National Weather Service Medford

2023: September 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).

September 2023 Weather Review

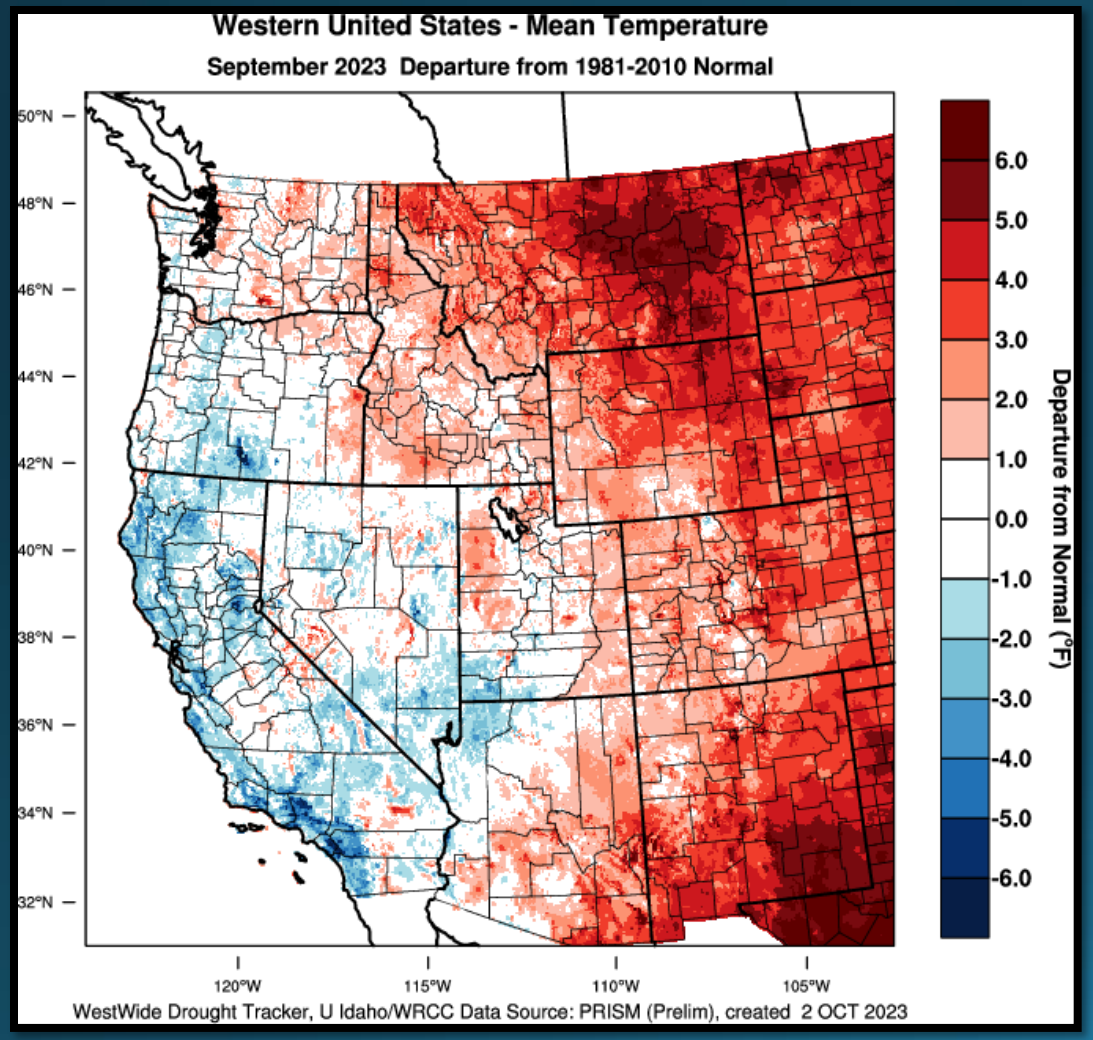
An upper level trough influenced the weather during the beginning of the month, with cool and wet conditions through the Labor Day weekend. This brought a much welcomed change to the weather as widespread wetting rains resulted in a significant dent to the ongoing fire season. Poor air quality due to wildfire smoke was alleviated during the first few days of September as many of the area`s wildfires received enough precipitation to greatly reduce fire activity. The Medford Airport recorded almost a quarter inch of precipitation on the first day of month, which was the most precipitation since June 19th. Benign conditions continued after the holiday weekend as a broad trough and quasi-zonal flow lingered over the region through around the 10th. Dry weather and warmer temperatures (though values remained near normal) persisted through this time and air quality generally remained good as fire activity was dampened.

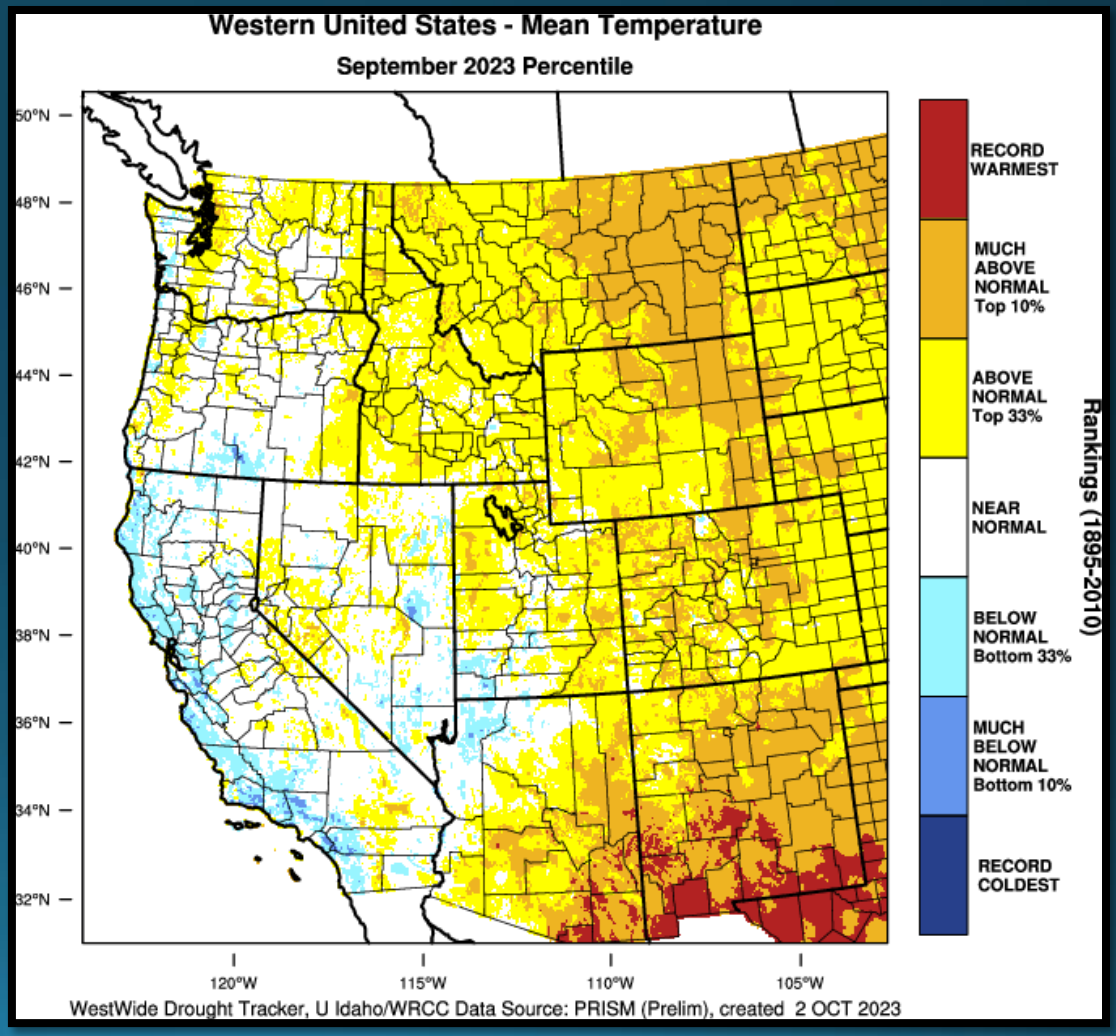
Summer like conditions returned around the middle of the month when high pressure developed over the region. The hottest temperatures of the month were recorded during this time and the Medford Airport recorded it`s last 100 degree day of the year on the 15th. Just prior to this date, a moderate offshore flow event reinvigorated fire activity as dry east to northeasterly winds kept humidities fairly low compared to normal along the coast and in portions of western Siskiyou County. In response to these conditions, the Anvil Fire in Curry County was extremely active and doubled in size over the course of one night. The Smith River Complex also saw increased fire activity as well as the Happy Camp Complex. This is notable because, in addition to the hot temperatures that followed, poor air quality impacted areas west of the Cascades yet again due smoke from this increased activity. The heat lingered through around the 18th, though the smoke helped to moderate temperatures some west of the Cascades. Meanwhile, weak low pressure lingered off the California Coast and this resulted in a few days of thunderstorm activity east of the Cascades.

