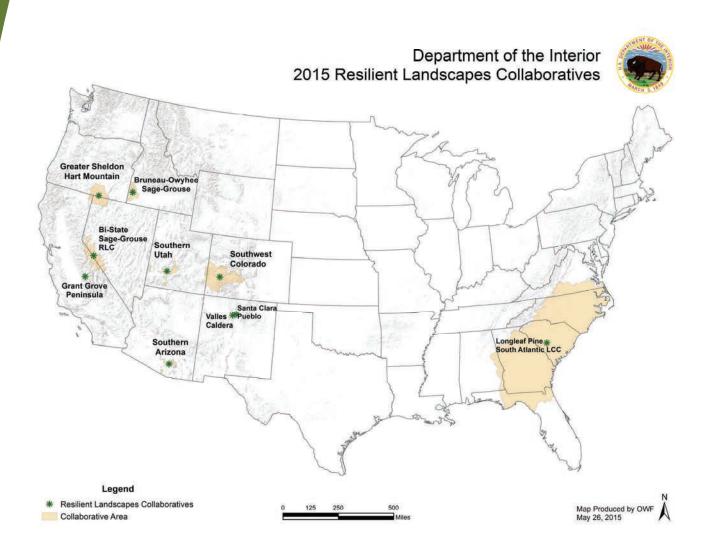
# FY 2015 Wildland Fire Resilient Landscapes Program Office of Wildland Fire U.S. Department of the Interior



Page is intentionally blank

#### Table of Contents

Background	
Bi-State	
Bruneau-Owyhee Sage-Grouse	
Grant Grove Peninsula	9
Greater Sheldon Hart Mountain	11
Longleaf Pine – Southern Atlantic LLC	13
Santa Clara Pueblo	15
Southern Arizona	17
Southern Utah	19
Southwest Colorado	21
Valles Caldera	23

Page is intentionally blank





#### **Fiscal Year 2015 Collaboratives**

Background: The Resilient Landscapes program, proposed in the Fiscal Year (FY) 2015 President's Budget, defined several key concepts for the program—integration and coordination between Interior's four wildland fire management bureaus and their natural resource counterparts and landscape-scale activities in partnership with other Federal, tribal, state, and local governmental and nongovernmental partners. Bureaus would leverage funds to restore and maintain fire resilient landscapes.



The FY 2015 President's Budget request included an increase to establish a new "Resilient

Landscapes" activity to improve the integrity and resilience of forests and rangelands by restoring natural vegetation landscapes to specific conditions and maintain fire resiliency.

Subsequently, Congress provided \$10 million in the FY 2015 Fuels Management program to fund resilient landscape activities, as a pilot initiative.

New Approach: The Wildland Fire Resilient Landscape (WFRL) program is a new approach to achieve fire resiliency goals across landscapes with collaborative efforts, as defined by the <u>National Cohesive</u> <u>Wildland Fire Management Strategy</u> and in support of Secretarial Order 3336 – <u>Rangeland Fire Prevention</u>, <u>Management, and Suppression</u>. It is not a stand-alone program with additional permanent staff funded by the program. The WFRL program strengthens the Wildland Fire Management program's ability to restore and maintain landscapes across all jurisdictions, so they are resilient to fire related disturbances in accordance with management objectives. The wildland fire approach to WFRL uses an integrated, place-based approach of partnerships among programs, activities, and organizations to increase resilience to fire. Close collaboration between the wildland fire and resource management programs is essential to address broad land-health outcomes and the ecological role of fire in fire-adapted ecosystems.

The WFRL program placed priority on proposals where landscape characteristics were at elevated risk posed by wildfire and where fire risk could be mitigated (reduce the chance of large catastrophic fires) and re-established the ecological function of fire for enhancing or protection of critical natural

resources and watersheds. Resilient Landscape Collaboratives (i.e., approved proposals) received funding at a scale to provide results over five to ten years that will significantly contribute to long-term outcomes. Those submitted proposal with a demonstrated ability to begin implementation in FY 2015 received priority.

In FY 2015, the WFRL program is a pilot effort. Office of Wildland fire will conduct tribal consultations and a program review to inform and improve development of permanent program guidelines and procedures for FY 2016 and beyond.

The OWF, under the Department's WFM program, administers and advises the program, supported by two teams:

- 1. The Resilient Landscapes Executive Committee (RLEC) is comprised of executive-level staff from land management bureaus representing fire and resource management programs that provide advice and recommendation to Director, OWF on WFRL program management and proposals for funding.
- 2. **Resilient Landscapes Resource Team (RLRT)** is a small group of senior staff with landscape program expertise to develop recommendations to the RLEC about program guidance, proposal process, and proposal evaluation, and assist in reviewing RL program.

OWF requested collaborative proposals for FY 2015 from bureau directors in March 2015. Place-based (with a discrete landscape boundary) that included Interior bureaus, tribes, and other participating Federal, state, and non-governmental organizations were evaluated against a defined, shared set of criteria.

