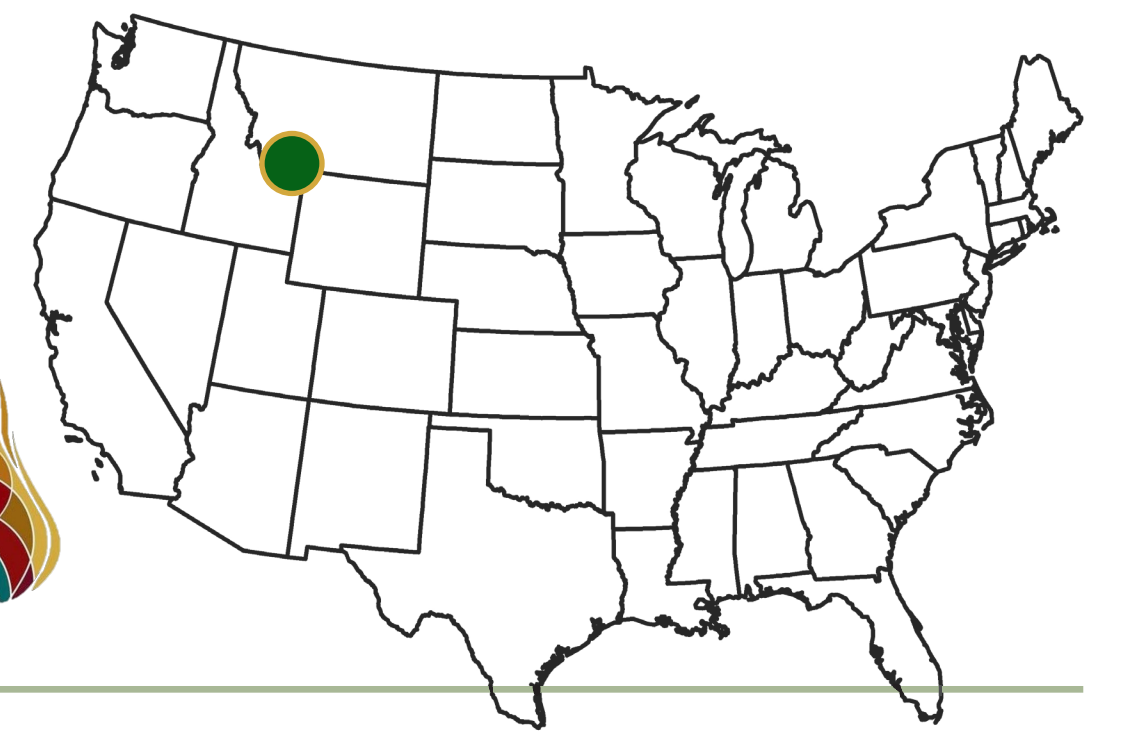


# Centennial Fire Learning Network

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**A key goal of the Centennial FLN is to prepare the landscape**—both natural and human—so that fire can once again roam and fill its ecological role. To this end, the Lakeview Community Protection Project has completed thinning in nearly all the private forests in the area, and the BLM and U.S. Fish & Wildlife Service are developing complementary projects on lands around the town. This will allow managers to let natural fires in the nearby wilderness to burn safely, and will lower the risk to fire workers if extreme fire conditions warrant fire suppression.

The FLN is also working with the Fire Adapted Communities Learning Network hub on the other side of the Centennial Mountains, in Island Park, Idaho. The groups have a mutual interest in developing coordinated plans to manage fire safely, cost-effectively, efficiently, wisely, and for the greatest benefit.

**Protecting threatened species.** To improve critical sage grouse habitat, a half dozen FLN partners are implementing a coordinated multi-year grazing plan across over 45,000 acres; the plan will improve the health of the rangeland for livestock as well as wildlife, so partners hope to spark the interest of other landowners in the Sage Grouse Initiative. With researchers from Montana State University, the effects of management and grazing on sage grouse are also being measured, and this study will help to guide land management decisions for sage grouse habitat. In the sandhills, open sand blowouts are being conserved for rare plants and tiger beetles, and monitoring of vegetation and bird communities, as well as the effects of a 2008 prescribed burn, is ongoing. Managers are also experimenting with using hand tools and volunteer labor to remove sagebrush and grasses to restore blowout habitat with fewer negative consequences than burning.

