



# Creating Water Supply Reliability

March 20, 2024



Photo credit Marisa Hossick





**Welcome**



**Water Outlook**



**State of the Basin**



**Path to Progress**



**Questions & Answers**



# 2024 Water Update

**Jeremy Giffin**

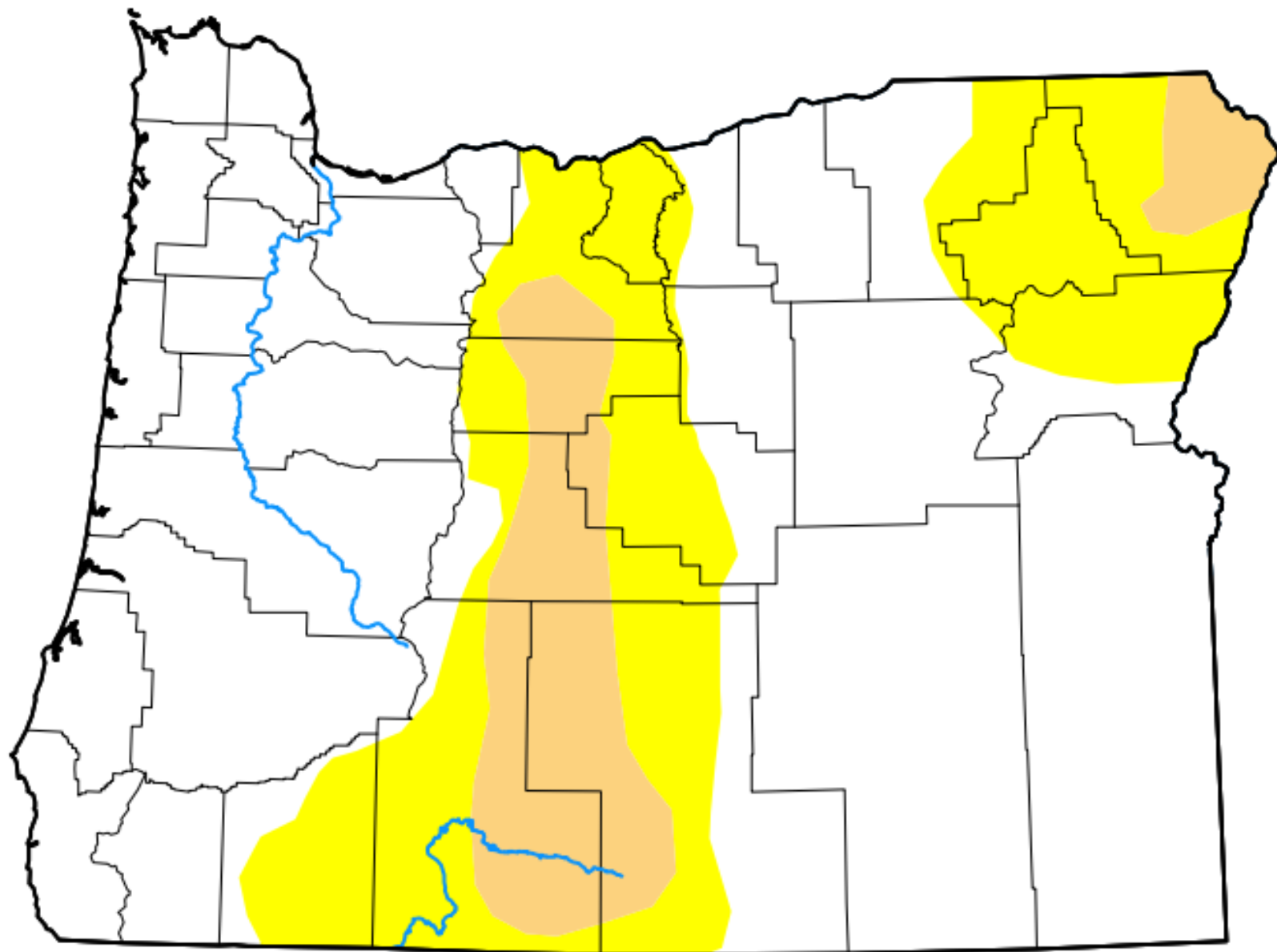
