

Drought in the NW Climate Hub Region

Since late July, drought conditions on Kodiak Island degraded to moderate drought (D1-tan). Abnormally dry conditions (D0-yellow) developed in near Nome, and expanded in southcentral Alaska across the Kenai Peninsula and parts of the Chugach National Forest.

Drought conditions have also worsened in Oregon, where all areas of extreme drought (D3-red) have expanded in the southern and central regions. Areas in severe (D2-orange) and moderate (D1-tan) drought also expanded in eastern Oregon.

In Idaho, drought conditions have degraded, with abnormally dry conditions (D0-yellow) expanding in the south and north-central region as well as moderate drought (D1-tan) increasing in the north-central region. Areas of severe drought (D2-orange) persist across the middle of the state.

Drought conditions in Washington are unchanged since last month, with severe (D2-orange) and moderate (D1-tan) drought conditions remaining throughout the central region.

Drought maps are published every Thursday. Get information about the National Integrated Drought Information System (NIDIS), submit data via the Community Collaborative Rain, Hail and Snow (CoCoRHaS) network, or report drought impacts and observations by clicking icons below.

U.S. Drought Monitor

USDA Northwest Climate Hub

August 25, 2020
(Released Thursday, Aug. 27, 2020)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0	D1	D2	D3	D4
Current	75.69	11.46	5.11	5.69	2.06	0.00
Last Week 08-16-2020	77.96	10.24	4.26	5.63	1.92	0.00
3 Months Ago 05-26-2020	79.05	6.77	8.13	5.24	0.82	0.00
Start of Calendar Year 12-31-2019	70.58	22.51	7.10	0.00	0.00	0.00
Start of Water Year 10-01-2019	88.75	7.34	2.51	0.79	0.61	0.00
One Year Ago 08-27-2019	65.63	15.45	13.07	4.80	1.05	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:
 David Simeral
 Western Regional Climate Center