The pattern transitioned back to cool and wet for the last third of the month as upper level troughing dominated the weather. The first of these troughs largely affected areas east of the Cascades, but still lowered temperatures west of the Cascades as well. Temperatures dropped to as much as 15 degrees below normal east of the Cascades and this brought the first freeze of the season and the end of the growing season there. A stronger trough and front affected the region on the 25th and 26th. This front was particularly strong for this time of year and brought the first atmospheric river of the season to the area along with strong winds. Significant rainfall accompanied this front, delivering 1 to 3 inches of rain to areas along the Coast with 0.50 to 1 inch for areas west of the Cascades. Even locations east of the Cascades recorded 0.25 to 0.50 inches of rain. Needless to say, the amount of rain that fell put a halt to fire season and significantly reduced, if not suppressed, the area`s wildfires and air quality was significantly improved.

Broad troughing lingered over the area through the end of the month and maintained below normal temperatures. Periods of showers and isolated thunderstorms persisted through the end of the month. One round of showers/thunderstorms on the 29th brought significant rainfall to the valleys west of the Cascades. The Medford Airport set a new daily rainfall record on the 29th when 1.25 inches of rain fell. This shattered the old record of 0.79 inches set in 2013 and almost doubled the total monthly precipitation. Also worth noting is the addition of this 1.25 inches made September 2023 the third wettest September on record for the Medford Airport. Overall, September 2023 finished with below normal average temperatures and above normal precipitation.

September 2023 Observed Temperatures





Average Temperatures

	Average (°F)	Departure from Normal	Average Max (°F)	Departure from Normal	Average Min (°F)	Departure from Normal
North Bend	59.6	0.6°F	67.4	0.7°F	51.7	0.4°F
Roseburg	66.1	0.0°F	78.9	-1.2°F	53.2	1.0°F
Medford	67.1	-0.6°F	80.7	-3.6°F	53.6	2.4°F
Klamath Falls	55.6	-2.6°F	73.1	-4.4°F	38.2	-0.8°F
Montague, CA	63.3	-1.6°F	80.4	-4.0°F	46.1	0.7°F
Mt. Shasta City, CA	60.4	-1.1°F	75.1	-3.3°F	45.7	1.1°F
Alturas, CA	56.4	-2.1°F	74.4	-5.3°F	38.4	1.2°F

