

TO BURN OR NOT TO BURN:

The Role of Fire in Disturbance, Conservation & Restoration

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The Society for Ecological Restoration-Northwest Chapter Online Symposium

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Register at: <https://register.gotowebinar.com/register/1314707332206239745>

Abstracts & Itinerary

9:00 – 9:05 AM: Introductions

9:06 – 9:38 AM: Fire as Restoration

Karin Riley, PhD
Research Ecologist
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Disturbance itself can be regarded as a restoration tool. Land managers have opportunities to restore landscapes during the pre-fire planning process. During this process, land managers decide where and when to use restoration thinning and prescribed fire. During recent forest plan revisions, efforts have been made to identify areas where fire managed for resource benefit might be applied during future fire seasons. Recently, my colleagues and I have completed research that illustrates that opportunities to use restoration thinning are limited by land management policies, terrain, and budgets. Broader opportunities exist to leverage managed fires in many areas. Some evidence suggests that fires managed for resource benefit may have severity patterns within the range of natural variability. However, the timing and location of future managed fires is difficult to predict, while restoration thinning and prescribed fire can be targeted to areas with highly valued resources. My colleagues and I leveraged simulation modeling to look at changes in wildfire occurrence under predicted climate changes. Results indicate that fire season in the Northern Rockies is likely to increase, along with the number of large fires. Uncertainties in fire occurrence increase under climate change, due to uncertainties in land use change, vegetation assemblages, and climate itself, among others, presenting challenges for land managers. However, it's clear that fire can't be eliminated from the landscape, and that exploring opportunities for restoration thinning, prescribed fire, and managed fire could be an important way to meet restoration targets.

9:40 – 10:12 AM: Increasing Capacity for Prescribed Fire in California

Lenya Quinn-Davidson
University of California Cooperative Extension

Prescribed fire is widely recognized as an important land management tool, with utility for ecological restoration, habitat enhancement, fuels reduction, cultural resources, range management, and more. However, prescribed fire remains challenged by larger political, operational, and social contexts, and its use is far from meeting the demands of the fire-adapted ecosystems in the United States. The challenges are particularly pronounced in the West, where prescribed fire projects are limited in number and size, and are concentrated on public lands. This presentation will discuss current efforts in northern California to increase capacity for prescribed fire, both on public and private lands. Key strategies include the prescribed fire training exchange (TREX) model and more nascent efforts to form prescribed burn associations.

10:15 – 10:45 AM: Post-fire Recovery on National Forests in the Pacific Northwest: Reforestation and Revegetation Policy and Practices

Vicky J. Erickson
Regional Geneticist and Native Plant Program Manager
USDA Forest Service, Pacific Northwest Region

Post-fire recovery efforts on National Forest lands begin with the repair of damages resulting from fire suppression activities and restoration of disturbed areas to a “pre-event” state. Seeding/planting/mulching is conducted on hand and mechanical fire lines, fire camps, staging areas, safety zones, and drop points constructed as part of fire suppression efforts. In the second phase of fire recovery, a Burned Area Emergency Rehabilitation (BAER) team is assembled immediately after fire containment, or even before a fire is contained on very long duration fires, to conduct a rapid assessment of burned watersheds. The team of interdisciplinary specialists evaluate and identify imminent post-wildfire threats to human life and safety, property, and critical natural or cultural resources. They identify emergency stabilization measures to take before the first major storms arrive in order to reduce soil erosion and water run-off that may cause flooding, sediment accumulation in rivers and streams, and debris flows. Emergency stabilization measures may include mulching, installation of erosion and water run-off control structures, temporary barriers to protect recovering areas, installation of warning signs, closures, hazard tree removal, and other treatments. Longer-term post-fire efforts (Phase 3) involves non-emergency infrastructure repairs and restoration work, including reforestation and revegetation of areas not expected to naturally recover in a timely or sufficient manner.

This presentation will highlight the three phases of post-fire recovery in the context of the 2017 PNW fire season, with an emphasis on U.S. Forest Service policy and practices relating to reforestation and revegetation. Seedbanking programs and supporting nursery infrastructure for delivery of conifer and non-conifer plant products will be described, along with agency guidelines for species selection, seed sourcing, and protection of forest genetic resources.