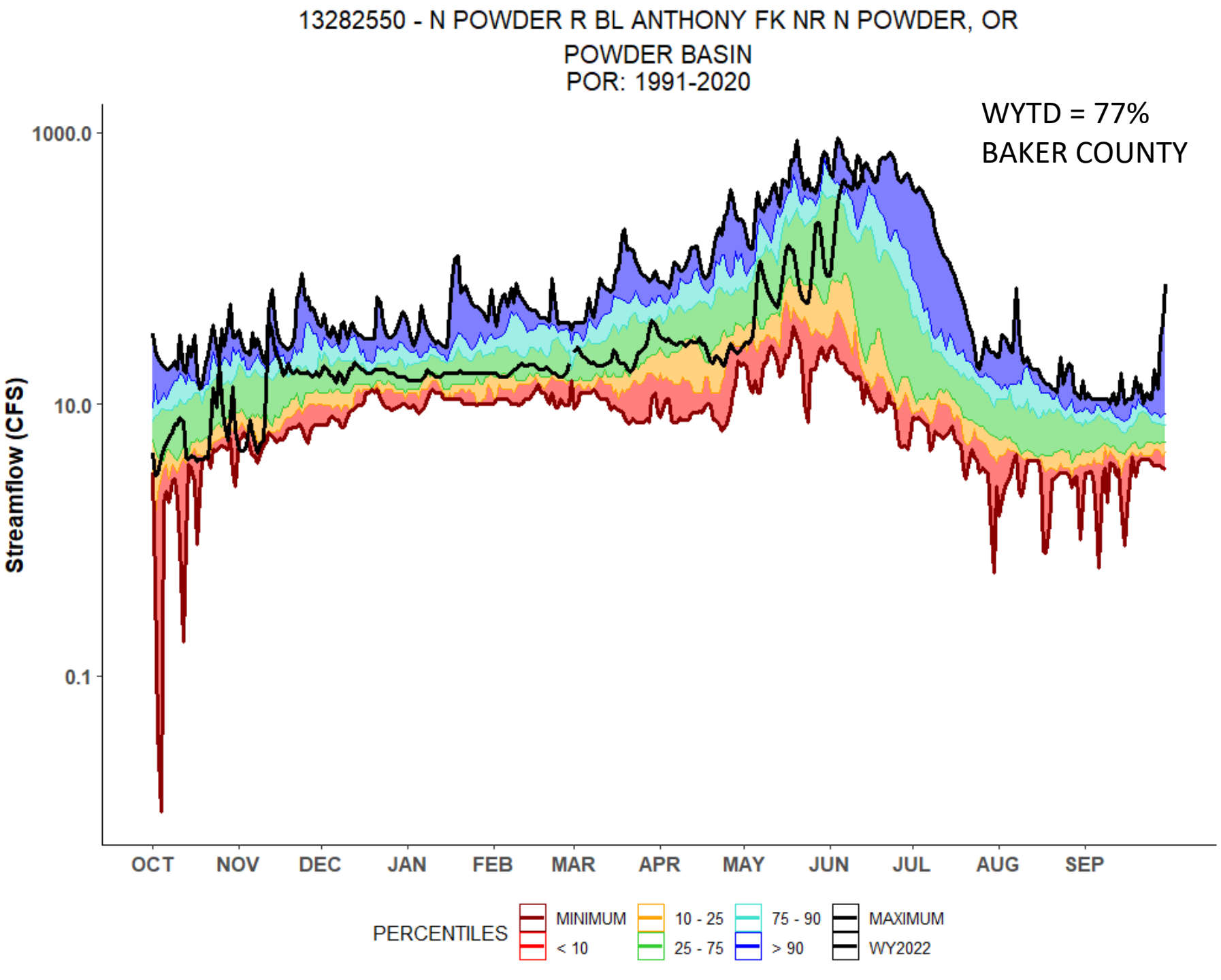

CENTRAL BASINS
% of Average Streamflow - WY 2022
% of Average
150
100
50
0
DESCHUTES
SE AND SUMMER L
HOOD
JOHN DAY
KLAMATH
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
CATEGORY
CUMULATIVE
MONTHLY

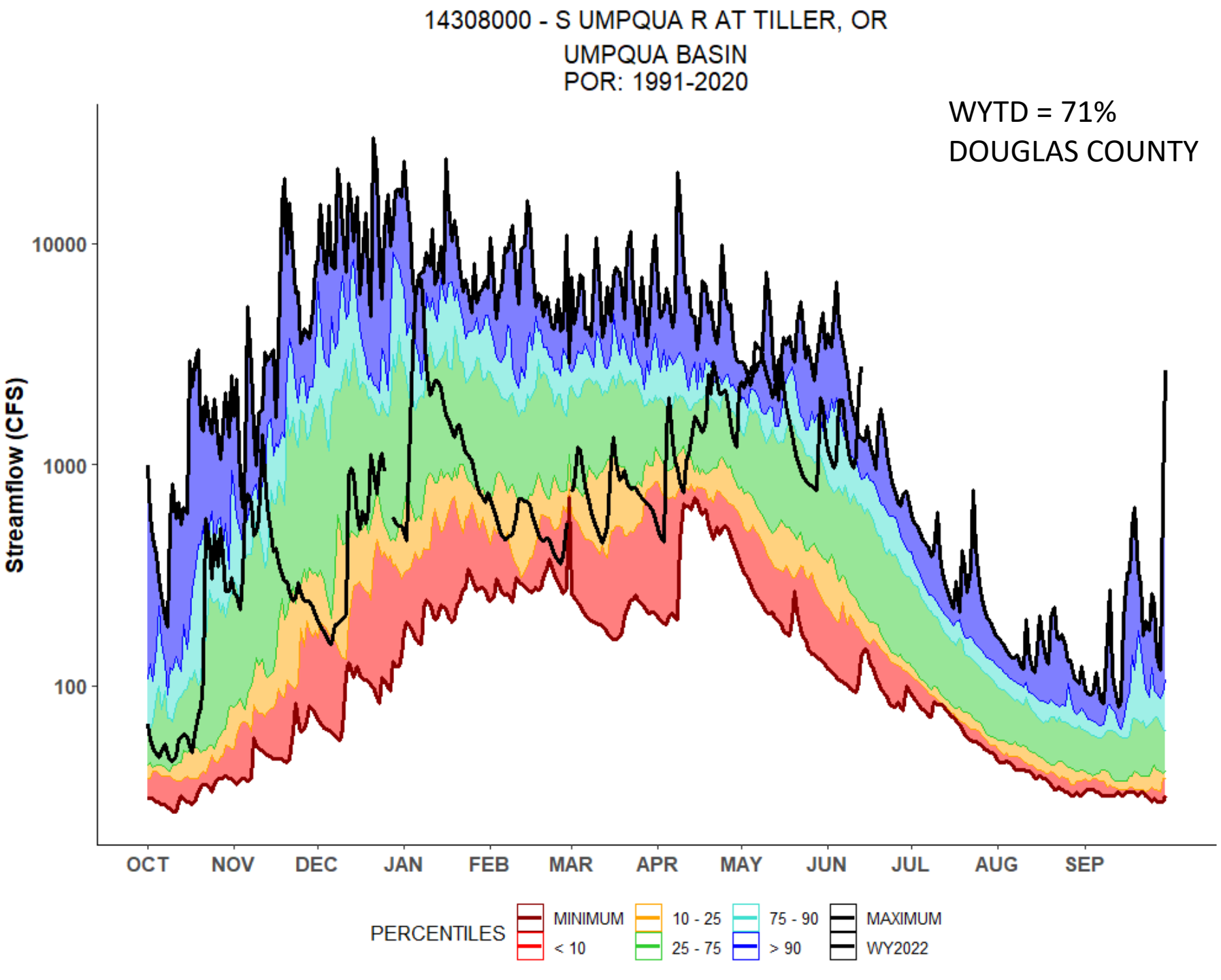

EASTERN BASINS
% of Average Streamflow - WY 2022
% of Average
GRANDE RONDE
MALHEUR
MALHEUR LAKES
POWDER
UMATILLA
150
100
50
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
CATEGORY
CUMULATIVE
MONTHLY

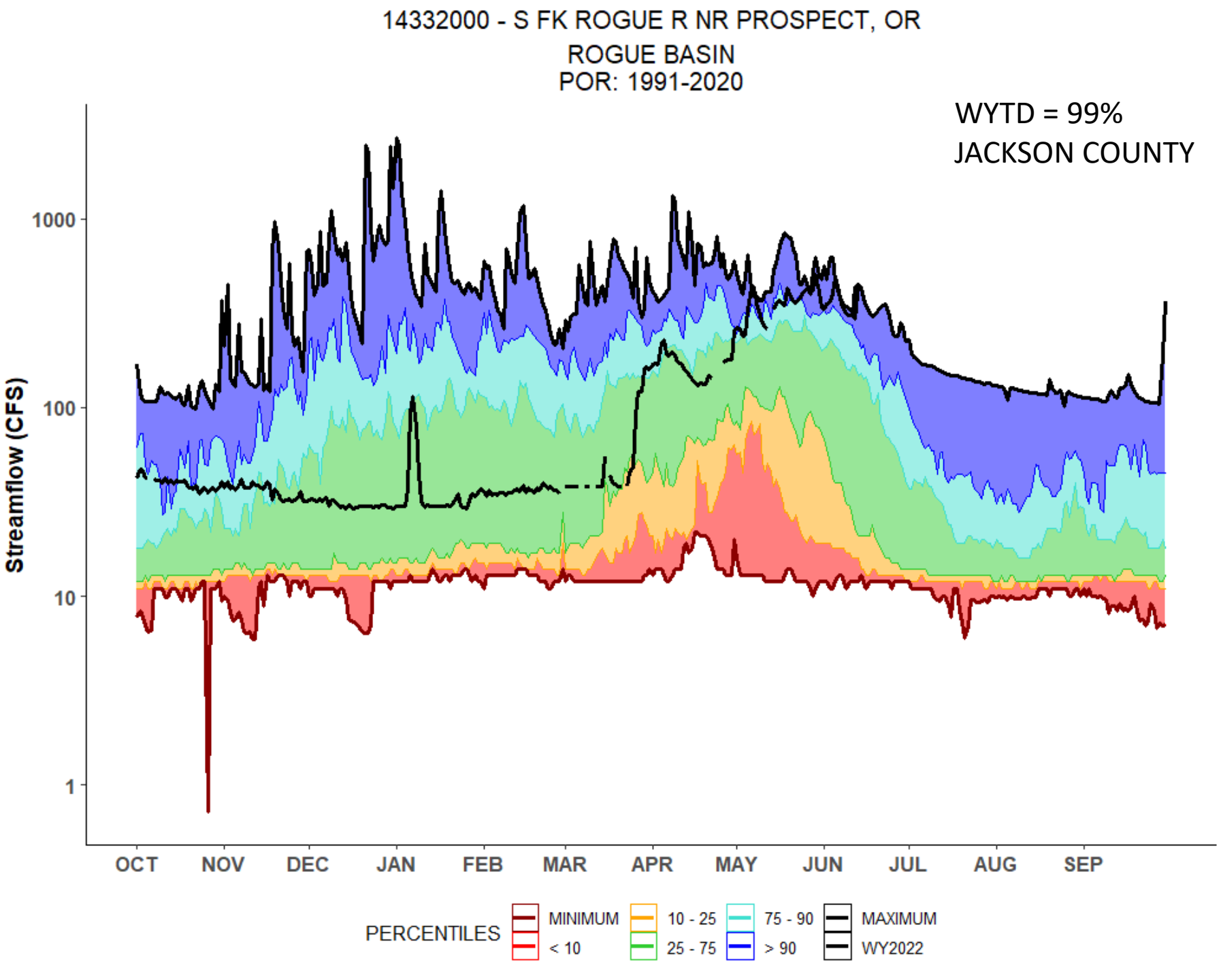

14079800 - CROOKED R AB PRINEVILLE RES NR POST, OR
DESCHUTES BASIN
POR: 1991-2020
WYTD = 27%
CROOK COUNTY
Streamflow (CFS)
1000.0
10.0
0.1
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
PERCENTILES
MINIMUM
< 10
10 - 25
25 - 75
75 - 90
> 90
MAXIMUM
WY2022


14048000 - JOHN DAY R AT MCDONALD FERRY, OR
JOHN DAY BASIN
POR: 1991-2020
WYTD = 63%
SHERMAN COUNTY
Streamflow (CFS)
10000
1000
100
10
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
PERCENTILES
MINIMUM
< 10
10 - 25
25 - 75
75 - 90
> 90
MAXIMUM
WY2022


13331500 - MINAM R NR MINAM, OR
GRANDE RONDE BASIN
POR: 1991-2020
WYTD = 81%
WALLOWA COUNTY
Streamflow (CFS)
3000
1000
300
100
30
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
PERCENTILES
MINIMUM
< 10
10 - 25
25 - 75
75 - 90
> 90
MAXIMUM
WY2022


13282550 - N POWDER R BL ANTHONY FK NR N POWDER, OR
POWDER BASIN
POR: 1991-2020
WYTD = 77%
BAKER COUNTY
Streamflow (CFS)
1000.0
10.0
0.1
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
PERCENTILES
MINIMUM
< 10
10 - 25
25 - 75
75 - 90
> 90
MAXIMUM
WY2022


14308000 - S UMPQUA R AT TILLER, OR
UMPQUA BASIN
POR: 1991-2020
WYTD = 71%
DOUGLAS COUNTY
Streamflow (CFS)
10000
1000
100
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
PERCENTILES
MINIMUM
< 10
10 - 25
25 - 75
75 - 90
> 90
MAXIMUM
WY2022


14332000 - S FK ROGUE R NR PROSPECT, OR
ROGUE BASIN
POR: 1991-2020
WYTD = 99%
JACKSON COUNTY
Streamflow (CFS)
1000
100
10
1
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
PERCENTILES
MINIMUM
< 10
10 - 25
25 - 75
75 - 90
> 90
MAXIMUM
WY2022

Summary

- 17 counties with Executive Orders for drought
- May and early June streamflows average to above average nearly statewide
- Precipitation delayed onset of low streamflows

OREGON
WATER RESOURCES DEPARTMENT

QUESTIONS?

