YOUR NATIONAL WEATHER SERVICE SPOKANE QUARTERLY REPORT

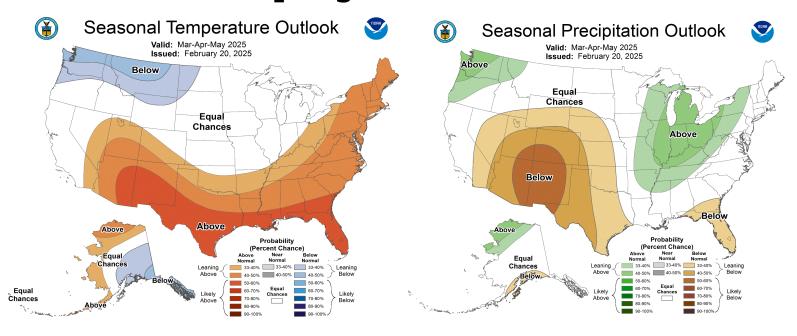
The Weather Watcher

Of the Inland Northwest

www.weather.gov/Spokane



Spring Outlook 2025



The Climate Prediction Center CPC Seasonal Outlook for the Spring months of March, April, and May leans toward a 33-50% chance of below normal temperatures and a 33-40% chance of above normal precipitation across the Inland Northwest. Favoring a cooler and wetter pattern should be beneficial in reinforcing the mountain snowpack!

ENSO Update - La Niña Advisory...

The latest Climate Prediction Center <u>CPC Discussion</u> stated that La Niña conditions exist. ENSO-neutral is favored to develop in the next month and persist through the Northern Hemisphere summer (62% chance in June-August 2025). The short-lived and weak La Niña should help keep the spring cool and wet. More forecaster perspectives and analysis can be found in an <u>ENSO blog</u>. **

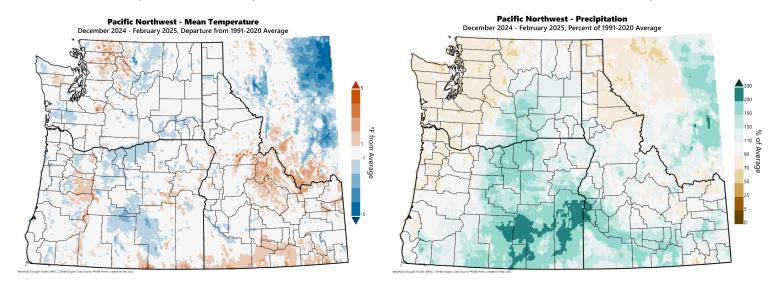
Spring Calendar

Days are getting longer where we can expect days with less snow and more graupel showers. The **Spring Equinox** occurs on **March 20, 2025 at 2:01 AM PDT** and marks nearly equal hours of daylight and night worldwide. There will be two eclipses in March! A total Lunar Eclipse occurs on the night of **March 13th** and should be seen across all of North America. A partial Solar Eclipse occurs on **March 29th** and should be seen in eastern North America.

Trivia Question: When can we plant our gardens and flowers across the Inland NW?

Winter 2024-25 in Review

This winter finished with near normal temperatures across the region, while precipitation was a mixed bag. The Columbia Basin into the Spokane area was wetter than normal while the Cascades and Idaho Panhandle were drier than normal. Much of the precipitation during the winter fell with milder temperatures, and thus most towns had a below normal snow year. See the range of mean temperatures and precipitation from across the region below.



