

National Weather Service Medford

# 2022: November Climate Summary



\*These data are preliminary and have not undergone final QC by NCEI. Therefore, these data are subject to revision. Final and certified climate data can be accessed at the [National Centers for Environmental Information \(NCEI\)](#).



# November 2022 Weather Review

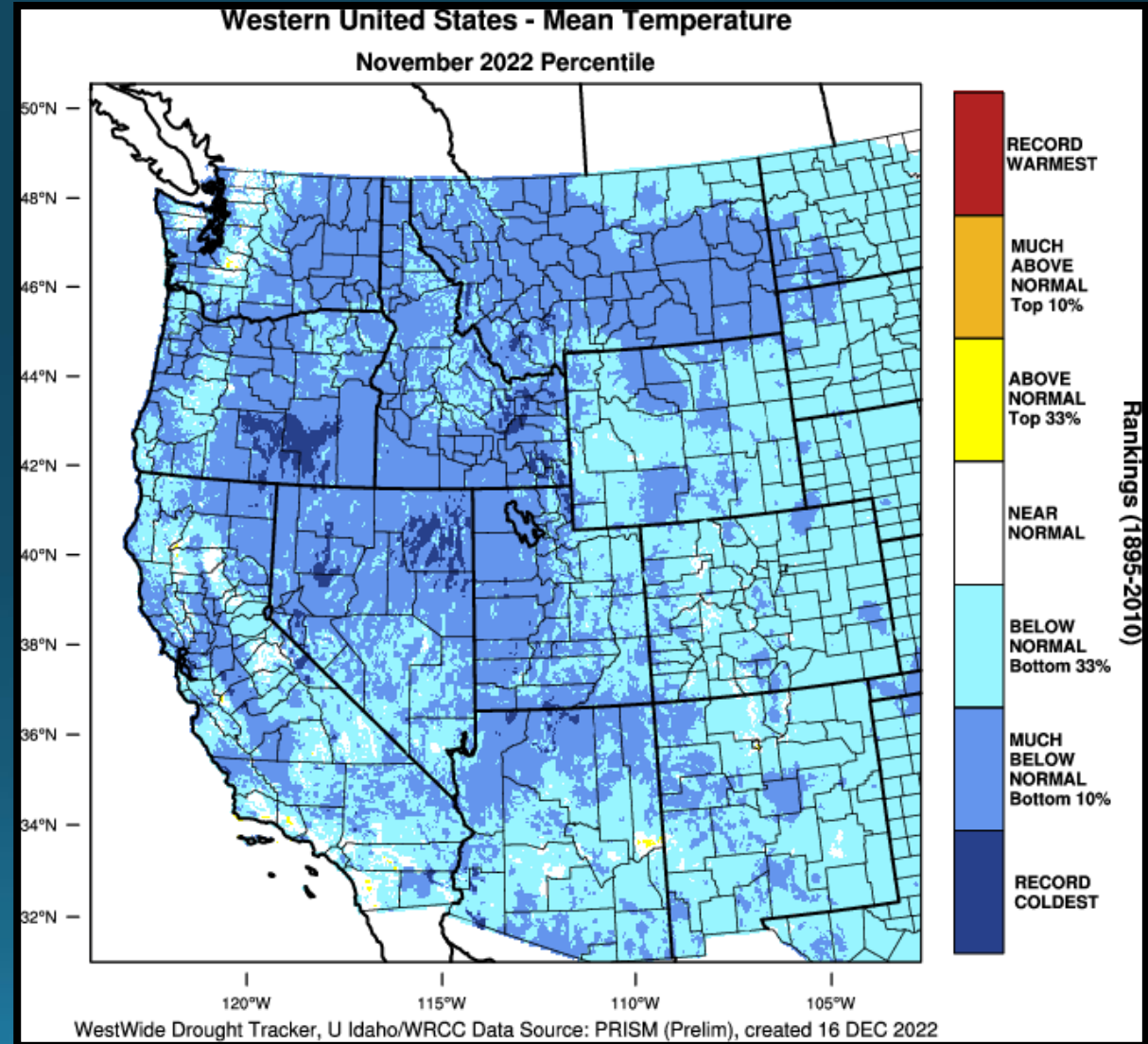
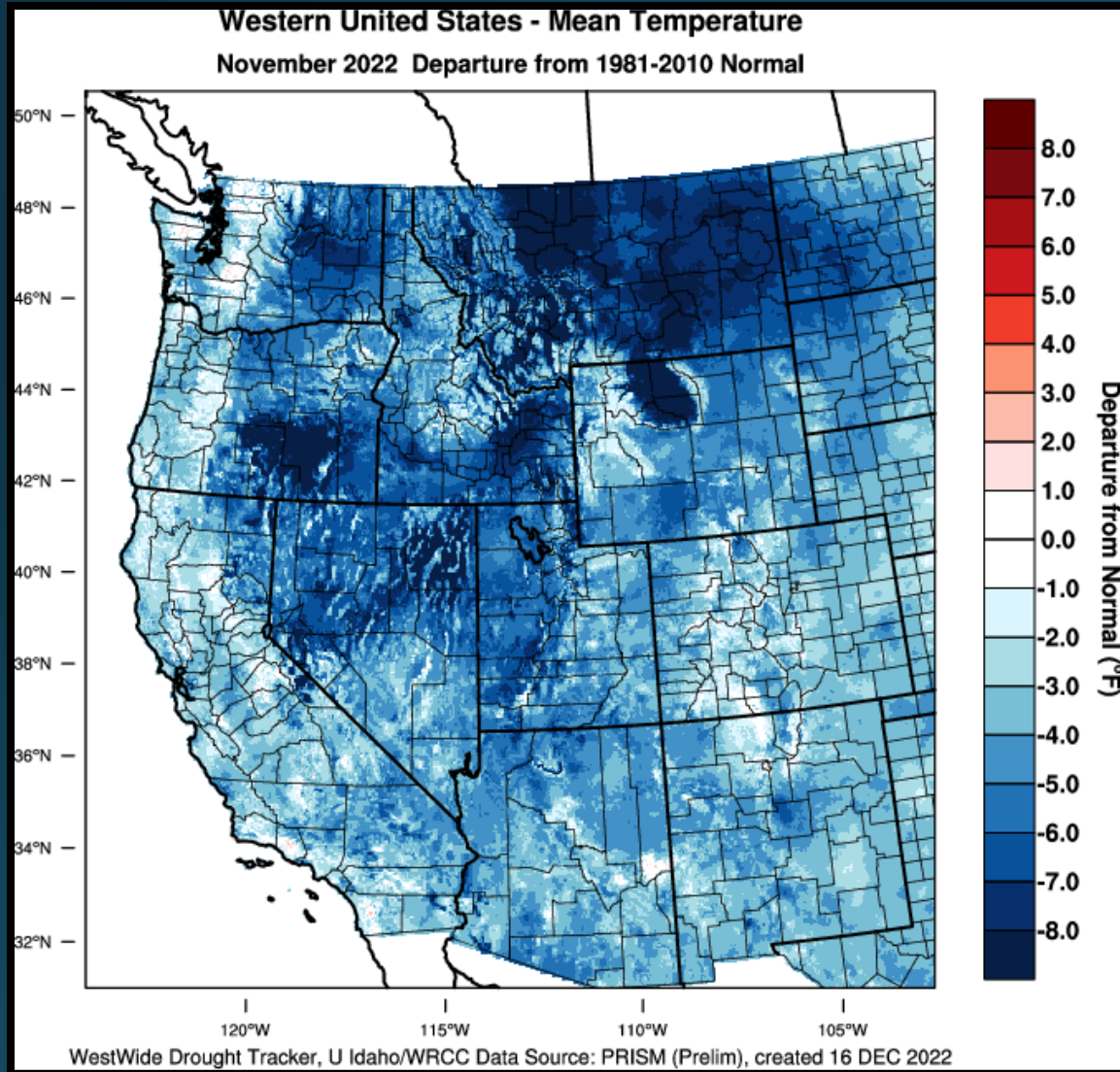
Long awaited fall-like conditions continued during the beginning of November. A strong cold front arrived on the first day of the month which brought strong winds and much needed rain and mountain snow. Active weather continued through the 12<sup>th</sup> as several more fronts passed through the region. A few of these fronts brought moderate to heavy precipitation and set daily rainfall records at two of the area's climate sites. Additionally, cold air allowed for snow to fall at lower elevations like Hayes Hill Summit and even a trace of snow was recorded in Medford on the morning of the 7<sup>th</sup>.

Active weather came to a halt on the 13<sup>th</sup> when high pressure took up residence offshore over the eastern Pacific and dominated the region through the 25<sup>th</sup>. This closed the storm door and dry conditions persisted for the middle third of the month. This pattern resulted in the strong valley inversions with periods of morning fog for valleys west of the Cascades. Offshore flow during this time limited the duration of the fog, and clear skies led to mild afternoons. Clear skies also led to effective radiational cooling and allowed valley temperatures to drop to well below freezing values. These cold temperatures brought a definitive end to the growing season for locations west of the Cascades. For Medford specifically, this was the 6<sup>th</sup> latest first freeze (first occurrence of 32 degrees in the fall season), which occurred on November 11<sup>th</sup> this year and the 12<sup>th</sup> longest period (208 days) between the last freeze date in spring (April 15<sup>th</sup>) and the first freeze date of fall (November 11<sup>th</sup>). The persistent ridge pattern also resulted in stagnant air in the valleys and an Air Stagnation Advisory remained in effect for twelve straight days, despite the passage of a weak front on the 22<sup>nd</sup>.