**Proposals Awarded.** In total, OWF received 29 proposals for review. After review by the RLRT and RLEC, the RLEC recommended 13 proposals to Department senior executive leadership. The Department selected 10 proposals for funding, as follows:

Collaborative	Location/Lead Agency	Project Objective	Approved Funding
Bi-State Sage-Grouse	Within the states of Nevada and California Lead: BLM	Addresses fire and habitat resiliency for sage-grouse and wildlife and bolsters the local economy	\$395,000
Bruneau-Owyhee	Located in Idaho Lead: BLM	Treat conifer encroachment to benefit fire resiliency and the greater sage-grouse habitat	\$166,000

Collaborative	Location/Lead Agency	Project Objective	Approved Funding
Grant Grove Peninsula	Located in California Lead: NPS	Seeks to restore fire resiliency in Sequoia Groves and other conifer forests, benefitting watershed health and habitat for the Pacific Fisher	\$89,000
Greater Sheldon-Hart Mountain	Located in parts of Oregon, Nevada, and California Lead: FWS	Focuses on restoring sagebrush shrub and native perennial grass/forb communities by controlling juniper expansion	\$3,984,250
Longleaf Pine – South Atlantic	Located in Georgia, Florida, North and South Carolina, and Virginia Lead: FWS	Use prescribed burning to help restore resiliency in the fire-adapted Longleaf Pine ecosystem, benefitting the red-cockaded woodpecker and other state and federally listed species	\$770,000
Santa Clara Pueblo	Located in New Mexico Lead: BIA	Complete restoration of the natural fire regime, protecting ancient Cliff Dwellings, cultural sites, traditional food sources, and watershed health	\$400,000
Southern Arizona	Located in Arizona Lead: NPS	Focus on control of buffelgrass, an exotic fire-adapted invasive grass in the Sonoran Desert	\$150,750
Southern Utah	Located in Utah Lead: BLM	Remove encroaching pinyon pine and juniper, diversify age class of sagebrush communities, establish desired understory to restore resilience, benefitting sagebrushdependent wildlife.	\$2,605,000
Southwest Colorado	Located in Colorado and Utah Lead: BLM	Seeks to restore wildland fire resilience across the landscape, including sagebrush communities and river corridors	\$557,000

Collaborative	Location/Lead Agency	Project Objective	Approved Funding
Valles Caldera	Located in New Mexico Lead: NPS	Seeks to improve resilience of ecosystems to recover from wildfires and other natural disturbance events in order to sustain healthy forests and watersheds	\$883,000

The FY 2016 President's Budget proposes \$30 million for the Wildland Fire Resilient Landscape program.

**Next Steps:** The WFRL Program requires a commitment from the Collaboratives to monitor and report progress attained by each of their respective projects.

#### Performance Reporting:

Report all project accomplishments, which meet an existing Fuels Management performance measure, to the Department by September 30, 2015.

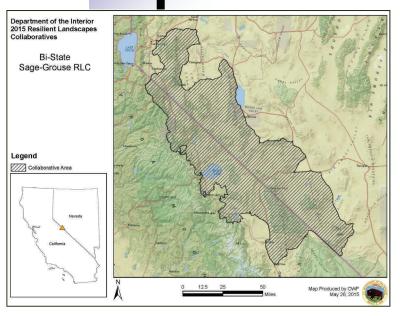
#### Quarterly and Annual Accomplishment Reporting:

There is high interest in the success of WFRL Program. Each Collaborative will submit an accomplishment report by November 30, 2015. The report will describe accomplishments for all partners, lessons learned, and any specific performance measures accomplished. Quarterly reporting requirements will be defined in FY 2016.

#### Year-End Storyboard and Photographs:

Tracking the project and the cooperation between partners with project photos will be very helpful in promoting the program success. Lead agencies will use a storyboard format, which has been successful in the past.

#### Bi-State Sage-Grouse (\$395,000)



The Bi-State Sage-Grouse Collaborative encompasses over 4.5 million acres, across portions of the states of Nevada and California, within the Great Basin Desert. Initially, the landscape-scale project includes both the Pine Nut Land Health Project to the north and the Bodie Hills Upland Vegetation Restoration Project, within the mid-portion of the Collaborative. The conservation and restoration of sustainable, resilient wildlife habitats, in particular, the Bi-State Distinct Population Segment (DPS) of greater sage-grouse is the primary purpose of these projects. Actions to counter the primary threats from invasive (non-native) annual grasses, wildfire, conifer expansion, and climate change are the focus of the projects. Treatments are intended to maintain and restore ecologically diverse, properly functioning, and resilient native plant communities.

In concert with both the goals of the <u>National Cohesive</u> <u>Wildland Fire Management Strategy</u> and the principles of

Secretarial Order 3336, <u>Rangeland Fire Prevention</u>, <u>Management</u>, <u>and Restoration</u>, a particular emphasis is given to the restoration and protection of the sagebrush-steppe ecosystem at the landscape-scale after wildfire and/or to accelerate the ecological role fire plays in fire-adapted ecosystems.

Although the two landscape-scale projects within the boundaries of the Bi-State Collaborative area have a similar

purpose in that they both address fuels and habitat resiliency at a landscape-scale, they differ in treatment types due to differences in existing ecological conditions.

Pine Nut Land Health Project, located in the northern portion of the Collaborative area, just outside the wildland urban interface communities of Dayton, Carson City, Minden, and Gardnerville, is approximately 15,000 acres of low density pinyon juniper to enhance sage-grouse habitat and thins nearly 10,000 acres of low density pinyon-juniper to achieve reduction of hazardous vegetation, improve woodland and riparian health. Treatments are designed to lessen the likelihood of catastrophic wildfire by providing fuel breaks near homes and along major roads, with pile burning to reduce slash from thinning treatments.