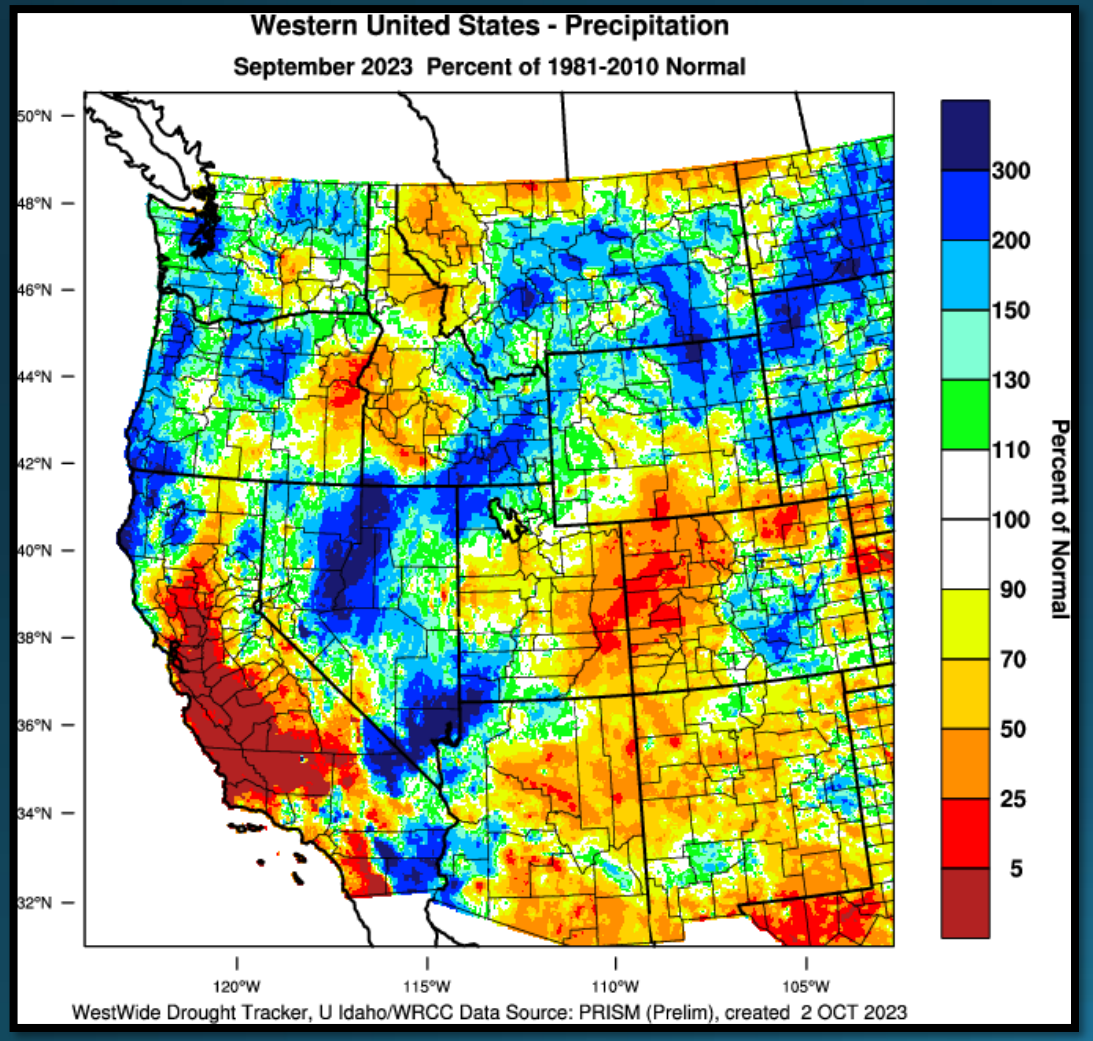
Monthly Max & Min Temperatures

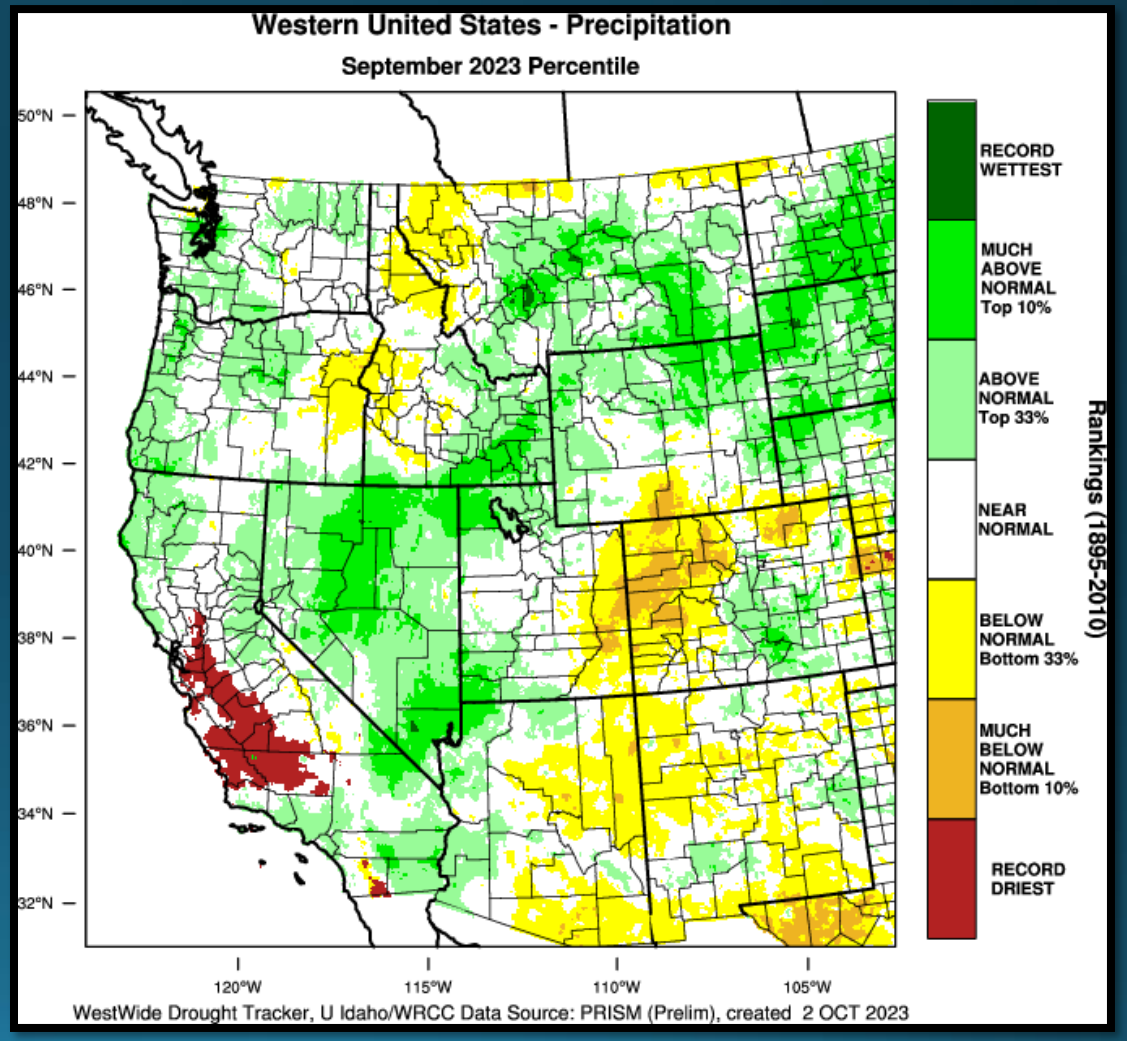
	Max (°F)	Date(s)	Min (°F)	Date(s)
North Bend	74°	12th	43°	21st
Roseburg	97°	15th	45°	21st
Medford	100°	15th	43°	21st & 28th
Klamath Falls	87°	15th	25°	28th
Montague, CA	95°	15th	36°	28th
Mt. Shasta City, CA	91°	15th	36°	22nd
Alturas, CA	88°	16th & 17th	28°	28th & 29th

	Date	Record High	Old Record/Year
Roseburg	15th	97°F	95°F / 1951

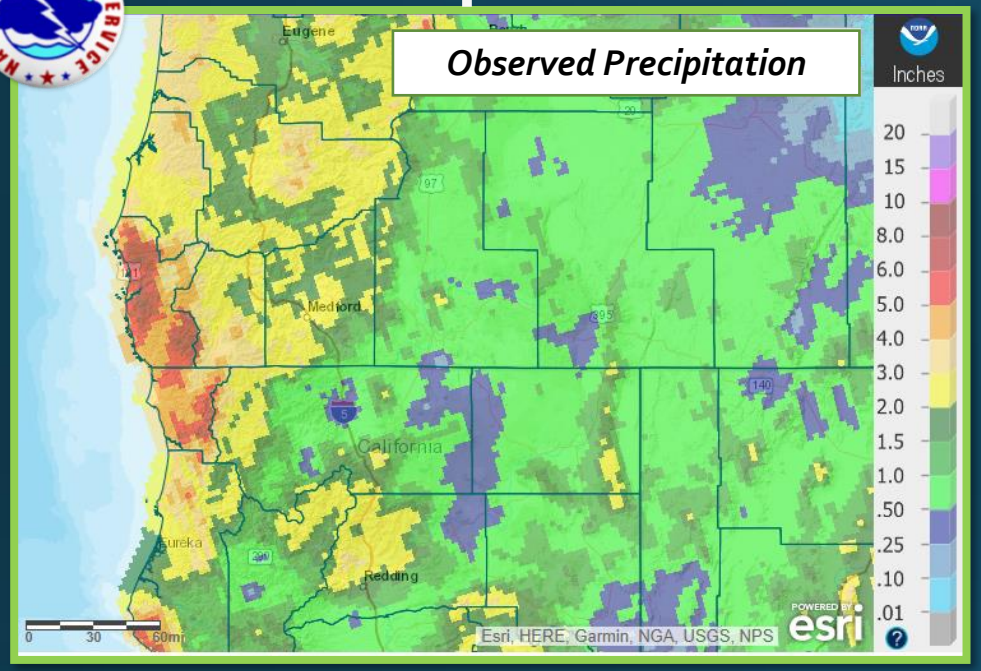
	Date	Record Low	Old Record/Year
Klamath Falls	28th	25°F	27°F / 1905

