



July Newsletter

Featured Article



2021 Northwest Heat Dome: Causes, Impacts and Future Outlook

In 2021, the Northwest saw record-breaking temperatures from late June until mid-July. These extreme temperatures were caused by a heat dome. This high-pressure system prevented maritime winds from cooling the region, making temperatures soar. These events have become more likely in today's climate compared to pre-industrial times. It is important to understand how to help people in the Northwest prepare for a future with higher likelihood of extreme heat events such as this one.

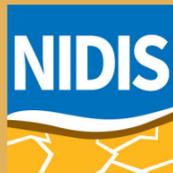
Opportunity

USFS Fellowship for Carbon Management on Working Lands. A fellowship opportunity is available to engage with the United States Department of Agriculture (USDA) Forest Service (USFS) Northwest Climate Hub (NWCH), located in Olympia, Washington. This fellow will engage with USDA Climate Hub staff to focus on a national priority of the Forest Service, improving the condition of forests and grasslands. To address this priority, the fellow will collaborate with USDA Climate Hub staff to develop information on carbon management on working lands (forests, rangelands, and farms).

Drought Update

Moderate drought (D1 – tan) and severe drought (D2 – orange) expanded into all of northern Idaho, whereas most of southern Idaho remains drought-free. Abnormally dry conditions (D0 – yellow) and moderate drought remain throughout western and northeast Oregon, and severe drought persists in the central part of the state. In Washington, moderate drought has expanded in the Cascades and the eastern part of the state, and severe drought has moved into the northwest and northeast corner of the state. Abnormally dry conditions persist in most of western Washington.

In Alaska, abnormal dryness was introduced in the Delta Junction and Glennallen areas, but was removed from a small area near Anchorage.



National Integrated Drought Information System



CoCoRaHS Community Rain Hail Snow Network



Condition Monitoring Observer Reports

U.S. Drought Monitor USDA Northwest Climate Hub

July 11, 2023
(Released Thursday, Jul. 13, 2023)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	78.28	21.72	12.36	2.71	0.00	0.00
Last Week 07-04-2023	79.51	20.49	11.11	1.17	0.00	0.00
3 Months Ago 04-11-2023	78.90	21.10	9.21	2.80	0.72	0.00
Start of Calendar Year 01-03-2023	75.01	24.99	15.00	7.57	3.06	0.16
Start of Water Year 09-27-2022	70.29	29.71	18.36	7.80	3.90	0.16
One Year Ago 07-12-2022	51.01	48.99	24.20	8.73	4.04	0.21

Intensity:

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

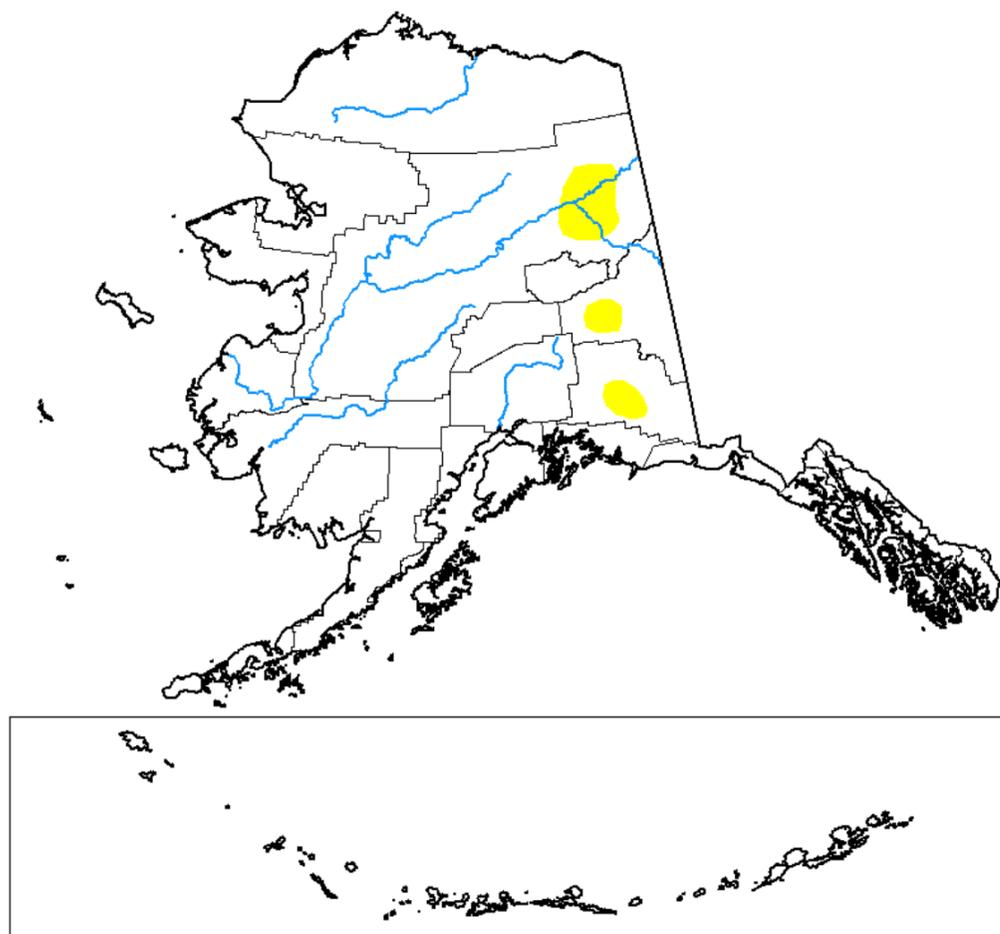
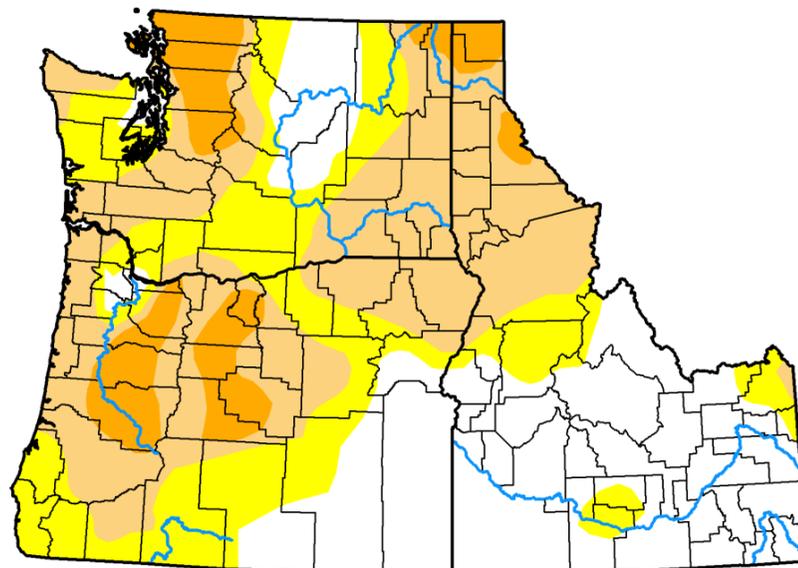
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

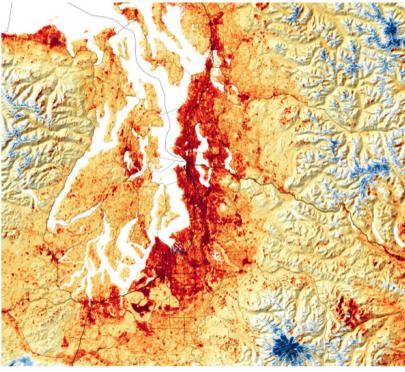
Author:

Richard Tinker
CPC/NOAA/NWS/NCEP



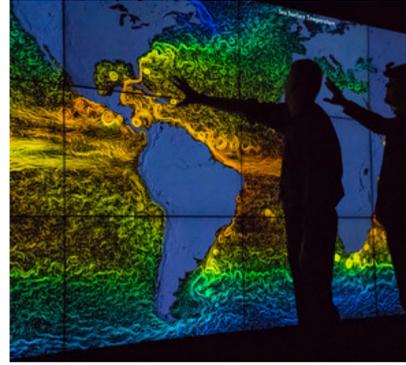
droughtmonitor.unl.edu





Urban Heat Islands in the Northwest

Urban areas are heating up faster than rural areas, affecting public health and increasing energy demands in the Northwest. This Hub article discusses causes, impacts, and potential adaptation solutions for extreme heat in the region.



Basics of Global Climate Models

Global Climate Models (GCMs) provide a basis for the work we do at the Northwest Climate Hub. This page describes climate models, their projections and accuracy, and potential future directions for climate modeling.



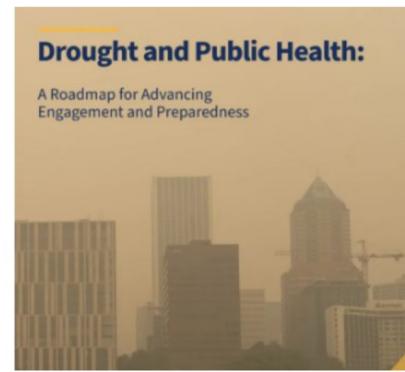
Fire Information for the Northwest

Wildfire season has arrived in the Northwest. This Hub webpage provides a suite of resources related to current wildfires and post-fire management strategies at the national, regional, and state level.



Targeted Grazing for Wildfire Fuel Breaks

Climate change has heightened the risk of large and severe wildfires in the Great Basin. On this Hub webpage, learn how scientists and partners use targeted cattle grazing to create fuel breaks on public rangelands.



Drought and Public Health: A Roadmap for Advancing Engagement & Preparedness

This National Integrated Drought Information System (NIDIS) assessment informs and directs efforts and investments in drought and public health, with the goal of mitigating the public health impacts of drought events, which are more likely with climate change.



In the Hot Seat: Saving Lives from Extreme Heat in Washington State

This report from the University of Washington Climate Impacts Group describes the problem of extreme heat and outlines specific, actionable guidance for short-term emergency response and long-term risk reduction in Washington.



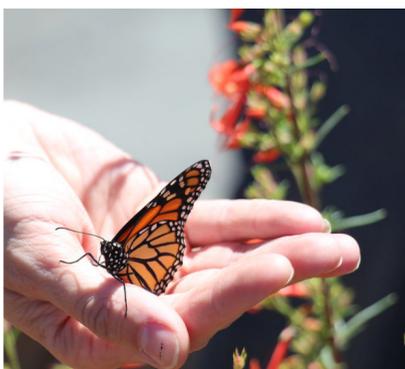
Washington Wildfire Ready Neighbors Program

This Washington Department of Natural Resources program encourages homeowners to take a simple survey that allows a local wildfire expert to craft a Wildfire Ready Plan that works for the homeowner's property, budget, and lifestyle.



Progress in Applying a Multi-Model Ensemble Approach to Soil Carbon

This AgClimate article discusses the importance of agricultural practices that increase soil carbon and a tool that will help producers measure how much carbon is stored as a result of their practices.



Farms and Ranches Can Provide Needed Sanctuary for Struggling Western Monarchs

This article from the USDA discusses how farms in the West can help the monarch butterfly. Climate change is increasing the vulnerability of many pollinators in the Northwest.