BUREAU OF RECLAMATION

Reclamation Storage Update

Oregon Water Supply Availability Committee Meeting

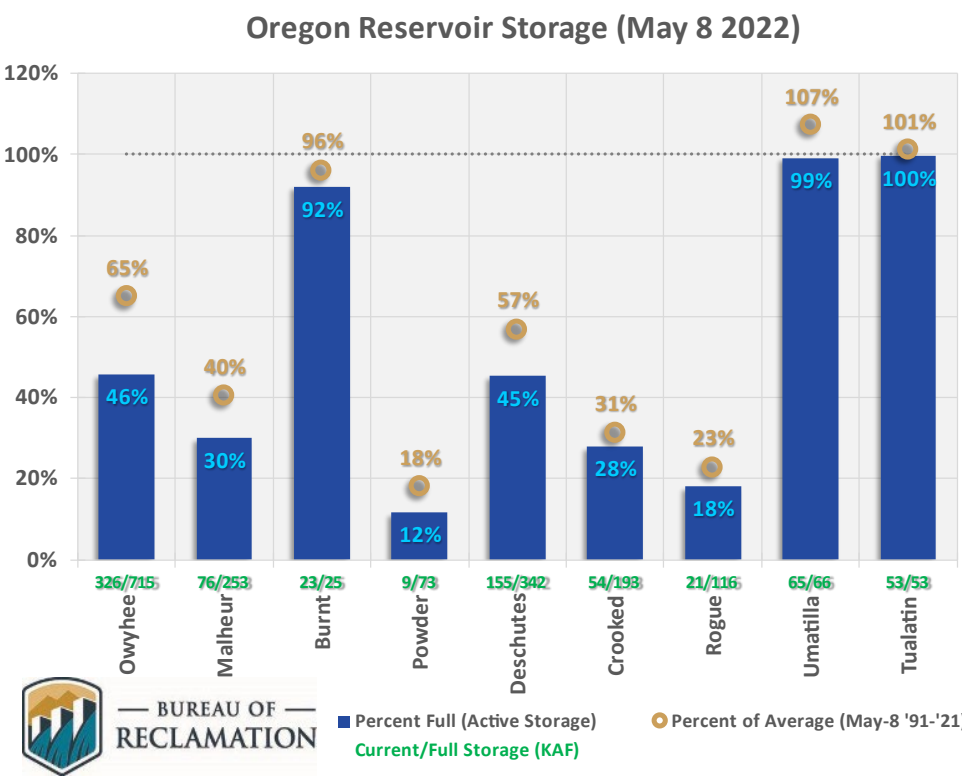
June 15, 2022

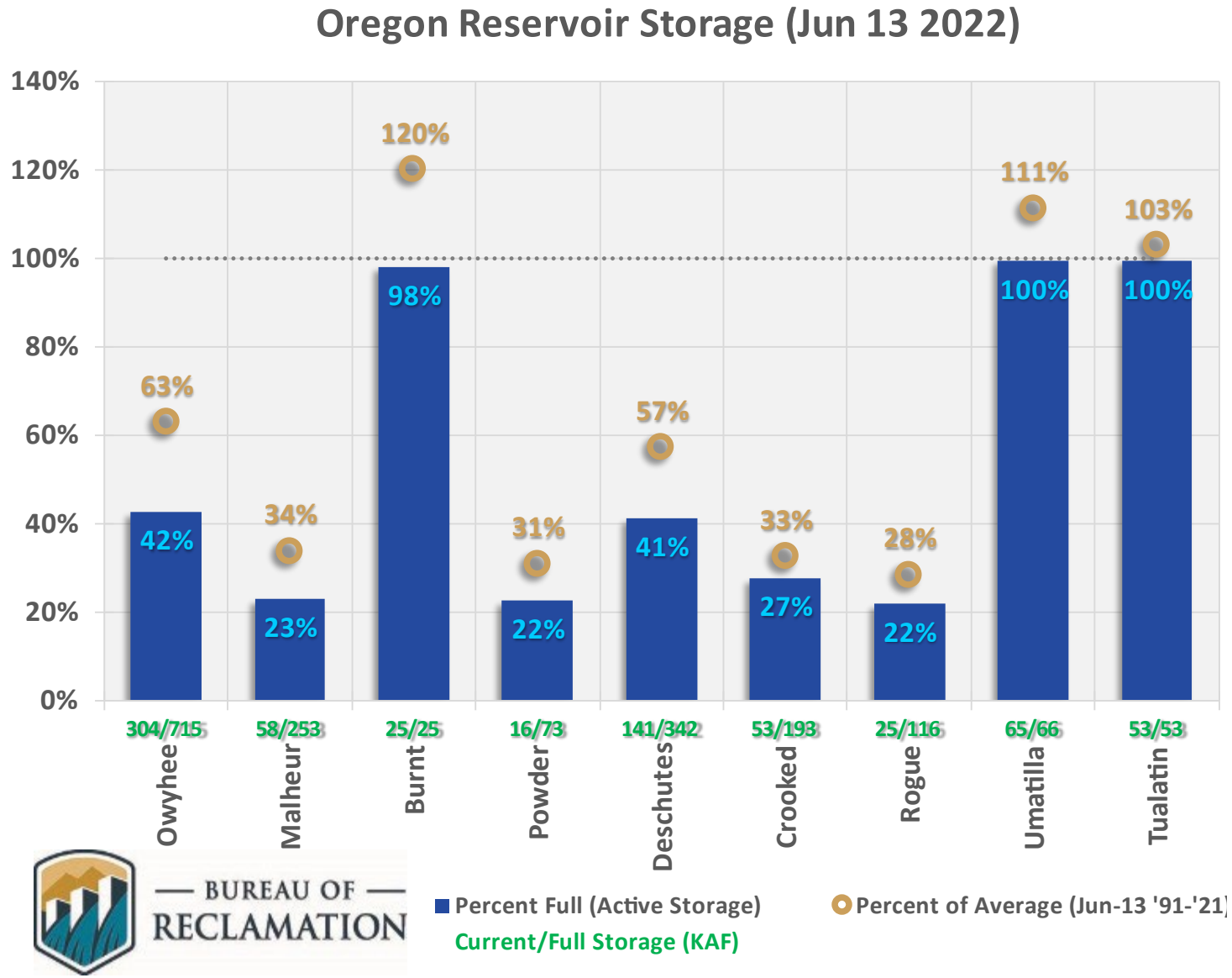
Basin Operations Summary

- Operations Activities:
  - Irrigation is underway
  - Wet conditions have suppressed demand for most river basins
  - Minor flood risk management occurring at McKay & Scoggins reservoirs

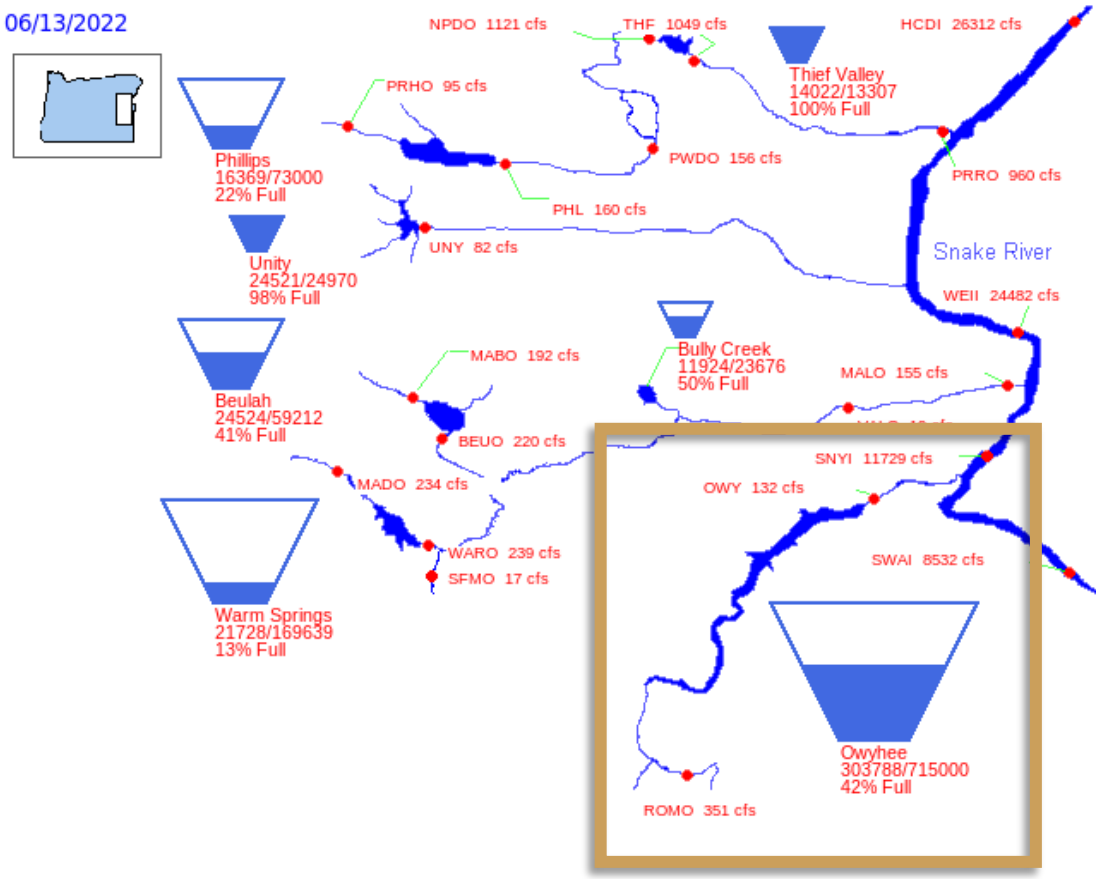
- Water Supply Notes
  - Water supply allotments are heavily reduced
    - Owyhee (50%), Malheur (30% to 60%)