Deschutes Basin Watermaster

Oregon Water Resources Department







**March 12, 2024**

*(Released Thursday, Mar. 14, 2024)*

Valid 8 a.m. EDT



***Intensity:***

-  None
-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>*

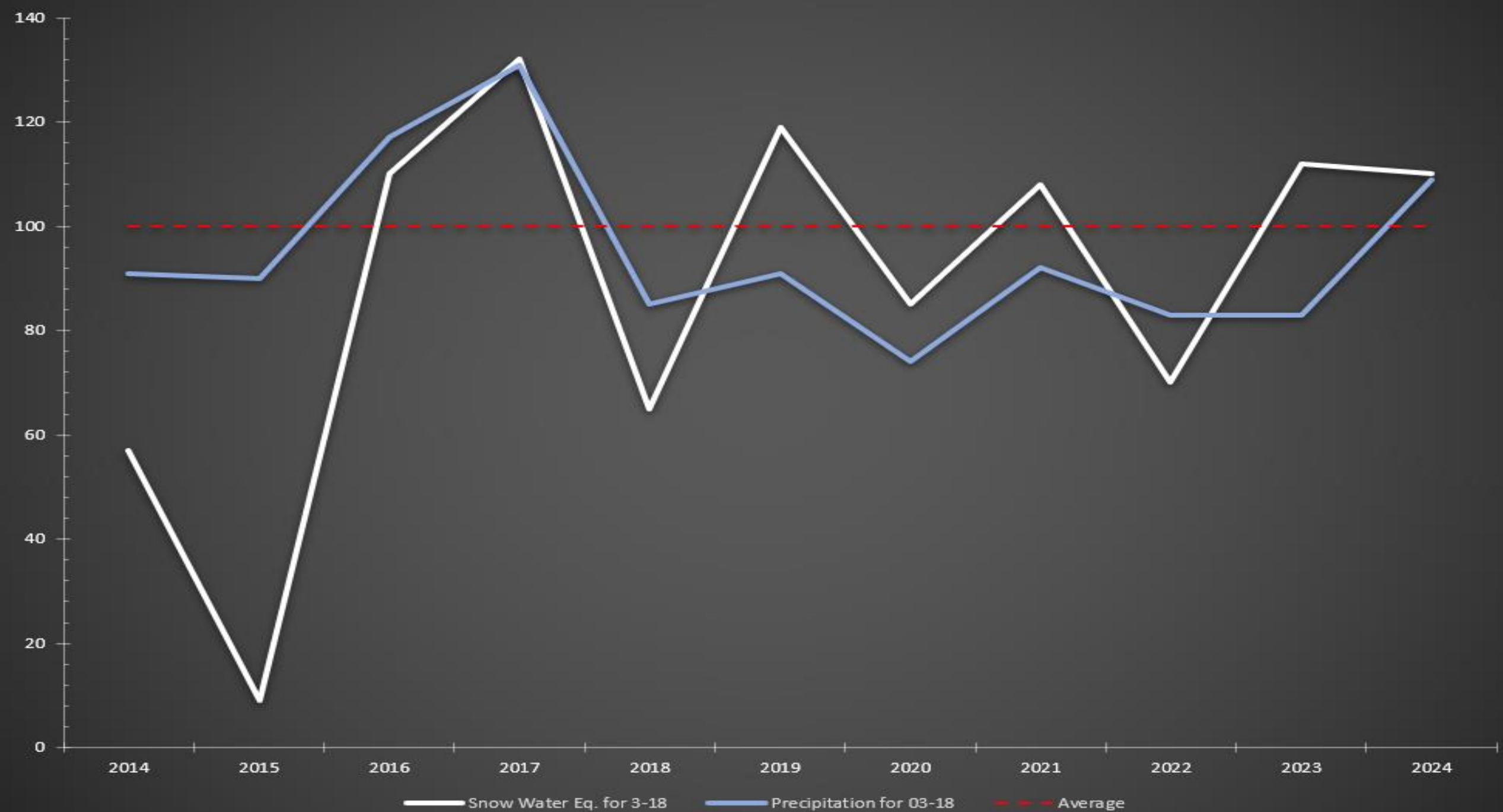
