



The Inland Northwest Informer

Information For Storm Spotters, Cooperative Observers And Everyone

A Publication of WFO Pendleton, Oregon

Spring/Summer 2023 - Volume 32

Early November 2022 Wind Storm

By Ed Townsend, Science and Operations Officer

After a storm dumped almost an inch of rain in Pendleton and brought snow to the mountains to start the month of November, a second system followed on its heels, bringing widespread high winds to the northwest interior (Figure 1, right). This early November weather system brought the winter season's first significant wind event to eastern Oregon.

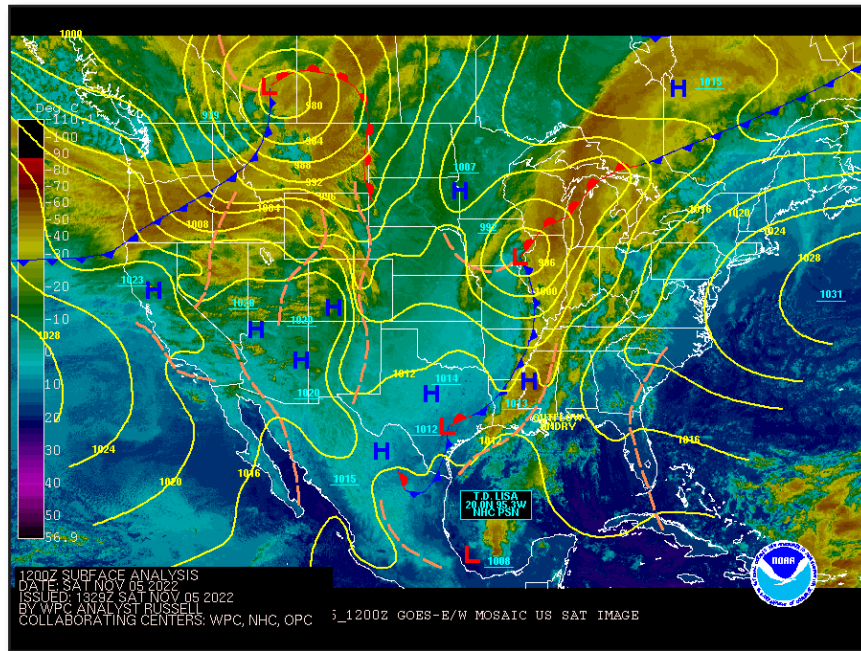


Figure 1. Surface chart showing the position of the low pressure system at 5 am on November 5, 2022.

Ahead of a strong cold front, winds increased late on Friday, November 4th. Winds peaked late Friday evening, with a peak gust of 77 mph recorded shortly after midnight at the Pendleton Regional Airport (Figure 4, page 3). Gusts remained high across the area from late Friday night into Saturday, with gusts continuing to measure above 40 mph on Saturday afternoon (Figure 2, page 2). The ingredients behind this wind event weren't uncommon compared to other

strong wind events, and they were enhanced by strong low-level winds that were analyzed to approach or exceed 70 mph around 4000 to 5000 ft above the Lower Columbia Basin into the foothills of the Northern Blues. These strong low-level winds were able to mix down to the surface and were aided by a cold front that accelerated eastward overnight across south-central WA and eastern OR.

Although the strong winds were anticipated in advance, with a high wind watch issued the morning of November 3rd, followed by a high wind warning issued early morning on November 4th, the wind damage and impacts typically seen with higher wind speeds came to fruition nonetheless. The strong winds broke large tree limbs (Figure 3, page 2), damaged fences, lofted objects, and ripped house siding in

Pendleton. Meanwhile, the winds downed electric lines, causing power outages in Pendleton, Prosser, and Yakima. The downed lines in Pendleton sparked fires as winds carried embers that destroyed property and caused the evacuation of a small number of neighborhood homes.

To help prepare for these not so uncommon wind events, it is important to stay weather aware and know the risks ahead of time. While

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Banner Image by A. Adams

the effects of strong winds can vary depending on time of year and your location, a few steps can help limit the impact fall and winter wind storms have such as:

- Trimming tree branches away from your house and power lines.
- Securing loose gutters and shutters.
- Charging batteries of all essential items such as cell phones and booster packs, weather radios and power tools.

- Updating your emergency kit and including enough food and water to last for 3 days for each person in your home.

- Making a list of items outside your home you will need to tie down or put away when the NWS issues watches and warnings so that they don't blow away or fly through a window and cause damage. ❖

24HR Peak Winds (mph)			
Mt Howard	80	Pendleton, OR (Airport)	77
Sedge Ridge	72	Ajax	72
Maryhill	72	Grayback	70
Benton City	70	Kahlotus	69
Walla Walla	68	Adams4w	67
1 NNW Richland	63	Ellensburg Airport	63
Hehe 1	63	Pendleton	63
North Pole Ridge	60	Hermiston Municipal Airport	60
Helix	60	Mabton	60
Port Kelley	59	Lyle	59
Olex	59	Heppner	59
Irrigon Light	58	Wasco Butte	58
Patjens	58	Board Hollow	58
Echo	57	Yakima	56
Stampede Pass	56	Juniper Dunes	56
Touchet	56	Yakama_port1	55
Signal Peak	55	Tri Cities Airport	55
Hood River	54	Kennewick	53
Helix	53	5 WSW Rufus	52
3 W Rufus	52	Fall Mountain	52

valid as of Sat Nov 5th 06:00 am - NWS Pendleton, Oregon

Figure 2. Strongest wind gusts over the period of 6 am November 4, 2022 to 6 am November 5, 2022.

