



# NORTHWEST FIRE SCIENCE CONSORTIUM

The Northwest Fire Science Consortium is part of a national network of consortia established by the Joint Fire Science Program to accelerate the awareness, understanding, and adoption of wildland fire science information by federal, tribal, state, local, & private stakeholders in the PNW

*Activity  
Report  
FY14 – FY16*



# Northwest Fire Science Consortium Final Report –2014-2016

---

Prepared by Janean Creighton, Administrative Director – June 7, 2016

JFSP Project Number: 11-S-3-8

The Northwest Fire Science Consortium (NWFSC) is a comprehensive fire science delivery system designed to enhance the exchange of existing fire science and technologies throughout the region, and encourage fire and land management stakeholders to evaluate and adopt relevant fire science. The NWFSC has been steadily developing since early 2012, and has provided outreach to a wide variety of fire science users throughout the Northwest.

Our priority areas for 2014-2016 included: 1) Smoke in Washington and Oregon: air quality and cross-boundary issues with prescribed fire; 2) Managing Moist Mixed-conifer in Washington & Oregon: the complexity of a mixed-fire regime, definition of “mixed severity”, and spotted owls and marbled murrelet habitat; 3) Landscape level planning: collaborative natural resource management and coupled human and natural ecosystems; 4) Fire and riparian and aquatic systems: interactions between fish and fire management. An effort was made to focus our activities and outreach around these areas, as informed by our logic model for 2014-2016.

**Smoke and air quality.** The issues surrounding the use of Rx fire were addressed in field tours, videos, and a synthesis focusing on the social aspects of smoke from both wild and Rx fires. NWFSC continues its involvement with Rx fire councils for WA and OR, and participated in the EPA Smoke Management Forum in March of 2016. **Landscape level planning.** Because the NW region is home to 33 collaborative groups, landscape level planning efforts centered on providing straight forward fire science results, strengthening the relationships between fire-prone communities and public agencies, and helping these groups to find agreement on restoring and managing public lands. Field tours, science discussion forums, Fire Facts, the Rural Voices Conservation Coalition workshop and a publication on effective monitoring helped to support these efforts. **Fire and riparian and aquatic systems.** This is a growing area of concern which we addressed with a webinar series and a workshop and field tour held in southwest Oregon in March of 2016 exploring the current state of knowledge. **Managing moist mixed-conifer.** This often arises as a subset of other areas of concern. While our activities did not directly address mixed-conifer as we have done in the past, it was inherent in many of our activities and deliverables, such as our research briefs, webinars and in the Central Oregon Fire Science Symposium in March of 2016.

As always, we remain flexible and open to emerging opportunities that make sense to explore. For example, new research was published regarding insects and fire interactions and with it came some controversy, so we merged this into our activities. After the 2015 wildfire season, post-fire restoration arose as a major concern by managers and practitioners. These areas have moved into the forefront of our thinking as we move forward. Below is a summary of completed NWFSC activities from 2014 through 2016.

Activity (conducted, hosted, facilitated, or sponsored)	Number of activities during FY 2014, 2015, and 2016	Total participants reached
<b>In person outreach</b>		
Field tours	7	146
Workshops	7	758
Conference/Symposia presentation	8	587
Informal and personal interactions about NWFSC	17	561
Academic credit courses	1	25
<b>Web based outreach</b>		
Webinars	15	718(attended) 1185 (You Tube views)
Videos	3	2581 You Tube views
Electronic newsletter	197	432 subscribers
Face Book posts	580	443 likes
Tweets	2402	1,284 followers
<b>Printed materials<sup>1</sup></b>		
Syntheses	2	100 printed and distributed
Science application field guides	3	100+ (each) printed and distributed
Research briefs	7	200 (each) printed and distributed
Fire Facts	8	200 (each) printed and distributed

## Accomplishments

The activities and deliverables summarized in the table above are detailed below.

### Publications

Research Brief #7: Communication under fire: communication efficacy during wildfire incidents

Research Brief #6: Restoring the West: Forest restoration needs in Oregon and Washington

Research Brief #5: Influences on wildfire burn severity: Treatment and landscape drivers in an extreme fire event.