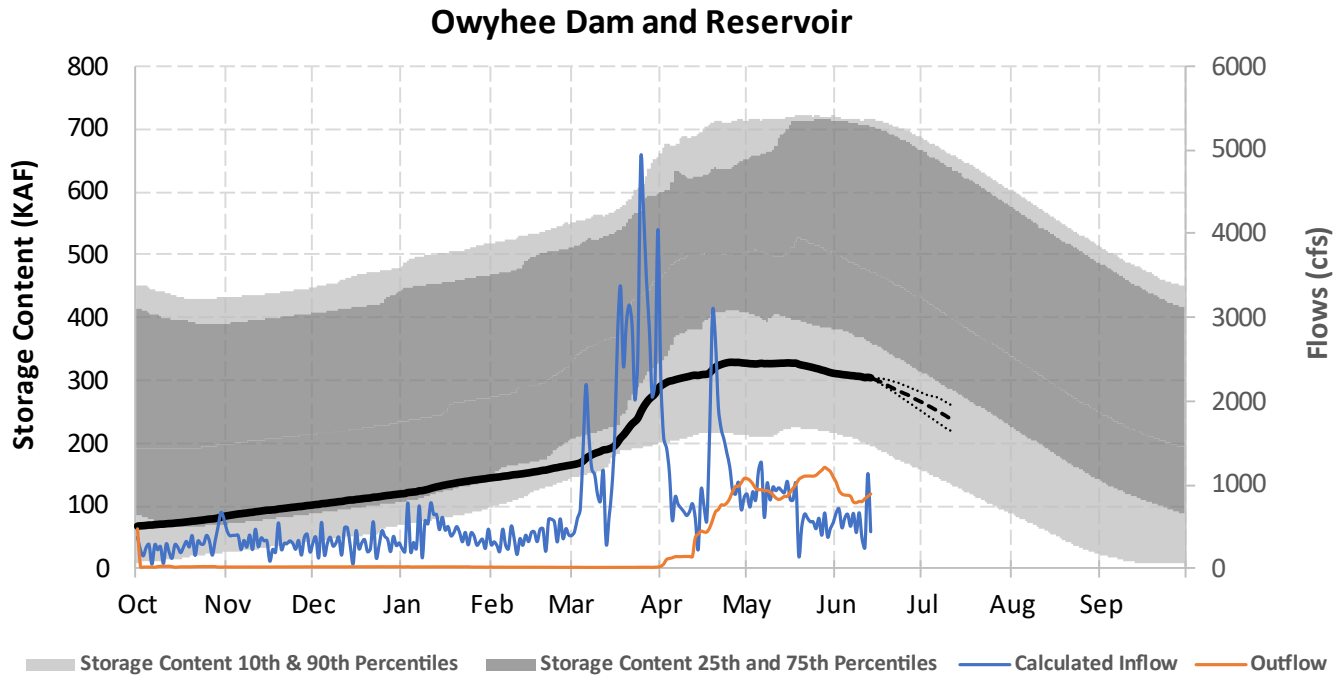
Storage Conditions





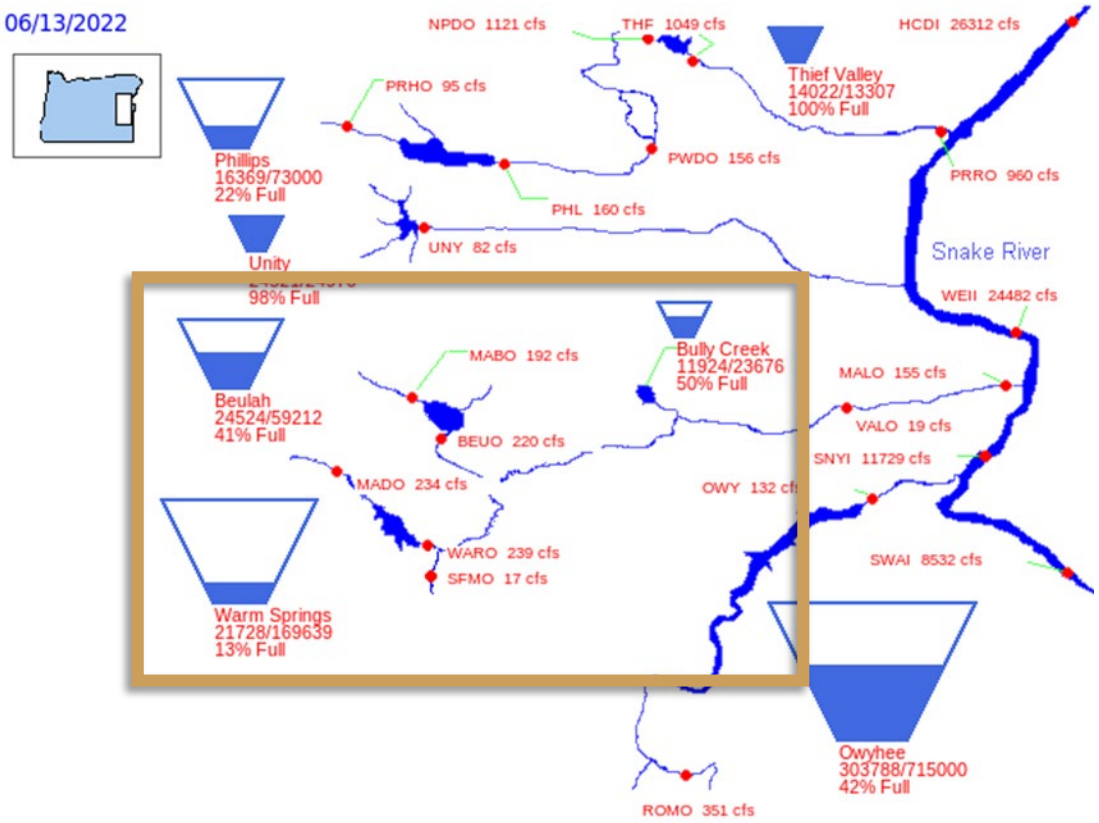
Owyhee River Basin

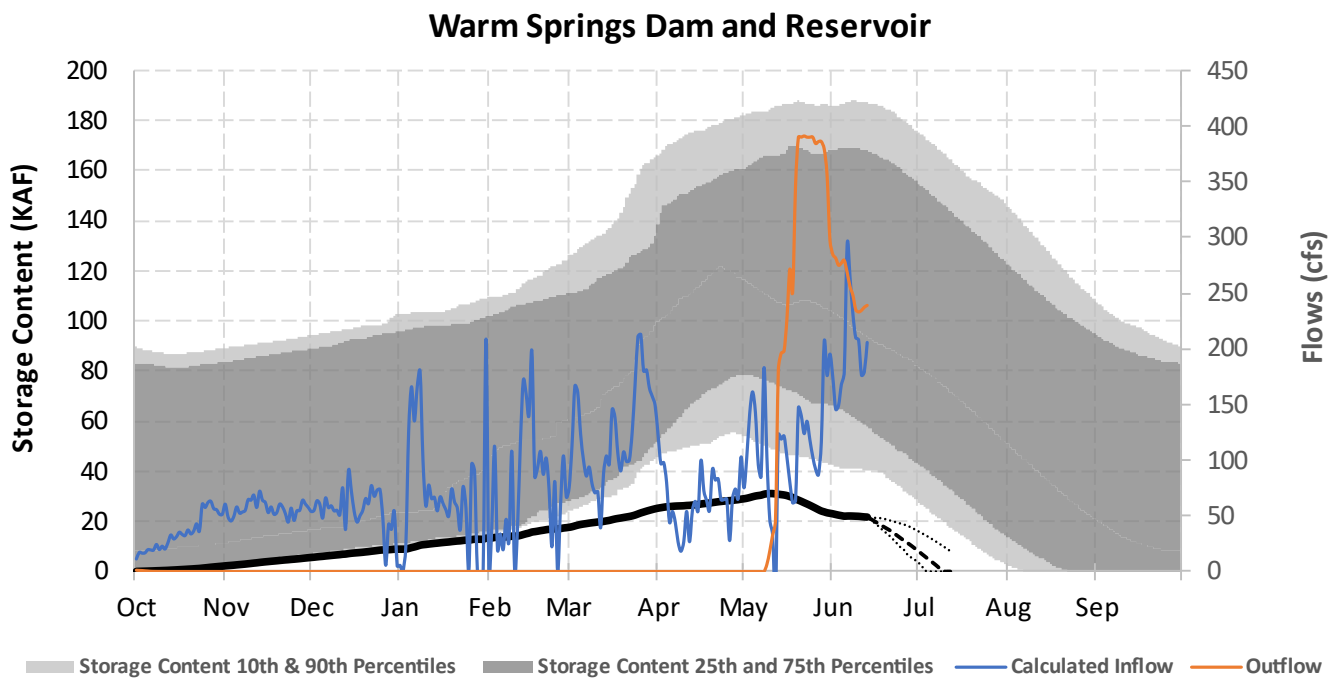


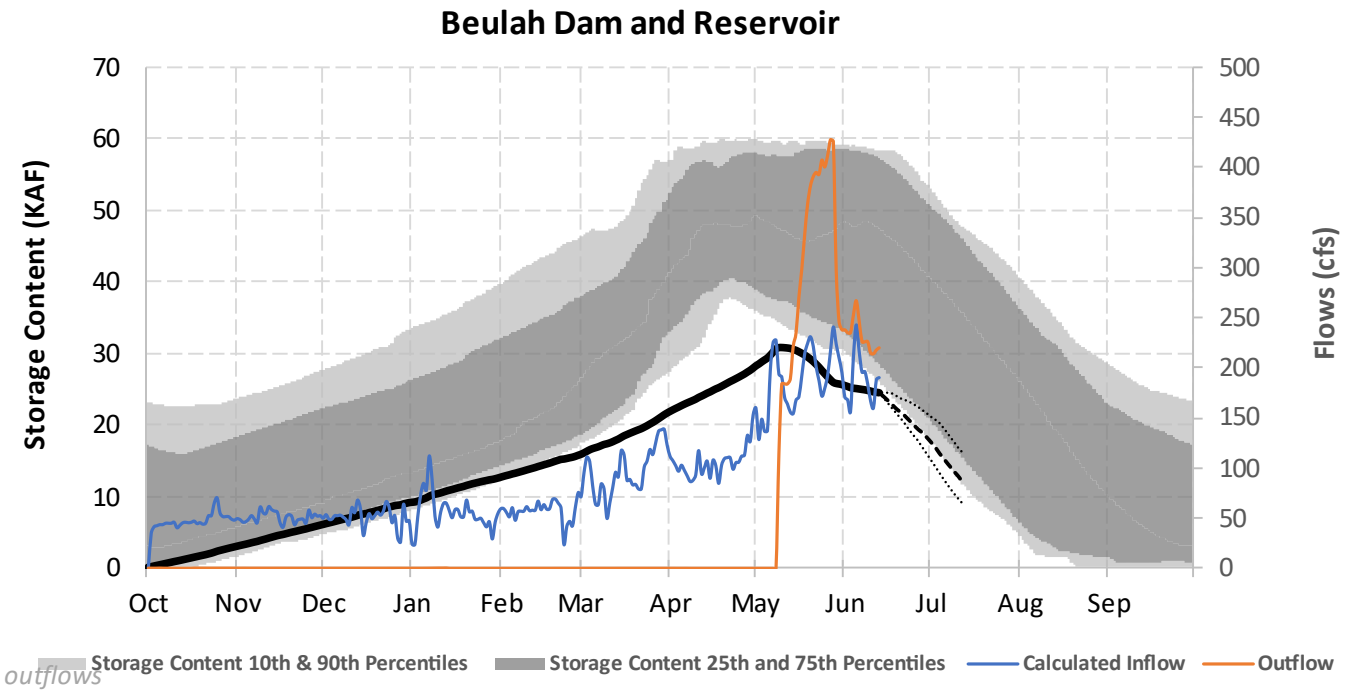


*Graphed projections are the 10th, 50th, and 90th percentile storage values based on historical inflows and outflows

