

# Month in Review - August 2024

Weather Forecast Office

Pendleton, OR

Monday, September 9

Photo taken by NWS Pendleton staff  
in southern Umatilla County, Oregon



**The Month in Review is a retrospective collection of climate statistics for NWS Pendleton's forecast area with specific emphasis on ASOS-based climate sites, snowpack and drought evolution, and various statistics for the water year to date.**

**Prepared by NWS Pendleton's Climate Services team.**



# Key Points - August 2024

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Pendleton, OR  
Monday, September 9

- Mean (average) temperatures were predominantly within a few degrees of normal (1991-2020 climate reference period) across the forecast area during August.
- Generally above-normal precipitation was observed along the Cascade crest and adjacent east slopes. Elsewhere, below-normal precipitation was recorded in most of the Columbia Basin, with a mix of above and below normal for the Blue Mountains region.
- Drought conditions improved along portions of the Cascade crest and east slopes, but worsened in parts of the Columbia Basin and adjoining Blue Mountain foothills.



# Local Storm Reports (LSRs) - August 2024

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Pendleton, OR  
Monday, September 9

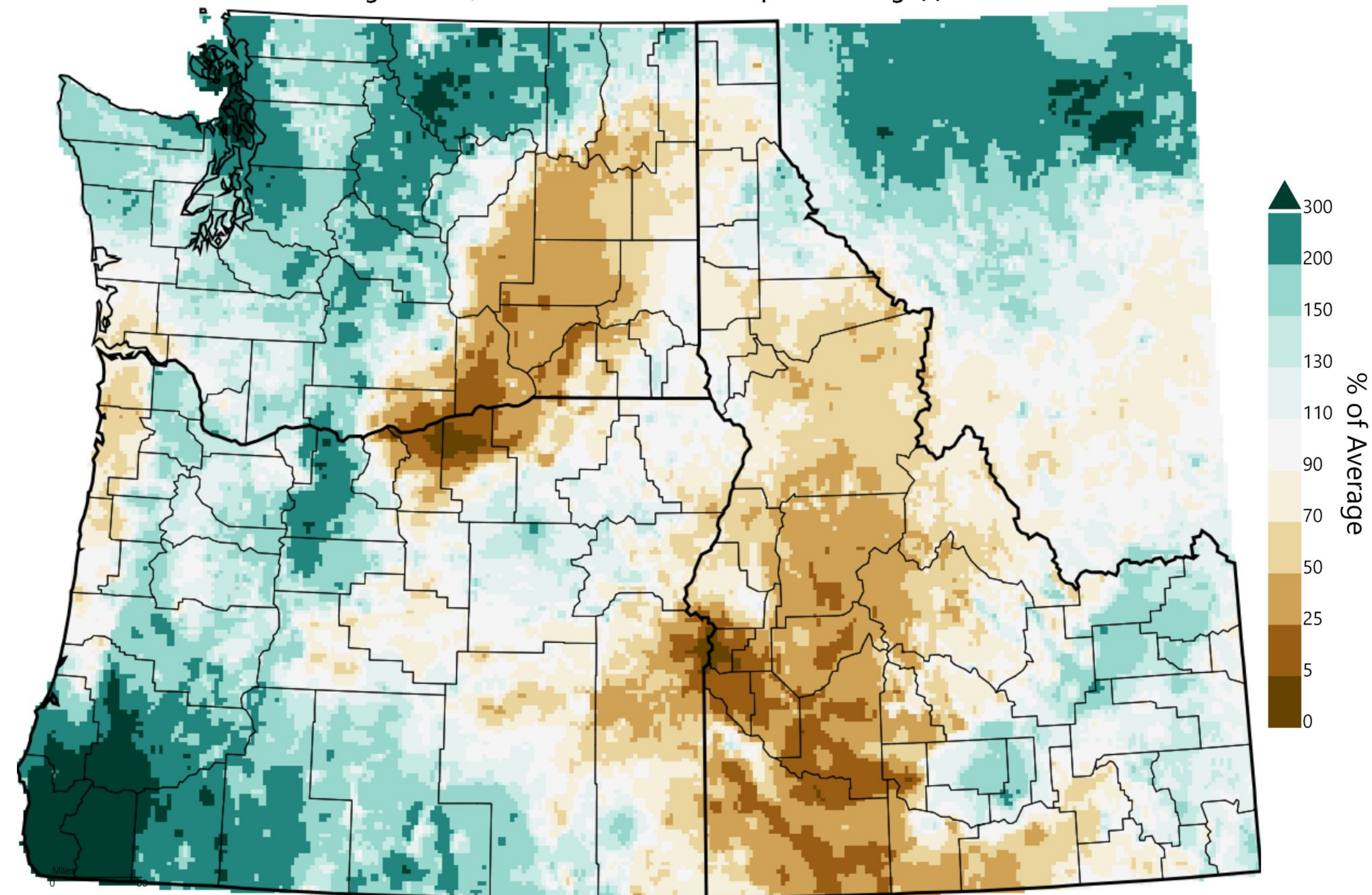
- Iowa State University's website provides a nice graphical interface for viewing archived local storm reports. See the following link for August's local storm reports in NWS Pendleton's forecast area:  
<https://mesonet.agron.iastate.edu/lsr/#PDT/202408010700/202409010700/011011>
- For recent LSRs, <https://www.weather.gov/source/crh/lsrcmap.html?sid=pdt> or <https://mesonet.agron.iastate.edu/lsr/#PDT/YYYYMMDDHHmm/YYYYMMDDHHmm/111111> and change the time to your desired date range.



# Precipitation Anomaly - August 2024

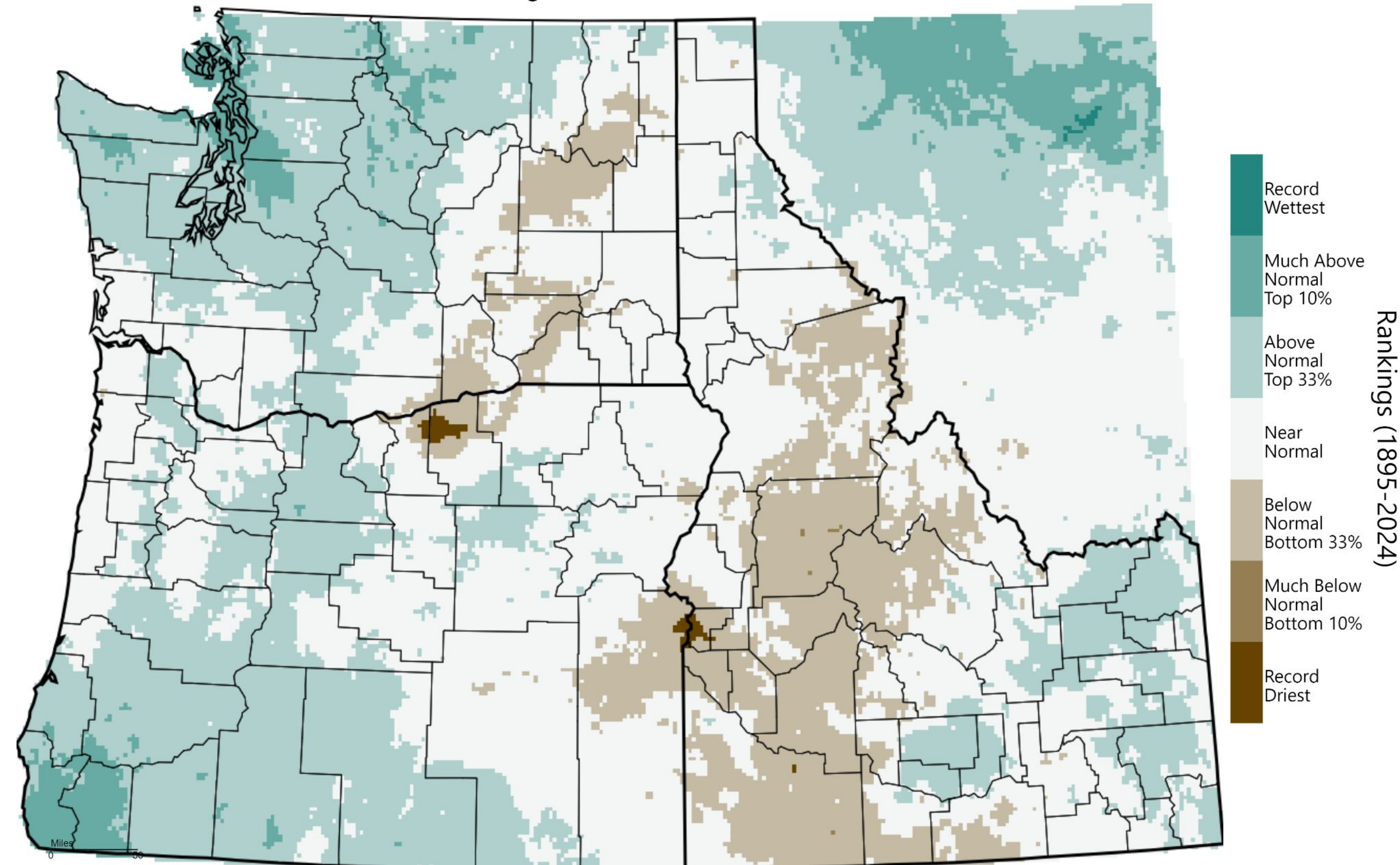
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Monday, September 9

**Pacific Northwest - Precipitation**  
August 2024, Percent of 1991-2020 Computed Average(s)



Generally above-normal precipitation was observed along the Cascade crest and adjacent east slopes. Elsewhere, below-normal precipitation was recorded in most of the Columbia Basin, with a mix of above and below normal for the Blue Mountains region.

## Pacific Northwest - Precipitation August 2024, Percentile



For historical context, precipitation during August was above normal (top 33% of all years) for the Cascade crest and adjacent east slopes. Precipitation was below normal (bottom 33% of all years) for much of the Columbia Basin, and generally near normal for the Blue Mountains region.

