

# Oregon Water Supply Outlook Report

*February 1, 2023*



**Dave Anderson and Dale McCabe, City of The Dalles, weigh a snow core sample along the High Prairie snow course. Dave Anderson has been measuring High Prairie snow course for over 30 years. Snowpack at the site is 84% of median as of February 1. Photo taken by Allen Buckman, NRCS Hydrologist (January 31, 2023)**

# Contents

<b>Conditions Overview .....</b>	<b>3</b>
<b>Owyhee Basin .....</b>	<b>10</b>
<b>Malheur Basin.....</b>	<b>12</b>
<b>Grande Ronde, Powder, Burnt and Imnaha Basins .....</b>	<b>14</b>
<b>Umatilla, Walla Walla, and Willow Basins .....</b>	<b>17</b>
<b>John Day Basin .....</b>	<b>20</b>
<b>Upper Deschutes and Crooked Basins .....</b>	<b>22</b>
<b>Hood, Sandy, and Lower Deschutes Basins .....</b>	<b>25</b>
<b>Willamette Basin .....</b>	<b>27</b>
<b>Rogue and Umpqua Basins .....</b>	<b>30</b>
<b>Klamath Basin .....</b>	<b>33</b>
<b>Lake County and Goose Lake .....</b>	<b>36</b>
<b>Harney Basin .....</b>	<b>38</b>
<b>Resources.....</b>	<b>40</b>

## Contact for Report

Matt Warbritton  
Lead Hydrologist  
USDA NRCS Oregon Snow Survey  
matt.warbritton@usda.gov

---

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident. Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. USDA is an equal opportunity provider and employer.

# Conditions Overview

## Summary

From early to mid-January, a series of atmospheric river events (ARs) that hit California also provided additional snow accumulation across much of southern Oregon and parts of central and eastern Oregon. This has led to drought improvement in some areas of Klamath, Lake and Harney counties experiencing extreme drought (D3). Conversely, the shift in storm tracks from north (WA and OR) early in the season to south (CA) adversely impacted the central and northern Cascades and parts of northeastern Oregon where snowpack accumulation began declining at the start of January.

In the latter half of the month, minimal storm impacts throughout Oregon resulted in declining snowpack accumulation and water-year precipitation as % normal (1991-2020 median). Monthly precipitation across Oregon is well-below to below normal, resulting in a decline in water-year precipitation as % normal for all basins.



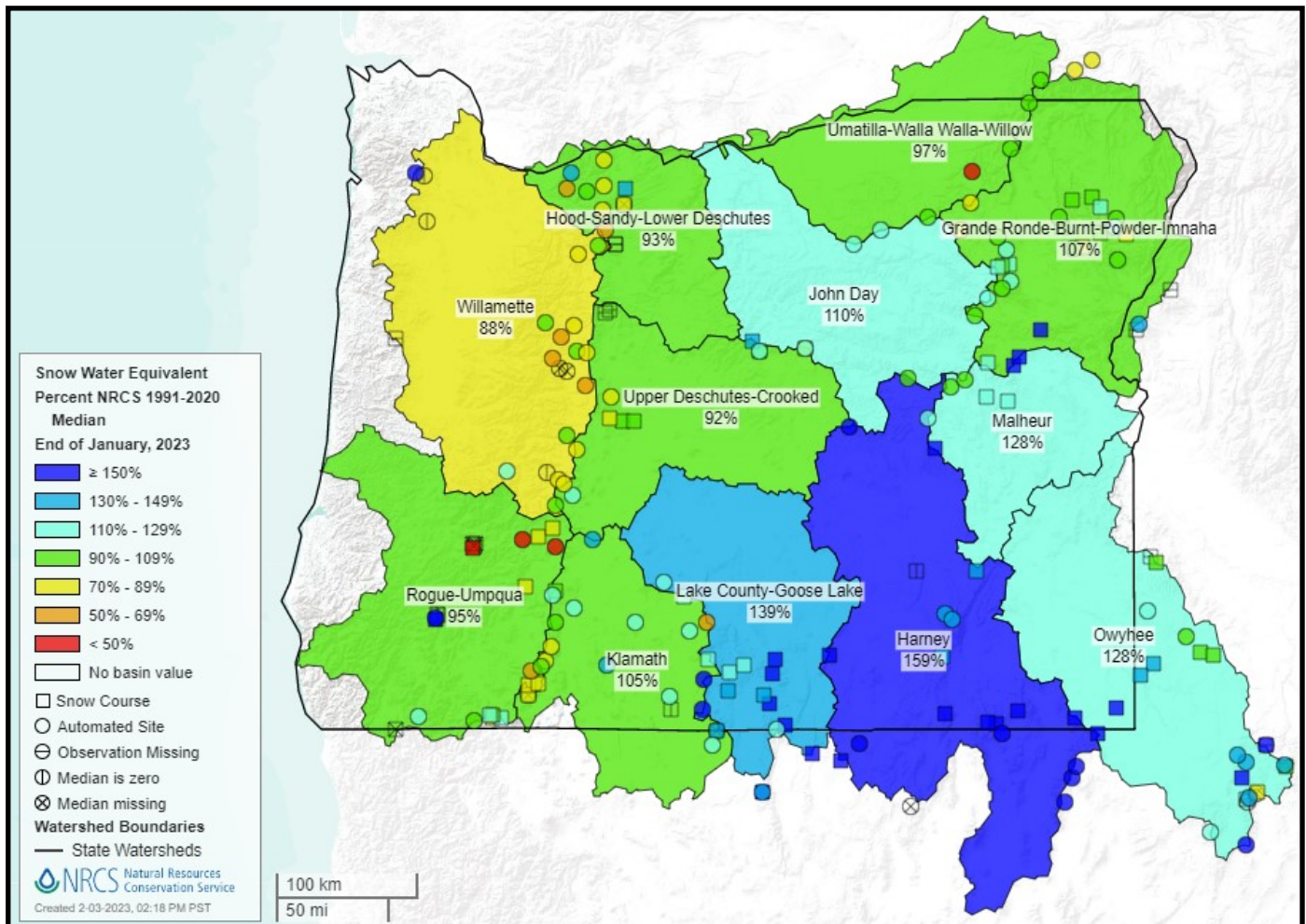
Julianne Robinson and Anna Burton, NRCS Engineers, prepare a snow core sample taken at the Tangent snow course east of Mount Bachelor. Snowpack at the site is 95% of median as of February 1st.

*Photo taken by Andrew Neary, NRCS Ecological Site Specialist (January 26, 2023)*

## Snowpack

The impacts from ARs in the first half of January helped maintain above normal snowpack for many areas in southern Oregon, and in parts of central and eastern Oregon. However, the shift in storm tracks away from WA and OR towards the end of December led to a decline in snow accumulation across much of the central and northern Cascades and parts of northeastern Oregon. Towards the end of January, snow accumulation declined across the state due to minimal storm impacts.

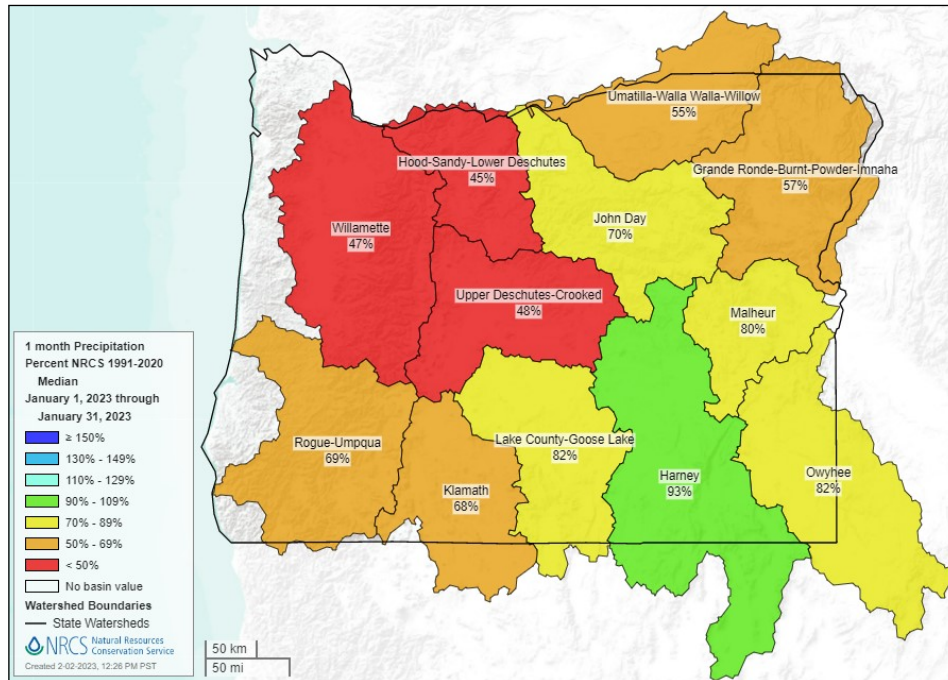
Snowpack along the Cascades is spatially variable, and ranges from well-above to well-below normal as of February 1. However, snowpack at most sites in the Cascades are below normal. Snowpack is generally above to well-above normal in southern Oregon east of the Cascades, and mostly near to above median in central and into northeastern Oregon, with some areas of below normal snowpack near to and south of Deadman Pass in the Blue Mountains.



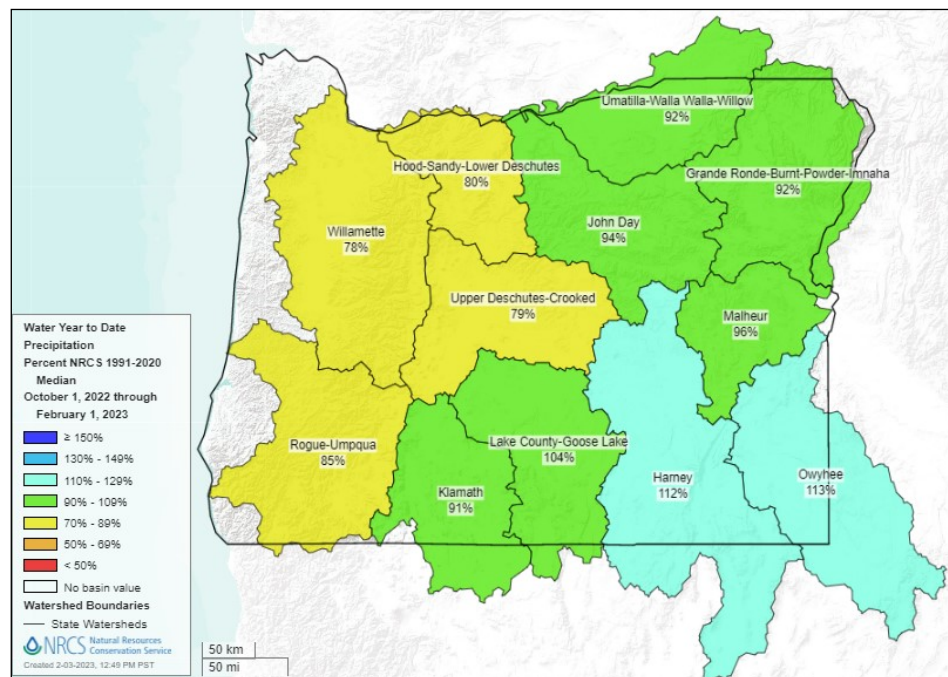
Basin snowpack (% median) as of February 1st.

## Precipitation

Precipitation for much of the state was lacking in January. Monthly precipitation for most SNOTEL sites in the Cascades, northeastern Oregon, and all sites in the Steen Mountains is less than 70% of normal, with most sites in the central and northern Cascades below 50% of normal. This has contributed to growing precipitation deficits for basins along the Cascades, where water-year precipitation is below normal. In addition, precipitation deficits are emerging for some areas in northeastern Oregon and in the Malheur Basin where water-year precipitation is slightly below normal. In southeastern Oregon (including Lake County and Goose Lake Basin), water-year precipitation is above normal.



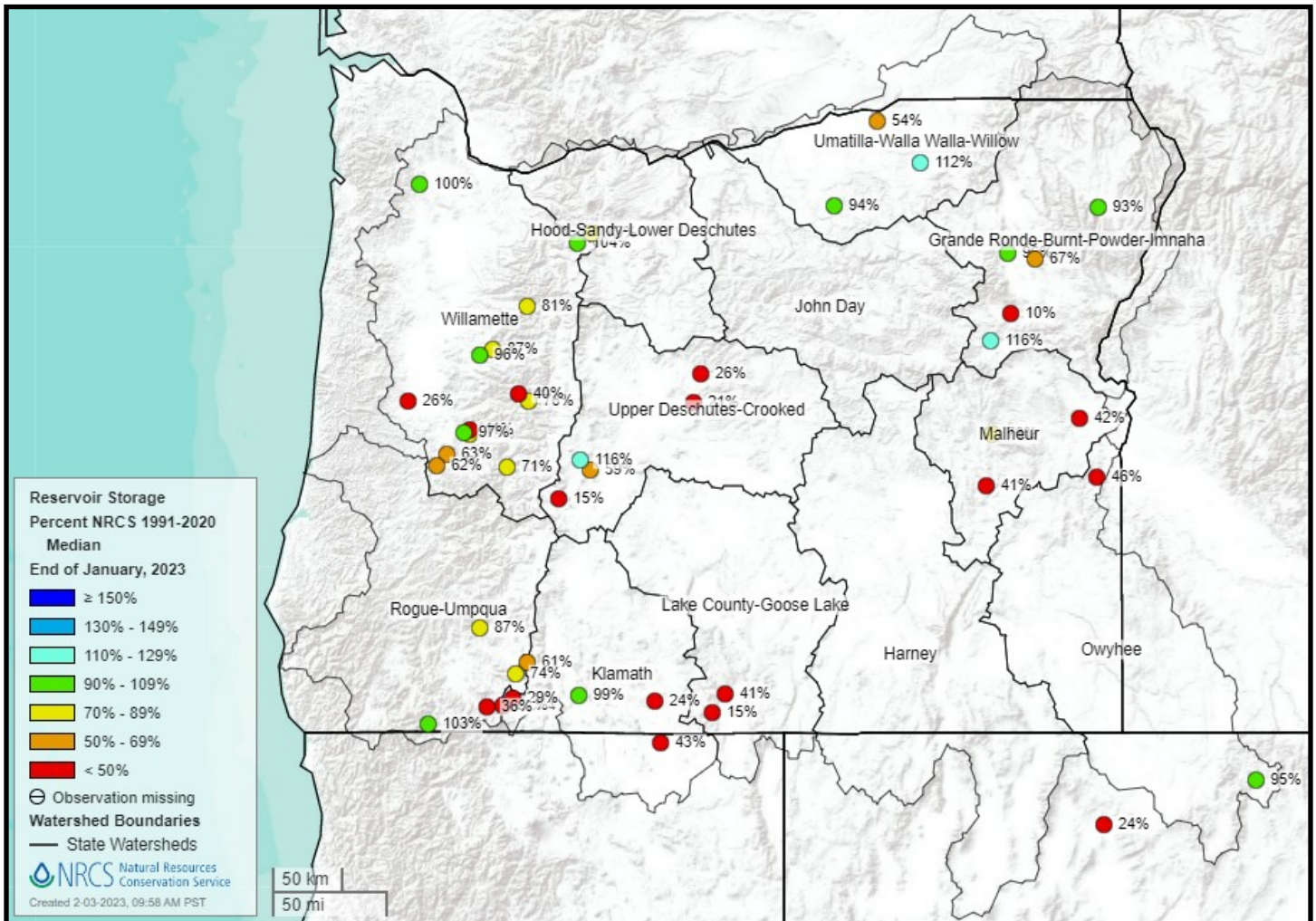
Basin monthly precipitation (% median) as of February 1<sup>st</sup>



Basin water-year precipitation (% median) as of February 1<sup>st</sup>

## Reservoirs

Reservoir storage volumes vary across the state from well-below to slightly above normal. Most reservoirs in and adjacent to the central Cascades are storing volumes below normal. Reservoirs in the Crooked River basin and several in southern Oregon continue to store volumes below to well-below normal. Storage volumes for reservoirs in Malheur County have declined as % normal since January 1 and are now storing volumes below 50% (except Beulah Reservoir). In northern Oregon, reservoirs are storing volumes below to slightly above normal.