September 2023 Observed Precipitation





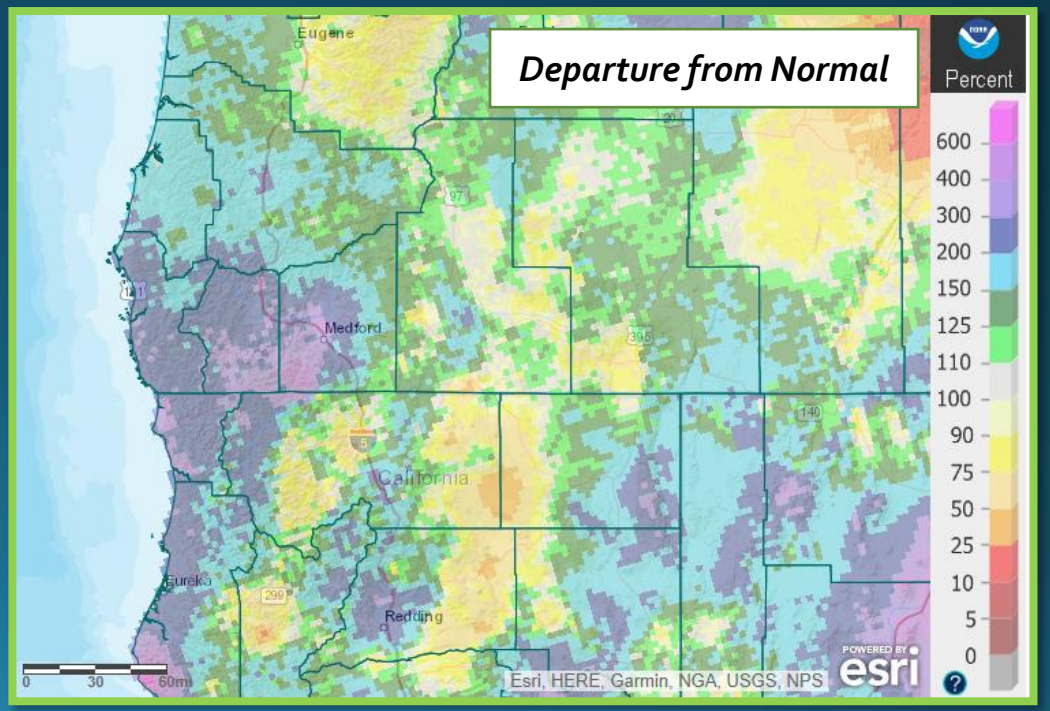
Precipitation



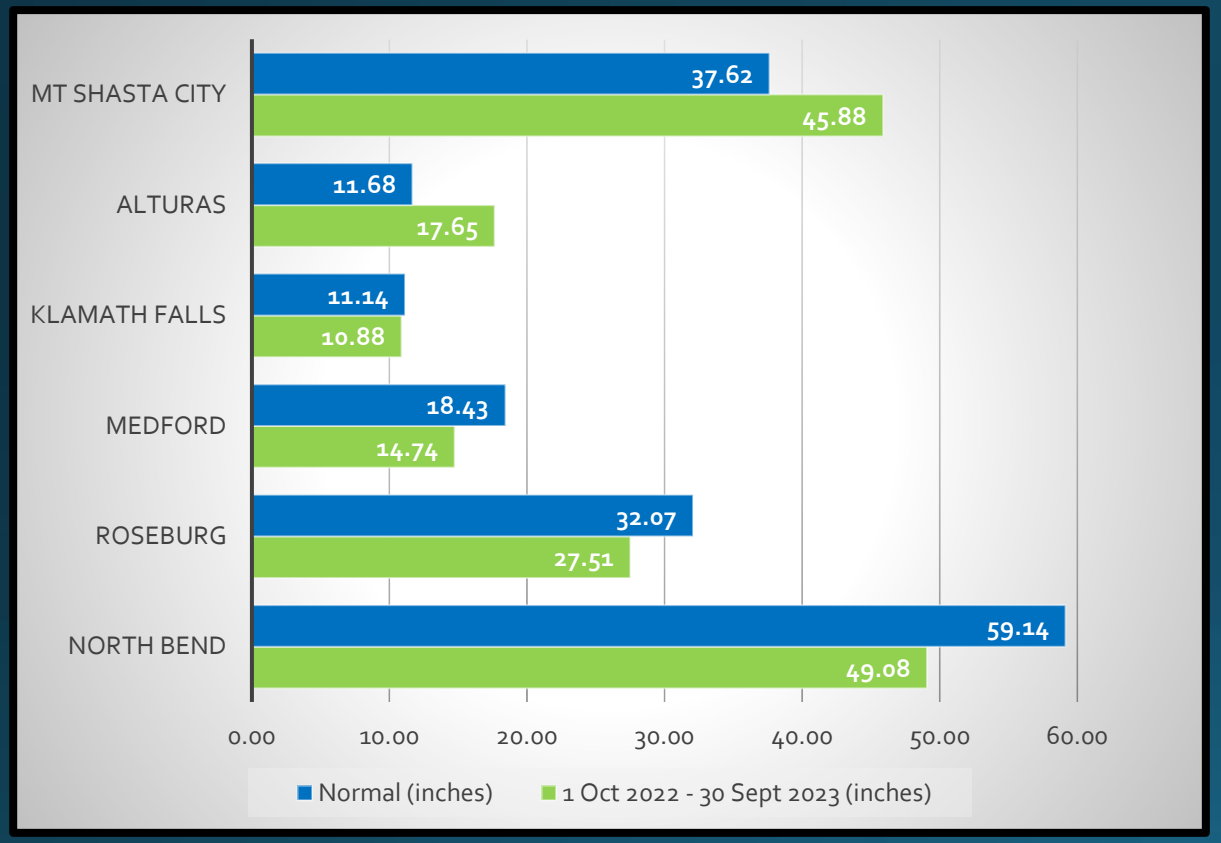
	Total	Departure from Normal	Greatest 24-hr Total	Date(s)
North Bend	2.76"	1.21"	2.01"	24th – 25th
Roseburg	2.23"	1.38"	0.96"	28th – 29th
Medford	2.39"	1.91"	1.26"	29th – 30th
Klamath Falls	1.04"	0.74"	0.74"	29th – 30th
Montague, CA	0.45"	0.18"	0.31"	1st
Mt. Shasta City, CA	1.61"	1.10"	1.11"	1st
Alturas, CA	0.92"	0.57"	0.44"	29th – 30th

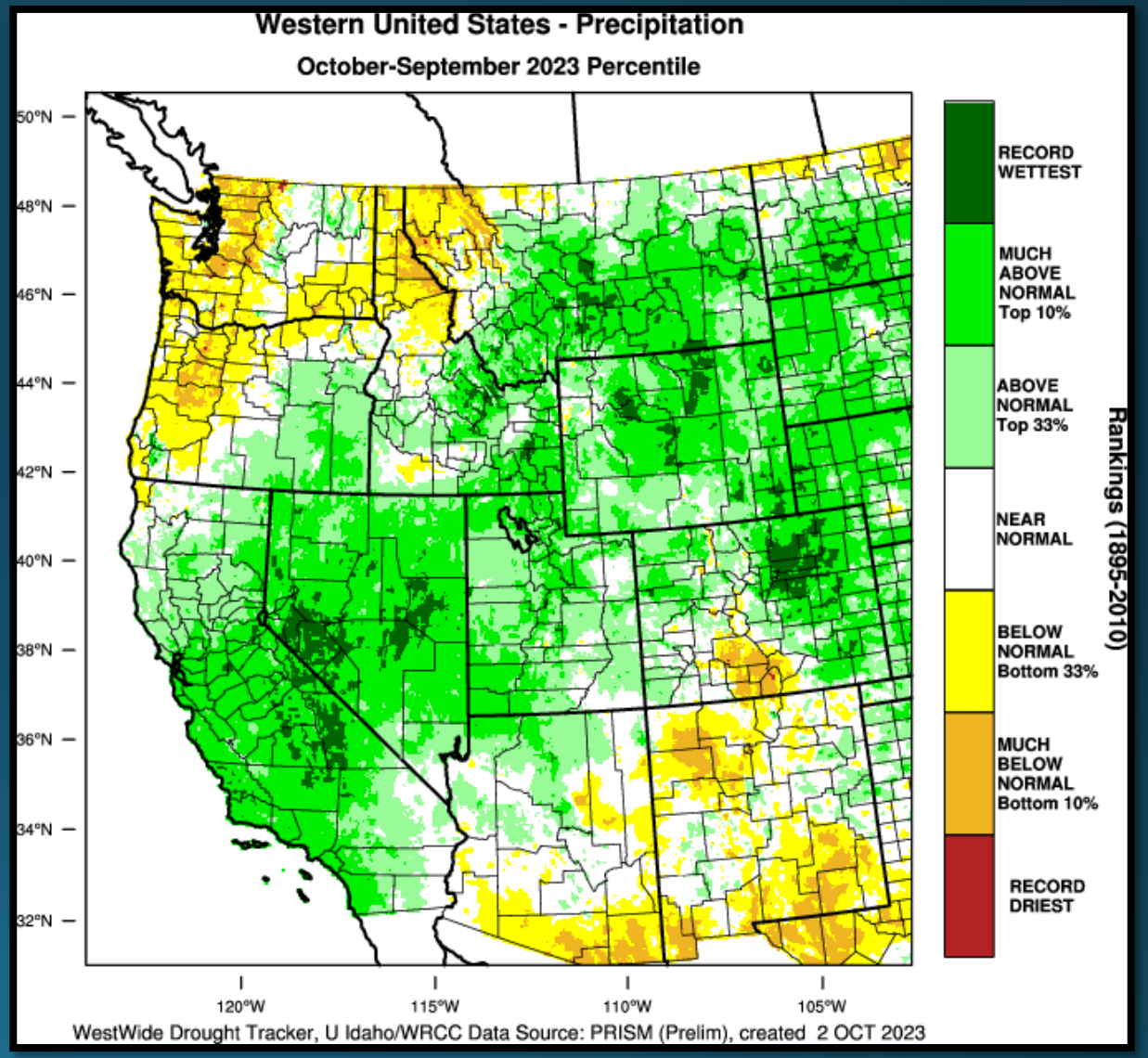
Record Precipitation

	Date / Amount	Old Record / Year
North Bend	25th / 1.69"	0.93" / 1971
Mt Shasta City	1st / 1.11"	0.29" / 1979
Montague	1st / 0.31"	0.02" / 1983
Medford	25th / 0.46"	0.22" / 1923
	29th / 1.25"	0.79" / 2013
Roseburg	25th / 0.75"	0.42" / 1986
	29th / 0.96"	Ties w/2013



