

MARSHALL WOODS RESTORATION PROJECT

CHALLENGES TO BUILDING CONSENSUS AND CONVEYING FIRE HAZARD
MITIGATION AND ECOLOGICAL RESTORATION NEEDS TO THE PUBLIC



Field Trip Summary 14 | May 2018

Missoula District Ranger Jennifer Hensiek and other field trip presenters (see list of presenters at end) led participants on a tour through a portion of the Marshall Woods Restoration Project in the Rattlesnake National Recreation Area on the Lolo National Forest. The tour included stops throughout the project area to view thinning and prescribed burn treatments, as well as stops on private land adjacent to the project area that demonstrated the importance of community and partner engagement to project success. In addition to the social and ecological aspects of the fuel treatments, participants learned about the unique challenges presented by this project and how they were addressed.

OVERVIEW

The 28,000-acre Rattlesnake National Recreation Area (RNRA) lies immediately northwest of Missoula, Montana, and is a highly popular recreation destination with an estimated 60,000 annual visitors. The immediate area also contains thousands of residences situated within the Wildland Urban Interface (WUI). In 2005, Missoula County's Community Wildfire Protection Plan identified the RNRA as having the 2nd highest wildfire risk in the county, which prompted the early stages of restoration planning in the 13,000-acre Marshall Woods project area (Figure 1).

In addition to reducing fire risk, the primary objectives of the project included forest restoration (enhancement of resilient vegetative communities, terrestrial habitats and water quality), reintroduction of fire, opportunities for restoration education, and recreation enhancements (e.g., trail improvements). The number of unique stakeholders invested in the project area resulted in a lengthy and, at times, contentious decision process, meaning that the final authorization and implementation of fuel reduction treatments, weed spraying and other actions did not begin until 2016. Through partnerships with local landowners, Missoula County, and the Montana Department of Natural Resources and Conservation (MT DNRC), the Lolo NF has observed increased acceptance and expansion of fuel reduction treatments to lands adjacent to the Marshall Woods Restoration project area, thereby increasing both the ecological and social effectiveness of the project.

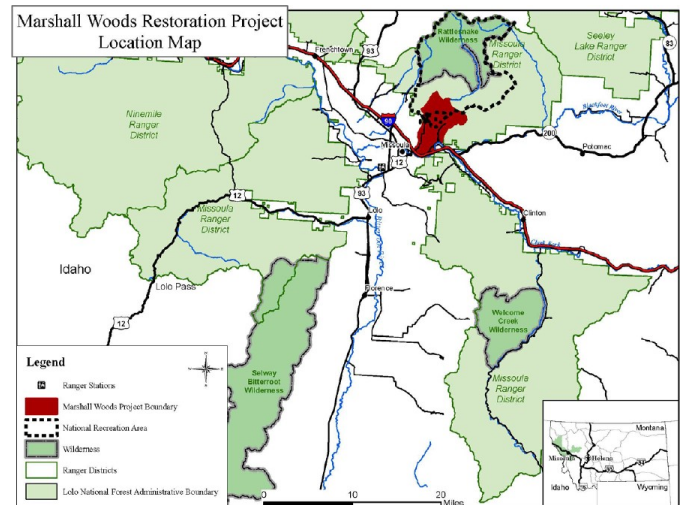


Figure 1. Marshall Woods Restoration Project area map.

ECOLOGY AND HISTORY

The RNRA is composed primarily of ponderosa pine/Douglas-fir and mixed conifer (western larch, Douglas-fir, ponderosa pine and lodgepole pine) stands. Almost a century of fire suppression has produced an atypically high tree density and heavy fuel loading, and shifted the relative abundance of tree species to favor Douglas-fir over the more fire resilient ponderosa pine and western larch.

