



NORTHWEST FIRE SCIENCE CONSORTIUM

*Progress
Report for
FY 12 - 14*

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



Northwest Fire Science Consortium

Progress Report – 2012 to 2014

Prepared by Janean Creighton – November 14, 2014

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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. Table 1 summarizes these activities.

Table 1. Summary of completed NWFSC activity 2012 through 2014

Activity (conducted, hosted, facilitated or sponsored)	Number of activities during FY 2012, FY 2013 & FY2014	Total participants/reach
In-person outreach		
Field tours	6	85
Personal briefings and talks	16	481
Workshops	4	90
Summit and symposia	2	260
Presentations at professional meetings (poster)	2	NA
Presentations at professional meetings (oral)	9	300
One-on-one & small group outreach	6	109
Printed materials		
Science applications field guides	1	est. 100+ (also on web)
Research briefs	5	est. 800+ (also on web)
Fire science needs assessment	1	est. 500+ (also on web)
Journal articles	1	NA
Web based outreach		
Webinars	7	739 (including views on YouTube)
Facebook postings	283	10,190 total reach
Tweets	874	656 followers
Electronic Newsletters	115 + (simultaneously posted on twitter and Facebook)	229 list serve subscribers
Video	1	894 views (YouTube)

Overall Effectiveness of NWFSC

The perceptions of fire scientists and fire science users towards the usefulness and effectiveness of NWFSC increased over the 2 year period, according to the JFSP National Consortium Evaluation Survey (table 2). Although the number of respondents is relatively low, it is helpful to look at these responses from our users and stakeholders over time. Although the NWFSC has progressed in some areas, there remain some issues fundamental to our mission and goals that must be addressed as we move forward.

Table 2. Effectiveness of the NW Fire Science Consortium – 2012 (n=37) to 2013(n=34)¹

% Agree	Consumers 2012	Consumers 2013	Producers 2012	Producers 2013
The consortium is needed to help coordinate sharing of fire science info in my region	58	86	50	81
The consortium has helped improve the accessibility of fire science info	42	75	50	50
The consortium has helped improve the use and application of fire science info in my region	21	63	13	44
The consortium has made it easier for my agency/organization to accomplish its goals		31		19
I would recommend consortium involvement to my co-workers		69		69

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Accomplishments for FY 12, 13, 14

The completed activities and deliverables summarized in table 1 are detailed below followed by the associated evaluation results. We feel we have been successful in many of our approaches to meet the needs of the diverse set of fire science users in the Pacific Northwest. Concerted effort was made to center our outreach on site-specific information that that would help in strategic planning, management project planning, and resolution of ongoing debates regarding specific controversial conditions and practices.

Social media

- NWFSC Facebook page with postings of upcoming events, fire news stories of interest, new publications, etc. Simultaneous posting with MailChimp. *A reach of over 10,000 through post sharing.*
- NWFSC twitter feed @NWFireScience. *Currently: 656followers; reach of 106,082.*
- FY2012-FY2014 – Over 100 issues of Weekly Science Digest sent to list serve and simultaneously posted on Facebook and Twitter. *229 list serve subscribers.*

Printed media

- Science Applications Field Guide #1: A Land Manager’s Guide for Creating Fire-resistant Forests
- Research Brief #1: Traversing through the haze: Exploring the human perspective of smoke from fire.
- Research Brief #2: Private forest owners and wildfire risk: Policy implications in a diverse population.
- Research Brief #3: Songbird response to wildfire: species abundance after a southwest Oregon wildfire.
- Research Brief #4: Mountain pine beetle and fire behavior: fuel dynamics in south

¹ Source: Joint Fire Science Program. No evaluation done in 2014

central Oregon lodgepole pine.

- Research Brief #5: Influences on wildfire burn severity: Treatment and landscape drivers in an extreme fire event.
- Fire Science Needs in the Pacific Northwest –Working Paper #34, UO Ecosystem Workforce Program
- Diversity and dynamism of fire science user needs. *Journal of Forestry* 111(2):101-107.