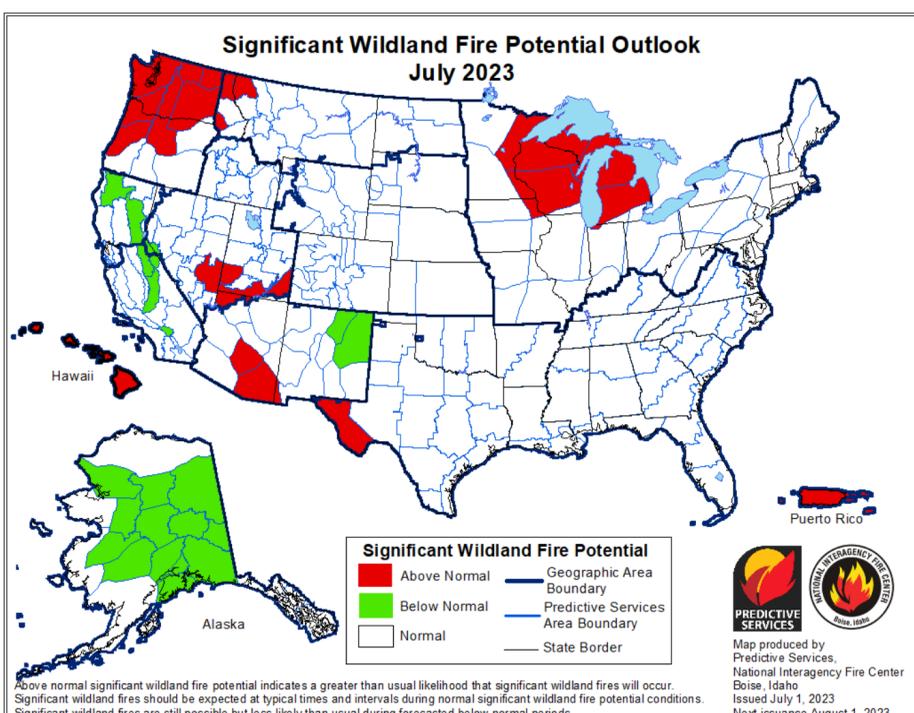
Alaska Terrestrial and Marine Climate Trends, 1957-2021

Thomas Ballinger, scientist at the International Arctic Research Center, is the lead author on this scientific paper that contributes to understanding changes to the climate system in and around Alaska.



Can Baby Kangaroos Help Address Climate Change?

This AgClimate article discusses how baby kangaroo stool can help cows digest food without producing methane emissions.



National Significant Wildland Fire Potential Outlook

Above normal significant fire potential is forecast across much of Washington and northern Oregon into the Idaho Panhandle in July. Due to recent and forecast warmer and drier than normal conditions, above normal potential is expected to expand into much of Oregon in August. Above normal potential will also expand into southwest Idaho in August as fuels dry with above normal fine fuel loading.

Well below normal potential will continue across Alaska through August as cool and moist weather is likely to continue.

Workshops and Conferences



Northwest Innovative Forestry Summit, 30 August & 15 September, virtual and Blue River, OR.

The Northwest Innovative Forestry Summit (NIFS) is a space for regional learning, exchange, and ongoing cooperation to foster ecologically based forest management strategies, with programs focusing on sustainable, forest-related innovation. NIFS will be hosting a webinar presentation and panel discussion highlighting the roles of traditional and non-traditional experimental forests in innovation. Following the webinar presentation and panel discussion, NIFS will hold two field tours at experimental forests in the Pacific Northwest to feature their roles in forest management and research.



Field Day at Matanuska Experiment Farm and Extension Center, 3 August, 9am-12pm AKST, Palmer, Alaska.

University of Alaska Fairbanks researchers will take you on a tour of the fields and plots, explaining the work they are doing and what they hope it will accomplish. Bring your lunch and spend some time interacting with the researchers after the tour, getting your questions answered. There will be a presentation about plant residue management strategies.



Soil Health Field Day at Wrigley Farm, 10 August, 1-5 pm AKST, Delta Junction, Alaska.

During this field day, presenters will discuss soil health outlook and research in Alaska, weed management in a cover crop rotation, and USDA and cost-share programs. There will be a presentation about plant residue management strategies.