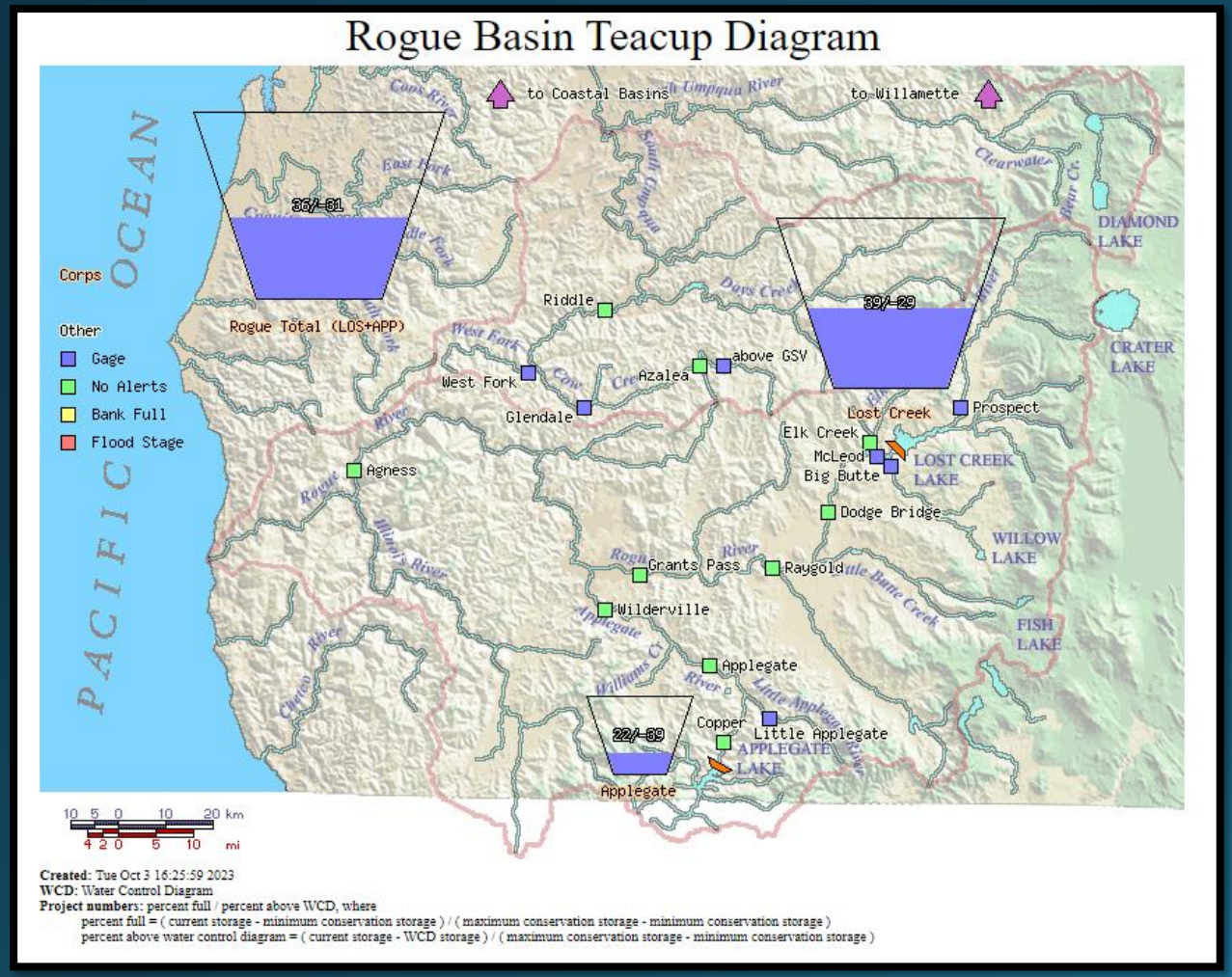
2022-2023 Water Year Summary



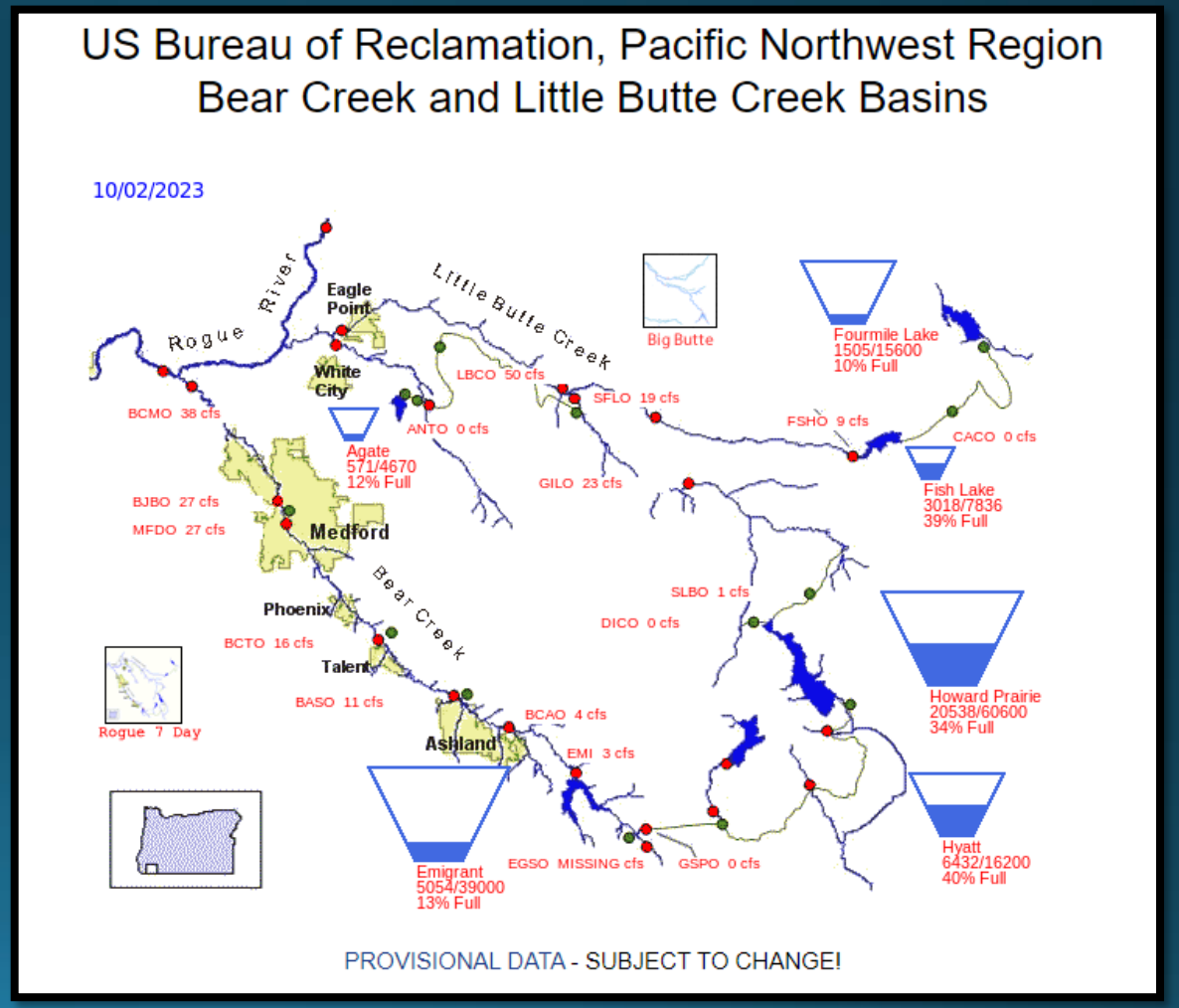


Reservoir Status

Data courtesy of US Army Corps of Engineers

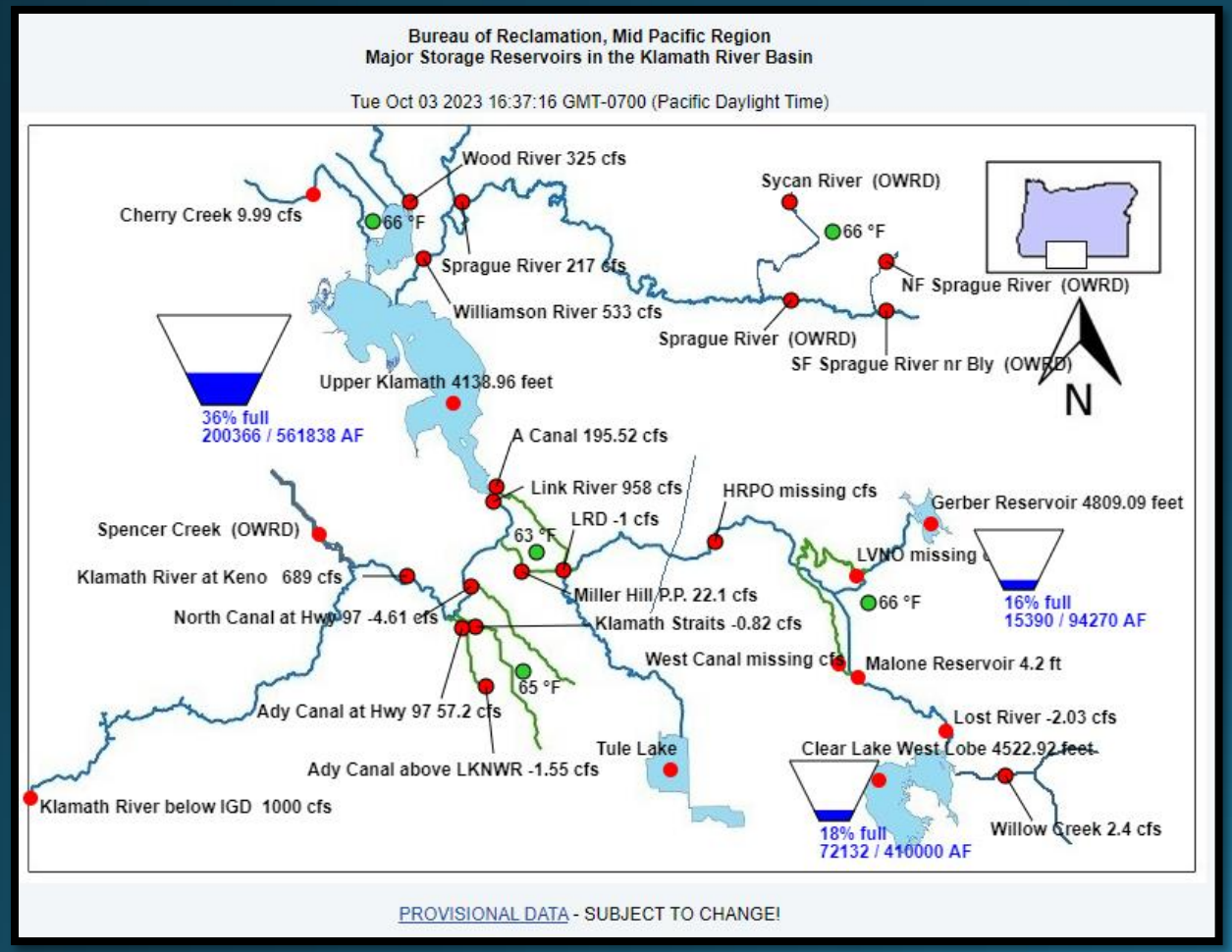


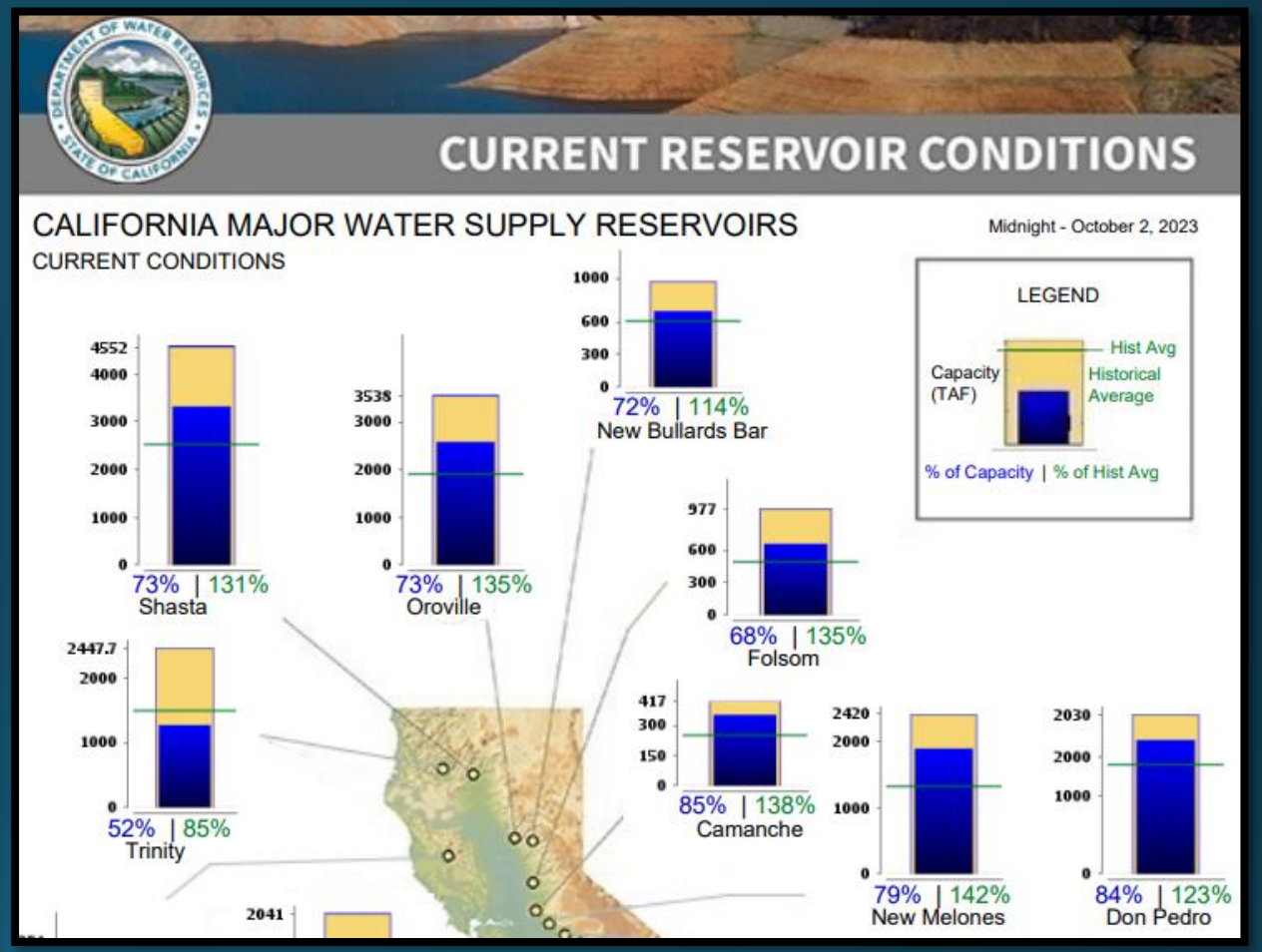