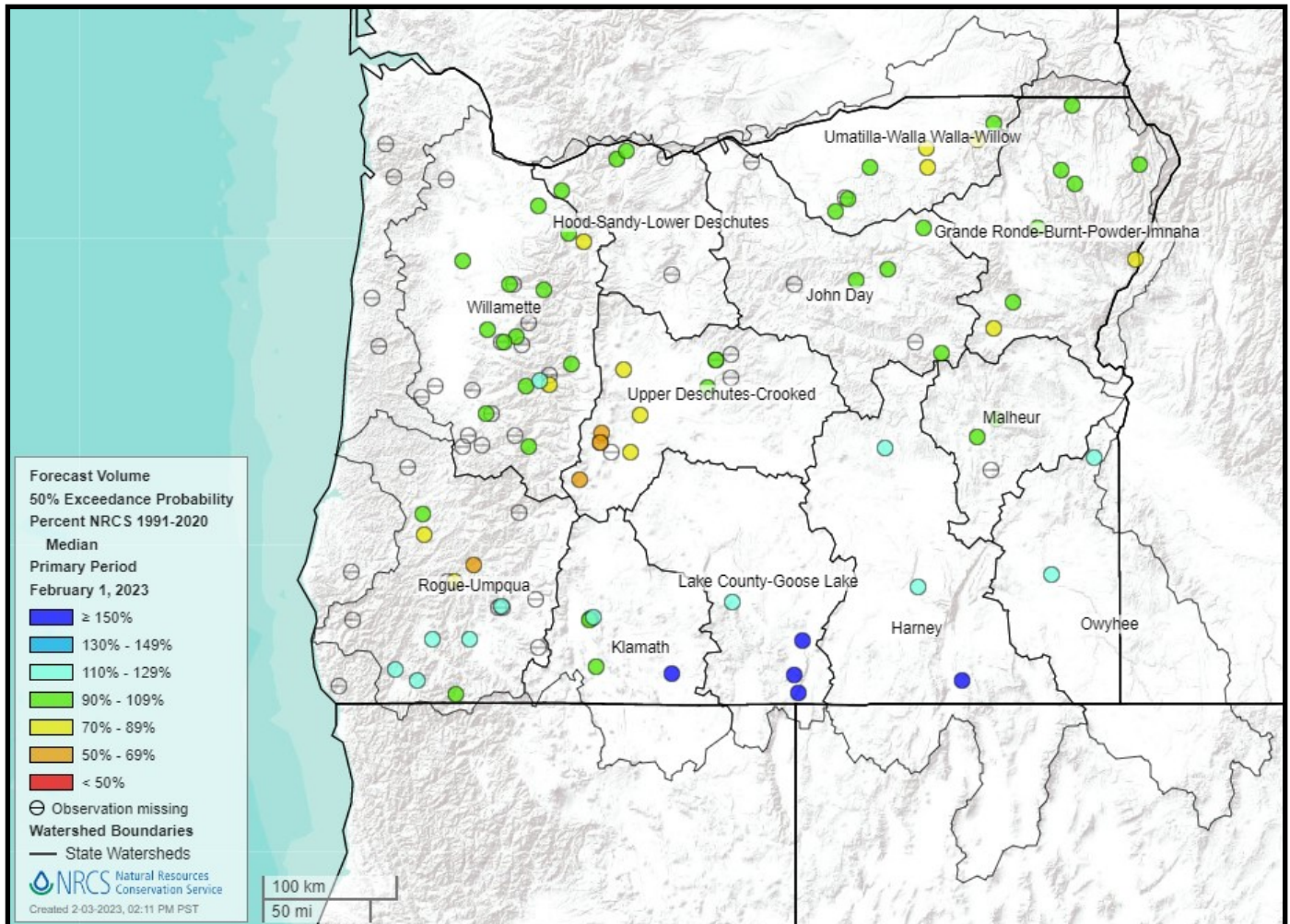
Reservoir storage (% median) as of February 1<sup>st</sup>.

## Streamflow

Volumetric streamflow has declined across the state since January with few exceptions, notably in eastern Klamath Basin and few areas in the Siskiyou Mountains where volumetric streamflow is near to above normal. Most stream gauge sites in the Cascades and central Oregon are below normal. In northeastern and eastern Oregon, volumetric streamflow is below to above normal.

Water supply forecasts (WSFs) for February 1 have mostly declined since January 1, but are still mostly near to above normal across the state (50% exceedance forecast), with notable exceptions in the Deschutes, Umpqua and Umatilla river basins where WSFs are below normal. WSFs in the Rogue River basin and eastern Lake County and Goose Lake Basin have increased slightly and are above to well-above normal. Note that early season WSFs have comparatively low skill since much of the normal snow accumulation has yet to occur.

View the map for February observed streamflow [here](#).



Streamflow forecast (% median) for the primary period as of February 1st.

# Drought

Nearly 64% of the state is in some drought category (D1-D4), with 15% of the state in extreme to exceptional drought (D3-D4). Areas of the state in some drought category have increased from 60% in early January, while the area of the state affected by D3-D4 drought has declined from 26%.

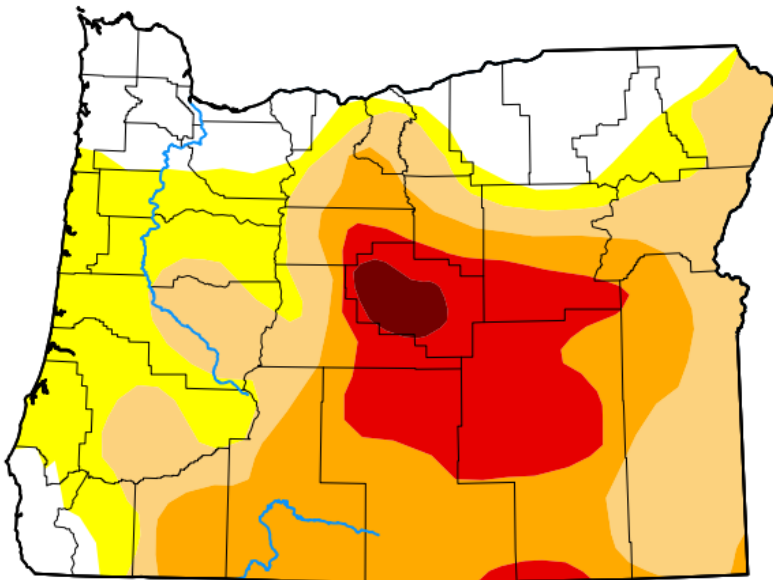
Storm impacts in the first half of January have contributed to drought improvement from extreme (D3) to severe drought (D2) for many areas in Klamath, Lake and Harney Counties. Severe to exceptional drought still persists in central Oregon, notably in Crook County where exceptional drought remains. Moderate drought has expanded into the central Cascades and southern Willamette Basin due to continued drier than normal conditions.

## U.S. Drought Monitor Oregon

**January 31, 2023**  
(Released Thursday, Feb. 2, 2023)  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	16.43	83.57	64.15	39.58	14.98	1.40
<b>Last Week</b> <i>01-24-2023</i>	16.43	83.57	64.15	39.58	14.98	1.40
<b>3 Months Ago</b> <i>11-01-2022</i>	0.44	99.56	80.77	52.92	30.73	1.40
<b>Start of Calendar Year</b> <i>01-03-2023</i>	13.46	86.54	59.75	46.03	26.18	1.40
<b>Start of Water Year</b> <i>09-27-2022</i>	0.42	99.58	68.05	52.42	30.73	1.40
<b>One Year Ago</b> <i>02-01-2022</i>	4.87	95.13	88.12	74.05	42.05	16.22



**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:**

Rocky Bilotta  
NCEI/NOAA

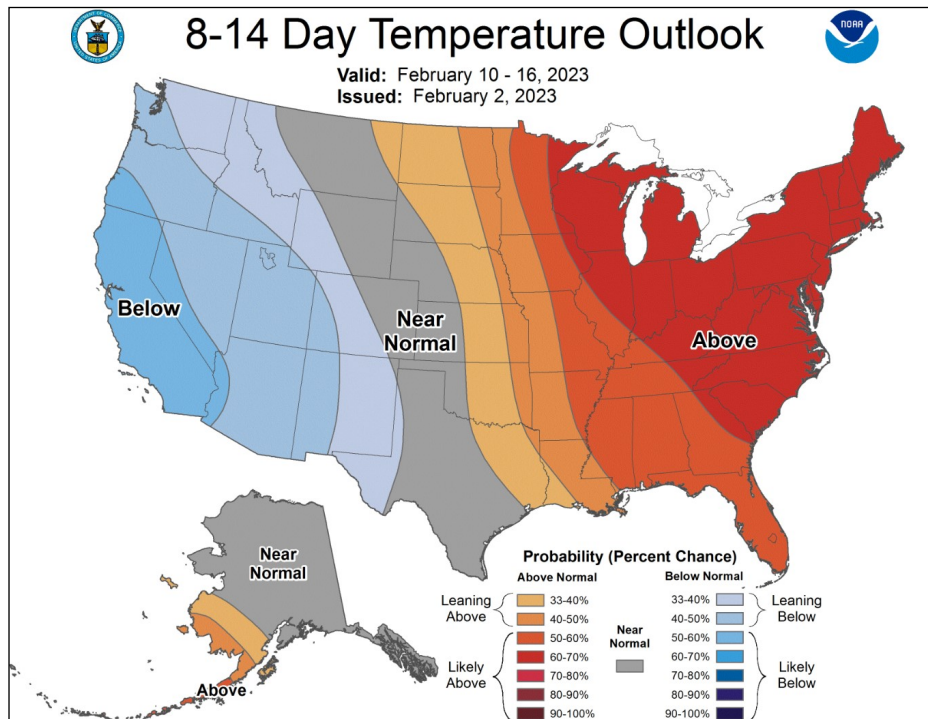
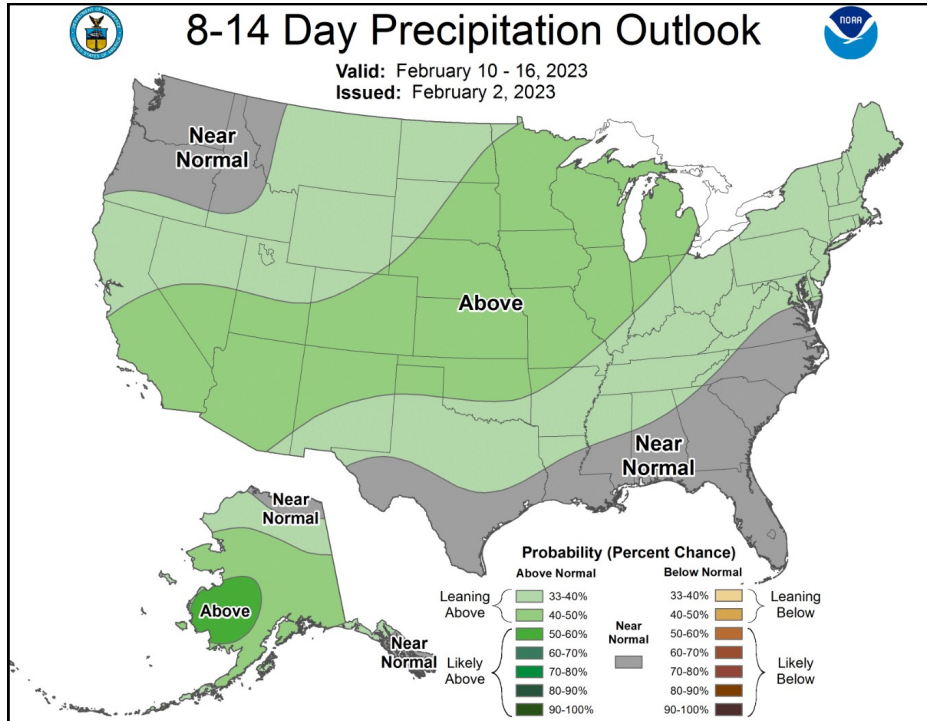


[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)



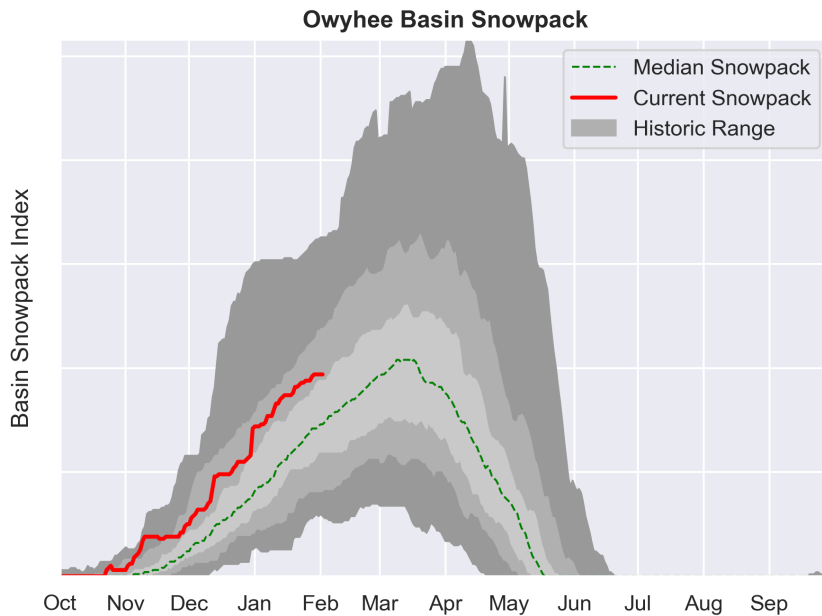
## 8-14 Day Outlook

The Climate Prediction Center’s 8-14 Day Outlook shows likely near-normal precipitation conditions for most Oregon with a slight probability of above normal precipitation along the southern border. In addition, there is a slight to moderate probability of below normal temperatures across the state.



# Owyhee Basin Summary

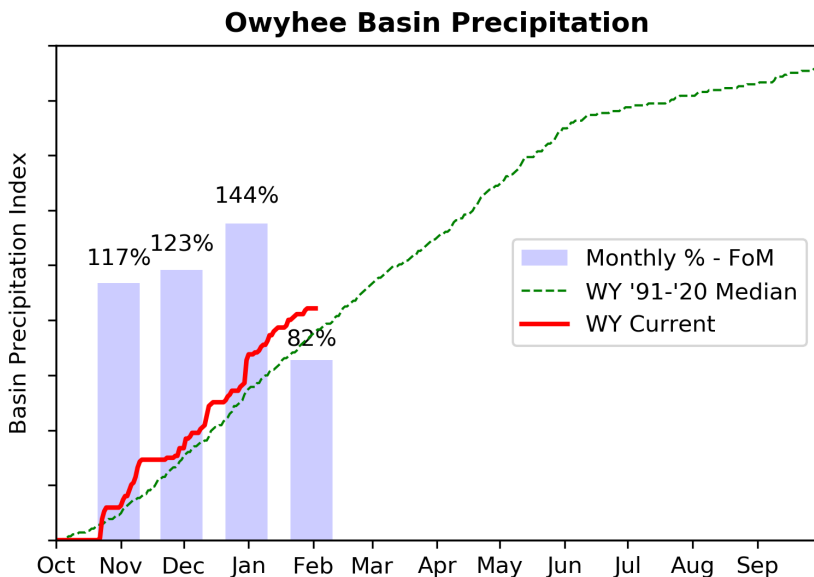
## SNOWPACK



► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 128% of median. This is lower than last month when the basin snowpack was 164% of median.

## PRECIPITATION



► View precipitation for individual sites by accessing the basin data report [here](#).

FoM = First of Month

January precipitation is below normal at 82% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 113% of median.

