

# NORTHLAND WRN AMBASSADORS



January 2023

NWS Duluth, MN

Issue 8



Inside the Issue

# LA NINA FOR THE 3RD WINTER

What are the typical impacts of a La Niña and how much longer will it last? See more on p. 2

# THE "BLUE" BLIZZARD OF '22

Find a summary of the winter storm that impacted the area last December, dubbed The "Blue" Blizzard, on p. 2

#### **ICE JAMS**

As we transition to Spring, area rivers will be seeing increased water due to snowmelt. Learn more about how ice jams form on p. 3

## **WRN AMBASSADOR VISITS**

This year, our office is planning on visiting with some of our Weather-Ready Nation Ambassadors in-person! If you are interested in scheduling an in-person meeting, please feel free to contact us at any or all of the email addresses below.

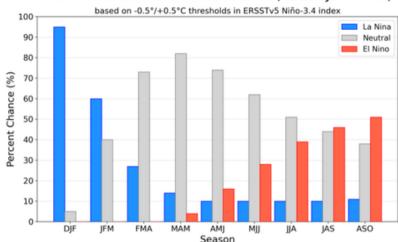
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Warning Coordination Meteorologist: Joe Moore - joseph.moore@noaa.gov



# LA NIÑA CONTINUES FOR THIRD WINTER

#### Official NOAA CPC ENSO Probabilities (issued Jan. 2023)



This winter marks the third year that the Northland has been experiencing a La Niña pattern. La Niña is part of the El Niño/Southern Oscillation (ENSO). ENSO is a fluctuation in the sea surface temps of the equatorial Pacific Ocean. These fluctuations influence how the jet stream behaves and therefore can affect our winters.

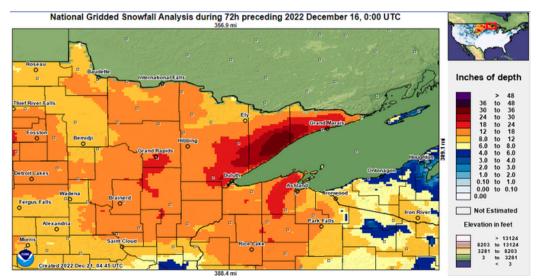
With a La Niña pattern, the Northland typically sees cooler temps and a lean towards above-normal precipitation. This La Niña pattern is likely to end later this year ahead of next winter.

## THE "BLUE" BLIZZARD OF 2022

A powerful, long duration winter storm brought widespread snowfall amounts of 8 to 24 inches across parts of northeast Minnesota and northwest Wisconsin, with areas around Lake Superior receiving up to 30 inches of snow. The storm resulted in a long period of poor road conditions, with strong winds causing blowing and drifting snow. There were also widespread power outages, with some people reporting no power for over two days!

Notable with this storm was how wet and heavy the snow was, with 3-day liquid equivalent values of 1 to 4 inches. The wet quality of this snow, unusual for winter storms in this area, heavily weighed down trees and power lines. The density of the snowpack also enhanced the quality of snow to absorb the red end of the visible light spectrum, transmitting the blue end,

which led to many folks observing a glacier blue color in holes and cracks in the snow as they cleared it. Because of this blue color, NWS Duluth has taken to referring to this snow as the "Blue" Blizzard of 2022.





Left: 72-hr snowfall analysis showing the majority of snow from the Blue Blizzard.

Top: Picture taken near the end of the event. We had 5 people spend the night in the office to ensure we would have proper staffing. 2 of our forecasters spent 2 nights in the office!

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### WATCH OUT FOR ICE JAMS!



An ice jam on the Mississippi River near Fort Ripley in 2019. This ice jam broke up and flushed downstream in less than 2 hours, leaving the river open with no ice floating in it.

An ice jam, or ice dam, happens when chunks of ice clump together to block the flow of a river/stream. Ice jams are caused by melting snow and ice in the late winter and springtime. Warming temperatures and spring rains cause snow and ice to melt very rapidly. All of this extra water causes frozen rivers and streams to swell up, and the layer of ice on top of the river begins to break up. The rushing river carries large chunks of ice downstream, and sometimes a group of ice chunks get stuck in a narrow

passage of the river.

# Once an ice jam is formed, water levels can rise several feet in a matter of minutes.

Ice jams can be dangerous for people living in towns nearby. Because the river is blocked, the rushing water has nowhere to go and therefore can cause flooding in the surrounding area. In addition, it can also lead to increased soil erosion, infrastructure damage, and impact hydrologic power generation.

Ice covered rivers and lakes are never 100% safe. More information from the MN DNR here: <a href="https://www.dnr.state.mn.us/safety/ice/index.htm">https://www.dnr.state.mn.us/safety/ice/index.htm</a>

Never drive around barricades or cross flooded roads





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## **WEATHER READY NATION AMBASSADORS**

The National Weather Service office in Duluth, Minnesota is calling on community organizations and agencies to become Weather-Ready Nation (WRN) Ambassadors. WRN Ambassadors help in spreading WRN messages and building community resilience to extreme weather. Building a Weather-Ready Nation requires more than just the National Weather Service. It requires the entire community, its government, organizations and businesses to provide information for better decision making, and innovative partnerships across all segments of society. We must involve everyone in an effort to move people - and society - toward heeding warnings, taking action, and influencing their circles of family, friends, and social network to act appropriately.

As a WRN Ambassador, you will serve as a leader in your community. You will inspire others to be better informed and prepared, helping to minimize or even avoid the impacts of these natural disasters.

To officially be recognized as a WRN Ambassador, an organization must commit to:

- Promoting Weather-Ready Nation messages and themes to their stakeholders;
- Engaging with National Weather Service Duluth personnel on potential collaboration opportunities;
- Sharing their success stories of preparedness and resiliency;
- Serving as an example by educating employees on workplace preparedness.

Together, we will inform and empower communities, businesses, and people to make pre-event decisions that can be life-saving and prevent or limit devastating economic losses. We are a nation of many communities, and it is only through connected communities that we will achieve this goal.

To apply to become a WRN Ambassador, visit <a href="https://www.weather.gov/wrn/amb-tou">https://www.weather.gov/wrn/amb-tou</a>

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