Data courtesy of Bureau of Reclamation



Reservoir Status

Klamath River Basin. Data courtesy of Bureau of Reclamation

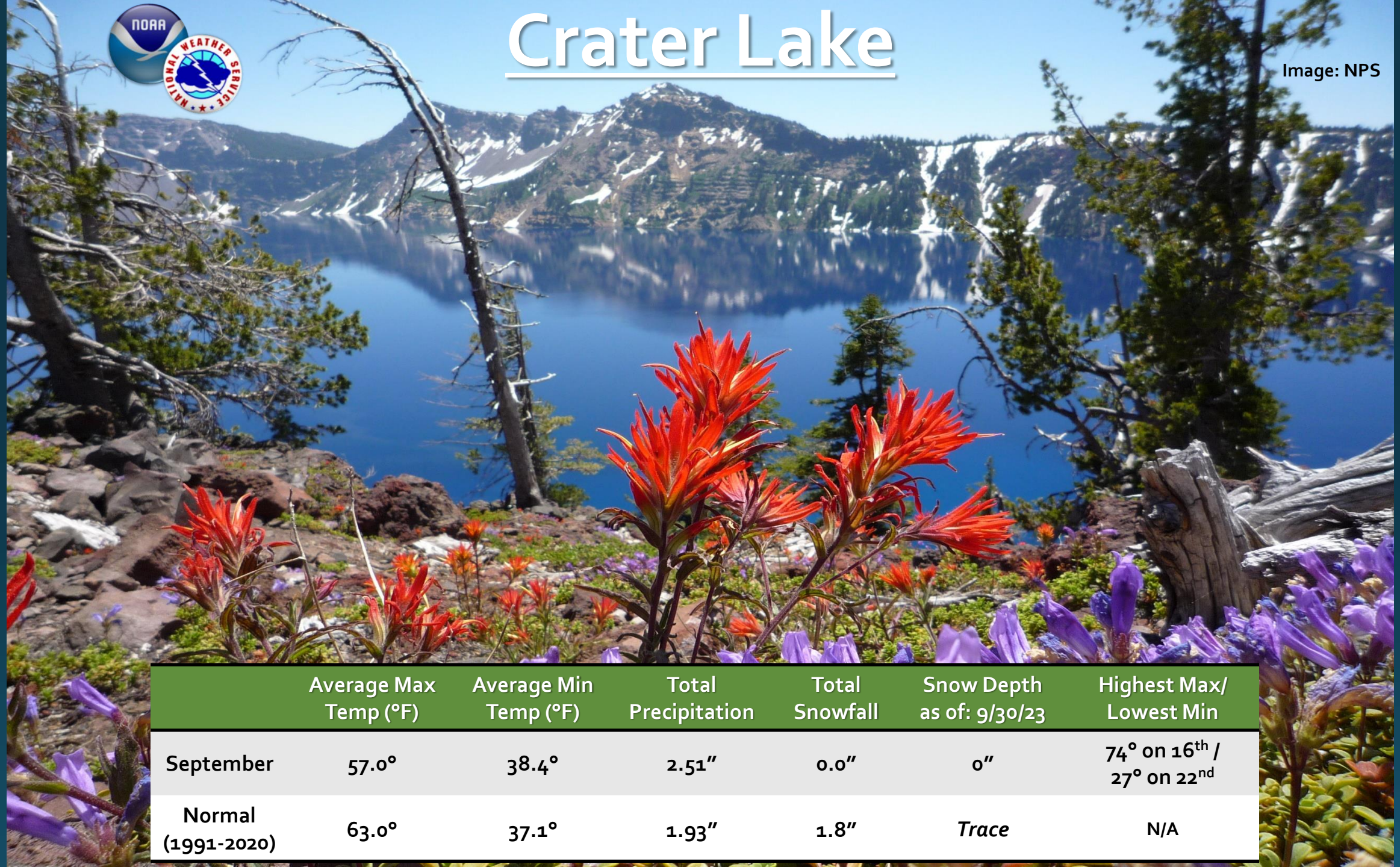




Northern California. California Data Exchange Center

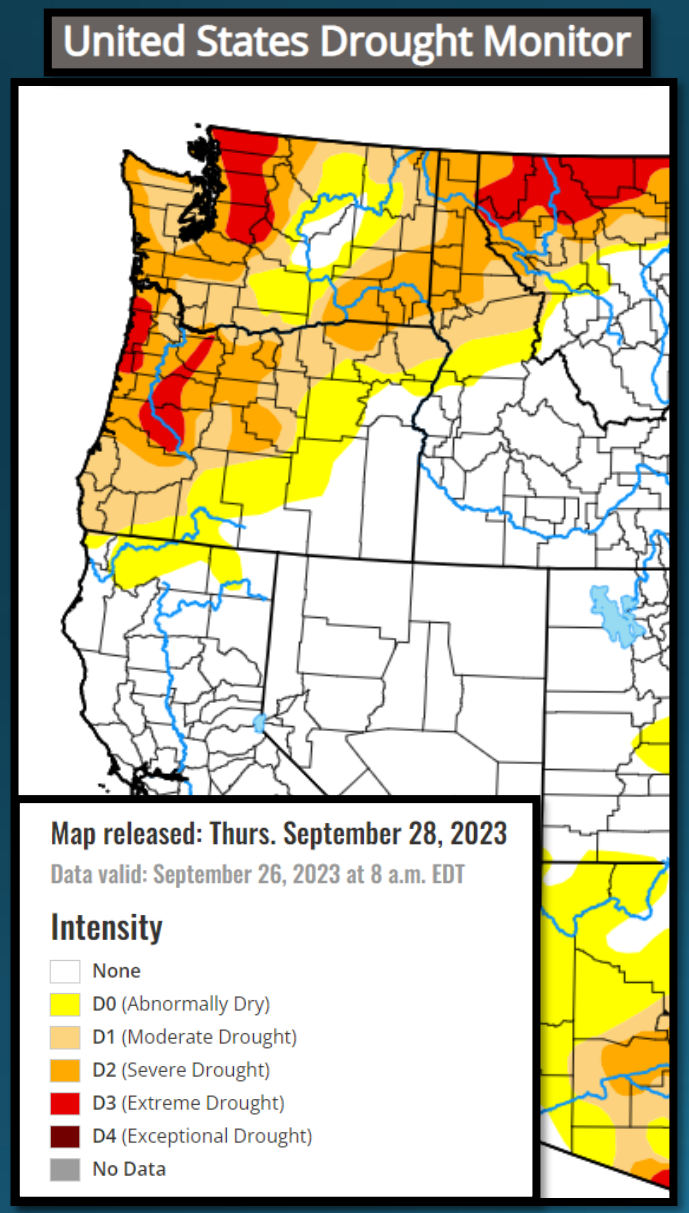
Crater Lake

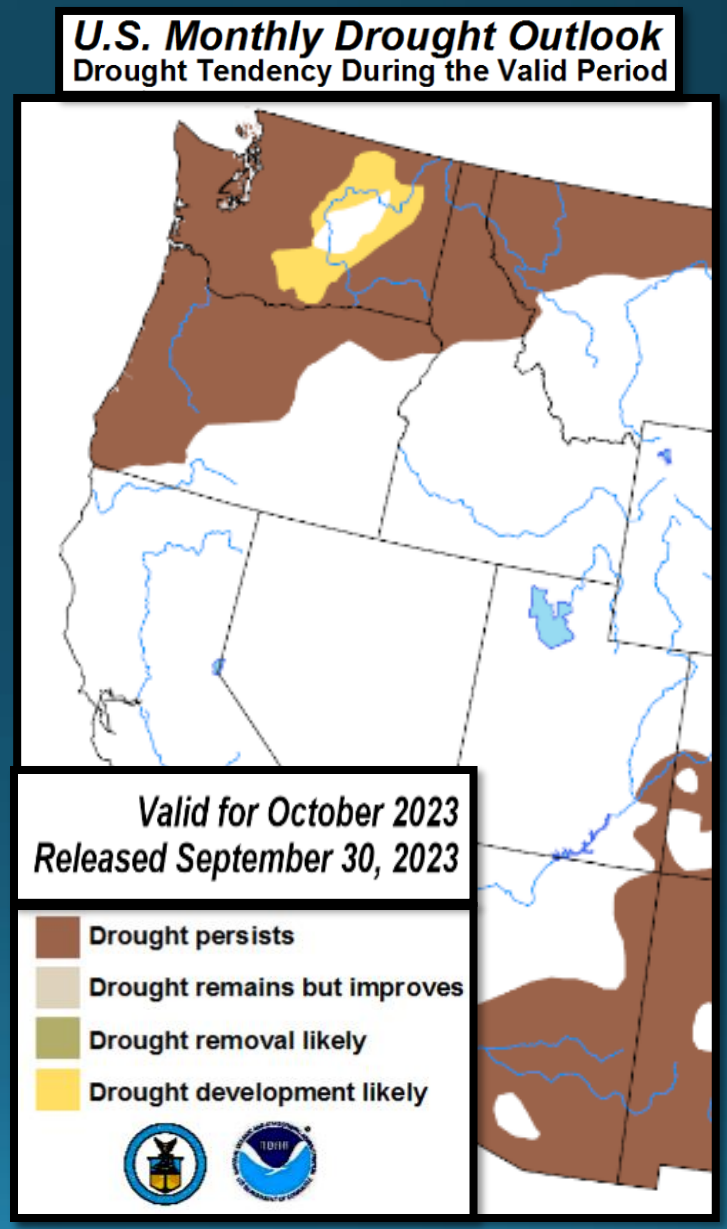
Image: NPS



	Average Max Temp (°F)	Average Min Temp (°F)	Total Precipitation	Total Snowfall	Snow Depth as of: 9/30/23	Highest Max/ Lowest Min
September	57.0°	38.4°	2.51"	0.0"	0"	74° on 16th / 27° on 22nd
Normal (1991-2020)	63.0°	37.1°	1.93"	1.8"	*Trace*	N/A