***Author:***

Curtis Riganti  
National Drought Mitigation Center



**droughtmonitor.unl.edu**

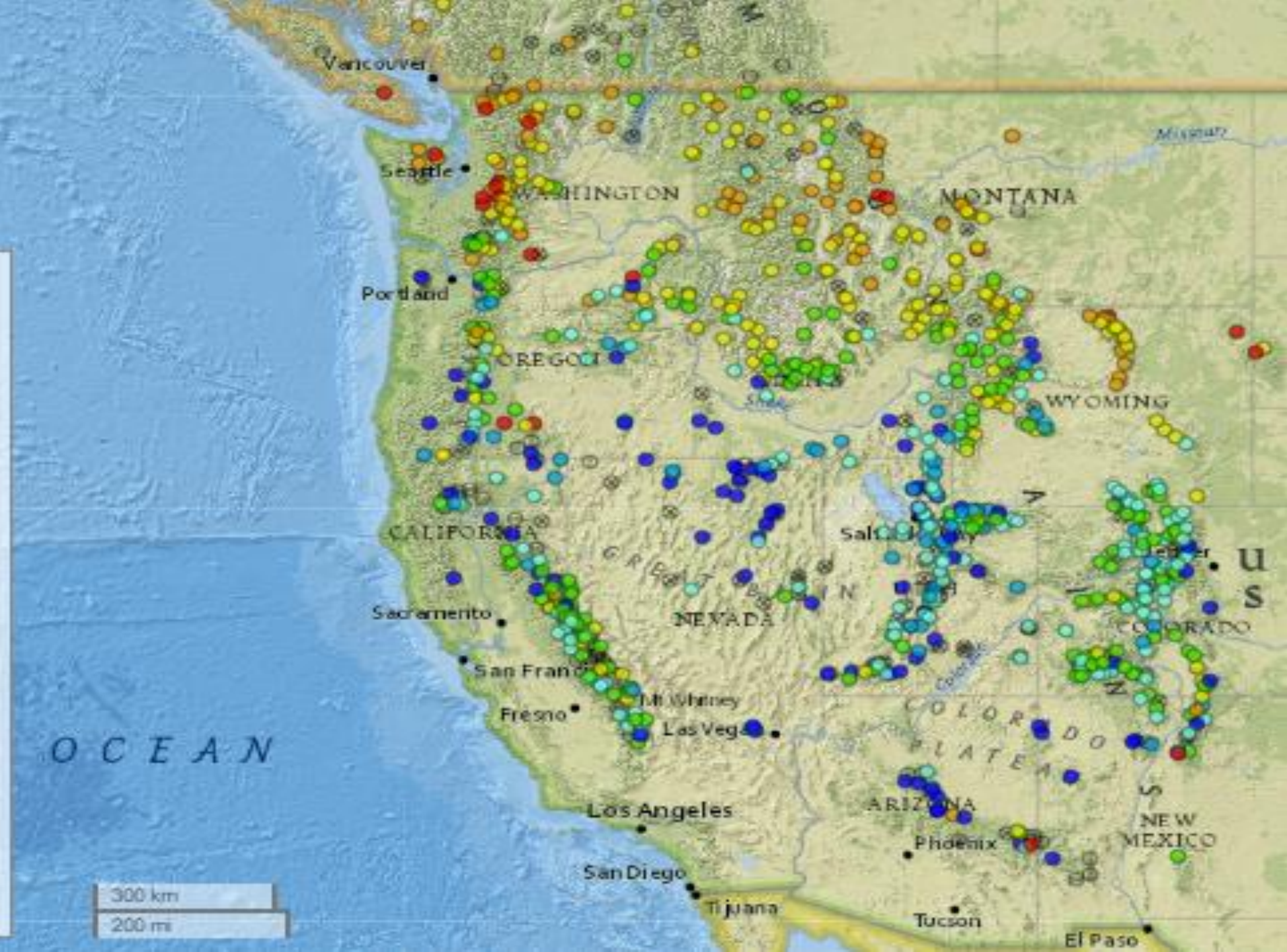
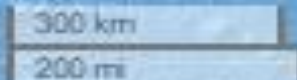
SWE/Precipitation Percentages for March 18th in Upper Deschutes/Crooked Basins



