

NORTHLAND WRN AMBASSADORS

October 2021

NWS Duluth, MN

Issue 3



Inside the Issue

FALL SAFETY SEASON!

Now that the heat is waning, it's time to get prepared for autumnal weather hazards. More info p. 2-3

FIRE AND DROUGHTS

Learn more about the history of large fires and drought conditions in our area on p. 2

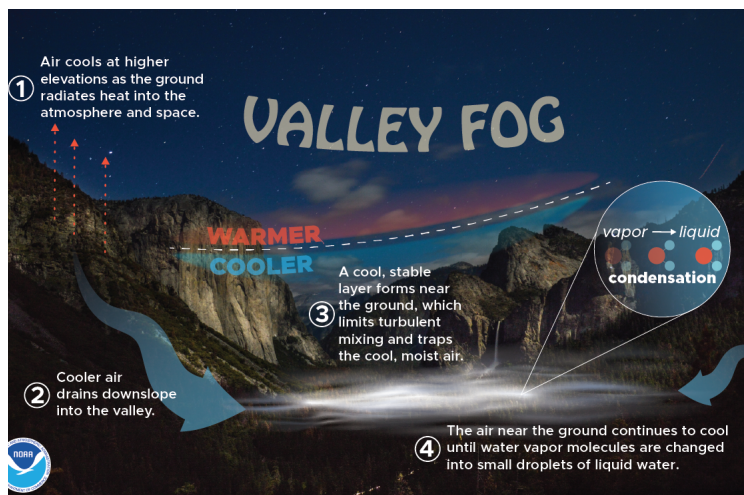
NEW CLIMATE RESOURCES

We've updated our Climate page, and added some new resources! More info p. 3

FOG

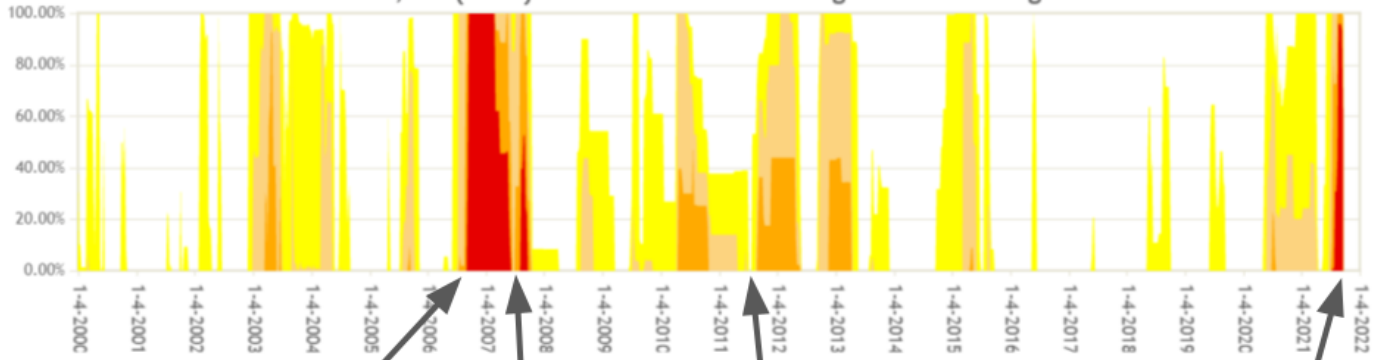
With cooler temperatures arriving, fog will be developing more frequently across the Northland. One type of fog common to hilly areas is valley fog. Typical conditions needed are clear nights with calm winds following rainfall. Valley fog can lead to reduced visibilities and travel impacts.

Valley fog isn't the only type of fog to be aware of this fall season. We can also see radiational fog and steam fog (sometimes called Sea Smoke) on Lake Superior!



■ D0 (Abnormally Dry)
 ■ D1 (Moderate Drought)
 ■ D2 (Severe Drought)
 ■ D3 (Extreme Drought)
 ■ D4 (Exceptional Drought)

Northeast, MN (2103) Percent Area in U.S. Drought Monitor Categories



Cavity Lake Fire
 Started 07/13/06
 Size: 31,830 acres

Ham Lake Fire
 Started 05/05/07
 Size: 75,851 acres

Pagami Creek Fire
 Started 08/18/11
 Size: 92,682 acres

Greenwood Fire
 Started 08/15/21
 Size: 26,797 acres*
 *80% contained as of 09/26/21

DROUGHT AND WILDFIRES: A HISTORY IN THE NORTHLAND

The climatology of major wildfires across northeast Minnesota and northwest Wisconsin from 2000-2021 show that the largest fires occurred with some level of drought conditions in place. The 4 largest fires over the past 2 decades have all occurred in northeast Minnesota, with the Pagami Creek Fire being the largest at 92,682 acres.

An analysis of historical drought conditions show that all of the major fires had a prolonged period of drought in the months or years preceding the fire. While drought conditions don't always result in large fires, such as the dry stretch between 2012-2013, there is a correlation between the two.

Drought conditions in 2021 have been the worst that Minnesota has seen since the U.S. Drought Monitor's inception in 1999. This year was the first time that a D4 (Exceptional Drought) was observed in the state of MN. On the Wisconsin side, rainfall has been slightly more plentiful. However, northwest WI is currently experiencing a D0-D2 drought as of late September.