Drought Monitor (Current) & Outlook (October)

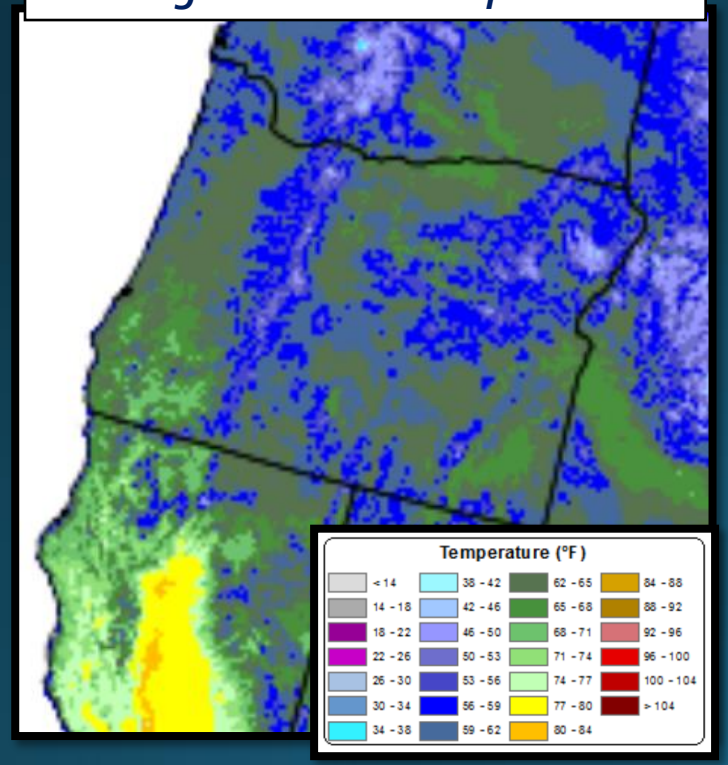




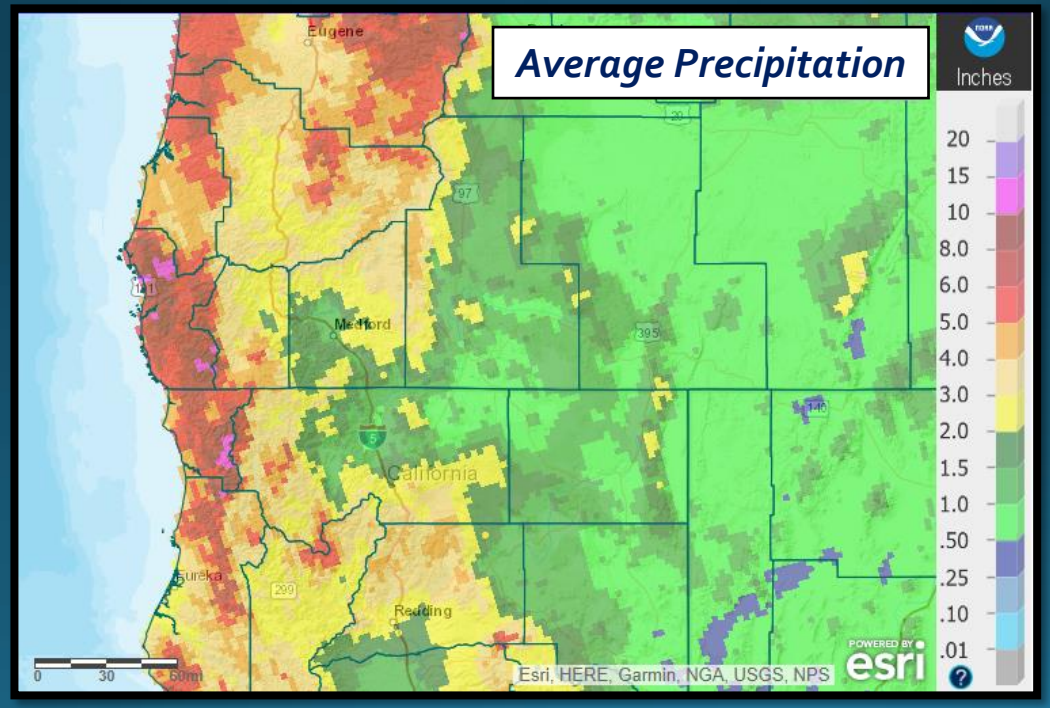
Looking Ahead: Normals for October (1991-2020)

October is the first month of the water year because it is the month when the weather usually turns definitively cooler and wetter for our forecast area. If fire season hasn't already ended, it almost certainly will end this month. Average low temperatures are in the 20s and 30s east of the Cascades, and in the upper 30s to 40s west of them. Average high temperatures are mainly in the 50s in the mountains, though colder on the peaks, where snow usually begins to accumulate. Most east side valley highs are in the 60s while, on the west side, 60s and lower 70s are normal. 5-10 inches of precipitation is normal for Curry County & in the higher terrain of far western Siskiyou County, and 10-15" in the Curry mountains. Elsewhere, amounts vary greatly, with 0.5"-3" east of the Cascades, and 1" to 5" across much of the rest of the area.

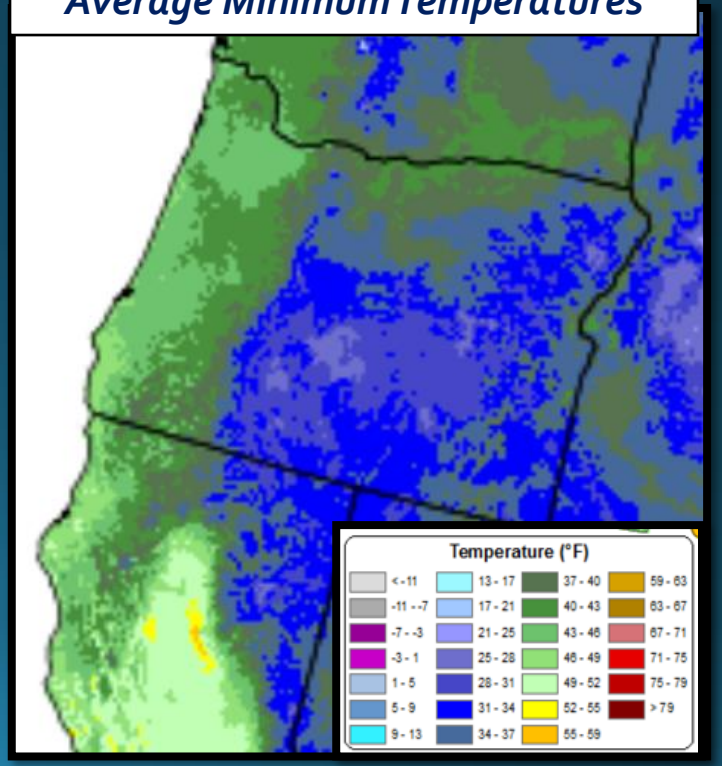
Average Maximum Temperatures



Average Precipitation



Average Minimum Temperatures



*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**