

The Weather Watcher of the Inland Northwest

www.weather.gov/Spokane

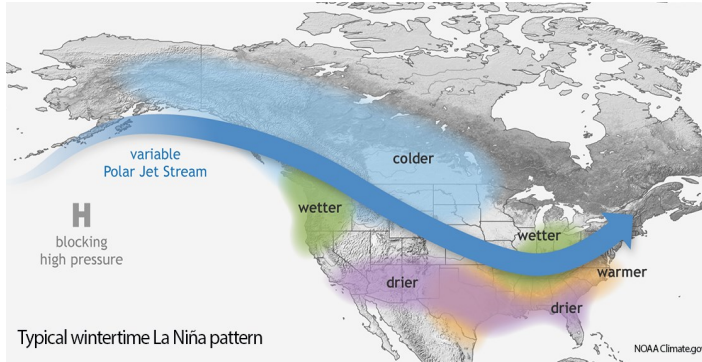


INSIDE THIS ISSUE:

Fall in Review	2
NWS Web page links	3
Spotter & Observer news	3
Staff Updates	3
Sneaky Winter Weather	4

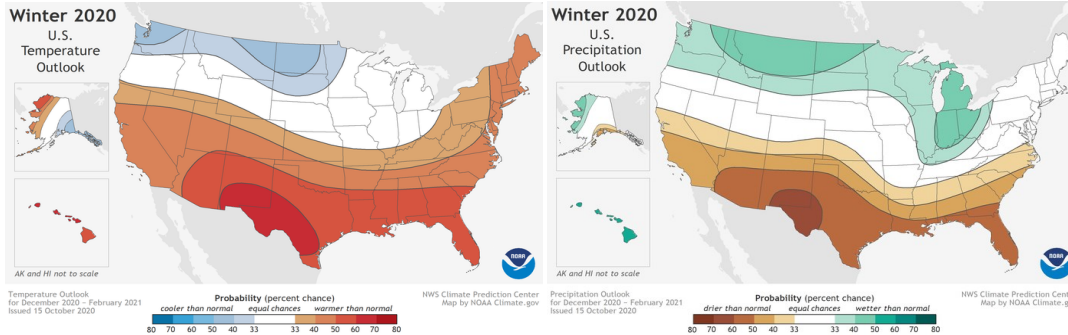
She's Back...Expect La Niña this Winter!

The [NWS Climate Prediction Center](https://www.weather.gov/ClimatePredictionCenter) says La Niña is likely to continue through the Northern Hemisphere winter 2020-2021 and possibly into spring 2021.

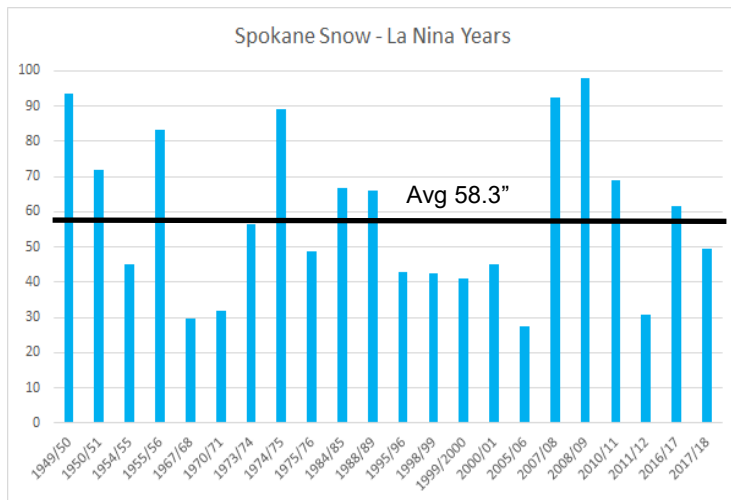


La Niña is characterized by cooling of the equatorial ocean waters in the eastern Pacific. But it can also effect the atmospheric weather pattern by enhancing a variable but strong Polar Jet Stream that guides weather systems across the Pacific Northwest. This pattern tends to leave the southern U.S. drier and warmer than normal.

Typically winters across the Inland Northwest are wetter and colder than normal and the 2020-2021 winter outlook for this for December through February follows this trend.



It is important to keep in mind that not every La Niña winter is the same. On average, most of the Inland Northwest experiences above average snowfall but this may not happen every La Niña season. There are other weather factors that come into play, including temperature and wind patterns along with the timing, the frequency and strength of winter storms.