High pressure finally broke down during the last week of the month, allowing several more fronts to pass through the area. The strongest of these arrived on the 30<sup>th</sup>, rounding out the end of the month in a very similar fashion to the beginning. Overall, November 2022 was colder than normal with much of the area only receiving about 50% to 90% of normal precipitation.



# November 2022 Observed Temperatures





# Average Temperatures

	Average (°F)	Departure from Normal	Average Max (°F)	Departure from Normal	Average Min (°F)	Departure from Normal
North Bend	46.4	-3.8°	55.1	-1.7°	37.8	-5.7°
Roseburg	43.1	-4.3°	50.3	-3.9°	35.9	-4.7°
Medford	42.0	-3.2°	52.2	-1.8°	31.8	-4.6°
Klamath Falls	31.1	-5.9°	42.5	-6.6°	19.7	-5.2°
Montague, CA	37.8	-4.1°	49.7	-4.5°	25.8	-3.8°
Mt. Shasta City, CA	37.0	-3.9°	46.5	-4.0°	27.4	-4.0°
Alturas, CA	27.1	-10.6°	39.8	-11.0°	14.4	-10.1°



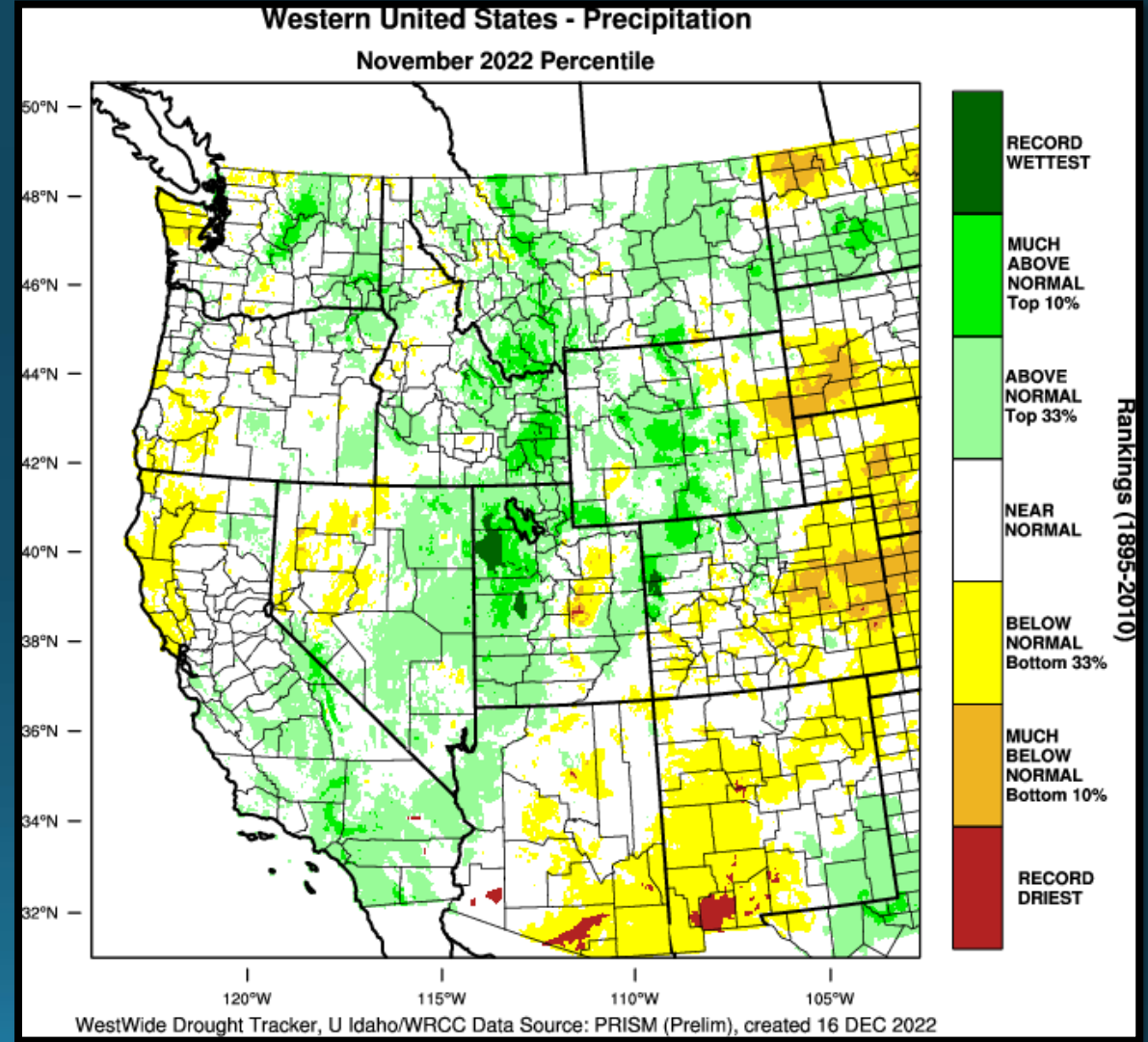
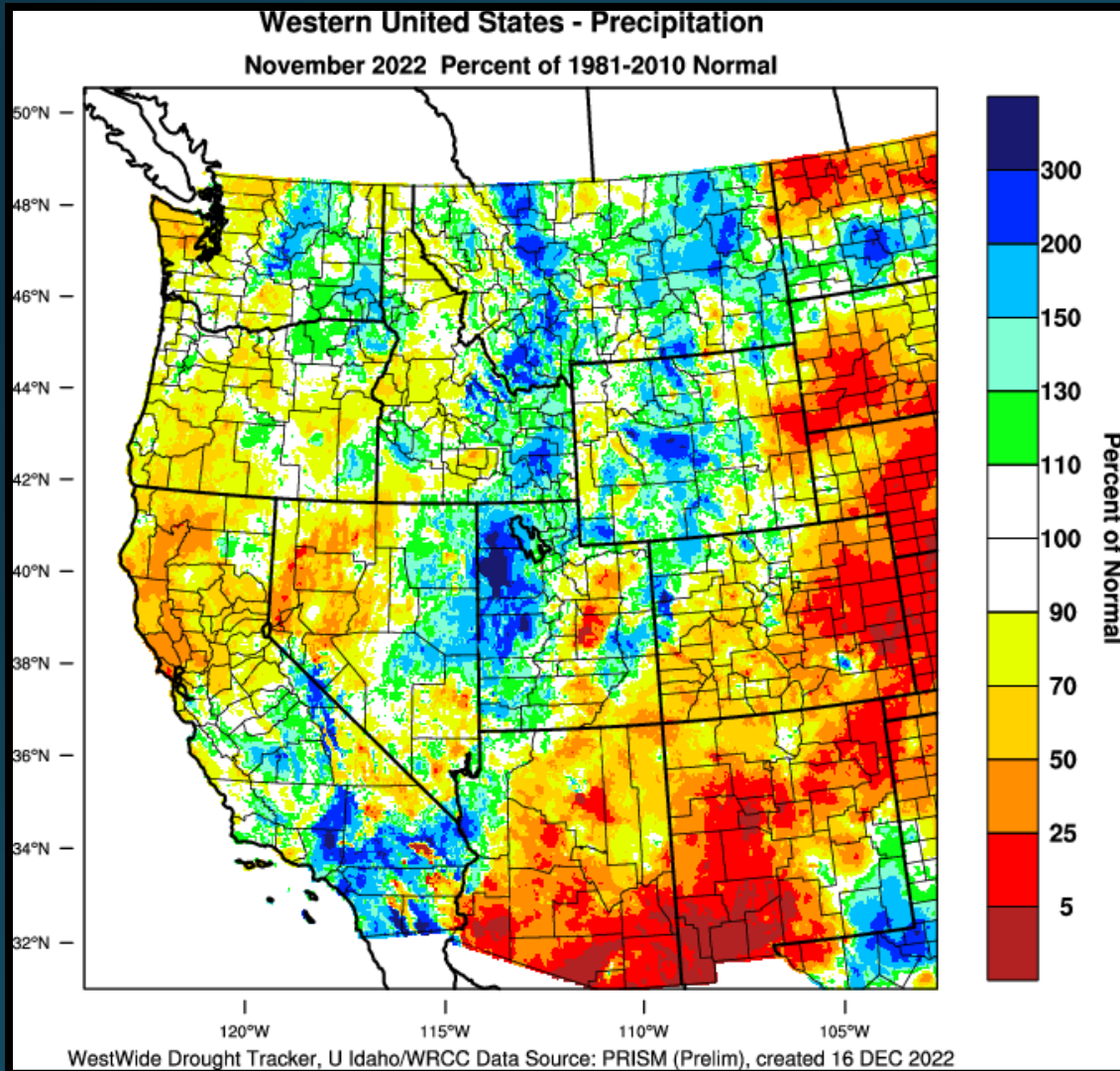
# Monthly Max & Min Temperatures

