USDA Northwest Climate Hub



Virtual fencing, in which traditional fences are replaced by GPS collars worn by

Virtual Fencing

livestock, can improve soil carbon sequestration, soil health, water quality, and restoration of fragile habitats. It can also be used to contain animals within a desired area, exclude them from undesired areas, or move them across the landscape.

though in most cases, this precipitation fell over drought-free areas. Southwest Oregon experienced a slight decline in areas with moderate drought (D1-tan). Areas with severe (D2-orange) and extreme (D3-

red) drought expanded in Oregon. Soil moisture and shallow groundwater indicators reflect worsening conditions. In southeast Oregon, impacts included extremely dry soil conditions, a lack of surface water, and poor pasture forage conditions. Since last month, drought severity has shifted and increased in central Washington, as current dryness builds upon long-term moisture deficits. Extreme drought (D3red) has expanded in northeastern Idaho and been introduced in two areas of southern Idaho. Many parts of southern Idaho have set records for the driest 3-month period (January to March) in 100 years or more. Alaska remains free of drought or abnormal dryness. **National Integrated** CoCoRHaS Snow **Pacific Northwest**

Western Washington and northwestern Oregon have received rain and snow over the past few weeks,

Community Rain Hail Snow Network **Drought Information** System







None

75.46

75.39

Current Last Week

Conditions

Drought

April 19, 2022 (Released Thursday, Apr. 21, 2022)

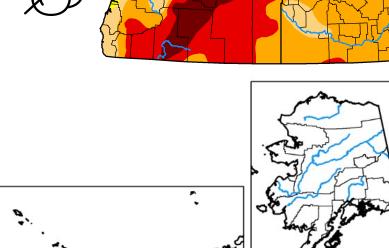
7.22

7.84

2.02

1.75

Drought Impacts





3 Months Ago 74.27 25.73 22.97 14.44 5.45 74.10 25.90 23.79 15.09

Valid 8 a.m. EDT

D0-D4 D1-D4

22.47

22.61

24.54

24.61

Drought Conditions (Percent Area)

D2-D4

17.37

18.07

1.89 Start of Calendar Year 6.81 2.01 Start of Water Year 27.67 7.83 One Year Ago 15.92 0.26 Intensity: D2 Severe Drought None 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 <u>Author:</u>

U.S. Department of Agriculture <u>USDA</u> droughtmonitor.unl.edu



Information



Fire Behavior Analysis in Alaska is a compilation of resources for land managers and fire practitioners to conduct analyses of fires after they occur in Alaska.

Climate Change, Farming, and

Gardening in Alaska describes

opportunities for improved

a study that addressed

food security in Alaska's

changing climate.

U.S. states and territories, as

understanding and applying

Skipper Science Partnership

enables Alaskan fishermen to

temperature, and fishing depth

logged on the app regardless of

from their boats. Data can be

internet access and uploaded

well as a quide to

these projections.

report fish, surface

later.

data from their phones



Erosion Exposure Assessment of Infrastructure in Alaska **Coastal Communities** describes a shoreline change assessment, and forecasts for 60 years of erosion and the replacement cost of infrastructure in the forecast Adapting Western US Forests

to Climate Change &

Wildfires is a StoryMap

prone western forests,

structure, and forest composition.

that outlines science-based

adaptation strategies for fire-

including restoring active fire

The Basics of Carbon Markets

& Trends is an Ag Climate

regimes, fostering resilient

Forests to Faucets Data

Explorer is a tool that lets

for drinking water supply

based on the population

condition, and hydrology.

forest managers and planners identify important watersheds

served, forest cover, riparian



Workshops & Conferences Call for Proposals: National Tribal & Indigenous Climate Conference Online and in St. Paul, MN, 29 August-1 September. The conference welcomes proposals that discuss climate-related impacts, assessments, tools, adaptation, mitigation, and the intersection of Traditional/Indigenous Knowledges with western science and adaptation strategies. Both in-person and virtual proposals are being accepted. Proposal submissions can include presentations, training, working groups, and climate conversations. Proposals due 6 May.