The graph to the left shows the Spokane seasonal snowfall for each La Niña season. There have been 22 of them since 1950. The snowiest season on record was 2008-09 with over 97" of snow! Yet just three years later, the winter of 2011-12 reported just over 30" of snow. Want to see snow statistics for your area? See the NWS Spokane [snowfall climatology](https://www.weather.gov/Spokane/Climate) for your city!

☀️ *Jeremy Wolf*

Editor's Notes

Shorter days and longer nights mark the approach of winter, along with colder, wetter, foggy and snowy weather. Yet did you know the Inland NW experiences its [Earliest Sunsets](#) by early December! In fact, some parts of northeast Washington and the Idaho Panhandle experience sunsets before 4 pm PST! The only other place in the lower 48 states that matches this is in northern Maine. Being on the eastern edge of a time zone along with the tilt of the Earth's axis helps explain this phenomena.

The Winter Solstice arrives Monday, December 21st at 5:30 am PST. This marks the shortest day of the year. After this date, days become longer and nights shorten as spring approaches.

We're always looking for new ideas and stories for our publication. Please send to nws.spokane@noaa.gov. Past and current newsletters are available on the NWS Spokane web page.

The main purpose of this publication is to keep our readers informed about NWS services and programs, and recognize those who help us with our mission, including weather spotters, observers, media, emergency managers, and government agencies.

All articles are written by the NWS staff. A special thanks goes to *Jeremy Wolf* for all of his contributions.

Fall in Review

The dry summer meant bad news to start off **September**. After a hot start with highs in the 80s and 90s, the Labor Day storm arrived on the 7th. A strong cold front from the northeast combined with very dry conditions resulting in downed trees and power lines, at least 16 new fires, and a dust storm across the Columbia Basin. Fires, dust, and downed trees closed numerous roads including portions of I-90, Highway 2, and Highway 395. Around 69,000 customers lost power during the event. Peak wind gusts include 60 MPH in Athol, 54 MPH Sandpoint, 53 MPH Moses Lake, 48 MPH Deer Park, 47 MPH Coeur d'Alene, and 44 MPH at the Spokane Airport. Some of the fires continued to burn active the following days with over 600,000 acres burned across the region! This sudden surge of acres burned put eastern Washington and north Idaho in second place for the most acres burned for a fire season since 1970! The largest fire was Cold Springs which started on the evening of the 6th just south of Omak before being pushed by strong north winds. The fire even crossed the Columbia River into Douglas County which was classified as a separate fire called Pearl Hill. These two fires combined totaled over 400,000 acres. This same storm contributed to numerous large fires in the Oregon Cascades and foothills which put extensive smoke into the atmosphere which moved little under a strong ridge. This was bad news for the region once winds shifted to the southwest on the 11th. Extensive smoke blanketed the region with hazardous air quality in most areas, including Spokane from the 12th—16th. This was the longest stretch of hazardous air quality on record since records of PM2.5 concentrations began in 1999.

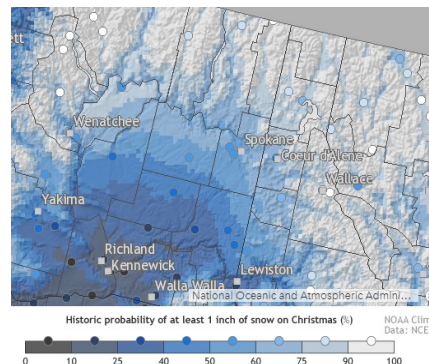
Very much needed rain arrived starting on the 18th as a cluster of showers and thunderstorms tracked up the Cascades from Leavenworth to Mazama producing locally heavy rain. From the 23rd through the 25th, an atmospheric river took aim at the region. Heavier rain totals were confined to near the Cascade crest, although evening thunderstorms on the 25th boosted rain totals for many areas between Deer Park and Sandpoint with three day rain totals ranging from 0.90"-1.38". Rain in Wenatchee ended the 99 day dry streak which was the 2nd longest on record. Despite the rain, amounts were on the light side for Adams and Whitman counties which wasn't enough to settle the dust. Wind gusts of 35-40 MPH on the 25th closed Highway 26 between Highway 395 and Washtucna due to blowing dust, near zero visibility, and multiple vehicle collisions.