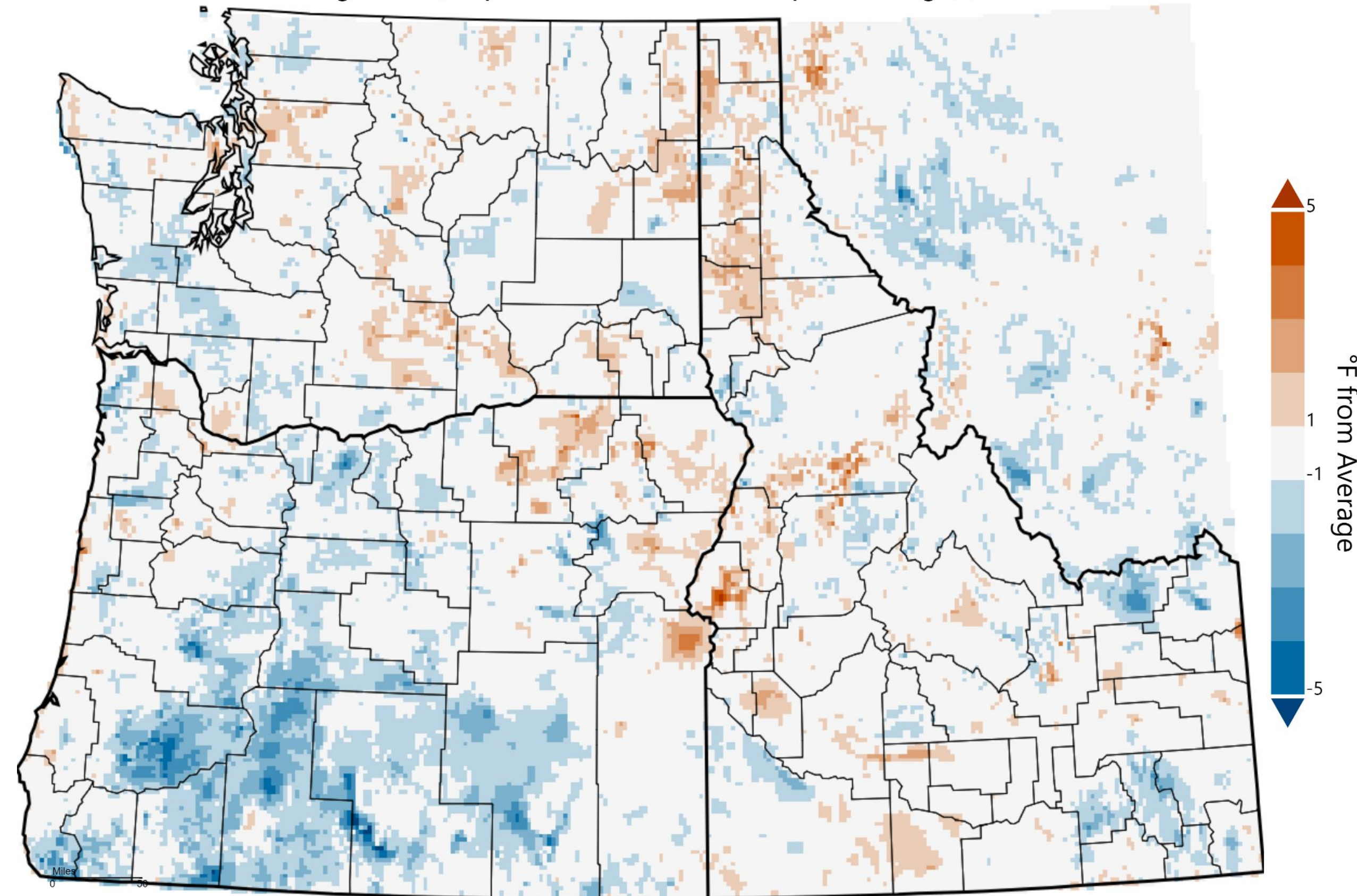


# Temperature Anomaly - August 2024

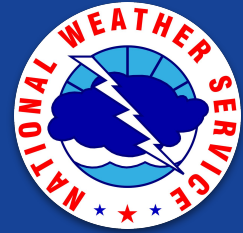
Weather Forecast Office  
Pendleton, OR  
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**Pacific Northwest - Mean Temperature**  
August 2024, Departure from 1991-2020 Computed Average(s)

Mean (average) temperatures were predominantly within a few degrees of normal (1991-2020 climate reference period) across the forecast area during August.



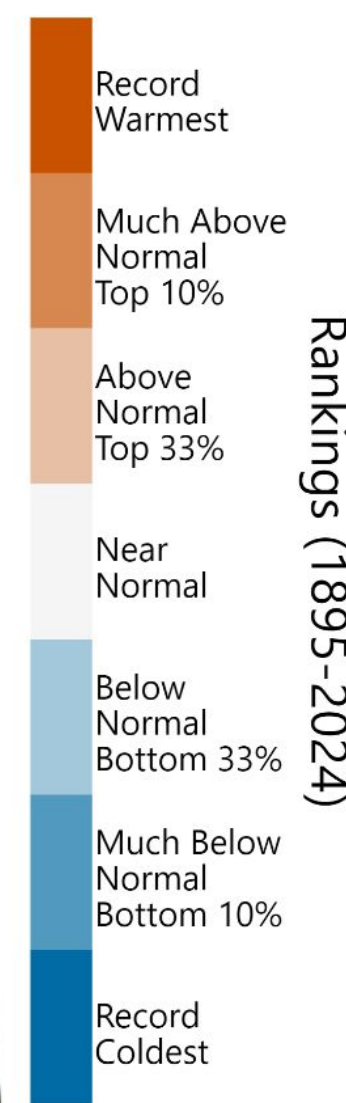
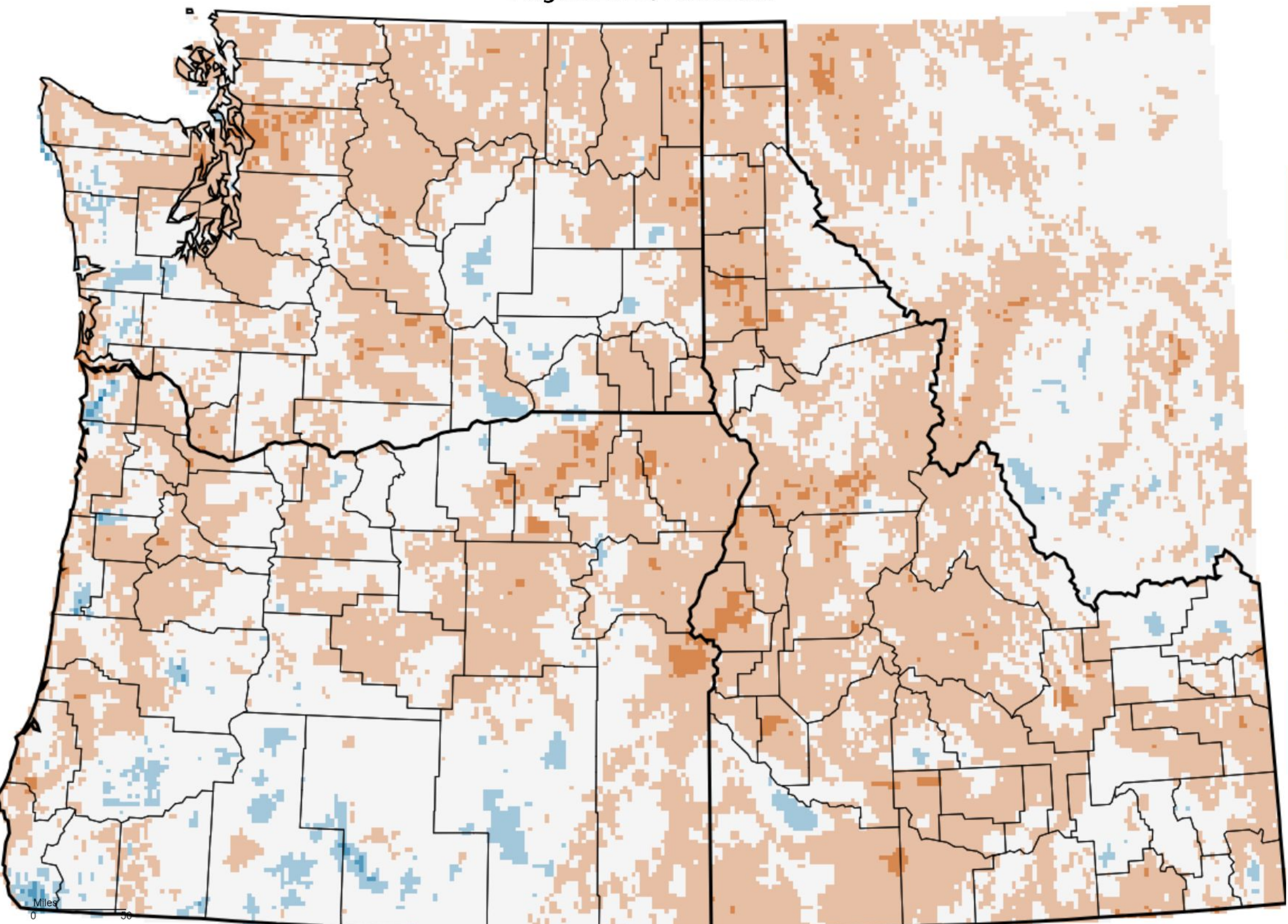
WestWide Drought Tracker, WRCC, Climate Engine, Data Source: PRISM Prelim, created 05 Sep 2024



# Temperature Percentiles - August 2024

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

**Pacific Northwest - Mean Temperature**  
August 2024, Percentile



Rankings (1895-2024)

For historical context, mean (average) temperatures during August were mostly near normal or above normal (top 33% of all years) with a few pockets of below normal (bottom 33% of all years).

