Prescribed Fire Treatments

Impacts: Instrumental, Conceptual, Capacity Building, Connectivity

Prescribed fire is always a leading topic of interest in the Northern Rockies, and identified as a national priority in the recent USGS Assessment of the JFSP Fire Science Exchange Network. We completed several products and activities related to this topic in the past year.

Field Trips: On June 16, 2022, we hosted two local field trips titled "Reintroducing fire in mixed and high-severity fire regimes: Prescribed fire planning, implementation and effects in lodgepole and subalpine forests." We invited prescribed fire experts from the Bureau of Land Management, the USDA Forest Service, the Montana Department of Natural Resources, and the University of Montana to share their knowledge on planning and implementing prescribed burns in lodgepole or subalpine forests with mixed- or high-severity regimes.

Over 30 attendees (local, state and federal land managers, researchers, and grad students) discussed the latest science and practices for working in these fuel types, both in the Wales Creek Wilderness Study Area east of Missoula, MT and in the Good Creek drainage on the Flathead National Forest north of Whitefish, MT.

Feedback from both trips was very positive:

"I appreciated the frank and lively discussion. These types of events have all kinds of added value."

"The variety in treatments. I was not expecting that. It was a great backdrop for conversation."

"I enjoyed discussing some of the challenges that were overcome to get to the burning . . . and applying them to my work."

"It was incredibly interesting and I learned a lot from having so many different perspectives presented and folks in attendance."

Story Maps: NRFSN has partnered with the team at the Interagency Fuels Treatment Decision Support System (IFTDSS) to develop two Story Maps, a new product type for NRFSN. IFTDSS is a web-based application designed to make fuels treatment planning and analysis more efficient and effective. The first story map is a "A Short Tour of the Interagency Fuel Treatment Decision Support System (IFTDSS)." The second story map will use an actual example from the National Park Service to plan a fuel treatment and complete a burn plan using IFTDSS.

Research Brief: We partnered with authors from the Fire Effects Information System to summarize their synthesis on prescribed fire and wildfire effects on several invasive plant species in the western U.S. The resulting research brief, *Fire ecology and management of spotted knapweed, diffuse knapweed, and yellow starthistle*, provides managers with important considerations when using prescribed fire in areas impacted by these invasive plants. This research brief was developed as the result of manager feedback that identified fire effects on invasive plants as an important research topic in the region.

Impacts cited in NRFSN Evaluation Survey: These statements were provided in response to a question about how NRFSN activities or products have been used by our members. These particular responses addressed fuels treatments.

"Information from webinars helped managers explain fire resiliency at a public meeting concerning a project proposal to lessen fire risk around a small mountain community."

"Fire managers access and use information and tools to communicate relevant fire science to public. Utilizing info during a public meeting and in NEPA specialist reports to articulate the benefits of prescribed fire and how these treatments modify fire behavior during a wildfire."

"I have seen a fuels specialist cite work distributed by the NRFSN during a collaborative field trip with outside partners and interested public, in the development phase of a NEPA project. He explained how the work applied to the project and why it was important to utilize fire as a tool for the project's successful implementation to meet desired outcomes."

"I have participated in the webinars to expand my knowledge of current fire science and fuels treatments so that I can adequately advise the field offices within my area on ways to best help private landowners reduce the risk of severe fire on their properties. Keeping up with the best and latest science on fuels treatments also helps to ensure that I'm giving good advice that leads to wise spending of tax payer dollars my agency distributes."

"I viewed multiple workshops, fuels and fire management related, as well as with modeling workshops. I am a Long-Term Fire Behavior Analyst on a Northern Rockies Incident Management Team and use the info gained from these workshops to help with my fire behavior predictions, fire effects, and communication to Agency Administrators, public and cooperators while managing wildfires. I am a District Fuels Specialist and use these webinars as a way to provide the latest, and best available science to IDT members, and I forward on webinars to other coworkers."

Logic Model Outcomes addressed: Fire managers have information and tools to communicate relevant fire science to public (short-term); Fire managers access relevant science more easily, increase their knowledge of science, and share scientific products with colleagues (medium-term); Fire managers use information and tools to communicate relevant fire science to public (medium-term); Fire managers integrate scientific information and tools into fire and fuels management (long-term); The science used in fire management decisions and actions is understood by the public (long-term).