The land currently designated within the RNRA has a long history of human habitation stretching back to the 13th century. The area is traditional territory for the Salish, who inhabited the area long before European settlers arrived at Rattlesnake Creek during the 1800s. The settler population in the area peaked at 139 people in 1910, with an operating schoolhouse and phone line serving the community. The entire Rattlesnake Creek drainage and surrounding areas were extensively logged throughout the late 1800s and early 1900s, primarily to provide railroad ties for the Northern Pacific Railroad. A major fire burned through the valley in 1919, the last fire that these forests experienced. Montana Power acquired much of the land in 1936 and halted logging operations in order to protect the watershed, which was the historical municipal watershed of Missoula.

In 1980, Congress designated the RNRA, the only National Recreation Area in the U.S. Forest Service Northern Region

(Rattlesnake National Recreation Area and Wilderness Act of 1980, P.L.96-476). This designation includes unique management requirements, some of which were difficult to interpret, and contributed to contentious discussions when the Marshall Woods project planning process began over two decades later.

PLANNING AND IMPLEMENTATION

In the early 2000s, natural resource management in the Missoula area was marked by polarization among timber and environmental groups. This led to paralysis on the ground, with proposed projects either litigated in court, or potentially too small to have a meaningful ecological impact. All stakeholders were dissatisfied with the status quo system, so in 2006, a group of upper-level officials representing agency, timber, nonprofit and other parties came together to attempt to find a “zone of agreement,” or common ground, that they shared in order to plan and accomplish work on the ground. A year of discussion within the group led to unanimous agreement around 13 Restoration Principles for “ecologically appropriate and scientifically supported forest restoration.” The Montana Forest Restoration Committee formed to promote these Principles, with a focus on National Forest System lands. Local forest- and district-level restoration committees were then established to work with the U.S. Forest Service to “ensure diverse and knowledgeable community engagement resulting in the recommendation of the selection, design and monitoring of restoration projects on National Forest System lands in Montana (MFRC 2013).”

The Lolo Restoration Committee (LRC) formed to assist with projects on the Lolo NF. In 2007 and 2008, LRC members met with Lolo NF employees to discuss project ideas in the Marshall Woods area, with a focus on promoting fire resilient species and the historic role of fire in these ecosystems. No proposed actions were agreed upon, and the start of the U.S. recession in 2008 shifted energy and funds elsewhere. During the recession, turnover in LRC membership and Missoula Ranger District leadership led to a loss of knowledge and trust, both of which needed to be rebuilt when the groups reengaged around the Marshall Woods Restoration Project in 2014.

Lack of consensus within and among stakeholder groups during the project planning process resulted in a vocal and adversarial comment period when the National Environmental Policy Act (NEPA) Environmental Assessment (EA) detailing the proposed activities and anticipated environmental impacts was released in Winter 2015. The EA presented three Alternative Actions in addition to a no-action alternative. The proposed actions included commercial tree harvest, log hauling and improvements to roads and trails throughout the project area, as well as

small-tree cutting and prescribed fire. Disagreement around whether National Recreational Area management guidelines allowed for commercial harvesting was a major issue for many in the community – in the minds of many, the idea of logging trucks coming and going from their neighborhood or favorite recreation area outweighed the project’s potential benefits. This and other views resulted in several letters to the editor of the local *Missoulian* newspaper, an extension of the public comment period, and eventual changes to the Lolo NF’s preferred action for the Marshall Woods Restoration Project.

After taking public comments under consideration, the Lolo NF ultimately made the decision to exclude removal of merchantable trees from the RNRA. Managers concluded that this reduced results in terms of treatment impact, but still achieved some desired ecological and social outcomes. The final decision combined two of the action alternatives, authorizing non-commercial thinning, hand piling and burning, slashing/and or under burning to achieve fuel reduction objectives.

Project implementation began in 2016, with thinning and hand piling along the main Rattlesnake Creek corridor. Managers noted the 8-inch diameter limit for thinning trees within the RNRA constrained the effectiveness of the fuel treatment to a certain extent; however, mortality from root rot and bark beetles provided desired target conditions in some areas. The reduction in tree density following treatment is evident at treatment unit boundaries.