	<b>Max (°F)</b>	<b>Date(s)</b>	<b>Min (°F)</b>	<b>Date(s)</b>
<i>North Bend</i>	<b>66°</b>	<b>15<sup>th</sup></b>	<b>33°</b>	<b>13<sup>th</sup> &amp; 26<sup>th</sup></b>
<i>Roseburg</i>	<b>64°</b>	<b>4<sup>th</sup></b>	<b>27°</b>	<b>20<sup>th</sup></b>
<i>Medford</i>	<b>64°</b>	<b>15<sup>th</sup></b>	<b>27°</b>	<b>20<sup>th</sup></b>
<i>Klamath Falls</i>	<b>54°</b>	<b>24<sup>th</sup></b>	<b>8°</b>	<b>20<sup>th</sup></b>
<i>Montague, CA</i>	<b>62°</b>	<b>4<sup>th</sup></b>	<b>14°</b>	<b>20<sup>th</sup></b>
<i>Mt. Shasta City, CA</i>	<b>63°</b>	<b>24<sup>th</sup></b>	<b>18°</b>	<b>19<sup>th</sup></b>
<i>Alturas, CA</i>	<b>53°</b>	<b>24<sup>th</sup></b>	<b>0°</b>	<b>19<sup>th</sup></b>

	<b>Record Low</b>	<b>Date</b>	<b>Old Record/Year</b>
Roseburg	29°	19 <sup>th</sup>	Ties with 1964
Alturas	2°	16 <sup>th</sup>	7° / 1959
	3°	21 <sup>st</sup>	Ties w/1985
Montague	19°	16 <sup>th</sup>	20° / 2018
	14°	19 <sup>th</sup>	16° / 2018
	14°	20 <sup>th</sup>	16° / 2018
	18°	21 <sup>st</sup>	20° / 2021

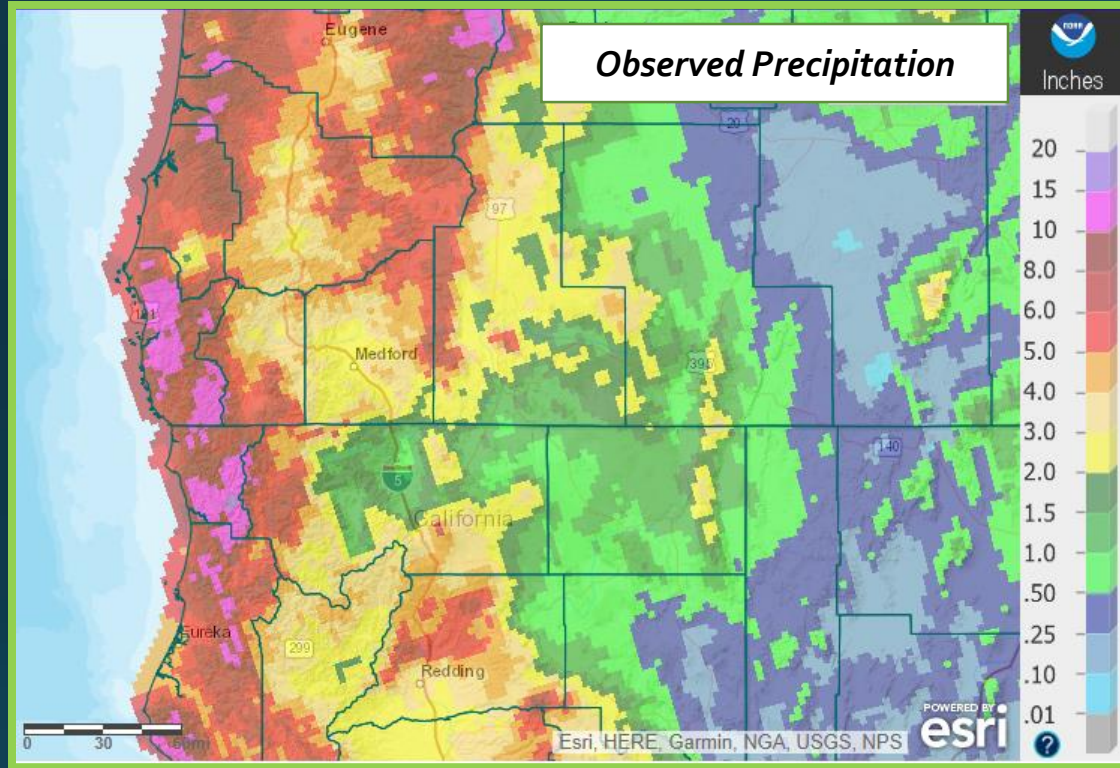


# November 2022 Observed Precipitation





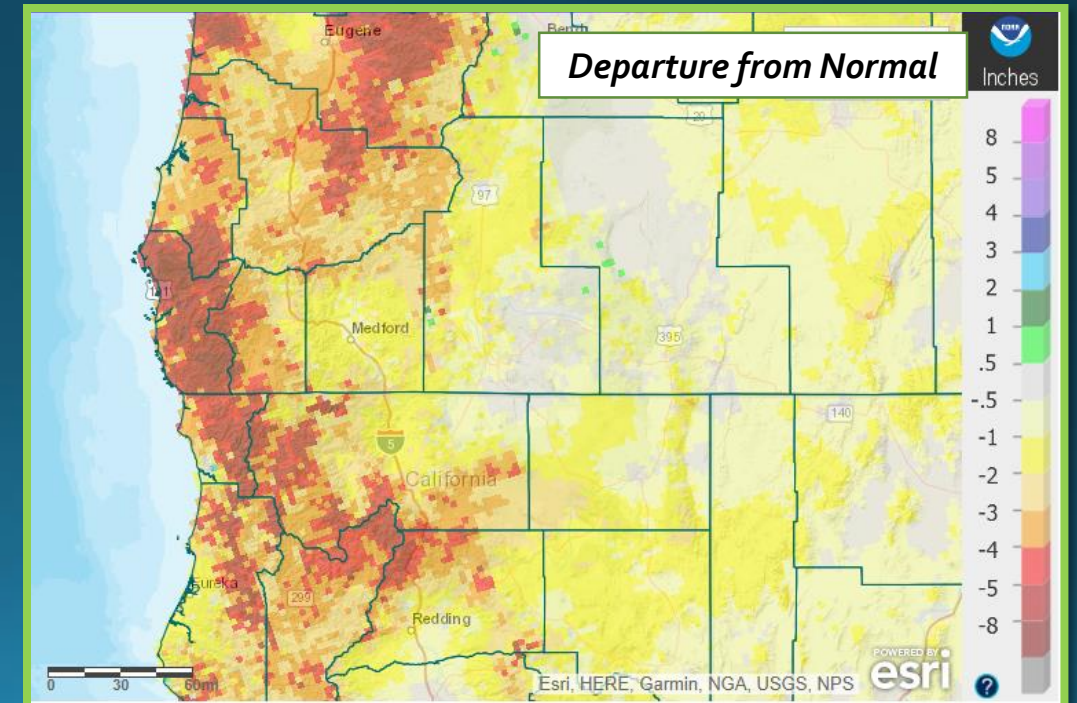
# November Precipitation



	Total	Departure from Normal	Greatest 24-hr Total	Date(s)
North Bend	6.09"	-2.21"	1.81"	6 <sup>th</sup> – 7 <sup>th</sup>
Roseburg	4.52"	-0.20"	1.26"	6 <sup>th</sup> – 7 <sup>th</sup>
Medford	2.06"	-0.55"	0.66"	1 <sup>st</sup>
Klamath Falls	1.46"	0.08"	0.42"	5 <sup>th</sup>
Montague, CA	0.93"	-0.41"	0.42"	1 <sup>st</sup>
Mt. Shasta City, CA	3.23"	-0.40"	1.16"	7 <sup>th</sup> – 8 <sup>th</sup>
Alturas, CA	1.82"	0.62"	0.66"	1 <sup>st</sup> – 2 <sup>nd</sup>

