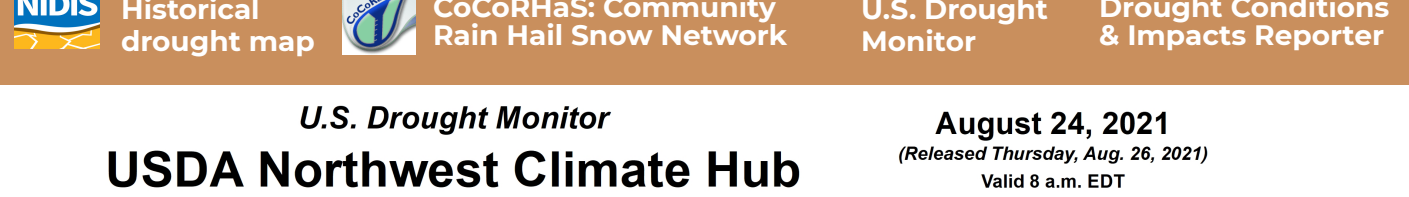




Drought in the NW Climate Hub Region

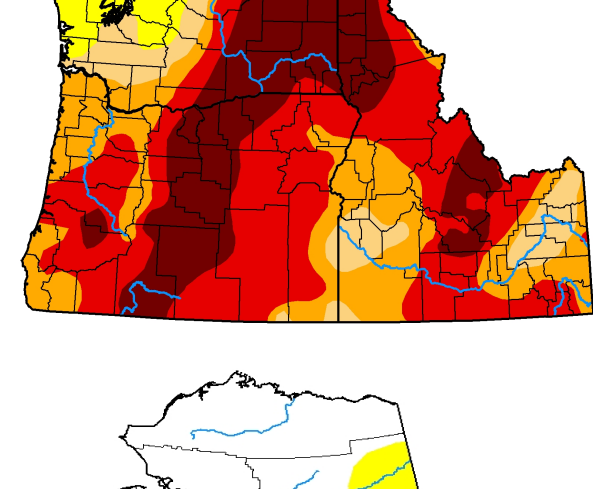
Since late July, Alaska has received rains to eliminate moderate drought conditions (D1-tan) to abnormally dry conditions (D0-yellow) and result in reducing abnormally dry conditions to normal conditions in southcentral Alaska and the interior.

Recent rains have helped to prevent drought conditions from worsening in the northwest. However, since last month exceptional drought conditions (D4-dark red) did expand to much of the panhandle and central Idaho as well as extreme drought conditions (D3-red) from the southern panhandle to the southern Idaho. Likewise, exceptional drought (D4-dark red) has expanded in central Oregon and extreme drought conditions (D3-red) are affecting a large portion of the state. Severe drought (D2-orange) is occurring the western and eastern portions of the state with only small areas in the southeastern Oregon with moderate drought (D1-tan). Drought conditions in Washington also worsen in the last month with an expansion of exceptional drought in the eastern portion of the state along with extreme, severe, and moderate drought conditions moving westward with the expansion of drought conditions. In western Washington, a large portion of the Cascades and the coastal range are experiencing abnormally dry conditions along with moderate drought and severe drought in the southern Cascades.



U.S. Drought Monitor USDA Northwest Climate Hub

August 24, 2021 (Released Thursday, Aug. 26, 2021) Valid 8 a.m. EDT



	Drought Conditions (Percent Area)					
	None	D0	D1	D2	D3	D4
Current	61.19	10.86	2.82	6.47	10.49	8.16
Last Week (08-17-2021)	56.24	12.40	6.23	6.47	10.37	8.28
3 Months Ago (05-25-2021)	57.55	20.65	10.13	8.09	3.17	0.42
Start of Calendar Year (12-29-2020)	73.72	12.89	4.23	5.64	3.53	0.00
Start of Water Year (09-29-2020)	61.33	22.98	6.22	4.96	4.51	0.00
One Year Ago (08-25-2020)	75.69	11.46	5.11	5.69	2.06	0.00

