

Southern Nevada Public Land Management Act of 1998, as Amended

Conservation Initiatives - Project Summary

Round 12

Project Name: Patterson Pass Sage Grouse Habitat Restoration Project

Round: 12 **Tab #:** 5 **Priority #:** 1

County: Lincoln County

Location: 15,000 acre treatment polygon in the Cave Valley Watershed in Northern Lincoln County

Nominating Agency/Entity: BLM

Funding Requested: \$501,866

Recommended Funding: \$501,866

Project Description:

This proposal is to implement vegetation management decisions within the Cave Valley Watershed in northern Lincoln County. Some of the sagebrush habitat in the central parts of the valley is still intact, providing habitat for many wildlife species including a large population of sage grouse; however, there are areas in the valley where pinyon and juniper trees have increased in sagebrush habitat. A treatment site has been identified that, if treated, would increase and improve sagebrush habitat. There is a growing concern that if treatments in areas of this type are not conducted, sagebrush habitat fragmentation will continue to occur and isolated sage grouse populations and other sagebrush obligate species may be lost.

BLM Ely District proposes to treat approximately 3,500 acres in the Cave Valley Watershed within a 15,000 acre treatment area of wildlife habitat. The treatments would consist of treating up to 1,000 acres of sagebrush habitat using mechanical methods to remove trees, and an additional 2,500 acres of sagebrush habitat through the use of prescribed fire. Following the implementation of the prescribed burn, sagebrush seed would be applied to approximately 2,000 acres of the project area in a random pattern in order to enhance sagebrush recovery. This proposal would support Strategic Goal Number Two "Conserve and restore the quality of the outdoor environment by preserving natural and cultural resources and enhancing recreational opportunities."

This project would be considered successful if one or more of the following criteria are met:

1. Eighty-five percent of the pinyon and juniper trees are removed.
2. Undesirable noxious and invasive plant species occur on less than five percent of the post-treatment area.
3. New information regarding the use of this habitat by sage grouse and their seasonal movements relative to this region is obtained.

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Round 12

Project Name: Long Valley Watershed Analysis and Sage Grouse Research

Round: 12 **Tab #:** 4 **Priority #:** 2

County: White Pine County

Location: Long Valley Watershed in western White Pine County.

Nominating Agency/Entity: BLM

Funding Requested: \$239,805

Recommended Funding: \$239,805

Project Description:

This proposal is to conduct a watershed health analysis to guide and focus management within the Long Valley Watershed in western White Pine County. This watershed offers the opportunity to research sage grouse movements in some of the few remaining intact sagebrush habitats of eastern Nevada. The Ely District RMP identified intensive research projects as part of special status species monitoring to determine the extent of populations and habitats being used. The White Pine County portion of the Greater Sage-Grouse Conservation Plan for Nevada and Eastern California recognized the need for sage grouse habitat assessments on a watershed basis. The Plan recommended these assessments include population status and seasonal habitat dispersals, and more detailed vegetation delineations. Watershed analysis is designed to address areas where habitats are most important, most susceptible to change or have the greatest restoration potential. This proposal would support Strategic goal number two "Conserve and restore the quality of the outdoor environment by preserving natural and cultural resources and enhancing recreational opportunities."

The end result of watershed analysis is a implementation plan that includes recommendations for vegetation treatments, hazardous fuels reduction projects, installation of wildlife and/or livestock habitat improvement projects, route designation, and a variety of other management actions for watershed enhancement. Results and products of this project are as follows:

- Watershed Assessment
- Evaluation and Determination Reports
- Research Project to identify core sage grouse habitat, movement zones, and high habitat value areas within the watershed
- Identification of habitat improvements, riparian areas, and fuels reductions projects
- Identification of cultural sites that need protection and cultural management strategy
- Habitat management strategy
- Recommendations regarding transportation routes, right of ways, and other disturbances

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Round 12

Project Name: Interagency Law Enforcement

Round: 12 **Tab #:** 3 **Priority #:** 3

County: Clark

Location: Federal Lands within Clark County

Nominating Agency/Entity: USDA FS

Funding Requested: \$1,731,477

Recommended Funding: \$900,000

Project Description:

This proposal is intended to sustain our interagency law enforcement system of resource protection activities for one additional year. These positions are front-line public safety and emergency response positions; many times they are the only contact visitors and recreationists utilizing public lands encounter. Continuation of funding is essential for public safety and visitor satisfaction as well as protection of the natural and cultural resources that are entrusted to our care.