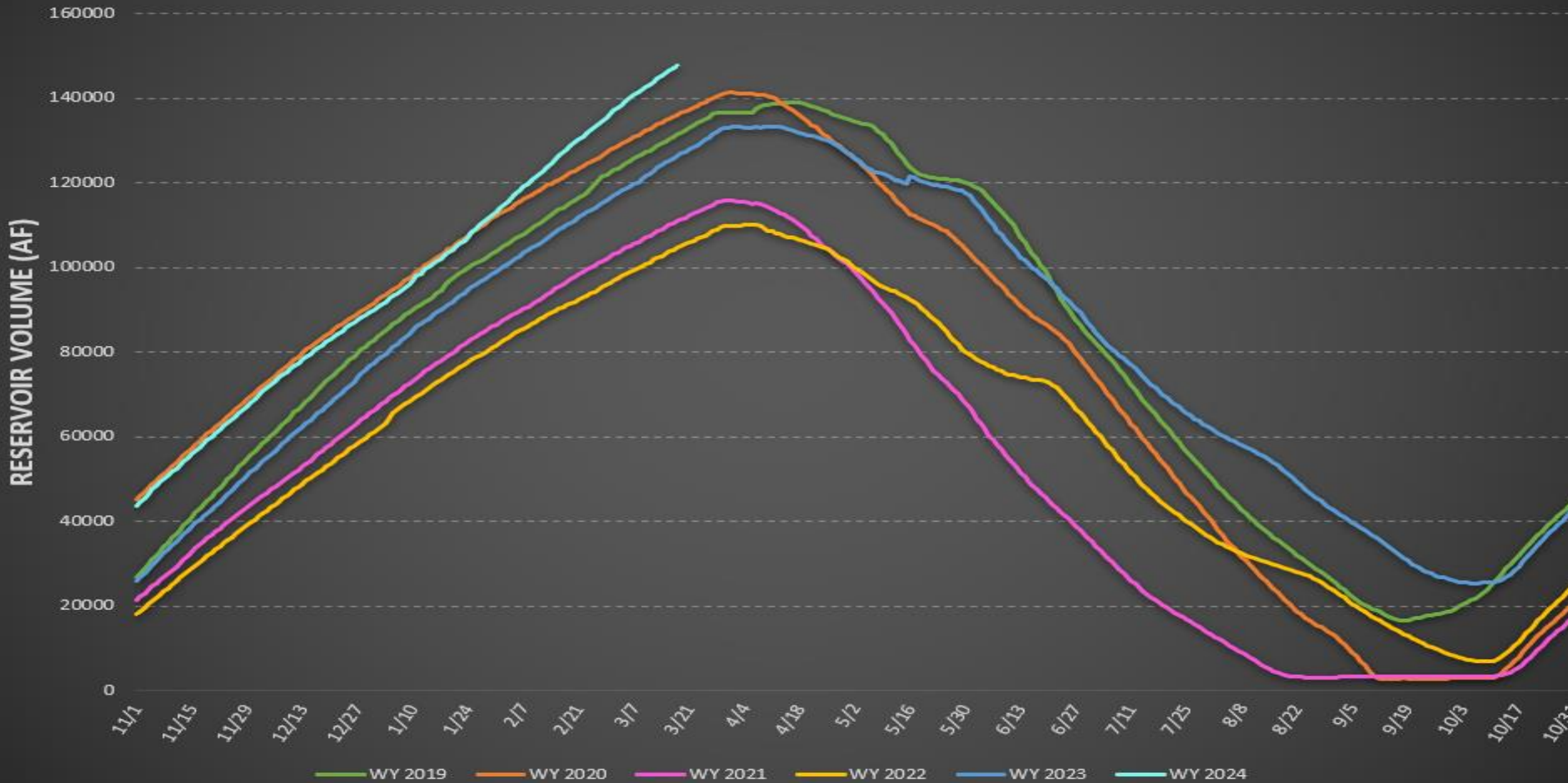
**Snow Water Equivalent  
Percent NRCs 1991-  
2020 Median  
March 17, 2024, end of  
day**