Figure 3. Broken tree limb in Pendleton, OR from strong winds on November 4-5, 2022..



Broken tree limb after a wind gust of 77 mph in Pendleton, OR

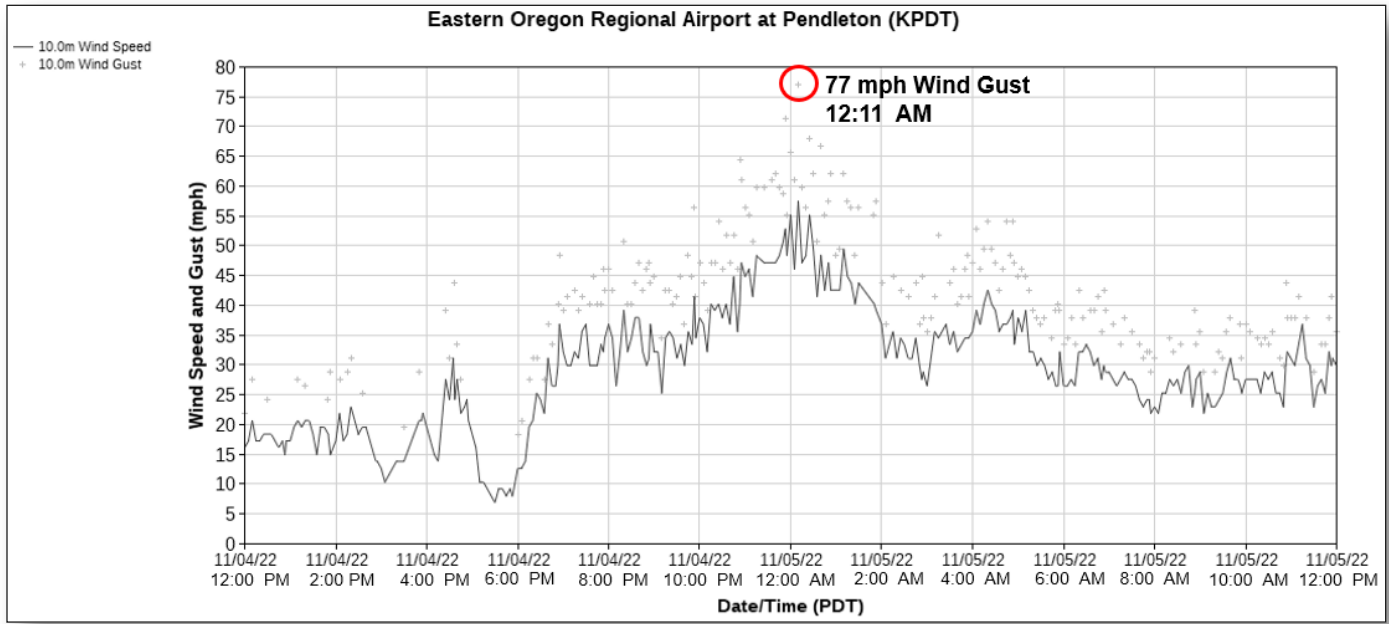


Figure 4. Recorded wind and wind gust measurements at the Eastern Oregon Regional Airport at Pendleton from noon to noon over November 4-5, 2022.

When the Wind Blows

High winds can create dangerous fallen or blowing objects.

Identify an interior room in your house or at work that you can take shelter in during high wind warnings.

Head Inside Immediately

If you are driving and aren't near a sturdy building, hold the steering wheel with both hands and slow down.

Keep a distance from high profile vehicles.

Be Careful on the Road

Stay Clear of Hazards From Above

Stay Clear of Trees

Beware of Loose Outdoor Items

NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE
U.S. DEPARTMENT OF COMMERCE