WestWide Drought Tracker, WRCC, Climate Engine, Data Source: PRISM Prelim, created 05 Sep 2024



# August 2024 Climate Statistics - Pendleton ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

Variable (units)	Observed	Normal	Departure
<b>Warmest Daily Maximum Temperature (F)</b>	<b>104</b>	<b>-</b>	<b>-</b>
<b>Average Daily Maximum Temperature (F)</b>	<b>88.4</b>	<b>87.6</b>	<b>0.8</b>
<b>Average Daily Minimum Temperature (F)</b>	<b>57.3</b>	<b>56.0</b>	<b>1.3</b>
<b>Coolest Daily Minimum Temperature (F)</b>	<b>43</b>	<b>-</b>	<b>-</b>
<b>Average Temperature (F)</b>	<b>72.8</b>	<b>71.8</b>	<b>1.0</b>
<b>Total Precipitation (inches)</b>	<b>0.30</b>	<b>0.31</b>	<b>-0.01</b>
<b>Total Snow (inches)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Variable (units)	Value	Day
<b>Daily Record High Temperature (F)</b>		
<b>Daily Record Low Temperature (F)</b>		
<b>Daily Record Precipitation (inches)</b>		

Additional climate statistics can be found here: <https://www.weather.gov/wrh/climate?wfo=pdt>





# August 2024 Climate Statistics - Walla Walla ASOS

Weather Forecast Office  
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Variable (units)	Observed	Normal	Departure
<b>Warmest Daily Maximum Temperature (F)</b>	<b>103</b>	<b>-</b>	<b>-</b>
<b>Average Daily Maximum Temperature (F)</b>	<b>87.3</b>	<b>88.6</b>	<b>-1.3</b>
<b>Average Daily Minimum Temperature (F)</b>	<b>60.7</b>	<b>61.7</b>	<b>-1.0</b>
<b>Coolest Daily Minimum Temperature (F)</b>	<b>46</b>	<b>-</b>	<b>-</b>
<b>Average Temperature (F)</b>	<b>74.0</b>	<b>75.2</b>	<b>-1.2</b>
<b>Total Precipitation (inches)</b>	<b>0.14</b>	<b>0.40</b>	<b>-0.26</b>

Variable (units)	Value	Day
<b>Daily Record High Temperature (F)</b>		
<b>Daily Record Low Temperature (F)</b>		
<b>Daily Record Precipitation (inches)</b>		

Additional climate statistics can be found here: <https://www.weather.gov/wrh/climate?wfo=pdt>



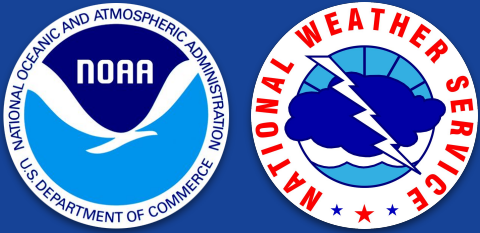
# August 2024 Climate Statistics - The Dalles ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

Variable (units)	Observed	Normal	Departure
<b>Warmest Daily Maximum Temperature (F)</b>	<b>106</b>	<b>-</b>	<b>-</b>
<b>Average Daily Maximum Temperature (F)</b>	<b>87.8</b>	<b>87.9</b>	<b>-0.1</b>
<b>Average Daily Minimum Temperature (F)</b>	<b>60.0</b>	<b>60.3</b>	<b>-0.3</b>
<b>Coolest Daily Minimum Temperature (F)</b>	<b>47</b>	<b>-</b>	<b>-</b>
<b>Average Temperature (F)</b>	<b>73.9</b>	<b>74.1</b>	<b>-0.2</b>
<b>Total Precipitation (inches)</b>	<b>0.66</b>	<b>0.16</b>	<b>0.50</b>

Variable (units)	Value	Day
<b>Daily Record High Temperature (F)</b>		
<b>Daily Record Low Temperature (F)</b>		
<b>Daily Record Precipitation (inches)</b>	<b>0.61</b>	<b>17th</b>

Additional climate statistics can be found here: <https://www.weather.gov/wrh/climate?wfo=pdt>



# August 2024 Climate Statistics - Ellensburg ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

Variable (units)	Observed	Normal	Departure
<b>Warmest Daily Maximum Temperature (F)</b>	<b>105</b>	<b>-</b>	<b>-</b>
<b>Average Daily Maximum Temperature (F)</b>	<b>86.8</b>	<b>86.5</b>	<b>0.3</b>
<b>Average Daily Minimum Temperature (F)</b>	<b>55.8</b>	<b>55.9</b>	<b>-0.1</b>
<b>Coolest Daily Minimum Temperature (F)</b>	<b>41</b>	<b>-</b>	<b>-</b>
<b>Average Temperature (F)</b>	<b>71.3</b>	<b>71.2</b>	<b>0.1</b>
<b>Total Precipitation (inches)</b>	<b>0.17</b>	<b>0.17</b>	<b>0.00</b>

Variable (units)	Value	Day
<b>Daily Record High Temperature (F)</b>	<b>105</b>	<b>2nd</b>
<b>Daily Record Low Temperature (F)</b>		
<b>Daily Record Precipitation (inches)</b>	<b>0.09</b>	<b>17th</b>

Additional climate statistics can be found here: <https://www.weather.gov/wrh/climate?wfo=pdt>

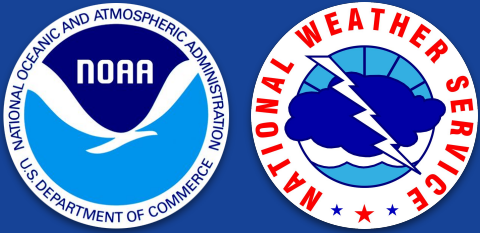


# August 2024 Climate Statistics - Hermiston ASOS

Weather Forecast Office  
Pendleton, OR  
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Variable (units)	Observed	Normal	Departure
<b>Warmest Daily Maximum Temperature (F)</b>	<b>106</b>	<b>-</b>	<b>-</b>
<b>Average Daily Maximum Temperature (F)</b>	<b>90.3</b>	<b>91.0</b>	<b>-0.7</b>
<b>Average Daily Minimum Temperature (F)</b>	<b>56.5</b>	<b>56.8</b>	<b>-0.3</b>
<b>Coolest Daily Minimum Temperature (F)</b>	<b>41</b>	<b>-</b>	<b>-</b>
<b>Average Temperature (F)</b>	<b>73.4</b>	<b>73.9</b>	<b>-0.5</b>
<b>Total Precipitation (inches)</b>	<b>0.13</b>	<b>0.17</b>	<b>-0.04</b>

Variable (units)	Value	Day
<b>Daily Record High Temperature (F)</b>		
<b>Daily Record Low Temperature (F)</b>		
<b>Daily Record Precipitation (inches)</b>		



# August 2024 Climate Statistics - Meacham ASOS

Weather Forecast Office  
Pendleton, OR  
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Variable (units)	Observed	Normal	Departure
<b>Warmest Daily Maximum Temperature (F)</b>	<b>92*</b>	<b>-</b>	<b>-</b>
<b>Average Daily Maximum Temperature (F)</b>	<b>77.4*</b>	<b>78.6</b>	<b>-0.8*</b>
<b>Average Daily Minimum Temperature (F)</b>	<b>39.4*</b>	<b>39.6</b>	<b>-0.2*</b>
<b>Coolest Daily Minimum Temperature (F)</b>	<b>27*</b>	<b>-</b>	<b>-</b>
<b>Average Temperature (F)</b>	<b>58.4*</b>	<b>59.1</b>	<b>-0.7*</b>
<b>Total Precipitation (inches)</b>	<b>0.20*</b>	<b>0.85</b>	<b>-0.65*</b>

\*Note: data were unavailable for the first four (4) days of August at Meacham which may affect some or all of these variables. For reference, the first four days of August observed above-normal temperatures across NWS Pendleton's other climate sites.

Variable (units)	Value	Day
<b>Daily Record High Temperature (F)</b>		
<b>Daily Record Low Temperature (F)</b>		
<b>Daily Record Precipitation (inches)</b>		



# August 2024 Climate Statistics - Pasco ASOS

Weather Forecast Office  
Pendleton, OR  
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Variable (units)	Observed	Normal	Departure
<b>Warmest Daily Maximum Temperature (F)</b>	<b>107</b>	<b>-</b>	<b>-</b>
<b>Average Daily Maximum Temperature (F)</b>	<b>91.1</b>	<b>90.7</b>	<b>0.4</b>
<b>Average Daily Minimum Temperature (F)</b>	<b>57.6</b>	<b>55.7</b>	<b>1.9</b>
<b>Coolest Daily Minimum Temperature (F)</b>	<b>43</b>	<b>-</b>	<b>-</b>
<b>Average Temperature (F)</b>	<b>74.4</b>	<b>73.2</b>	<b>1.2</b>
<b>Total Precipitation (inches)</b>	<b>0.14</b>	<b>0.27</b>	<b>-0.13</b>

Variable (units)	Value	Day
<b>Daily Record High Temperature (F)</b>		
<b>Daily Record Low Temperature (F)</b>	<b>43</b>	<b>28th</b>
<b>Daily Record Precipitation (inches)</b>		



# August 2024 Climate Statistics - Redmond ASOS

Weather Forecast Office  
Pendleton, OR  
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Variable (units)	Observed	Normal	Departure
<b>Warmest Daily Maximum Temperature (F)</b>	<b>105</b>	<b>-</b>	<b>-</b>
<b>Average Daily Maximum Temperature (F)</b>	<b>87.1</b>	<b>86.5</b>	<b>0.6</b>
<b>Average Daily Minimum Temperature (F)</b>	<b>47.7</b>	<b>47.2</b>	<b>0.5</b>
<b>Coolest Daily Minimum Temperature (F)</b>	<b>33</b>	<b>-</b>	<b>-</b>
<b>Average Temperature (F)</b>	<b>67.4</b>	<b>66.8</b>	<b>0.6</b>
<b>Total Precipitation (inches)</b>	<b>0.43</b>	<b>0.46</b>	<b>-0.03</b>

Variable (units)	Value	Day
<b>Daily Record High Temperature (F)</b>	<b>103, 105, 100</b>	<b>1st, 2nd, 31st</b>
<b>Daily Record Low Temperature (F)</b>		
<b>Daily Record Precipitation (inches)</b>	<b>0.24</b>	<b>4th</b>

Additional climate statistics can be found here: <https://www.weather.gov/wrh/climate?wfo=prt>



# August 2024 Climate Statistics - Yakima ASOS

Weather Forecast Office  
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Variable (units)	Observed	Normal	Departure
<b>Warmest Daily Maximum Temperature (F)</b>	<b>105</b>	<b>-</b>	<b>-</b>
<b>Average Daily Maximum Temperature (F)</b>	<b>87.4</b>	<b>88.5</b>	<b>-1.1</b>
<b>Average Daily Minimum Temperature (F)</b>	<b>53.5</b>	<b>53.3</b>	<b>0.2</b>
<b>Coolest Daily Minimum Temperature (F)</b>	<b>37</b>	<b>-</b>	<b>-</b>
<b>Average Temperature (F)</b>	<b>70.4</b>	<b>70.9</b>	<b>-0.5</b>
<b>Total Precipitation (inches)</b>	<b>0.28</b>	<b>0.21</b>	<b>0.07</b>