- ⊖ Observation missing
- ⊕ Median is zero
- ⊗ Median missing



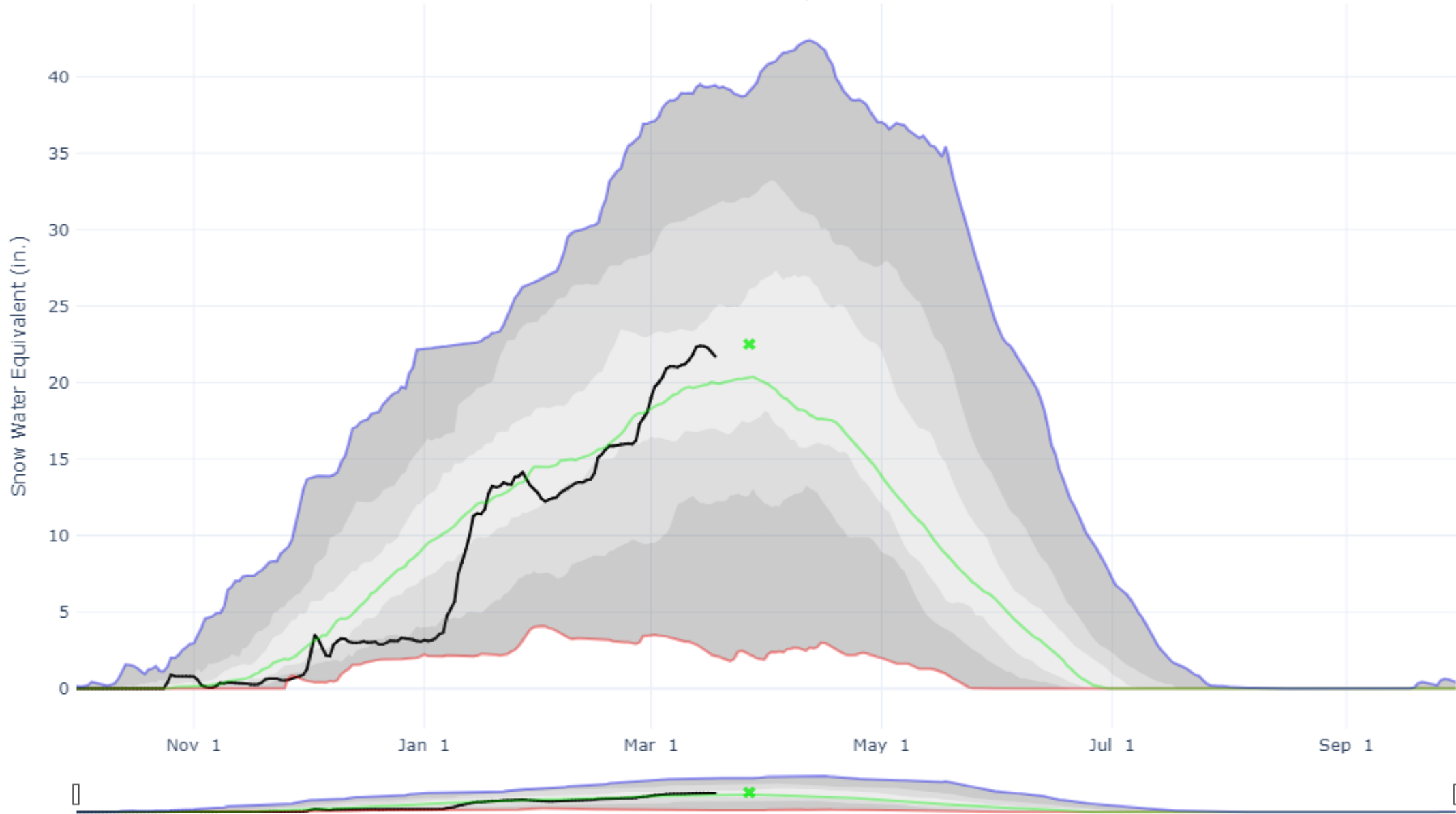
# Wickiup Volumes 2019- 2024



# SNOW WATER EQUIVALENT IN DESCHUTES

Reset Range

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



Station List

- ✖ Median Peak SWE
- Max
- - Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2024 (18 sites)
- 2023 (17 sites)
- 2022 (18 sites)
- 2021 (18 sites)
- 2020 (17 sites)
- 2019 (18 sites)
- 2018 (18 sites)
- 2017 (18 sites)
- 2016 (18 sites)
- 2015 (18 sites)
- 2014 (18 sites)
- 2013 (18 sites)
- 2012 (18 sites)
- 2011 (18 sites)
- 2010 (18 sites)
- 2009 (18 sites)
- 2008 (18 sites)
- 2007 (18 sites)
- 2006 (18 sites)
- 2005 (18 sites)
- 2004 (18 sites)
- 2003 (18 sites)

