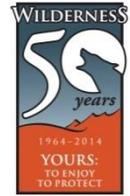


Aldo Leopold Wilderness Research Institute

Providing scientific leadership to sustain the enduring values and benefits of wilderness



USDA - Forest Service and USDI - Bureau of Land Management, Fish and Wildlife Service, Geological Survey, and National Park Service

Evaluation Framework for Proposed Ecological Intervention and Restoration in Wilderness

Project Summary

Every year, the four agencies that manage wilderness—the BLM, FS, FWS, and NPS—receive hundreds of proposals to implement ecological restoration actions within the National Wilderness Preservation System (NWPS), a network of 762 units across nearly 110 million acres of public land. The combination of climate change with other landscape stressors is driving ecological restoration to be one of the single most important, challenging, and potentially litigious wilderness stewardship issues because decisions need to incorporate diverse legal, scientific and ethical considerations. Agencies charged with managing wilderness need transparent, defensible criteria to evaluate proposed ecological restoration activities within the NWPS. Current law and policies do not provide explicit support for decision-making, and management decisions often reflect views based on varying philosophical, cultural, and ethical beliefs about the fundamental values of wilderness. The Leopold Institute has been working with NWPS managers to develop an early project planning tool to be used with wilderness restoration proposals prior to the Minimum Requirements Analysis and NEPA.

Project Components and Timeline

- Draft interagency *Evaluation Framework for Proposed Ecological Intervention and Restoration in Wilderness* – March 2014
- Interagency workshop to revise draft framework – March 2014
- Webinars – NOAA/FWS Restoration Series, June 2014; Carhart Wilderness Training Center, July 2014
- Presentations – Society for Conservation Biology, July 2014; National Wilderness Conference, October 2014, National Wilderness Workshop, October 2015
- Pilot testing of Evaluation Framework – January 2015-March 2016
- Interagency review of revised Evaluation Framework – June-September 2016
- Final *Evaluation Framework for Proposed Ecological Intervention and Restoration in Wilderness*, online Technical Guide, peer-reviewed publications, webinars and presentations – December 2016

Project Benefits

The final Evaluation Framework for Proposed Ecological Restoration and Intervention in Wilderness will facilitate credible, defensible wilderness stewardship by being: comprehensive and systematic, providing a structured basis to evaluate criteria involving law and policy, ecological understandings, and ethical considerations; broadly applicable, by being relevant across the country to all NWPS units and agencies; and, locally flexible, to allow for modification to reflect local thinking and values regarding wilderness and restoration.

Project Contact

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FWS Pilot Tests

- **Kenai Wilderness, Kenai NWR, Alaska | June 2015**

Issue: Landscape-scale conversion of spruce forests to grasslands from the combination of spruce beetle outbreaks, increased human-caused fires and climate change

Participating Staff: Andy Loranger, John Morton, Dawn Magness, Todd Eskelin

- **Farallon Wilderness, Farallon NWR, California | November 2015**

Issue: Eradication of non-native mice to improve avian nesting success and native vegetation

Participating Staff: Gerry McChesney, Chris Barr, Jonathan Shore

Participating Partners: Sean Cross (Regional Wilderness Coordinator, Modoc NWR), Barbara Goodyear (Field Solicitor, USDO), John Isanhart (Restoration Ecologist, USDO NRDAR), Russ Bradley (Farallon Program Manager, Point Blue)

- **Kofa Wilderness, Kofa NWR, Arizona | December 2015**

Issue: Wildlife water installations

Participating Staff: Greg Risdahl, Elaine Johnson, Christa Weise, Nate Caswell, Tyler Barrett

- **Moosehorn Wilderness, Moosehorn NWR, Maine | December 2015**

Issue: Red pine preservation using prescribed fire, Removal of water diversions

Participating Staff: Steve Agius, Brandon Harriman, Amanda Hardaswick, Mike Krug, Maurry Mills, Mike Heath, Peggy Sawyer, Ray Brown

Participating Partners: Tony Davis (FWS-NPS Zone Fire Management Officer), Andy Keck (Ecologist, Maine Natural Areas Program), James Petersen (Volunteer)