## RESERVOIR STORAGE

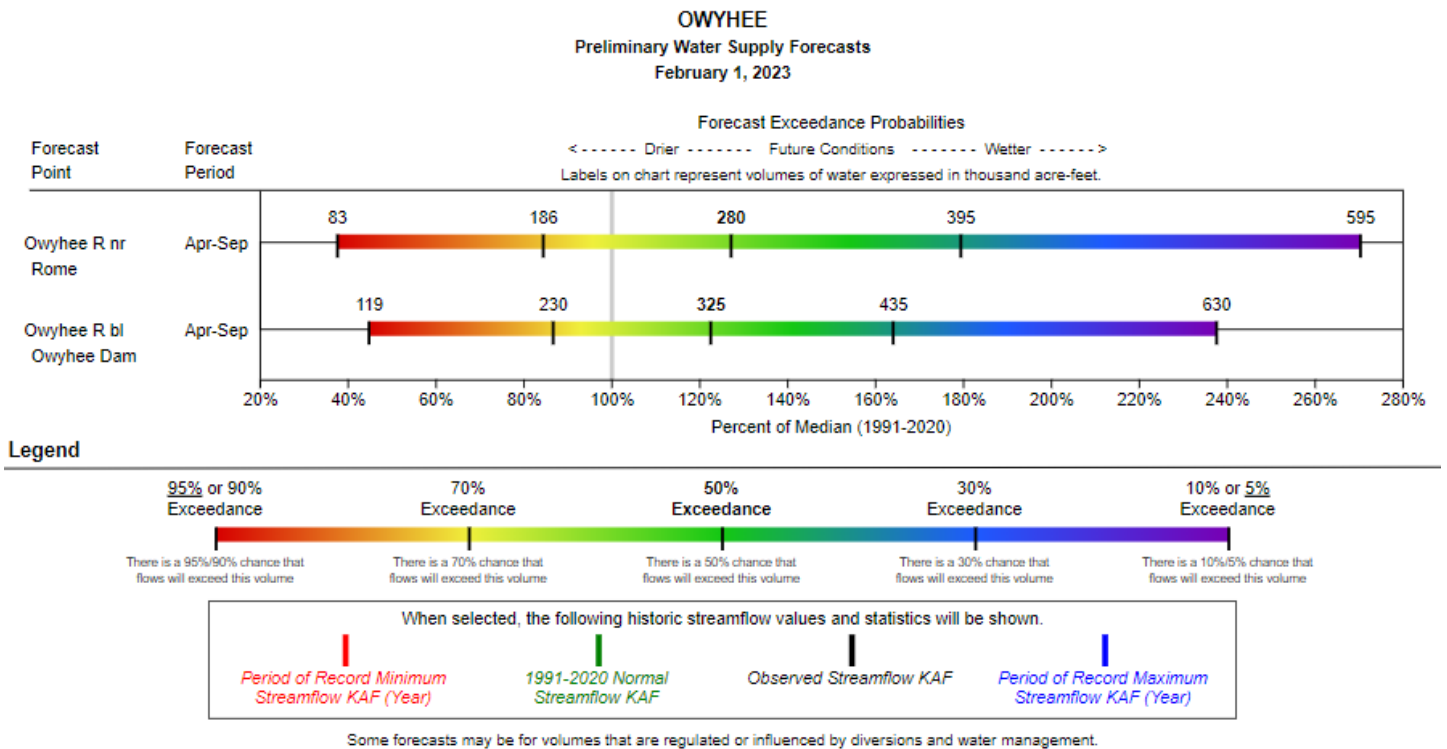
Reservoir storage across the basin is currently below normal. As of February 1, storage at Lake Owyhee Reservoir is 46% of median and 95% of median at Wild Horse Reservoir .

Basinwide Summary: February 1, 2023 (Medians based On 1991-2020 reference period)		Reservoir Storage Summary For the End of January 2023								
Owyhee		Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Lake Owyhee		119.4	144.1	258.8	715.0	17%	20%	36%	46%	56%
Wild Horse Reservoir		29.1	35.3	30.5	71.5	41%	49%	43%	95%	116%
<b>Basin Index</b>						<b>19%</b>	<b>23%</b>	<b>37%</b>	<b>51%</b>	<b>62%</b>
# of reservoirs						2	2	2	2	2

## STREAMFLOW FORECAST

The April through September streamflow forecasts in the basin range from 123% to 127% of median.

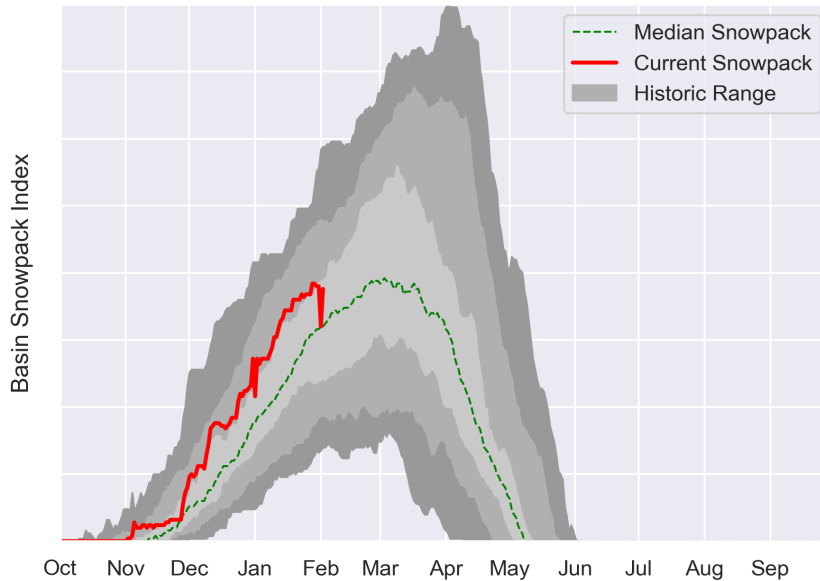
For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).



# Malheur Basin Summary

## SNOWPACK

Malheur Basin Snowpack

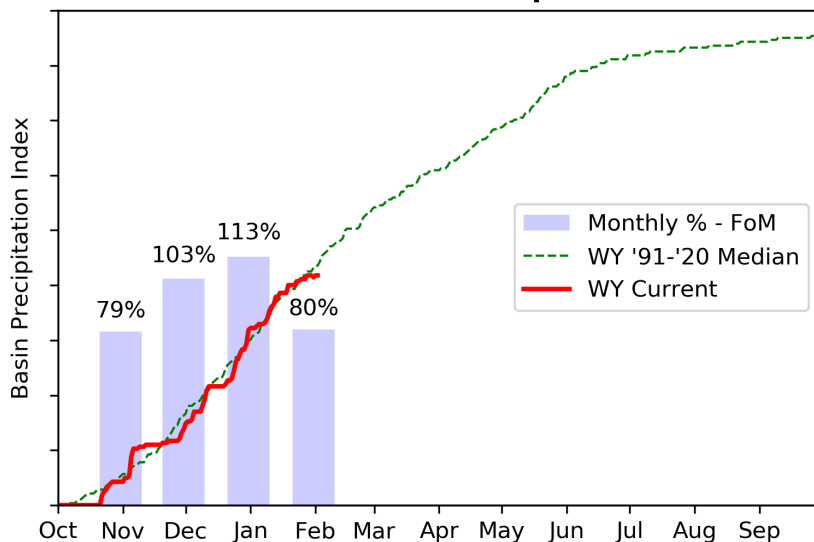


► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 128% of median. This is higher than last month when the basin snowpack was 121% of median. Note: 1 site with absent data between the 1st of each months results in some chart noise.

## PRECIPITATION

Malheur Basin Precipitation



► View precipitation for individual sites by accessing the basin data report [here](#).

FoM = First of Month

January precipitation is below normal at 80% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 96% of median.

## RESERVOIR STORAGE

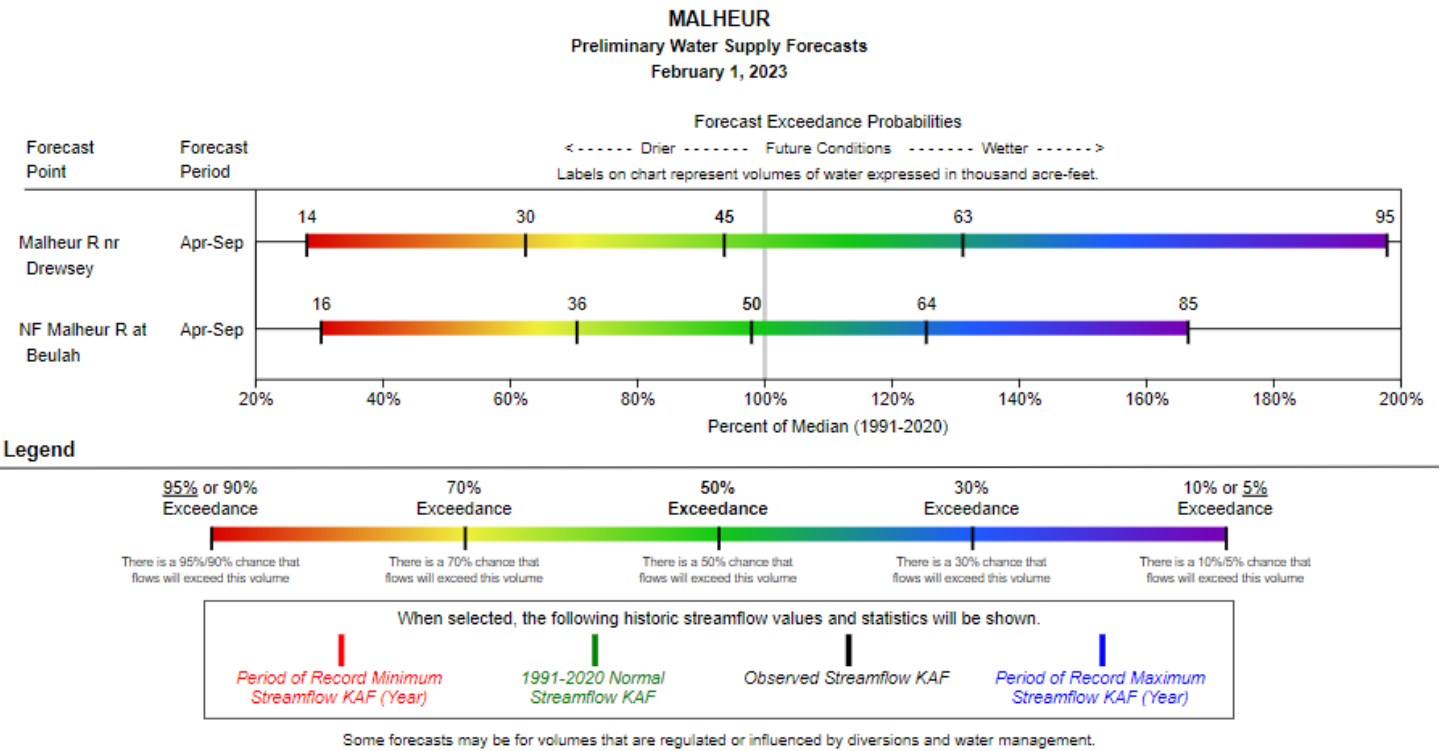
Reservoir storage across the basin is currently below normal. As of February 1, storage ranges from 41% at Warm Springs Reservoir to 76% of median at Beulah Reservoir.

Malheur	Current	Last Year	Median	Capacity	Current %	Last Year %	Median %	Current %	Last Year %
	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Median	Median
Beulah	12.7	12.6	16.7	59.2	21%	21%	28%	76%	76%
Warm Springs	10.7	13.3	26.5	169.6	6%	8%	16%	41%	50%
Bully Creek	4.5	7.5	10.7	23.7	19%	32%	45%	42%	70%
<b>Basin Index</b>					<b>11%</b>	<b>13%</b>	<b>21%</b>	<b>52%</b>	<b>62%</b>
# of reservoirs					3	3	3	3	3

## STREAMFLOW FORECAST

Volumetric streamflow forecasts are near normal and range from 94% to 98% as of February 1.

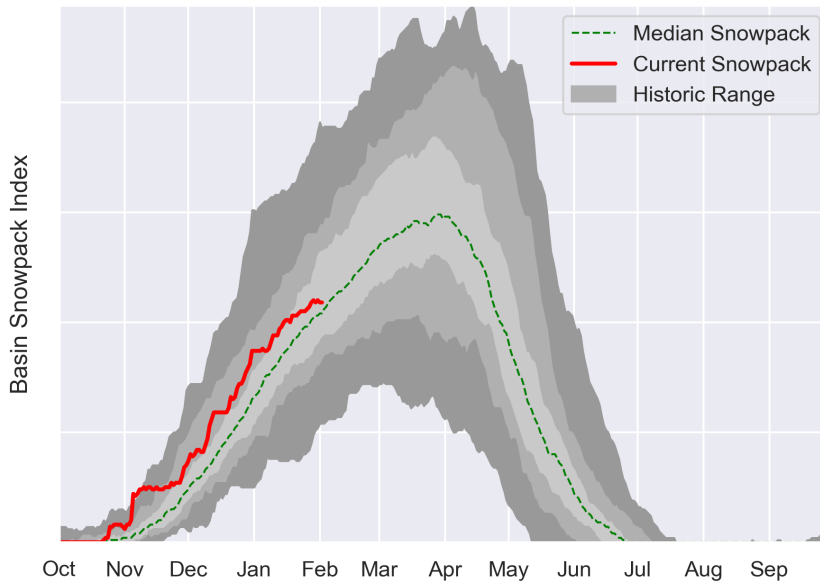
For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).



# Grand Ronde, Burnt, Powder, Imnaha Basin Summary

## SNOWPACK

Grande Ronde-Burnt-Powder-Imnaha Basin Snowpack

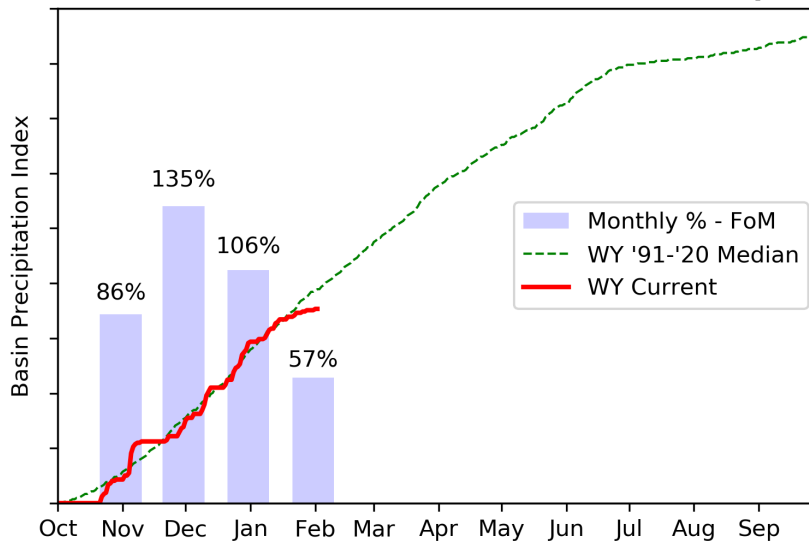


► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 107% of median. This is lower than last month when the basin snowpack was 132% of median.

## PRECIPITATION

Grande Ronde-Burnt-Powder-Imnaha Basin Precipitation



► View precipitation for individual sites by accessing the basin data report [here](#).

FoM = First of Month

January precipitation is well below normal at 57% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 93% of median.

## RESERVOIR STORAGE

As of February 1, storage at major reservoirs in the basin ranges from 10% of median at Phillips Lake to 116% of median at Unity Lake.