weather.gov/wind

Fire Season Outlook 2023

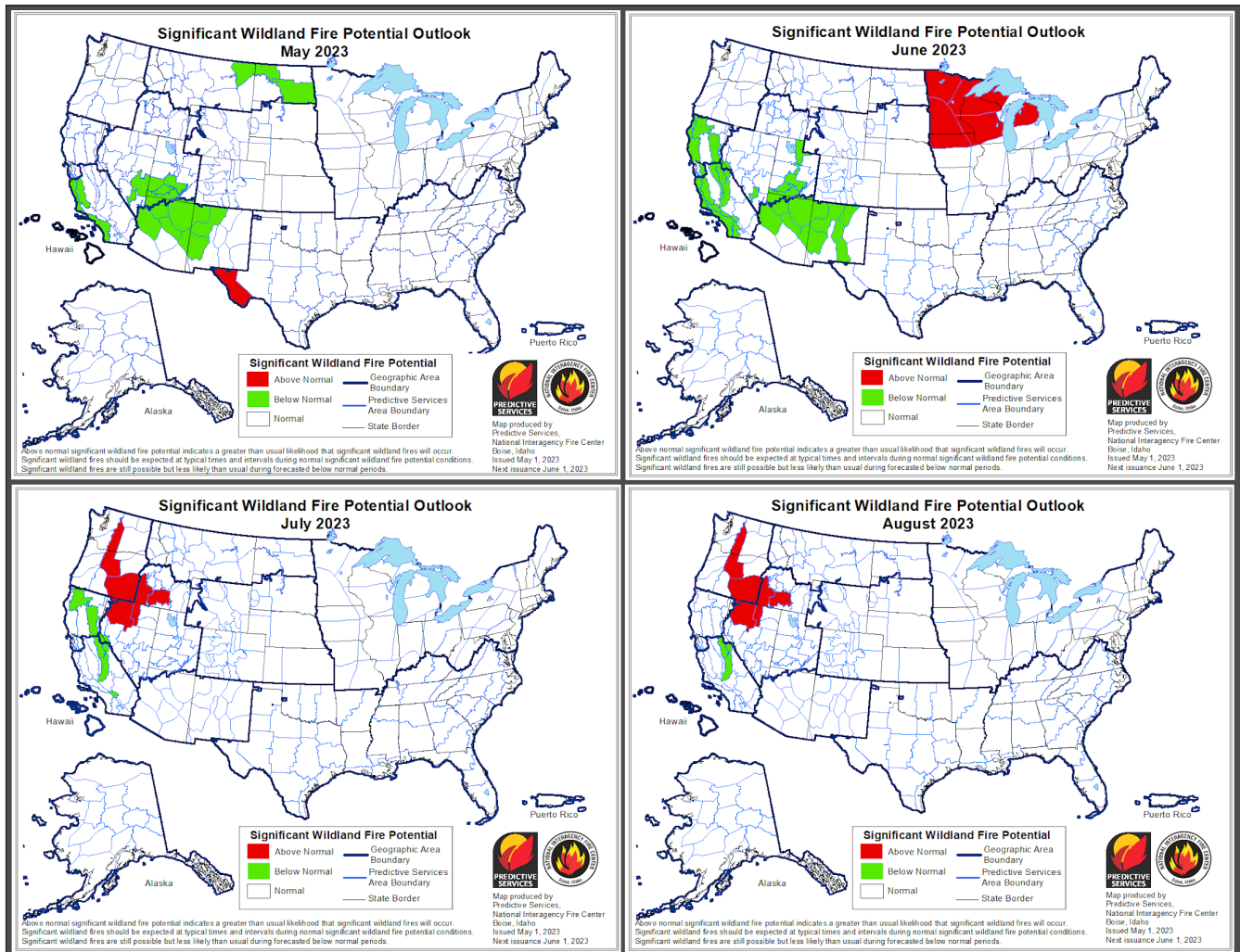
By Mary Wister, Incident Meteorologist / Fire Weather Program Leader

Mother Nature never ceases to amaze me. Thirty years as a meteorologist, I am still in awe at how extreme weather can be. For this past winter, the amount of snow received in the Great Basin is mind boggling—over 700” total at Lake Tahoe and over 600” in other locations of the Sierra Nevada! Based on these snow totals, it’s probably no surprise that the probability for large wildfires in the Southwest is looking near to below average through August. The mountains of southern Oregon also received significant snow. By the end of April, Crater Lake measured 170” for the season—60” above average. Mt. Bachelor reported 453” in early May and extended skiing longer than usual. It’s likely that the high elevations will have a late start to fire season. However, keep in mind that the lower elevation fine fuels (that is, grasses and shrubs) will be thicker and higher with increased potential for large wildfires once these fuels cure.

The Northwest Geographical Area Coordination Center has placed southeast Oregon in a greater than average potential for large costly wildfires in July and August (see images below). The east slopes of the Oregon and southern Washington Cascades have also been placed in a greater than average potential for large wildfires in July and August. Although drought conditions have improved in these areas, portions of central Oregon are under a D3 (extreme) drought. Based on the US Drought Monitor seasonal outlook, drought development is likely for most of eastern Washington through the end of July.

How does ENSO play a role in the fire season? ENSO, El Niño Southern Oscillation, is currently in a neutral phase but the Climate Prediction Center has a 60% probability that El Niño will return by the end of the summer. Climatologists look at

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ENSO to determine whether monsoon season will occur. Based on the onset of El Niño as well as other oceanic-atmospheric teleconnections (for example, the Madden Julian Oscillation or MJO has been very active in the tropics over the past two months), the Desert Southwest may experience more weather systems bringing cooler temperatures, winds, and showers with a slow start to monsoon season, or monsoon will be weak this summer. I use the term “may” as there is never a one-size-fits-all to ENSO outlooks, our jobs as forecasters would be SO much easier if it was! If monsoon season is delayed or is weak, that would mean that the dry thunderstorm potential in eastern Oregon and eastern Washington would be less. Dry thunderstorms often occur when high level monsoonal moisture from the Desert Southwest travels north and encounters a hot and unstable atmosphere. Thunderstorms that develop typically produce little to no rainfall. This, of course, means new fire starts from lightning. That’s not to say that

our thunderstorm potential would be less this summer. A Pacific system tracking across the Northwest during the spring and summer may be accompanied by lightning, sufficient enough to ignite wildfires.