December brought mild, wet weather as a series of weather systems tracked into the region from the southwest. This meant mainly rain in the lowlands while snow piled up in the mountains. The month started with near normal temperatures, with high temperatures in the low to mid 30s at several sites through the 7th. Mild air from a passing weather system overrode the cold air on the 7th producing light freezing rain of less than a tenth of an inch for most of central and northeast Washington into the Idaho Panhandle. The strongest storm of the month occurred on the 17th and 18th. Heavy snow fell in the Cascades with 23" in Mazama, 18" Carlton, and 14" in Leavenworth. For eastern Washington and north Idaho, high winds were the main story with downed trees in Spokane and Loon Lake. Peak gusts on the 18th include: 96 MPH Mission Ridge Summit, 67 MPH Spokane Airport, and 61 MPH at the Pullman Airport. On the 24th through the 26th, heavy snow fell in parts of the Cascades again with 17" at Holden Village and 8" in Plain giving these areas a White Christmas. For Ephrata and Moses Lake, abnormally wet conditions set a three day precipitation record for the month, with 1.21" and 1.00" respectively.

January ended up being a quiet month with only a couple notable events. On the 3rd, communities near the Cascades received heavy snow with Chelan and Waterville coming in with 8", while Twisp and Malaga weren't far behind with 6". Some locations surrounding Spokane received 5" including Addy, Medical Lake, Tekoa, and Spirit Lake. Temperatures for the second half of the month turned colder with lows for most locations falling into the single digits and teens. The cold and dry pattern came to an end to close out the month with some of the northern areas and the mountains receiving heavy snow on the 31st. This included 12" at Lookout Pass, 11" at Holden Village, and 8" in Northport.

February brought a wild swing in conditions with the coldest temperatures of the winter between the 9th and 14th but my month's end a drastic warmup ensued resulting in the warmest temperatures of the winter. But before this, a storm on the 4th and 5th brought heavy amounts to the Camas Prairie, Blue Mountains, and the higher benches of the Lewiston-Clarkston Valley. Snow amounts include 12" in Reubens, 10" Anatone, and 6" at the Lewiston Airport.

Winter Weather Stats								
Wenatchee Waterplant	DEC	JAN	FEB	Total				
Average High temp	39.5	36.6	39	38.4				
Departure from normal	+3.3	+0.8	-4.9	-0.3				
Average low temp	30.8	24.5	24	26.4				
Departure from normal	+4.4	-1.1	-3.6	-0.1				
Total precipitation	2.21	0.18	0.91	3.30				
Departure from normal	+0.62	-1.14	-0.01	-0.53				
Total snowfall	3.2	0.5	1.7	5.5				
Departure from normal	-2.8	-5	-1.3	-9.1				
Lewiston, ID	DEC	JAN	FEB	Total				
Average High temp	44.6	41.1	40.2	42				
Departure from normal	+3.8	-1.0	-6.8	-1.3				
Average low temp	34	27.3	28.4	29.9				
Departure from normal	+4.5	-3	-3.3	-0.6				
Total precipitation	1.43	1.15	1.59	4.17				
Departure from normal	-0.3	+0.02	+0.55	+0.27				
Total snowfall	Trace	Trace	11.6	11.6				
Departure from normal	-4.1	-2.7	+7.8	+1.0				
Spokane, WA	DEC	JAN	FEB	Total				
Average High temp	37.8	34.2	35.4	35.8				
Departure from normal	+4.0	-0.3	-4.1	-0.1				
Average low temp	31.1	23.7	21.8	25.5				
Departure from normal	+6.8	-1	-4.5	+0.4				
Total precipitation	3.91	1.63	2.05	7.59				
Departure from normal	+1.57	-0.34	+0.61	+1.84				
Total snowfall	4.1	6.3	15.9	26.3				
Departure from normal	-9.7	-6.0	+8.1	-7.6				

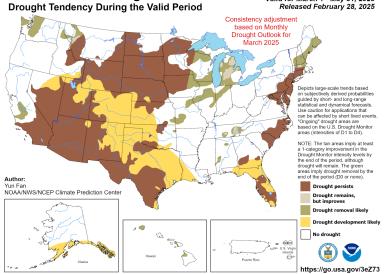
received several rounds of light to moderate snow. Then the arctic air arrived with most locations dropping into the single digits above and below 0°F, while the coldest spots dropped below -10°F. As usual, the Methow Valley was one of the coldest areas with -14°F in Winthrop, and -13°F in Mazama and Twisp. But other locations joined in as well, including -14°F at Spirit Lake and Priest Lake, -14°F Moscow, and -13°F in Pullman. After a few days, the region began to warm up, which initially brought more snow with the snow depth creeping up to 8-10" on portions of the Palouse and at the Spokane Airport before a rapid snow melt took it all away. The rapid melt combined with 0.75-1.50" of rain led to small stream and river flooding. Dry and warmer weather arrived by the last week of February as temperatures warmed well above normal with daytime highs in the 50s to mid 60s. ** Jeremy Wolf