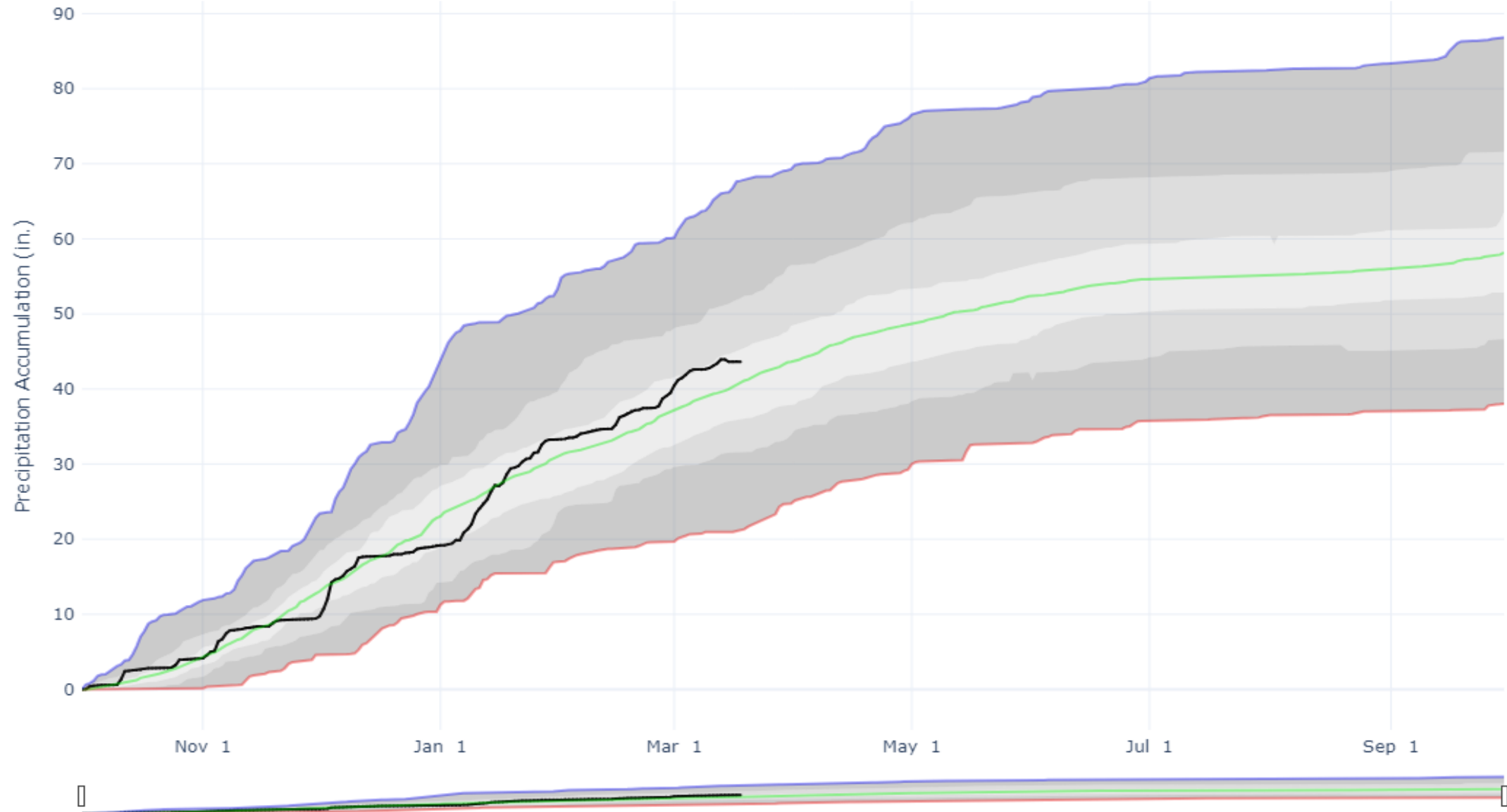




# PRECIPITATION ACCUMULATION IN DESCHUTES

Reset Range

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



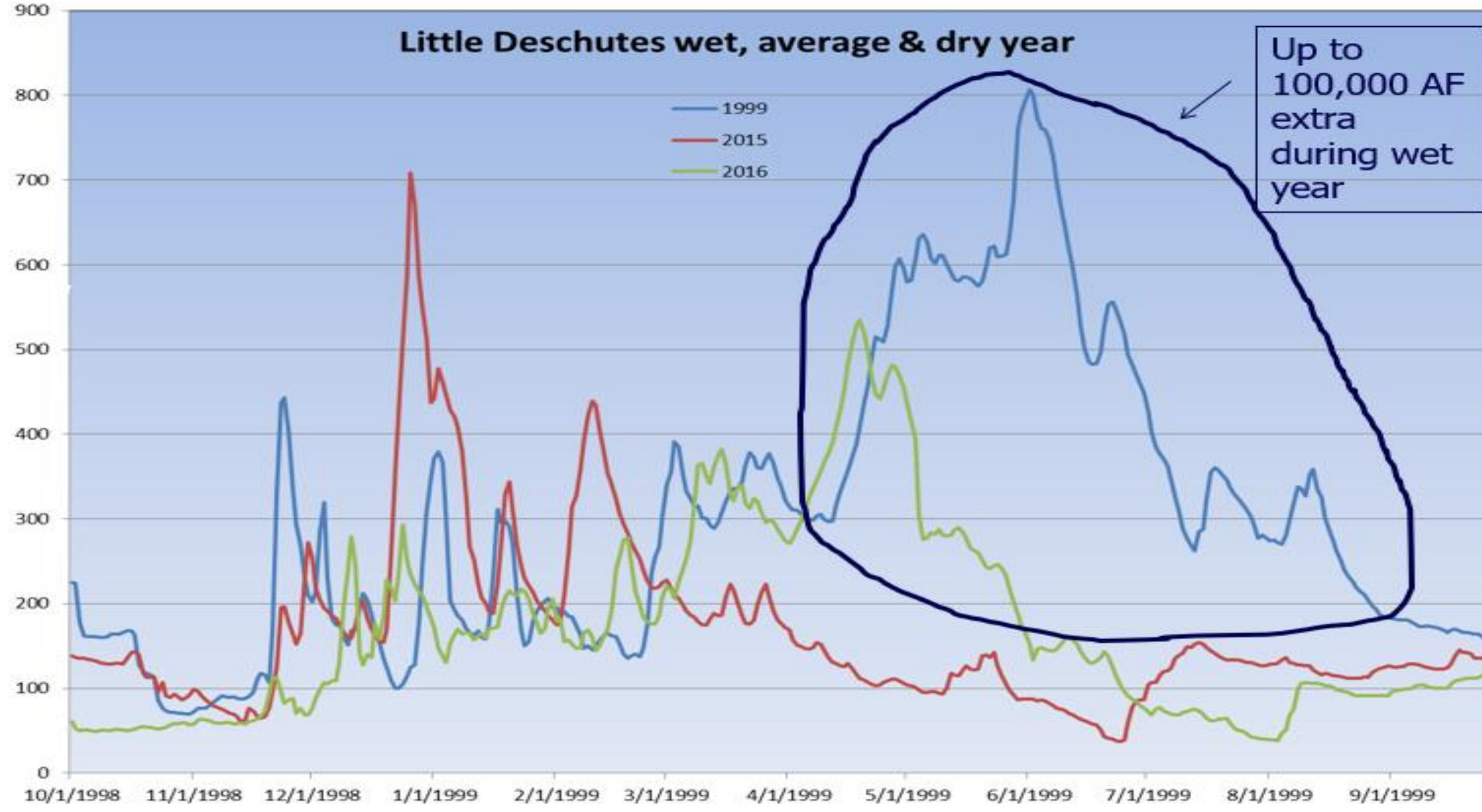
- Station List
- Max
  - Median (POR)
  - Median ('91-'20)
  - Min
  - Stats. Shading
  - 2024 (18 sites)
  - 2023 (17 sites)
  - 2022 (18 sites)
  - 2021 (18 sites)
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  - 2008 (18 sites)
  - 2007 (18 sites)
  - 2006 (18 sites)
  - 2005 (18 sites)
  - 2004 (18 sites)
  - 2003 (18 sites)
  - 2002 (18 sites)
  - 2001 (18 sites)



## UPPER DESCHUTES, CROOKED

Santiam Jct.	3740	13.7	9.7	141	60.4	53.2	114
Salt Creek Falls	4220	21.5	18.4	117	57.1	50.0	114
Mckenzie	4770	38.4	34.8	110	74.5	66.2	113
Hogg Pass	4790	17.0	20.9 <sub>(17)</sub>	81	48.0	51.1 <sub>(17)</sub>	94
Chemult Alternate	4850	6.2	6.0	103	20.6	19.6	105
New Crescent Lake	4910	16.8	9.8	171	35.5	28.1	126
Roaring River	4950	24.2	25.2	96	55.5	48.0	116
Cascade Summit	5100	34.2	29.2	117	49.6	46.4	107
Ochoco Meadows	5430	10.1	9.4	107	20.3	17.3	117
Irish Taylor	5540	39.2	31.0	126	-M	46.4	*
Summit Lake	5610	35.6	33.4	107	54.3	49.2	110
Three Creeks Meadow	5690	12.8	15.4	83	31.0	30.4	102
Derr.	5850	14.7	12.8	115	21.7	18.5	117
Snow Mountain	6230	12.5	10.0	125	19.4	15.9	122
<b>Basin Index (%)</b>		<b>112</b>			<b>111</b>		

# Little Deschutes wet, average & dry year



Up to 100,000 AF extra during wet year

# Water Allotments



## April 15

- Deschutes River water rights: 1 acre-foot per acre
- Crooked River water rights: 0.5 acre-foot per acre



## April 15

- Rotation schedules mailed first week of April
- Start-up at stock water run levels

***Turn on dates and allotments are tentative.***



# State of the Basin



# What We Do



Ensure a predictable and reliable water supply to the Deschutes Basin.



