



Drought in the NW Climate Hub Region

Recent atmospheric rivers, narrow concentrations of moisture in the sky, have brought significant rain and snow to the Northwest US and British Columbia, resulting in flooding and reducing drought severity. In Idaho, recent precipitation helped to improve drought conditions in south-central and northern Panhandle portions of the state. Exceptional drought (dark red-D4) continues to persist in Nez Perce, Lewis, Latah, and surrounding counties. Western Washington has non-drought conditions, while the majority of central and eastern Washington have seen improvements in drought conditions due to recent rains. Exceptional drought (dark red-D4) persists in portions of Asotin, Whitman, Garfield, Columbia, Walla Walla, and Benton counties. Since last month, Oregon has received some rains to alleviate drought conditions, but not the amounts seen in Washington. Portions of western Oregon have received precipitation to improve drought conditions. The majority of Clatsop and Tillamook counties now have non-drought conditions. Central and eastern Oregon have not received enough precipitation to improve drought conditions. Since May 2021, extreme (D3-red) and exceptional drought (dark red-D4) conditions have persisted in central Oregon.

Alaska continues to experience non-drought conditions, which have been present since the end of August.



Historical drought map



CoCoRHaS: Community Rain Hail Snow Network

U.S. Drought Monitor

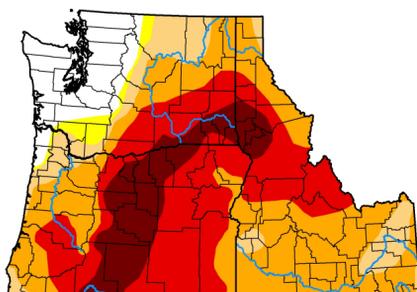
Drought Conditions & Impacts Reporter

NOAA's current drought reduction tool estimates the percent of normal precipitation needed to end drought conditions within the next six months. Explore other timeframes too.

U.S. Drought Monitor

USDA Northwest Climate Hub

November 23, 2021
(Released Wednesday, Nov. 24, 2021)
Valid 7 a.m. EST



	Drought Conditions (Percent Area)					
	None	D0	D1	D2	D3	D4
Current	73.13	0.58	3.05	10.75	8.77	3.72
Last Week 11-16-2021	73.13	0.58	3.05	10.49	9.04	3.72
3 Months Ago 08-24-2021	61.19	10.86	2.82	6.47	10.49	8.16
Start of Calendar Year 12-29-2020	73.72	12.89	4.23	5.64	3.53	0.00
Start of Water Year 09-28-2021	70.14	2.19	2.80	6.33	10.70	7.83
One Year Ago 11-24-2020	70.83	15.89	4.00	4.98	4.29	0.00

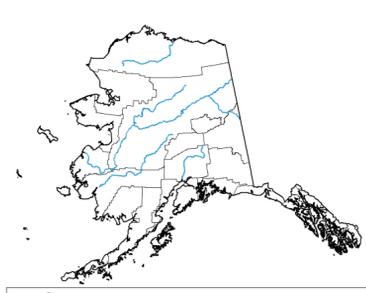
Intensity:
None D2 Severe Drought
D0 Abnormally Dry D3 Extreme Drought
D1 Moderate Drought D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/about.aspx>

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droughtmonitor.unl.edu



Northwest Climate Hub Welcomes Two New Climate Change Communication Fellows

The USDA Northwest Climate Hub welcomes [Janelle Christensen](#) and [Morgan Lawrence](#), two new ORISE Climate Change Communication Fellows. Both will work with Northwest Climate Hub staff to translate climate science and develop communication materials related to climate change in forestry, agriculture, and rangelands.



Webinars

Virtual National Adaptation Forum, Tribal & Indigenous Climate Adaptation Series. 1 December, 11am PST. This is part four of a four-part series focused on advancing discussions about climate adaptation in Tribal and Indigenous communities, highlighting promising adaptation practices, and showcasing the diversity of approaches to climate adaptation. The series will interest Tribal and Indigenous professionals, their neighbors, allies, and other adaptation professionals interested in innovative approaches. This series will touch on themes including Tribal climate and health, community-led adaptation, and Indigenous sustainability practices. The sessions will be diverse in format and will include panels, individual speakers, and a documentary film.