droughtmonitor.unl.edu

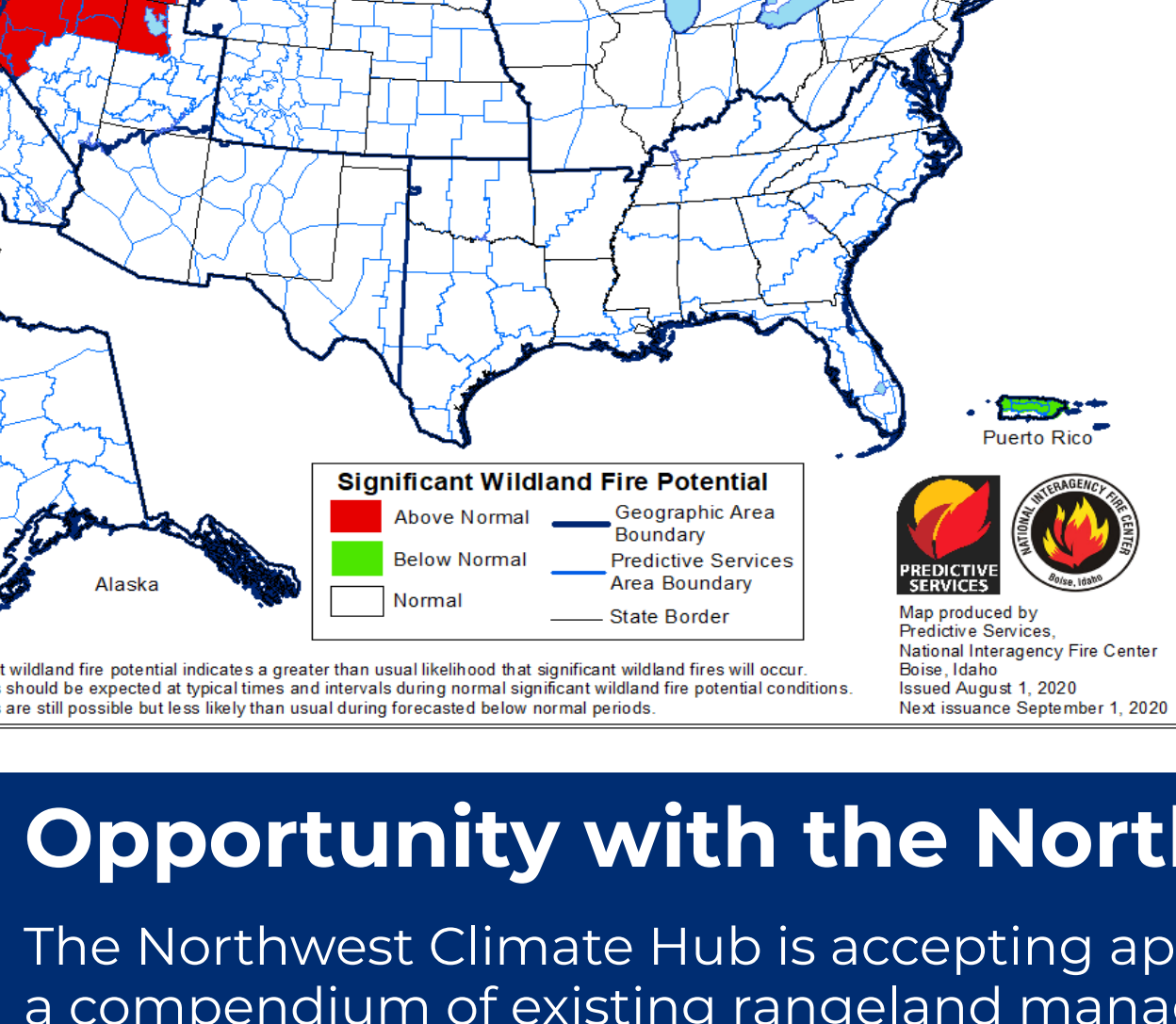
Drought Declarations

In Oregon, three more counties (Lake, Wheeler, and Morrow) have declared drought, for a total of 14 counties. Click this text to see the Oregon drought declaration status map.

Idaho Drought Emergency Declarations: 4 counties have declared drought emergency status.

Wildfire Smoke Information

Check out the Northwest Climate Hub's web page, **Fire Information for the Northwest**, which includes fire and smoke resources, including daily predictive maps for the region and related public health information that may help communicate risks.



Significant Wildland Fire Potential Outlook for September 2020

The majority of Idaho and the eastern Cascades region of Washington and Oregon are projected to have above-normal wildland fire potential for September. All of Alaska shows normal wildland fire potential.

Above-normal wildland fire potential indicates greater than usual likelihood that significant wildland fires will occur.

Opportunity with the Northwest Climate Hub

The Northwest Climate Hub is accepting applications for a Postdoctoral Research Fellow to develop a compendium of existing rangeland management tools for land managers and ranchers in Idaho, Oregon and Washington. The postdoc will also assist in developing a synthesis on the state of knowledge regarding climate change impacts to rangeland management specific to the Northwest Climate Hub region. The synthesis may include aspects of socioeconomic, organizational structure, and/or biophysical sciences. **Applications are due 6 September.**

Webinars

Monthly Series of West-Wide Rangeland Fuel Assessments. A series of recorded webinars analyzing current rangeland fuel conditions across the West will be available on the first Monday of each month. Forecasts are based on the new FuelCast model and hosted by Matt Reeves from the U.S. Forest Service Rocky Mountain Research Station. The 3 August session is available.

2020 Dry Farm Project Virtual Field Tour Series, Wednesdays 10 am PT. The Oregon State University Dry Farms Program is hosting field tours through August and September featuring a variety of elements from dry farming research projects. See the full schedule here.

2020 North American Forest and Conservation Nursery Technology Webinar Series, Wednesdays 10 am AKT/ 11 am PT. The webinar series, held each Wednesday through August and September, will cover a variety of North American nursery topics, including climate change and variability impacts on nurseries, fall planting, efficient water use, plant hydraulic physiology, and maximizing germination.

Native American Rangelands Partnership Webinar, 1 September 1 pm PT. Learn about the latest updates for the Native American Rangeland Training Initiative, including online courses, outreach toolkits, advisory group members, website, tribal college courses, and more.

Small Farm School 2020, Tuesdays & Thursdays September-November. Small Farm School is virtual this year and open to beginning and experienced farmers and small-acreage landowners. Topics will be introduced as webinars and include poultry, land care, marketing, flowers, and more.

Pacific Northwest Drought & Climate Outlook, 26 October 11 am PT. The Pacific Northwest Drought Early Warning System hosts a series of region-specific drought and climate outlook webinars to provide timely information on current drought status and impacts, a preview of current and developing climatic events, and special topics.

Introduction to High Tunnels in Organic Systems, 2 September 12 pm PT. This NRCS-sponsored webinar is the first in a three-part series that will cover general organic management practices for a variety of high-tunnel systems. Participants will learn about open field versus high-tunnel production, challenges, and key information about nutrients, weeds, insect pests, and irrigation.

National Weather Service Alaska Climate Outlook Briefings, 18 Sept 12 pm AKT. This monthly webinar series by the Alaska Climate Assessment and Policy Center reviews recent climate and looks ahead at future climate projections. Click below to register for the monthly webinar.