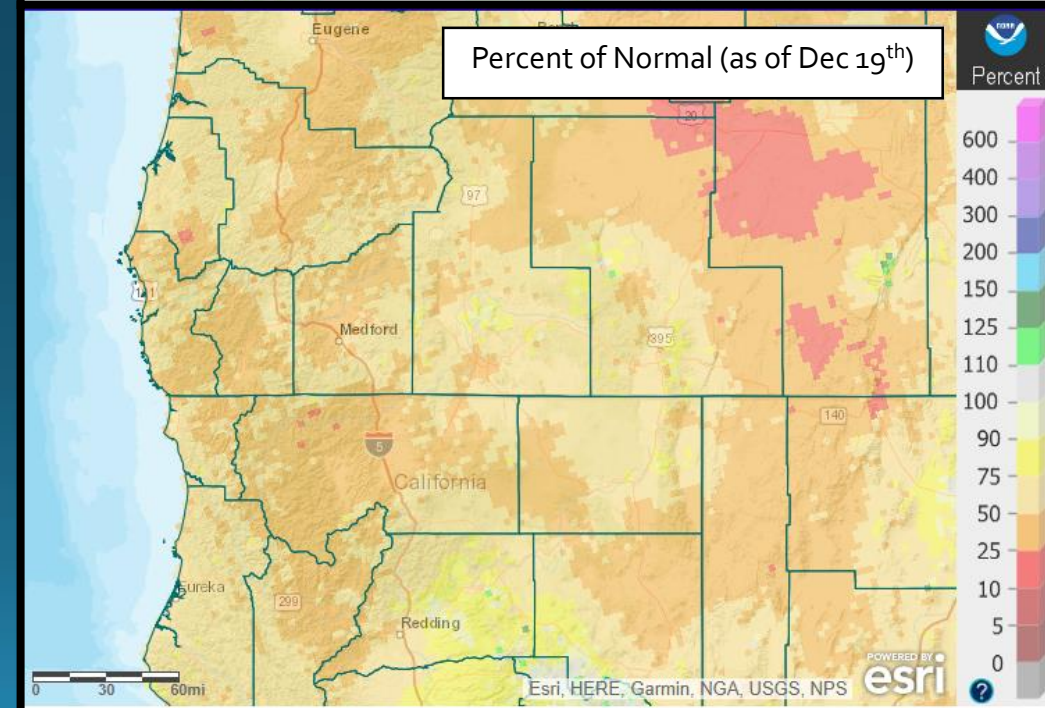
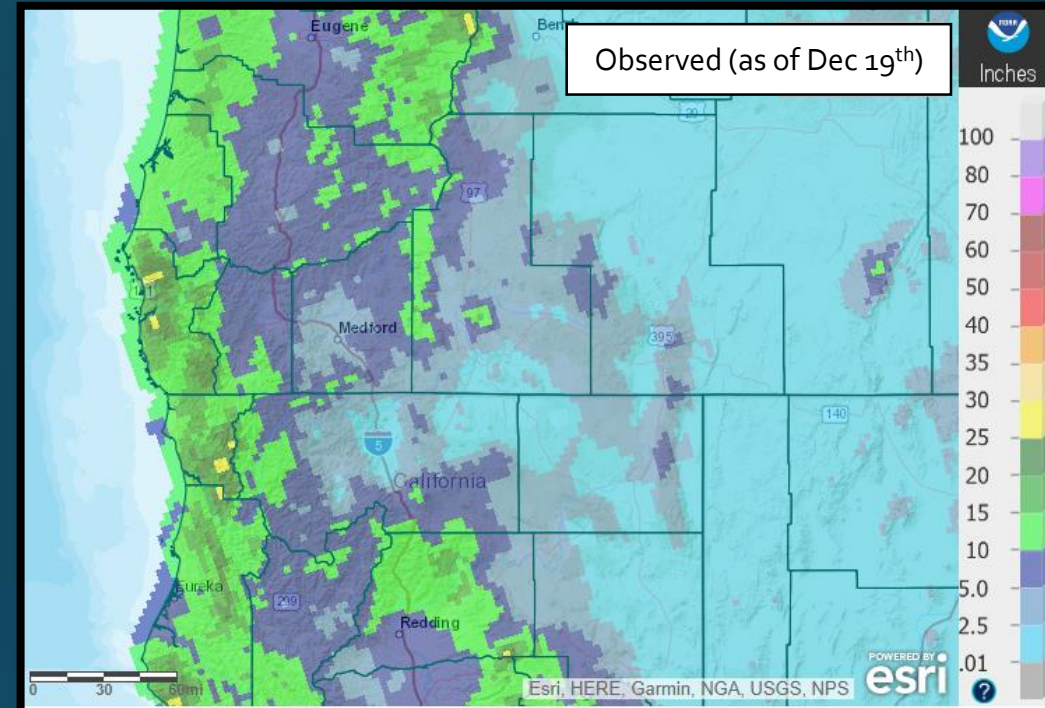
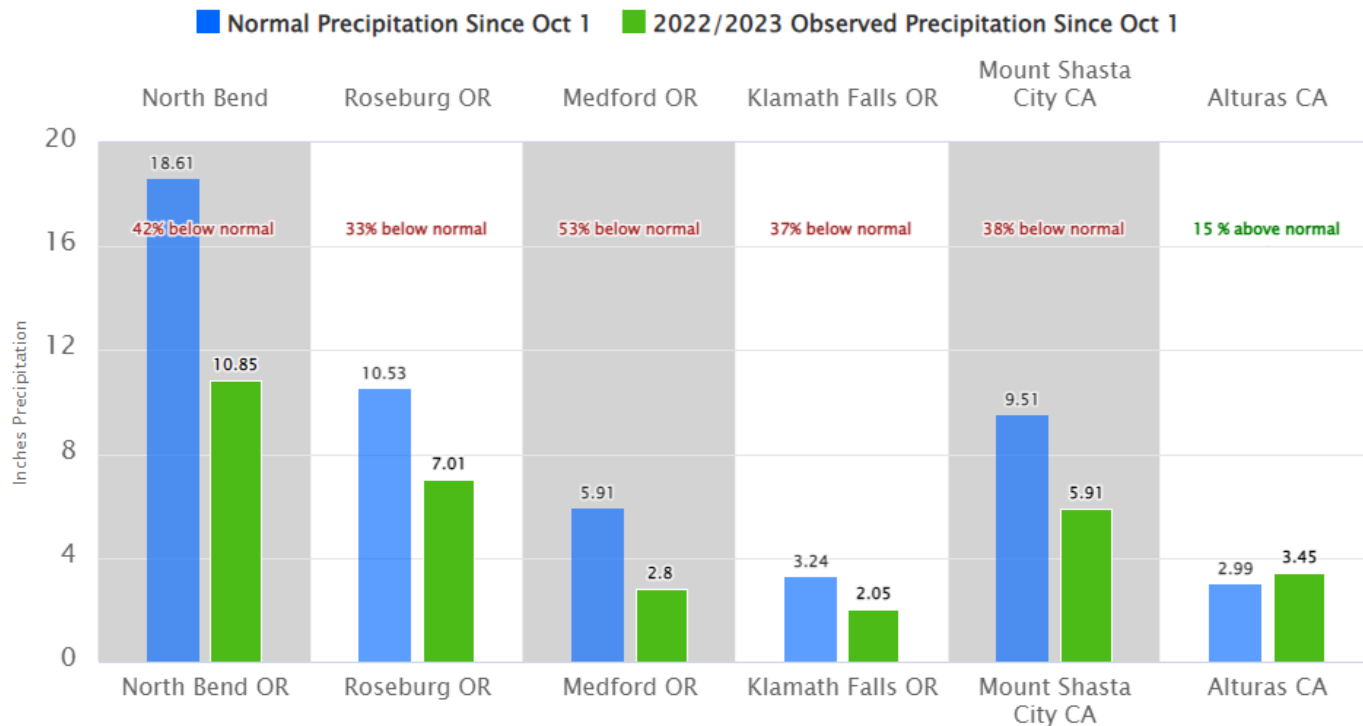
## Record Precipitation

	Date / Amount	Old Record / Year
Roseburg	6 <sup>th</sup> / 1.16"	0.46" / 1944
Alturas	1 <sup>st</sup> / 0.44"	Ties w/ 1992



# 2022-2023 Water Year Status (as of Dec 19<sup>th</sup>)

Climate Sites Water Year Precipitation (Since Oct 1) and Percent of Normal as of 1237AM DEC19



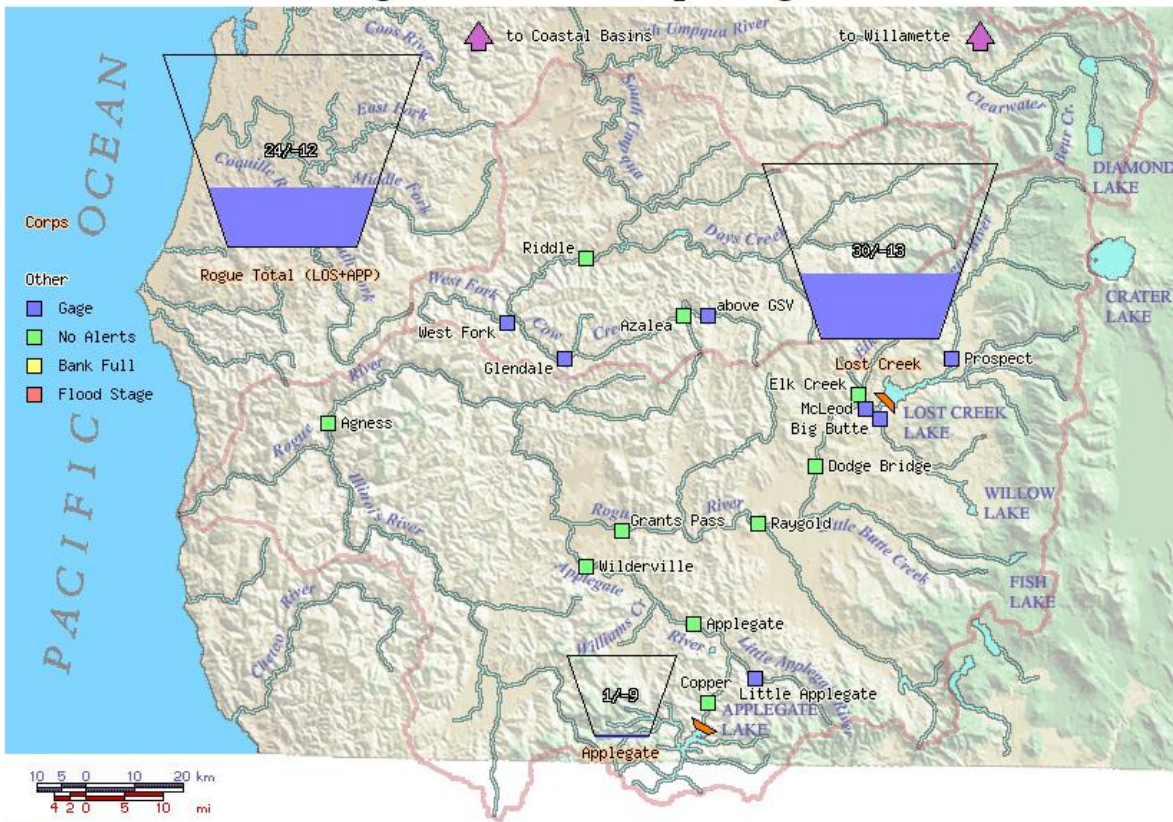




# Reservoir Status

Data courtesy of [US Army Corps of Engineers](#)