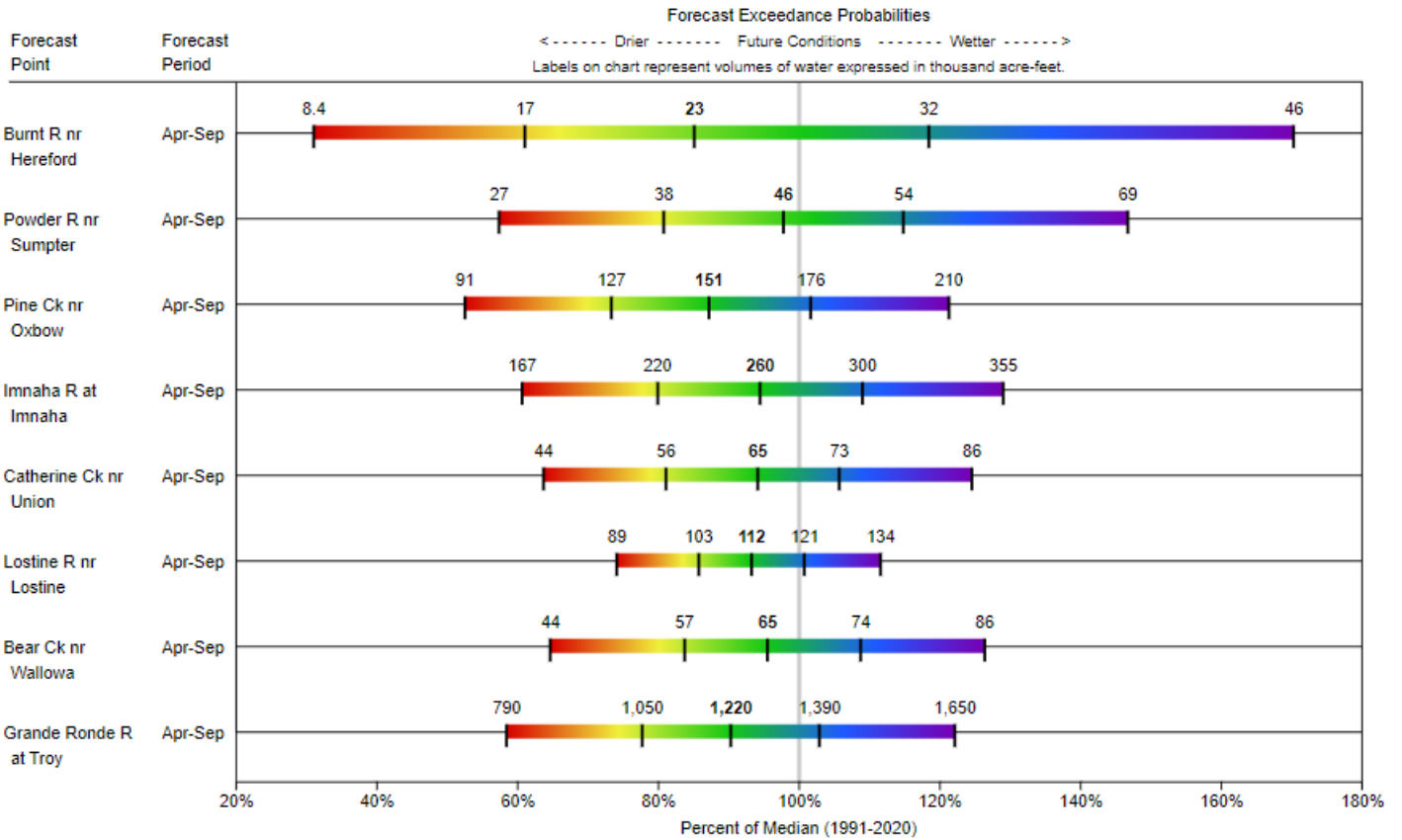
<b>Grande Ronde-Burnt-Powder-Imnaha</b>	<b>Current (KAF)</b>	<b>Last Year (KAF)</b>	<b>Median (KAF)</b>	<b>Capacity (KAF)</b>	<b>Current % Capacity</b>	<b>Last Year % Capacity</b>	<b>Median % Capacity</b>	<b>Current % Median</b>	<b>Last Year % Median</b>
Unity	11.4	6.9	9.8	25.5	45%	27%	38%	116%	70%
Brownlee Reservoir		1026.1	1230.0	1420.0		72%	87%		83%
Wallowa Lake	14.9	14.9	16.0	37.5	40%	40%	43%	93%	93%
Phillips Lake	2.3	1.4	23.5	73.5	3%	2%	32%	10%	6%
Wolf Creek	2.6	1.6	2.7	11.1	23%	15%	24%	96%	61%
Thief Valley	9.1	4.7	13.5	13.3	68%	35%	101%	67%	35%
<b>Basin Index</b>					<b>25%</b>	<b>67%</b>	<b>82%</b>	<b>62%</b>	<b>81%</b>
# of reservoirs					5	6	6	5	6

## STREAMFLOW FORECAST

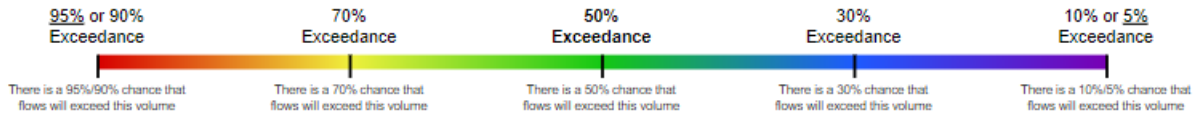
The April through September streamflow forecasts in the basin range from 85% to 98% of median.

For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).

**GRANDE RONDE-BURNT-POWDER-IMNAHA**  
 Preliminary Water Supply Forecasts  
 February 1, 2023



**Legend**



When selected, the following historic streamflow values and statistics will be shown.

<i>Period of Record Minimum Streamflow KAF (Year)</i>	<i>1991-2020 Normal Streamflow KAF</i>	<i>Observed Streamflow KAF</i>	<i>Period of Record Maximum Streamflow KAF (Year)</i>
---	--	--------------------------------	---

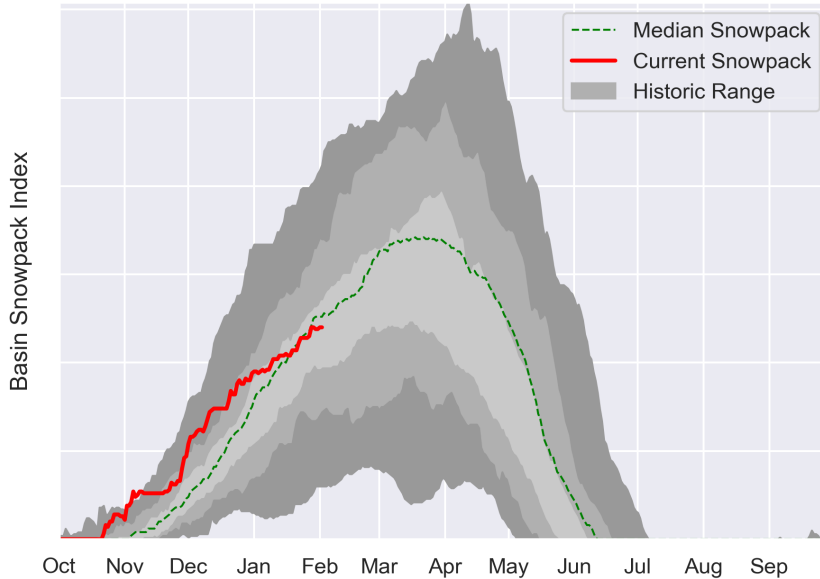
Some forecasts may be for volumes that are regulated or influenced by diversions and water management.



# Umatilla, Walla Walla, Willow Basin Summary

## SNOWPACK

Umatilla-Walla Walla-Willow Basin Snowpack

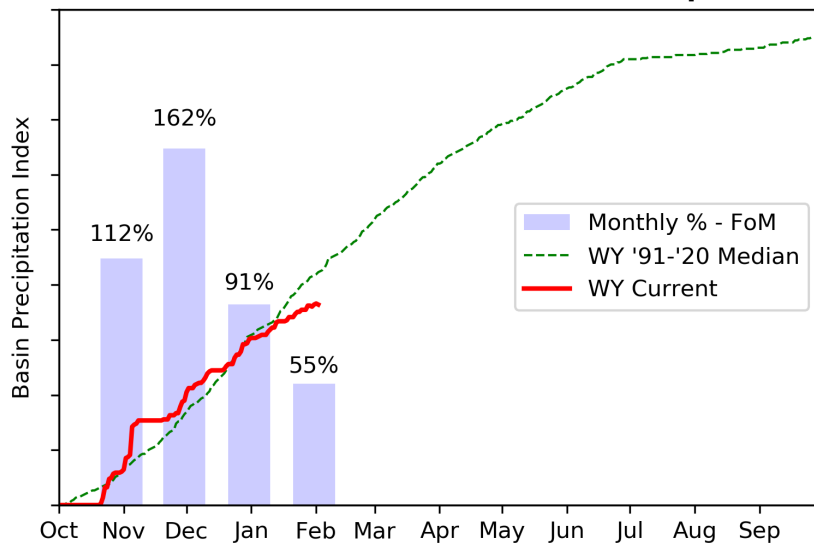


► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 97% of median. This is lower than last month when the basin snowpack was 122% of median.

## PRECIPITATION

Umatilla-Walla Walla-Willow Basin Precipitation



► View precipitation for individual sites by accessing the basin data report [here](#).

FoM = First of Month

January precipitation is well below normal at 55% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 93% of median.

## RESERVOIR STORAGE

As of February 1, storage at major reservoirs in the basin ranges from 54% of median at Cold Springs Reservoir to 112% of median at McKay Reservoir.

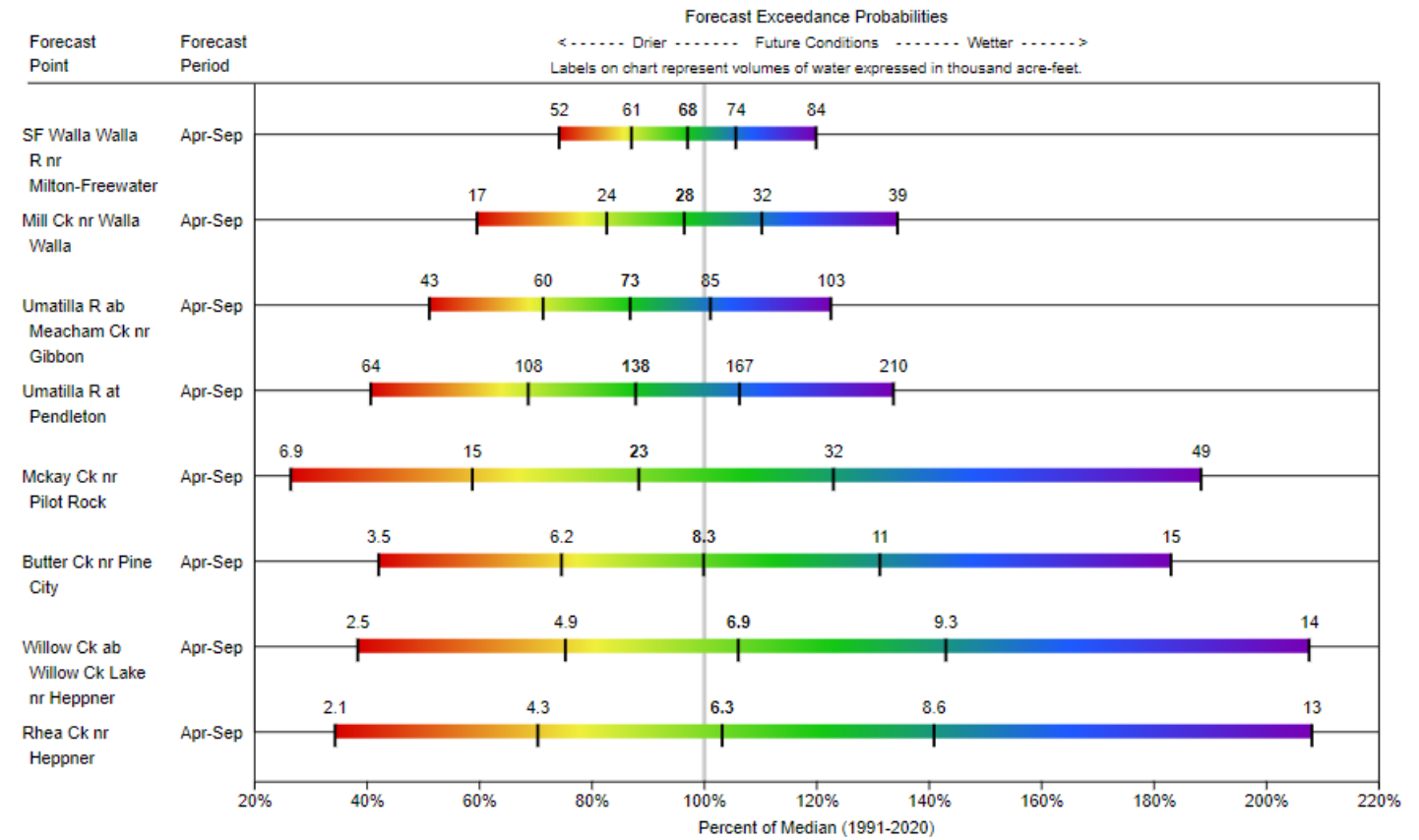
Umatilla-Walla Walla-Willow	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Mckay	28.7	24.0	25.7	71.5	40%	34%	36%	112%	93%
Willow Creek	4.1	4.4	4.3	9.8	42%	45%	44%	94%	102%
Cold Springs	6.0	8.2	11.1	38.6	16%	21%	29%	54%	74%
<b>Basin Index</b>					<b>32%</b>	<b>30%</b>	<b>34%</b>	<b>94%</b>	<b>89%</b>
# of reservoirs					3	3	3	3	3

## STREAMFLOW FORECAST

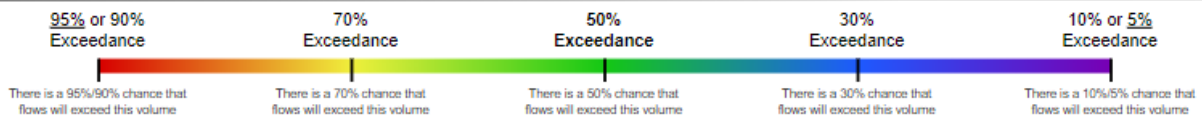
The April through September streamflow forecasts in the basin range from 87% to 106% of median.

*For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).*

UMATILLA-WALLA WALLA-WILLOW  
 Preliminary Water Supply Forecasts  
 February 1, 2023



Legend



When selected, the following historic streamflow values and statistics will be shown.

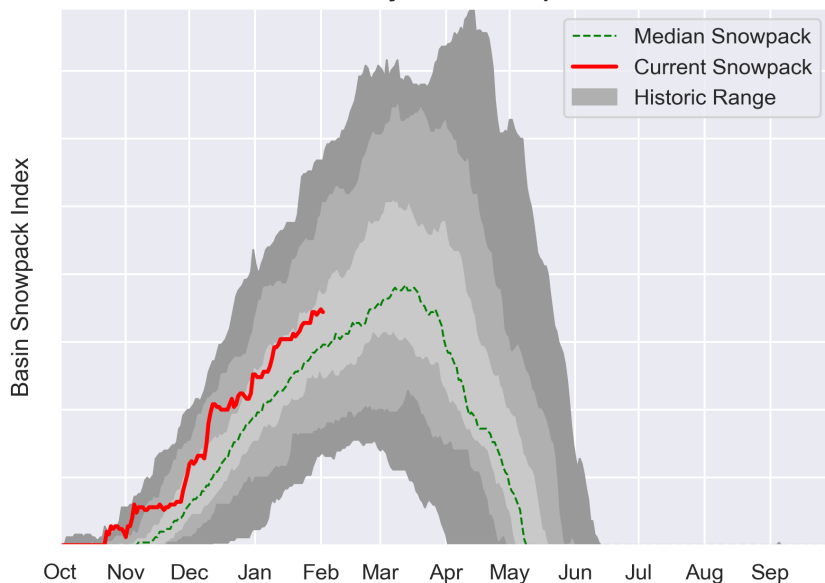
<i>Period of Record Minimum Streamflow KAF (Year)</i>	<i>1991-2020 Normal Streamflow KAF</i>	<i>Observed Streamflow KAF</i>	<i>Period of Record Maximum Streamflow KAF (Year)</i>

Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

# John Day Basin Summary

## SNOWPACK

John Day Basin Snowpack

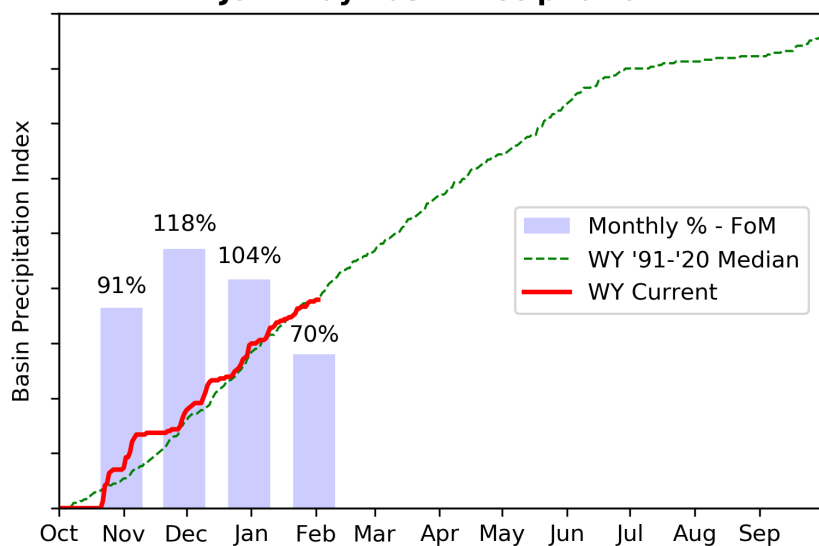


► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 110% of median. This is lower than last month when the basin snowpack was 133% of median.