Presentations

- Poster presented at the International Smoke Symposium, October 21-24, 2013 in Adelphi, Maryland. 130 conference attendees.
- Poster presented at the 18th International Symposium on Society and Resource Management (ISSRM), 17-21 June, 2013, Edmonton, Alberta, Canada. 450 conference attendees.
- Oral presentation at the 5th International Fire Ecology and Management Congress, 3-7 December, 2012, Portland, Oregon. 250 conference attendees.
- Oral presentation at the 18th International Symposium on Society and Resource Management (ISSRM), 17-21 June, 2013, Edmonton, Alberta, Canada. 450 conference attendees.
- Oral presentation at the 3rd Human Dimensions of Wildland Fire Conference, 17-19 April, 2012, Seattle, Washington. 150 conference attendees.
- Oral presentation at the Washington Prescribed Fire Council 2nd Annual Conference, 12 March 2013, Ellensburg, Washington. 50 conference attendees.
- Five (5) presentations to collaborative groups in Oregon

Webinars/Video

- Computer models for wildland and WUI fires – *205 You Tube views*
- Public perceptions of smoke in OR & CA – *61 You Tube views*
- How effective were fuel treatments in 2011 Wallow fire? – *60 You Tube views*
- LANDFIRE 101 – *156 You Tube views*
- Customizing data – critique and modification of LANDFIRE data for local applications – *65 You Tube views*
- Assessing needs – Using LANDFIRE products: Assessing restoration needs in PNW forests – *105 You Tube views*

Video

- Prescribed Fire: A multi-purpose tool – *894 You Tube Views*

Web site

The Northwest Fire Science Consortium web site has been gaining in use and exposure since its launch in early 2013. Analytics indicate that the searchable library database and the events calendar received the highest percentage of opens in the past year. These are elements of the web site that are updated regularly. The low return rate suggests that more effort is needed by NWFSC to market the website to those who may be unaware of its existence, find opportunities to encourage return visits, and to continue to update with new content. In terms of general web metrics, the NWFSC web site has had 7,786 visits, from 5,164 users. Of these 33.7% were returning users to the web site. The information and resources posted on the site appear to be useful and relevant for fire science users, but not as much for the producers of fire science (table 3). Admittedly, to date more attention has been given to people seeking fire science than to producing it, apart from posting newly published research results. Part of a planned review and upgrade of the website may involve a specific query to the research and scientific community regarding what they would like to have available on our website.

Table 3 – Usefulness of NWFSC website- 2013² (n=34)

% Agree	Consumers 2013	Producers 2013
My consortium’s website is user-friendly	73	59
My consortium’s website provides a wide variety of fire science info	62	58
My consortium’s website provides practical info I can use in my job	62	42
My consortium’s website provides info that is current and up-to-date	93	50
My consortium’s website organizes the information I need in one convenient place	69	42

Technical Field Tours:

- **Columbia Basin National Wildlife Refuge – Management of cheatgrass fuel loading in the shrub-steppe.** 24 attendees.
- **Deschutes National Forest - Pole Creek Fire: insects, fuels treatments, and collaboration in the immediate post-fire environment.** 22 attendees.
- **Fish and Fire Field Tours & facilitated discussions: Needs assessment at the intersection of fisheries and fire**
 - **Willamette National Forest** - timber sale near a bull trout stream that was followed by prescribed fire treatments. 8 attendees.
 - **Umatilla National Forest** - stream and riparian restoration efforts on the Tucannon River after the 2005 “School Fire”. 6 attendees.
 - **Deschutes National Forest** - wild and prescribed fires near redband trout streams, and meadow restoration. 8 attendees.

Workshops:

- **Systematic Evidence-based Review (SER) Workshop.** 16 attendees. Corvallis, OR, May 7-9, 2013.
- **Inaugural meeting of OR Rx fire council.** 24 attendees. Bend, OR April 10, 2014
- **Building a successful coalition to influence policy.** 25 attendees. WA Rx fire council meeting, Olympia, WA, March 5, 2014.
- **Effective tools to communicate to policymakers.** 25 attendees. WA Rx fire council meeting, Olympia, WA, March 5, 2014.

Summit and Symposia:

- **Restoring & Managing Mixed Conifer Forests in the PNW Summit.** 95 attendees. Hood River, OR, April 15-16, 2013.
- **Central Oregon Fire Science Symposium: A week of fire in Central Oregon.** 165 attendees. Bend, OR, April 8-9, 2014.