Malheur River Basin

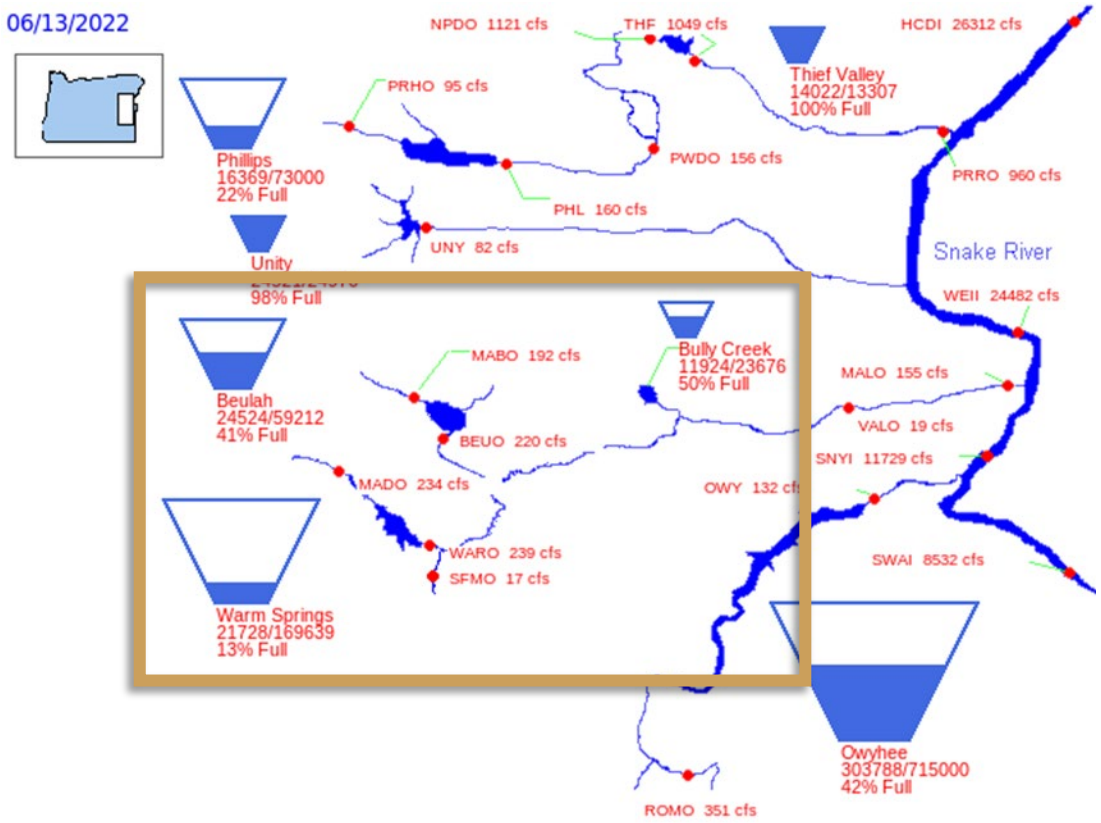


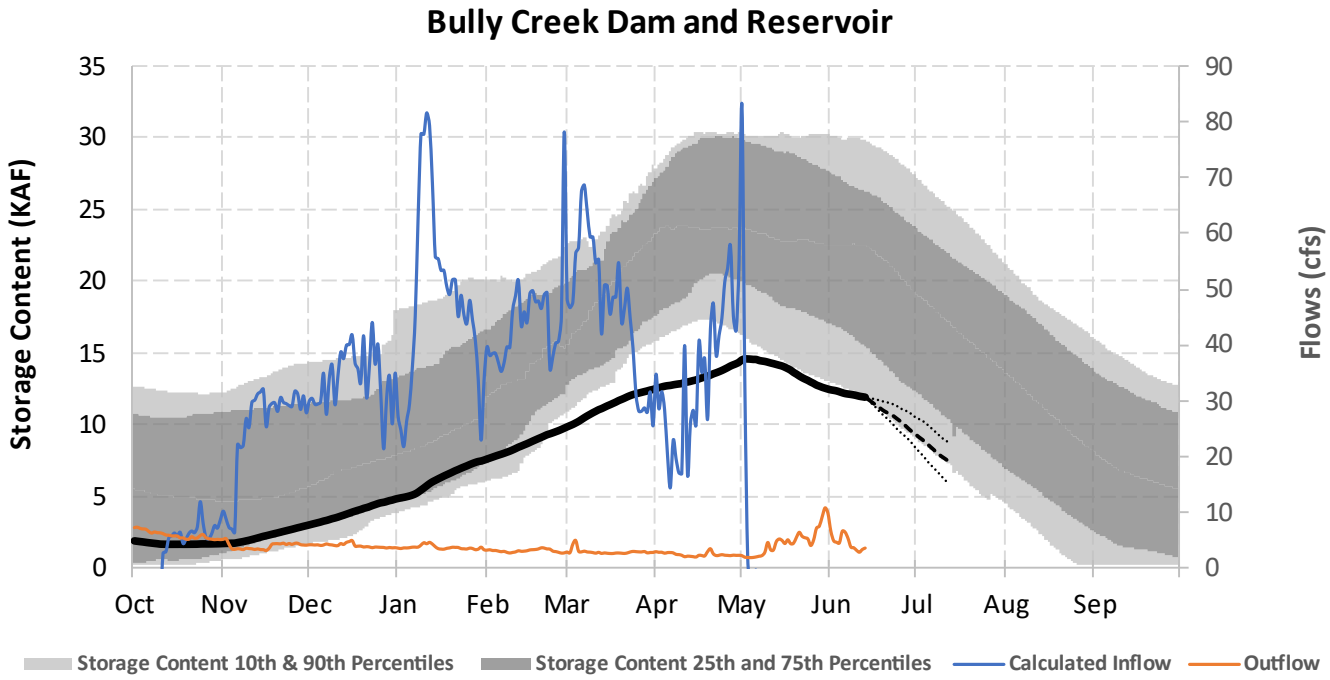




*Graphed projections are the 10th, 50th, and 90th percentile storage values based on historical inflows and outflows

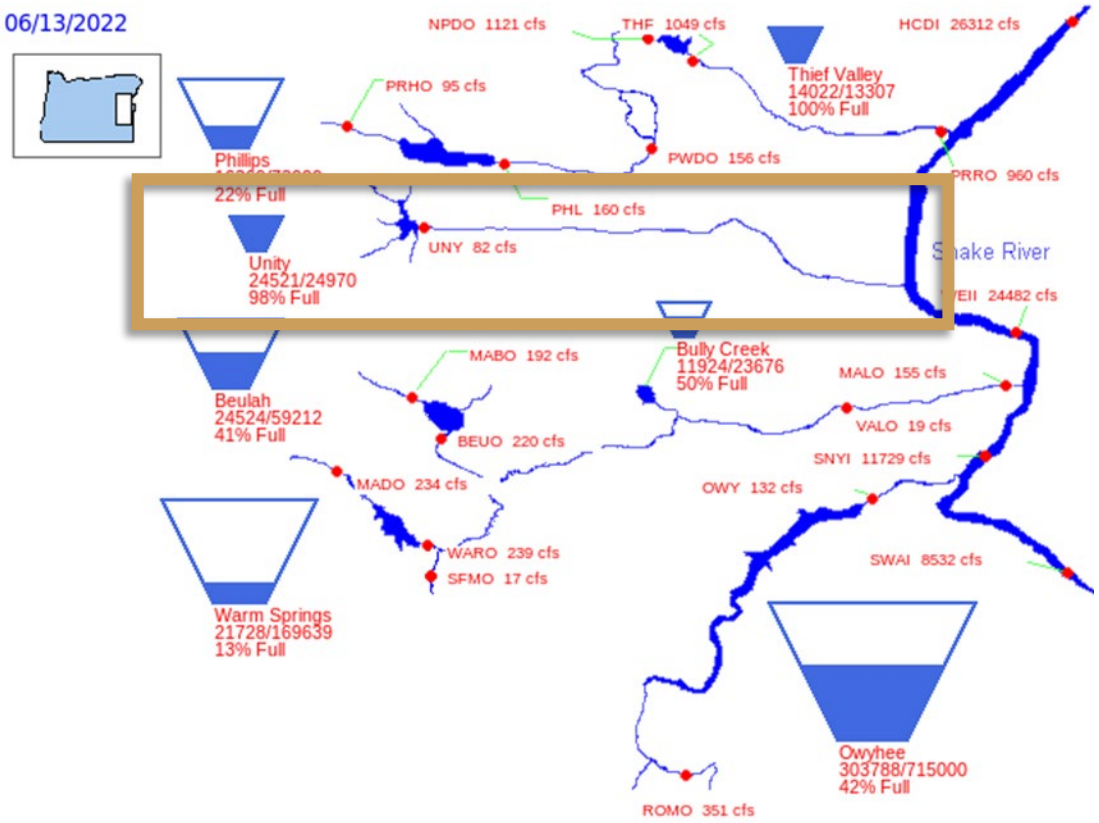
Malheur River Basin

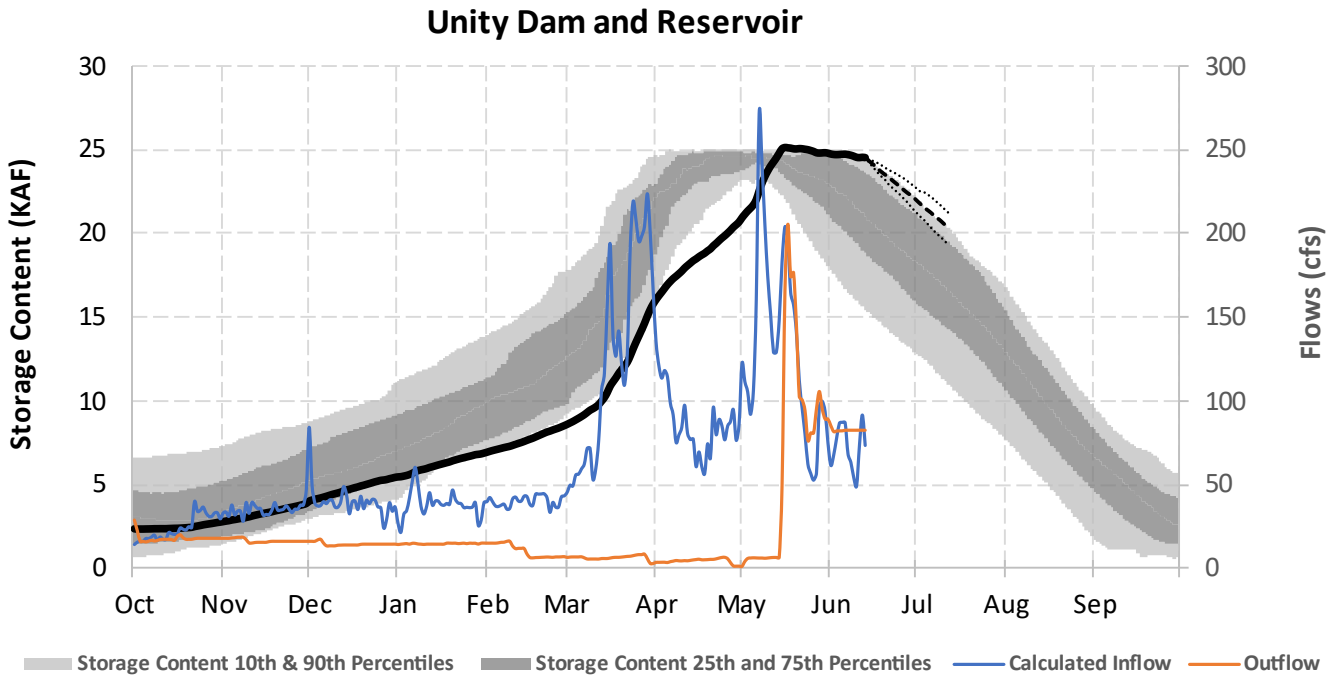




*Graphed projections are the 10th, 50th, and 90th percentile storage values based on historical inflows and outflows

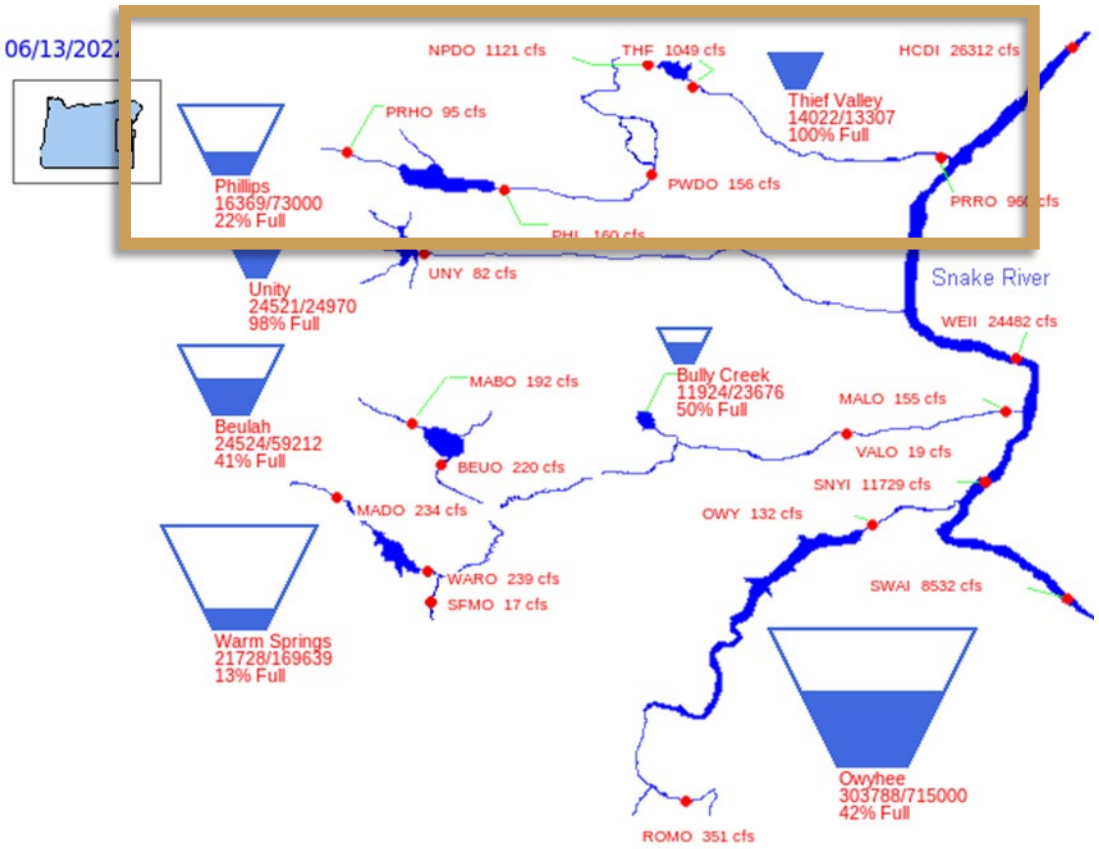
Burnt River Basin

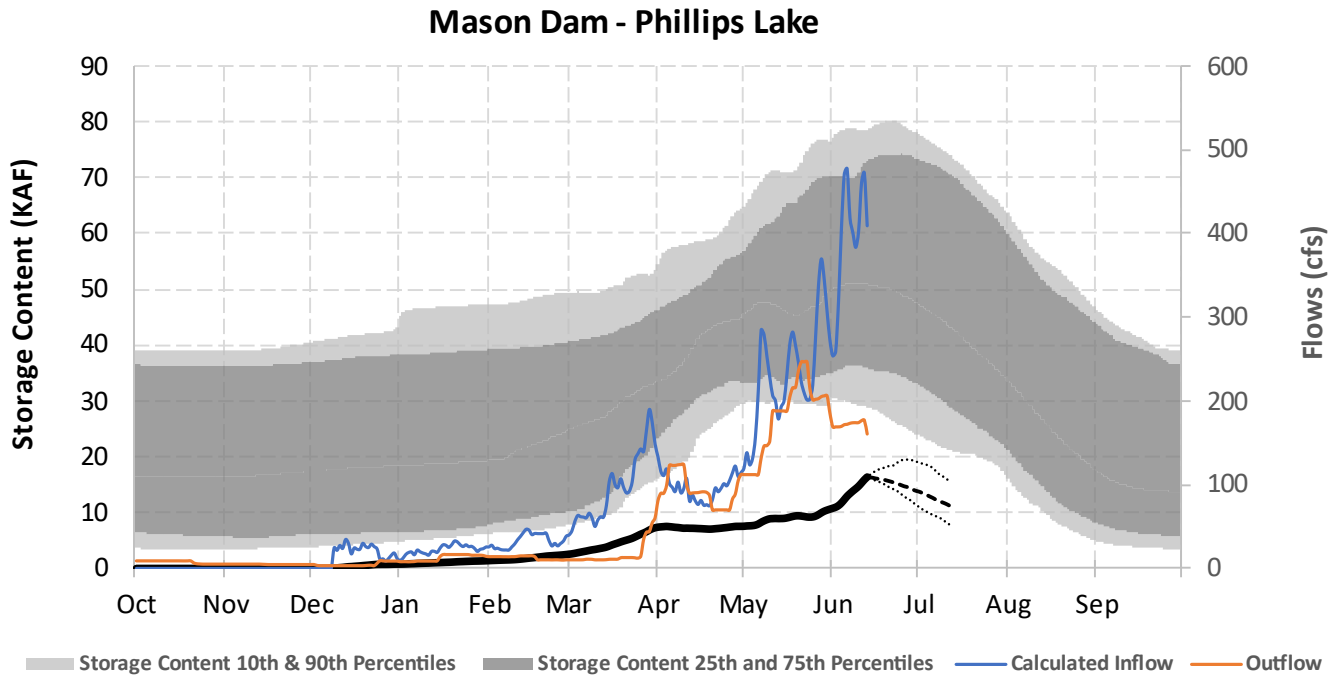




*Graphed projections are the 10th, 50th, and 90th percentile storage values based on historical inflows and outflows