## PRECIPITATION

John Day Basin Precipitation



► View precipitation for individual sites by accessing the basin data report [here](#).

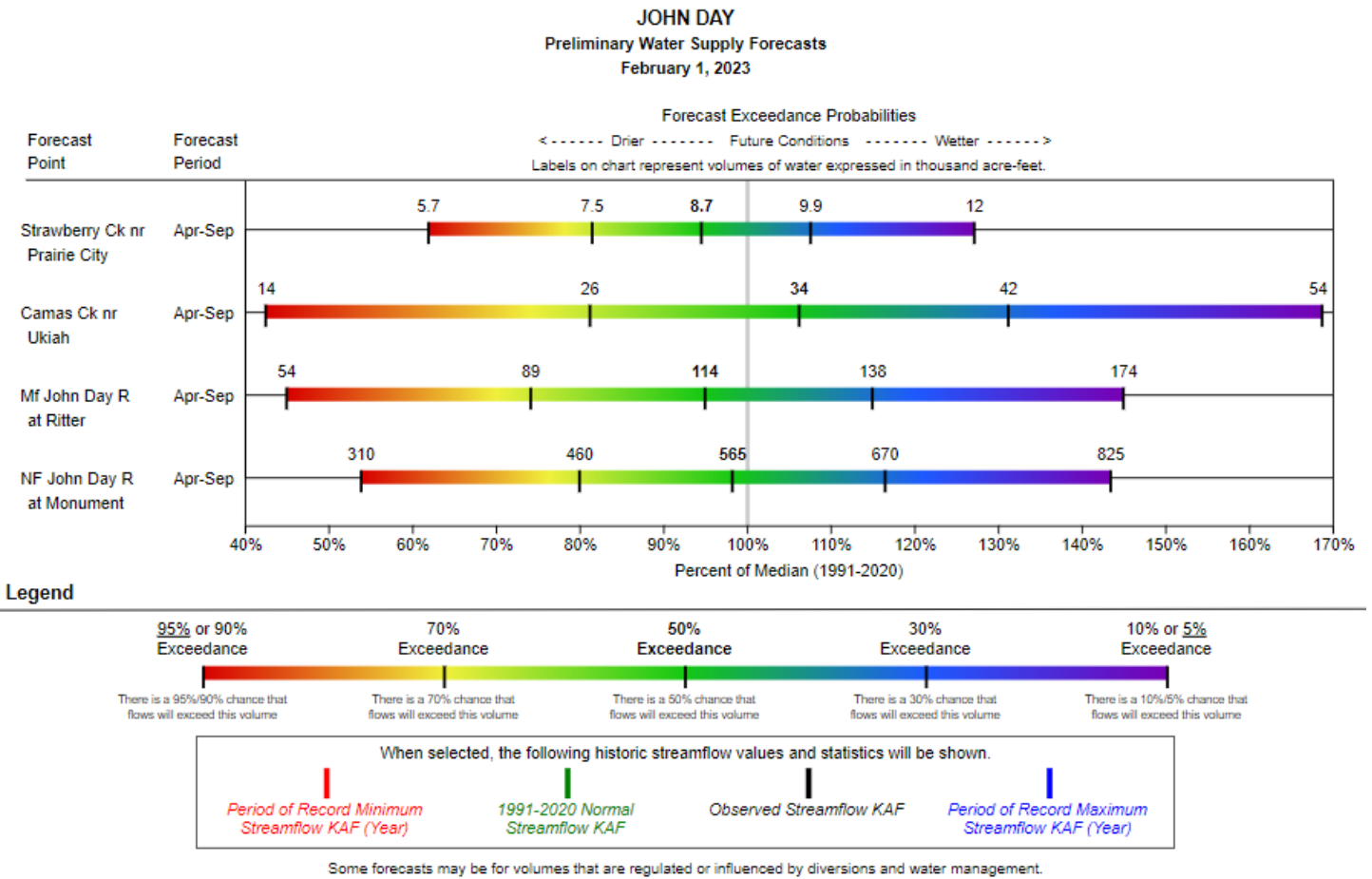
FoM = First of Month

January precipitation is below normal at 70% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 94% of median.

## STREAMFLOW FORECAST

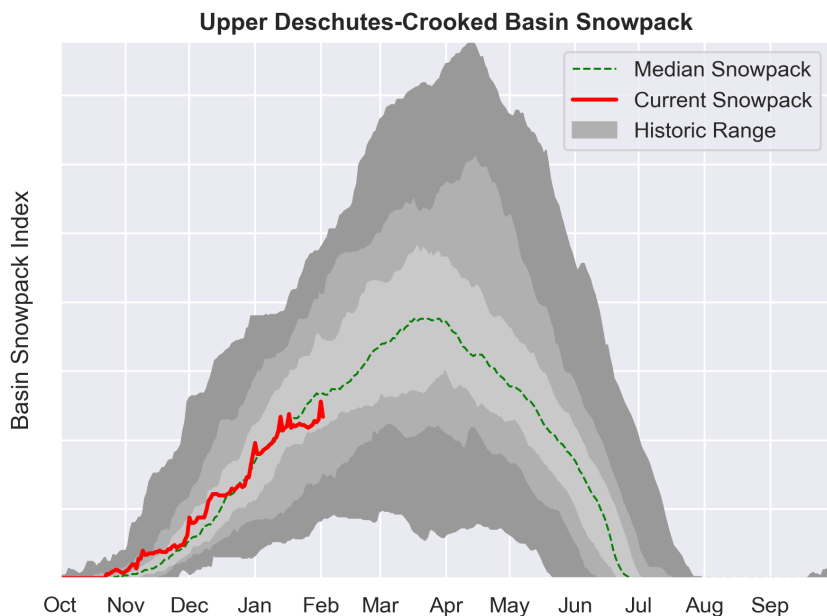
The April through September streamflow forecasts in the basin range from 95% to 106% of median.

For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).



# Upper Deschutes, Crooked Basin Summary

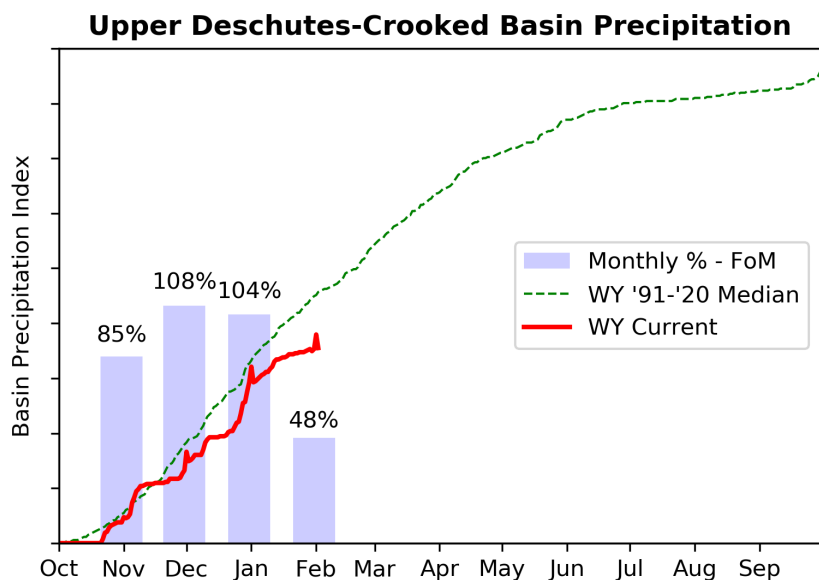
## SNOWPACK



► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 92% of median. This is lower than last month when the basin snowpack was 114% of median. *Note: 1 site with absent data between the 1st of each months results in some chart noise.*

## PRECIPITATION



► View precipitation for individual sites by accessing the basin data report [here](#).

FoM = First of Month

January precipitation is well below normal at 48% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 80% of median. *Note: 1 site with absent data between the 1st of each months results in some chart noise.*

## RESERVOIR STORAGE

As of February 1, storage at major reservoirs in the basin ranges from 15% of median at Crescent Lake to 116% of median at Crane Prairie Reservoir.

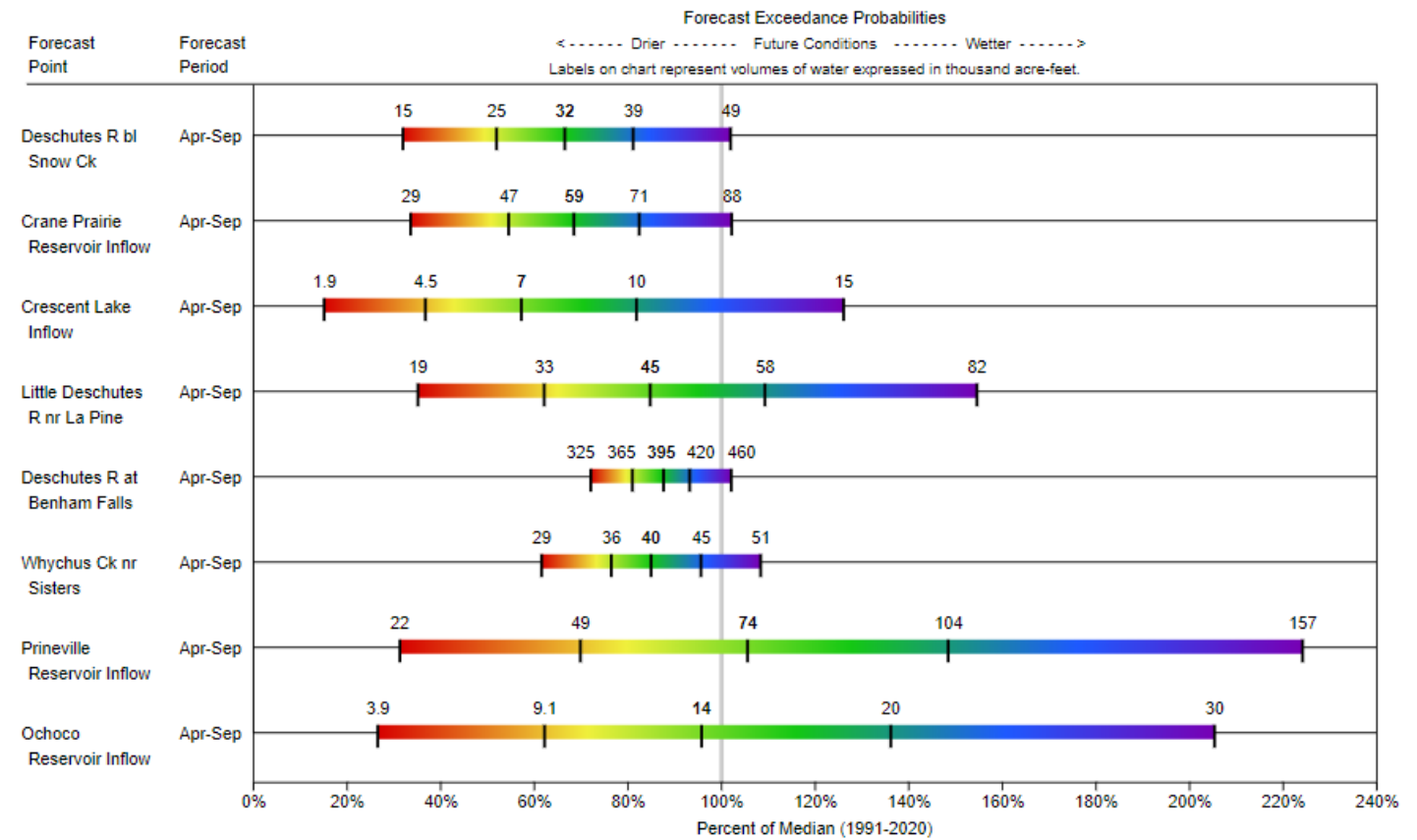
<b>Upper Deschutes-Crooked</b>	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Prineville	18.2	27.7	85.0	148.6	12%	19%	57%	21%	33%
Wickiup	99.0	81.6	166.7	200.0	50%	41%	83%	59%	49%
Crescent Lake	7.9	8.4	53.5	86.9	9%	10%	62%	15%	16%
Crane Prairie	46.1	44.7	39.6	55.3	83%	81%	72%	116%	113%
Ochoco	5.0	3.7	19.3	44.2	11%	8%	44%	26%	19%
<b>Basin Index</b>					<b>33%</b>	<b>31%</b>	<b>68%</b>	<b>48%</b>	<b>46%</b>
# of reservoirs					5	5	5	5	5

## STREAMFLOW FORECAST

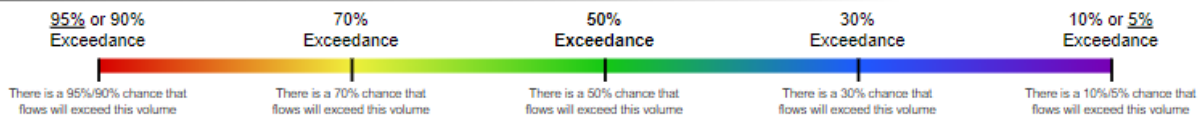
The April through September streamflow forecasts in the basin range from 57% to 106% of median.

For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).

UPPER DESCHUTES-CROOKED  
Preliminary Water Supply Forecasts  
February 1, 2023



Legend



When selected, the following historic streamflow values and statistics will be shown.

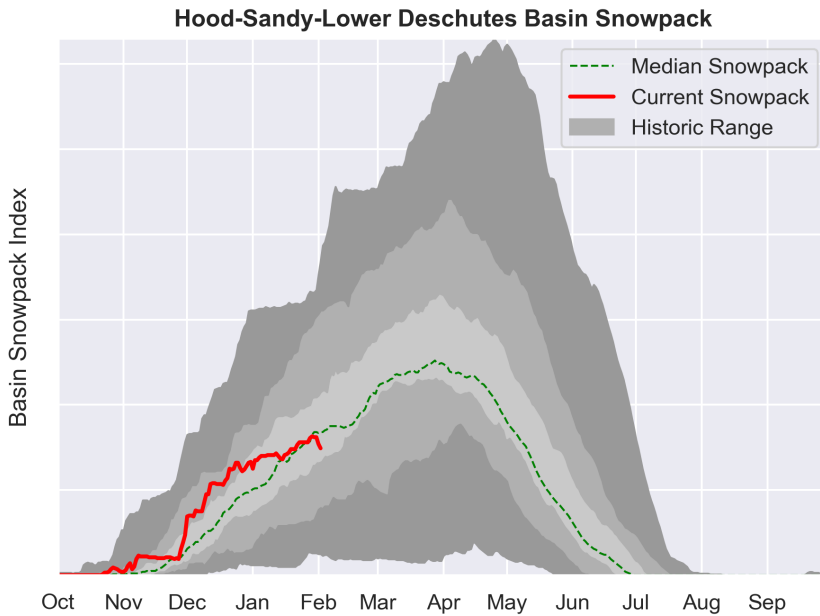
Period of Record Minimum Streamflow KAF (Year)	1991-2020 Normal Streamflow KAF	Observed Streamflow KAF	Period of Record Maximum Streamflow KAF (Year)
--	---------------------------------	-------------------------	--

Some forecasts may be for volumes that are regulated or influenced by diversions and water management.