**Planning for climate change.** Through monitoring and adaptive management, partners are preparing for unexpected consequences of a changing climate. A novel water vulnerability assessment conducted by Conservancy scientists and a University of New Mexico graduate student is illuminating the effects of climate change on headwater streams in the Centennial and other valleys in southwest Montana. Preliminary results indicate that flows from north-aspect basins are more resilient to climate changes, which has important ramifications for where limited restoration and land protection resources should be invested; the results are being incorporated into state and federal fisheries planning.

**Building connectivity.** FLN partners are working to restore wetland connectivity and riparian areas by changing grazing, replacing culverts and planting willows. These changes create habitat for beaver, and recent studies have shown that beavers improve late-season flows and thus will likely protect watersheds under predicted climate change scenarios.

**Providing leadership.** The FLN provides leadership locally and regionally on forest management priorities, for example, partnering with the Greater Yellowstone Coalition and the Wildlife Conservation Society to guide management of 450,000 acres in the Gravelly. And, looking to the future, for the last several years, high school student volunteers have assisted with forestry and fencing projects, putting in hundreds of hours each summer, and Conservancy interns from urban high schools have worked on stream monitoring and other projects. These programs are engaging a new generation of scientists and citizen naturalists in on-the-ground conservation work, and providing them with experience to embark on science careers of their own.



Monitoring a test fire for the Patchtop burn in May 2013. Fire effects were not suitable, due to early green-up, so the burn—part of a Scaling-up to Promote Ecosystem Resiliency (SPER)—was postponed. Photo: TNC/Jeremy Bailey

## Network Landscapes

Centennial Valley  
Gravelly Landscape  
Henry's Lake / Island Park



## Network Partners

Bureau of Land Management—Dillon Field Office  
Greater Yellowstone Coalition  
Montana Department of Natural Resources and Conservation—Dillon Resource Area  
Montana Fish, Wildlife and Parks—Region 3  
Trout Unlimited  
U.S. Fish & Wildlife Service—Red Rock Lakes NWR  
University of Montana Western  
USDA Forest Service—Beaverhead-Deerlodge NF (Madison RD)  
USDA Natural Resources Conservation Service—Dillon Office  
Wildlife Conservation Society  
and private ranch operations



Photos: TNC/Liz Rank

## Recent Highlight: Sage-Grouse in the Valley



Photo: USFWS

**The Nature Conservancy** has been invited to take part in Candidate Conservation Agreements with Assurances (CCAAs) for sage-grouse and for arctic grayling. CCAAs are voluntary agreements between the U.S. Fish & Wildlife Service and public or private parties to identify and counteract threats to species that are candidates for listing under the Endangered Species Act (ESA). A similar project in the Big Hole valley proved so successful that the FWS deemed that area's arctic grayling population no longer ESA candidates.

**A Montana State University research** project focusing on sage-grouse is entering its second year. Radio-collared hens are being monitored to evaluate the effects of grazing and aspects of habitat on breeding, nesting and brood-rearing.

The eight-person team is based at the Conservancy's Murphy Creek headquarters, making it the hub of activity in the valley. By mid-April, researchers had collared more than 90 hens, making this the one of the largest studies of its kind ever conducted in Montana. This research will provide important information for land stewardship decisions related to sage grouse.

The Fish & Wildlife Service must complete a status review for greater sage-grouse by September 30, 2015. (For more, see <http://www.fws.gov/greatersagegrouse/>)

The Fire Learning Network is supported by Promoting Ecosystem Resilience and Fire Adapted Communities Together (PERFACT), a cooperative agreement between The Nature Conservancy, the USDA Forest Service and agencies of the Department of the Interior. For more information, contact Lynn Decker ([ldecker@tnc.org](mailto:ldecker@tnc.org)).



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