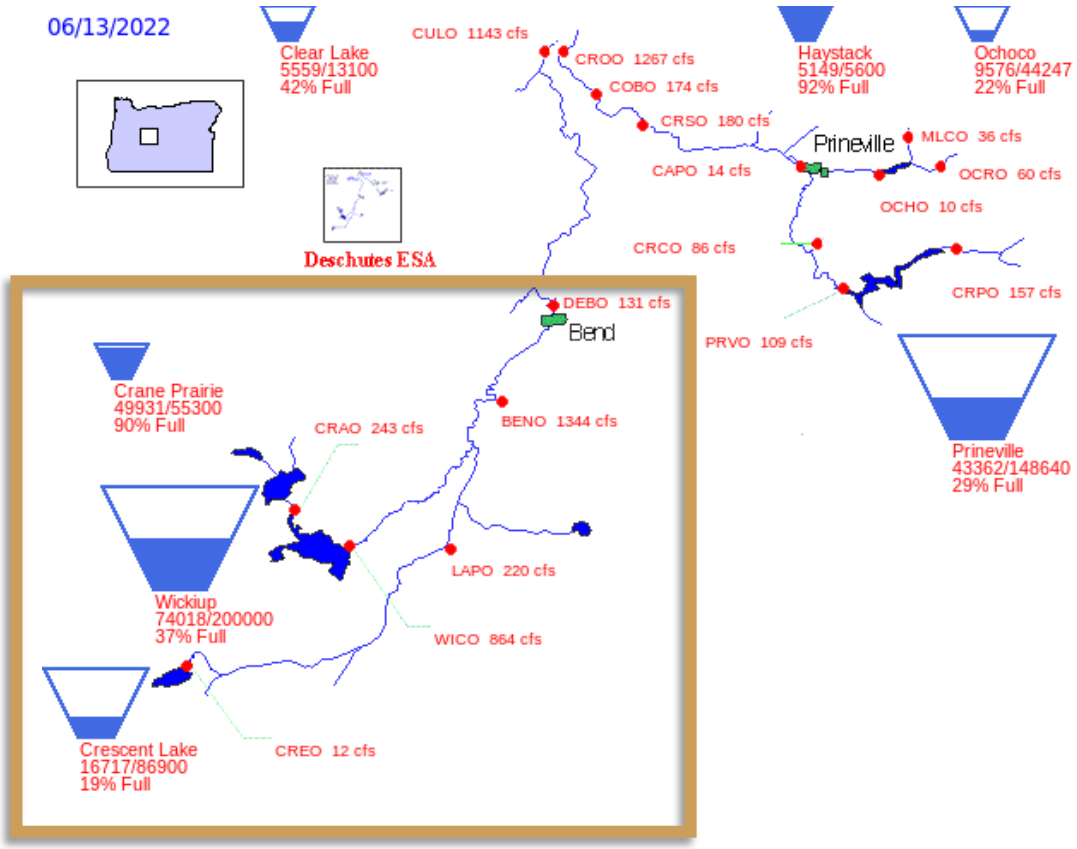
Powder River Basin

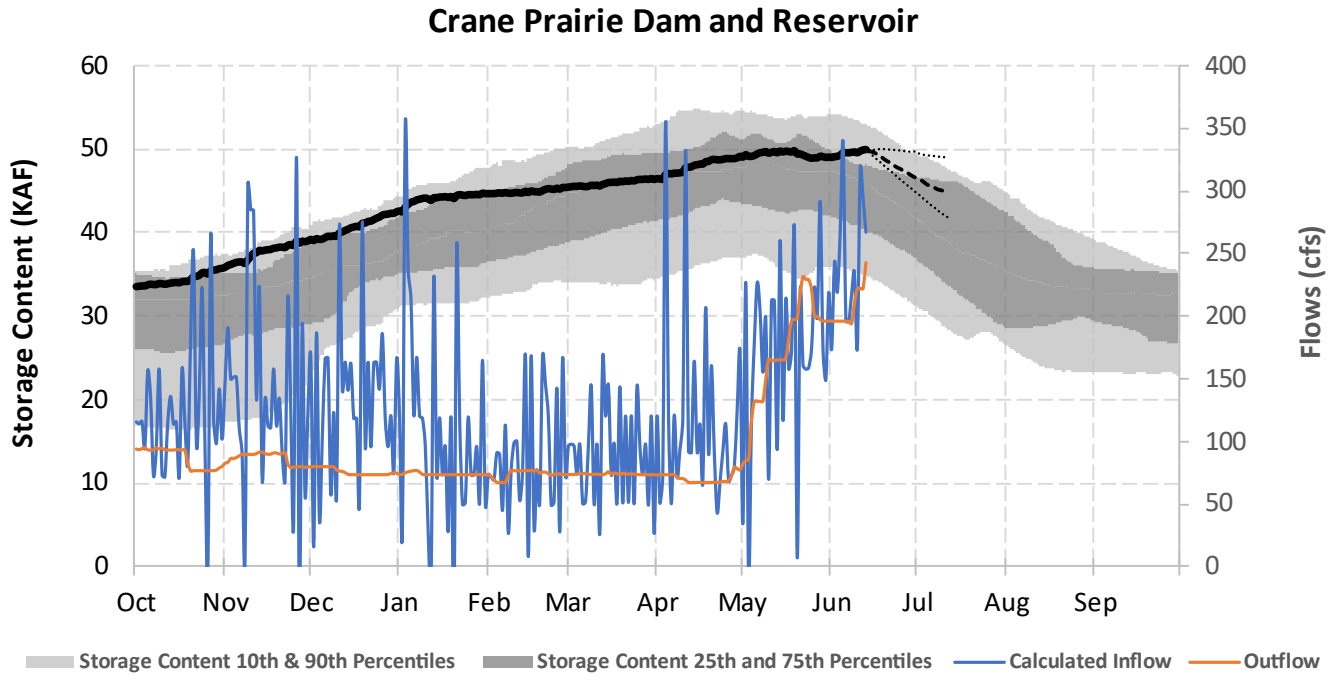


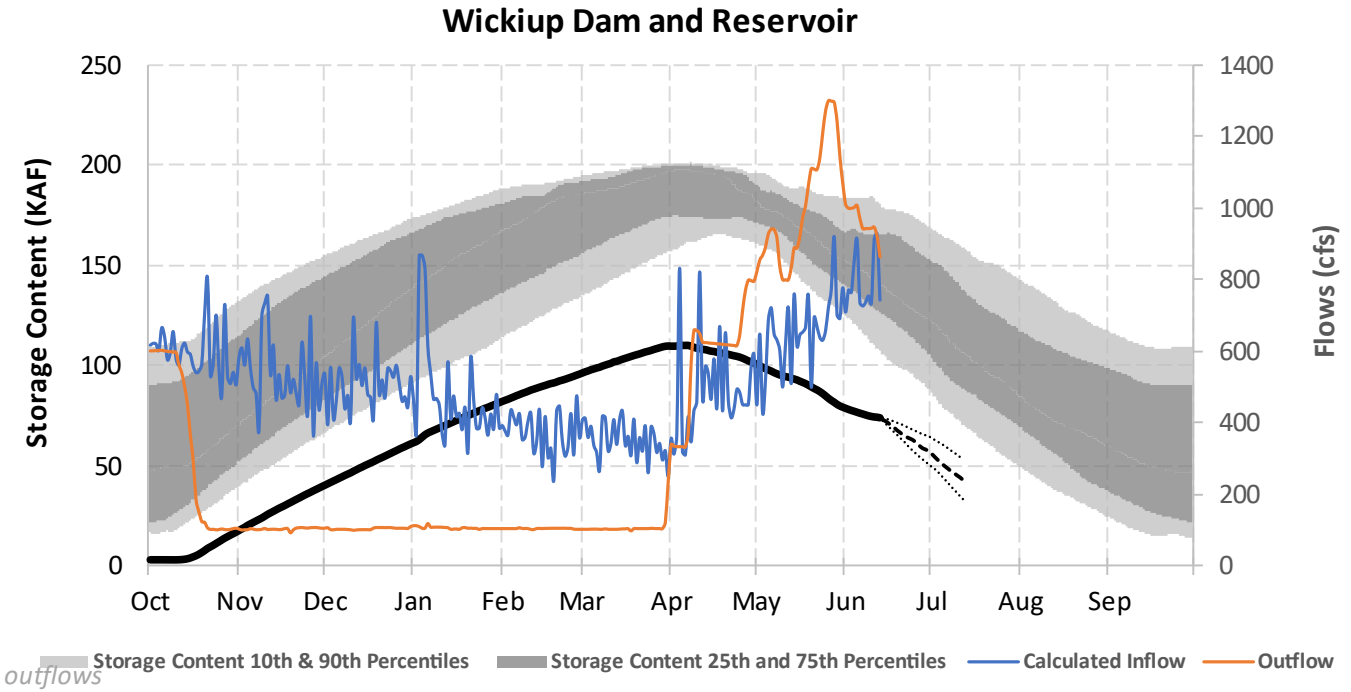


*Graphed projections are the 10th, 50th, and 90th percentile storage values based on historical inflows and outflows