# Hood, Sandy, Lower Deschutes Basin Summary

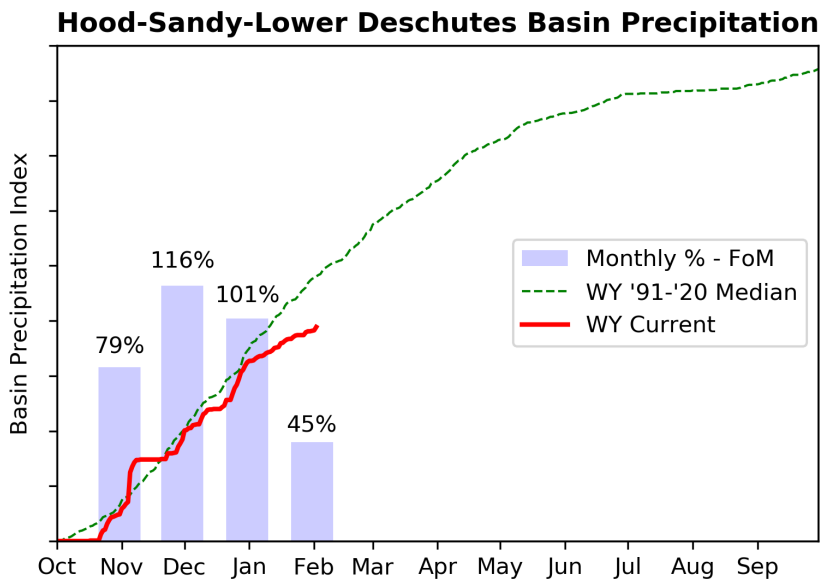
## SNOWPACK



► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 93% of median. This is lower than last month when the basin snowpack was 120% of median.

## PRECIPITATION



► View precipitation for individual sites by accessing the basin data report [here](#).

FoM = First of Month

January precipitation is well below normal at 45% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 80% of median.

## RESERVOIR STORAGE

As of February 1, volumetric storage for Clear Lake is below normal at 73% of median.

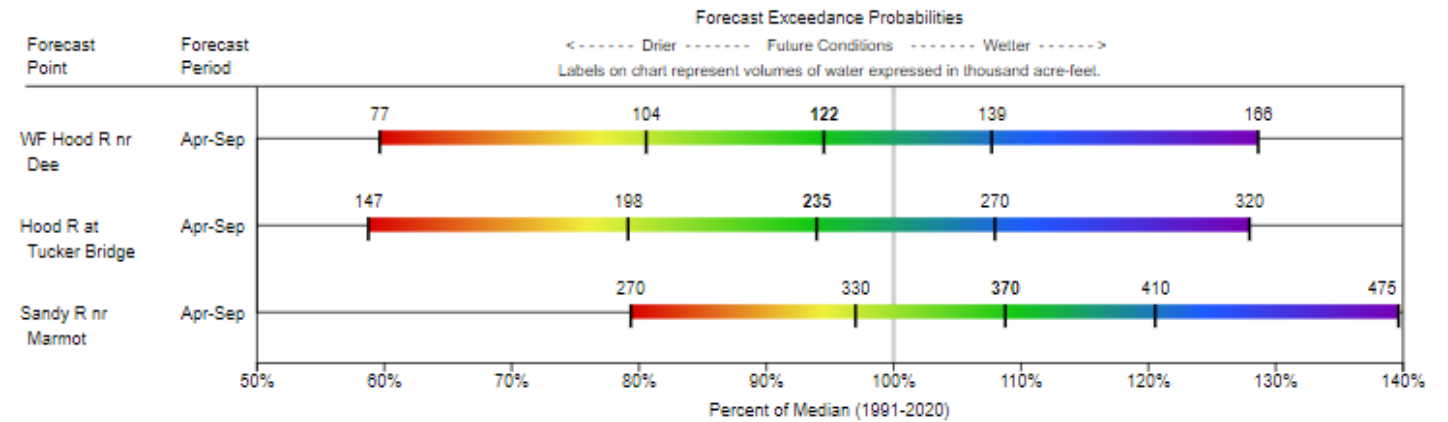
Hood-Sandy-Lower Deschutes		Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Clear Lake		2.0	1.0	2.8	13.1	16%	8%	21%	73%	37%
<b>Basin Index</b>						<b>16%</b>	<b>8%</b>	<b>21%</b>	<b>73%</b>	<b>37%</b>
	# of reservoirs					1	1	1	1	1

## STREAMFLOW FORECAST

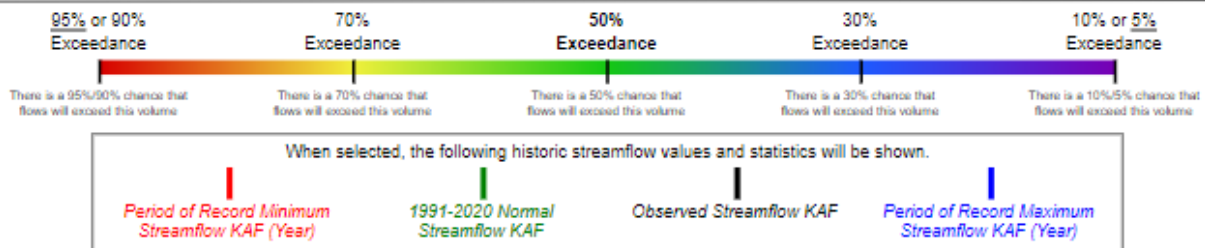
The April through September streamflow forecasts in the basin range from 94% to 109% of median.

For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).

HOOD-SANDY-LOWER DESCHUTES  
Preliminary Water Supply Forecasts  
February 1, 2023



**Legend**

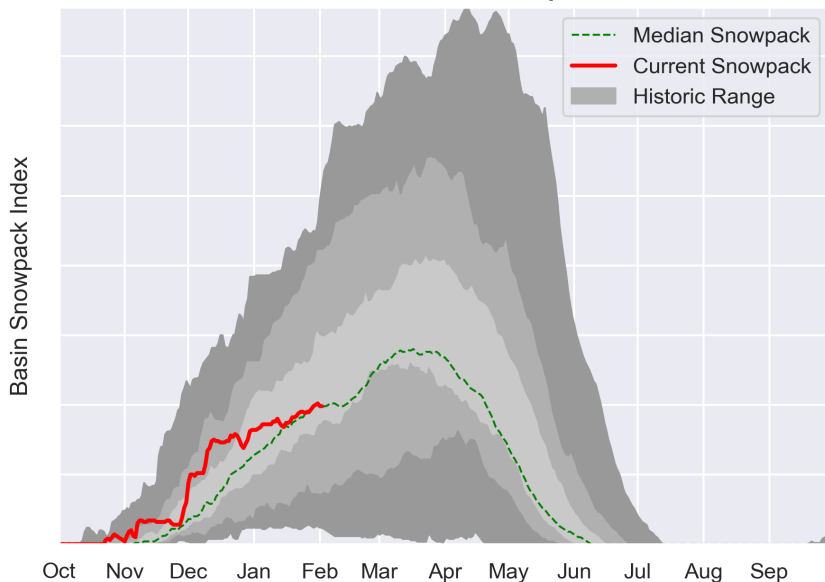


Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

# Willamette Basin Summary

## SNOWPACK

Willamette Basin Snowpack

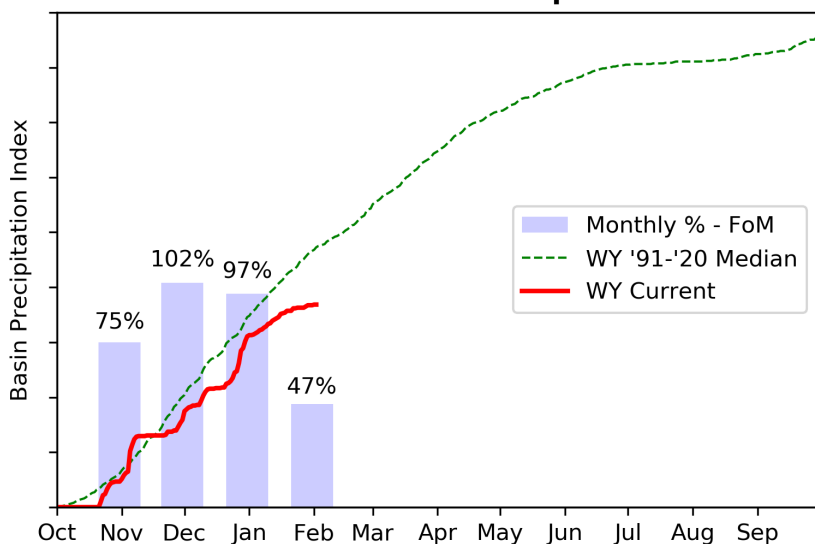


► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 88% of median. This is lower than last month when the basin snowpack was 111% of median.

## PRECIPITATION

Willamette Basin Precipitation



► View precipitation for individual sites by accessing the basin data report [here](#).

FoM = First of Month

January precipitation is well below normal at 47% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 79% of median.

## RESERVOIR STORAGE

As of February 1, storage at major reservoirs in the basin ranges from 11% of median at Fall Creek Reservoir to 104% of median at Timothy Lake.

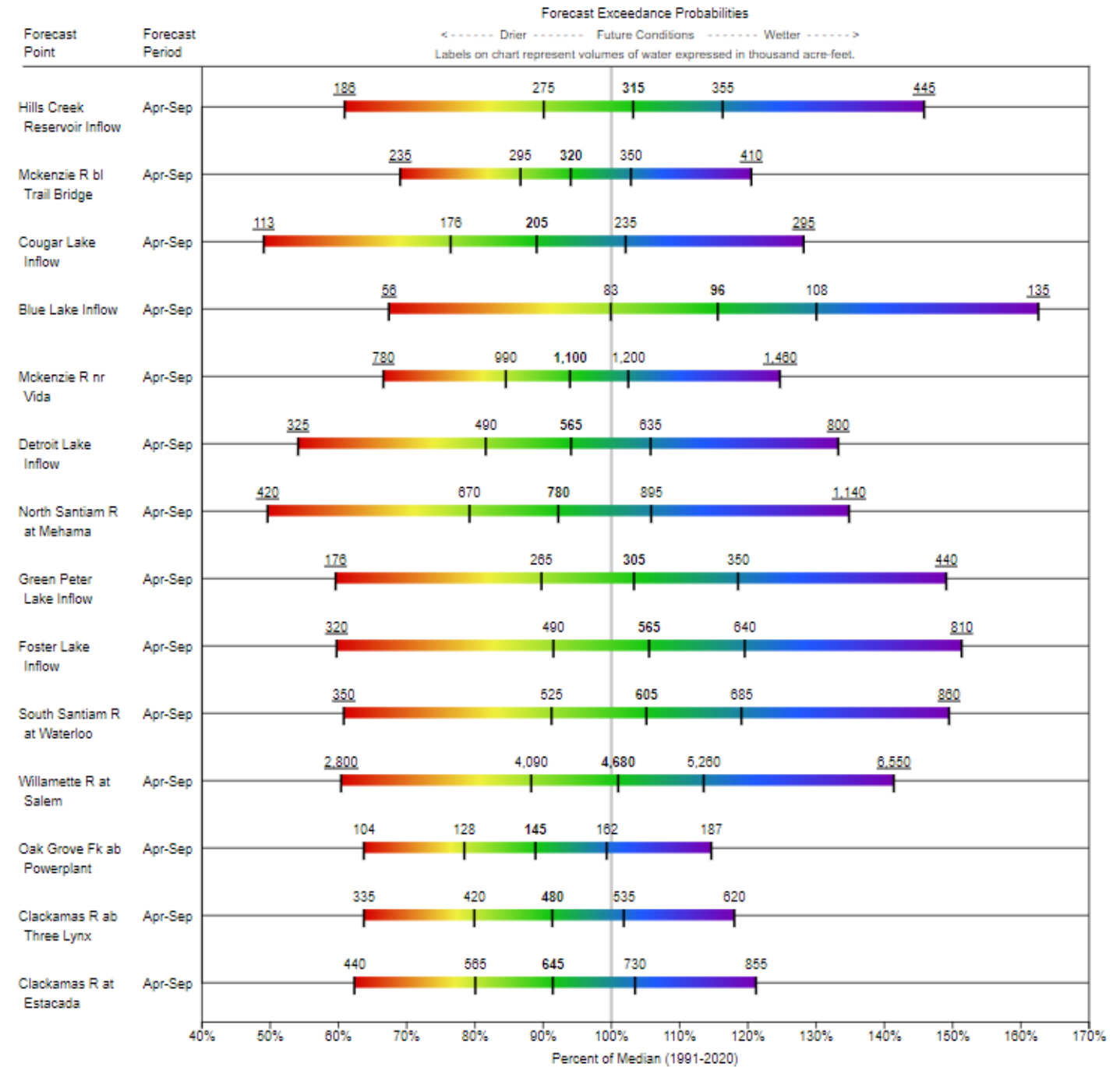
<b>Willamette</b>	<b>Current (KAF)</b>	<b>Last Year (KAF)</b>	<b>Median (KAF)</b>	<b>Capacity (KAF)</b>	<b>Current % Capacity</b>	<b>Last Year % Capacity</b>	<b>Median % Capacity</b>	<b>Current % Median</b>	<b>Last Year % Median</b>
Green Peter	154.9	156.9	179.0	402.8	38%	39%	44%	87%	88%
Cougar	39.0	37.4	51.5	174.9	22%	21%	29%	76%	73%
Fall Creek	1.3	1.3	12.1	116.0	1%	1%	10%	11%	11%
Dorena	7.7	6.7	12.2	72.1	11%	9%	17%	63%	55%
Blue River	3.8	7.1	9.6	82.3	5%	9%	12%	40%	74%
Timothy Lake	54.8	53.9	52.5	63.6	86%	85%	83%	104%	103%
Cottage Grove	3.1	3.4	5.0	31.8	10%	11%	16%	62%	67%
Detroit	145.8	150.8	179.5	426.8	34%	35%	42%	81%	84%
Lookout Point	108.1	108.9	137.0	433.2	25%	25%	32%	79%	79%
Dexter	24.6	24.8	25.4					97%	98%
Henry Hagg Lake	38.0	37.8	37.8	53.3	71%	71%	71%	100%	100%
Hills Creek	70.2	93.7	99.1	279.2	25%	34%	35%	71%	95%
Fern Ridge	2.5	4.2	9.5	97.3	3%	4%	10%	26%	44%
Foster	22.1	24.1	23.0	46.2	48%	52%	50%	96%	105%
<b>Basin Index</b>					<b>29%</b>	<b>30%</b>	<b>35%</b>	<b>81%</b>	<b>85%</b>
# of reservoirs					13	13	13	14	14

## STREAMFLOW FORECAST

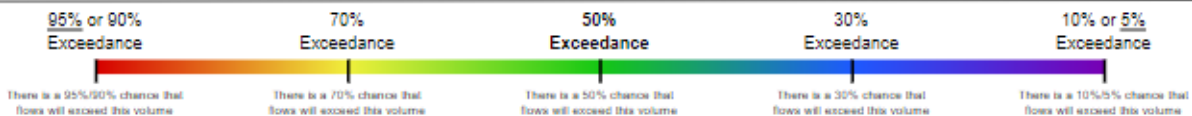
The April through September streamflow forecasts in the basin range from 89% to 116% of median.

For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).

**WILLAMETTE**  
 Preliminary Water Supply Forecasts  
 February 1, 2023



**Legend**



When selected, the following historic streamflow values and statistics will be shown.