Again, there are always extremes to the weather, and that includes the Pacific Northwest. I am cautiously optimistic that the abundant snowfall and the late season snow melt will limit large wildfires in the higher elevations and that any lower elevation grass fires will be quickly suppressed with initial attack. However, all it takes is a prolonged period of hot and dry conditions for the fuels to quickly cure and wildfires to turn ugly. A wise and well-respected bear suggests that we should do our part to prevent wildfires. Remain diligent in preventing human-caused fires by following guidelines provided by land management agencies via their social media posts and websites. ❖

Remember—You can help minimize damage from wildfires by maintaining your landscaping. Here are a few tips for cleaning your property and preventing fire spread:

1. Remove dead vegetation at least 10 feet away from your home.
2. Remove flammable material such as propane tanks and firewood stacks at least 30 feet away from your home and outbuildings.
3. If you have trees on your property, prune so the lowest branches are 6-10 feet from the ground.
4. Keep your lawn hydrated and maintained.
5. Clear leaves and other debris from gutters, eaves, porches and decks. This prevents embers from igniting your home.



For more information about fire weather and wildland fire management, check out the Pacific Northwest Coordination Center’s website at <http://gacc.nifc.gov/nwcc>

For more information and helpful tips on wildfire preventative maintenance for home or property owners, visit the Firewise.org website.

Plume from Round Mountain Lookout Sept 6, 2022. Cedar Creek Fire. Photo courtesy of InciWeb.

Summer 2023 Seasonal Outlook

By Roger Cloutier, Meteorologist

Over the past three years, we have experienced La Niña weather conditions across the central and eastern equatorial Pacific that can influence temperature and precipitation across the globe. However, ENSO (El Niño-Southern Oscillation) conditions are currently in a transition from La Niña to ENSO-neutral to El Niño. The latest ENSO Alert System Status is El Niño Watch, which is currently in effect. El Niño effects are usually more noticed during the winter season (especially to our south, over California), and are weak to none during the summer over the Pacific Northwest. This means that during the summer, it could be warmer and drier, or cooler and wetter despite El Niño or La Niña. This was especially true during the past several summers. Recall that the summer of 2021 and 2022 had record heat waves for lengthy periods of time during those La Niña summers over the Pacific Northwest.

In 2021, the all-time record high temperature for the Pendleton, OR Airport was smashed with a record high temperature of 117 degrees on June 29th, 2021. Of note, the Oregon State maximum record high temperature record of 119 °F was reached in Pendleton, OR (not directly at the airport) on August 10, 1898. Then in 2022, there was a period of time from July 25th to the 31st when high temperatures were above 100 degrees each day. The hottest day was on July 29th, with a high temperature of 111 degrees, which was a record high temperature that broke the old record of 104 degrees on July 29th, 2003. There were a total of 14 days during the 2022 summer with high temperatures reaching or exceeding 100 degrees, including a string of seven consecutive days of high temperatures above 100 degrees at the end of July. Will the summer of 2023 be as hot as the previous two summers? With an El Niño emerging, there is that possibility, but the synoptic weather patterns are likely to have a much greater influence than El Niño influences during the summer months than in the winter. Historically, studies have shown that El Niño effects were much less during the summer than in the winter months over the Pacific Northwest.

Figure 1 (below) shows that a transition from ENSO-neutral to El Niño is favored from May – July, with chances of El Niño increasing through the summer into fall and early winter of 2023 - 2024. The red colored bars indicate increasing chances of El Niño for each of the running 3 month periods, while the gray bars show a decreasing chance for ENSO-neutral conditions. All of the blue bars in the image show near or at zero chances of La Niña conditions re-developing again.

A transition from ENSO-neutral to El Niño is favored during May-July 2023, with chances of El Niño increasing through the fall and early winter 2023-24.

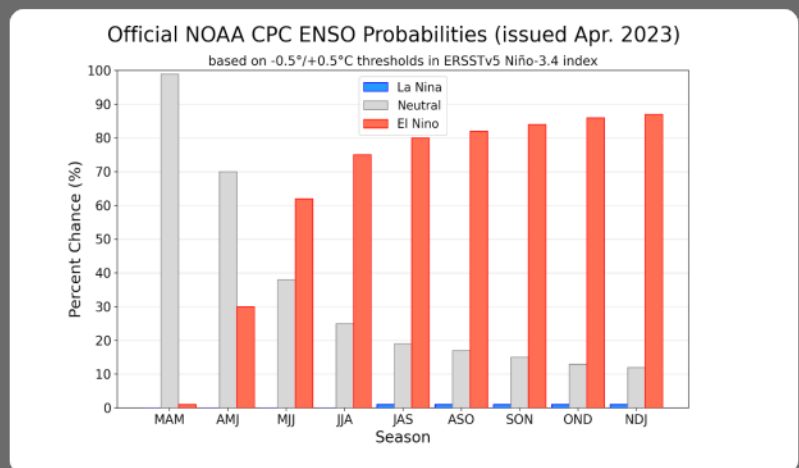


Figure 1: Probabilistic ENSO Forecast.

Despite these 3-month temperature and precipitation seasonal outlooks for the summer months (Figures 3 and 4), there may still be periods of time during the summer months when temperatures could still be below normal, with above normal precipitation. These outlooks are not written in stone that the entire summer will be hot and dry.