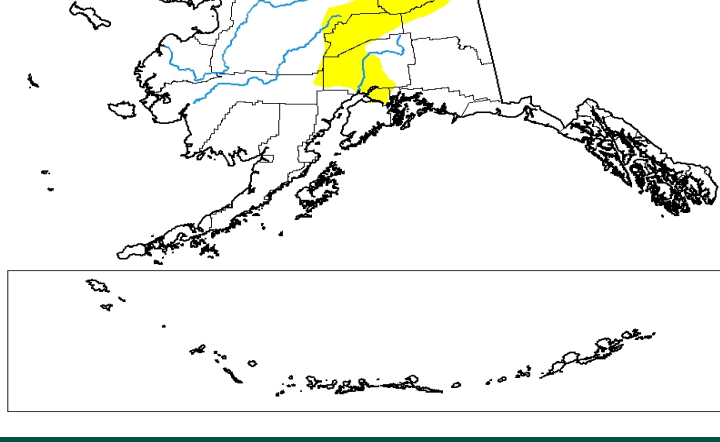
Intensity: None, D0 Abnormally Dry, D1 Moderate Drought, D2 Severe Drought, D3 Extreme Drought, D4 Exceptional Drought

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

Author: Curtis Riganti, National Drought Mitigation Center

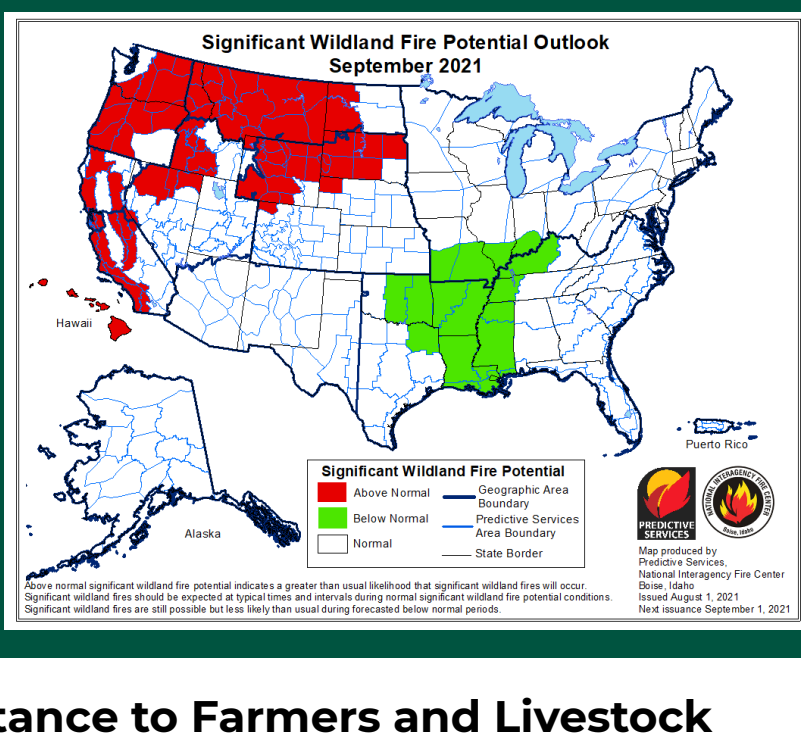


droughtmonitor.unl.edu



National Significant Wildland Fire Potential Outlook

The National Wildland Significant Fire Potential Outlook shows above-normal significant wildland fire potential for the majority of Idaho, Oregon and Washington. Alaska is expected to experience normal wildland fire conditions. Maps are updated on 1 September.



USDA Offers Disaster Assistance to Farmers and Livestock Producers Impacted by Wildfires and Drought

Agricultural operations in the Northwest have been significantly impacted by the wildfires and ongoing, severe drought. The U.S. Department of Agriculture (USDA) has technical and financial assistance available to help farmers and livestock producers recover. Impacted producers should contact their local USDA Service Center to report losses and learn more about program options available to assist in their recovery from crop, land, infrastructure, and livestock losses and damages. Find out about available programs through the Natural Resources Conservation Service (NRCS) recent news releases.

NRCS-Idaho NRCS-Oregon NRCS-Washington

Opportunity: Climate Change Communications Fellow

The USDA Northwest Climate Hub has a fellowship opportunity via ORISE. The fellow will help translate science and develop communication materials (e.g., newsletters, briefing papers, web content, presentations) related to climate change in forestry, agriculture, and rangelands. There will also be opportunities to support Hub efforts on topics such as riparian management, climate-fire interactions, increasing carbon storage on working lands, and facilitating implementation of climate smart-practices on agricultural and forested lands. Applications are due 3 pm ET / 12 pm PT on 8 September.

Field days, Conferences & Workshops

2021 Dry Farming Field Day, 26 August, 4:00-6:30 pm PT. A field day will be hosted at the Oregon State University Vegetable Research Farm, 34306 NE Electric Road, Corvallis. Learn about multiple dry-farming research projects, join the field tour, taste different varieties of tomatoes and melons, and visit with other growers and researchers in the Dry Farming Collaborative! Free to attend, register here.