FIRE WEATHER FORECASTS

As we head into the fall fire weather season, there are a variety of forecast sources available both from the NWS as well as our land management partners. These resources can be found at:

[weather.gov/dlh/fire](https://www.weather.gov/dlh/fire)

DROUGHT

Drought is a shortage of water over an extended period of time that lowers water levels in lakes, rivers, reservoirs and groundwater. Drought is a normal part of climate cycles. During a drought, stay Weather-Ready by conserving water and practicing fire prevention, as dry conditions can lead to wildfires. The U.S. Drought Monitor always has the latest information. Monthly and seasonal outlooks are also available.

[weather.gov/safety/drought](https://www.weather.gov/safety/drought)

To find the current U.S. Drought Monitor for both Minnesota and Wisconsin, visit:

drought.gov/current-conditions





UPDATED CLIMATE PAGES

The National Weather Service migrated its climate data website to a new server with better web stability. Users are now redirected from the old climate data site and should update their bookmarks. Any old links or bookmarks you have been using should be changed to <https://www.weather.gov/wrh/climate?wfo=dlh> The change became effective on August 26, 2021, so if you've been able to access the data you're looking for since then, your link is OK.

Visit
<https://www.weather.gov/wrn/fall-safety>

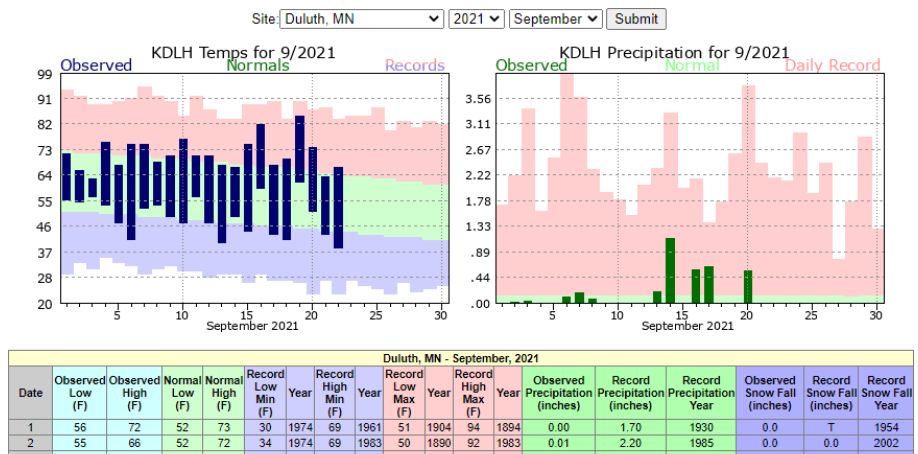
for useful autumnal safety information you can share on social media, website or to print out and share with your visitors!

The content and functionalities have minimal differences. Climate data users will now access the full 5 years of recent data via the "Observed Weather" tab. Most links and data that were available within the former climate data web application are available in the new pages, with the exception of the Local 3-Month Temperature Outlook. This information is now provided through the Climate Prediction Center's [interactive outlooks & forecasts web display](#). The regular Climate Report pages have the same content, and similar displays than before.

LAKE SUPERIOR WATER LEVELS DECREASING

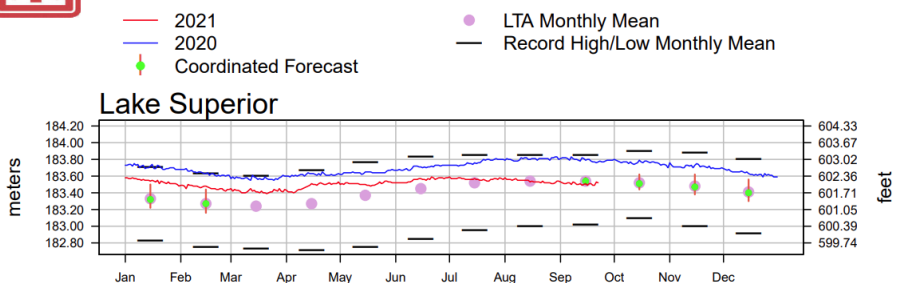
One effect of the severe drought that has affected the region this summer is falling water levels on Lake Superior. Many locations around western Lake Superior are experiencing very low rainfall amounts, with precipitation over much of the areas surrounding western Lake Superior only 75% of normal or even less, with below normal precipitation farther east. This has caused the water level of Lake Superior to drop so far that it's August mean level matched it's long-term average level for the first time since April 2014. Also, the August level was 11 inches below its August 2020 mean level and 13 inches below its record high August level from 2019.

Locally, we have added a new climate product: Climate graphs! They are accessible from the main climate page on the Local Data/Records tab, from the [DLH Climate Site Temp/Precip Graphs and Tables](#) link. The graphs are plots of climate data, including high and low temperatures, rainfall and snowfall for selected locations across the Northland. These graphs are preliminary, but provide a quick look at our weather information for the past few years.



Daily Great Lakes Water Levels

Lake Superior





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 <https://www.weather.gov/wrn/amb-tou>