If these predictions prove correct the fire season will likely be more active as well, with a greater number of large wildfires from late Spring through early fall. So far, this spring has been cooler and wetter than normal up until the week of May 10th. With the cooler and wetter conditions, the amount of

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fine vegetation such as grasses and shrubs are likely to grow thicker and heavier than normal. Then any sudden change to long periods of hot and dry conditions would allow these fine fuels to cure quickly and carry a wildfire easier with the cascading impacts from the summer heat. Commercial power consumption impacts could also be greater in response to any heat events with the increased use of air conditioning systems. This could cause possible brown-outs, or even possible black-outs, due to the stresses increased on electric energy systems.

Always a concern are any heat events that extend more than a couple days which could result in more cases of heat-related illnesses, and possibly even heat-related deaths.

During the last two summers, events were seen with temperatures of 20 to 25 degrees above normal. While extreme

heat events are a real hazard and do not have to be as severe as was in June 2021, any heat wave with consequence days featuring little relief at night will prompt greater stresses on humans, livestock, wildlife, plants, commercial power consumption, and water supply.

Of final concern are any extreme heat events, which already are occurring and are expected to become more common and more severe, owing to a changing climate. Climate change is likely playing some role in the magnitude and frequency of extreme weather events, including heat waves. That said, the extent of that role varies from weather event to weather event. ❖

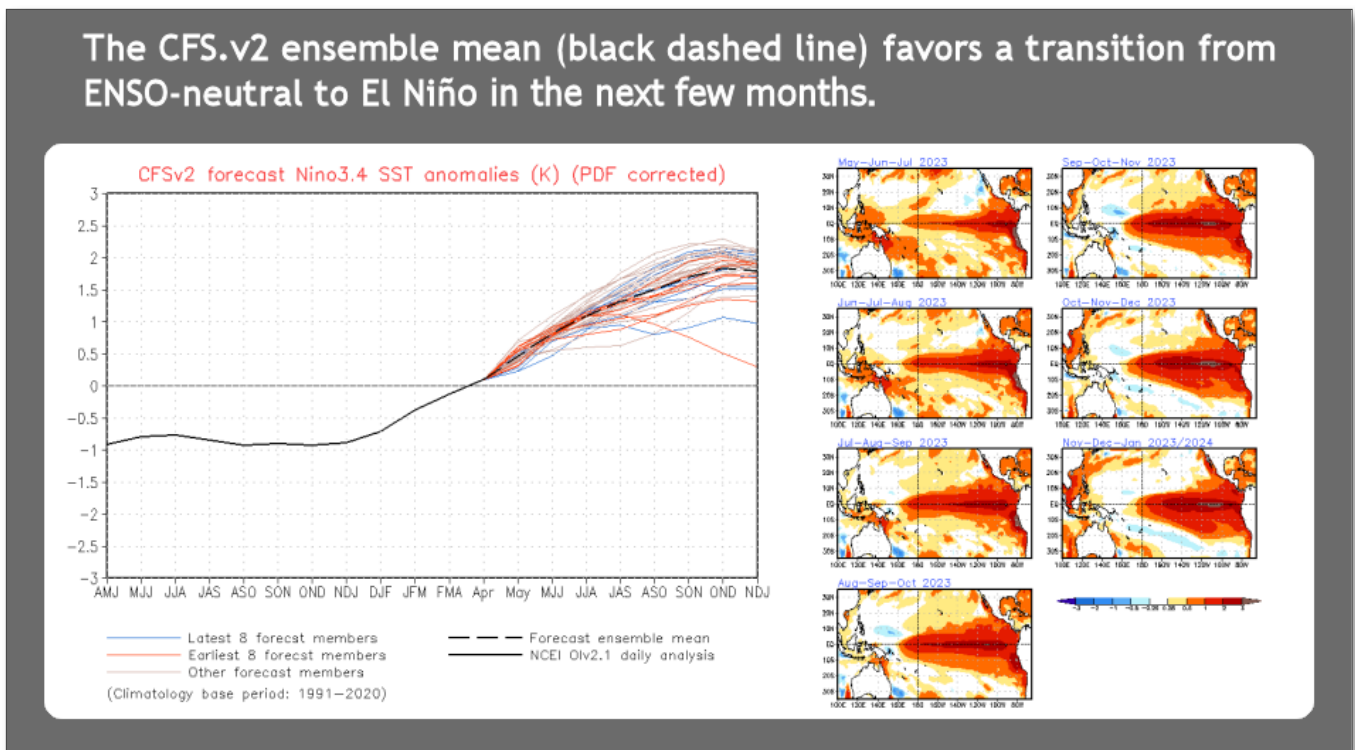


Figure 2: The CFS.v2 Ensemble Mean. The main takeaway here is that the thick dashed black line, which is on the rise, shows Sea Surface Temperatures (SST) anomalies increasing, which is one of the metrics used in the determination of an El Niño developing.

