

**U.S. Department of the Interior
Bureau of Land Management**

**Programmatic Environmental Assessment
Restoration of Wilderness**

PREPARING OFFICE

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Bureau of Land Management
Southern Nevada District Office
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Programmatic Environmental Assessment Restoration of Wilderness

**Prepared by
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Las Vegas, NV**

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Chapter 1. Introduction

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1.1. Identifying Information:

1.1.1. Title, EA number, and type of project:

Programmatic Environmental Assessment of Restoration in Wilderness

DOI-BLM-S010-2012-0062-EA

Restoration

1.1.2. Location of Proposed Action:

The Proposed Action will occur in all designated Wilderness Areas managed by the BLM Southern Nevada District Office. This includes the following Wilderness Areas:

- Arrow Canyon Wilderness
- Eldorado Wilderness
- Ireteba Peaks Wilderness
- Jumbo Springs Wilderness
- La Madre Mountain Wilderness
- Lime Canyon Wilderness
- Meadow Valley Range Wilderness
- Mormon Mountains Wilderness
- Mt. Charleston Wilderness
- Muddy Mountains Wilderness
- North McCullough Wilderness
- Rainbow Mountain Wilderness
- South McCullough Wilderness
- Spirit Mountain Wilderness
- Wee Thump Joshua Tree Wilderness

1.1.3. Name and Location of Preparing Office:

Bureau of Land Management, Las Vegas Field Office

4701 North Torrey Pines Drive

Las Vegas, NV 89130

1.1.4. Applicant Name:

Bureau of Land Management

1.2. Purpose and Need for Action:

The Clark County Conservation of Public Land and Natural Resources Act (CCCPLNA) of 2002 designated thirteen new wilderness areas which are administered entirely or in part by the Bureau of Land Management (BLM) Southern Nevada District Office (SNDO). In 2004 the Lincoln County Conservation, Recreation, and Development Act (LCCRDA) designated additional wilderness, portions of two of which are also administered by the SNDO. In total, BLM SNDO manages approximately 246,340 acres in fifteen wilderness areas including seven that are managed jointly with either the National Park Service or the US Forest Service. In 2011 the Friends of Nevada Wilderness (FONW)-Student Conservation Association (SCA) / Southern Nevada Agency Partnership (SNAP) Wilderness Stewardship Interns completed inventories of wilderness character for each wilderness area. Documented disturbances include closed vehicle routes, unauthorized vehicle incursions, and small site disturbances such as graffiti and campsites. These problems affect the overall character within some wilderness areas. Wilderness is defined, in part, by the Wilderness Act as "...an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions..."

The purpose of this action is to restore existing and future unauthorized vehicle routes and small site disturbances to a more natural appearance. The proposed action is needed to maintain wilderness characteristics and protect natural resources of designated wilderness areas in Southern Nevada by restoring existing disturbances. The need for this action conforms with the Wilderness Act requirement to manage these areas "in such a manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness" (Wilderness Act, 1964).

1.3. Scoping, Public Involvement and Issues:

Internal and external scoping were performed. Internal scoping to BLM resource specialists identified the following potential issues : Areas of Critical Environmental Concern, noxious weeds, threatened and endangered species, migratory birds, other wildlife species, and wilderness values. External scoping was performed by mailing a Notice of Proposed Action (NOPA) to individuals and organizations that have expressed an interest in recreation/wilderness related actions. Those receiving the NOPA had 30 days to provide comment on the proposed action. No issues were identified by the public during this process.

Chapter 2. Proposed Action and Alternatives

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2.1. Description of the Proposed Action:

The Proposed Action would involve reclamation of disturbances to wilderness character within of the wilderness areas that are managed by BLM in Clark County. The FONW-SCA/SNAP team identified and documented disturbances in association with these 15 wilderness areas. These disturbances are grouped into two categories: vehicle routes closed to motorized travel by Wilderness designation, and a wide variety of small site disturbances that detract from wilderness character. In addition to these known existing disturbances, future vehicle incursions and small site disturbances would also be restored.

Due to the large amount of labor and funds required to reclaim disturbances, only those portions of the disturbances that are visible from outside the wilderness boundary will be reclaimed. Reclaiming the visible portions of the disturbances will reduce/eliminate further disturbances and the unreclaimed areas will naturally reclaim themselves over time. This action will not affect certain nonconforming but accepted uses or valid existing rights.

Disturbances or portions of disturbances that cross through riparian or wetland areas will be allowed to naturally reclaim themselves over time. Only the portion of the disturbances that exist outside of the wetland or riparian area will be actively reclaimed if needed. Access to roads that cross wetland or riparian areas will be blocked using barricades outside of the wetland or riparian area.

Closed vehicle routes are linear disturbances created by motorized vehicle traffic or user-created trails that are largely denuded of vegetation, some vegetation persists along the center hump of the route. Soils in the route are compacted and subject to increased erosion. Closed vehicle routes would be reclaimed using decompaction, scarifying, recontouring, vertical mulching, erosion control and vegetative restoration using native species and seed mixes. A desert varnish colorant may be applied to reduce the appearance of tracks. These reclamation methods are described further in Section 2.1.1. Some level of reclamation is needed on 112 closed vehicle routes or vehicle incursions.