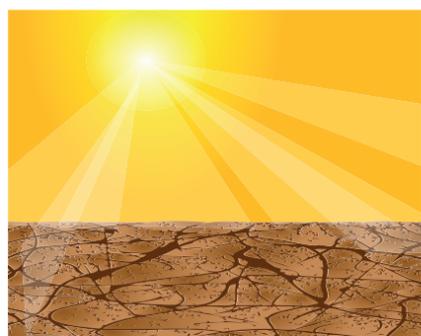
Tribal Climate and Health Summit, 8-9 November, Pala Casino and Spa Resort, California.

This 2-day training features interactive instruction and peer-to-peer learning activities that will build knowledge about developing, implementing, and evaluating adaptation strategies that safeguard Tribal health and are rooted in traditional knowledge and values. Organizers, guest speakers, and attendees will share successful practices that are increasing Tribal resilience to a variety of climate exposures throughout the US.



First Friday All Climate Change Talks (FFACCTs), 4 August and the first Friday of every month, 11 am PDT.

FFACCTs is a monthly webinar series organized by the USDA Climate Hubs and Forest Service Research and Development that features presentations from USDA scientists and practitioners. Webinars explore connections between climate, agriculture, nature, and people, and discuss their struggles, hazards, solutions and achievements.



Pacific Northwest DEWS August Drought & Climate Outlook Webinar, 28 August, 11 am PDT.

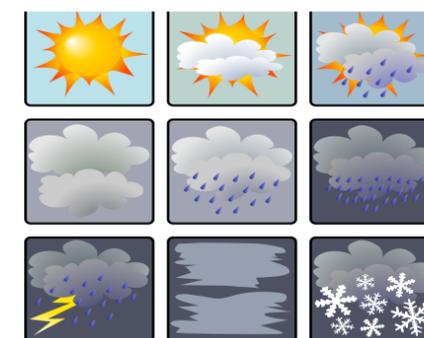
These webinars provide the region's stakeholders and interested parties with timely information on current and developing drought conditions, as well as climatic events like El Niño and La Niña. Speakers will also discuss the impacts of these conditions on issues such as wildfires, floods, disruption to water supply and ecosystems, as well as impacts to affected industries like agriculture, tourism, and public health.



Sequestering Carbon

A Crash Course on Carbon Dioxide Removal (CDR): What It Is, Ways to Do It, and Context in Alaska, 18 July, 11 am AKDT.

In this webinar, Jessica Cross with the NOAA Pacific Marine Environmental Laboratory will profile marine carbon dioxide removal techniques that are relevant for Alaska and provide an opportunity for discussion. These techniques could provide negative emission strategies for the state.



National Weather Service July Alaska Climate Outlook Briefing, 21 July, 12 pm AKDT.

Rick Thoman from the Alaska Center for Climate Assessment and Policy will review recent and current climate conditions around Alaska, discuss some forecasting tools, and conclude with the Climate Prediction Center's forecast for August 2023 and the early fall season. Join to learn what's happened and what may be in store with Alaska's seasonal climate.



Funding

July



Washington Conservation Stewardship Program.

This program is for producers who are passionate about conservation and environmental stewardship. It offers technical and financial assistance to help producers take conservation efforts to the next level. NRCS provides technical and financial assistance to help producers and landowners make conservation improvements on their land that benefit natural resources, build resiliency, and contribute to the nation's broader effort to combat the impacts of climate change. **Applications to your local service center due 23 July.**



Transitioning Tribal Colleges and Universities to Clean Energy.

The Department of Energy Office of Indian Energy is soliciting applications from Tribal colleges and universities for clean-energy projects and clean-energy curriculum. There are two topic areas, both of which include implementing a clean-energy curriculum: 1) project planning for clean-energy transition and 2) deployment of clean-energy transition. Funding varies by topic area, with Topic Area 1 ranging from \$100,000 to \$250,000, and Topic Area 2 ranging from \$250,000 to \$4,000,000. **Applications due 27 July.**



Clean Lakes, Estuaries, and Rivers Initiative.