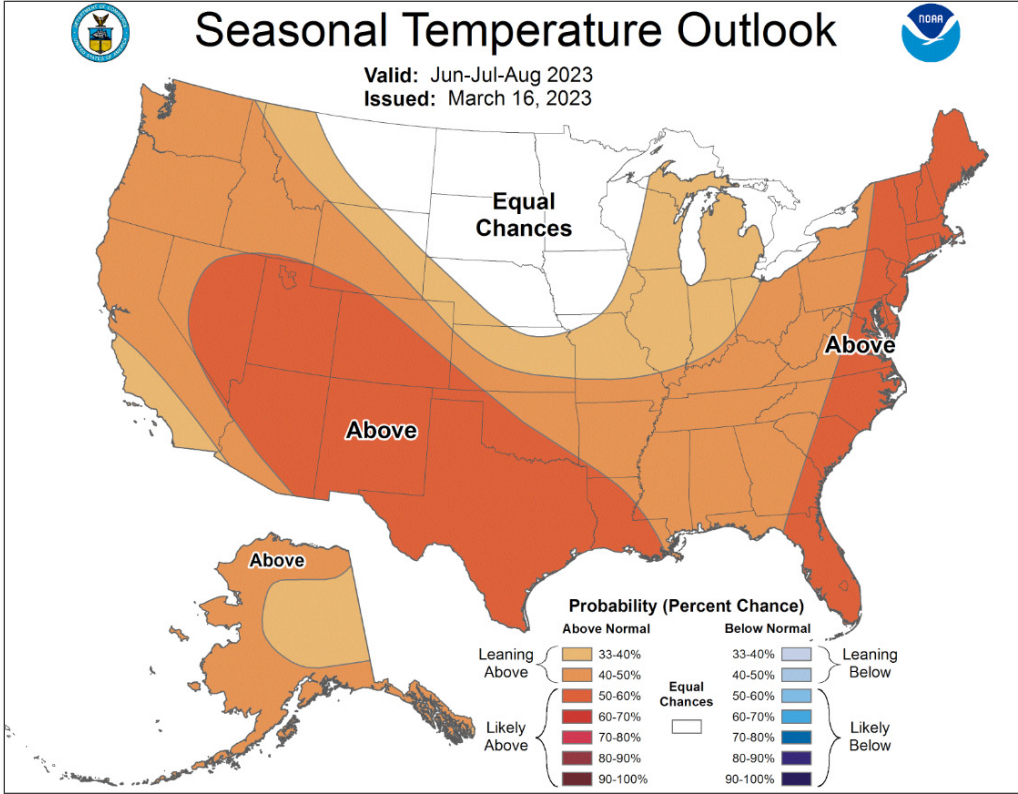
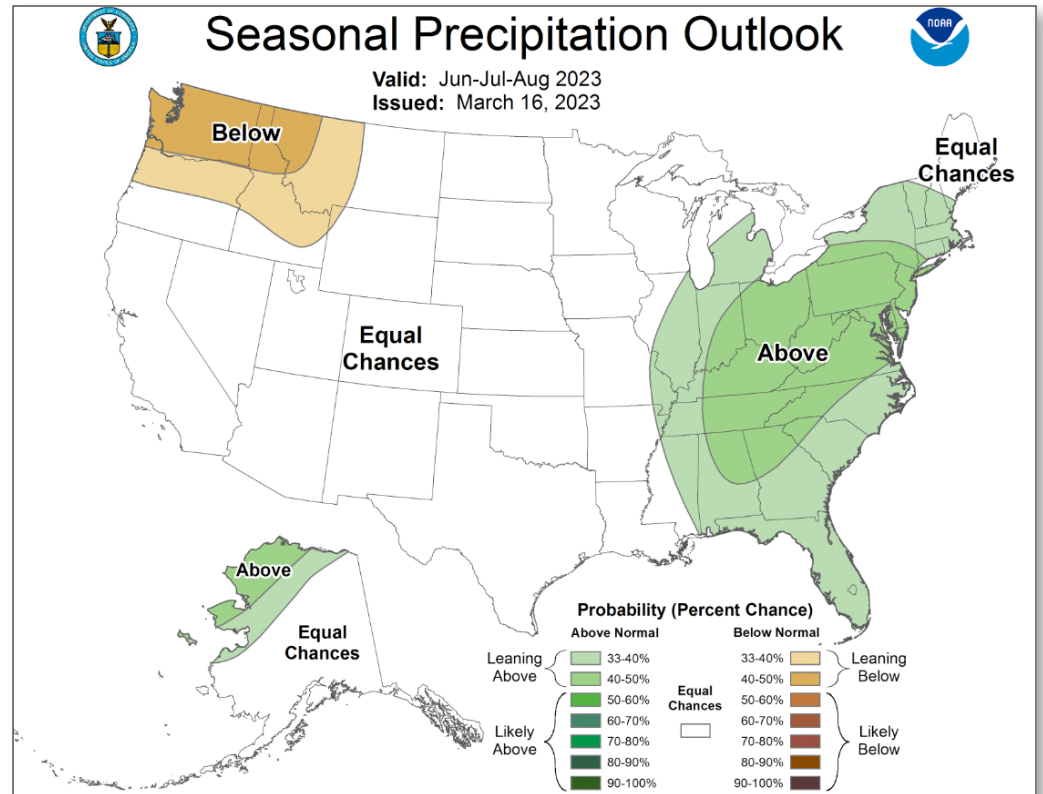


Figure 3 (left): The three month seasonal temperature outlook for June, July and August. This image shows that the temperature probability is leaning towards above normal temperatures (about a 40-50 percent chance). The red and orange shaded areas show where the above normal temperature anomaly is greater than 33 percent (in which a 33 percent chance or less indicates equal chances of above or below temperatures).