Variable (units)	Value	Day
<b>Daily Record High Temperature (F)</b>	<b>105</b>	<b>2nd</b>
<b>Daily Record Low Temperature (F)</b>	<b>37</b>	<b>28th</b>
<b>Daily Record Precipitation (inches)</b>	<b>0.15</b>	<b>17th</b>

Additional climate statistics can be found here: <https://www.weather.gov/wrh/climate?wfo=pdt>

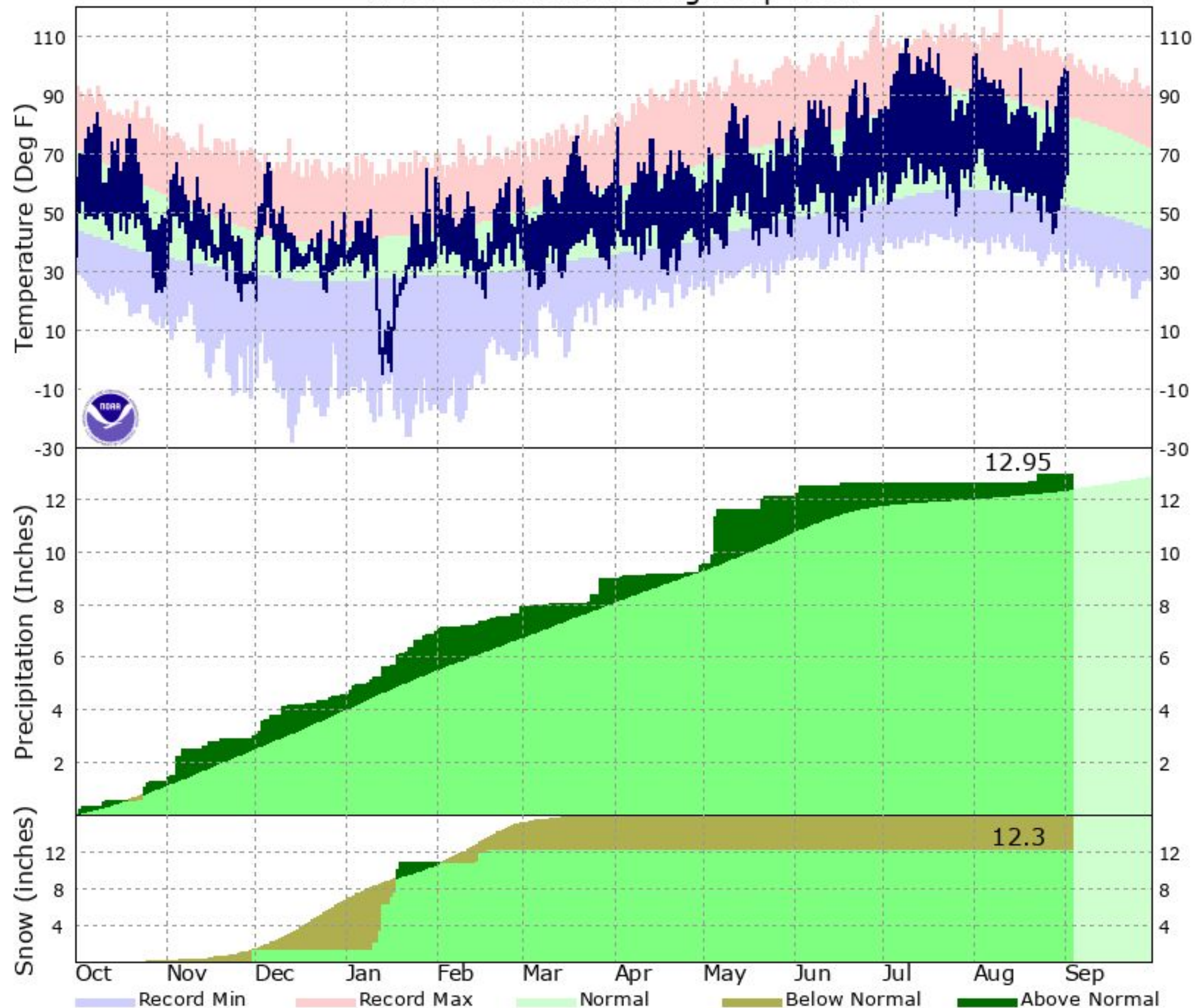




# Water Year Climate Graphs - Pendleton ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

KPDT - Oct 2023 Through Sep 2024



So far this water year, Pendleton has observed slightly above-normal precipitation and below-normal snowfall.

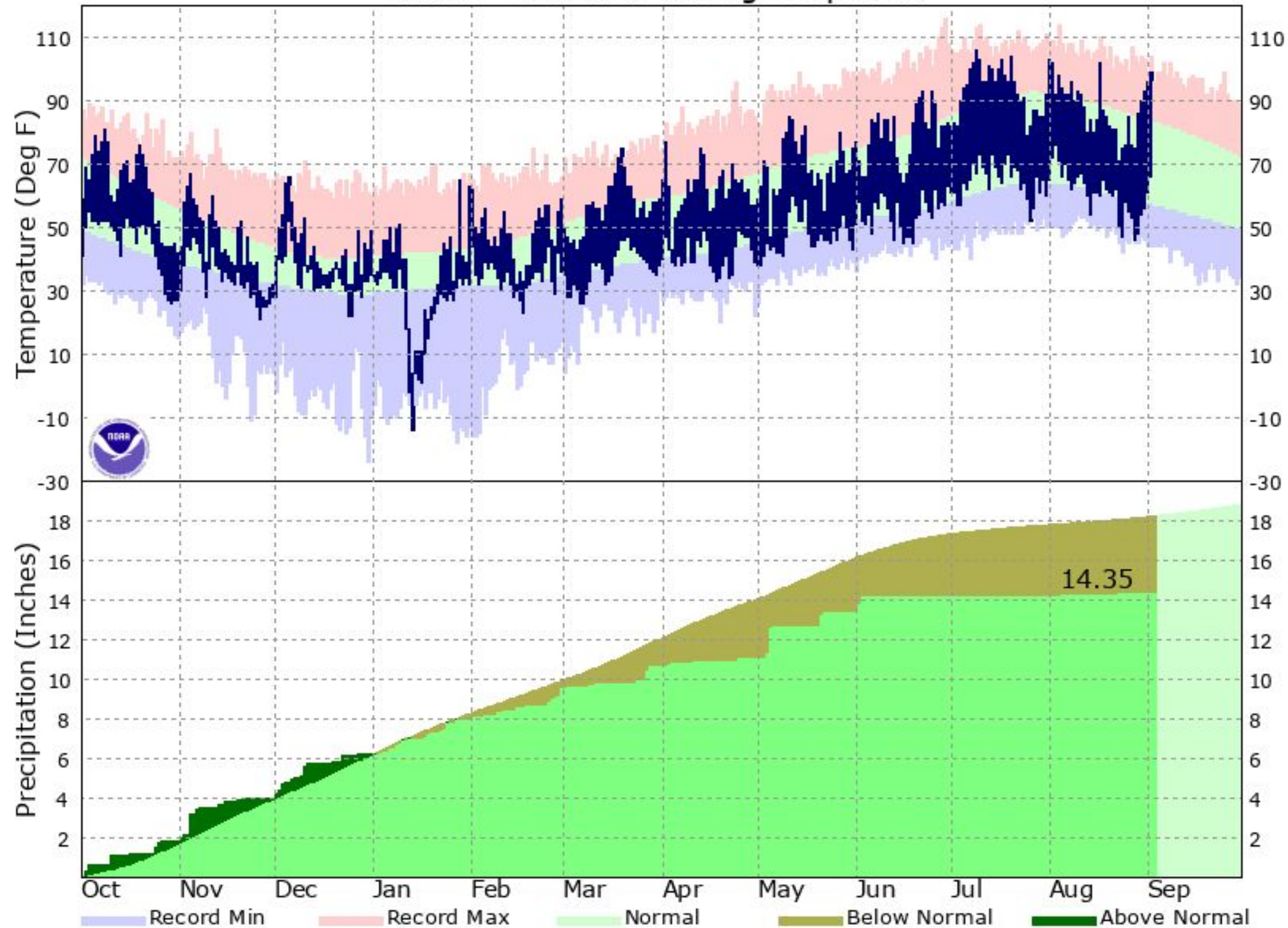
The latest graphs are located here:  
<https://www.weather.gov/pdt/CliPlot>



# Water Year Climate Graphs - Walla Walla ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

KALW - Oct 2023 Through Sep 2024



So far this water year, Walla Walla has received below-normal precipitation.

The latest graphs are located here:

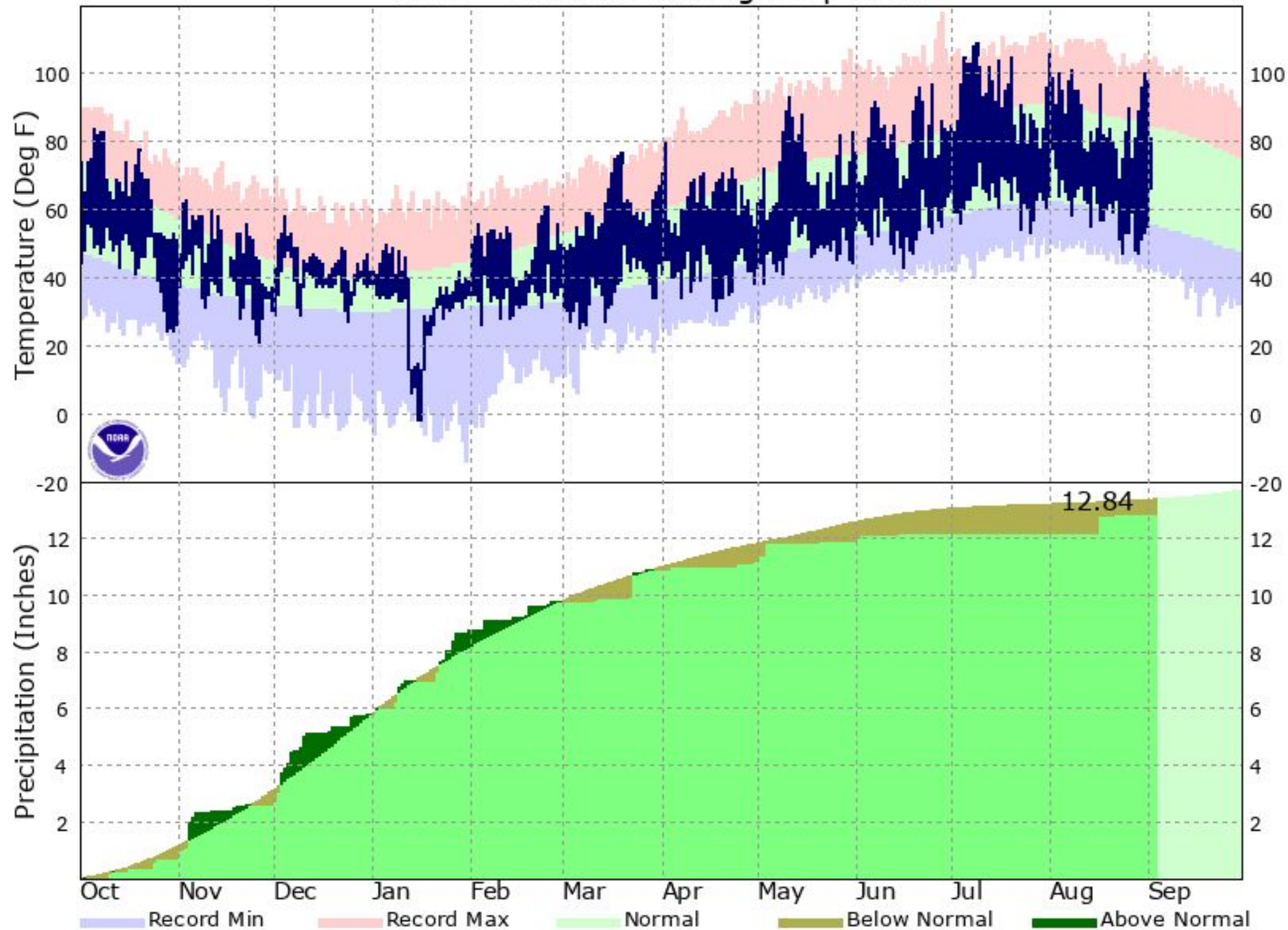
<https://www.weather.gov/pdt/CliPlot>



# Water Year Climate Graphs - The Dalles ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

KDLS - Oct 2023 Through Sep 2024



So far this water year, The Dalles has recorded slightly below-normal precipitation.

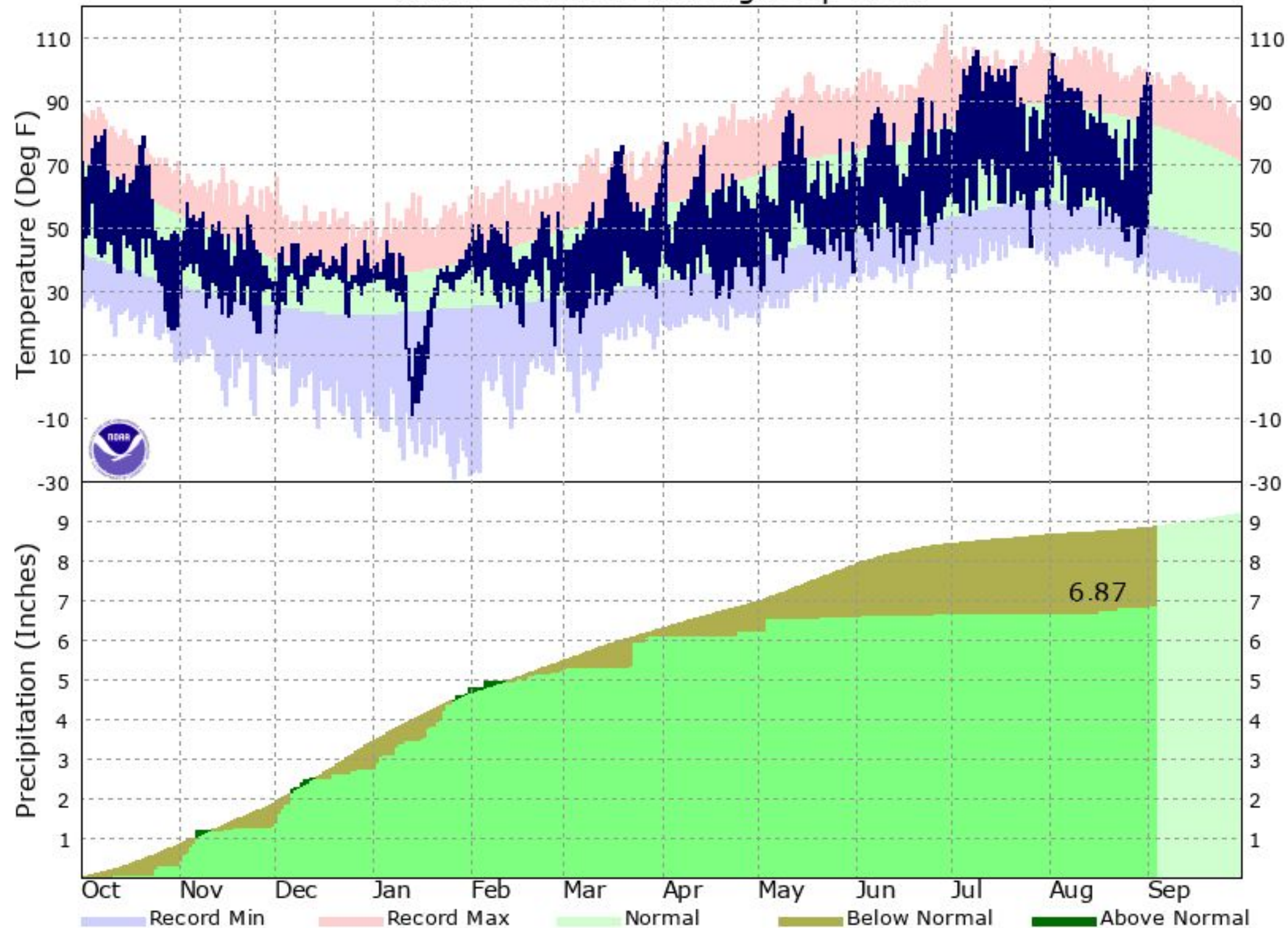
The latest graphs are located here:  
<https://www.weather.gov/pdt/CliPlot>



# Water Year Climate Graphs - Ellensburg ASOS

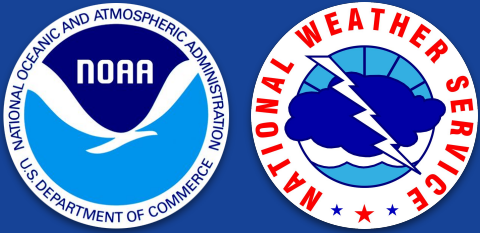
Weather Forecast Office  
Pendleton, OR  
Monday, September 9

KELN - Oct 2023 Through Sep 2024



So far this water year, Ellensburg has observed below-normal precipitation.

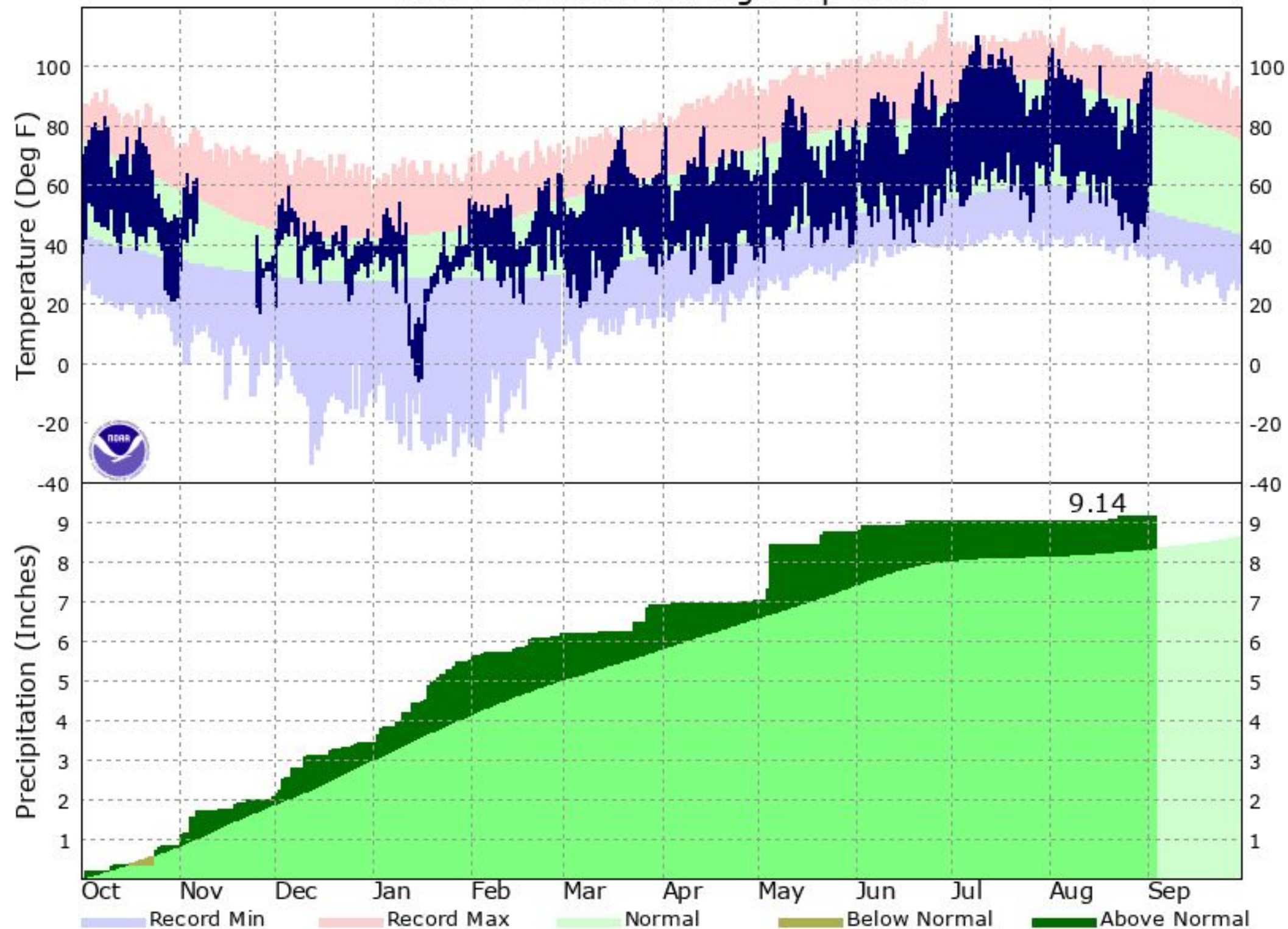
The latest graphs are located here:  
<https://www.weather.gov/pdt/CliPlot>



# Water Year Climate Graphs - Hermiston ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

KHRI - Oct 2023 Through Sep 2024



So far this water year, Hermiston has recorded above-normal precipitation.