The USDA Farm Service Agency is offering a nationwide opportunity for landowners and agricultural producers currently implementing water-quality practices through the Conservation Reserve Program to enroll in 30-year contracts, extending the lifespan and strengthening the benefits of important water-quality practices on their land. To sign up, landowners and producers should **contact their local USDA Service Center by 31 July.**

Find your local service center by clicking [here](#).

August



National Oceanic and Atmospheric Administration (NOAA) Climate Resilience Regional Challenge.

Approximately \$575 million is available through NOAA and the Inflation Reduction Act for projects that build the resilience of coastal communities to extreme weather (e.g., hurricanes and storm surge) and other impacts of climate change, including sea-level rise and drought. **Letter of intent due 21 August.**



September



NOAA Ocean Acidification Program Education Mini-Grant.

This competitively-based initiative supports coastal and ocean acidification education. Ocean acidification is one aspect of global climate change that will affect food supplies for people and animals who rely on fish and shellfish. Priority goals include engaging diverse audiences in ocean acidification education and outreach, matching ocean acidification communication needs with existing research, education and outreach activities, while developing innovative approaches for community involvement. **Letters of intent due 15 September.**



Solar for All.

The Environmental Protection Agency is launching a \$7 billion Solar for All competition. It is designed to spur the deployment of residential distributed solar energy to lower energy bills for millions of Americans. Solar for All will tackle the financial and non-financial barriers that limit the ability of low-income and disadvantaged communities across the country to benefit from the rapid growth in distributed solar capacity. **Applications due 23 September.**



Powering Affordable Clean Energy (PACE) Program.

The PACE program is part of the Inflation Reduction Act. With \$1 billion in funding, PACE helps make clean, affordable, and reliable energy accessible to the people of rural America. This program will forgive up to 60 percent of loans for renewable energy projects that use wind, solar, hydropower, geothermal, or biomass, as well as for renewable energy storage projects. **Letters of interest due by 29 September.**



Partners for Fish and Wildlife Program.

This voluntary, incentive-based program provides direct technical and financial assistance to private landowners to restore and conserve fish and wildlife habitat for the benefit of federal trust resources. Project work plans are developed strategically, in coordination with partners, and with substantial involvement from U.S. Fish and Wildlife Service field staff. Project selection will seek to align or support the Secretary's priorities. Program strategic plans inform the types of projects funded under this opportunity. **Applications due by 30 September.**

October



Cost Share for Organic Certification.

Under the Organic Certification Cost Share Program, the USDA will cover 75% of the cost associated with organic certification (up to \$750) for funds spent between October 1, 2022, and September 30, 2023. Transitioning to organic farming may be one way for farmers to combat the climate crisis. Organic farming can help with carbon storage and improve soil health. **Applications due 31 October.**

Ongoing



Clean Energy Investment and Production Tax Credit.

The Investment Tax Credit and the Production Tax Credit work together to lower the costs of installing and operating new clean-energy power sources. These tax credits are intended to encourage more investments in clean-energy systems over the next few years. Tax credits can be claimed until January 2025, after which tax credits will be focused only on zero carbon sources of power, and the size of the credits will decrease.



Agriculture and Food Research Initiative (AFRI) Foundational and Applied Science Program.

This National Institute of Food and Agriculture (NIFA) program aims to invest in agricultural production research, education, and extension projects for more sustainable, productive, and economically viable plant and animal production systems.

General information for AFRI grants program. 2023 priority areas include plant health and production and plant products; animal health and production and animal products; food safety, nutrition, and health; bioenergy, natural resources, and environment; agriculture systems and technology; and agricultural economics and rural communities. Applications that address climate change, food and nutrition security, expanding markets for producers, indigenous traditional ecological knowledge, and equity for underserved producers are welcome. Applications due based on Program Priority Areas, between August and November 2023.



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. Applications reviewed every three months between 30 June, 2023 and 30 September, 2024.