Northwest Regional Invasive Species & Climate Change 2021 Virtual Symposium, 15-16 September, 9 am-12 pm PT. This symposium is for managers, scientists, and other practitioners to discuss the relationship of climate change, extreme events, and invasive species management in the Northwest. The objectives of the symposium are to build awareness of the network, facilitate dialogue between those working with climate change and invasive species, identify knowledge gaps, and develop priorities for funding on-the-ground project. Register here for the symposium.

Farm Planning for Climate Resilience for Oregon Agricultural Professionals, Save the Date: 2-4 November. Virtual sessions will be held from 10 am to 12 pm and 1 pm to 3 pm PT each day. This training will advance your knowledge of farm-based solutions for climate resilience to reduce risks from extreme weather events, store more carbon, and work for a farmer's bottom-line. The intended outcome of this training is to create a community of practice in Oregon dedicated to supporting, improving, and better understanding farming for climate resilience.

Webinars

2021 Forest and Conservation Nursery Technology Webinar Series will be held on Wednesdays from 11 am to noon PT in August and September. The webinar on **25 August** will focus on assisted migration and moving seed or planting material to a location suitable for current and future climates. On **1 September**, there will be an expert-panel discussion on the benefits and drawbacks of hot planting, summer planting, and fall planting. On **8 September**, there will be a webinar on what needs to occur to increase reforestation efforts. Recordings of previous webinars are also available.

Towards a Durable Understanding of Soil Carbon as a Tool for Climate Adaptation and Mitigation, 8 September, 3 pm ET / 12 pm PT. This seminar will share diverse scientific perspectives from soil carbon researchers on key technical questions that inform how to sequester soil carbon in working lands. The fourth webinar in this series will examine how tillage affects soil carbon sequestration.

August 2021 National Weather Service Alaska Climate Outlook Briefing, 27 August 2021, 12-1 pm AKDT. Rick Thoman, Alaska Center for Climate Assessment & Policy at the University of Alaska Fairbanks, will review recent climate conditions around Alaska, review some forecast tools, and finish up the Climate Prediction Center's forecast for August and the remaining summer season. Join the gathering online to learn more about Alaska climate and weather.

Flash Drought Webinar Series: Emerging Tools for Flash Drought Monitoring and Prediction, 29 September, 2 pm ET / 11 am PT. Droughts are often categorized as 'flash' droughts when they develop or intensify in a matter of weeks. The National Integrated Drought Information System (NIDIS) and the National Weather Service (NWS) are hosting a webinar series to help climate professionals and operational service providers better understand flash drought. This webinar, the third in the series, will include presentations on emerging tools for flash drought monitoring and prediction from NOAA and other institutions.

Putting LANDFIRE Data (and Models) to Work in the Scientific Community, 16 September, 11 am PT. This webinar will provide an overview of LANDFIRE data applications, and highlight three examples where LANDFIRE data was used for drought, fire, and climate change research. There will be a 15 minute Q&A session at the end of the presentations.

Funding Opportunities

Joint Fire Science Program Funding Opportunity. The interagency Joint Fire Science Program released a Funding Opportunity Announcements and is requesting proposals related to:

- Social and ecological recovery of communities impacted by wildfire
- Collaborative development of ecosystem mapping products for fire and fuels management
- Graduate Research Innovation (GRIN)
- Regional fire science exchange and outreach

Proposals are due on 14 October by 4 pm PT.

FY 2022 Landscape Scale Restoration Competitive Grant Program, announced by the Western Forestry Leadership Coalition, is "intended to support high impact projects that promote collaborative, science-based restoration of priority forest landscapes, leverage public and private resources, and advance priorities identified in a State Forest Action Plan or other restoration strategy." **Proposals are now being accepted and are due 29 October by 4 pm PT.**

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 systems 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 by 11 November 2021 or 31 March 2022.**

Western Sustainable Agriculture Research and Education (SARE) currently has five funding opportunities:

- Farmer/Rancher:** With the support and guidance of a technical advisor, farmers and ranchers will integrate research and education to conduct on-site/on-farm experiments to improve production, marketing, and the environment. **Proposals due 1 November 2021.**
- Professional + Producer:** This grant program involves agricultural professionals, in collaboration with producers, implementing projects to address identified needs in sustainable agriculture. **Proposals due 3 November 2021.**
- Professional Development:** This grant program focuses on training agricultural professionals to help them spread knowledge about sustainable agriculture concepts and practices. **Proposals due 10 November 2021.**
- Research to Grassroots:** These projects take research results from previously funded SARE projects and bring those results into the field through education to agricultural professionals and producers. **Proposals due 17 November 2021.**
- Sabbatical Research and Education:** These grants provide an opportunity for faculty around the world to partner with farmers, ranchers, agricultural professionals, and researchers of the Western U.S. region for conducting research, education, and extension activities. Projects focused on unexplored topics in underserved communities and understudied geographic locations are of special interest. **Proposals due 18 November.**