Major Deliverables:

1. Continued execution of daily patrols across agency boundaries.
2. Continued 24 hour, 365 day dedicated Public Safety dispatch and communication support.
3. Continued interagency saturation patrols.
4. Continued, dedicated, prosecution in the attorney position that provides consistent representation and prosecution on behalf of the four federal agencies.

The Preliminary Recommendation modifies the purpose of the project to fund only the three (3) USFS and three (3) NPS law enforcement rangers and one (1) NPS dispatcher identified in this nomination.

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Round 12

Project Name: Restoration of Lone Tree Spring at Pahranaagat NWR for Native Fish Restoration

Round: 12 **Tab #:** 6 **Priority #:** 4

County: Lincoln

Location: Lone Tree Spring in Pahranaagat NWR

Nominating Agency/Entity: FWS

Funding Requested: \$81,200

Recommended Funding: \$0

Project Description:

Spring restoration is urgently needed to support native fish, frogs, invertebrates, and birds. Pahranaagat National Wildlife Refuge (PNWR) has selected Lone Tree Spring, for restoration through this funding opportunity. The project will create quality habitat for several species of conservation concern including the Pahranaagat speckled dace (*Rhinichthys osculus velifer*) and northern leopard frog (*Rana pipiens*). If an adequate ecological community develops in response to the restoration effort, as is expected, this project should also provide habitat for the most endangered fish in the Great Basin, the Pahranaagat roundtail chub (*Gila robusta jordani*).

Restoration will involve vegetation control, deepening of the spring habitat, re-routing and hardening of wetland/upland transition areas, planting of native riparian vegetation, removal of exotic plants and animals, and introduction of Pahranaagat speckled dace, northern leopard frogs, and other native biodiversity. If appropriate based on response of the ecological community, Pahranaagat roundtail chub will also be introduced to the Lone Tree Spring system.

There are four primary deliverables for this project:

1. Increasing size and depth of the spring.
2. Building features into the spring that create habitat for targeted species
3. Importing donor soils to provide suitable soil types for native vegetation
4. Finish grading and decompaction of soils.

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Round 12

Project Name: Spring Mountains Butterfly Life History and Autecology Studies: Phase III Restoration

Round: 12 **Tab #:** 7 **Priority #:** 5

County: Clark

Location: Spring Mountains NRA

Nominating Agency/Entity: USDA FS

Funding Requested: \$299,000

Recommended Funding: \$0

Project Description:

Four species of butterfly have been identified as priorities for conservation in the Spring Mountains National Recreation Area (SMNRA): the Mt. Charleston blue butterfly (*Plebejus shasta charlestonensis*), Morand's checkerspot (*Euphydryas anicia morandi*), Spring Mountains acastus checkerspot (*Chlosyne acastus robusta*), and Spring Mountains dark blue butterfly (*Euphilotes ancilla purpura* and *E. a. cryptica*). Given the demand to provide recreation and other uses on the Spring Mountains NRA, there is an urgent need to understand the basic biology in order to develop and implement a management strategy for these four butterfly species.

Proposals for Phase 1 and 2 of this butterfly autecology study were submitted in Rounds 8 and 9 and approved. This phase will take the next step by actually using the information collected in Phase 1 and 2 to conduct habitat restoration.

Deliverables:

1. Revise the study plan from previous phases of the project as needed each year.
2. Continue studies as outlined in phase 1 and 2 for the first year of this phase.
3. Provide interim annual reports and monthly updates.
4. Develop and implement a restoration plan.
5. Provide a final report after the third year of phase 3 that addresses all goals of all phases of the project.
6. Provide all data (in MS Word, MS Access or other approved format), maps and GIS layers of locations of preferred habitat, study plots, and other research findings to FS.