<sup>1</sup> All printed materials available on the NWFSC website at [www.nwfirescience.org](http://www.nwfirescience.org)

Research Brief #4: Mountain pine beetle and fire behavior – fuel dynamics in south central Oregon lodgepole pine

Research Brief #3: Songbird response to wildfire – species abundance after a southwest Oregon fire

Research Brief #2: Private forest owners and wildfire risk: Policy implications in a diverse population

Research Brief #1: Traversing through the haze: Exploring the human perspective of smoke from fire

Synthesis: Drivers of wildfire suppression costs

Science application field guide: Tracking progress: The monitoring process used in CFLRP in the PNW

Science application field guide: Not all fires are wild: Understanding fire and its use as a management tool

Science application field guide: A land manager's guide for creating fire-resistant forests

### Other printed material

NWFSC Fire Facts series: What is...?

- Fire Severity;
- Fire Intensity;
- Fire Triangle;
- Natural Range of Variability;
- Incident Command System;
- The National Cohesive Strategy;
- Red Flag Warning;
- A Fire Adapted Community

### Webinars<sup>2</sup>

- Restoring fire-prone Inland Pacific landscapes: Seven core principles/Applying principles of landscape restoration within the eastern Cascades
- Finding the best available science on fire effects and fire regimes in northwestern and northern Rockies ecosystems
- BpS Review in the Pacific Northwest: What is it? How does it work? Why does it matter?
- A new approach to evaluate forest structure restoration needs across OR and WA (produced accompanying research brief)
- Vulnerability of spring Chinook and bull trout to wildfire and climate change
- Fire severity and post-fire vegetation recovery in riparian areas of two Oregon fires
- Climate & weather outlook for the 2015 fire season (technical difficulties in recording. Linked to NWCC YouTube presentation)
- Drivers of wildfire suppression spending (produced accompanying synthesis)
- Large incident risk assessments: The roles of the agency administrator and the resource specialist
- Does wildfire likelihood or severity increase following insect outbreaks?
- Influence of recent bark beetle outbreaks on wildfire
- Fuel patterns and a fire following MPB mortality in climax LP Pine in SC Oregon

---

<sup>2</sup> Webinars and videos can be viewed on the NWFSC YouTube channel at [youtube.com/user/nwfirescience](https://youtube.com/user/nwfirescience)

- LANDFIRE: Your source for music, maps and models
- Using LANDFIRE products: assessing restoration needs in PNW forests
- Critique and modification of LANDFIRE data for local applications

#### Video

- Seeking consensus in post-fire management: The Canyon Creek example
- Fire science, adaptive management: Landscape restoration at Turnbull National Wildlife Refuge
- Prescribed fire: A multi-purpose tool

#### Field Tours, Workshops & Symposia

- Using Rx fire as a management strategy in the Turnbull National Wildlife Refuge. [Field tour and video](#)
- Fire without borders: Observations, experiences, and lessons learned from the 36-Pit Fire. [Field tour](#)
- Preparing for wildfires: Moving from crisis to opportunity. Tucson, AZ. [Workshop](#).
- Bailey Butte Fire tour: Post fire recovery and restoration. Prineville, OR. [Field tour](#)
- Oregon Master Naturalist training: Fire in the WUI module. Bend, OR. [Workshop and field tour](#).
- 2<sup>nd</sup> annual Oregon Rx Fire Council meeting and workshop - Smoke management issues: 2015 and beyond. Medford, OR. [Workshop](#)
- Opportunities and impediments to using fire as an ecosystem process for reducing hazardous fuels. Ashland, OR. [Field tour](#).
- Wildfire workshops for landowners in the Blue Mountains: Baker City, OR; [Workshop](#)
- Wildfire workshops for landowners in the Blue Mountains: Dayton, WA; [Workshop](#)
- Wildfire workshops for landowners in the Blue Mountains: John Day, OR. [Workshop](#)
- Post-fire discussion: Impacts and implications for management. John Day, OR. [Workshop and field tour](#)
- Maximizing benefits and minimizing risks to rare species: management challenges in occupied areas. South Puget Sound, WA. [Workshop and field tour](#).
- Rural Voices for Conservation Coalition. Troutdale, OR. [Workshop](#)
- Forest Health: State of the state. Corvallis, OR. [Symposium](#)
- Central Oregon Fire Science Symposium. Bend, OR. [Symposium](#).
- National Collaborative Restoration Conference. Denver, CO. [Conference](#)
- Living With Fire. Corvallis, OR. [Workshop and OSU Starker lecture](#)
- Fire & fuels ecology and management in riparian areas of the Klamath-Siskiyou. Central Point, OR. [Workshop and field trip](#)
- Tapash ICO (Individuals – Clumps – Openings) ecological timber marking. Cle Elum, WA. [Workshop and field tour](#)
- Fire, fuels, and the WUI. Wenatchee, WA. [Field Tour](#)