USDA Northwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

July 2020 Newsletter
Click on images or text for more information

Drought in the NW Climate Hub Region

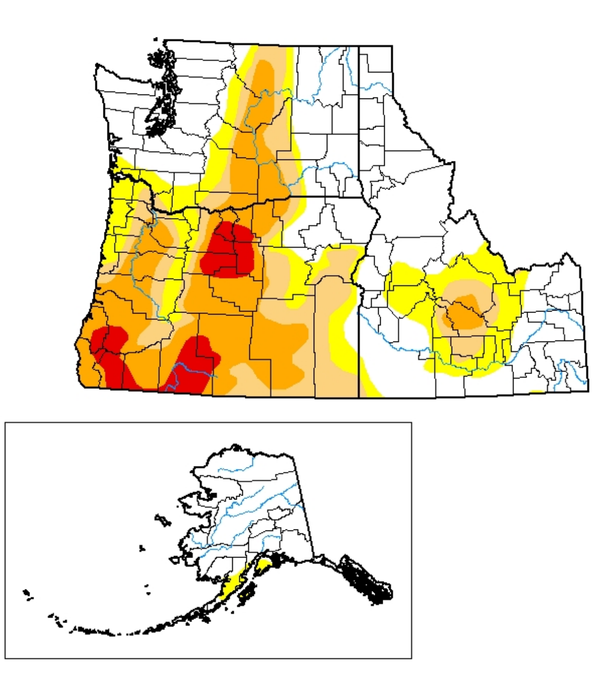
In July, abnormally dry conditions (D0-yellow) have developed in Alaska for the King Salmon region and Kodiak Island in the southwest, and in the Kenai Peninsula. Drought conditions have worsened in Oregon, where extreme drought (D3-red) has developed in the southcentral region and areas already effected in the southwest and northcentral regions have expanded. Severe drought conditions (D2-orange) have also increased in southcentral Oregon. Drought conditions in Washington remain unchanged since last month, with severe (D2-orange) and moderate (D1-tan) drought conditions remain throughout the central part of the state. Drought conditions have lessened in western and eastern Idaho, while areas of severe (D2-orange) and moderate (D1-tan) drought conditions in the middle of the state remain unchanged since last month.

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

NATIONAL INTEGRATED DROUGHT INFORMATION SYSTEM NIDIS Drought.gov U.S. Drought Portal — CoCoRHaS Community Rain Hail Snow Network — Drought Conditions & Impacts Reporter — U.S. Drought Monitor

U.S. Drought Monitor
USDA Northwest Climate Hub

July 21, 2020
(Released Thursday, Jul. 23, 2020)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0	D1	D2	D3	D4
Current	79.72	8.50	4.52	5.81	1.46	0.00
Last Week 07-14-2020	79.72	8.51	4.53	6.26	0.97	0.00
3 Months Ago 04-21-2020	78.45	10.11	6.53	4.64	0.28	0.00
Start of Calendar Year 12-31-2019	70.58	22.31	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 07-23-2019	38.86	37.27	18.70	4.55	0.61	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

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USDA NDMC NOAA
droughtmonitor.unl.edu

Hub Region Drought Declarations

Oregon Drought Declarations- 13 counties have secured a state drought declaration

Idaho Drought Emergency Declarations- 4 counties have declared drought emergency status

Check on current water conditions

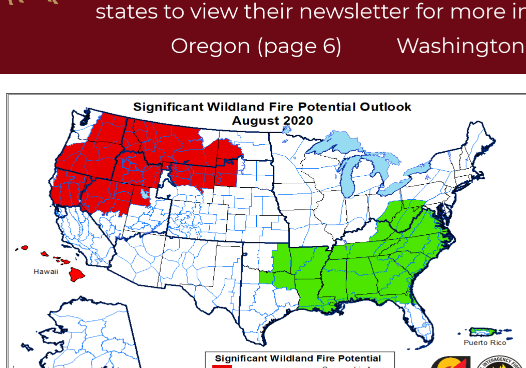
Idaho Washington

Oregon Alaska

State-level drought information for the Northwest Climate Hub region

CRP Haying & Grazing Permitted in Oregon & Washington. The USDA Farm Service Agency's July Newsletters detail steps to acquire emergency haying and grazing in multiple counties in Oregon and Washington that are experiencing severe drought (D2, US Drought Monitor status). Click the states to view their newsletter for more information.