## Rogue Basin Teacup Diagram

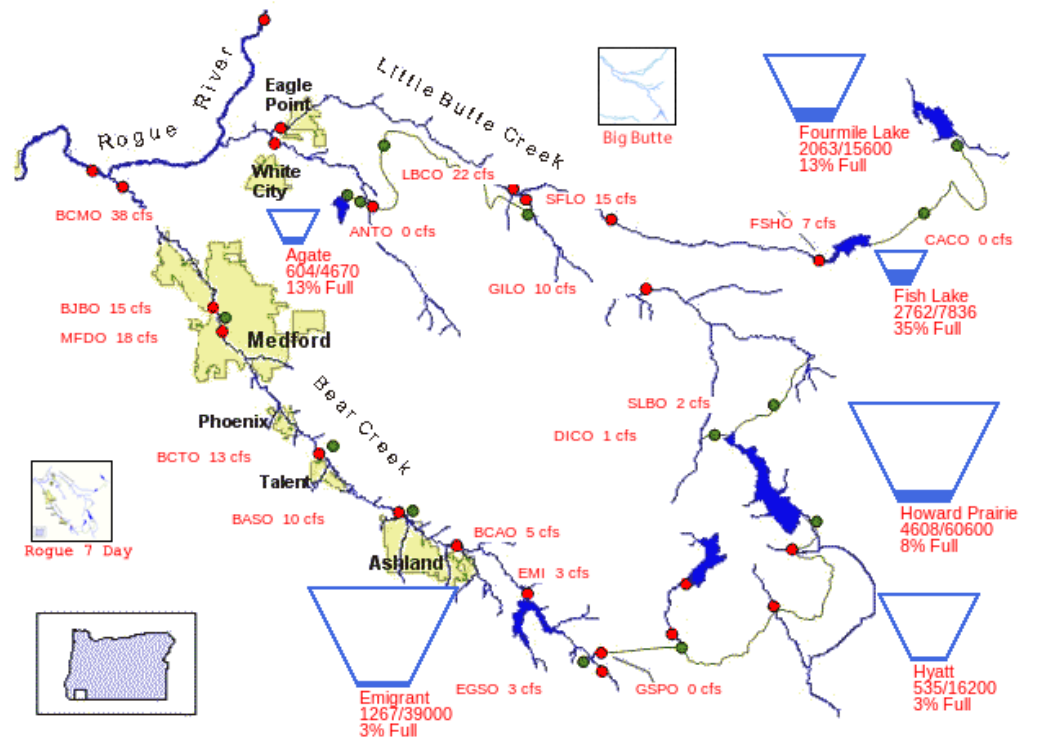


Created: Mon Dec 19 14:55:55 2022  
 WCD: Water Control Diagram  
 Project numbers: percent full / percent above WCD, where  
 $\text{percent full} = (\text{current storage} - \text{minimum conservation storage}) / (\text{maximum conservation storage} - \text{minimum conservation storage})$   
 $\text{percent above water control diagram} = (\text{current storage} - \text{WCD storage}) / (\text{maximum conservation storage} - \text{minimum conservation storage})$

Data courtesy of [Bureau of Reclamation](#)

## US Bureau of Reclamation, Pacific Northwest Region Bear Creek and Little Butte Creek Basins

12/18/2022



PROVISIONAL DATA - SUBJECT TO CHANGE!



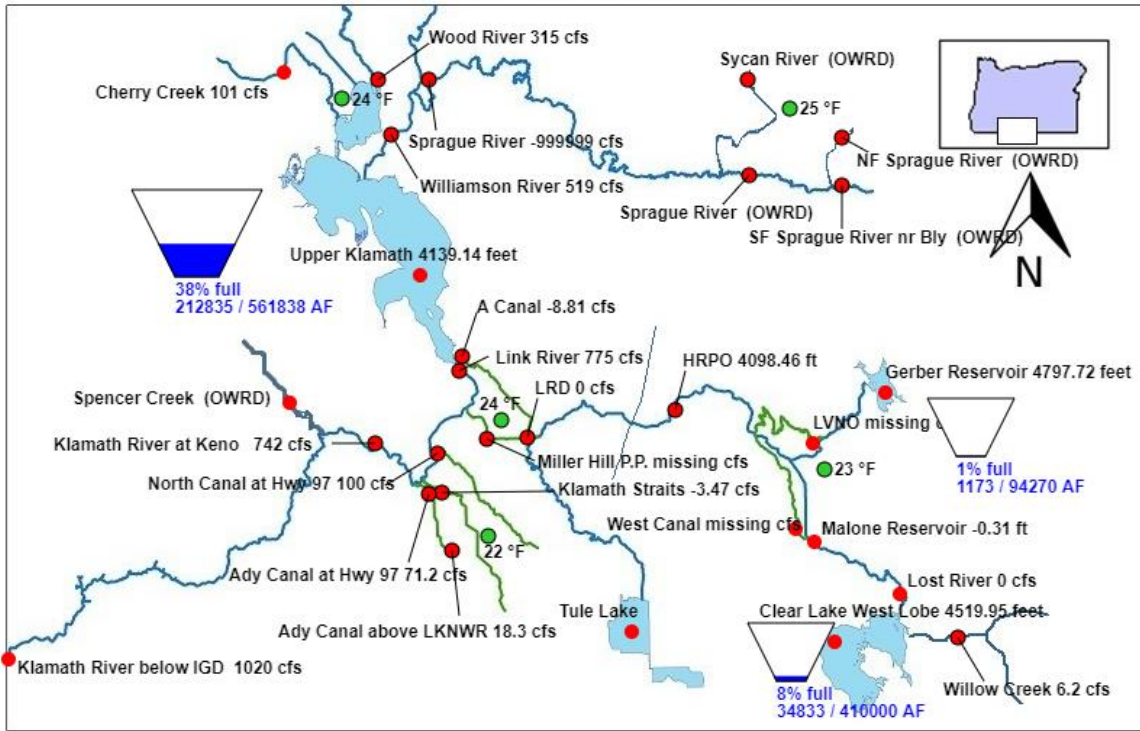
# Reservoir Status

Klamath River Basin. Data courtesy of [Bureau of Reclamation](#)

Northern California. [California Data Exchange Center](#)

Bureau of Reclamation, Mid Pacific Region  
Major Storage Reservoirs in the Klamath River Basin

Mon Dec 19 2022 15:08:30 GMT-0800 (Pacific Standard Time)



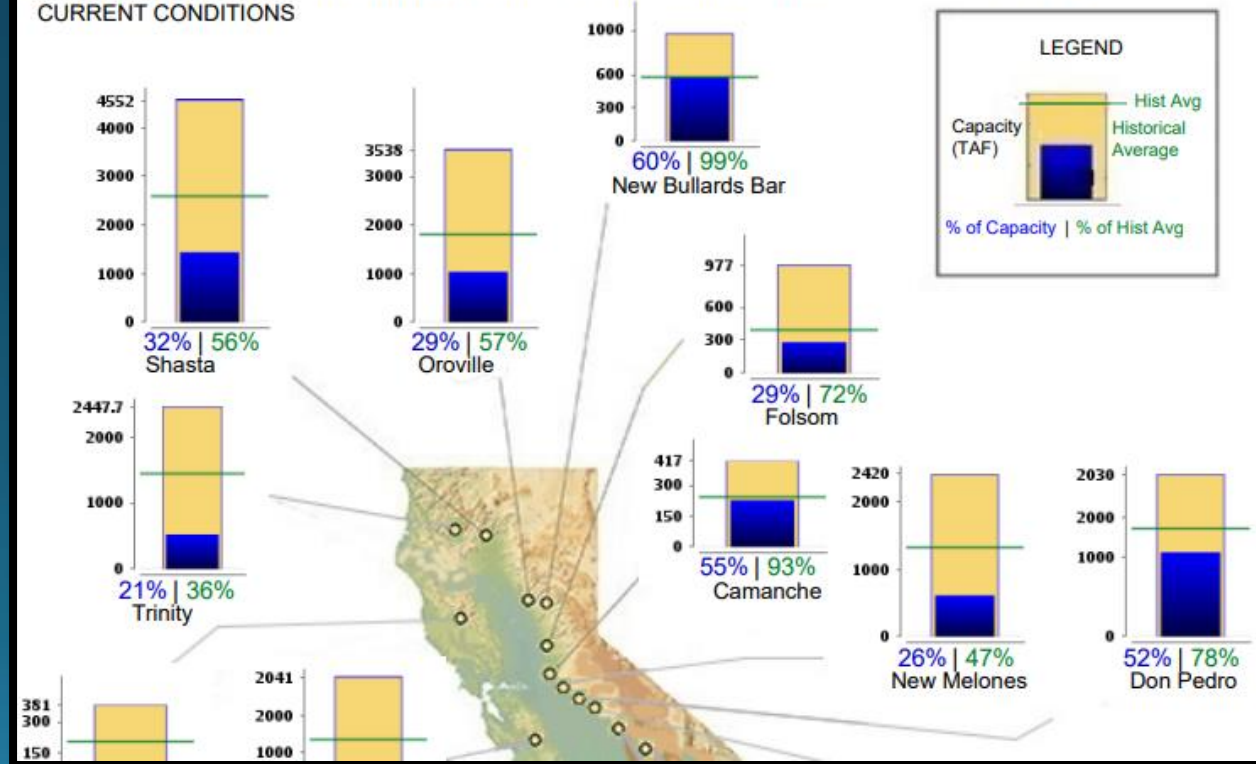
PROVISIONAL DATA - SUBJECT TO CHANGE!