October had many significant events, beginning with a wet cold front on the 10th that delivered windy conditions along with scattered thunderstorms from near Chewelah to Sandpoint. On the 13th, high winds led to downed trees and power outages around the Spokane and Coeur d'Alene areas with Fairchild AFB reporting a peak wind of 63 MPH. Silcott Island west of Clarkston gusted to 62 MPH.

In Quincy, a roof was blown off an elementary school. Patchy blowing dust in the Columbia Basin north of I-90 also resulted in very low visibility northeast of Moses Lake. On the 23rd, a rare October snow storm struck the region from the Okanogan Highlands southeast through most of northeast Washington and the Idaho Panhandle. Numerous reports came in with 5" to 8" with local amounts up to 10". This one storm gave Spokane 7.5", making it the snowiest October on record! After the snow ended, cold temperatures followed through the 26th. The coldest spots include 1°F in Springdale and Chewelah, 2°F Deer Park, 5°F Davenport, and 7°F in Rosalia. Another warmup followed with highs in Spokane near 60°F on the 29th, before another cold front delivered windy conditions and areas of blowing dust in the Columbia Basin on the 30th. Tumwater Mountain near Leavenworth gusted to 78 MPH and 55 MPH in Chelan.



November started off a mild and dry note with Wenatchee breaking a record high temperature of 65°F on the 5th before a cool and active pattern set up through the middle of the month. Initially heavy rain was the main story in the Cascades, and across southeast Washington into the south Idaho Panhandle. On the 5th and 6th, a two-day rain total of 1.84" was reported in Mullan, Idaho with 1.60" in Moscow. Yet north central Washington only received light rain totals with yet more blowing dust/ash (from summer burn scars) reported in the Columbia Basin. Next came significant snow to some locations. On the 8th, the Camas Prairie southeast of Lewiston was hit by heavy snow with 11" in Waha. On the 13th, a band of heavy snow set up in the northern Washington valleys with snow amounts of 10"-12" reported in Cusick, Chewelah, Loon Lake, and Elk. The Methow Valley received a couple rounds of moderate to heavy snow from the 13th—17th with a multi-day snow total of 28" in Mazama and 15" in Winthrop! The remainder of the month featured weaker storms traversing the region. ☀ *Jeremy Wolf*



Dreaming of a White Christmas? The [NOAA Climate site](#) lists the historic probability of seeing 1 inch of snow on Christmas. For Spokane, it's 57%. The top of list:

Mullan	96%
Winthrop	95%
Northport	80%

ANSWER: A blizzard needs winds 35mph+, snow and/or blowing snow, & reduced visibility 1/4 mi or less, all lasting at least 3 hours.

NWS web page links

A new web based **RADAR** interface is available on the NWS web pages. It's GIS based with pull down menus showing the weather hazards across the region. Look for it under the [Radar tab](#) at the National Level.

Keep in mind, you can keep current on the **rivers levels** across the Inland NW and the potential for any flooding on the NWS Advanced Hydrologic Prediction Service (AHPS) page. Simply go to the [River and Lakes tab](#) and click on the River Observations map. From there, you can pick the river gage you are concerned with and examine the current levels and the latest river forecast. ☀

Fall Weather Statistics

Wenatchee Water Plant	Sept	Oct	Nov	Total
Avg High Temp	79.8	64.6	47.0	63.8
Departure from Norm	+1.5	+1.1	+0.5	+1.0
Avg Low Temp	53.9	43.7	31.9	43.2
Departure from Norm	+2.2	+2.5	-0.3	+1.5
Total Precip	0.33	1.11	1.09	2.53
Departure from Norm	+0.03	+0.59	-0.29	+0.33
Total Snowfall	0.0	0.0	0.3	0.3
Departure from Norm	0.0	0.0	-1.6	-1.6
Lewiston Airport	Sept	Oct	Nov	Total
Avg High Temp	82.2	64.4	49.4	65.3
Departure from Norm	+4.0	+1.8	+1.2	+2.3
Avg Low Temp	53.0	42.2	34.9	43.4
Departure from Norm	+2.0	+1.1	+0.8	+1.3
Total Precip	0.28	0.92	1.82	3.02
Departure from Norm	-0.39	-0.04	+0.64	+0.21
Total Snowfall	0.0	Trace	2.8	2.8
Departure from Norm	0.0	0.0	+1.0	+1.0
Spokane Airport	Sept	Oct	Nov	Total
Avg High Temp	76.6	57.9	43.1	59.2
Departure from Norm	+3.8	-0.1	+1.5	+1.7
Avg Low Temp	51.4	38.1	31.1	40.2
Departure from Norm	+4.0	+0.9	+1.3	+2.1
Total Precip	0.33	1.66	1.65	3.64
Departure from Norm	-0.43	+0.48	-0.65	-0.60
Total snowfall	0.0	7.5	9.5	17.00
Departure from Norm	0.0	+7.4	+2.1	+9.5

Virtual Training

NWS Spokane kicked off the winter snow season with a series of training for weather spotters and observers. In three sessions, 53 volunteers were trained with the majority being new to the program. If you missed a class and would like a refresher, a recording of the class & notes are available on the [Spotter Resource](#) page.