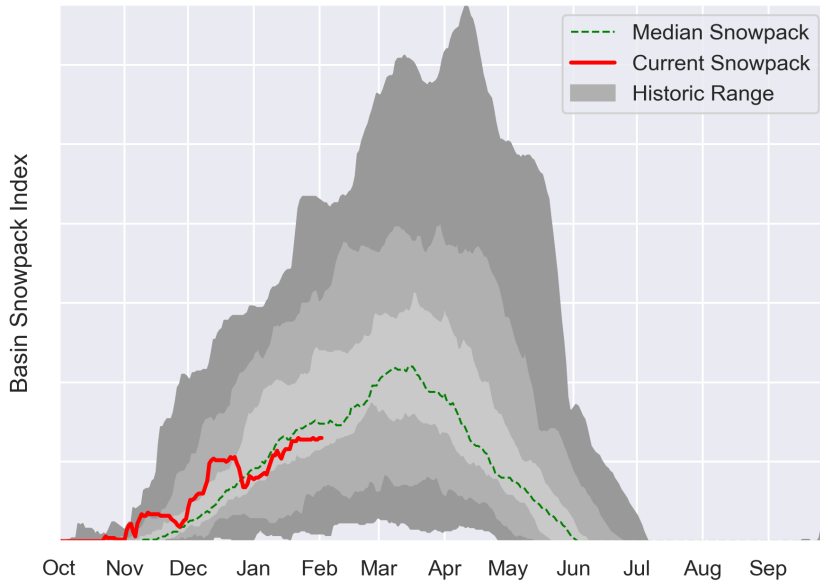
<i>Period of Record Minimum Streamflow KAF (Year)</i>	<i>1991-2020 Normal Streamflow KAF</i>	<i>Observed Streamflow KAF</i>	<i>Period of Record Maximum Streamflow KAF (Year)</i>

Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

# Rogue, Umpqua Basin Summary

## SNOWPACK

Rogue-Umpqua Basin Snowpack

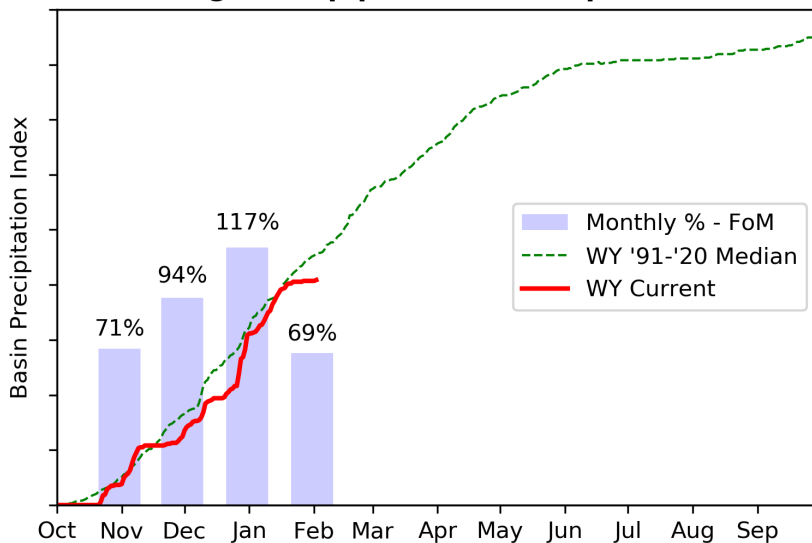


► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 95% of median. This is lower than last month when the basin snowpack was 105% of median.

## PRECIPITATION

Rogue-Umpqua Basin Precipitation



► View precipitation for individual sites by accessing the basin data report [here](#).

FoM = First of Month

January precipitation is below normal at 69% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 86% of median.

## RESERVOIR STORAGE

As of February 1, storage at major reservoirs in the basin ranges from 36% of median at Emigrant Lake to 103% of median at Applegate Lake.

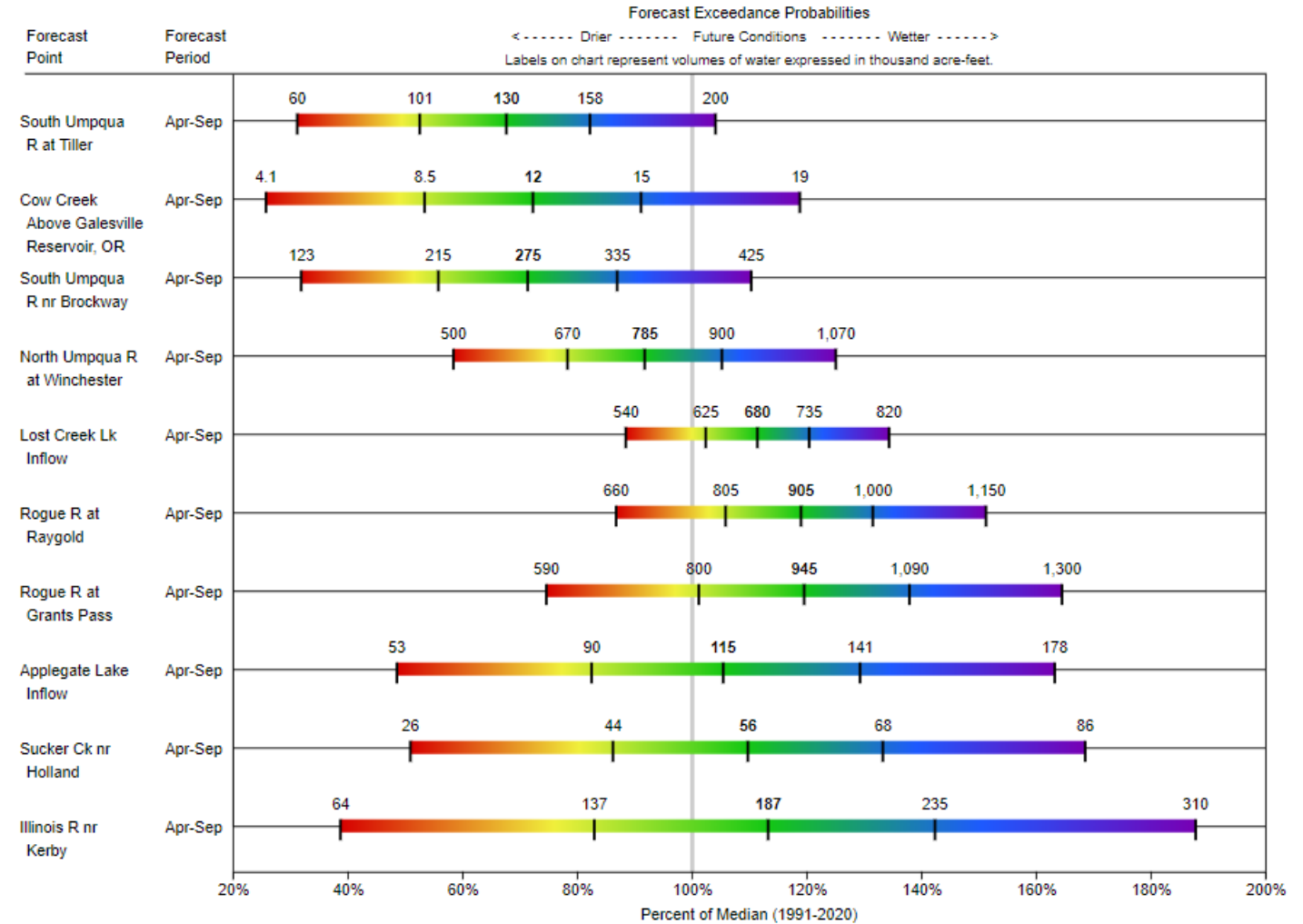
Rogue-Umpqua	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Fish Lake	3.2	2.9	4.3	7.9	40%	37%	54%	74%	67%
Emigrant Lake	7.7	2.7	21.7	39.0	20%	7%	56%	36%	13%
Lost Creek	143.4	86.0	164.1	315.0	46%	27%	52%	87%	52%
Applegate	10.5	10.5	10.2	75.2	14%	14%	14%	103%	103%
<b>Basin Index</b>					<b>38%</b>	<b>23%</b>	<b>46%</b>	<b>82%</b>	<b>51%</b>
# of reservoirs					4	4	4	4	4

## STREAMFLOW FORECAST

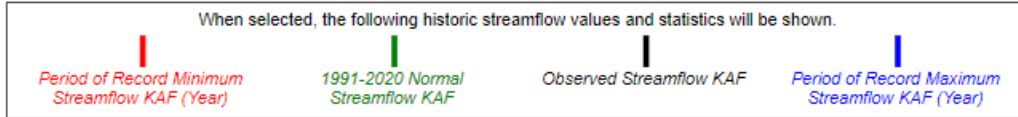
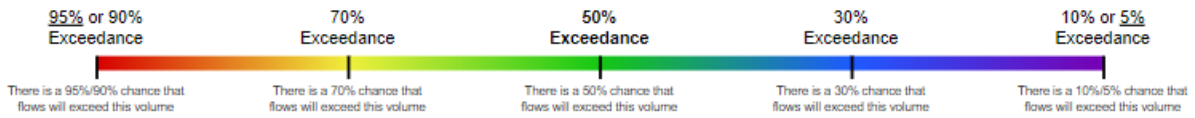
The April through September streamflow forecasts in the basin range from 68% to 120% of median.

For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).

**ROGUE-UMPQUA**  
**Preliminary Water Supply Forecasts**  
**February 1, 2023**



**Legend**



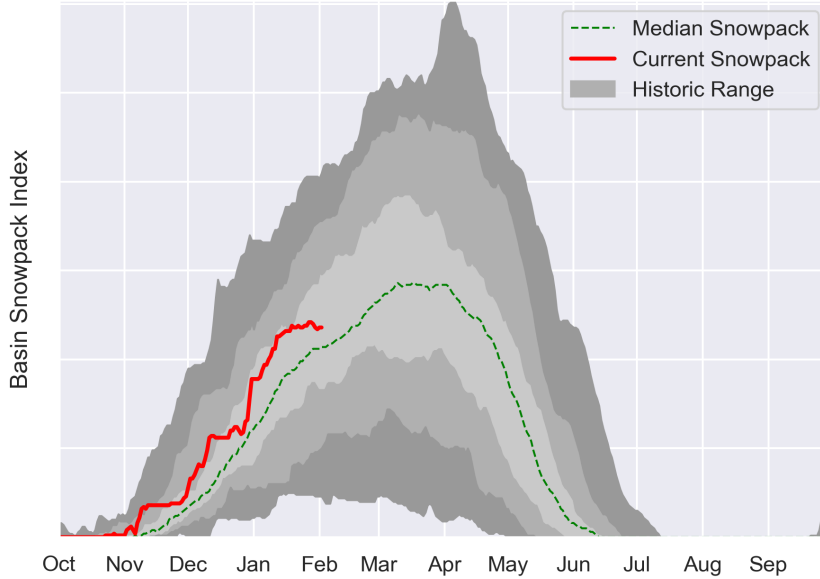
Some forecasts may be for volumes that are regulated or influenced by diversions and water management.



# Klamath Basin Summary

## SNOWPACK

Klamath Basin Snowpack

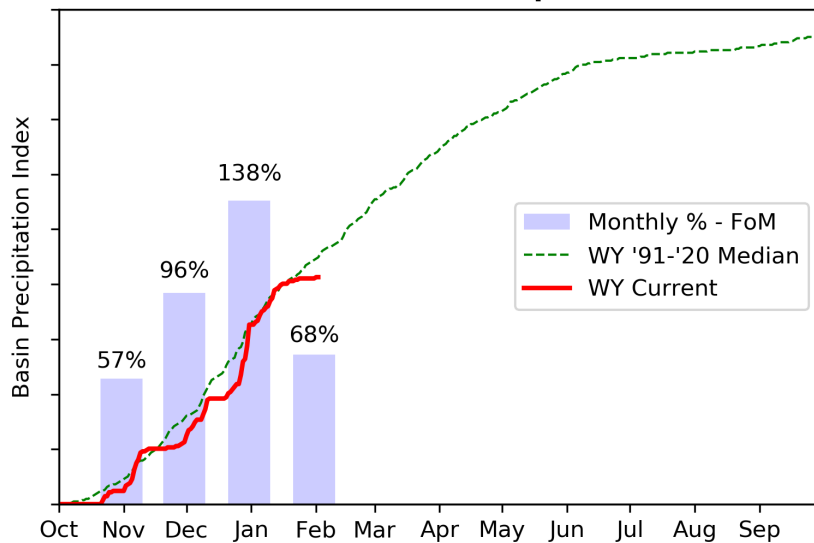


► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 105% of median. This is lower than last month when the basin snowpack was 129% of median.

## PRECIPITATION

Klamath Basin Precipitation



► View precipitation for individual sites by accessing the basin data report [here](#).

FoM = First of Month

January precipitation is below normal at 68% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 91% of median.

## RESERVOIR STORAGE

As of February 1, storage at major reservoirs in the basin ranges from 21% of median at Hyatt Prairie Reservoir to 99% of median at Upper Klamath Lake.

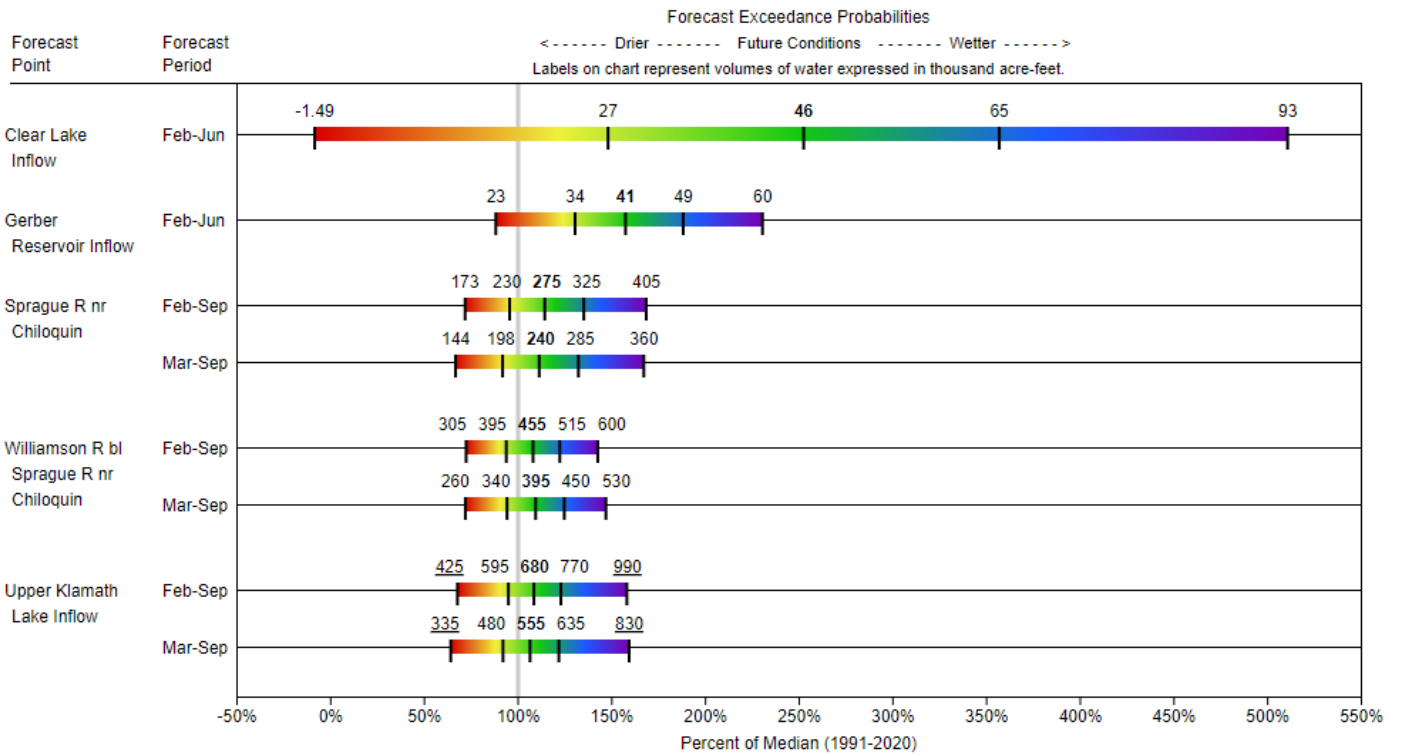
<b>Klamath</b>	<b>Current (KAF)</b>	<b>Last Year (KAF)</b>	<b>Median (KAF)</b>	<b>Capacity (KAF)</b>	<b>Current % Capacity</b>	<b>Last Year % Capacity</b>	<b>Median % Capacity</b>	<b>Current % Median</b>	<b>Last Year % Median</b>
Howard Prairie	9.9	3.6	34.5	62.1	16%	6%	56%	29%	10%
Gerber	9.2	4.0	38.6	94.3	10%	4%	41%	24%	10%
Hyatt Prairie	2.2	0.9	10.5	16.2	13%	6%	65%	21%	9%
Upper Klamath Lake	328.3	301.1	330.6	523.7	63%	57%	63%	99%	91%
Fourmile Lake	3.5	2.2	5.8	15.6	23%	14%	37%	61%	38%
Clear Lake	53.6	59.5	123.7	513.3	10%	12%	24%	43%	48%
<b>Basin Index</b>					<b>33%</b>	<b>30%</b>	<b>44%</b>	<b>75%</b>	<b>68%</b>
<b># of reservoirs</b>					<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>

## STREAMFLOW FORECAST

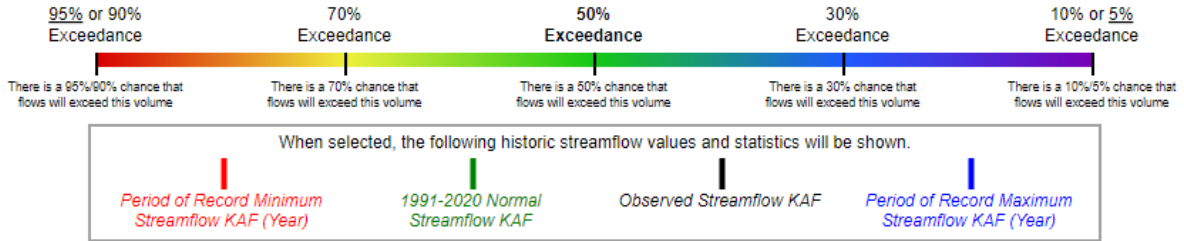
Volumetric streamflow forecasts are above to well above normal and range from 108% to 253%.