Virtual Carbon Pricing in Indian Country Training Workshops, September-December. The Collaborative Environmental Network (IEN) is offering free virtual workshops that aim to create innovative spaces to discuss and learn about carbon pricing mechanisms and are tailored to fit each interested individuals or organization. IEN will be offering these virtual workshops from September to December 2020. Click here to help inform content and the timing of these events.

COVID-19 Tribal Resource Center

The National Indian Health Board created the Tribal Resource Center to support Tribes in responding to COVID-19. The site provides information on how to request financial and technical assistance and how to respond and protect communities from COVID-19.

Information

Report on the State of the Climate in 2019 confirms that 2019 is among the top-three warmest years on record. Last year also set new records for the highest concentrations of greenhouse gases in the atmosphere, and the global sea level rise record was broken for the eighth consecutive year.

New research identifies regions with worsening "snow droughts" around the world. Snow is a critical source of irrigation and drinking water throughout the Northwest. NOAA reports that snowmelt globally and across the western U.S. has decreased significantly over the last 15 years, leading to prolonged snow drought across Oregon and Washington.

Community Learning and Social Resilience – An Example of its Importance. This Agriculture Climate Network article by Dr. James Eakins discusses the power of community educational programming to build community resilience. This article may be of interest to natural resource managers who engage in informal education and information sharing with stakeholders.

The Economics of Proactive Infrastructure Adaptation in Alaska. A recent study on impacts of climate change on Alaska's public infrastructure uses intermediate (RCP 4.5) and high emission (RCP 8.5) scenarios from 2015 to 2099 to compare the differences in potential risk and better inform mitigation options. The results indicate that a RCP 4.5 significantly reduced the economic losses, and early action under both emission scenarios could reduce infrastructure damage.

Using the Past to Inform the Future: Alaska's Changing Boreal Forest from a Tree-Ring Perspective. A Science Highlight from the Pacific Northwest Research Station summarizes research on 150 years of tree ring data from the Tanana Valley, Alaska. Their results indicate that aspen, rather than white and black spruce, have declined and that potential decreases in summer rainfall may be a critical factor in the future growth of spruce.

The Alaska Climate Dispatch (November 2019-April 2020) covers changing temperature and lengths of summer and winter in the state, a weather and climate summary, a weather and spring sea ice overview, and some unexpected benefits of the "old-fashioned" cold winter experienced in the Yukon region.

The Fire and Tree Mortality Database. This new resource provides a database of individual tree mortality after fire using 164,293 individual-tree records from prescribed fires and wildfires in the United States. Data include fire injury, tree diameter, and either mortality or top kill up to ten years after fire. These data can be used for empirical modeling of post-fire tree mortality.

A Guide to Variable-Density Thinning Using Skips and Gaps, for forest managers interested in broadening the range of traditional management objectives. Variable-density thinning refers to unthinned (skips) and "gaps" that mimic natural disturbance can improve wildlife and plant habitat, increase structural and compositional diversity, and enhance aesthetic values. The guide details the steps necessary for variable-density thinning and lessons learned from ten sites in Washington.

Tool Highlight: WildfireSAFE is a web-based app designed to provide all of the information a fire manager needs to allocate equipment and personnel, manage safety, and contain a wildfire. The tool integrates multi-temporal and multi-spatial views of fire weather and fire and provides weather analysis for any active fire. Fire behavior can also be observed and compared between events within an area of interest. The app automatically analyzes the fuels, terrain conditions, and values at risk near fires.

USDA Announces Changes to Emergency Haying and Grazing Provisions. Emergency haying and grazing requests have historically originated at the county level and required state- and national-level approval. The program approval process has been changed to be based on "severe drought" (D2) or greater designation at the county scale, as determined by the U.S. Drought Monitor on a weekly basis. Click here for additional program changes and eligibility details.

A Toolkit for Invasive Annual Grass Management in the West. The toolkit includes a roadmap for invasive grass management in the West, case studies highlighting the application of these practices, and a new geospatial data layer to help state and local managers assess invasive annual grasses within their jurisdictions.

The Idaho Cheatgrass Challenge is a proactive strategy for stopping the conversion of sagebrush rangelands to annual grasslands. The Natural Resources Conservation Service, partners, and landowners are working together to proactively manage cheatgrass in Idaho. Check out this two-page information sheet that discusses the problem and what can be done to manage it.

Invertebrate Pest Management for Pacific Northwest Pastures. The recent publication from Oregon State University Extension details invertebrate pests that can hamper pasture production. Find details on when and how to identify and scout for pests and their natural enemies to help manage outbreaks and reduce damage.

Index of Sustainable Agriculture Research and Education (SARE) Agroforestry Grants. The index can be used to find information on agroforestry implementation at the state or region level and to inform management and research decisions. The searchable table catalogues and indexes each project and links to a project overview. Fifteen recently awarded grants have been added to the index that cover alley cropping, forest farming, windbreaks, and silvopasture.

