Planning and Implementing Cross-boundary, Landscape-scale Restoration and Wildfire Risk Reduction Projects

A Guide to Achieving the Goals of the National Cohesive Wildland Fire Management Strategy

Daniel Leavell, Amy Markus, Craig Bienz, Kellie Carlsen, Emily Jane Davis, Michael Douglas, David F. Ferguson, Lee Fledderjohann, Kasey Johnson, Ned Livingston, Jason Pettigrew, Gene Rogers, Marci Schreder, Dan Shoun, and Leigh Ann Vradenburg
Foreword

by Ned Livingston

A short history of the Gerber Ranch would show a typical eastern Oregon two-story, wood-framed main house with veranda (a building that doubled as a school and post office) on homestead patents issued in the late 1800s. For those familiar with Lewis A. McArthur’s book, Oregon Geographic Names, the town of Olete is described briefly. The ranch’s original headquarters was in Olete, and the current ranch house is still on the town’s historical location. The operation used the natural meadows for hay and pasture, and the rock flats for summer grazing. The timber portions were either used for barn building or treated as a nuisance. The economic engine of the ranch in the early years had four legs and a tail; anything related to the trees was not part of the economic equation.

We worried about weather and fire, lived with both, and had a “you take what you get, and you don’t complain” attitude. From 1890 to 1990, the ranch had twelve major wildfires that were 40 or more acres within 12 miles of the ranch headquarters. We experienced twelve such fires: two were structure fires at the ranch; three were 40 to 80 acres; five were 600 to 1500 acres; and two were 3,000 to 7,800 acres. Of all the fires, only three were man-caused; the others originated as lightning strikes.

Several of the early blazes were allowed to burn until winter because there was no manpower or equipment to do otherwise. Depression-era Civilian Conservation Corps crews fought at least one of the blazes, and four others required some or all of the ranch’s personnel and equipment in putting them out. One of the structure fires was limited because it was the early part of a still-damp month in June. That was in 1949 when one of the hired men mistakenly refilled the kerosene tank on the ranch refrigerator with gasoline. That was the end of Olete, Oregon, at least as the old-timers remembered it.

So, what impact has this history of fire had on our tiny community? Some might say that it gave the people a gritty, passive stoicism as they learned to accept the power of forces beyond their control. This kind of attitude is essential if you are planning to live on the land. Just ask any farmer. But we don’t have to be unprepared while waiting for the inevitable. We have learned through experience that we can plan and practice for disasters, and maybe even avert them.

We live in a high fire-hazard area and have all the accompanying problems and responsibilities. Our survival in a disaster situation is of primary concern to us. But the properties surrounding ours—which belong mainly to the United States Forest Service, the Bureau of Land Management, and private industry—are equally important to us. If we cause a fire, the impact would most likely extend far beyond our ranch boundaries. This concern is always in the back of our minds.

As a result, the ranch has developed a fire program of its own over the years. In terms of protection and the prevention of human-made fires, fire safety is first on the list. As for Mother Nature and her lightning storms, we prepare for and are equipped to fight any fire on the ranch.

Our equipment list includes:

- D-6 CAT with canopy
- 700-gallon water trailer with 400 feet of hose reel and manual start pump
- WAJAX BB 4, electric-start pump stationed next to a fish pond in front of our structure complex
- 1,000 feet of 1½ inch cloth fire hose and reel house
- Sprinkler system on the one shingle roof we have

“In short, we have a healthy respect for fire.”

Ned Livingston
We also have fire extinguishers on all gas-fired equipment, in every major room in the house, and in every room in the shop building. We have a permanent, gravity-fed domestic water supply of 28 gallons per minute at 20 lb PSI, which we use as an additional wet-down source. And last but not least, we have a maintenance and fire drill program for the whole family. In short, we have a healthy respect for fire.

Two of the best long-term fire tools we have on the ranch are silvicultural practices: thinning and pruning. We dedicate one man—me—to 50 acres of thinning per year. We allow growing space by selective cutting and reduce the fuels by crushing with a crawler tractor. It’s a labor-intensive but extremely effective fire prevention tool.