If you have any changes to your contact information, such as new email or phone number, remember to keep us informed and email nws.spokane@noaa.gov with any changes. Also if completed any online training, let us know and we can mark it down! ☀

Observers

We know snow season can be challenging to get all the snow measurement correct and in the right boxes on the CoCoRaHS form. A [step-by-step snow guide](#) is available to help you navigate the various precipitation boxes.



NWS Spokane appreciates all of your reports, and many of the staff are CoCoRaHS observers like yourself. Remember you can check your reports and those of fellow observers on the new [CoCoRaHS map interface](#). Under the map options, you can view precipitation, snowfall (new snow depth) and snow on ground depth (snow depth) for a range of dates. ☀

Staff News

Meteorologist Ken Daniels will be joining the NWS Spokane staff. He's transferring from Flagstaff AZ where he has been since 2001. He plans to arrive after the holiday season. We wish Ken good luck and safe travels as he and his family settle into Spokane. ☀

NWS Spokane

Meteorologist In Charge
Ron Miller

Warning Coordination Meteorologist
Andy Brown

Science Operations Officer
Travis Wilson

Administrative Assistant
Jodi Fitts

Information Technology Officer
Todd Carter

Service Hydrologist
Robin Fox

Observation Program Leader
Mark Turner

Lead Forecasters
Jon Fox
Greg Koch
Steve Bodnar
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Jeffrey Cote
Steven Van Horn
Joey Clevenger
Jenn Simmons
Valerie Thaler
Rebekah Cheatham
Ken Daniels

Electronic Systems Analyst
Mike Henry

Electronic Technicians
Paul Kozsan
Eric Dizon

Facilities Technician
Mike Belarde

Remember your Winter Spotter Checklist

Snow: 2"+ valleys & 4"+ mountains
Strong Winds: 30mph+ or damage
Reduced Visibility: under a mile due to fog, snow...
Hail: pea size or larger
Heavy Rain: Showery: 1/2" + in 1hr Steady: 1"+ in 12hr/1.5"+ in 24hr
Any Mixed Precipitation
Any Flooding
Travel Problems or Damage: due to severe/hazardous weather

Sneaky Winter Hazards

Even when it's not snowing or raining, wet roads can quickly turn icy as temperatures dip below freezing. These unexpected slippery conditions can make driving hazardous. When roads look wet in the winter, remember to stay cautious, slow down, and don't use cruise control. Be extra careful after sun set. Don't let flash freezes sneak up on you!

flash freeze
Wet roads can freeze quickly at night or when there is a rapid drop in temperature behind a cold front.

ROAD ICY PLEASE USE SLOWER SPEED

safety tips

- Slow down
- Don't use cruise control
- Leave plenty of distance between you and other vehicles

"Sneaky" Winter Hazards

The winter season brings many weather events that can "sneak" up on you. These are weather hazards that cause big impacts and make travel difficult without making big news.

weather.gov

dense fog
Fog can be hazardous to drivers, mariners, and aviators and contributes to thousands of travel accidents every year. Visibility often changes quickly in fog.

safety tips

- Slow down
- Use your low-beam headlights
- Leave plenty of distance between you and other vehicles

"Sneaky" Winter Hazards

The winter season brings many weather events that can "sneak" up on you. These are weather hazards that cause big impacts and make travel difficult without making big news.

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Winter may be snow season, but it's also fog season across the Inland NW. When fog forms with temperatures below freezing, that means freezing fog. This can make road surfaces and sidewalks slick. Visibility can change quickly in fog, creating hazardous driving conditions. Remember to slow down, use your low-beam headlights, and leave plenty of distance between you and other vehicles. Be extra careful at night & use your low beams. Don't let fog sneak up on you! ☀

The Weather Watcher Of the Inland Northwest



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2021
HAPPY NEW YEAR

Question: What defines a blizzard?