BLM – Pilot Tests

- **Steens Mountain Wilderness, Burns District, Oregon | January 2016**

Issue: Juniper removal

Participating Staff: Rhonda Karges, Justin DeCroo

FS – Pilot Tests

- **Charles C. Deam Wilderness, Hoosier NF, Indiana | February 2015**

Issue: Prescribed fire and herbicide application to treat invasive plants

Participating Staff: Eric Sandeno, Chris Zimmer, Terry Severson, Gary Dinkel, Stacy Duke, Judi Perez, Jeremy Kolaks, Shawn Woodbury, Rod Fahl, Jason Isbell, Jonathan LeBlanc, Cheryl Coon, Mike Chaveas

- **Bell Mountain Wilderness, Mark Twain NF, Missouri | February 2015**

Issue: Oak glade and Mead's milkweed restoration using mechanical thinning and prescribed burning

Participating Staff: Jim Cornelius, Tim Bray, Reggie Bray, Jess Register, Darla Rein, David Erwin, Angela Sokolowski, Adam Overcast, Marilyn Silva, Jody Eberly, Amanda Walker, Eric Sandeno, Jennifer Falkey, Timothy Eash, Becky Ewing, Jonathan Brooks, Kenyata Lawyer

- **Kendrick Mountain Wilderness, Kaibab NF, Arizona | December 2015**

Issue: Post-fire restoration

Participating Staff: Danelle Harrison, Richard Gonzalez, Jessica Ouzts, Justin Schofer, James Pettit, Ariel Leonard, Liz Schuppert, Julie Rowe, Micah Grondin

- **Pasayten Wilderness, Okanogan-Wenatchee NF, Washington | May 2015**

Issue: Whitebark pine restoration

Participating Staff: Jennifer Zbyszewski, Nancy Lankford, Jen Fitzpatrick, Vicky Erickson, Connie Mehmel, Robyn Darbyshire, Lisa Machnik, Andy Bower, Mark Skinner

- **Weminuche Wilderness, Rio Grande NF, Colorado | May 2015**

Issue: Rio Grande cutthroat trout restoration

Participating Staff: Randy Ghormley, Mike Welker, Dale Gomez, Martha Williamson, Adam Mendonca, Tina Ghormley, Andrea Jones, Nancy Taylor, David Topolewski, Ralph Swain, Jody Fairchild, Lisa McClure, Dan Dallas

Participating Partners: John Alves, Stephanie Ferraro, Benjamin Felt, Brent Woodward (Colorado Parks & Wildlife)

NPS – Pilot Tests

- **Wupatki Eligible Wilderness, Arizona | December 2014**

Issue: Tamarisk removal

Participating Staff: Lisa Leap, Josh Kleinman

- **Crater Lake National Park Recommended Wilderness, Oregon | May 2015**

Issue: Whitebark pine restoration

Participating Staff: Jennifer Beck, Mac Brock, Sean Mohren

- **Glacier National Park Proposed Wilderness, Montana | September 2015**

Issue: Non-native species management

Participating Staff: Amy Secrest, Dawn LaFleur, Kyle Johnson, Mary Riddle, Phil Wilson, Mark Biel, Richard Menicke, Matt Kennedy, Artemisia Turiya

- **Beaver Basin Wilderness, Pictured Rocks National Lakeshore, Michigan | October 2015**

Issue: American beech forest restoration

Participating Staff: Gary Lippard, Cindy Heyd, Leah Kainulainen, Bruce Leutscher, Roger Semler

- **Phillip Burton Wilderness, Point Reyes National Seashore, California | January 2016**

Issue: marine restoration, dune restoration

Participating Staff: Ben Becker, Dave Brouillettek, Cicely Muldoon, Kevin McKay, Brannon Ketcham, David Schifsky, Gordon White, John Golda, David Press, Melanie Gunn

Participating Partners: Samaria Jaffe (Point Reyes National Seashore Association)

- **Channel Islands National Park Proposed and Potential Wilderness, California | March 2016**

Issue: accidental introduction of non-native rats; cloud forest restoration of island oaks

Participating Staff: Paula Power, Rocky Rudolph, Laura Kirn, Travis Poulson, Karl Bachman, Yvonne Menard, David Mazurkiewicz, Russell Galipeau

Participating Partners: Kathryn McEachern (USGS); Eamon O'Byrne, John Randall, Scott Morrison, Christie Boser (The Nature Conservancy – California)