Deschutes River Basin







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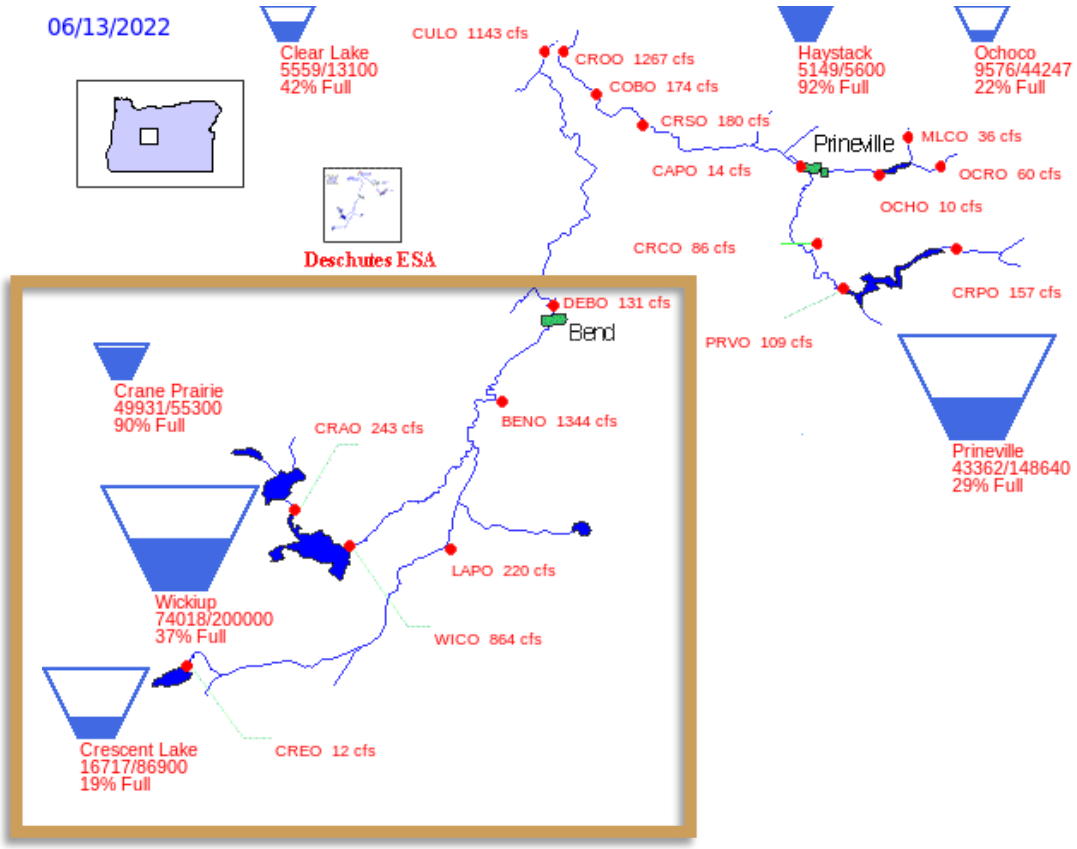
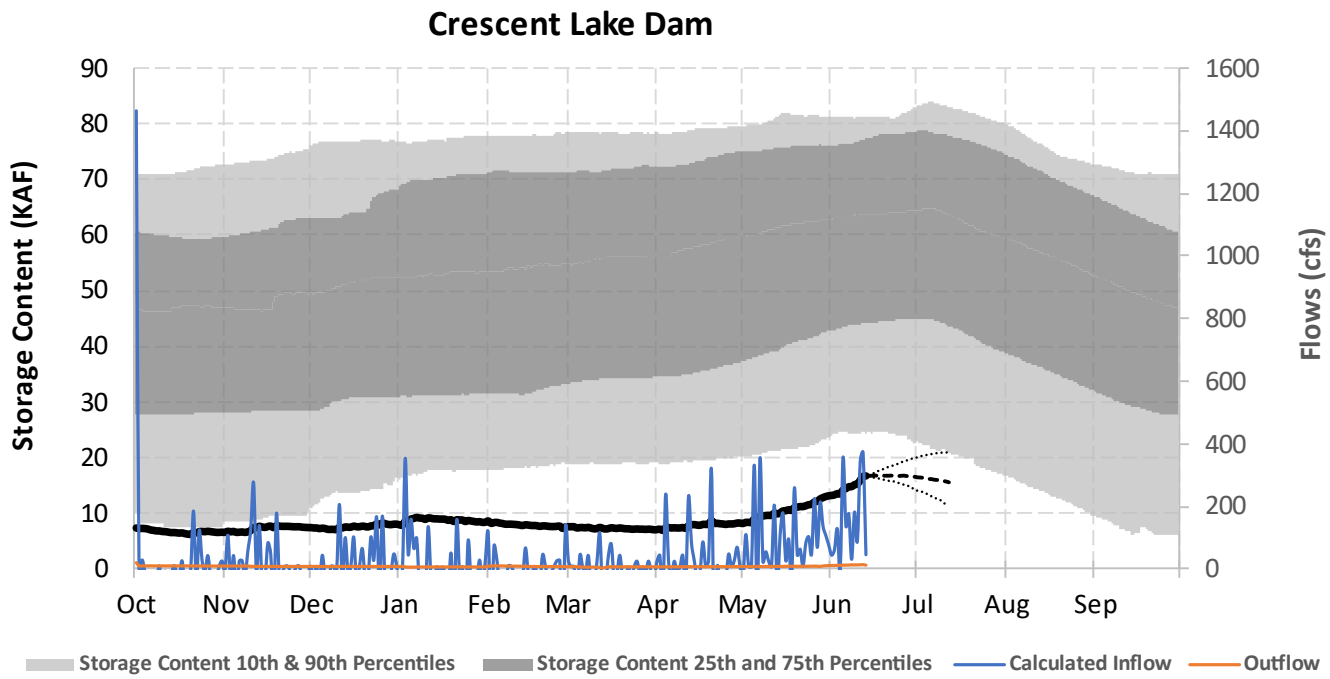
Deschutes River Basin





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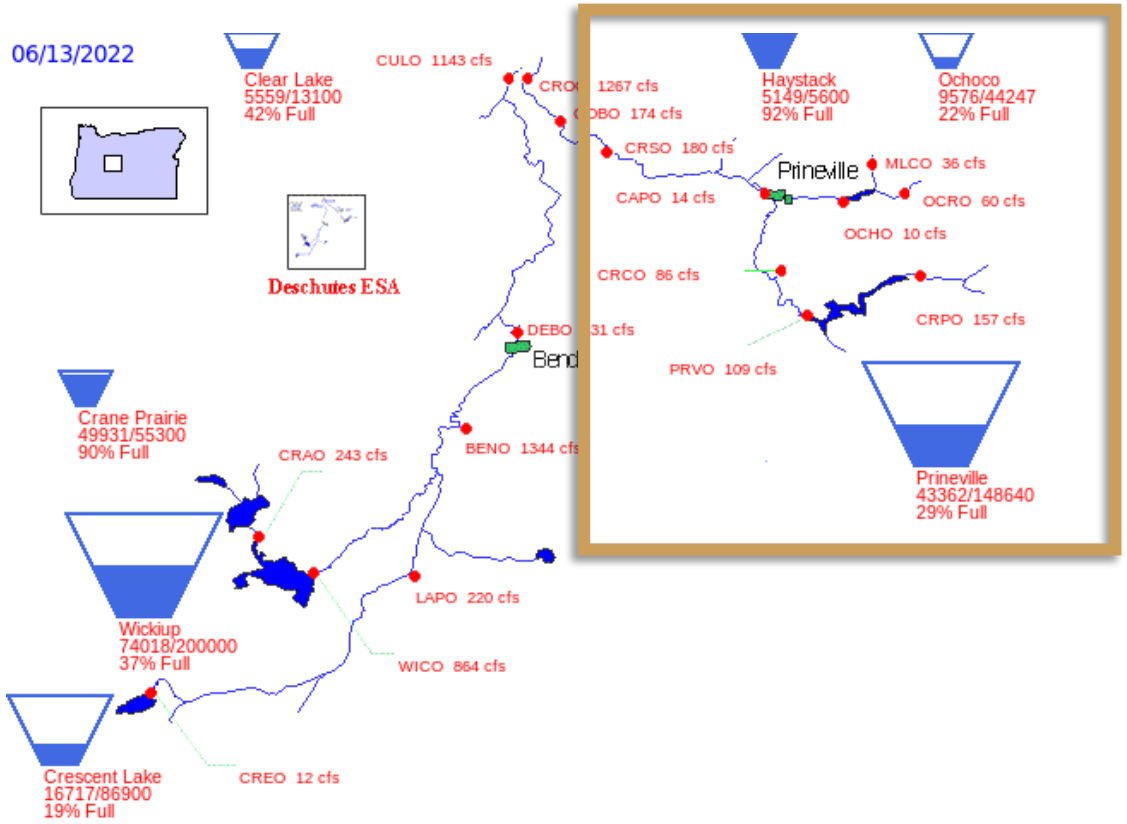
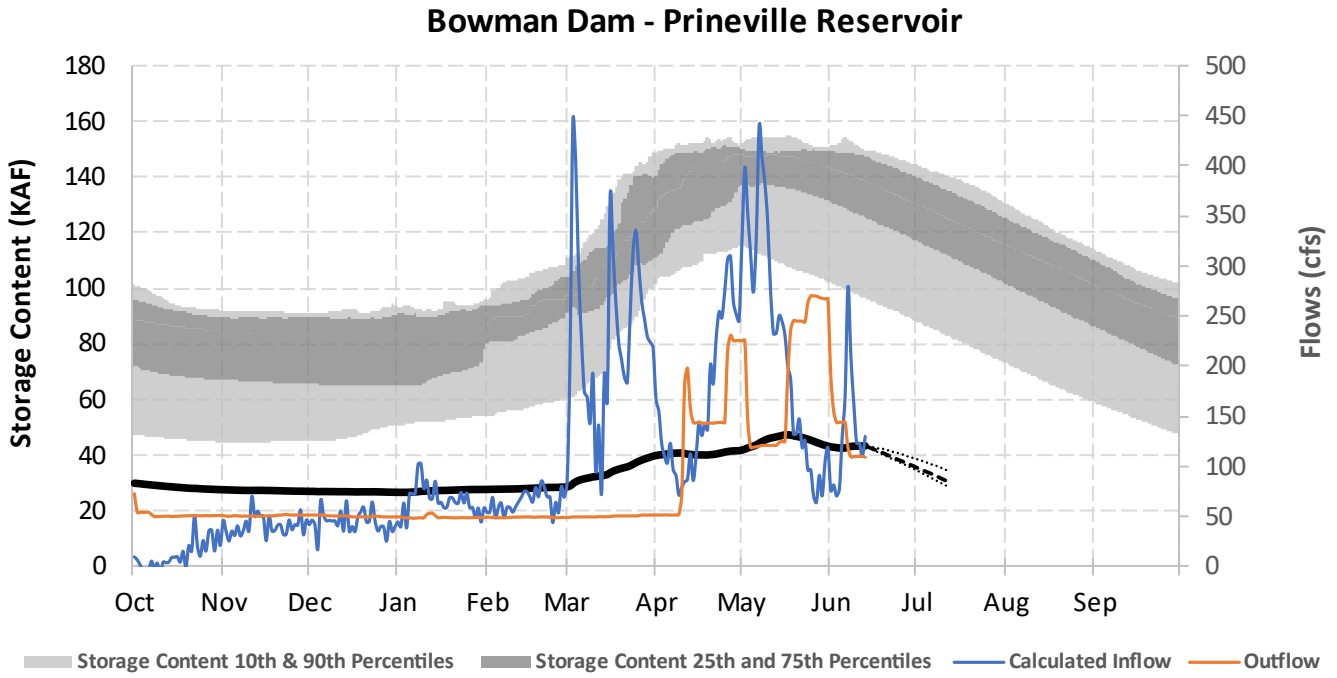
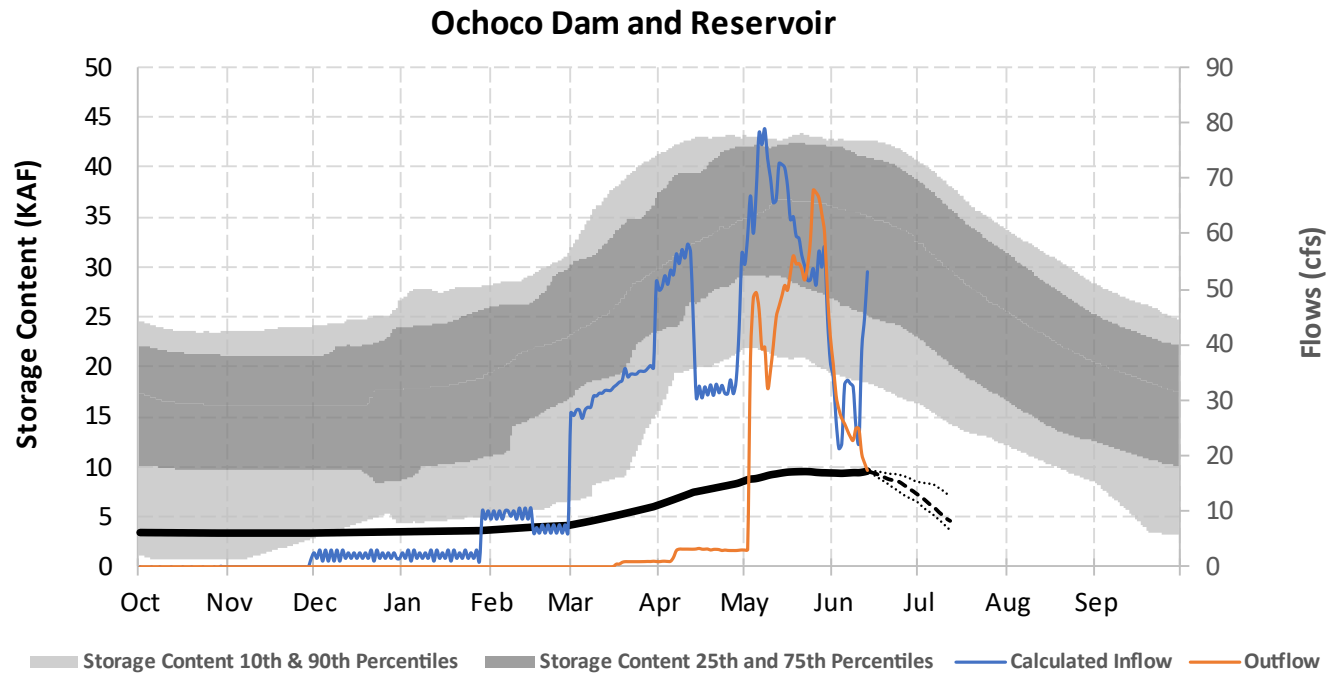
Crooked River Basin