Oregon (page 6) Washington (page 7)



Significant Wildland Fire Potential Outlook for August 2020

Idaho and most of Oregon and Washington show above normal wildland fire potential for August, whereas conditions in Alaska indicate a normal wildland fire potential.

Northwest Climate Hub Highlights

Climate Change Adaptation Planning Documents of the Northwest. A collection of climate change adaptation planning resources from across the Northwest Climate Hub region that represent a range of planning processes from a variety of scales. Existing documents can be used to update or inspire new planning processes by providing current climate information, examples of adaptation strategies, and highlights of climate change-related challenges.

AgBizLogic Video. Find details about the AgBiz Climate tool and how it can guide farmers and ranchers in making adaptation decisions for their operation. AgBiz Climate is designed for farm-level decision support to determine how climate change and responses may influence and impact regional agricultural sectors.

Webinars

Evaluating native seed mixes for post-fire seeding the Great Basin, 28 July 9 am PT. Post-fire seeding using native seeds in the Great Basin are used to reduce resource degradation and weed invasion following fire disturbance. Seeding native plants raises questions of cost, establishment ability and whether native species will be as effective as non-natives in outcompeting invasive annuals. These issues are considered in the context of a study where outcomes of native and non-native seed mixes were compared during an 18-year time frame following wildfire.

Native Lands Stewardship Webinar Series: GIS Mapping in Indigenous Communities, 28 July 11 am PT. This series is for natural resource professionals working on tribal lands, and others interested in learning innovative approaches to ecological stewardship. The second webinar in the series will feature basic concepts and tools of Geographic Information Systems (GIS) and Mapping using examples from Indigenous communities across Canada. Best practices on how to set up and manage a successful and lasting GIS department within a Tribe will also be discussed.

2020 Dry Farm Project Virtual Field Tour Series, Wednesdays 10 am PT. The Oregon State University Dry Farms Program will host nine field tours through August and September featuring a variety of elements from five core dry farming research projects. The first two tours will cover site suitability and soil management. The full schedule is under development, click here for details.

2020 North American Forest and Conservation Nursery Technology Webinar Series, Wednesdays 10 am AKT/ 11 am PT. The webinars 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.

Pacific Northwest Drought & Climate Outlook, 24 August, 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. This month, Dave Peterson will discuss management implications for changing wildfire and changing forests.

AK **National Weather Service Alaska Climate Outlook Briefings Fridays 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.

21 August- Click here to register

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 US Forest Service Rocky Mountain Research Station. The 6 July session is available now.

Washington State University Farmers Network

Check out the Washington State University Farmers Network for resources on improving soil and nutrient management, crop productivity, farm sustainability and profit-building. Also, find training opportunities, webinars, and soil health videos.

Information

Climate Change Adaptation Strategies and Approaches for Outdoor Recreation. Find approaches/tactics to six broad climate adaptation strategies in a "recreation menu" in this publication for natural resources managers. Land managers who work with recreation may benefit from targeted and prescriptive actions useful to early planning processes. Strategies and approaches were applied to real-world projects on national forests in Vermont and California.

Recreation Equity: Is the Forest Service Serving Its Diverse Publics? Recent research sheds light on gaps in public service with regard to recreational public lands access, including a mapped National Inequity Index. Broad, equitable public engagement through recreation is a critical climate change adaptation strategy and essential to maintaining public support for and education about natural resources. Find suggestions about how to improve engagement with underserved populations in your area.

Science Synthesis to Inform Pinyon and Juniper Woodlands Management in the Western United States. Pinyon and juniper woodlands are changing as the climate shifts, posing challenges to managers and communities that depend on them. A new synthesis of the history, management, ecology, and ecohydrology will help develop best management strategies in the face of rapid change.

Carbon Brief Explainer: How Climate Change is Affecting Wildfires Around the World. Climate change is affecting wildfires across the globe and in the Northwest by increasing the likelihood of wildfire and by extending the fire season. Check out this interactive article, complete with clickable maps and videos that explore the influence of climate change on recent fire in the Alaskan Arctic, as well as rapid change to fire regimes in California. The pace and character of these changes to fire are supported by Indigenous knowledge.

As Wildfires Flare up Across West, Research Highlights Risk of Ecological Change, an article by Colorado State University, summarizes research of west-wide wildfire patterns that suggest widespread lack of post-fire forest resilience. While in some areas fire is beneficial, regions that are more vulnerable may see major vegetation change, and managers will need a new set of adaptation strategies for forest regeneration such as planting species better suited to new conditions.