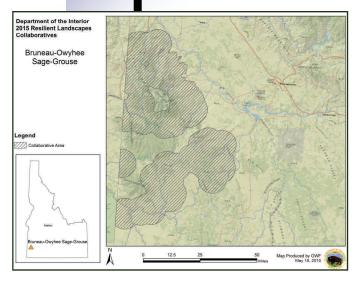


Bodie Hill Upland Vegetation Restoration Project is home to the largest population of sage-grouse in the Bi-State DPS. The project is over 21,000 acres and uses mowing or prescribed fire to remove pinyon-juniper and sagebrush to maintain and improve the ecological conditions and resiliency of the most ecologically-departed and at-risk upland vegetation systems in the Bodie Hills, at a landscape-scale. This project will protect ecosystems, cultural resources, and communities by reducing the risk of wildfire and enhancing public and firefighter safety, as actions moderate altered fire regimes so that fire size and severity are closer to the natural range of variability. Enhancement or restoration of degraded wet meadow systems will result in improved vegetation response post fire. Conservation practices to improve these systems can include active restoration and/or more passive methods such as grazing management, which will entail working hand-in-hand with private landowners to improve fire resistance and landscape resiliency across the project area.

Summary: Located within the states of Nevada and California, inside the Great Basin Desert, the project is over 4 million acres and address fire and habitat resiliency for sage-grouse and wildlife while bolstering the local economies.

For more information contact: Coreen Francis, BLM Carson City District, 775-885-6161; Sue Farley, BLM Bishop Field Office, 760-872-5006; John Wilson, NV State Office, 775-661-6613; or Steve Abele, FWS NV Fish and Wildland Office, 775-861-6325.

#### Bruneau-Owyhee Sage-Grouse (\$166,0000)



The Bruneau-Owyhee Sage-Grouse Habitat Collaborative area is located within the Boise (Idaho) District Bureau of Land Management (BLM) and, in total, is more than 1.5 million acres—over 1 million acres administered by the Owyhee Field office and slightly more than 500,000 acres of land managed by the Bruneau Field Office. The project area covers a mix of BLM, private, and Idaho State lands.

Changes in climate, years of fire suppression, and past land management actions have promoted the expansion of western juniper into areas where it would not naturally occur, causing an ecological imbalance where the species dominates native plan communities. Once established, juniper crowds out native vegetation and dominates the composition, structure, and function of the ecological system.







Post-treatment area of encroaching Pinyon-Juniper

Treating juniper-encroached landscapes is critical to restoring ecosystem health, increasing suitable habitat for sensitive species like the sage-grouse, and maintaining resilient landscapes.

The purpose of management actions planned in this Collaborative are to improve fire resilience by treating encroaching juniper where native understory species are decreasing and the threat of invasive species is increasing. Treating juniper encroachment will lead to increases in native understory species which are more resilient to wildfire.

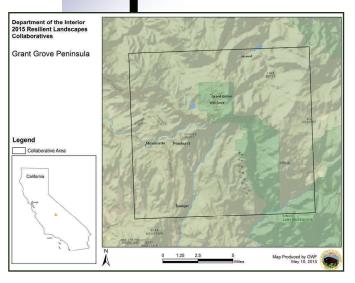
The BLM Boise District will work with the Natural Resources Conservation Service (NRCS), Idaho Department of Fish and Game (IDFG), Idaho Department of Lands, Idaho Governor's Office of Species Conservation, U.S. Fish and Wildlife Service (FWS), Owyhee Local Working Group, Pheasants Forever, The Nature Conservancy (TNC), Trout Unlimited, University of Idaho, and Owyhee County Commissioners to provide opportunities to complete work that extends beyond Federal and state lands. These activities are in support of both the <u>National Cohesive</u> <u>Wildland Fire Management Strategy</u> and SO 3336—<u>Rangeland Fire Prevention, Management, and Restoration</u>. Over the next 10 to 15 years, the BLM will be targeting approximately 600,000 acres of early stage juniper encroachment where there are still adequate densities of shrubs and herbaceous vegetation needed to support the sage-grouse.

Implementation of the Bruneau-Owyhee project may lead to greater likelihood of private landowners getting future funding due to the landscape-level of the proposed treatment. The impacts of juniper encroachment in the sagebrush-steppe vegetation are well known and agencies such as the FWS and IDFG understand the importance and need to treat encroachment; however, they have no mechanism to complete such work across jurisdictions. This collaborative effort allows them the opportunity to participate in the development of a project that will meet their management objectives to protect and conserve the sage-grouse and sagebrush habitat.

Summary: Located in the state of Idaho, the project's initial activities will treat encroaching juniper to benefit fire resiliency and the Greater sage-grouse.

For more information, contact: Lance Okeson, BLM Boise District, <a href="lokeson@blm.gov">lokeson@blm.gov</a>, 208-384-3486.

## **Grant Grove Peninsula (\$89,000)**



The Grant Grove Peninsula Collaborative is comprised of the Sequoia and Kings Canyon National Parks, Sequoia National Forest and Giant Sequoia National Monument, CAL FIRE, and UC Berkeley. This Collaborative shares a common goal to build on their long-standing history of partnerships and a strong foundation of active research and wildland fire management to increase the resiliency of the Grant Grove Peninsula's ecosystem with its large Sequoia groves and abundant social values.

The Grant Grove Peninsula, situated along the west side of the southern Sierra Nevada, lies above the ponderosa pine forest, with a mixture of NPS, USFS, state, and

private land ownership. These lower elevation

dense pine stands are experiencing substantial tree mortality due to extended drought and pine beetle infestation.