Podcast Highlights

The Northwest Climate Hub Director Jessica Halofsky is featured, along with University of Washington Professor David Peterson, in Fire Ecology Chats, Changing Wildfire, Changing Forests to discuss the effects of climate change on wildfire regimes and related stressors on forest structure and regeneration in the Pacific Northwest. This new podcast is a production of the Association of Fire Ecology.

The Art of Range podcast covers a broad array of topics related to rangeland and livestock management. The latest episode highlights presentations on adaptive management on burned rangeland from the 2020 Society of Range Management Symposium. Art of Range is hosted by Tip Hudson, Associate Professor at Washington State University Extension.

Funding opportunities

National Animal Disease Preparedness and Response Program 2020, works to prevent the introduction and spread of foreign and emerging animal diseases that threaten agriculture. Proposals for projects should focus on advancing capabilities and capacities to contain animal disease outbreaks or enhance U.S. livestock biosecurity. **Applications due 14 September.**

Disaster Resilience Research Grants Program provides funding for science and engineering research that improves resilience to natural disasters, including fire, drought and floods. The goal of this opportunity is to advance fundamental understanding of disaster resilience in support of improved, science-based planning, policy, decisions, design, codes, and standards. **Letter of intent due 14 August. Applications due 15 September.**

Agriculture and Food Research Initiative - Education and Workforce Development provides several opportunities focused on developing the next generation of research, education, and extension professionals in the food and agricultural sciences. Applications are open in five areas: professional development for agricultural literacy, training of undergraduate students in research and extension, fellowships for predoctoral candidates, fellowships for postdoctoral scholars, and a new program for agricultural workforce training. **Applications due 24 September.**

BLM National Interagency Task Force Center Joint Fire Science Program Primary Announcement (Two Task Statements). Task 1 focuses on fire prevention strategies based on spatial and temporal distribution of different human-caused wildfire ignition sources of large wildfires. Task 2 aims to improve our understanding of changing fuel conditions from active management and fire suppression operations to reduce damages and losses. **Applications due 30 September.**

Western SARE Sustainable Agriculture Grant Programs. Grants are available to farmers & ranchers to improve sustainable production practices as well as for professionals & producers to integrate research and education around environmental, economic, and social aspects of sustainable agriculture. Click here to view details. **Applications due in November.**

Farm Storage Facility Loan Program is a low-interest financing option for producers who want to build or upgrade facilities (barns, tanks, cold storage, etc.) to store commodities, including grains, fruits and vegetables, and aquaculture. Upgrading and improving facilities can improve infrastructure resilience and business opportunity.

Coronavirus Food Assistance Program is available for farmers and ranchers directly impacted by price declines and additional marketing costs due to COVID-19. More than 40 additional commodities have been added to the program in response to producer input. Click here for fact sheets, videos, webinars, and application assistance.

Water & Waste Disposal Loan & Grant Program. This program provides funding for clean and reliable drinking water systems, sewage disposal, solid waste disposal, and storm water drainage to households and businesses in rural areas, including Tribal lands and communities of 10,000 or less. This opportunity may be particularly helpful to Alaska communities experiencing infrastructure damage from permafrost thaw. **Applications are accepted year-round.**

Rural Energy for America Program (REAP) provides guaranteed loan financing and grant funding to agricultural producers and rural small businesses for renewable energy systems or to make energy efficiency improvements. Applications are open and are accepted year-round at your state USDA Rural Development Energy office.

Conferences, Workshops & Trainings

National Tribal & Indigenous Climate Conference, Tribal Resilience for Seven Generations Goes Virtual 14-17 September 2020. Featured topics include climate-related impacts, assessments, tools, adaptation, mitigation, actions, and the intersection of western science and adaptation strategies with Traditional and Indigenous Knowledges. **Registration is now open.**

NOAA's 45th Climate Diagnostics & Prediction Virtual Workshop 20-22 October 2020. This year's workshop will emphasize climate prediction, monitoring, attribution, diagnostics, and service delivery. Several themes related to extreme events will be emphasized, including application of modern technology, improvement of regional diagnostics methods, communication and economic valuation of climate forecast information, and prediction of hydroclimate over the western US. **Abstracts accepted through 31 July.**

American Meteorological Society Annual Meeting, 35th Hydrology Conference New Orleans, LA, 10-14 January 2021. This year's conference offers a wide array of climate change and adaptation-relevant topics, including two drought-specific topics focused on improvements in drought prediction and advances in monitoring and predicting flash drought and related heatwaves. **Registration opens soon.**