California Klamath-Siskiyou Fire Learning Network

The Klamath-Siskiyou region of northwestern California is a globally significant hotspot of biological diversity. It contains the greatest variety of coniferous tree species in the world, provides habitat for several critical runs of anadromous Pacific salmon species and is home to myriad other rare and important species. Tucked amidst the rugged mountain ranges of the Marbles, Salmons, Scotts and Trinity Alps are small rural communities struggling to thrive as stewards of this complex system. Fire exclusion and resource extraction have significantly altered historical fire regimes and forest ecosystem structure. Uncharacteristic wildfire now threatens ecological values and human communities alike.

In an effort to connect managers, researchers, practitioners and communities around ecosystem restoration, the California Klamath-Siskiyou Fire Learning Network (CKS FLN) was organized in 2009. Since then, over 300 individuals have participated in events, dialogues and workshops to share science, values and experience, building a cooperative network of people living and working in the Klamath-Siskiyou. The CKS FLN has since launched the Northern California Prescribed Fire Council; hosted a listserve for sharing locally relevant research, learning and opportunities; and worked with partners to continue engaging in regional and local planning efforts and partnerships that are leading to landscape-scale adaptive restoration for the Klamath-Siskiyou.

In 2011 the network co-sponsored the Klamath Fire Ecology Symposium, sponsored two meetings of the Northern California Prescribed Fire Council, supported the completion of an educational video on prescribed fire and continued working to engage new partners to sustain and strengthen collaborative planning processes throughout the region.



Looking east from Hayfork Bally, this part of the southwestern Klamath Mountains encompassing Grass Valley Creek and the South Fork Trinity River watersheds, contains some of the gentlest slopes in the entire CKS landscape. © Caleb Dean/WRTC

Network Vision

The California Klamath-Siskiyou region is rich in diverse ecological and human communities. These communities, and their associated values, are threatened by past and present land use practices and by the impending impacts of climate change.

We intend to use the CKS FLN as a venue for improving landscape-scale planning and implementation, scaling up strategies to protect and restore the valuable ecology and communities of the region through collaborative, region-wide, ecologically and socially appropriate ecosystem restoration and sustainable stewardship of natural resources.

Trinity Mountains (including Hayfork Basin) Western Klamath Mountains



map © 2011 Liz Rank/TNC

The Northern California Prescribed Fire Council

From the beginning, leaders in the California Klamath-Siskiyou FLN recognized that increasing the scale and sophistication of prescribed fire and effective wildfire management would require processes for sharing ideas and innovations, overcoming policy and social barriers and increasing investment in training and workforce development. With leadership from Dr. Morgan Varner (Humboldt State University) and Will Harling (Mid Klamath Watershed Council and Orleans/Somes Bar Fire Safe Council), The Watershed Research and Training Center was able to bring funding together with support from the Fire Learning Network to launch the Northern California Prescribed Fire Council; the Council was one of the first created in the West.

In 2011, the Council launched its website, held its fifth and sixth semiannual meetings, developed a work and development plan and committed to hosting its first local prescribed fire training exchange. Participation in the Council has continued to grow, and it has inspired the first stirrings of a council forming in the southern part of the state. It is clear to partners that prescribed fire is going to be a growing part of this landscape's restoration future.

> More information: *www.thewatershedcenter.com* Follow links to the California Klamath-Siskiyou FLN and the Northern California Prescribed Fire Council

Top: The headwaters of Cold Camp Creek represent only a small fraction of over 200,000 acres of fire that burned across the Trinity Mountains landscape in 2008, seen here in 2009. *Bottom*: Partners from the Hayfork Basin Demonstration Landscape participants in a field tour to discuss strategies that integrate community wildfire protection and forest restoration. © *Nick Goulette/WRTC; Josh Smith/WRTC*

Network Partners

Bureau of Land Management -Redding Field Office CAL FIRE Firestorm WFS Inc. Humboldt State University Karuk Tribe Mid Klamath Watershed Council Northern California Prescribed Fire Council **Orleans /Somes Bar Fire** Safe Council **Trinity County Resource Conservation District USDA** Forest Service–Pacific Southwest Research Station USDA Forest Service-Klamath, Shasta-Trinity and Six Rivers National Forests **USDA Natural Resource Conservation Service** Watershed Research and Training Center



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Trinity Mountains

The Trinity Mountains dominate the southern extent of the California Klamath-Siskiyou ecoregion. Like the rest of the region, forests and watersheds in the Trinity Landscape are at risk from the effects of uncharacteristic wildfire. With nearly a million acres burned over the last two decades—including over 200,000 acres in 2008 alone—residents and fire managers are becoming accustomed to the costs and benefits of large-scale wildfire events. Most agree that achieving a balance of ecological and social benefits from the region's ecosystems will require a significant measure of active management through forest thinning and prescribed fire to ensure that landscape's resilience is enhanced and maintained.