Other areas leading up to the cold snap

Drought Update

There have been some pronounced drought improvements across the region over the last several months, primarily across the low lands of central and southeast Washington where drought has been lifted. Drought

conditions still remain across the Cascades and the Idaho Panhandle due to below normal precipitation, snow pack, and low soil moisture for an extended period of time. As of March 4th, the U.S. <u>Drought Monitor</u> showed less than 15% of the region at Moderate Drought (D1) and 21% at Abnormally Dry (D0); that means more than 64% of the region being drought free. The U.S. <u>Monthly and Seasonal Drought Outlooks</u> are optimistic of further drought improvements through March and the spring months across the Cascades and ID Panhandle while most of the region should remain drought-free. **



Valid for March 1 - May 31, 2025

U.S. Seasonal Drought Outlook

Flood Update and Peak Flow Outlook

The atmospheric river event on February 23-24 led to significant flooding across much of the Palouse region as the low elevation snowpack of 8-10 inches quickly melted with the mild temperatures, breezy southerly winds, and persistent 1-2 inches of rainfall. While high flows were anticipated on creeks and mainstem rivers, poor drainage and frozen ground led to areal flooding that exacerbated the increase in runoff and led to widespread flood issues.

Several towns were inundated with water including Garfield, Oakesdale, Thornton, Rosallia, Colfax, Plaza, Palouse, Pullman, Moscow, and Edwall. Several roads were closed across Lincoln, Spokane, Whitman, Latah, and Benewah counties, with Oaksdale and Palouse being some of the hardest hit areas with water entering homes, basements,

and businesses.

Here's a summary of the high flows from the river forecast points from the late February event.

Forecast point	Flood Stage	Crest	Date of Crest	Flood Level
PLOI1 - Palouse @ Potlatch	15 ft	17.25 ft	2/24/2025	Major
PACI1 - Paradise Creek @ Moscow	9.2 ft	11.18 ft	2/24/2025	Moderate
HAGW1 - Hangman Creek @ Spokane	11 ft	13.11 ft	2/24/2025	Minor
PULW1 - SF Palouse River @ Pullman	7 ft	7.61 ft	2/23/2025	Minor
LSDW1 - Little Spokane @ Dartford	6.5 ft	5.81 ft	2/24/2025	Action Stage

NWS OTX

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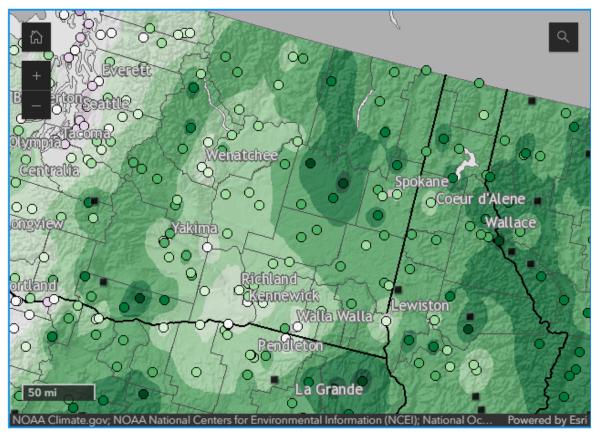
Despite the loss of most of the low elevation snowpack, plenty of snow resides in the mid slopes and higher elevations. Runoff season has just begun. The Long Range Flood Outlook remains low regionwide. There continues to lean toward a slightly elevated threat of flooding on the Palouse (20% chance) and Coeur d'Alene river (12% chance) basins this spring, primarily through March into mid April. This is a little less than climatology. Another area to monitor for higher stream flows will be the Okanogan Highlands of Ferry and eastern Okanogan counties. This area has seen a surplus of high mountain snow as seen in the latest mountain snow water equivalent (SWE) measurements. The chances of high flows and flooding depends largely on the timing and duration of any upcoming storms, precipitation amounts, temperatures, and the state of the current snow pack.