² Web site launched in early January 2013

Challenges

As with many endeavors of this type, most of the challenges we have faced in the establishment of the Northwest Fire Science Consortium (NWFSC) have been in identifying where our strengths lie and what we should focus on to help our clients and users become more successful. The NWFSC succeeded in establishing an initial Plan of Work that assisted us in identifying these opportunities as they emerged. A major challenge we faced was our ability to act on opportunities that arose unexpectedly, but presented themselves as significant “teachable moments”. As a result, our new Plan of Work developed for FY2015 to 2016 addresses those ways in which we can increase capacity to overcome this issue, including building stronger relationships with our existing partners, the identification of new partners, how we can better leverage our resources with those of our partners, and identifying more opportunities for meaningful collaborations. The needs assessment that informed the plan of work for the NWFSC provided a clear roadmap for activities during 2012 and 2014 from which strategies were developed to design and implement a workable and sustainable model for outreach and education. This was successful; however, there is always room for improvement. The approaches and activities used were effective in reaching many of our goals, but not all of them. The overall objectives remain the same for the next iteration of activities: 1) improve information access, awareness, and delivery; 2) increase two- way communication between research and the field; 3) promote opportunities for participatory and collaborative research; and 4) evaluate the consortium activities and adapt as needed.

Governance

The NW Consortium is guided by a stakeholder user group (SUG), a management committee, and a consortium coordinator (Creighton). The SUG provides strategic oversight, advice, and feedback on progress towards goals to the management committee. The management committee (MC) is responsible for setting priorities for consortium activities, budget oversight, and considering the advice of the SUG. The consortium coordinator will facilitate this governance structure and both oversee and participate in the implementation of the activities and plans of the consortium. The MC is composed of individuals from federal agencies, state universities, extension, and non-profit organizations.

NWFSC met with the SUG once during 2012. The Plan of Work (POW) was presented and the SUG was solicited for important topics and issues that may have been missing from our formal needs assessment. The SUG was kept apprised of Consortium activities and events throughout the 2013, but there was no additional meeting. As members of the SUG took new positions, retired, etc., we felt that the make-up of the SUG was not effective for our needs and we began to think more strategically about membership in this group. As a result, we re-formed our SUG into an Advisory Board with representation from organizations and agencies that can better provide the Consortium with advice and feedback to assist us in meeting our goals.

Governing Committees 2012 to 2014

Management Committee

Jamie Barbour:	USFS PNW Research Station
Janean Creighton:	Oregon State University Extension
Jim Johnson:	Oregon State University Extension
Tom DeMeo:	USFS Region 6 Ecology Program
Christine Olsen:	Oregon State University
Cassandra Moseley:	University of Oregon Ecosystem Workforce Program
Mark Stern:	The Nature Conservancy
Alaina Pomeroy:	Sustainable Northwest
Patrick Shannon:	Sustainable Northwest
Sarah Hamman:	Center for Natural Lands Management

NWFSC Stakeholder User Group (SUG)

Bill Aney – Eastside Restoration Coordinator	USFS Region 6
Louisa Evers – Climate Change Coordinator (changed jobs)	Oregon BLM
Ryan Haugo – Fire Ecologist	The Nature Conservancy
Morris Johnson – Research Scientist	Pacific Wildland Fire Sciences Lab
John Lehmkuhl – Research Scientist (retired)	USFS PNW Research Lab
John Saltenberger – Fire Weather Program	NW Interagency Coordination
Mark Gray – (retired)	WA Dept. of Natural Resources
Dale Swedberg – Biologist	WA Dept. of Fish and Wildlife
Jamie Tolfree – Facilitator	Gifford Pinchot CFLRP
Steve Fitzgerald –Extension Specialist	Oregon State University

Current plans for the governance structure include at least one additional management advisor. While the interests and needs of the Prescribe Fire Councils and the CFLRP's and other community based collaboratives are well represented, the representation of fire and fuel managers in state and federal agencies is deficient. We realize the shift in focus that occurred during the previous funding cycle and are making arrangements to remedy the situation. As stated in the renewal, we also are in the process of identifying and re-forming the SUG into an Advisory Board as a means to provide focus to the Consortium moving forward. Therefore, the structure and responsibilities of the MC will remain the same, but some of the active participants may change.