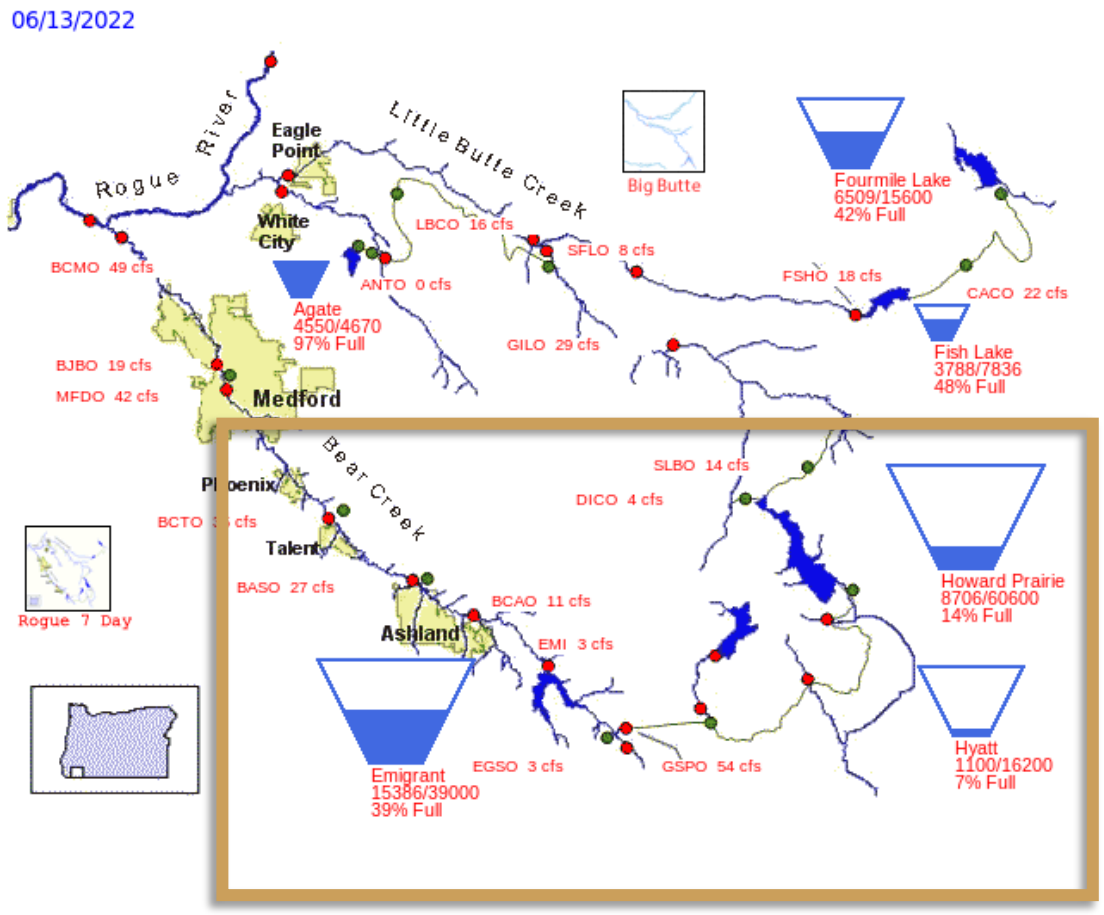


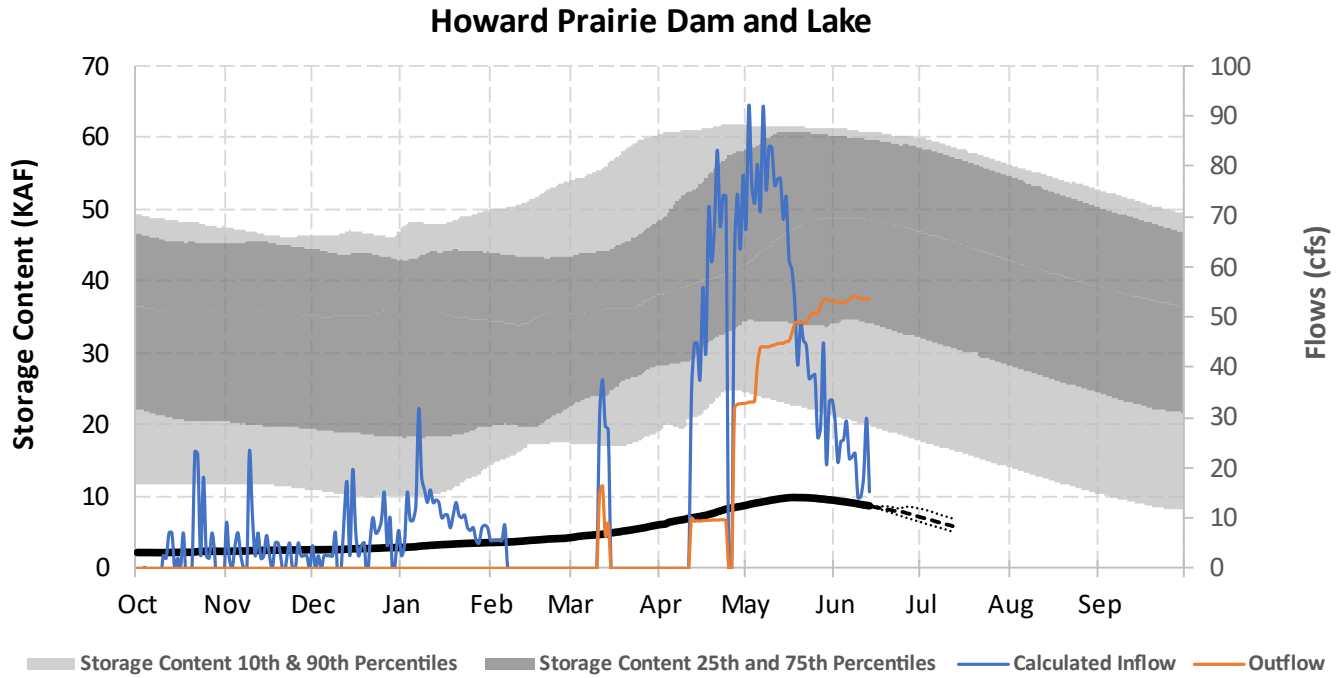


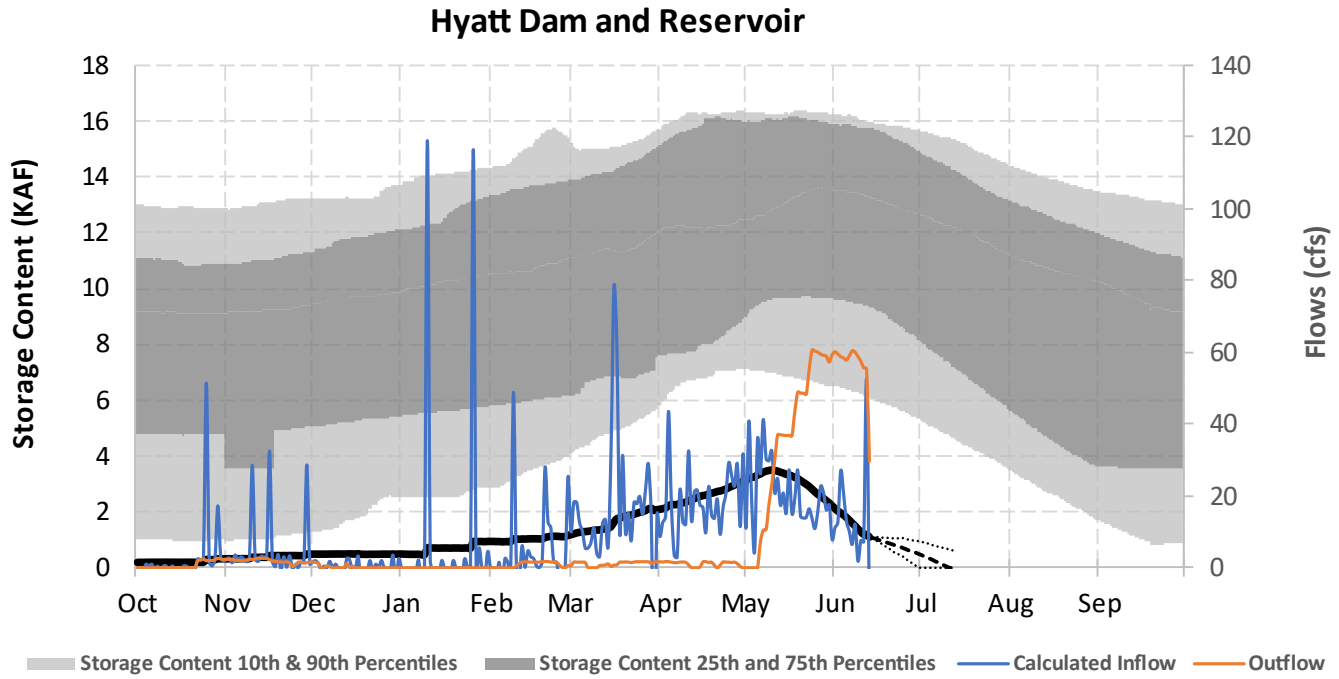


*Graphed projections are the 10th, 50th, and 90th percentile storage values based on historical inflows and outflows

Rogue River Basin



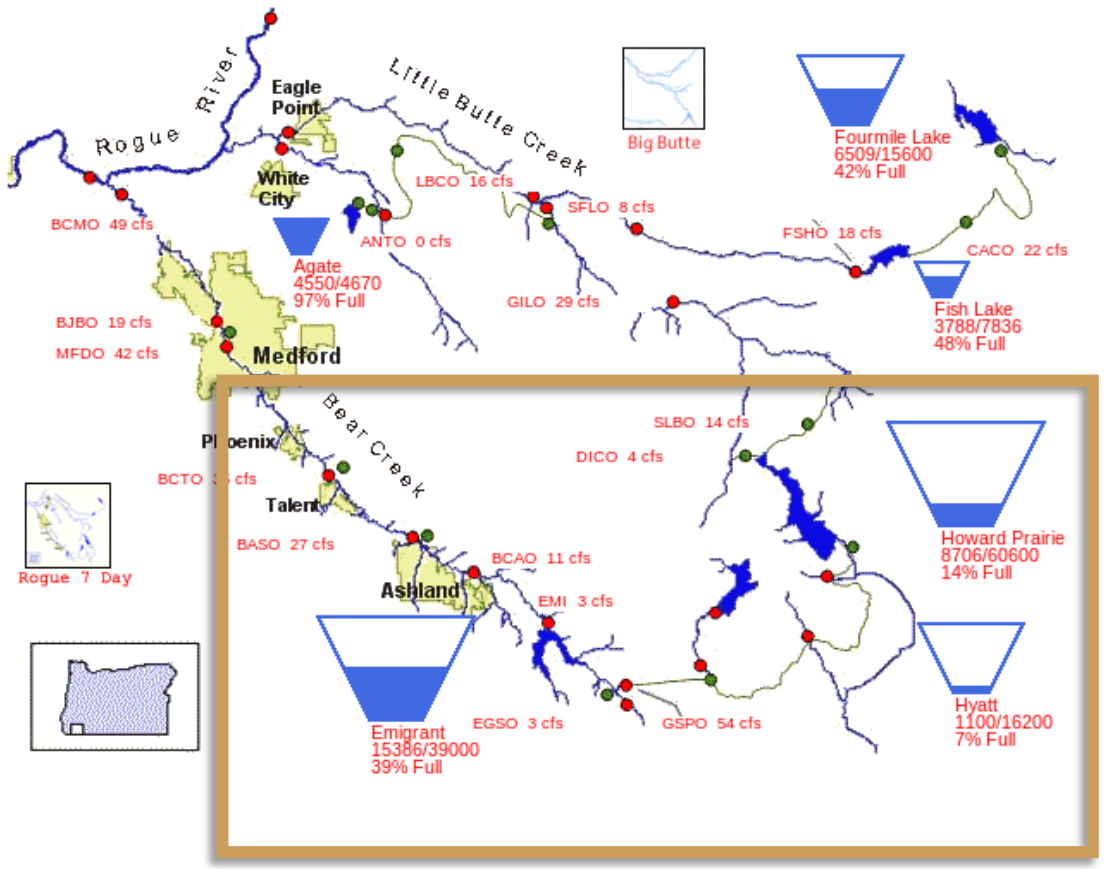


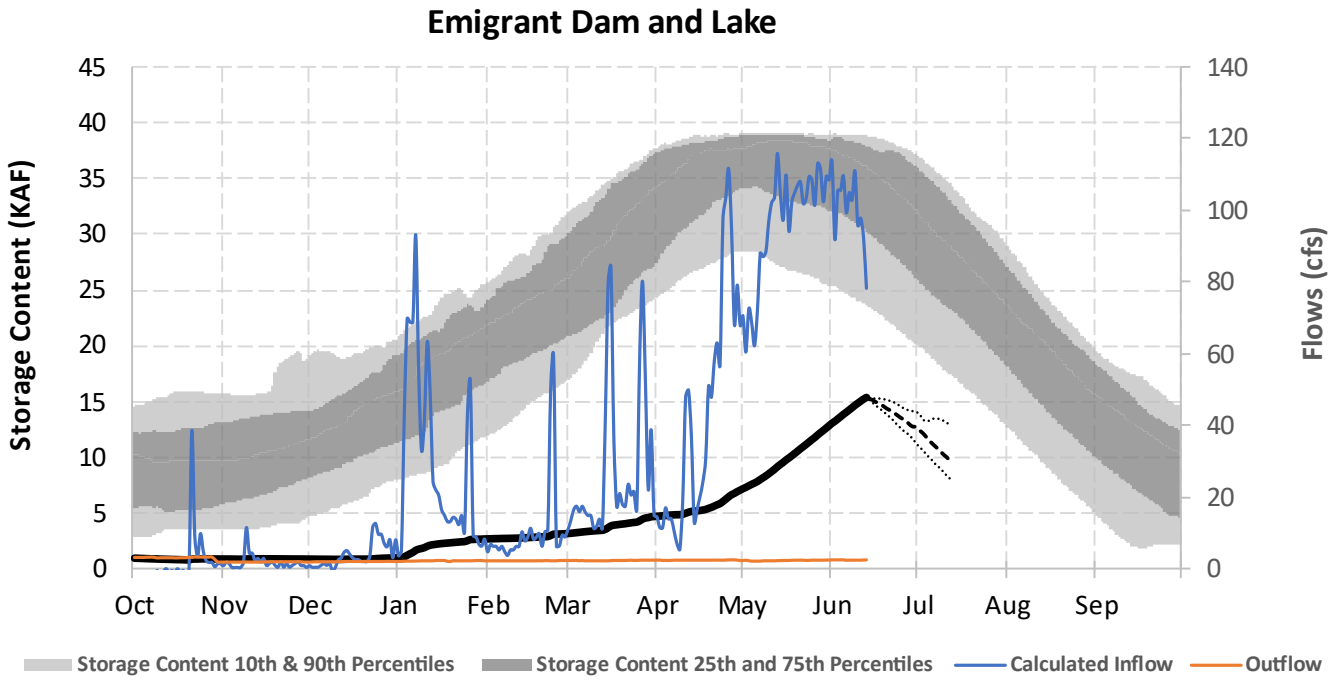


*Graphed projections are the 10th, 50th, and 90th percentile storage values based on historical inflows and outflows