Department of Interior Tribal Climate Listening Sessions: Session 3: Relocation, Managed Retreat, and Protect-in-Place Issues in Alaska, 1 Dec, 1-4 pm AKST & 2 Dec, 9am - 12pm AKST. The Bureau of Indian Affairs is seeking input from Tribal leaders to understand the unmet infrastructure needs for community relocation, managed retreat, and protection-in-place issues in Alaska. This session will facilitate a discussion on the information/resources needed to address this issue across the department.

Fire Aware Fire Prepared Fall Series. Oregon State University Fire Extension program continues its fall webinar series to help prepare our local communities for wildland fire. Wildfire Wednesday webinars are from 12-1 pm PST.

1 December, From the Home to the Landscape (Defensible Space): Fall Edition
8 December, Prescribed Fire

Indige-FEWS Native Voices in STEM webinar series, 6 December, 3-4 MST. This is a webinar series of Native scientists, engineers, activists, community members, and leaders to share their personal and professional journeys, providing inspiration to the next generation of change makers. On 6 December, Joshua Moore will present on [Sovereignty and the Peoplehood Model](#). Recordings of past presentations are available.

U.S. Global Change Research Program (USGCRP) Listening Sessions. USGCRP wants to hear directly from more groups and individuals who use or produce global change information in their work. At these public sessions, participants will be able to learn about USGCRP, comment on how global change information is used or could be more useful in their sector, and suggest forms of future long-term engagement with USGCRP. On the registration form, you may indicate if you are interested in providing a 5-minute oral comment during the session. All participants will have the opportunity to engage and/or provide feedback during the session.

6 December, 12:30-2:00 pm PST, Food
8 December, 2:00-3:30 pm PST, Transportation

SCIENCEx Socioeconomic Dimensions of Land Management, Connecting Research with the Nation's Foresters and Grassland Managers, 6-10 December, 11am-12pm PST. These webinars are primarily natural resource management focused, but with applicability in other sectors. SCIENCEx will typically be organized as week-long webinar 'blisters' around salient topics, allowing for deep-dives into topics or dynamics within specific geographies.

6 December, Forest and Rangeland Livelihoods (includes talks on renewable energy and wood products)
7 December, Protecting Ecosystem Services (includes a talk on capturing diverse forest benefits to use in decision making and another on agroforestry)
8 December, Bounty Beneath Our Feet (includes a talk on the importance of biochar and another on soil organic carbon)
9 December, Urban Interfaces (includes a talk on urban forestry and another on fire in the wildland urban interface)
10 December, Getting Outside (includes talks on recreation)

December 2021 National Weather Service Alaska Climate Outlook Briefing, 17 December 2021, 12-1 pm AKST. Rick Thoman, Alaska Center for Climate Assessment and Policy at the University of Alaska Fairbanks, will review recent climate conditions around Alaska, highlight some forecast tools and finish up the Climate Prediction Center's forecast for December and the early winter season. Join the gathering online to learn more about Alaska climate and weather.

Berry Listening Session cohosted by the Tribal Resilience Learning Network, 9 Dec 1 pm AKST. In these listening sessions share your observations and concerns about berries to help improve understanding of the changes that are occurring in Alaska. Also, help identify what information is needed to plan for berry harvests in the future. The discussion will not be recorded, but notes will be taken with the goal of summarizing the discussions to identify research gaps and priorities to support communities interested in berry resources.

SNAP Tools: Easy Access to Climate Data for Tribal Adaptation Planning 15 Dec, 11am AKST. Tribal planning efforts require access to both traditional knowledge from years on the land, as well as projections of future change specific to areas of interest. Projections can often be broad, and complex, but online tools from the Scenarios Network for Alaska and Arctic Planning (SNAP) provide easy access to data for all audiences. Learn from presenters from SNAP and Alaska community partners about how these tools can be used.

Pacific Northwest Drought Early Warning System December Drought & Climate Outlook, 13 December, 11 am - 12 pm PST. The Pacific Northwest Drought Early Warning System (PNW DEWS) Drought & Climate Outlook Webinar is part of a series of regular drought and climate outlook webinars designed to provide partners and other interested parties in the region with timely information on current drought status and impacts, as well as a preview of current and developing climatic events (i.e., El Niño and La Niña).