Figure 4 (right): The precipitation outlook for June, July and August (figure 4) for most of the Pacific Northwest is leaning toward below normal precipitation (greater than a 33 percent chance).



Water Year Precipitation October 2022 - March 2023

By Ann Adams, Hydro-Meteorological Technician

Location	Amount In Inches	Percent of Normal
Bend 7NE	2.55	50%
Heppner	5.90	58%
John Day City	4.03	65%
La Grande	5.85	58%
McNary Dam.....	5.56	108%
Meacham	22.63	90%
Milton-Freewater.....	10.96	108%
Moro.....	7.68	100%
Pendleton Airport.....	6.87	86%
Prineville	4.73	75%
Redmond Airport.....	3.95	84%
The Dalles Airport	6.91	63%
Wallowa	7.50	69%
Wickiup Dam	13.86	96%
Cle Elum.....	12.94	70%
Dayton.....	10.78	88%
Ellensburg.....	4.94	80%
Hanford.....	3.97	84%
Mill Creek Dam.....	11.35	124%
Mt Adams RS	33.87	88%
Prosser	5.37	93%
Sunnyside	5.48	111%
Whitman Mission	7.81	83%
Yakima Airport	5.48	98%
Walla Walla Airport.....	9.68	81%

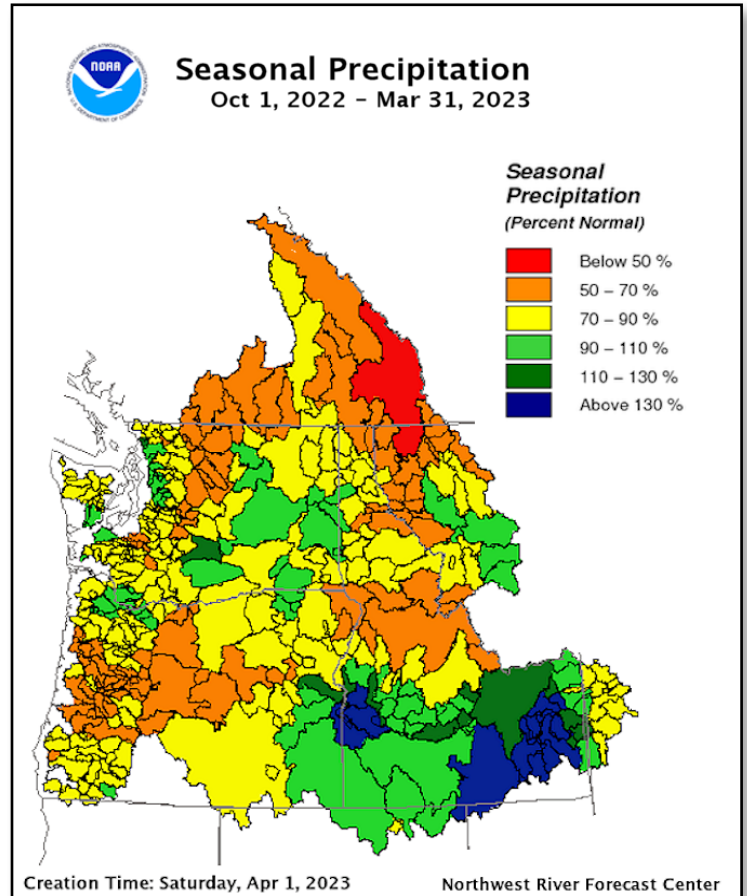


Figure 3. Seasonal precipitation for the Pacific Northwest, from October 2022 through March 2023

For more hydrological information:

- [Water Supply Forecasts \(Map\)](#)
- [Current Drought Conditions](#)
- [Regional River Observations \(Map\)](#)
- [Local Hydrology Links](#)



Cooperative Program Highlights

A number of volunteers from the NWS Pendleton Office's Cooperative Observation Program received service awards over the last two years in appreciation for their continued dedication and support of providing daily weather observations. Recipients of awards included John McNamee of Antelope, OR receiving the John Campanius Holm Award and the City of Boardman, OR receiving a 50-year Honored Institution Award. The NWS

Cooperative Observer Program (Coop) is the nation's weather and climate observing network of, by and for the people, and was formally created in 1890 under the Organic Act. More than 8,700 volunteers take observations on farms, in urban and suburban areas, national parks, seashores and mountaintops. Congratulations to everyone! Other awards were presented at different dates and locations, and can be seen on the following highlights pages. ❖



Mr. John McNamee, a rancher near Antelope, Oregon was presented the prestigious John Campanius Holm Award for his dedication and exceptional service for over 20 years. John's station is Antelope 6SSW, just outside of Antelope, OR in southeast Wasco County. From left, John McNamee; NWS Pendleton Meteorologist-in-charge Mike Vescio; NWS Western Region Deputy Director Jeff Zimmerman. Also present was John's wife Ellen and NWS Pendleton Observation Program Leader Jim Smith.