**Convey**  
water to  
7,653  
patrons



**Irrigate** over 150,000  
acres throughout the  
Deschutes Basin



**Contribute**  
annually  
to fish and  
wildlife habitat  
conservation



**Partner** with  
stakeholders



**Create**  
jobs for  
economic  
growth

# Challenges

- Drought
- Urban Development
- Inefficient Delivery Systems
- Optimizing Water
- Endangered Species
- Deadlines to Meet Habitat Conservation Plan





# OPPORTUNITIES & PATH OF PROGRESS



CENTRAL OREGON  
**Irrigation**  
DISTRICT  
Since 1918



# Opportunities

- Collaboration
- Funding
- Optimizing Water
- Water Delivery Study
- Lake Billy Chinook Pumping Plant
- Conservation Tools
- Habitat Conservation Plan



# Greater Water Reliability

## Senior Water Right Holders

- ✓ Increased water reliability
- ✓ Operational efficiencies
- ✓ Opportunities for pressurized water
- ✓ Helps meet the HCP

## Junior Water Right Holders

- ✓ Water saved is shared with junior water right holders to ensure farmers have the water they need, even in dry years
- ✓ NUID can make water available from storage in Wickiup to increase winter flows in the Upper Deschutes River and help meet the requirements of the HCP



# CONSERVATION TOOLS



## TRANSFERRING

Permanent transfers of water rights generate improved water supply for farmers, cities, and the river.



## SHARING

Water agreements between districts facilitate water conservation measures and improve reliability.



## PIPING

Piping COID's outdated canals, that leak up to 50% of their water in the transmission, allows commercial farmers and the Deschutes River to capture an abundance of water.



## LEASING

Temporary transfers (usually one year) of water off the land generate improved water supply for farmers, cities, and the river.



## RESERVOIR MGMT

Better allocation of stored water addresses district water supply and streamflow needs.

# Path of Progress



## Central Oregon Irrigation

Smith Rock Way & King Way 1A (2)  
**Complete**

Smith Rock & King Way 1B  
**Complete**

Pilot Butte Canal Phases 2-14  
**Mar 28**



## Swalley

Rogers  
**Complete**

MC-7  
**Apr 25**

Elder Lateral  
**Apr 26**



## Tumalo

Tumalo Feed VB  
**Complete**

Tumalo Feed VB  
**Complete**

Tumalo Feed VB  
**Complete**

Pipes Group 6A  
**Complete**

Pipes Group 4  
**Mar 24**

Pipes Group 6B  
**Mar 25**

Measurement  
& Monitoring  
**Mar 23**



## North Unit

31,32,34,43 Lateral Piping  
**Mar 29**

Main Canal Automation  
**Mar 24**

41-9/58-3-2 Lateral Piping  
**Apr 23**

Main Canal Lining  
**Apr 23**

Bend Diversion  
Fish Screens  
(Design and SHPO  
complete)  
**Unknown**



## Ochoco

Group 1  
McKay Switch  
**Apr 24**

Group 2  
Grimes Flat Piping  
**Apr 26**

Group 3  
**Apr 26**

IronHorse Piping  
**Apr 25**



## Arnold

Main Canal Phase 1  
**Mar 2024**

Main Canal Phase 2  
**Mar 2025**

Main Canal Phase 3  
**Mar 2026**

Main Canal Phase 4  
**Mar 2026**



## Lone Pine

**Mar 23**

# Habitat Conservation Plan

**151,000**  
irrigated  
acres



**17,600**  
patrons



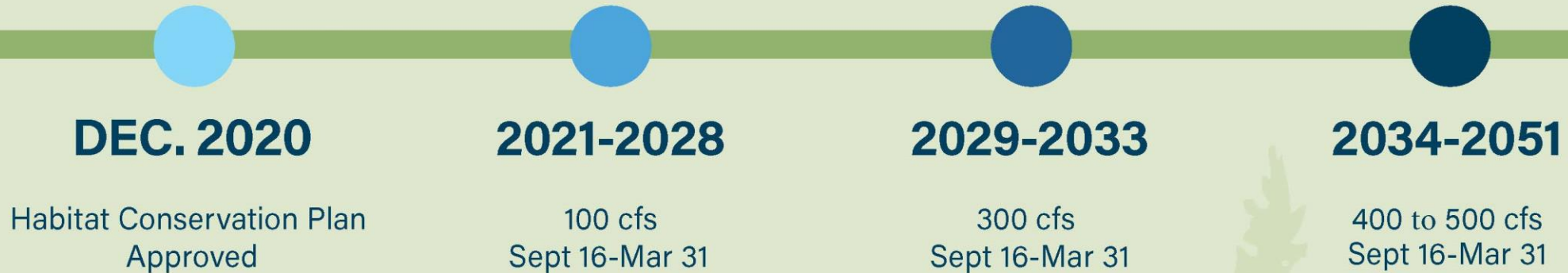
**30**  
years of  
protection



**12**  
years of  
collaboration



# Deschutes Basin Habitat Conservation Plan



The Deschutes Basin Habitat Conservation Plan is a legal agreement designed to **create water supply reliability for the Deschutes Basin** and enhance fish and wildlife habitat.



# Better Together



Photo credit Marisa Hossick





# Questions & Answers