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Round 12

Project Name: Bighorn Sheep Restoration in the South Snake Range

Round: 12 **Tab #:** 1 **Priority #:** 6

County: White Pine

Location: South Snake Range

Nominating Agency/Entity: NPS

Funding Requested: \$385,400

Recommended Funding: \$0

Project Description:

The establishment of Great Basin National Park and several wilderness areas have protected large areas of alpine habitat from anthropogenic disturbances. Several recent large fires have greatly improved bighorn habitat suitability in the South Snake Range and these areas now form the core of bighorn ewe home ranges. Additionally, all grazing allotments in Great Basin National Park have been retired. These conditions, an upwardly trending resident herd, and the success of a recent augmentation on the North Snake Range suggest that restoration of a viable bighorn herd in the South Snake Range is now an attainable goal.

Under this proposal Great Basin National Park and the Nevada Department of Wildlife would work cooperatively with surrounding land management agencies and domestic sheep permittees and follow published standard protocols in the restoration of bighorn sheep. This project specifically addresses the SNPLMA Science Theme: Biodiversity. Species At Risk, Bighorn Sheep by providing information about the interaction between bighorn and domestic sheep in the snake range, seasonal movements of bighorn, and the potential for the two species to coexist in the South Snake Range. Deliverables under this proposal include: translocation of 40 or more bighorn to the South Snake Range; effectiveness monitoring of translocated bighorns to determine survival and habitat utilization; graduate thesis, GIS model and peer reviewed publication.

Results and Products

1. Viable South Snake Range Bighorn population
2. GIS model of Bighorn habitat in the Snake Range
3. Population modeling based on GIS habitat model
4. Graduate Thesis
5. Peer Reviewed publication in Journal of Wildlife Management
6. Articles on park website, resource management newsletter "The midden" and park newspaper "The bristlecone"

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Round 12

Project Name: Climate Change Monitoring and Adaptation Program on National Wildlife Refuges of Southern Nevada: Phase I, Developing a Comprehensive Climate Change Monitoring Plan

Round: 12 **Tab #:** 2 **Priority #:** 7

County: Clark, Lincoln

Location: Desert NWR, Moapa Valley NWR, Pahrangat NWR

Nominating Agency/Entity: FWS

Funding Requested: \$812,893

Recommended Funding: \$0

Project Description:

Climate change will likely have substantial effects on ecological functions in southern Nevada, where many Mojave Desert and Great Basin species exist on the edge of tolerances for extreme temperature and moisture (e.g. Beatley 1974; Bradford et al. 2003). In southern Nevada, the potential impacts of climate change are of critical concern to the National Wildlife Refuges which were established to protect and manage declining and sensitive species. The Desert National Wildlife Refuge (Desert NWR) encompasses more than 1.5 million acres to conserve currently declining desert bighorn sheep (*Ovis canadensis nelsoni*), and other wildlife. The Moapa Valley National Wildlife Refuge was established to protect habitat for the endangered Moapa dace (*Moapa coriacea*). Pahrangat National Wildlife Refuge was established to provide habitat for migratory birds, especially waterfowl.

This proposal embarks on a program to monitor biotic and abiotic factors on the refuges to detect responses to climate change that allow adaptation responses to be developed and implemented. Phase 1 will develop a Comprehensive Climate Change Monitoring Plan including initiation of a baseline inventory and a retrospective analysis of vegetation. As future funding becomes available, Phase 2 would implement Climate Change Monitoring and Adaptation. Phase 1 will have independent utility from Phase 2 because the baseline inventory and retrospective analysis will provide an information base from which future comparisons can be made at any time.

The results of the project will be provided in Final Reports and published in peer reviewed journals. Products will include at least the following:

- a. GIS referenced database that compiles existing and future data on biological, climatologic, and hydrologic variables on the refuges.
- b. Report on retrospective analysis of vegetation change in the Desert National Wildlife Refuge with associated GIS-based electronic maps of vegetation change through time.
- c. Comprehensive Climate Change Monitoring Plan.
- D. Baseline inventory of monitoring information on climate, soils, hydrology, and biological information as outlined in the monitoring plan