The latest graphs are located here:

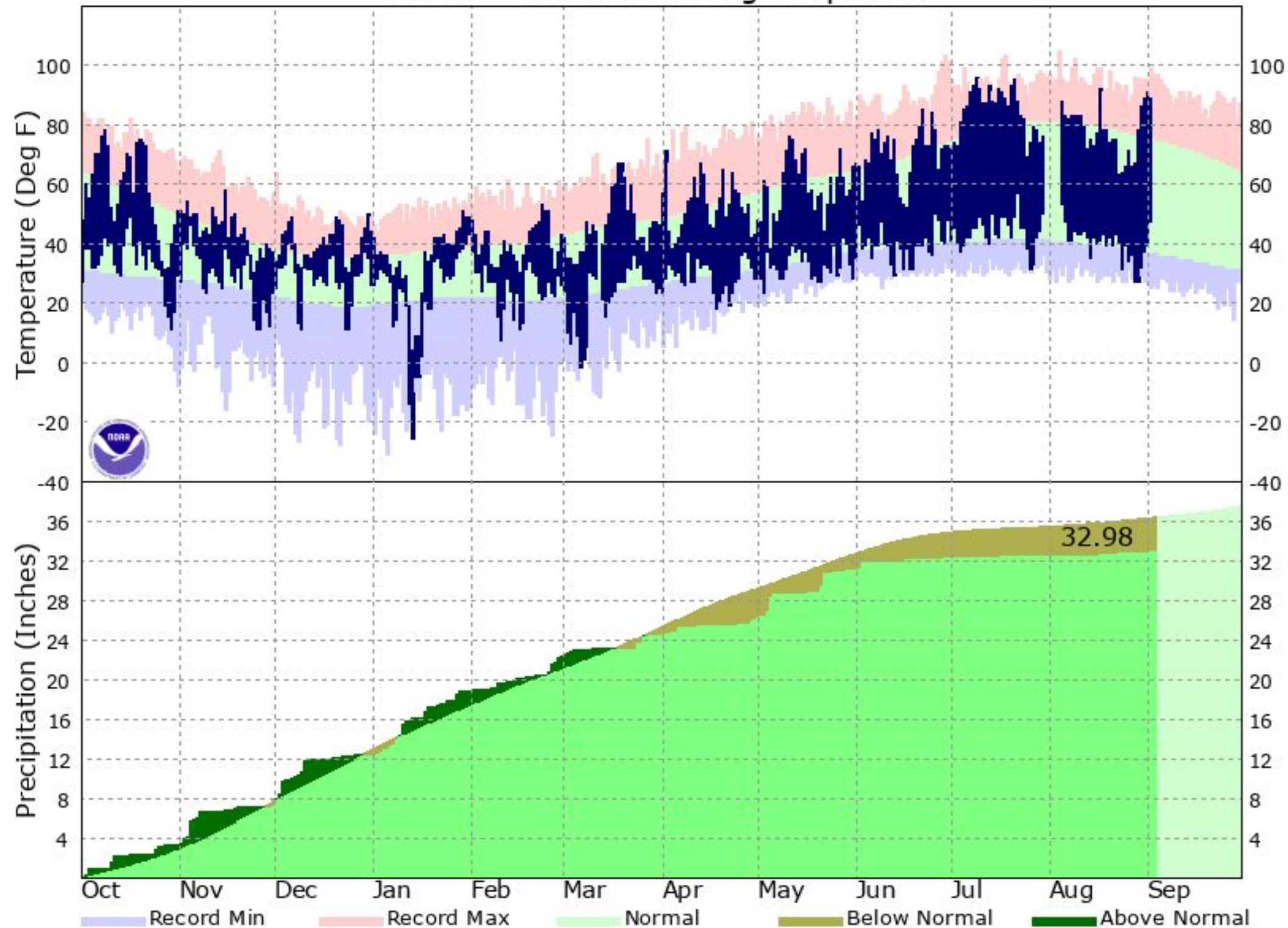
<https://www.weather.gov/pdt/CliPlot>



# Water Year Climate Graphs - Meacham ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

KMEH - Oct 2023 Through Sep 2024



So far this water year, Meacham has received below-normal precipitation.

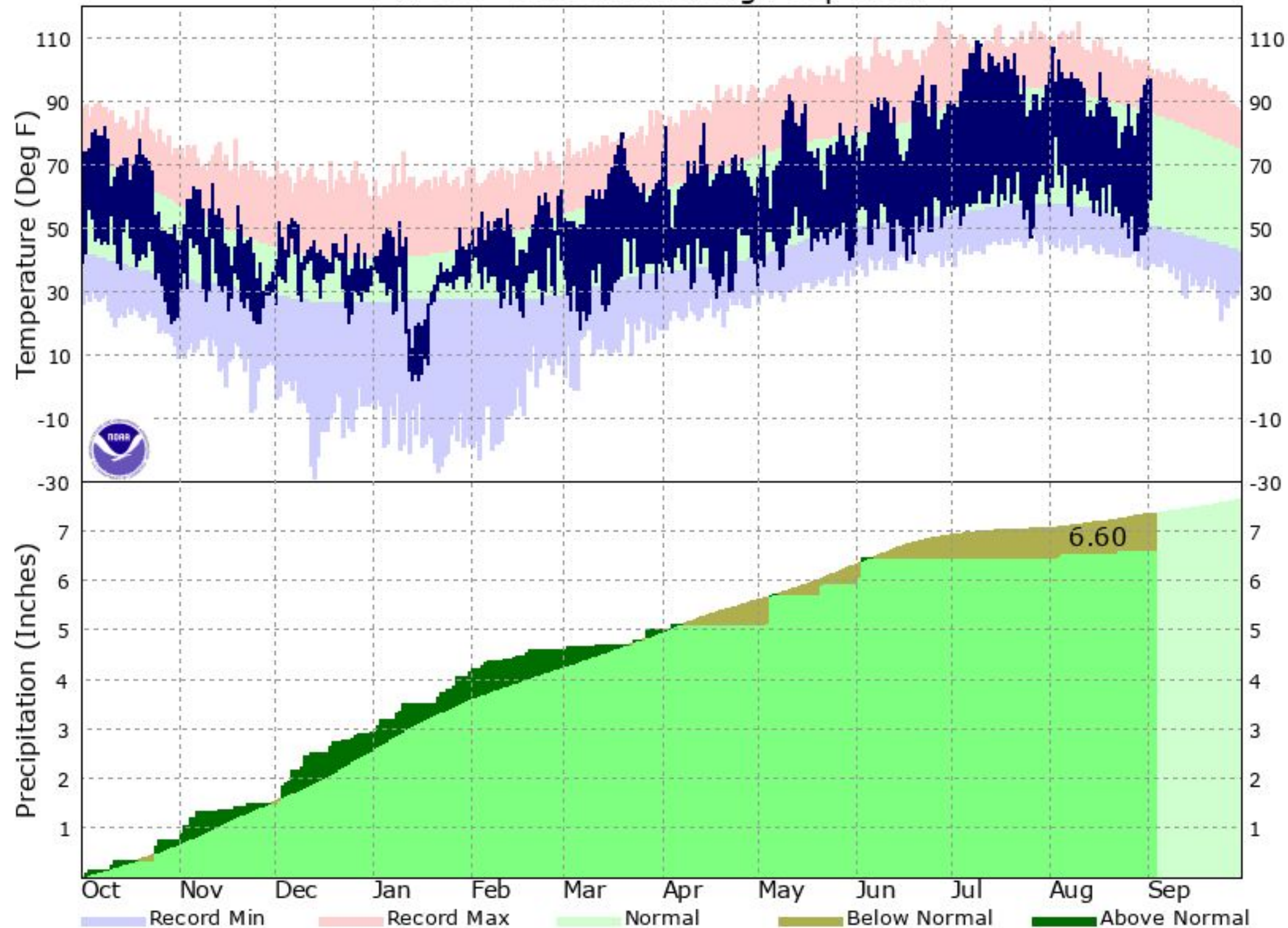
The latest graphs are located here:  
<https://www.weather.gov/pdt/CliPlot>



# Water Year Climate Graphs - Pasco ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

KPSC - Oct 2023 Through Sep 2024



So far this water year, Pasco has observed below-normal precipitation.

The latest graphs are located here:

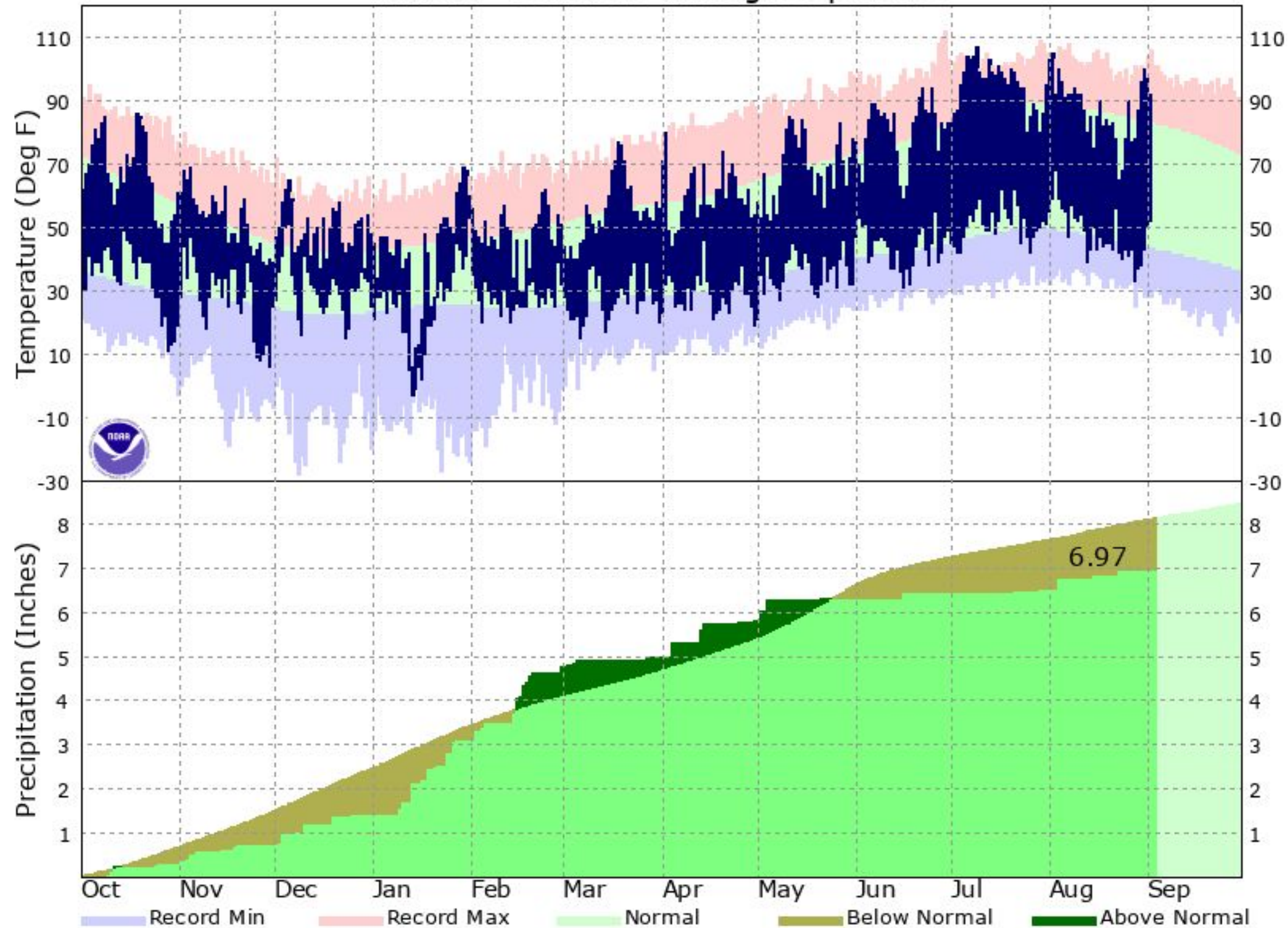
<https://www.weather.gov/pdt/CliPlot>



# Water Year Climate Graphs - Redmond ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

KRDM - Oct 2023 Through Sep 2024



So far this water year, Redmond has recorded below-normal precipitation.

The latest graphs are located here:

<https://www.weather.gov/pdt/CliPlot>

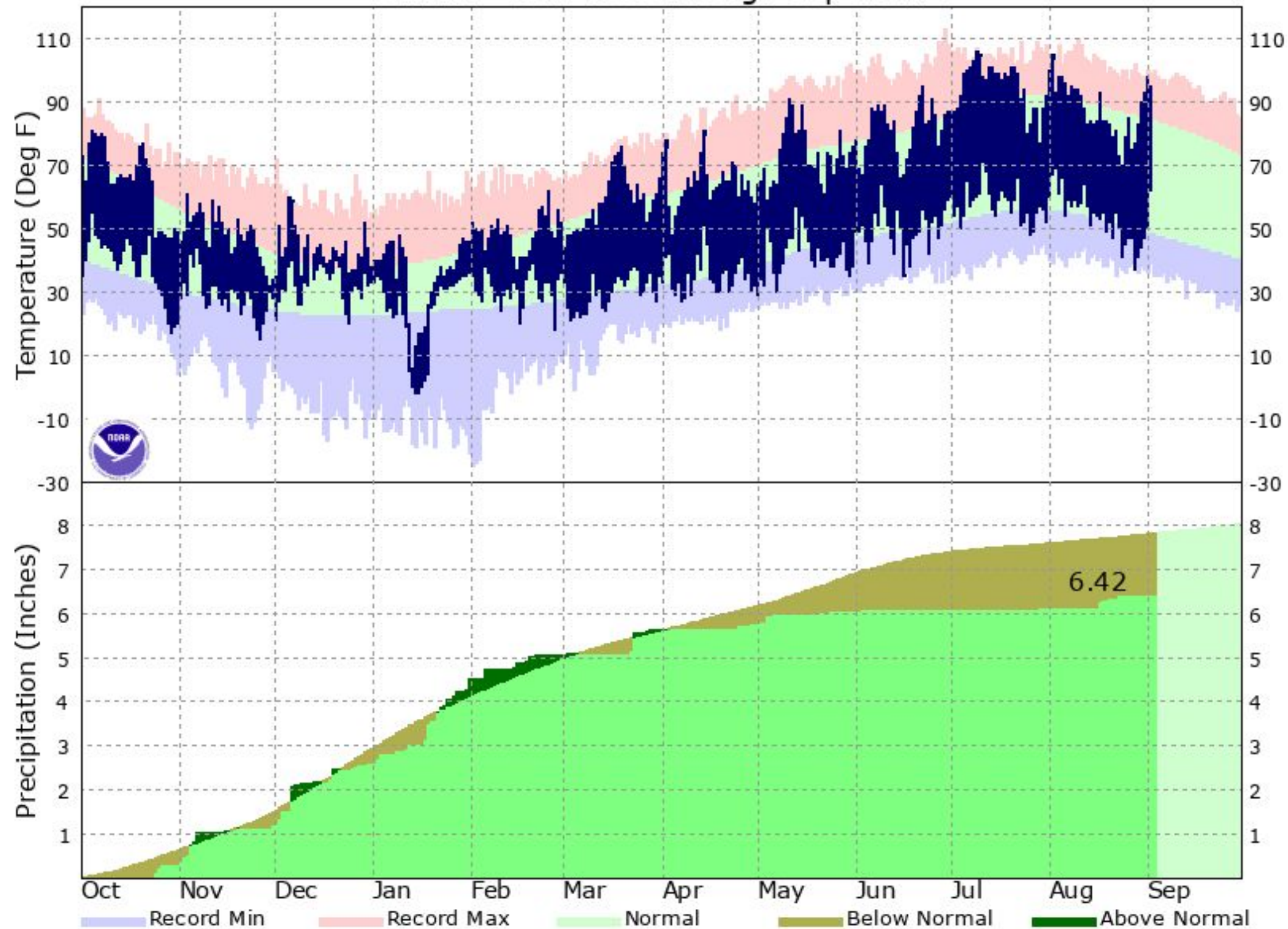




# Water Year Climate Graphs - Yakima ASOS

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

KYKM - Oct 2023 Through Sep 2024

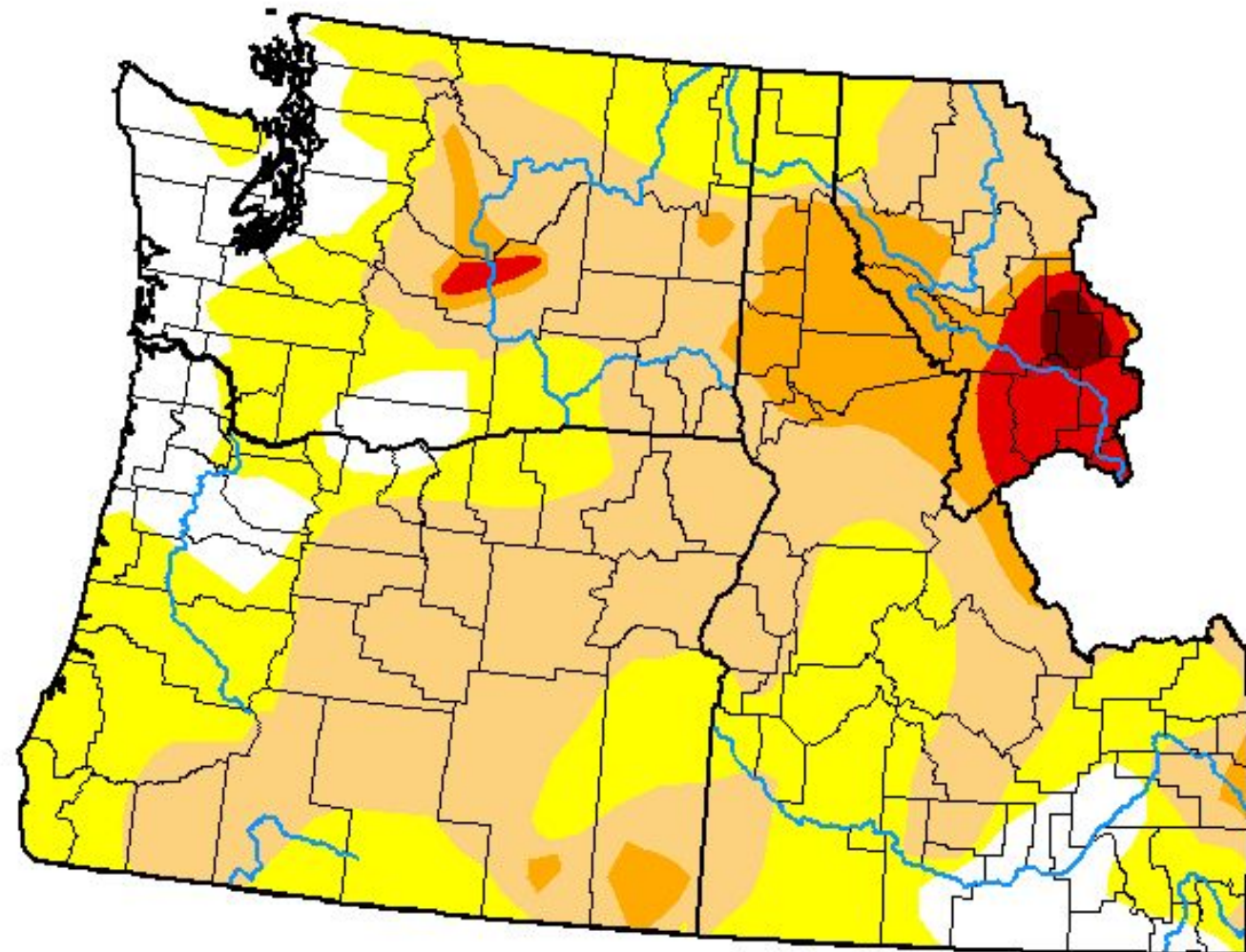


So far this water year, Yakima has recorded below-normal precipitation.