Federal agencies, which manage nearly 80 percent of the landscape, are working with state agencies, nonprofit partners, conservation organizations, industry and local communities to forge broadly-supported strategies for advancing landscape scale restoration. Partners from the Trinity Mountains landscape are working together to advance active restoration through new collaborations and partnerships.

In 2011, the Trinity Stewardship Group formed as a collaboration of local stakeholders committed to forging common ground and advancing adaptive management of local forest resources through community wildfire protection, forest restoration and sustainable forestry projects. The group is working with local Forest Service staff on building broadly supported projects and will be helping to host a series of science lectures in 2012 to help elevate the collective awareness of local citizens, stakeholders and managers of the best available science that should help guide management planning and actions.

Also new in 2011, landscape partners came together under the auspices of the Trinity Integrated Fire Management Partnership. With support from Scaling-up to Promote Ecosystem Resiliency, an initiative of the

Landscape Goals

Partners work to develop science-based, broadly supported plans and strategies that will advance landscape-scale restoration, and implement projects at meaningful scales that will enhance the resilience of the region's forests, wildlife and communities.

California Klamath-Siskiyou FLN California 1.9 million acres



Ranchland owners in the Hayfork Valley are working with The Watershed Center, The Nature Conservancy, and local and federal land and fire management agencies to begin implementing cross-boundary prescribed burning projects for ecological restoration and other resource and community benefits. © *Nick Goulette/WRTC*

Forest Service and The Nature Conservancy, local fire managers are coordinating with state and federal fire managers and local landowners throughout the Trinity landscape to implement cooperative prescribed burning. Joint activities will include multi-property burn planning to improve alignment and efficiency; shared training to build qualifications, relationships and capacity; and implementation of cooperative burning on thousands of acres over the next two years. With this, the vision of the Trinity Mountains landscape partners will begin to be realized on the ground.



Partners from Trinity County participated in an integrated watershed management planning process for Hayfork's Municipal watersheds that is now yielding coordinated landscape restoration projects including forest thinning, oak woodland restoration, watershed restoration and prescribed burning on both public and private lands. © *Nick Goulette/WRTC*

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The forest surrounding Ewing Reservoir, which serves the community of Hayfork, will be treated with prescribed fire in 2012. By removing excess fuels, the watershed will have a reduced risk of severe wildfire that would leave the soil bare and subject to erosion.

Over the 2011 field season, private lands in the Hayfork Basin were treated in an effort to set the stage for the landscape-scale prescribed fire initiative which will begin in the spring of 2012. Preparations for this initiative have spanned the past 10 years and include participation in the Community Wildfire Protection Plan process, interviewing private landowners regarding attitudes toward prescribed fire, implementation of defensible space treatments and fuel management zones on public and private lands, and, most recently, conducting training and workforce development to prepare local citizens to lead prescribed burns in the Hayfork Basin.

Bringing fire back to the people by integrating this management practice into the local culture will yield social, economic and ecological benefits. Empowering local people with this stewardship tool holds promise as a low-cost and effective management prescription, and also as an agent of positive community engagement and participation.

The initiative's first planned burn–scheduled for implementation in 2012– spans ownership boundaries and includes oak woodland restoration, community water supply protection, rangeland improvement and invasive species control measures.

FLN History

The Hayfork Basin landscape joined the U.S. Fire Learning Network in 2006 as an independent demonstration landscape. It became the anchor site for the regional Klamath-Siskiyou FLN, which was created in 2008. In 2011, the Hayfork Basin and surrounding Trinity Mountains landscape merged, to better work at landscape scale. Activities are coordinated by the Watershed Research and Training Center, a community-based group founded in 1993 and based in Hayfork, California.