Rogue River Basin

06/13/2022

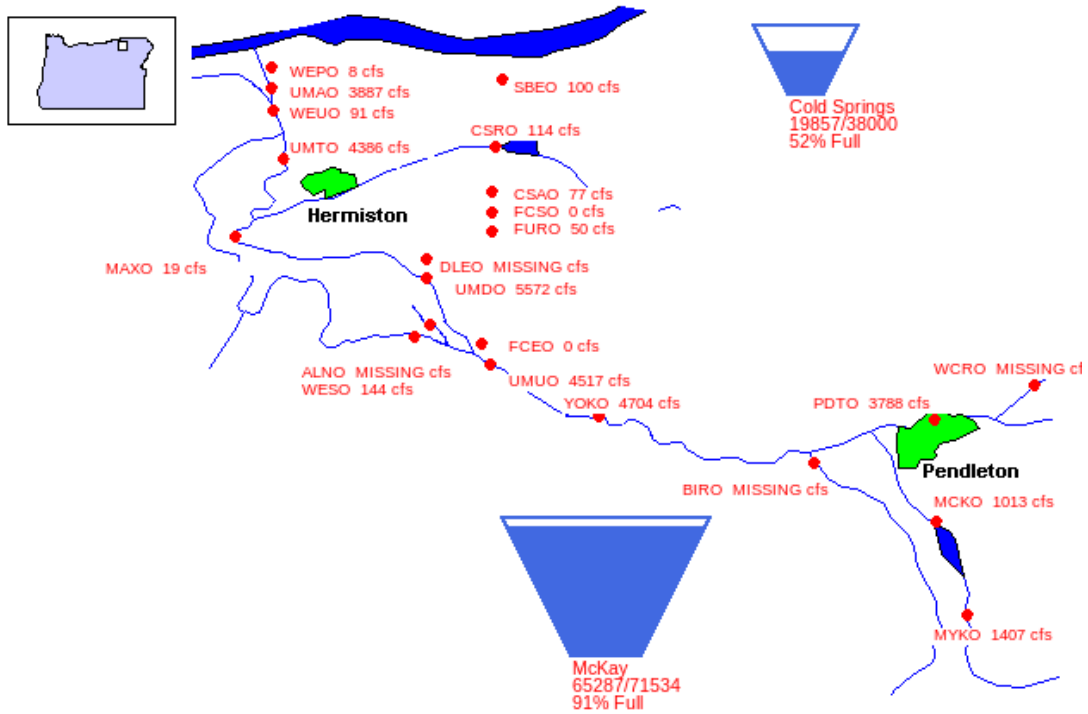


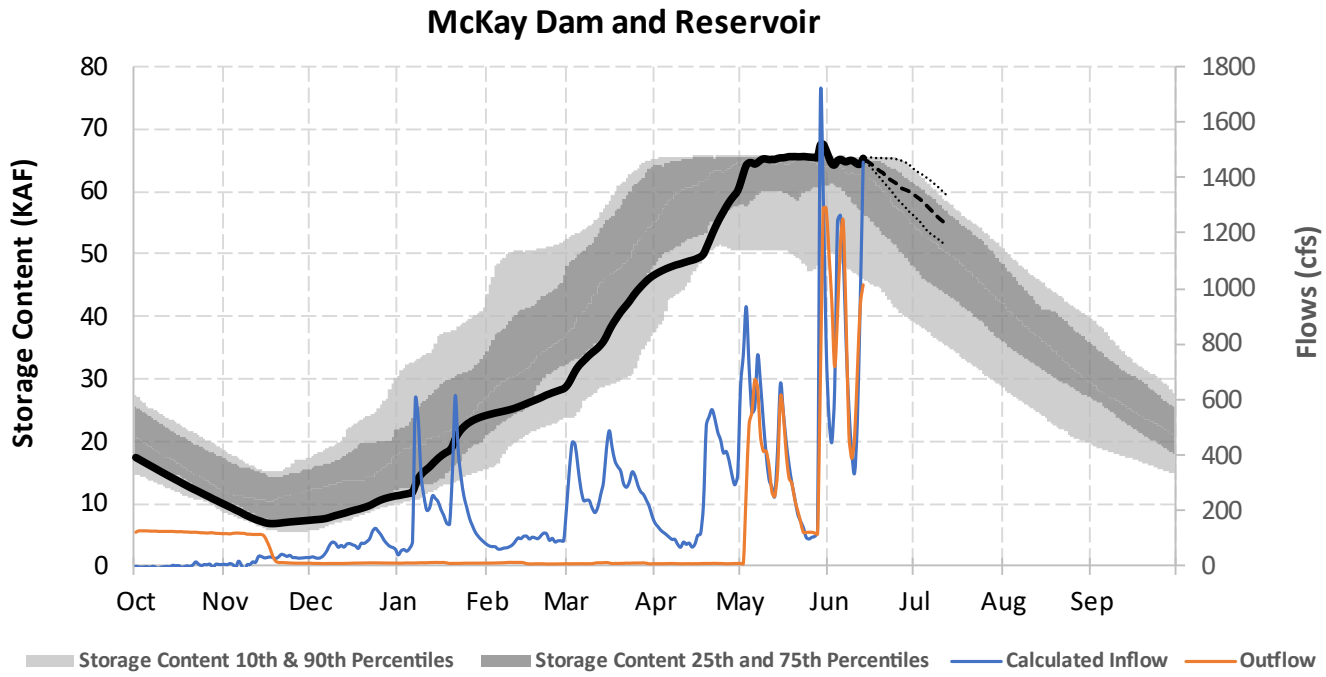


*Graphed projections are the 10th, 50th, and 90th percentile storage values based on historical inflows and outflows

Umatilla River Basin

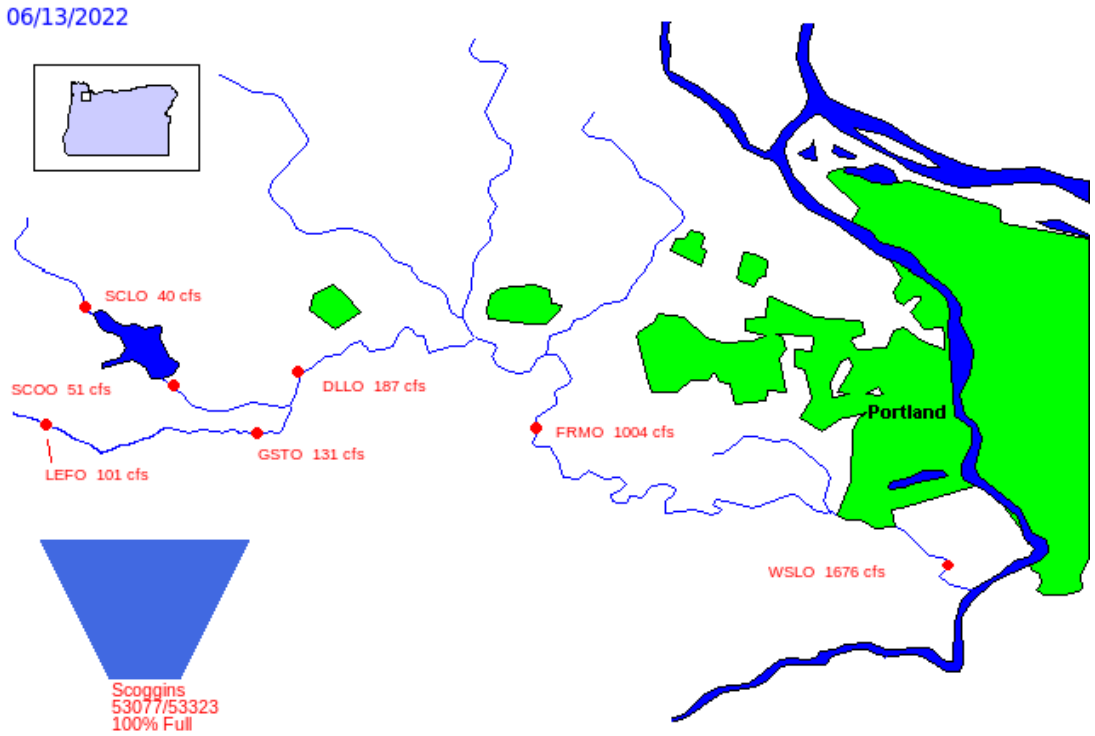
06/13/2022

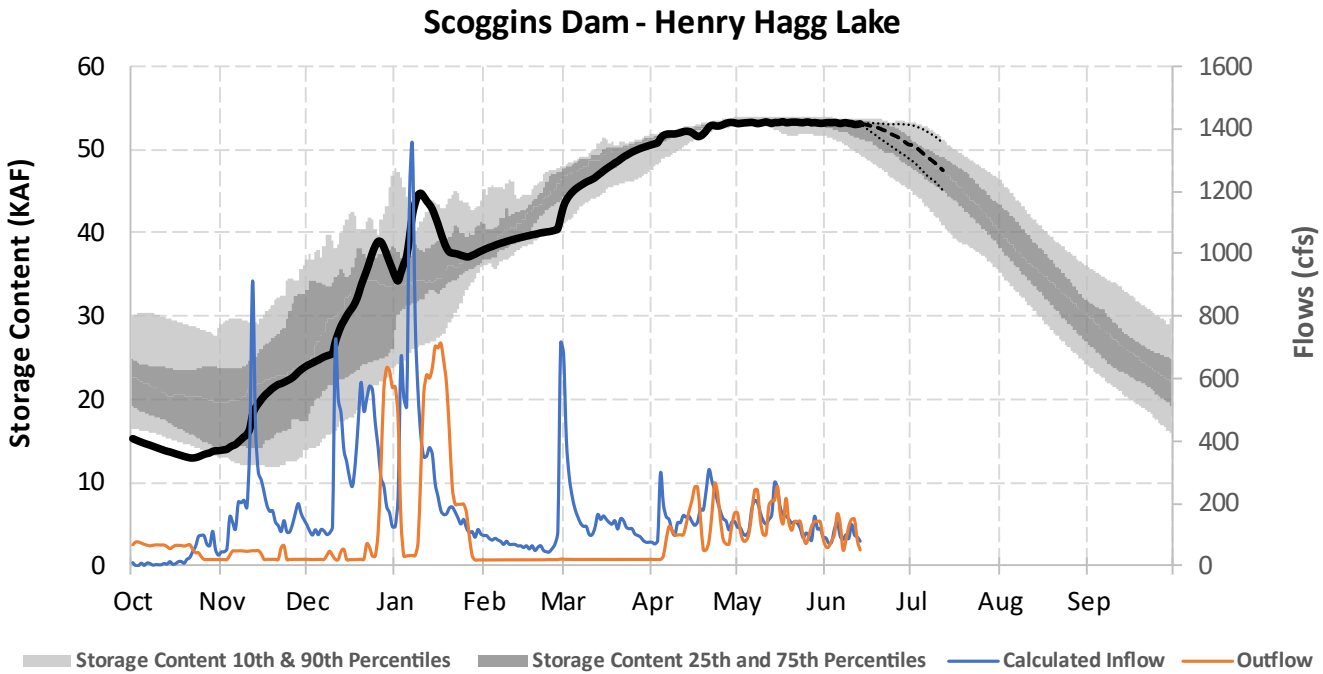




*Graphed projections are the 10th, 50th, and 90th percentile storage values based on historical inflows and outflows

Tualatin River Basin





*Graphed projections are the 10th, 50th, and 90th percentile storage values based on historical inflows and outflows

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BUREAU OF RECLAMATION