Network article that highlights key topics related to carbon markets, including agricultural credits, sources of emissions, and new developments.

forest vegetation change in response to natural succession, disturbances, and management. Those interested in attending should fill out the registration form. Salish Sea Ecosystem Conference, 26-28 April. The goal of this conference is to provide a platform to

7th (one in Clackamas and one in Eugene).

global approach to the wildfire challenge



restoring the Salish Sea and its watersheds. The outcome is improved scientific collaboration, data sharing, dynamic discussions, and collaborative action to improve the state of the Salish Sea ecosystem. The Conference is administered by Western Washington University's Salish Sea Institute. Seeing Our Forest Beyond the Trees: Oregon Society of American Foresters Annual Meeting, 28-29 April. The theme of the virtual annual meeting will feature the full breadth of forestry and natural resources, from recreation, fire, and urban forestry, to carbon, non-timber forest products, and social

dimensions. There will also be a field trip component! The meeting will span multiple days beginning with a business meeting/awards ceremony, an all-day annual meeting program, and a field trip on May

USGS and NOAA National Listening Session: Groundwater Drought Prediction, 5 May, 10 am-12:30

build shared policies, practices, and science necessary to guide future actions for protecting and

Forest Vegetation Simulator Training for Alaska, 26-29 April. The Forest Service is offering virtual training for the Forest Vegetation Simulator (FVS), a forest growth simulation model. FVS simulates



pm PST. With climate change, agriculture is expected to rely more heavily on groundwater in times of drought. This listening session will include a short introduction to groundwater drought prediction products, followed by guided discussions with participants on research priorities for product development or improvement at the national and/or regional scale. International Association of Wildland Fire: Fire and Climate, 23-27 May in Pasadena, CA. Fire and Climate 2022 will bring attention to one of the most important forces shaping wildfire and how we can

insights, case studies, innovations, and opinions from around the world to begin to form a collective,

Rural Voices for Conservation Coalition Annual Meeting. Three virtual sessions plus an in-person field tour in Eastern Oregon will be held in late May and early June. See more details below and to

Climate-focused Strategies and Opportunities for All-lands Practitioners, 24 May, 11 am-

PST. This session will highlight the findings of two recent prescribed fire projects and key policy

Economic Development Strategies for Rural Communities, 1 June, 11:30 am-1 pm PST. This

philanthropists to develop inclusive, durable strategies for rural community development that

opportunity for people to gather in Enterprise, Oregon to discuss and tour some of the strategies and initiatives used by Wallowa Resources to help their community. The field tour will offer an

climate and health vulnerabilities of the Tribes they serve, while also offering space for participants

focus and respond to this formidable challenge in the new decade. The conference will feature



register.

12:30 pm PST. This session will explore how conservation and land management agencies are 🧶 operationalizing climate priorities through new and existing programs, initiatives, and funding sources. Land management practitioners will also learn about incorporating climate considerations into all-lands work at the local scale. Accelerating the Use of Prescribed Fire through Policy and Partnerships, 26 May, 10-11:30 am

opportunities to encourage cooperative burning as an agency implementation tool.

virtual panel will showcase the work of place-based practitioners, researchers, and

can help overcome challenges and lead to lasting rural community prosperity.

to attend to their own hearts through personal reflection and peer connection.