## CURRENT RESERVOIR CONDITIONS

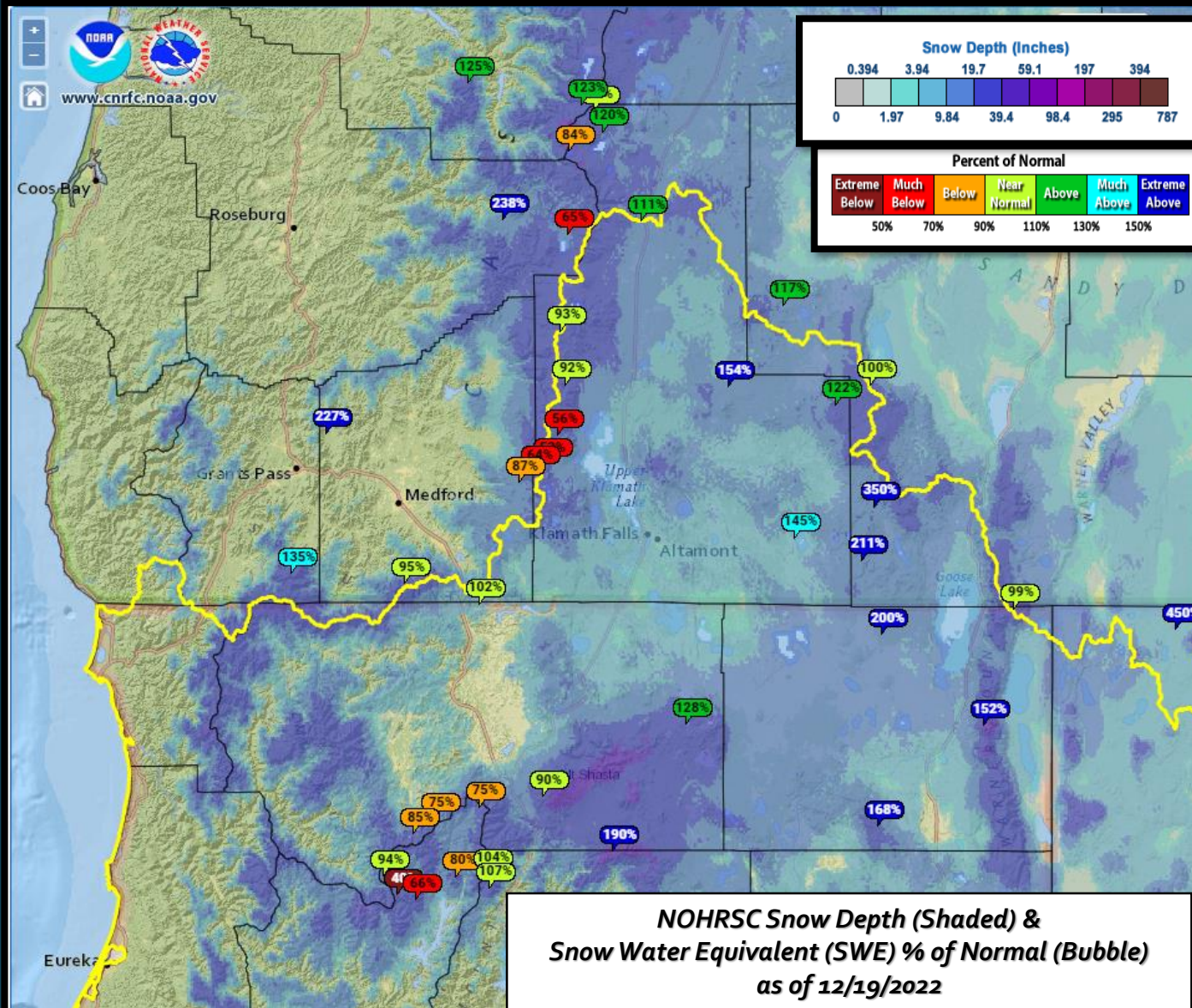
CALIFORNIA MAJOR WATER SUPPLY RESERVOIRS  
CURRENT CONDITIONS

Midnight - December 18, 2022





# Snowpack Status



## Westwide SNOTEL Current Snow Water Equivalent (SWE) % of Normal

Dec 19, 2022

Current Snow Water Equivalent (SWE) Basin-wide Percent of 1991-2020 Median

- unavailable \*
- <50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- >= 150%

\* Data unavailable at time of posting or measurement is not representative at this time of year

Provisional data subject to revision



The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by:  
USDA/NRCS National Water and Climate Center  
Portland, Oregon  
<https://www.nrcs.usda.gov/wps/portal/wcc/home/>