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Information

Do You Know Where Your Rangeland Carbon Is? In this Forest Service Science You Can Use article, a new approach for estimating rangeland carbon stocks is described along with explanations from Forest Service land managers on how it can help in planning climate change mitigation strategies. A key finding from this work is that carbon stocks can be retained by limiting soil disturbance during management operations, limiting carbon losses due to catastrophic fires, and preventing conversion to invasive non-native annual grasses, such as cheatgrass.

The 'Carbon Market Bazaar': Future Windfall for Producers or Just Hot Air? This AgClimate Network article summarizes the current, emerging carbon market and U.S. agriculture. This review covers the nation, and it is clear there are not a lot of options for Northwest fruit and vegetable growers. However, new options may be coming from Northwest states.

Severe Flooding in the Pacific Northwest. NASA Earth Observatory article reviews the recent atmospheric river that affected the northwest on 13-15 November. There is a map showing satellite estimated precipitation totals in a 24-hour period on November 14—a day that broke numerous records. Also, satellite imagery for northwestern Washington shows the widespread flooding of the Nooksack River.

Earth has Fourth-Warmest October on Record in 2021. According to the National Oceanic Atmospheric Administration, the Earth's average surface temperature in October was 1.60 °F (0.89 °C) warmer than the twentieth-century average of 57.2 °F (14.0 °C). That makes the past month the fourth-warmest October in the 142-year record.

Funding Opportunities

National Forest Foundation 2021 Matching Awards Program is currently soliciting proposals for its Matching Awards Program (MAP). MAP is a national, competitive grant program that provides federal funds for on-the-ground projects benefiting America's national forests and grasslands. Application deadlines: Round 1 - 12 January 2022, and Round 2 - 22 June 2022. On [3 December](#) there is an informational webinar. The program supports action-oriented projects that enhance outdoor experiences, forests and ecosystem health, and engage local communities in caring for their public lands. **Applications due 12 January.**

Specialty Crop Block Grants from the Washington State Department of Agriculture. Specialty crops are defined by the USDA as fruits, vegetables, tree nuts, dried fruits, horticulture, and nursery crops, including floriculture. Projects should enhance the competitiveness of Washington's specialty crops. Grant requests can range from \$25,000 to \$250,000, for a maximum period of three years. **All concept proposals are due 13 January, 5pm PST.**

Wood Innovations Funding Program and Community Wood Energy and Wood Innovation Program from the US Forest Service. Wood is a renewable source of energy and can store carbon in building materials. These two grant opportunities aim to support forest health and stimulate local economies by expanding renewable wood energy use and innovative wood products manufacturing capacity. Submit your application by **19 January, 5 pm** local time to your local Forest Service Regional Coordinator. See 'Request for Proposals and Instructions' for each grant opportunity for more information.

2021 EarthLab Innovation Grants. EarthLab is looking to fund projects that demonstrate co-creation and partnership between community partners and University of Washington researchers, interdisciplinary collaboration, action at the intersection of climate (both mitigation and adaptation) and social justice, and the potential for growth of the project or partnership. The Innovation Grants Program has \$300,000 available for the current funding cycle, with a maximum budget request of \$75,000 per project. **Letter of intent due 27 January.**

FY 2021 Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA) Notices of Funding Opportunities. The Federal Emergency Management Agency released notice of their Hazard Mitigation Assistance grants for BRIC and FMA. Click here to find detailed program information and other grant application and administration requirements. **The application period will close at 3 pm EST on 28 January.**

2021 Building Resilient Infrastructure and Communities and Flood Mitigation Assistance Webinar Series

Rural Energy for America Program Renewable Energy Systems & Energy Efficiency Improvement Guaranteed Loans & Grants. This program provides guaranteed loan financing and grant funding to agricultural producers and rural small businesses for renewable energy systems or to make energy-efficiency improvements. Agricultural producers may also apply for new energy-efficient equipment and new system loans for agricultural production and processing. Increasing energy efficiency and developing more renewable-energy systems is cost effective and reduces the consumption of fuels that generate greenhouse gases, which contribute to climate change. Applications can be for grants of \$20,000 or less, or a loan/grant combination of \$20,000 or less. **Applications due 31 March.**

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