The way I see it, we are not landowners as much as we are land stewards. We have a lot to do and not much time to do it. The fact that we own land may give us what we loosely call “rights,” but I would argue that what we really have is lots of “responsibilities.” The biggest and most important of these responsibilities is to ensure the viability of our land for the future. And that is no small task!

“The fact that we own land may give us what we loosely call “rights,” but I would argue that what we really have is lots of “responsibilities.” The biggest and most important of these responsibilities is to ensure the viability of our land for the future. And that is no small task!”

Ned Livingston

Underburning on the Gerber Ranch in partnership with the BLM, 1995
Acknowledgments

Project leaders and authors

Amy Markus (Lead), Fremont-Winema National Forest, Forest Wildlife Biologist
Daniel Leavell (Co-lead), Oregon State University, Extension Agent Klamath and Lake counties

Co-authors

Craig Bienz, The Nature Conservancy, Director of Sycan Marsh Preserve
Kellie Carlsen, retired Oregon Department of Forestry Stewardship Forester
Emily Jane Davis, Oregon State University, Forestry and Natural Resources Extension, Assistant Professor
Michael Douglas, GIS Consultant
David F. Ferguson, District Conservationist Klamath County Natural Resources Conservation Service
Lee Fledderjohann, Collins Pine Company, Resource Manager
Kasey Johnson, Oregon Department of Forestry Natural Resources, Specialist I Field Forester
Ned Livingston, Gerber Ranch
Jason Pettigrew, Oregon Department of Forestry Natural Resources, Specialist II
Gene Rogers, Wildland Fire Technologies, Inc.
Marci Schreder, Lake County Umbrella Watershed Council, Watershed Coordinator and Project Manager
Dan Shoun, Lake County Commissioner
Leigh Ann Vradenburg, Klamath Watershed Partnership, Project Manager

Contributors

Sophia Carroll, Oregon State University Klamath Basin Research and Extension Center, Office Assistant
Alicia Christiansen, Oregon State University, Extension agent Douglas County
Mike Cloughesy, Oregon Forest Resources Institute, Director of Forestry
Ryan Gordon, Oregon Department of Forestry, Family Forestland Coordinator
Karen Hardigg, Rural Voices for Conservation Coalition, Director
Heather Heward, University of Idaho Department of Forest Rangeland and Fire Sciences, Instructor
Reese Lolley, The Nature Conservancy, Washington State Director of Forest Restoration and Fire
Kevin Zobrist, Washington State University Extension, Extension Forester

A special thank you to the contributors who reviewed this manuscript and provided valuable feedback and comments. This manuscript is much improved due to their time, effort, and professional expertise.
About the authors

**Craig Bienz** is the Director of The Nature Conservancy Sycan Marsh Preserve and has extensive expertise restoring resilient systems and communities. His passion is with disturbance mechanisms, such as fire and hydrologic regimes, which affect ecosystem function, forest structure, and species composition. His experience in multiparty, cross-jurisdictional agreements has brought people and agencies together in million-acre land management and restoration projects. Craig has incorporated monitoring and research in ways that have increased efficiencies, reduced costs, and provided examples of cross-boundary restoration.

**Kellie Carlsen** was the Oregon Department of Forestry Stewardship Forester in Lakeview from 2004 through 2017. After 38 years of forestry and fire experience, she retired in 2017. She began her career in 1979 on the Wallowa-Whitman National Forest, where she worked in seasonal and permanent positions in silviculture, timber, fuels, and fire management, including one year on the Redmond Interagency Hotshot Crew. In 1995, she accepted a forestry position in the State Forests Program with the Oregon Department of Forestry in Klamath Falls. In 2000, she transferred to Lakeview as the protection supervisor in the Fire Protection Program. In 2004, she was promoted to the stewardship forester position in the Private Forests Program, where she administered the Forest Practices Act rules and helped forest landowners.

**Emily Jane Davis** is an Assistant Professor in the Department of Forest Ecosystems and Society and an Extension specialist in the Forestry and Natural Resources Extension Program at Oregon State University. Her research and technical assistance focus on natural resource collaboration and governance.

**Michael Douglas** is a GIS Analyst and Geologist who has been fortunate enough to live in the Pacific Northwest for the past 15 years working on a variety of geologic, geophysical, and natural resources mapping projects.

