FIRE AND FUELS MONITORING WORKSHOP:

EVENT BACKGROUND AND OVERVIEW

MAY 2025

BACKGROUND

In 2023, the NW Bureau of Indian Affairs (BIA), US Forest Service (USFS) R6 Ecology Program, Northern Rockies Fire Science Network (NRFSN), and Northwest Fire Science Consortium (NWFSC), came together to implement a hybrid virtual/field-based monitoring workshop modeled after the excellent 2021 training that was developed by the Oak Woodlands & Forests Fire Consortium, the Lake States Fire Science Consortium, and the Huron-Manistee National Forests. Building off the recorded videos provided by the 2021 event, the 2023 workshop supplemented in additional live virtual and in-person training from local experts in the NW and Rocky Mountain Regions. Field days were hosted on the Warm Springs and the Spokane Reservations, with each focusing on specific questions that the Tribe and hosts wanted to address with their monitoring. This allowed participants to not only get an opportunity to practice baseline fire effects monitoring protocol, but also to modify standard protocols to the objectives and questions being asked by the host agency in their unique ecosystems.

Since the success of the 2023 workshop, a planning committee has been formed from the participating agencies/consortia with the goal to continue the trainings every two years. These events help support the fire and fuels goals of multiple agencies in the regions and build upon the resources and recordings available to the programs.

2025 WORKSHOP SUMMARY

During the week of May 12th we held our second biannual Hybrid Fire and Fuels Monitoring Workshop. The workshop started with two half-days of virtual training via pre-recorded videos followed by live interactive Q&A and discussions with Heather Heward (senior fire instructor, University of Idaho) and others on topics like developing a monitoring handbook for your local ecosystem, fuels measurement techniques, standardized forms and how to customize them, estimating burn severity, and others. We also had live presentations by Susan Prichard (research scientist, University of Washington) on mortality measurements and burn severity mapping and by Duncan Lutes (fire ecologist, US Forest Service RMRS) on using the FEAT-FIREMON Integrated platform (FFI).

The field day locations were on the Yakama and the Flathead Reservations. This year's attendees included people from multiple Tribes across the PNW and Northern Rockies, WA DNR, US Forest Service, The Nature Conservancy, Columbia Land Trust, and Salish Kootenai College. While the Flathead group got hit with a severe rainstorm in the afternoon, weather on the Yakama Reservation was delightful! Lead field instructors Heather Heward and Sarah Flanary (USDA Forest Service Rocky Mountain Research Station) lead attendees in a hands-on walkthrough of the FIREMON sampling protocol.

For more information, monitoring resources, and presentations from the virtual classroom components:

https://nwfirescience.org/fire-and-fuels-monitoring-trainings

This workshop was hosted by the Bureau of Indian Affairs with support and facilitatation by the Northwest Fire Science Consortium, Northern Rockies Fire Science Network, and US Forest Service PNW Region.

FEEDBACK & FUTURE EFFORTS

Eighteen attendees provided anonymous feedback via a survey sent out at the end of the workshop. Most respondents rated themselves as having "moderate" knowledge of fire and fuels monitoring at the start of the workshop, and 94% said the workshop had improved their knowledge of or comfort with using fire and fuels monitoring techniques. The downsides of virtual presentations and videos were the primary suggestions for improvement.

The survey responses included suggestions for future events, with an emphasis on the benefits of hands-on and place-based learning and requests for more trainings on:

- Fuels and fire monitoring
- Technological tools for monitoring
- NWCG Fire Effects Monitor (FEMO) training and task book sign-off opportunities
- More information on fire effects evaluation and integration into monitoring plans

Subsequent discussions among Tribal fire and fuels programs and other partners in the region have highlighted the desire for increased opportunities for collaborative burning and for NWCG task book sign-offs, particularly for FEMO trainees. Scoping discussions and planning among this team and new partners have already started on how to help fill these needs. Among other opportunities that are being explored, a hands-on FEMO training workshop to include burning operations that will facilitate task book evaluation is already in the works.

Some feedback is highlighted below:

"I adored the field day. Heather was an amazing teacher, and the opportunity to get out in the field, hands-on, was truly priceless. It was definitely a huge learning opportunity that I will be applying in my work."

"Highly support future iterations of events like this one! Opportunities for fuel/fire monitoring folks to come together across academia/agencies etc. is huge benefit to hear other approaches in sample design, as well as hear what other people in same region are working on!"

"I really appreciated the willingness of the experts to be available to share their experience, answer questions from the students, and to just be open and available for conversations and questions throughout the workshop. I also appreciated the Tribes taking the time to open their doors to other agencies for the monitoring field days and to share some of their experiences and local knowledge of the land and resource management approaches they implement. None of this would have been possible without their willingness to host and share their expertise and time."

Gratitude to our lead instructors for the field days:

Yakama location: Heather Heward, University of Idaho

Flathead location: Sarah Flanary, USDA Forest Service Rocky Mountain Research Station

Special thanks to the planning team for this year's workshop:

Monique Wynecoop, BIA Tri-Regional Fire Ecologist (NW, RM, & AK Regions)

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This research brief was written by Autumn Ellison, Monique Wynecoop, and Darcy Hammond.

Photo credits: Page 1 top left and page 2 top left: Autumn Ellison, taken during the 2025 field day on the Yakama Reservation; Page 1 middle and page 2 bottom: Monique Wynecoop, taken during the 2025 field day on the Flathead Reservation.