Governing Committees 2014 to 2016

Management Committee

David Seesholtz:	USFS PNW Research Station
Janean Creighton:	Oregon State University Extension
Jim Johnson:	Oregon State University Extension
Carrie Berger:	Oregon State University Extension
Tom DeMeo:	USFS Region 6 Ecology Program
Christine Olsen:	Oregon State University
Emily Jane Davis:	Oregon State University
Cassandra Moseley:	University of Oregon Ecosystem Workforce Program
Autumn Ellison:	University of Oregon Ecosystem Workforce Program
Mark Stern:	The Nature Conservancy
Patrick Shannon:	Sustainable Northwest
Sarah Hamman:	Center for Natural Lands Management

NWFSC Advisory Board 2014-2016

Bill Aney – Eastside Restoration Coordinator	USFS Region 6
Ryan Haugo – Fire Ecologist	The Nature Conservancy
Jamie Tolfree – Facilitator	South Gifford Pinchot Collaborative
Ellen Eberhardt – Technical Information Specialist	USFS - Pacific Wildland Fire Sciences Lab
Sarah Foster – Assistant Division Manager	Washington State DNR
Sean Hopkins – Smoke Management	WA Department of Ecology
Geoff Babb – Fire Ecologist	BLM - Central Oregon Fire Management Service
TBD	Collaborative Forest Landscape Restoration
TBD	Bureau of Indian Affairs
Karen Kopper – Fire Ecologist	National Park Service
Carrie Phillips – Forest & Coastal Research Manager	US Geological Survey
Jennifer Croft – Assistant District Ranger	USFS – Okanogan-Wenatchee NF
Cyndi Sidles – Fire Ecologist	US Fish and Wildlife
Ed Brunson – ex-officio member	Bureau of Indian Affairs

Partnerships

There are a variety of partners and collaborators with which we work, and many of these relationships have just begun to develop as the NWFSC becomes increasingly better known in the region. We interact with partners in a number of ways. We collaborate on assessing needs of users and determining appropriate approaches to fire science delivery for each user group we serve. Through partnerships we increase our capacity to accomplish our goals, by combining efforts and taking on tasks that fit our strengths and skills. A significant amount of time was spent marketing ourselves during the first 2 years, and we will continue to “be at the table” when appropriate. Every effort is made to represent the NWFSC at regional meetings and conferences with the intent of discovering and creating new partnerships. For example, the NWFSC attended initial meetings for both the Washington and Oregon State Prescribed Fire Councils. We are now active members on both councils, sitting on steering committees, helping with program planning, and providing research based education. The NWFSC continues to develop strong partnerships with community based collaborative groups throughout the NW, thanks to NWFSC members Sustainable Northwest (SNW) and the University of Oregon Ecosystem Workforce Program (EWP). Through their connections, NWFSC is assisting a number of eastside collaboratives in Oregon in developing socioeconomic monitoring plans. This is an excellent example of how we utilize the internal strengths of our partners to facilitate collaborations. We are regularly approached by fire scientists from Oregon State University, the US Forest Service, and the USGS seeking our help with outreach and technology transfer efforts. We received requests for six letters of support for JFSP projects for 2013, (two of which were funded), and eleven letters of support for JFSP projects for 2014. In addition, the NWFSC wrote one letter of support for a NSF/USDA project for FY 2014. One of our most significant partners is the USFS Pacific Northwest Research Station, illustrated by the NWFSC briefing with Rob Mangold, Station Director with PNW, and subsequent inclusion of the NW Fire Science Consortium in the Pacific Northwest Research Station’s Strategic framework for the next 2 to 5 years. However, even with our success to date, the NWFSC is committed to building stronger partnerships with the National Forest System, the Bureau of Land Management, and our federal and state land management audiences. We recognize the need for more meaningful collaboration with this major user of fire science, and this commitment is reflected in our four priority areas we established for our future direction.

Evaluation

The evaluation of NWFSC activities as well as overall effectiveness of the Consortium as a fire-science delivery system continues to be of great importance. We will continue to evaluate each individual event to determine knowledge gained, usefulness of information, intention of use, etc., that will inform event content and approaches. In addition, we will begin to implement an evaluation of the NWFSC as a complete program, with expected completion by the end of the funding cycle. We plan to repeat the methodology used for the original needs assessment (interviews) so we can compare results and probe changes with our fire science users and producers. This will provide valuable information after 4 years of operations and, along with the results of the JFSP National Survey, the systemic effectiveness of the NWFSC can be determined and changes made accordingly.