Landscape Partners

Bureau of Land Management -Redding Field Office CAL FIRE Hayfork Volunteer Fire Department Post Mountain Volunteer Fire Department The Nature Conservancy **Trinity County Fire Safe** Council **Trinity County Resource Conservation District** USDA Forest Service–Pacific Southwest Research Station, Shasta-Trinity National Forest, Six Rivers National Forest **USDA Natural Resources Conservation Service** Watershed Research and **Training Center** Weaverville Volunteer Fire Department

Western Klamath Mountains

The Western Klamath Mountains landscape joined the Fire Learning Network in the summer of 2009. The majority of this landscape falls within the Klamath and Six Rivers National Forests and the ancestral territory of the Karuk Tribe. Only five percent of this landscape is privately owned, but fire management strategies focus primarily on protection of private lands. As part of the FLN, partners are working together to create a landscape-level fire and fuels management strategy that meets the needs of its numerous stakeholders.

The landscape has one of the most complex fire environments in the U.S., with a complicated assemblage of slope, aspect, soil and vegetation types spread across elevations ranging from 500 to 9,000 feet. Characterized by warm, dry summers and cool, wet winters, lightningcaused and anthropogenic fires are important ecological processes in the Klamath Mountains. A century of fire suppression has caused much of the landscape's fire return intervals to lengthen past their normal range, leaving forests susceptible to the uncharacteristically intense fires that have become an annual experience in recent years.

The strategic reintroduction of fire at the landscape level is necessary to preserve and enhance the cultural and natural resources of the region, from forests that contain the highest diversity of conifers in the world to streams that support threatened populations of wild spring Chinook and coho salmon. California Klamath-Siskiyou FLN California 1.1 million acres



Smoke from the 2008 wildfires rises from behind Offield Mountain. The Klamath River (foreground) provides one of the only dependable fuelbreaks in this rugged landscape. © *Will Harling/MKWC*

"Support from the FLN has allowed stakeholders to move much closer to a common vision for landscape-level fire management in the Western Klamath Mountains. Focused planning efforts have created opportunities for collaborative fuels reduction and prescribed fire projects designed to enhance existing and potential strategic fuelbreaks bridging multiple land ownerships."

> Will Harling, Executive Director Mid Klamath Watershed Council



The 2008 Ukonom Complex fires burn through a snag patch created by the large wildfires of 1987. Research has shown that fires that occur within 10 years of a previous fire can have beneficial effects on forests and forest soils, while longer fire return intervals result in fires that burn at higher intensities. © *Wind Beaver/MKWC*

Landscape Vision

The partnership is working to reinstate historical fire regimes in a way that protects life and property, improves forest health and enhances resources valued by all stakeholders. The partnership will create a plan that will protect communities from severe wildfires and will guide the planning and implementation of restoration, management and research projects that will ultimately allow for the reintroduction of low to moderate intensity fire across much more of the landscape.

Contact:



map © 2011 Liz Rank/TNC

Landscape Partners

Firestorm Wildland Fire Suppression, Inc. tools. Karuk Tribe Mid Klamath Watershed Council Orleans / Somes Bar Fire Safe Council USDA Forest Service—Klamath and Six Rivers National Forests

Recent Accomplishments

In 2011, partners from this landscape:

- Coordinated and hosted the 2011 Klamath Fire Ecology Symposium; presentations from this are posted on the Mid Klamath Watershed Council website at www.mkwc.org.
- Participated in the Northern California Prescribed Fire Council, including work on the steering committee.
- Participated in the Forest Service Region 5 Fuels Management strategic planning effort.
- Coordinated seven prescribed burns (75 acres) on key parcels of private property.
- Continued to work on a video highlighting issues and opportunities in prescribed fire in northwest California; this video highlights Jim Agee (fire ecologist, author, professor emeritus at University of Washington), Mike Beasley (Six Rivers NF Deputy FMO), Kathy McCovey (Karuk Tribe basketweaver), Tim Ingalsbee (Firefighters United For Safety, Ethics and Ecology) and others.
- Were invited by the Forest Service to participate in Wildfire Decision Support System (WFDSS) training and coordination meetings. The FLN provided key data for improved pre-fire planning, and is expected to be involved during wildfire events, enabling better communication and decision-making; the Western Klamath Mountains FLN is one of the first to be engaged in this collaborative use of wildfire planning tools.





Left: Klamath Fire Ecology Symposium participants discuss strategies for managing dense fir stands that have resulted from fire exclusion. Right: In the spring of 2011, the Mid Klamath Watershed Council, Orleans Somes Bar Fire Safe Council and Firestorm WFS, Inc, implemented a prescribed burn on private property to maintain the effectiveness of a large fuelbreak protecting a group of midslope homes in the Ishi Pishi neighborhood. © Will Harling/MKWC