For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).

**KLAMATH**  
 Preliminary Water Supply Forecasts  
 February 1, 2023



**Legend**

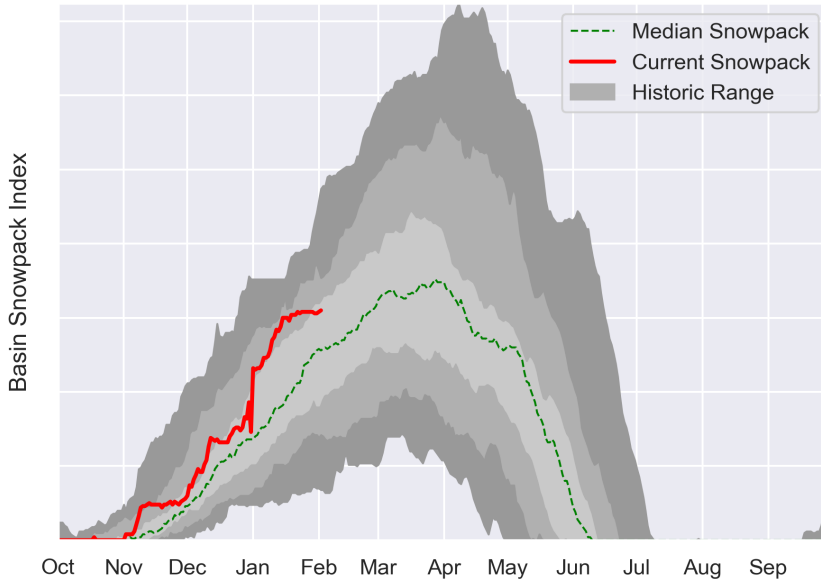


Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

# Lake County, Goose Lake Basin Summary

## SNOWPACK

Lake County-Goose Lake Basin Snowpack

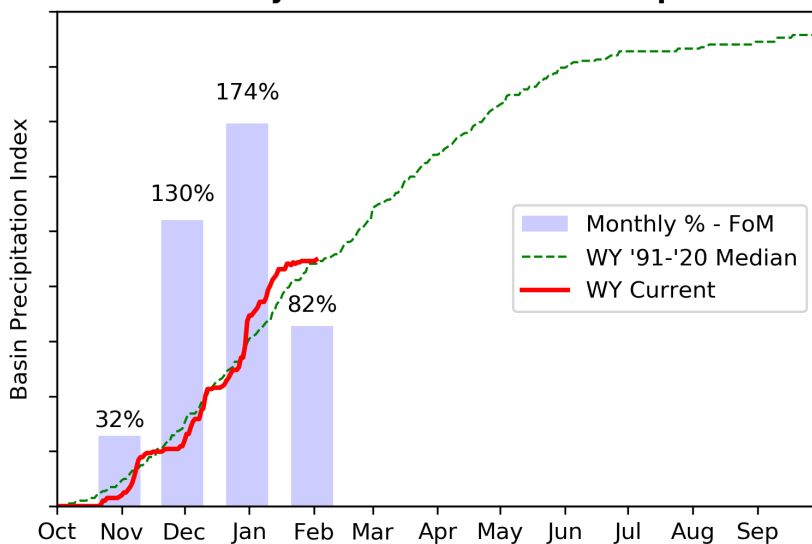


► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 139% of median. This is lower than last month when the basin snowpack was 177% of median.

## PRECIPITATION

Lake County-Goose Lake Basin Precipitation



► View precipitation for individual sites by accessing the basin data report [here](#).

FoM = First of Month

January precipitation is below normal at 82% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 104% of median.

## RESERVOIR STORAGE

As of February 1, storage at major reservoirs in the basin ranges from 15% of median at Drews Reservoir to 41% of median at Cottonwood Reservoir.

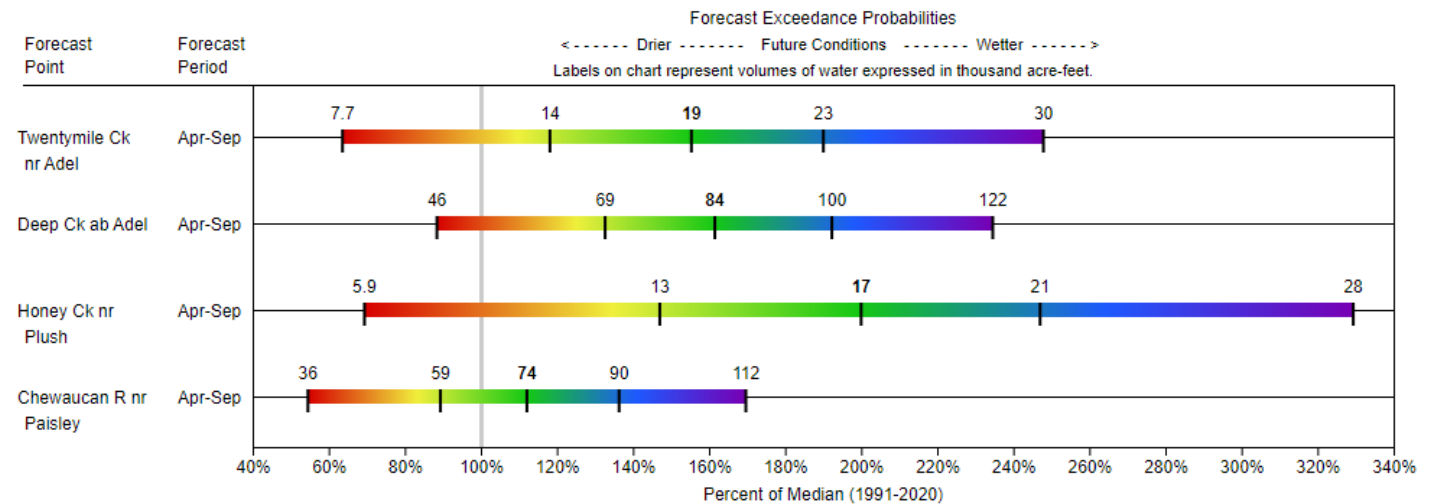
Lake County-Goose Lake	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Cottonwood	1.4	1.0	3.5	9.3	15%	10%	38%	41%	28%
Drews	3.8	2.3	25.6	63.5	6%	4%	40%	15%	9%
<b>Basin Index</b>					<b>7%</b>	<b>4%</b>	<b>40%</b>	<b>18%</b>	<b>11%</b>
# of reservoirs					2	2	2	2	2

## STREAMFLOW FORECAST

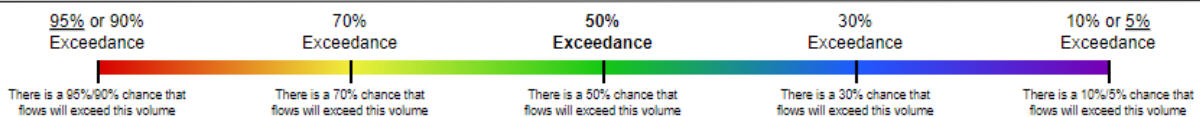
The April through September streamflow forecasts in the basin range from 112% to 200%.

For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).

**LAKE COUNTY-GOOSE LAKE**  
Preliminary Water Supply Forecasts  
February 1, 2023



**Legend**



When selected, the following historic streamflow values and statistics will be shown.

Period of Record Minimum Streamflow KAF (Year)

1991-2020 Normal Streamflow KAF

Observed Streamflow KAF

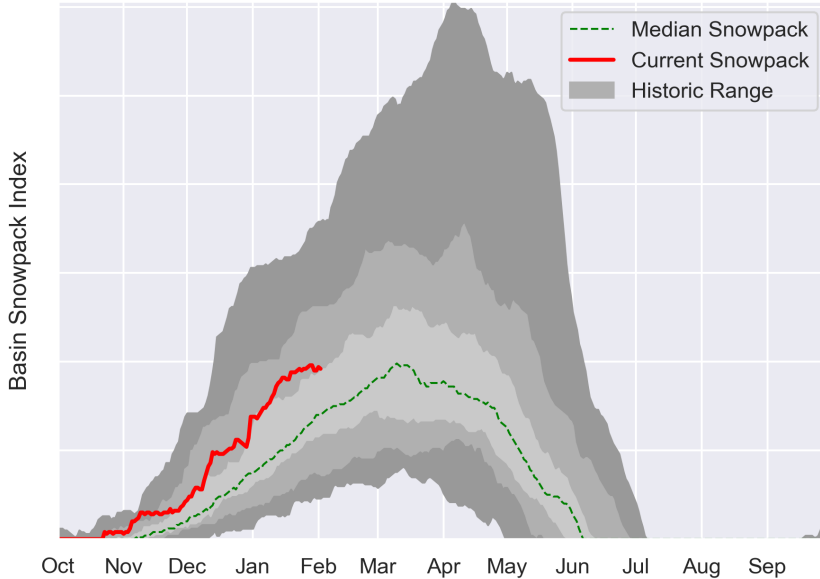
Period of Record Maximum Streamflow KAF (Year)

Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

# Harney Basin Summary

## SNOWPACK

Harney Basin Snowpack

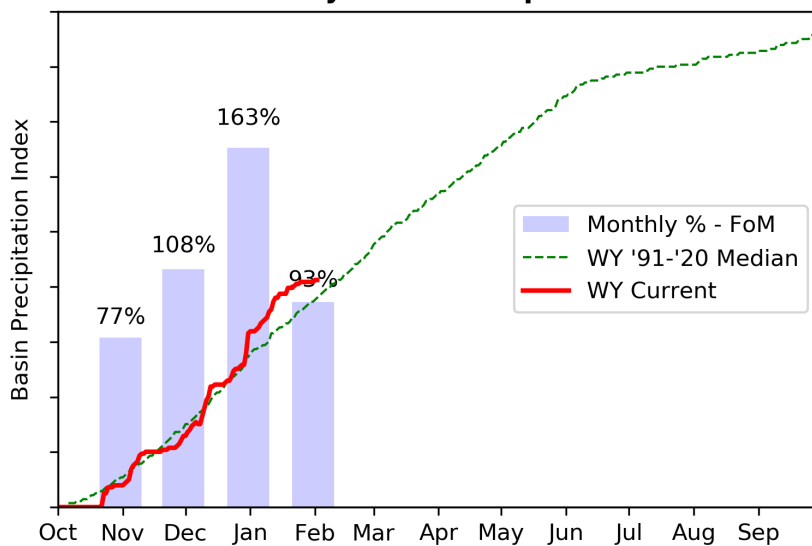


► View snowpack for individual sites by accessing the basin data report [here](#).

As of February 1, the basin snowpack is 159% of median. This is lower than last month when the basin snowpack was 183% of median.

## PRECIPITATION

Harney Basin Precipitation



► View precipitation for individual sites by accessing the basin data report [here](#).

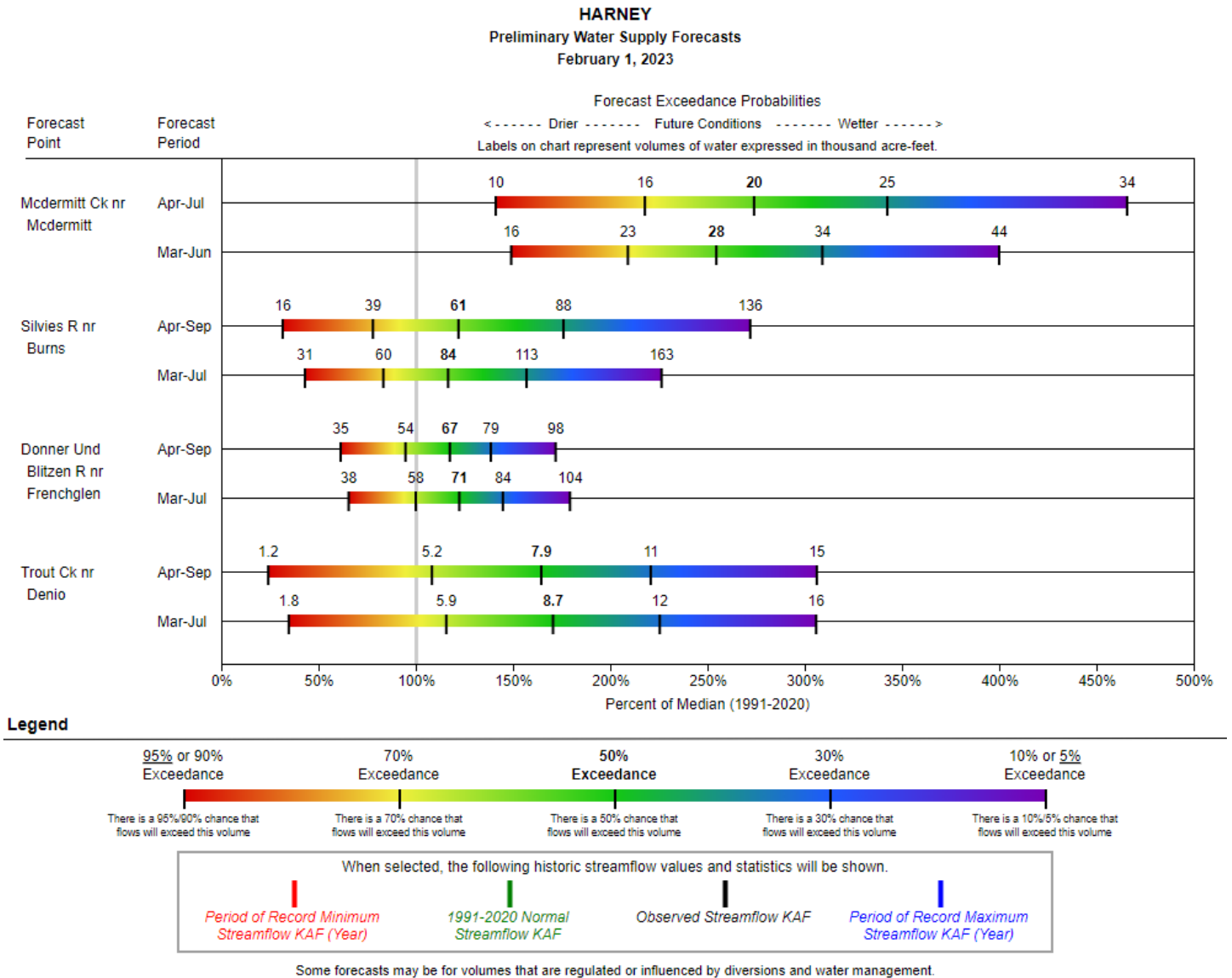
FoM = First of Month

January precipitation is slightly below normal at 93% of median. Precipitation since the beginning of the water year (October 1 - February 1) is 113% of median.

# STREAMFLOW FORECAST

The April through September streamflow forecasts in the basin range from 118% to 165% of median.

For data in tabular format, in addition to non-primary period data, please view the basin data reports [here](#).



## Additional Resources

[Interpreting Water Supply Forecast Charts](#)

[Water Supply Forecasting](#)

## Subscribe!

Subscribe [here](#) to receive the Water Supply Outlook Report.

---

*For more water supply and resource management information, contact:*

Matt Warbritton  
Lead Hydrologist  
USDA NRCS Oregon Snow Survey  
matt.warbritton@usda.gov  
Phone: (503) 307-2829



This publication may be found online at:

<https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/oregon/oregon-snow-survey/water-supply>

*Issued by*

**Terry Cosby, Chief**  
**Natural Resources Conservation Service**  
**U.S. Department of Agriculture**

*Released by*

**Ron Alvarado, State Conservationist**  
**Natural Resources Conservation Service**  
**Portland, OR**

USDA Natural Resources Conservation Service  
Oregon Snow Survey  
1201 NE Lloyd Suite 900  
Portland, OR 97232  
[NRCS Oregon Snow Survey Website](#)