**David F. Ferguson** is the District Conservationist for the USDA Klamath County Natural Resources Conservation Service. David has been a district conservationist since 2004, working also in California and Ohio. His career started with the Idaho Soil Conservation Commission from 1991 to 2004. David now has 27 years of experience working with agricultural producers and nonindustrial forest landowners.

**Lee Fledderjohann** (retired) was the Resource Manager for Collins Pine Company in Lakeview, Oregon. Collins Pine Company is the first company in the United States certified under the Forest Stewardship Council’s Forest Certification Program. Lee and his associates manage 98,000 acres of company-owned, eastside dry pine in the Lakeview area. He has over 36 years of experience in the timber industry.

**Kasey Johnson**'s interest in forestry and forest ecosystems started at a young age while growing up in Central Oregon and spending time in the woods hunting and fishing with his dad and brother. He graduated from Oregon State University in 2015 with a Bachelor of Science in forest management. After graduation, he worked on the Southern Oregon Coast for a timber consulting company, later moving closer to his home range in Eastern Oregon. Since 2016, he has worked for the Oregon Department of Forestry in Lakeview, where he enjoys applying his forestry knowledge in Klamath and Lake counties.

**Daniel Leavell** is an Assistant Professor of practice and Extension Forest/Fire Science Agent in Oregon State University’s Forestry and Natural Resources Extension Program. He has been assigned to Klamath and Lake counties since 2014. From 1978 to 2012, he served on Incident Management Teams and as an individual resource for emergency operations. He was a volunteer fire chief (firefighter and EMT) for a rural, northwest Montana fire service area from 2006 to 2012. From 1973 to 2010, Daniel worked for the U.S. Forest Service in forestry, natural resources, and fire.

**Ned Livingston** is a private landowner and co-owner of the Gerber Ranch. Ned is a founding member of the Klamath-Lake Forest Health Partnership.

**Amy Markus** has a degree in biology from Northland College and has worked as a Wildlife Biologist on the Fremont-Winema National Forest for 21 years. Her key interests include forest restoration at landscape scales through partnerships and collaboration.
**Jason Pettigrew** has been with the Oregon Department of Forestry for 19 years, serving as a Natural Resource Specialist I Field Forester and Wildland Fire Suppression Supervisor. He is currently a Natural Resource Specialist II Stewardship Forester.

**Gene Rogers** has been a private consultant specializing in wildland fire and forest management topics and products since 2003. He retired as a forester in a Deputy Fire Staff Officer position on the Fremont-Winema National Forest in July of 2003. Gene held a variety of fire management jobs between 1970 and 2003, working with the U.S. Forest Service, National Park Service, and the Bureau of Land Management. He has held numerous qualifications in wildland suppression and prescribed fire, and is currently a fire behavior analyst. Gene received a Bachelor of Science in natural resources from Humboldt State University. He completed postgraduate studies in forestry at Humboldt State and wildland fire studies at the University of Washington.

**Marci Schreder**, Watershed Coordinator and Project Manager for the Lake County Umbrella Watershed Council, has spent her career working in the fields of agriculture and natural resource management with the U.S. Forest Service. This experience has helped prepare her to be effective in her current position in Lakeview, Oregon. She has worked in this capacity for 12 years, representing private lands and working across jurisdictional boundaries to implement multiple restoration projects throughout Lake County.

**Dan Shoun** has been a Lake County Commissioner for the past 12 years. Before becoming a county commissioner, Dan was an employee for the Fremont-Winema National Forest and Lakeview District Bureau of Land Management for over 32 years, retiring as the Deputy Interagency Fire Staff. During Dan's tenure as commissioner, he has been the chair of Oregon Public Lands and has served on both the Western Interstate Region executive board and the board of directors for the National Association of Counties Public Land Committee (NACPLC). Dan has represented NACPLC as the county official on the Wildland Fire Leadership Council, the group that was given the charge of developing the National Cohesive Wildland Fire Management Strategy.

**Leigh Ann Vradenburg** is a Project Manager for the Klamath Watershed Partnership, a local nonprofit that is the designated Watershed Council for the Upper Klamath Basin. She has 16 years of management experience with nonprofit conservation organizations in Oregon, New Mexico, and Colorado.