Cooperative Program Highlights




Bonnie Richardson, at Richardson's Rock Ranch north of Madras, Oregon was presented a 75 Year Family Heritage Award. The Kennedy-Richardson family, owners of the Richardson's Rock Ranch north of Madras, Oregon, have been recording daily precipitation at their ranch since 1945. The original observer was Mrs. Eleanor Kennedy. Her daughter, Mrs. Norma Kennedy-Richardson, became the primary observer in 1993. Bonnie's station is Lower Hay Creek in Jefferson County, Oregon. From left, NWS Western Region Deputy Director Jeff Zimmerman; Bonnie Richardson; NWS Pendleton MIC Mike Vescio.

The City of Boardman, Oregon received an Honored Institution Award for 50 years. Accepting the award was Kevin Kennedy, Juan Cambero, and Luis Campos. From left, NWS Pendleton MIC Mike Vescio; Juan Cambero; Kevin Kennedy; Luis Campos; NWS Western Region Deputy Director Jeff Zimmerman.







John Duckworth
Wallowa, Oregon
Benjamin Franklin Award
55+ Years of Outstanding Service

John Duckworth from Wallowa, Oregon was presented the Benjamin Franklin Award for 55 years of continuous and highly reliable service in the NWS Cooperative Program. Meteorologist-In-Charge Mike Vescio presented the award virtually to John during an online ceremony.

Cooperative Program Highlights



Marvin Grassl, from outside of Connell WA, received an award for 40 years of service in the NWS Cooperative Program. Marvin's station is Connell 12SE in the Columbia Basin of Washington. Accepting the award is Marvin's brother, Richard Grassl.

Melissa Bostick, supervisor at the City of Ellensburg Wastewater Treatment Facility, was presented an award for 10 years of service in the NWS Cooperative Program by Jim Smith, Observation Program Leader. The facility is located on the south end of the city of Ellensburg, Washington.



Brian Foster of Arlington, Oregon was presented an award for 25 years of service in the NWS Cooperative Program. His dedication to the daily weather observations has been very much appreciated. Brian also recently retired from his work with the City of Arlington. The station is located on the bank of the Columbia River in north-central Oregon.



STAFF SPOTLIGHT

A new Warning Coordination Meteorologist (WCM) started at NWS Pendleton in early November, 2022 when Katy Branham arrived on-site. Katy is very excited at the potential of filling the WCM position, which allows her to work with partners and customers to share all of the extraordinary efforts made by the staff at NWS Pendleton. In the last 6 months, She has been able to meet with a good number of partners and will strive to meet more through the remainder of 2023. Katy was born in Ohio, and became fascinated with weather when she made herself face her fear of thunderstorms by watching one out of a window and realizing all of its beauty and excitement. She earned her Bachelor's Degree from Ohio University in Athens, OH, and then followed that up with a Master's Degree from South Dakota School of Mines in Rapid City, SD. During her time in Rapid City, she volunteered at the NWS office in Rapid City, and was able to use that as a strong networking opportunity.

In 2004, Katy began her official NWS career at NWS Riverton, Wyoming. She spent the next 12 years there developing forecasting



Katy Branham

skills with northwest weather, and skills related to program management. Additionally during this time, she helped run a nonprofit organization to introduce scientific careers to middle and high school students across central and western Wyoming. In 2016, she received a promotion to a lead forecaster at NWS Boise, Idaho. Katy worked to excel at leadership, program management, and mentoring while working in Boise. Joining NWS Pendleton as the new Warning Coordination Meteorologist is a dream come true for her, and she has viewed this as her career goal for a number of years.

When she is not working, Katy is with her husband and 2 daughters, likely chasing their daughters to hockey, soccer, piano, or choir concerts. Otherwise, she may also be relaxing with her two dogs, cat, family hamster, and family birds and enjoying the sounds of her personalized zoo. Katy is an avid reader, and also enjoys movies. Katy and her family are excited to be moving to the Pendleton forecast area, and look forward to what experiences the future here will provide. ❖

Christel Bennese was born in San Francisco, California and spent most of her childhood living between Fort Ord, Ca and in Germany. Growing up next to heliports and having a father who was what most of us call a weather enthusiast, and his passion for the weather is where she grew her own passion. From a young age weather was fascinating and she knew one day that she wanted to learn as much about it as possible.

After high school she began working towards those goals and wanting to join the National Weather Service. She attended the University of Hawai'i at Manoa with a B.S. in meteorology then Mississippi State University with a M.S. in Teaching Geoscience. Received an internship with the Geographical Area Coordination



Christel Bennese

Center in Portland as a fire weather analyst and learned she had a passion for fire weather. Achieved another M.S. in meteorology with an emphasis in fire behavior, weather and fuels at San Jose State. This led to both a student volunteer position at the Monterey NWS office and an internship at the Naval Research Lab with the fire weather meteorologists.

Her dreams finally were unlocked when she was offered a position at the NWS office in Pendleton, Oregon in November 2021. She then moved from Korea to solidify her dreams. When not at work she is either spending precious time with her family or skating it up with

her roller derby team in Walla-Walla. ❖

Photo Album



Snow shower over eastern portion of Pendleton Airport. Photo by A. Adams

Squall approaching the weather office ahead of a fast moving front. Photo by A. Adams



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