Foresters Debate When,

Where, and Why to Consider

final installment in this weekly

Bioenergy from Forests, 29

April, 8:30-9:10 am PST. The



experiential opportunity for participants to renew in-person connections with the work of the coalition. Further details will be provided soon. Registration TBA Tribal Climate and Health Adaptation Summit, Pala, CA. 13-14 July, Pala, CA. Guided by the theme "Getting to the heart of climate vulnerability," this summit will focus on strengthening Tribalserving professionals with the knowledge and skills needed to understand and address the unique

In-Person Field Tour: The virtual Economic Development session will also include an



Northwest Drought Early

Outlook, 25 April, 11 am-

12 pm PST. These webinars

Warning System April

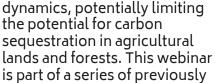
Drought and Climate

provide timely information on webinar series from Yale cost shares and forest current and developing School of Environment management planning, as well drought conditions. involves a panel of foresters as resources available for debating the various uses and Speakers will share a new tool, safely managing slash while **Ecological Drought Impacts** applications of bioenergy from reducing potential impacts to Vulnerability & Adaptation forests. All past presentation air quality. Slash is forest (EcoDIVA), and its application recordings are posted to the debris or woody vegetation left in water planning. website. after harvest on timberland.



April

opportunities for informal gatherings with other women in forestry. Register in advance.



Do Nutrients Limit Soil

Carbon Sequestration?, 17 May, 12 pm PST. Dr. Adrienne

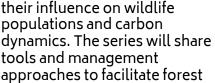
Keller and Dr. Stuart Grandy

will address how nitrogen

influences soil carbon

recorded webinars.

ecosystem. **Funding Opportunities** The Rapid Response to Extreme Weather Village Energy Efficiency Program. This is an Alaska Energy Authority grant program consumption through energy efficiency. The goal of the Village Energy Efficiency Program is to implement energy and cost-saving efficiency measures in buildings and facilities in small, high-energy-cost Alaska **Drivers and Environmental Impacts of**



and wildlife climate adaptation

at landscape and stand scales.

Recording: How Does the

Storage Affect Earth's

Climate? 12 April, 3pm

Impermanence of Soil Carbon

Climate Change Impacts on Wildlife 17 May, 1-2 pm PST.

This session is the first in a 12-

exploring forest ecosystems

under a changing climate and

month webinar series

Clearing the Smoke:

This training will cover

Alternatives to Burning Slash,

alternatives to burning, federal

9 May, 9 am-11:15 am PST.

Eastern. Dr. Susan Crow and Dr. Allegra Mayer from the Lawrence Livermore National Laboratory discuss how long carbon stays sequestered in soil and how short-term carbon sequestration in soil can affect Earth's climate.

respond, adapt, and become more resilient to climate change. It is important for proposals to involve building relationships with ACCAP and utilize its information or resources. Statewide and regional non-profit

organizations that serve Alaska Native

peoples are eligible to apply. Apply by 30

ACCAP ability to help Alaska Native communities

established to reduce per capita

communities. Apply by 26 April.

communities. Apply by 28 April.

Policy (ACCAP) Small Grants Program.

that provide organizations an enhanced

Successful proposals will focus on activities



May Partnerships for Climate Smart Commodities Funding Opportunity **Extended.** The USDA will finance pilot projects that create market opportunities for U.S. agricultural and forestry products that use climate-smart production practices and include innovative, cost-effective ways to measure and verify greenhouse gas benefits. Successful candidates will implement

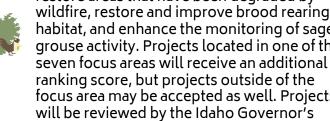
climate-smart production practices,

activities, and systems on working lands,

measure/quantify, monitor, and verify the carbon and greenhouse gas benefits



associated with those practices, and develop markets and promote the resulting climatesmart commodities. Apply by 6 May or 10 Funding for Sage Grouse Habitat **Restoration Projects.** Priorities for funding include equipping Rangeland Fire Protection Associations to improve fire suppression capabilities, build strategic fuel breaks, restore areas that have been degraded by wildfire, restore and improve brood rearing habitat, and enhance the monitoring of sage grouse activity. Projects located in one of the

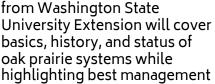


focus area may be accepted as well. Projects will be reviewed by the Idaho Governor's Office of Species Conservation and Sage-Grouse Actions Team and receive funding through U.S. Fish and Wildlife Service , Bureau of Land Management, and potentially the U.S. Forest Service. Apply by 6 May. Western Sustainable Agriculture Research and Education (SARE) Program. Funds a researcher and at least three producers to conduct both research and education on a sustainable agriculture topic. Outreach activities may include on-farm/ranch

demonstrations, farmer-to-farmer

educational activities, and other approaches.