This project will provide the opportunity to conduct vitally important prescribed (planned) fire and mechanical thinning treatments in these areas. Increased ground monitoring will also occur with integrated remotely sensed data introduced into monitoring protocols, and with expanded air quality monitoring.

The Peninsula. The Peninsula is home to several groves of iconic Giant Sequoia, including Redwood Mountain (one of the largest in the Sierra), Big Stump, and Grant Grove, situated amidst mixed conifer forest. The General Grant Tree is especially note-worthy, as the second largest tree in the world, the Nation's Christmas tree, and a national shrine for Veterans. Giant Sequoia is endemic to the Sierra Nevada, is one of the largest organisms on Earth and is a major draw for tourism and related economic development, estimated at 1.5 million visitors and \$112 million in spending per year for the Sequoia and Kings Canyon National Parks alone.

**Outcomes**. Fire management objectives include the reduced threat of wildfire, restoration and maintenance of ecosystems, and an increased understanding of the consequences of fire management actions.

In FY 2015, work will focus on mechanical treatments in and around developments in the Grant Grove Peninsula and may include work to



treat wildland urban interface (WUI) areas around the historic community of Wilsonia, as current drought conditions preclude burning. A 200-foot buffer out from developments will be established and maintained on a 5 to 15 year basis to maintain fire-safe conditions.

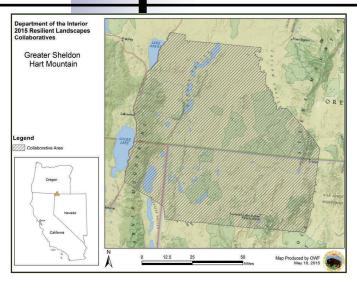
Fire effects monitoring work is required to monitor fires (directly supporting burning operations), carry out short and long-term field sampling, and be responsible for data entry into the Park's long-term fire effects database. Additional air quality monitoring will also be performed to gather pre—and post-emissions data, both locally and regionally, to help improve smoke emission models. The abundance and distribution of non-native invasive plants, before and after fire, must be monitored and removed early before the plants spread and become more difficult to control and affect ecological integrity.

This project aligns with the goals of the National Cohesive Wildland Fire Management Strategy by maintaining the role of wildland fire as a critical ecological process. Increased forest resilience to environmental stress (e.g., drought) is an additional expected benefit from forest restoration treatments and is increasingly important as a climate change adaptation strategy. Visitors, infrastructure, communities, and firefighters will be better protected. Fire will be managed to maintain ecological diversity, ensure sustainability of fire dependent species, reduce unnatural fuel loads and density of live vegetation, maintain desired species composition, enhance or preserve habitats, and decrease resource damage to critical watersheds and riparian areas.

**Summary:** Located in California, the project seeks to restore fire resiliency in the Sequoia groves and other conifer forests, also benefitting watershed health and habitat for the Pacific Fisher.

For more information, contact: Karen Folger, Sequoia and Kings Canyon National Parks, <u>karen folger@nps.gov</u>, 559-565-3795.

#### **Greater Sheldon Hart Mountain**



The Greater Sheldon Hart Mountain Collaborative is comprised of the Pacific Region of the U.S. Fish and Wildlife Service (FWS), BLM, Summit Lake Paiute Tribe, state, and private lands and covers approximately 4 million acres of sagebrush-steppe in south central Oregon, northern Nevada, and northeastern California. These are high priority landscapes, as identified by the <u>Conservation Objectives Team</u> (USFWS, 2013) in "<u>The Strongholds Memo</u>" (USFWS, 2014).

The Greater Sheldon-Hart Mountain landscape is one of the few large, intact sagebrush-steppe ecosystems remaining in the West. Sagebrush ecosystems are critical to hundreds of species of wildlife and plants that depend on these habitats of the Great Basin high desert.

The purpose of this Collaborative is to increase coordination between ongoing and future efforts of all partners to strategically identify work, increasing the resiliency of one of the last remaining large expanses of intact sagebrush-steppe habitat. This area of the northern Great Basin is a fire-adapted landscape that has experienced increasingly large wildfires over the last few years. Fires are expected to increase as the climate continues to change. This area has not yet experienced the damaging landscape-scale fires that have caused extensive conversion to invasive plants. Invasive plants are currently at low to moderate levels. Therefore, a proactive, collaborative approach to managing these invasive plants will help ensure conservation of these lands for the future.

This Collaborative's treatments will be conducted over a 5 to 10 year period of time and would result in treating multiple areas using prescribed (planned) fire operations and mechanical treatment methods to maintain the integrity of the sagebrush-steppe, bitterbrush, and aspen communities, and manage for intact native understory grass, shrub, and other plant components. These treatment will maintain a balance between juniper and sagebrush-steppe habitats, providing for habitat diversity and structure.

The Greater Sheldon Hart Mountain Collaborative supports both the goals of the <u>National Cohesive</u> <u>Wildland Fire Management Strategy</u> and the principles of SO 3336—<u>Rangeland Fire Prevention, Management, and Restoration</u>.