FY 2021 Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA) Notices of Funding Opportunities. The Federal Emergency Management Agency (FEMA) released notice of their Hazard Mitigation Assistance grants for BRIC and FMA. Click here to find detailed program information, webinar information, and other grant application and administration requirements. **The application period will open on 30 Sept 2021, and close at 3 pm ET on 28 Jan 2022.**

Information

New United Nations Intergovernmental Panel on Climate Change Sixth Assessment Report. This report describes, "the most up-to-date physical understanding of the climate system and climate change, bringing together the latest advances in climate science, and combining multiple lines of evidence from paleoclimate, observations, process understanding, and global and regional climate simulations." Resources related to the report include a summary for policymakers, regional fact sheets, answers to frequently asked questions, and an interactive atlas to make maps, figures, and tables.

Climate Toolbox, a suite of online climate tools for the continental U.S., now has case studies highlighting how particular tools have been used to make climate and climate decisions. There are also tool summaries that can be printed to share with partners and clients.

Case studies Tool summaries

Lessons Learned from Local Governments Incorporating Sea-Level Rise in Shoreline Master Programs. Washington State Department of Ecology has compiled success strategies, challenges, needs, and opportunities for local governments related to sea-level rise. Local governments discuss the value of working comprehensively to address this complex issue by using different planning tools and working across departments.

View case studies on the Washington coastal hazards risk reduction project mapper, online.

Tribal Land Management Practices Help Save Trees within the Bootleg Fire Perimeter is a video from the official fire information channel for the Bootleg Fire in Oregon. In this video, representatives from The Nature Conservancy, Klamath Tribes, and Fremont-Winema National Forest show regions of the Bootleg Fire treated according to traditional tribal land management practices. They discuss how using these practices helped save forest within these treatment plots from the intense burn seen on untreated areas of the fire.

Timber and Tracks: Practices for Limiting Soil Disturbance During Harvest Operation is a recent Forest Service Science You Can Use (in 5 minutes) that highlights a new general technical report. A key message from the report is that limiting the degree, extent, and distribution of soil disturbance during harvest operations will help continue the production of ecosystem services. In general, limiting soil disturbance is critical as the climate changes and forests experience drought, higher air temperatures, or altered nutrient cycling. Healthy soils can help buffer forests from adverse effects.

Seeing the forest AND the trees: TreeMap provides a tree-level forest model. This Science You Can Use (in 5 minutes) describes TreeMap, a new tree-level model of U.S. conterminous forests developed to support analysis of wildfire risk to carbon. It has a range of other management applications, from inventorying wildlife habitat to modeling the impacts of fuel treatments.

Why are some whitebark pine trees surviving climate-driven mountain pine beetle outbreaks? The answer – genetic diversity – may unlock secrets for managing this important tree species under climate change. Find out more about this recent research in this Northwest Climate Adaptation Science Center's Spotlight.

Threat-Based Land Management in the Northern Great Basin: managing a complex world at feasible, relevant scales. Sage-Steppe Habitat Response (Sage-SHARE) is working in collaboration with land managers and partners to develop a simplified framework to help land managers assess and monitor threats at large scales, including encroaching juniper, altered fire regimes, and invasive annual grasses. Managers can choose appropriate management actions by mapping out different ecological states on a pasture, ranch, or allotment, identifying their level of risk, and estimating how those states might change.

Learn about ecological states and transitions via this interactive product.

Flash Drought: Current Understand & Future Priorities is a report describing some key takeaways from a virtual flash-drought workshop held in December 2020, along with a list of priority actions to help both NIDIS and the broader research community advance flash-drought research activities and tool development.

Interactive Maps on Drought.gov. The National Integrated Drought Information System released two new interactive features on Drought.gov that will make it easier for decision makers and the public across the U.S. to share drought information. New customization and sharing options for all maps make it easier to create custom maps to share, and interactive economic sector maps show sector-specific information alongside key drought and climate indicators, which provide information for private and public-sector decision makers to monitor, plan for, and mitigate the impacts of drought.

Click here to sign up for the Northwest Climate Hub email distribution list.

To unsubscribe email holly.prendeville@usda.gov