Pre-proposals are due 19 May 12 pm MT.



practices for oak prairie

landowners interested in

creating or restoring oak

prairie habitat on their property, or for those interested in this unique

restoration. This webinar is for

Oak Prairie Restoration in the

San Juan Islands 17 May, 7-

8:30 pm PST. This webinar

Program: Coordinated Agricultural Project (CAP) Grant. This program area priority is designed to rapidly deploy strategies and fill knowledge and information gaps to protect the nation's food and agricultural supply chains, from production through consumption, during and after extreme weather and disasters. CAP grants are for extension projects only, and promote collaboration, open communication, and the exchange of information, reduce duplication of effort, and coordinate activities among **Energy Transitions in Underserved** individuals, institutions, states, and regions. **Communities.** The Environmental Protection Agency is seeking applications proposing Applicants applying to coordinate this community-engaged research that will extension response grant program must address the drivers and environmental have the capacity to promptly accept and review proposals, award projects for rapid impacts of energy transitions in underserved initiation at sub-award institutions, and provide post-award management including Alaska Center for Climate Assessment and



May.

June

(AFRI) Grants Program. The USDA National Institute of Food and Agriculture's (NIFA) AFRI program has several research, education, and extension grants to improve rural economies, increase food production, stimulate the bioeconomy, mitigate impacts of climate variability, address water availability issues, ensure food safety and security, enhance human nutrition, and train the next generation of the agricultural workforce. Specifically, USDA NIFA AFRI offers an Extension, Education, and Partnership with USDA Climate Hubs grant to support projects that provide effective, translatable, and scalable approaches to address climate change through regional partnerships including the USDA Climate Hubs and extension. Letter of intent due by 2 June. Applications due by 6 October. Find Climate Hub priorities here. July Bureau of Indian Affairs Tribal Climate

Resilience Annual Awards Program.

funding will be released to federally

recognized tribes for climate adaptation,

This fiscal year, approximately \$46 million in

ocean and coastal management, relocation,

managed retreat, or protect-in-place, and

internships and youth engagement. A

webinar will be hosted on the funding

Applications due by 6 July.

opportunity on 25 April, 12:30-2 pm PST.

project oversight and reporting. Letters of

support are strongly encouraged for any

public-private partnerships. Apply by 12

Agriculture and Food Research Initiative



August 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

land. To sign up, landowners and producers should contact their local USDA Service Center by **5 August**. Find you local service center by clicking here. **America the Beautiful Challenge.** This new grant program is focused on locally led ecosystem restoration projects that seek to advance conserving and restoring rivers, coasts, wetlands, watersheds, forests, grasslands, and other important ecosystems that serve as carbon sinks; improving

important water quality practices on their



ecosystem and community resilience to coastal flooding, drought, and other climate-related threats; and more. Applicants will be encouraged to prioritize projects that uplift Tribal and Indigenous-led efforts and to consider how proposals build the conservation and resilience workforce of the future. More information will be available the first week of May. Rapid Response to Extreme Weather: Food and Agricultural Science Enhancement (FASE) Grant. This program is designed to rapidly deploy strategies and fill knowledge and information gaps to protect the nation's food and agricultural supply chains, from production through consumption, during



NORTHWEST

CLIMATE

Ongoing

and after extreme weather and disasters. All applicants must directly address effects associated with an extreme weather event or disaster that has occurred and address agroecosystem resilience, agricultural commodity, and nutrition security, and/or health, well-being, and safety. FASE grants will accept applications continuously, so long as a Letter of Intent is submitted within 14 days of an extreme weather event.

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