Examining Changes in Lightning Activity Across the Alaska Interior. Lightning activity in Alaska has increased over the last several decades, and researchers now think that summer lightning activity may double in Interior Alaska by the end of the 21st century. These insights are important for fire management planning for a state where 90% of area burned each year results from wildfires started by lightning.

Shifting Snowlines and Shorelines: The Intergovernmental Panel on Climate Change's Special Report on the Ocean and Cryosphere and Implications for Washington State. This report identifies key areas that have been impacted by ocean and sea ice change, including agriculture, water resources, infrastructure, transportation, and recreation and outlines ideas for communities and economies to prepare and adapt.

Full report Nine-page brief

Dust Mitigation Handbook. This USDA resource provides in-depth solutions to specific dust and wind erosion problems. Many of the tactics provided here are transferable to crop and rangelands across the Northwest where dry conditions and high winds exist. The handbook is intended for resource managers in USDA and other land management agencies struggling with dust challenges and working to find solutions.

Effects of Fire on Grassland, Soils and Water. A synthesis of fire effects on grasslands raises questions about soil impacts affecting water infiltration and erosion in combination with increases in fire frequency and severity. A better understanding of grassland ecosystems, including their carbon storage potential, is of interest to land managers dealing with rapidly changing fire regimes.

Engagement as a Path Towards Greater Resilience to Climate Change
A case study and video describing Brenda and Tony Richards' family cow-calf operation in Murphy, Idaho. These items highlight how the Richards family actively work with agencies and other entities and how this engagement has been beneficial during and after events like the 2015 Soda fire.

Science Findings: Ranchers, Beavers, and Stream Restoration on Western Rangelands. Human built beaver dams have become a tool to repair water networks on rangelands across the region. The nature-based approach to restoration has helped ranchers and land managers address stream incision and other water resources challenges that hinder grazing and ecosystem function.

Podcast Highlight

Forestcast from the US Forest Service Northern Research Station covers invasions of non-native species in the Northeast and Midwest in a six-part series. For western land managers, there are strategies for dealing with familiar pests, like the gypsy moth and mitigating establishment using biocontrol.

Funding opportunities

Tribal Transportation Program Safety Fund (TTPSF) provides funds through the Federal Highway Administration to federally recognized Tribes to build transportation resilience, including safety plans; data assessment, transportation improvements, safety analyses; and infrastructure improvements. **Applications due 20 August.**

The Centers of Community Prosperity Initiative provides funds to increase the capacity of rural and underserved communities with limited resources, socially disadvantaged, and veteran farmers and ranchers. Funds can be used for technical assistance to address local agricultural and natural resource issues, encourage collaboration and to develop state and local leadership and partnerships. **Applications due 24 August.**

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 Fire 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 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. A variety of grants are available, including a farmer/rancher grant opportunity aimed at improving sustainable production practices and a professional/producer grant for integrated research and education around environmental, economic, and social aspects of sustainable agriculture. Click here to view all opportunities and program 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 more information, including fact sheets, videos, webinars, and application assistance.

Conferences, Workshops & Trainings

Ecological Society of America Virtual Annual Conference, 3-6 August. The theme of this year's conference is "harnessing the ecological data revolution." Presentations will be pre-recorded to allow participants to conveniently view over 3,000 options from this year's event.

The 2020 National Soil Moisture Workshop 12-13 August Goes Virtual. This opportunity will now bring soil moisture researchers together in a virtual workshop format to exchange ideas and enhance collaborations. This year's workshop will also include a student poster session. **Registration due 1 August.**

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 opens soon**.

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.**

Tribal Climate Camp 2020 Postponed to 23-28 May 2021. Planning for online introductory components before May 2021 is in progress. Tribal Climate Camp supports teams of tribal leaders, climate change coordinators, planners, and program managers to build skills, gather information, and develop tribal policy needed to address climate change impacts.

Job Opportunity

The Climate Impacts Group (CIG) at the University of Washington is hiring an entry-level research scientist with a social science or policy background and project management experience. The junior research scientist will be responsible for thinking critically about, and doing research to support, the creative application of a social science and/or a policy lens to projects led by the Climate Impacts Group's senior research scientists.

NORTHWEST CLIMATE HUB

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