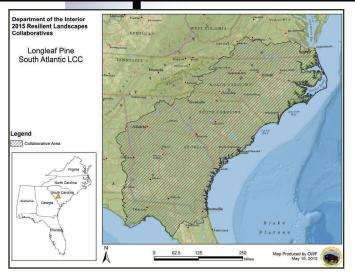


Summit Lake Mountain—wildflowers in bloom

Summary: Located in parts of Oregon, Nevada, and California, the project focuses on restoring sagebrush shrub and native perennial grass/forb communities by controlling juniper expansion. The restoration work will benefit numerous wildlife species, including several listed or candidate species under the Endangered Species Act, as well as a number of birds that rely on sagebrush-steppe habitat.

For more information, contact: Leanne Mruzik, BLM Oregon/Washington State Office, 503-808-6592; Cyndi Sidles, FWS Pacific Region, 503-231-6234; Todd Forbes, BLM, Lakeview District, 541-947-6273; Paul Henson, Ecological Services Project Leader Oregon FWO, 503-231-6179; Sandy Gregory, BLM Nevada State Office, 775-861-6514; John Kasbohm, Sheldon-Hart National Wildlife Refuge Complex, 541-947-3315; Todd Hopkins, Great Basin Landscape Conservation Cooperative, 775-861-6492; Ted Koch, Ecological Service Project Leader Reno FWO, 775-861-6311; or Will Cowan, Natural Resources Department Director, Summit Lake Paiute Tribe, 775-827-9670.

## Longleaf Pine—South Atlantic LCC



The longleaf pine ecosystem once covered 90 million acres from Virginia to Texas. Fire suppression and changes in land use reduced longleaf to just 3 percent of its historic range by 1990. Longleaf pine has the ability to ensure long term economic returns for landowners, provide crucial wildlife habitat, and enhance natural retention of fresh water on the landscape. Longleaf pine is more resistant to insect and disease outbreaks and particularly resilient to climate change due to its wind-resistance and tolerance to drought.

The Southeast Atlantic Landscape Conservation Cooperative (LCC) was established in 2009, as one of the first LCCs. It has active involvement from more than 400 individuals, from more than 100 different organizations. The LCC is led by a 17 member steering committee

including Federal agencies (FWS, NPS, U.S. Geological Survey [USGS], Environmental Protection Agency [EPA], USFS, Army Corps of Engineers, and National Oceanic and Atmospheric Administration [NOAA]), state wildlife agencies, and non-governmental organizations (NGOs), such as The Nature Conservancy [TNC] and Longleaf Alliance).

The purpose of this Collaborative is to improve the fire resiliency of the longleaf pine ecosystems of the South by returning and maintaining historic fire intervals, restoring ecosystem integrity, and reducing dangerous fuel loads. Efforts will be closely coordinated with FWS Ecological Services program and the numerous local, private, nonprofit, state, and Federal partners working through the South Atlantic LCC and American's Longleaf Restoration Initiative (ALRI).

The South Atlantic LCC's geography extends from southeastern Virginia to north Florida and encompasses the

majority of longleaf pine's historic range. Projects will focus on the National Wildlife Refuges (Refuges) and cooperators that fall within these boundaries and overlap with priority areas identified in the National Cohesive Wildland Fire Management Strategy and ALRI's Range-wide Conservation Plan for Longleaf Pine.

Refuges already treated over 22,000 of longleaf pine using prescribed (planned) burning in FY 2015. Additional planned activities for the remainder of FY 2015 include: 1) implementation of late growing season prescribed burns on longleaf pine refuges and adjoining areas, supported by the use of existing cooperative agreements; 2) broaden established agreements between DOI agencies to facilitate shared resources and funding; 3) establish protocols for the collection of spatial data; collect cooperator's

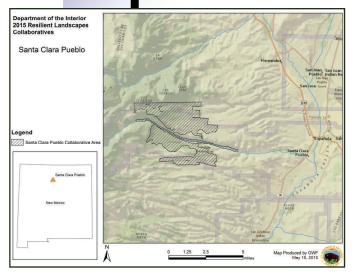


treatment data to populate the Conservation blueprint; and 4) use blueprint output to strategize locations to focus FY 2016 treatments, daylighting potential areas where agreements are needed.

The Longleaf Pine—South Atlantic LCC supports the goals of the <u>National Cohesive Wildland Fire Management Strategy</u> and aligns with both SO 3289—<u>Strategic Response to Climate Change</u> and Executive Orders 13653—<u>Preparing the U.S. for the Impacts of Climate Change</u> and 13518—<u>Employment of Veterans in the Federal Government.</u>

For more information, contact: Vince Carver, Atlanta Regional Office, 404-216-9421; Sean MacDougall, BLM Eastern States Office, 202-912-7722; and Ody Anderson, Cumberland Island National Seashore, alton anderson@nps.gov.

## Santa Clara Pueblo (\$400,000)



The Santa Clara Pueblo Collaborative includes the Bureau of Indian Affairs (BIA), U.S. Forest Service (USFS), Bureau of Land Management (BLM), Natural Resources Conservation Service (NRCS), state of New Mexico, Army Corps of Engineers, National Park Service (NPS), Bureau of Reclamation (BOR), U.S. Fish and Wildlife Service (FWS), and Los Alamos National Lab (LANL).

The Santa Clara Pueblo forest experienced three catastrophic wildfires since 1998, which burned 67 percent of commercial timberland on the reservation. Nearly 13,000 acres of the 25,000 acres encompassing the forest burned at moderate and high severity in the Santa Clara watershed, which enters the Rio Grande River. Just 30 to 35 percent of the forested watershed remains unburned or lightly burned. The protection of these

areas is critical to the long-term stabilization of the watershed and vital to the short and long-term economic well-being of the Pueblo in terms of timber harvest and employment.