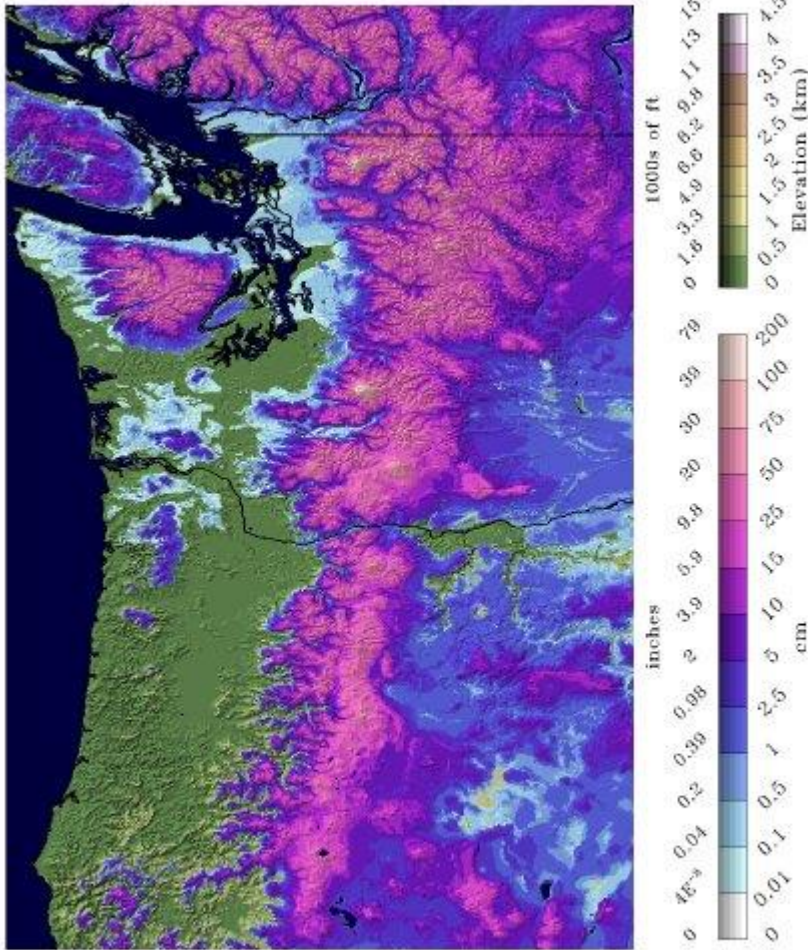




# PacNW SWE & SD as of 12/19/2022

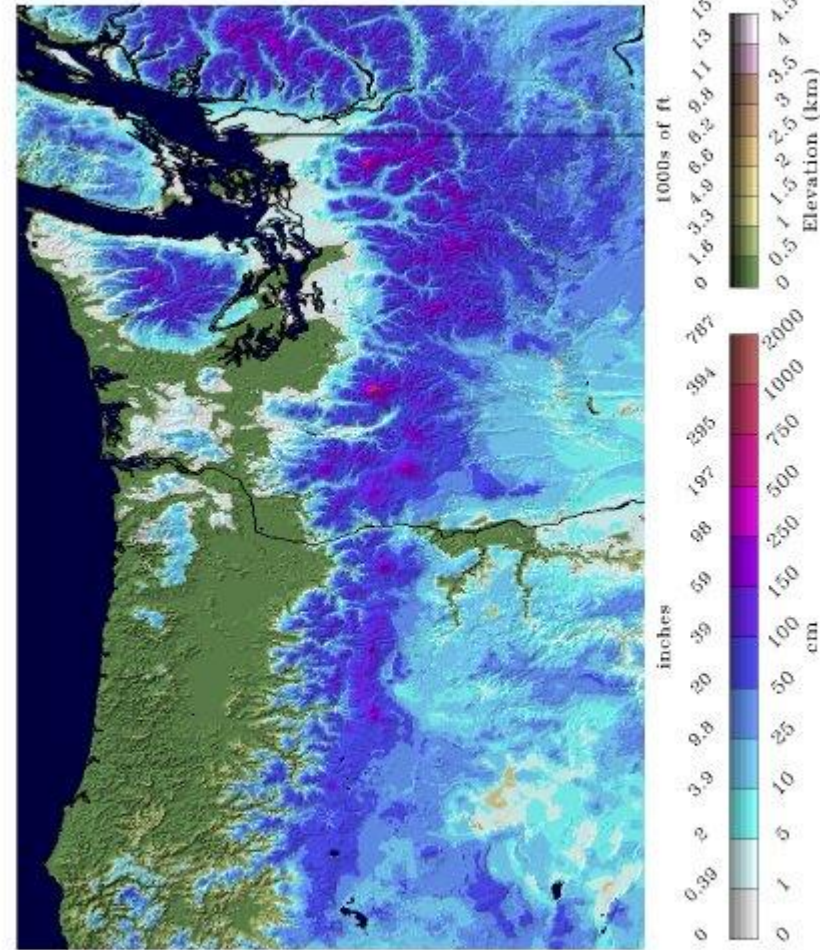
### Snow Water Equivalent

2022-12-19 06 UTC



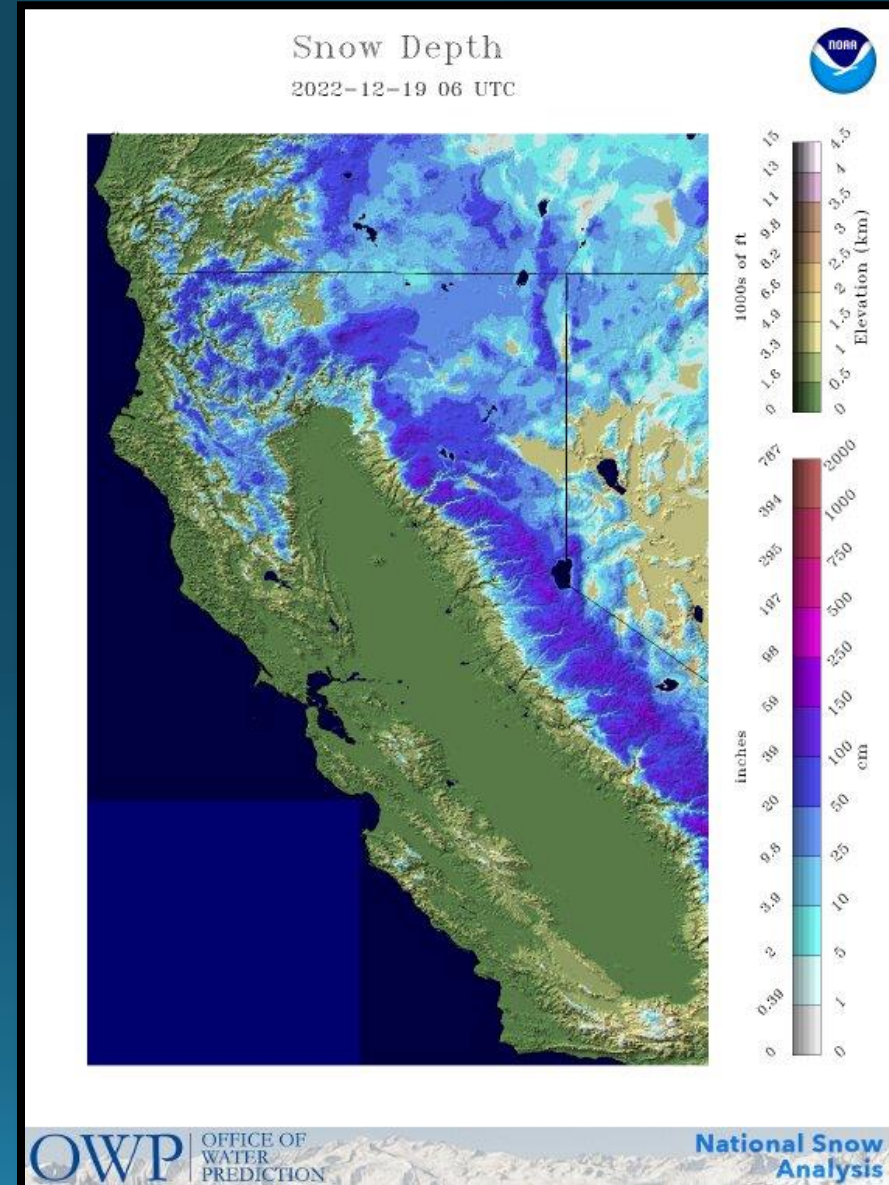
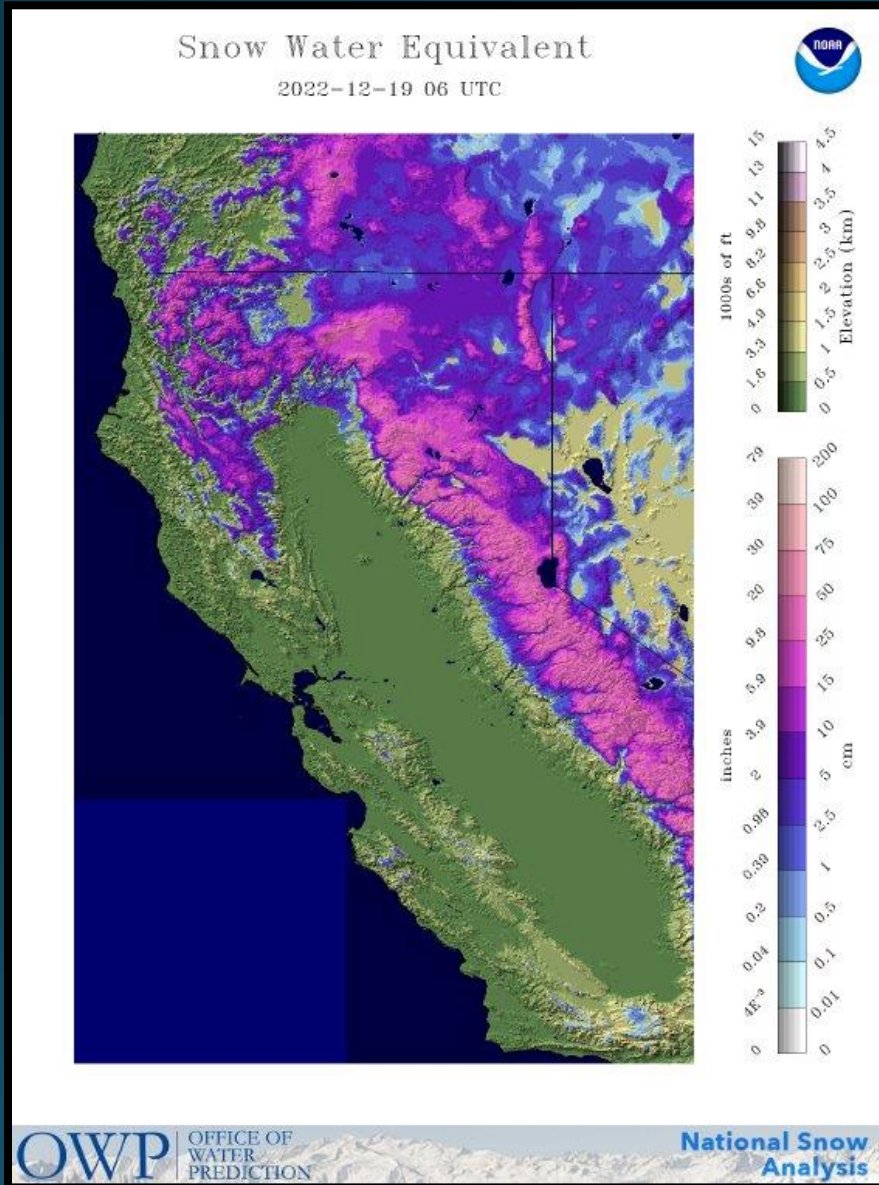
### Snow Depth

2022-12-19 06 UTC





# California SWE & SD as of 12/19/2022



# Crater Lake

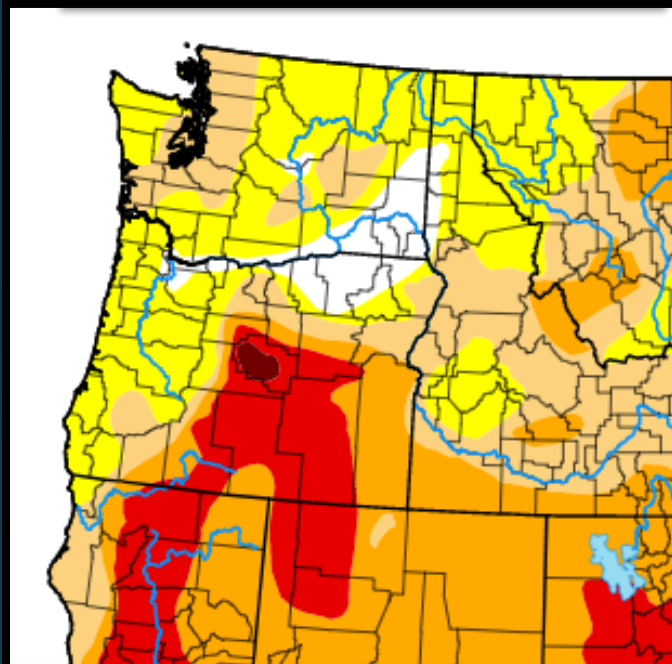
Image Courtesy: NPS



	Average Max Temp (°F)	Average Min Temp (°F)	Total Precipitation	Total Snowfall	Snow Depth as of: 11/30/22	Highest Max/ Lowest Min
November	36.4°	20.3°	6.48"	47.2"	20"	54° on 25 <sup>th</sup> / 7° on 18 <sup>th</sup>
Normal (1991-2020)	38.0°	23.2°	9.60"	59.3"	26"	N/A