The treatment area around the Main Rattlesnake Trailhead offered its own set of challenges due to its proximity to private landowners and the need to address recreation issues while still achieving treatment objectives (Figure 2).

Missoula District Ranger, Jennifer Hensiek, described the implementation on this unit as a “gardening scenario,” which the Lolo NF undertook itself rather than contracting



Figure 2. View of the thin and burn treatment at the Main Rattlesnake Trailhead.

out, in order to ensure the elimination and prevention of user-created trails in addition to achieving desired ecological outcomes.

The prescribed burn at the trailhead introduced additional social complexity with respect to adequately notifying area residents and recreationists about the burn and potential smoke impacts. Despite door-to-door and posted notifications, road signs well in advance of the burn, and newspaper and other media outreach, the Lolo NF received several public complaints during the burn. Nevertheless, public comments on the areas of the Marshall Woods Restoration Project treated to date have been overwhelmingly positive, and general acceptance of the fuel reduction treatments in such a treasured location has been viewed as a success by Lolo NF managers.

PARTNERSHIP WITH COMMUNITY

Field trip presenters suggested that, to truly meet ecological objectives and reduce fire risk at a meaningful scale, the lands adjacent to the Marshall Woods project would also need to undergo restoration treatments. The project has been viewed as a springboard opportunity to have more in-depth discussions and identify priorities with MT DNRC and neighboring landowners. A group of about 20 landowners have come together under MT DNRC leadership to complete fuel treatments on their private property adjacent to the Marshall Woods treatments. Some private landowners have taken on the role of fuel treatment “ambassadors,” and have inspired their neighbors to participate in the Hazardous Fuels Reduction Program to do projects on their own property (Figure 3).

This has been a particularly encouraging development for the Lolo NF, as project-adjacent private landowners did not



Figure 3. Missoula District Ranger Jennifer Hensiek describes the importance of the private landowners in the background, one of several “sparkplugs” adjacent to the Marshall Woods Restoration project, whose early adoption of fuel treatments educated and inspired other landowners.

participate in the NEPA comment process for the Marshall Woods project.

Missoula County is currently in the process of drafting a new Community Wildfire Protection Plan (CWPP) to assist with prioritization and planning of treatments and to integrate fire and land management objectives. As part of this process, Greg Dillon with the U.S. Forest Service’s Fire Modeling Institute, is helping with the identification of strategic fire management zones using spatial risk assessment techniques. These management zones will help land managers prioritize areas for fuel treatments to protect the WUI when a fire occurs.

The above examples of collaborations among agencies, local and state government, and private landowners to reduce fire risk and increase ecosystem resilience have helped move the conversation toward a landscape-level approach to restoration and fuel reduction treatments.

ADDITIONAL READING & INFORMATION

Community Planning Assistance for Wildfire. 2005 (Updated in 2018). [Community Wildfire Protection Plan – Missoula County, Montana.](#)

Montana Forest Restoration Committee (MFRC). 2013. [Restoring Montana’s National Forest System Lands: Guiding Principles and Recommended Implementation, 5th Edition.](#)

U.S. Forest Service. 2015. [Marshall Woods Restoration Project Environmental Assessment.](#) Missoula Ranger District, Lolo National Forest, Missoula County, Montana.

Field trip cadre – Jennifer Hensiek, District Ranger, Missoula Ranger District, Lolo NF; Sheryl Gunn East Zone Silviculturist, Lolo NF; Mike O’Herron, Area Manager, Southwestern Land Office, MT DNRC; Greg Dillon, Spatial Fire Analyst, Fire Modeling Institute, USFS RMRS; Shaun Zenner, Asst. Fire Management Officer, Missoula Ranger District, Lolo NF

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The Northern Rockies Fire Science Network (NRFSN) aims to be a go-to resource for managers and scientists involved in fire and fuels management. The NRFSN facilitates knowledge exchange by bringing people together to strengthen collaborations, synthesize science, and enhance science application around critical management issues.