The Santa Clara Pueblo Collaborative will complete the restoration of mesa top lands, enable the use of prescribed

(planned) fire as a fire management tool, and enhance resiliency of the landscape, and particularly the Rio Grande watershed, from future wildfires.

The Santa Clara Pueblo has had an active prescribed (planning) burning operation since 2003 and has completed initial mechanical treatments on nearly 2,000 acres of the wildland urban interface, along the Rio Grande River. The USFS, BLM, NPS, and state lands are adjacent and are involved in work to reduce unwanted vegetation on adjoining lands. This Collaborative will work to reduce an additional 2,000 acres of hazardous vegetation, through thinning, and ultimately re-introduce prescribed (planned) fire operations to 7,000 acres of the mesa landscape over the next 7 to 10 years.



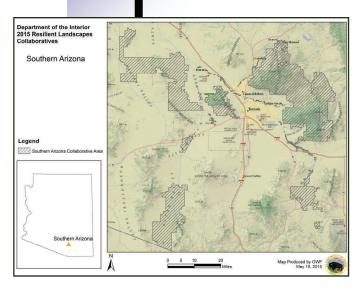
Southside Prescribed (Planned) Burn Operation—Successfully burned 140 acres within Block #1

The Santa Clara Pueblo Collaborative supports the goals of the <u>National Cohesive Wildland Fire Management Strategy</u>.

**Summary:** Located in New Mexico, the project will complete restoration of the natural fire regime on the mesa top lands, protecting ancient Cliff Dwellings, cultural sites, traditional food sources, and watershed health. The Bureau of Indian Affairs (BIA) is the lead agency, with the Santa Clara Pueblo, and other partners

For more information, contact: Mark Jackson, Assistant Director of Fire Use and Fuels, BIA, mark.jackson@bia.gov; Daniel Denipah, Santa Clara Pueblo, <a href="mailto:ddenipah@santaclarapueblo.org">ddenipah@santaclarapueblo.org</a>

## Southern Arizona (\$150,750)



The Southern Arizona Collaborative includes the Saguaro National Park (SNP), U.S. Geological Survey, Buenos Aires National Wildlife Refuge (BANWR), U.S. Forest Service—Santa Catalina Ranger District (USFS), and the Arizona Buffelgrass Coordination Center. Other potential partners include Bureau of Land Management Tucson Field Office, Pima County, and the State Land Department.

The Southern Arizona Collaborative work will protect native plant and animal communities from being displaced by the aggressive invader buffelgrass, protect the natural fire regime, and prevent large, intense wildfires from converting a biologically rich, fire-sensitive habitat into a near-monoculture and highly flammable grassland. This project will help prevent damage to private property, utility corridors, and the area's tourism-

based economy. In addition, the project will aid managers of fire-adapted and fire-dependent ecosystems at high elevations in managing wildfires to benefit those ecosystems, maintain their ecological integrity and resilience.

The Sonoran Desert is the most diverse desert on Earth. Over 650 species rely on Saguaro-Palo Verde habitats. The desert is famous for its large, charismatic saguaro cactus, which SNP was created to protect. The arid grasslands are home to numerous sensitive species, including the highly endangered masked bobwhite quail and Pima pineapple

cactus protected on BANWR. Many scientists believe that with continued buffelgrass expansion, local extinctions of saguaros and many other native species may occur, changing the Sonoran Desert and wildlife forever.

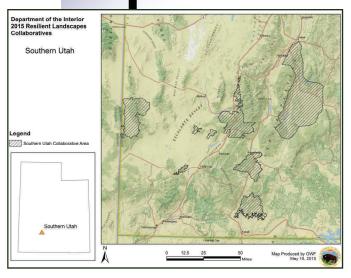
This Collaborative aligns fully with the primary, national goals of the <u>National Cohesive Wildland Fire Management Strategy</u>. The work plan relies upon the collective knowledge, experience, and past successes of all collaborators working towards maintaining a fire resilient landscape. Beginning in 2015 and each year through 2020, ground-based treatments and approved aerial herbicide applications will occur. In 2018, aerial surveys will be conducted at SNP and USFS to survey for treatment efficacy and new occurrences of buffelgrass. Each year, treated areas will be monitored to determine success and the need for further treatment. Outreach will also be done to involve new collaborators, as well as to educate the public and generate citizen science and volunteerism.



Dense buffelgrass choking out native vegetation in southern AZ

For more information, contact: Perry Grissom, Saguaro National Park, 520-733-5134; Seth Munson, Southwest Biological Science Center, 928-523-7740; Sally Flatland, Buenos Aires National Wildlife Refuge, 520-823-4251; Sharon Biedenbender, Santa Catalina Ranger District, Coronado National Forest, 520-59-2762; Kerry Baldwin, Pima County, Natural Resources Division, 520-724-5216; and Lindy Brigham, Southern Arizona Buffelgrass Coordination Center, 520-626-8307.

### Southern Utah (\$2,605,000)



The Southern Utah Collaborative consists of 7.4 million acres across the Southern Region Area, with focus areas developed with multiple partners, including BLM, Utah Watershed Restoration Initiative (WRI), Utah Division of Forestry Fire and State Lands; School and Institutional Trust Lands Administration, Natural Resources and Conservation Service, and Utah State University.