Keep in mind that you can monitor the latest river observations and forecasts through the NWS National Water Prediction Service (NWPS). It's linked through the Rivers and Lakes tab on the NWS webpage. In addition to the river forecasts from the NW River Forecast Center, there's additional guidance available from the National Water Model. Experimental NWS Flood Inundation Mapping (FIM) can also be viewed across the Pacific NW during high flow events, and the NWS staff was using it for the last high flow event. If you have any questions or comments about NWPS, please contact nwps.webmaster@noaa.gov.

March 16-22 marks the annual **Flood Awareness week** across the Inland Northwest. Look forward for the NWS to provide resources on the different types of <u>floods and safety</u> across the region, spanning from river flooding, flash flooding, to post-fire flooding.

<u>Trivia Answer</u>: That can vary depending on where you are located! The last freeze dates in the region, typically ranging from early April near Lewiston and Wenatchee to early June from Republic to Usk.

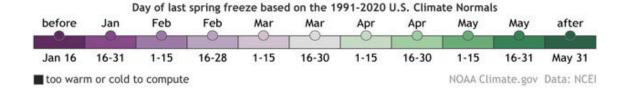
Want to Plant? Deep Dive: Last Spring Freeze Dates



Here's an Interactive map that shows the average date of last spring freeze across the United States.

On average, the last freeze of the season across most of the United States occurs after the first day of spring.

The U.S. Climate Normals provide the average chances for freezing temperatures for each day of the year at thousands of U.S. locations.



Stay Safe this Spring! Strong winds and flooding are top concerns for this time of the year.





Mountain Snow

The mountain snowpack and snow water equivalent (SWE) was building quickly through much of December, but then lost steam and flattened out in January with the drier and quiet weather pattern. Renewed snow arrived in February and into early March. The latest NRCS daily SWE reports show a range of values across the region. Above normal SWE values can be found across the Okanogan Highlands. Near to slightly below SWE values span across the ID Panhandle and the Blue mountains. Deficits of snow continue in the Cascades of Okanogan and Chelan counties. The peak of the mountain snowpack is typically computed on April 1st. The values measured help determine the forecasts for water supply for the upcoming summer months. These values also provide the needed inputs for high flow forecasts on the mainstem rivers through spring runoff season. 🔆

Weather Spotter & Observer Corner

Stay tuned! Spring weather spotter training is coming soon and will be posted at the top of the NWS Spokane web page. In the meantime, additional training is available on our NWS Spotter Resources website. We appreciate all of your reports! Soon our focus will shift from snow to thunderstorms, and include heavy rain, flooding, high winds, and possibly tornadoes. Remember, you can see where your reports go by checking out this Local

March also marks the annual Rain Gauge Rally! It's recruitment time for the Community Collaborative Rain, Hail and Snow Network (CoCoRaHS) and new volunteer precipitation observers are needed. Precipitation observers use a rain gauge and report rainfall. During the winter months, snowfall measurement is critical as well. Learn more on the CoCoRaHS web page! Share with your family and friends!





Remember your Spring Spotter Checklist

Tornado or Funnel Cloud

Hail: pea size or larger

Strong Winds:

30mph+ or damage

Any Flooding

Reduced Visibility:

under a mile due to fog, snow...

Heavy Rain:

Showery: 1/2" + in 1hr

Steady: 1"+ in 12hr/1.5"+ in 24hr

2"+ valleys & 4"+ mountains

Any Mixed Precipitation

Travel Problems or Damage: due to severe/hazardous weather

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weather.gov

squall lines. Be prepared!

once indoors

Storm Report page.