# Drought Monitor (Current) & Outlook (December)

United States Drought Monitor



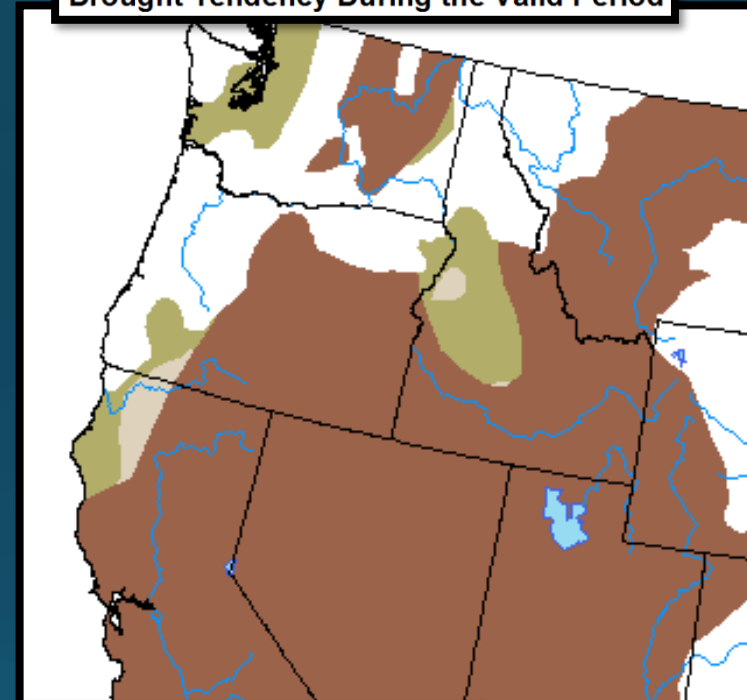
Map released: Thurs. December 15, 2022

Data valid: December 13, 2022 at 7 a.m. EST

**Intensity**

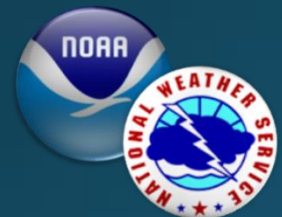
- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

U.S. Monthly Drought Outlook  
Drought Tendency During the Valid Period



Valid for December 2022  
Released November 30, 2022

- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely



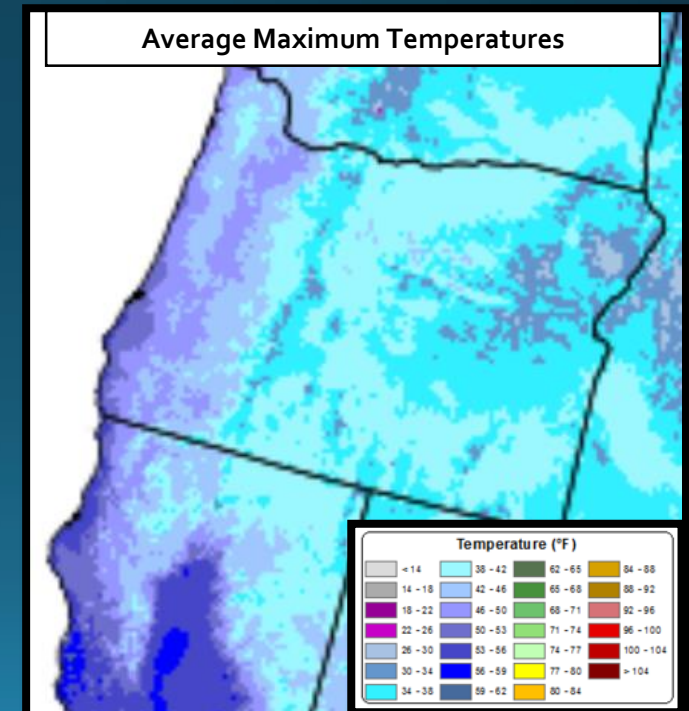
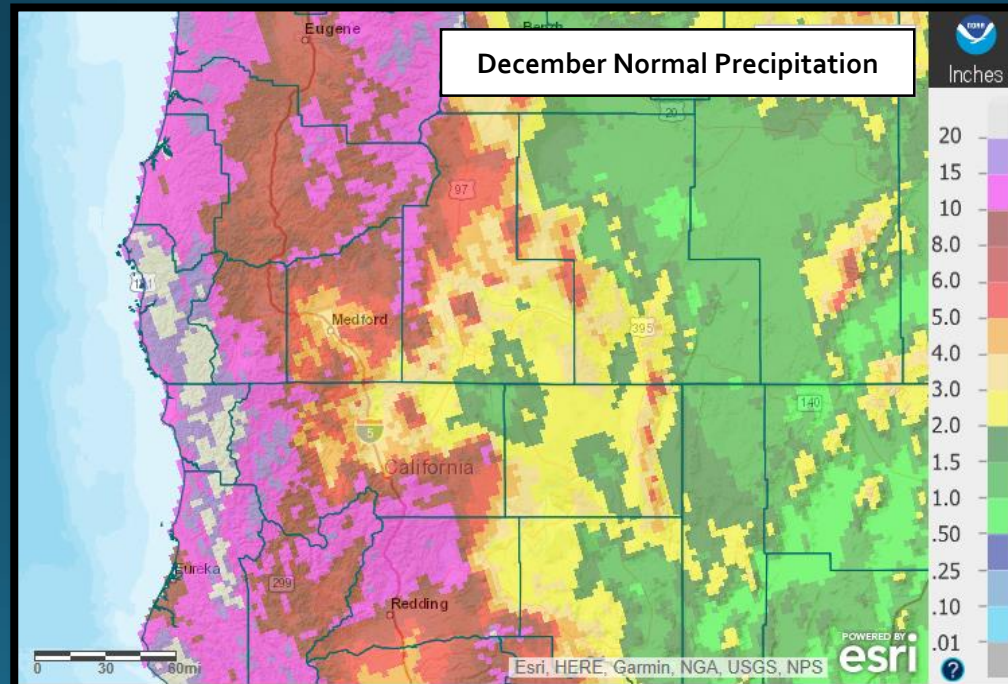
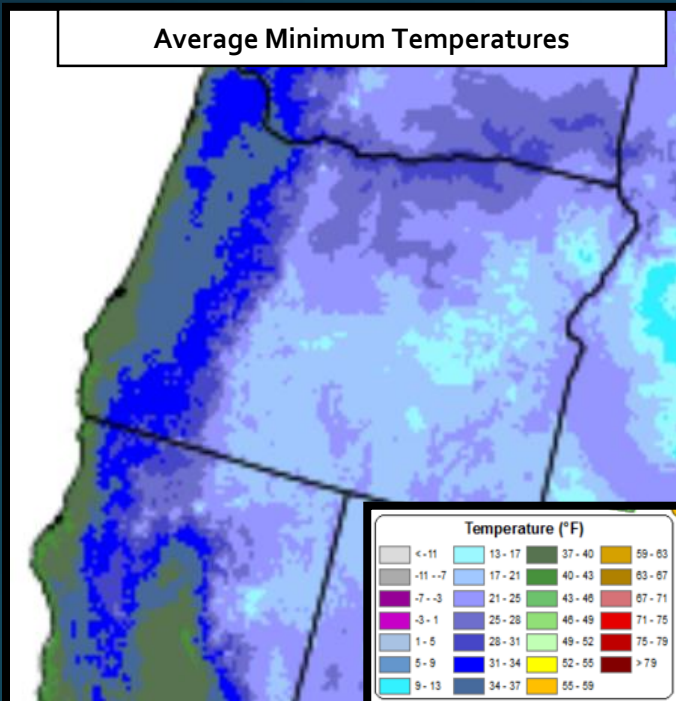


# Looking Ahead: Normals for December (1991-2020)

December is typically the wettest month of the year, collectively, for southwest Oregon and far northern California. The driest locations of Lake County average only a half inch to an inch of water. Most valleys east of the Cascades typically receive 1-4 inches of water, while the mountains east of the Cascades typically see 3-9 inches of water. For the Cascades and Mount Shasta area, typical December totals are 8-15 inches. The drier West Side Valleys, like the Bear Creek drainage of the Rogue Valley and the Shasta and Scott Valleys in California, usually receive 2-5 inches. The remainder of the West Side receives 5-15 inches, although the wettest portions of the Umpqua Basin, the Coast and the Coast Range get 15-20+ inches during an average December.

Much of this water often falls as snow above 4,500 feet MSL. For instance, the 1981-2010 average December snowfall for Crater Lake National Park Headquarters is 92.6". Snow depth there usually is 35.4" on December 1<sup>st</sup> and 67.5" on December 31<sup>st</sup> based on the same average period.

Typical daily high temperatures are 30°F to near 40°F in the mountains above 5000 feet and across the East Side and in the mid 40s to mid 50s west of the Cascades. Normal low temperatures are in the mid teens in the coldest locations on the East Side and on Mount Shasta to the upper 20s in and near the Cascades. West of the Cascades to the coast lower 30s to mid 40s are most typical from east to west.







# \*A note about Period of Record (POR)

When looking at record setting events, it's important to consider the length and completeness of the site's period of record (POR). For example, a site might have records dating back to the early 1900's, but if there is a significant portion of the record missing, it's possible that the POR is not encompassing another significant event that might have surpassed the event in question. Therefore, "record setting" should be considered relative to the completeness/length of POR. To help keep records in context, the POR for each climate site is listed below:

- **North Bend: 01/1902 – Present**
- **Roseburg: 04/1900 – Present**
  - ❖ *Missing:*
    - 05/1900-01/1901
    - 03/1901-06/1902
    - 08/1902-12/1930
    - 10/1965-06/1997
- **Medford: 03/11/1911 – Present**
- **Klamath Falls: 12/1897 – Present**
- **Montague, CA: 07/1948 – Present**
  - ❖ *Missing:*
    - 08-09/1952
    - 02/1953-06/2000
- **Mount Shasta City, CA: 04/1948 – Present**
- **Alturas, CA: 05/1935 – Present**