The broad landscapes of the Collaborative range from mixed conifer forest in higher elevations to pinyon-juniper and sagebrush-steppe in lower elevations. The focus areas cross jurisdictional boundaries and represent areas where Southern Region partners can conduct landscape-scale activities in these mutually agreed upon areas rather than taking a "shotgun" approach.

The Southern Utah Collaborative area work will continue to address broad land-health outcomes and further expand the ecological role of fire in fire-adapted ecosystems. Phased, on-the-ground restoration activities have been initiated throughout this area, and specifically where landscape level NEPA has been prioritized to best connect priority landscapes. To date, nearly 576,000 acres of habitat have been effectively and proactively treated by the WRI—53 percent of the state's 1.1 million treated acres and 56 percent of BLM lands. Removing encroaching conifers, diversifying age class in sagebrush communities, and establishing desired understory vegetation has and will maintain and enhance resilience of the landscape. These existing projects are designed and implemented so that fires occurring following treatment will recover to desired vegetative communities with little or no additional investment.

A variety of management tools such as hand thinning, mechanical treatments, prescribed (planned) fire activities, seeding, and chemical treatments will be used to: create a mosaic of Greater sage-grouse and mule deer habitat and increase connectivity between isolated populations of Greater sage-grouse; maintain and create large, un-fragmented blocks of sagebrush habitat; implement cost-effective fuels treatments to create landscapes that are resilient to wildland fire and climate change; utilize treatments to move areas toward a more resilient landscape; implement site appropriate projects to benefit Utah prairie dog; and use ecological site data to guide site specific vegetation treatments to desired future vegetation composition.



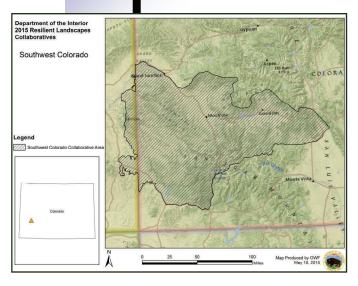
Southern Utah—Hamlin Valley

The work included in this project supports both the goals of the <u>National Cohesive Wildland Fire Management Strategy</u> and principles of the SO 3336—Rangeland Fire Prevention, Management, and Restoration.

Summary: Located in Utah, the project will remove encroaching pinyon pine and juniper, diversify age classes of sagebrush communities, and establish desired understory vegetation to restore resilience of the landscape and riparian areas, benefitting the greater sage-grouse, other sagebrush-dependent wildlife, and aquatic species.

For more information, contact: Paul Briggs, BLM Color Country Fire Zone, 435-865-3002, or Alan Clark, Utah Watershed Restoration Initiative, 801-538-4700.

### Southwest Colorado (\$557,000)



The Southwest Colorado Collaborative includes Bureau of Land Management (BLM) Utah, Monticello and Moab Offices; Grand Mesa Uncompahgre Gunnison and San Juan National Forests; U.S. Fish and Wildlife Service (FWS), Colorado Parks and Wildlife, Delores River Restoration Partnership, Walton Family Foundation, Dolores River Partnership, The Nature Conservancy (TNC), Tamarisk Coalition, John Hendricks Family foundation, DEAR Foundation, Southwest Conservation Corps, Western Colorado Conservation Corps, Rocky Mountain Elk foundation, Mule Deer Foundation, and the local Gunnison sage-grouse workgroups.

The overall vision of the Southwest Colorado Collaborative project area is to increase resiliency and adaptability in native ecosystems; improve habitat linkages in terrestrial uplands; and improve ecological

function along river corridors. This vision would be accomplished by a variety of actions designed to mitigate fire severity within critical habitats and watersheds. Management actions would be diverse and targeted to further mitigate habitat fragmentation, reduce the risk of wildfire, and improve habitat quality.

The Southwest Colorado Collaborative designed this project to leverage implementation actions currently underway with the Gunnison sage-grouse Healthy Lands Focal Area, the Dolores River Healthy Lands Focal Area, and numerous other fuels, wildlife, and vegetation treatment efforts planned in partnership with Federal and non-federal groups.

The project area includes a unique mix of forest, woodland, desert, riparian, and sagebrush habitat types south of the Colorado River in both Colorado and Utah. The area includes six BLM field offices, including two in Utah, two National Conservation Areas, the Hotchkiss National Fish Hatchery, the Black Canyon Gunnison National Park, and the Curecanti National Recreation Area. The Gunnison, Uncompahgre, San Miguel, and Dolores Rivers contain important habitats for Mexican spotted owl, numerous birds, and aquatic species of conservation concern, as well as the river otter, bald eagle, peregrine falcon, and northern leopard frog. The area also includes designated critical habitat for all seven of the Gunnison sage-grouse populations and areas important to the livelihood of local communities through livestock grazing, hunting, mineral extraction, municipal watersheds, and recreational uses.