The latest graphs are located here:

<https://www.weather.gov/pdt/CliPlot>

## U.S. Drought Monitor Pacific Northwest DEWS



**September 3, 2024**  
(Released Thursday, Sep. 5, 2024)  
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	12.12	87.88	51.89	11.20	3.15	0.49
<b>Last Week</b> 08-27-2024	8.06	91.94	61.19	15.25	3.49	0.49
<b>3 Months Ago</b> 06-04-2024	62.34	37.66	19.69	3.59	0.00	0.00
<b>Start of Calendar Year</b> 01-02-2024	44.06	55.94	26.37	4.48	0.00	0.00
<b>Start of Water Year</b> 09-26-2023	34.73	65.27	50.11	28.69	7.48	0.00
<b>One Year Ago</b> 09-05-2023	33.00	67.00	51.09	22.52	4.24	0.00

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:

Lindsay Johnson  
National Drought Mitigation Center



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

D4 (Exceptional Drought): None.

D3 (Extreme Drought): Part of eastern Kittitas County.

D2 (Severe Drought): Part of eastern Kittitas County.

D1 (Moderate Drought): Portions of Kittitas, Yakima, Benton, Franklin, Columbia, Wallowa, Union, Umatilla, Morrow, Gilliam, Sherman, Wasco, Jefferson, Crook, Wheeler, Grant, and Deschutes counties.

D0 (Abnormally Dry): Portions of all counties are at least D0.

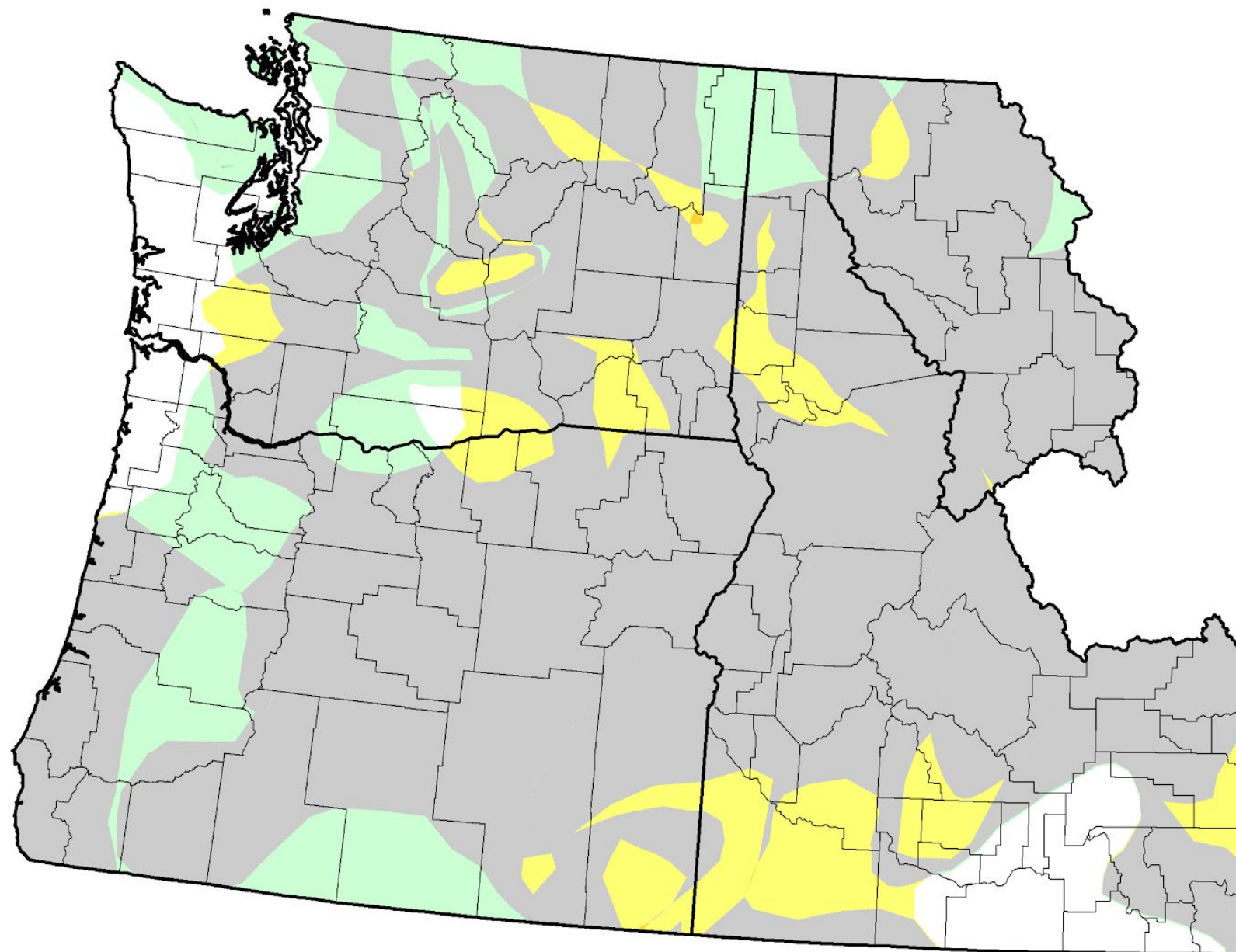
**For the latest conditions, please see [droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)**



# Drought Evolution: 4-Week Change during August

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

U.S. Drought Monitor Class Change - Pacific Northwest DEWS  
4 Week



September 3, 2024  
compared to  
August 6, 2024

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



- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

Improved: Parts of Wasco, Sherman, Gilliam, Klickitat, Yakima, and Kittitas counties.

Degraded: Portions of Columbia, Walla Walla, Benton, Franklin, Klickitat, Yakima, Kittitas, Umatilla, Morrow, and Gilliam counties.

No change: Portions of all counties.



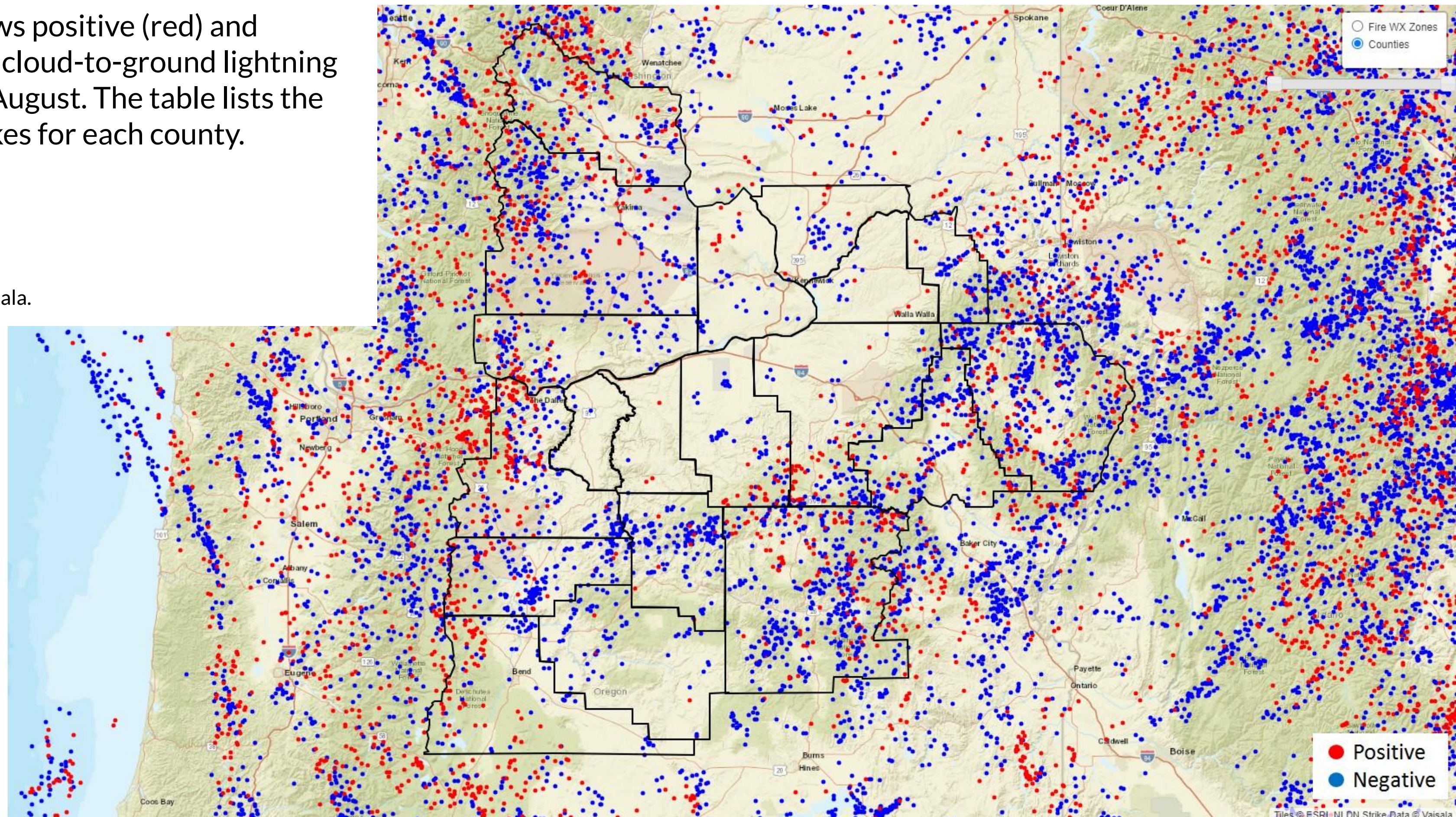
# Lightning - August

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

The image shows positive (red) and negative (blue) cloud-to-ground lightning strikes during August. The table lists the number of strikes for each county.

Data provided by Vaisala.

County	Strikes
Klickitat WA	124
Yakima WA	431
Union OR	202
Deschutes OR	119
Crook OR	74
Wheeler OR	157
Jefferson OR	209
Wasco OR	256
Grant OR	524
Morrow OR	82
Gilliam OR	5
Umatilla OR	162
Sherman OR	5
Wallowa OR	504
Benton WA	35
Walla Walla WA	15
Columbia WA	78
Franklin WA	35
Kittitas WA	200



● Positive  
● Negative



# Summary

Weather Forecast Office  
Pendleton, OR  
Monday, September 9

- Mean (average) temperatures were predominantly within a few degrees of normal (1991-2020 climate reference period) across the forecast area during August.
- Generally above-normal precipitation was observed along the Cascade crest and adjacent east slopes. Elsewhere, below-normal precipitation was recorded in most of the Columbia Basin, with a mix of above and below normal for the Blue Mountains region.
- Drought conditions improved along portions of the Cascade crest and east slopes, but worsened in parts of the Columbia Basin and adjoining Blue Mountain foothills.



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