Delores River Tamarisk Removal Project—Before Treatment

The project area will provide habitat restoration for the Gunnison sage-grouse throughout the extent of its range, including projects to restore habitat connectivity between populations. The FWS lists Gunnison sagegrouse as Threatened and designated over 1.4 million acres of critical habitat under the Endangered Species Act in 2014. Threats to Gunnison sage-grouse, as identified by the FWS include, fragmentation due to development, improper livestock grazing practices, wildfire invasive species, climate change, and pinionjuniper encroachment. Large wildfires within the Southwest Colorado Collaborative area threaten existing Gunnison sage-grouse and riparian habitats. This landscape is at continued risks from wildfire due to altered fire regimes, high frequency of wildfire ignitions, and invasive species. This project will use a risk-based, landscape-scale approach to identifying and facilitating



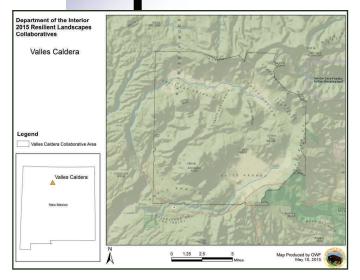
Delores River Tamarisk Removal Project—After Treatment

investments in fuels treatments, fire suppression capabilities, post-fire stabilization, rehabilitation and restoration. It will seek to reduce the likelihood, size, and severity of rangeland fires by addressing the spread of cheatgrass and other invasive, non-native species. Revegetation after fires and mechanical treatments will use native seeds. Riparian restoration efforts for removal of invasive species will enlist youth and Veterans crews for work. This project supports both the goals of the <a href="Mattendergo">National Cohesive Wildland Fire Management Strategy</a> and principles of the SO 3336—<a href="Rangeland Fire Prevention">Ranagement, and Restoration</a>.

Summary: The Southwest Colorado Collaborative is located in Colorado and Utah. The project supports both the goals of the *National Cohesive Wildland Fire Management Strategy* and SO 3336 and seeks to restore wildland fire and invasive species resiliency across landscapes, including sagebrush communities and river corridors. Using prescribed (planned) fire, mechanical treatments, and invasive species control, habitat will be improved for the listed Gunnison sage-grouse and a variety of other wildlife and riparian species. The likelihood of large landscape-scale wildfires will be reduced, improving public and firefighter safety. BLM will work with other Federal, state, and local government and non-governmental organizations.

For more information, contact: Sam Dearstyne, BLM CO State Office, 303-239-3693; Jason Kirks, BLM Utah Moab, 435-259-2184; Neal Beetch, Region 6 FWS, 303-455-4367; or Ross Oxford, Intermountain Region NPS, 970-244-3085.

## Valles Caldera (\$883,000)



The Valles Caldera Collaborative is located in northern New Mexico and is a 10-year strategy aimed at improving the resilience and adaptive capacity of the Valles Caldera National Preserve's (VALL) natural systems, protecting people, and resources from wildfire, and reintroducing fire as a beneficial process.

The Valles Caldera Collaborative includes the Bandelier National Monument, U.S. Geological Survey—Jemez Mountains Field Station, U.S. Forest Service—Santa Fe National Forest, USDA Agriculture Research Services—Systematic Entomology Laboratory, U.S. Fish and Wildlife Services, Department of Energy—Los Alamos National Laboratory, Bureau of Indian Affairs/Bureau of Indian Education Southwestern Indian Polytechnic Institute, New Mexico State Forestry, Jemez Pueblo, Santa Clara Pueblo, WildEarth Guardians, Forest Guild,

The Nature Conservancy, Hawks Aloft, Los Amigos de Valles Caldera, Texas Tech University, University of New Mexico, University of Arizona—Critical Zone Observatory, University of Maryland, Amy Biehl High School, and Los Alamos High School

The natural systems of the VALL lost their ecological resilience and are now highly susceptible to significant losses from wildfires, insect and disease outbreaks, and climate-change impacts. All VALL natural systems are significantly departed from the reference condition that, to the best of our scientific knowledge and understanding, is known to be resilient in the event of fire, drought, changing climate, and other threats to native diversity.

The VALL Collaborative integrates forest thinning, wildland fire management (planned and unplanned ignitions), wetland and riparian restoration, road repair (closure and decommissioning), noxious weed prevention, control and eradication, and burned area stabilization in integrated, landscape scale treatments across the VALL unit (89,000 acres). The VALL Collaborative is intended to treat nearly 50,000 acres to decrease the likelihood of severe burning, increase resiliency following fires, and increase opportunities to use natural and planned fire as a beneficial process. The collaborative would use forest thinning and prescribed fire at various intensities in a mosaic across the landscape.



Desired future condition for the Valles Caldera Collaborative area

The VALL Collaborative established a monitoring program with a systematic approach to adaptive management which integrates project-level data from activity areas and control sites along with landscape-scale data such as water quality and quantity, wildlife population, condition, and movement, soil erosion and moisture, long-term fire ecology and vegetation monitoring sites, all against the background of climate dynamics monitored by six remote automated weather stations and two ET-carbon-flux towers. Adaptive management is supported by the selection of outcomes systematically monitored in time and space. These outcomes are reviewed annually by managers and collaborators during public "All-Hands" workshops.

The overarching goal for the 10-year plan, which would engage over 60 individuals, representing 35 agencies and organizations, is to: "Improve the resilience of the ecosystems to recover from wildfires and other natural disturbance events in order to sustain healthy forests and watersheds for future generations."

The VALL Collaborative supports the goals of the National Cohesive Wildland Fire Management Strategy.

Summary: Located in New Mexico, the project seeks to improve the resilience of ecosystems to recover from wildfires and other natural disturbance events in order to sustain healthy forests and watersheds for future generations. The NPS will work with partners that include the U.S. Forest Service, New Mexico State Forestry, The Nature Conservancy, Jemez and Santa Clara Pueblo, universities, Amy Biehl High School, and other organizations.

For more information, contact: Jorge Silva-Banuelos, VALL, 505-428-7731.