Small site disturbances are quite varied and include user-created campsites, evidenced by fire rings and compacted soil with little vegetation. These small site disturbances are often along old vehicle routes inside wilderness. These small site disturbances are no larger than 0.5 acres, mostly denuded of vegetation and organic matter, compacted soils, and tend to have heavily impacted vegetation on the perimeter. Decompaction, vertical mulching, vegetative restoration, and the use of a desert varnish colorant to reclaim damage to the impacted rock surfaces would be used to reclaim small site disturbances. There are 27 known existing small site disturbances requiring some level of reclamation.

In addition, there is often damage to rock features in these sites. Where paint or marks on rock from graffiti, paintballs, or other forms of vandalism occur, these marks will be removed from the surface following the methods outlined below. There are 5 known areas of graffiti in the wilderness areas.

2.1.1. Reclamation Activities

Work would be completed by BLM staff and contractors with the assistance of volunteer hand crews. All reclamation activities will be subject to the Standard Operating Procedures in Section 2.1.2. All actions in wilderness will be conducted with non-motorized equipment and

non-mechanized transport. Actions would include and generally be conducted in the following order AS NEEDED:

- **Decompaction:** working the top few inches of the entire disturbed surface to relieve soil compaction. This action will be completed with the use of non-motorized hand tools (soil spades, spading forks, McCloud rakes, pulaskis, shovels, horse drawn implements, etc.).
- **Scarifying/pitting:** loosening and texturizing the impacted disturbed surface in random locations to better capture water, organic debris and wind-blown seeds, thereby stimulating natural revegetation. This will be done with non-motorized hand tools.
- **Recontouring/reconfiguring/shaping** the route to blend it with the adjacent relatively undisturbed desert. This will involve the creation of small hummocks and banks, where appropriate, to mimic the surrounding landscape. Berms will be pulled in and the soil distributed across the disturbed surface. Vehicle tracks in sandy washes will be raked. This will lessen visual contrasts and provide a surface for natural revegetation. This action will be completed with non-motorized hand tools.
- **Vertical mulching:** dead and down vegetation is "planted" to obscure the visible portions of the disturbance. Additional dead vegetation, rock material and other organic matter may be distributed over the worked surface to decrease visual contrasts, create sheltered sites to aid in natural revegetation and add organic debris. Dead and downed vegetation and other materials would be gathered from areas near to the disturbances by hand.
- **Erosion control:** placing sterile weed free hay bales or creating light terracing/berms to reduce erosion and create barriers to vehicles on steep slopes. This is especially effective on hill climbs. The hay bales break down over time and provide additional organic debris to the reclamation site. Bales would be brought in by hand or horseback to the worksite.
- **Desert varnish colorant:** spraying disturbed rock surfaces to simulate the coloration of the surrounding desert varnish. These colorants are chemical compounds comprised of manganese, salts and other ingredients used to simulate the natural desert varnish that occurs on rock surfaces in arid environments. The colorant would be applied sparingly, with the use of a backpack sprayer, and only on disturbed rock surfaces that contrast sharply with the surrounding landscape.
- **Vegetative Restoration:** This would involve planting, transplanting and/or seeding necessary to help stabilize soil, speed overall vegetative recovery and camouflage evidence of disturbances. All seed would be locally collected or native species scattered on reclaimed surfaces to accelerate natural revegetation. This action would be completed by non-motorized hand tools.
- **Barricading:** Placing rocks, boulders and/or post and cable fencing to create a barrier to vehicles. Boulders from the surrounding area are partially buried alongside each other to create a natural barricade. Boulders would be the preferred tools for aesthetic reasons. Post and cable fencing will be used only when boulders would be ineffective or excessive. Boulders and other natural materials would be gathered from the areas near to the disturbances by hand. This action would be completed using non-motorized hand tools.

For the removal of graffiti and marks on rocks, the process of removal will vary according to the types of paint or marks and the type of rock affected. For example, water soluble paints on harder rock surfaces may be removed with only water and a sponge, whereas markers used on sandstone

may require more invasive procedures such as scraping. The following removal methods, listed in order of least intrusive to most intrusive may be used:

- Water with soft washing implement.
- Water with scrubbing or scraping implement.
- Solvent with scrubbing or scraping implement.
- Wet or dry sand blasting equipment (where compressor is located outside Wilderness and a hose can reach to the site in the Wilderness).

The least intrusive method appropriate for the location will be used. All equipment and personnel would be transported into the wilderness by foot or pack animal. If the natural patina is lost during paint removal, an oxidizing chemical could be applied to restore the patina and more closely mimic the surrounding rock. The objective would be to remove graffiti in as short a time period after its discovery, but removal would be timed to a weekday during low use periods to avoid disruption of visitors. The site will be examined to assure that cultural resources are not present on the affected site. No solvent will be used above rock art. Removal within ten feet of rock art will require separate, site specific analysis under consultation with a certified rock art conservator and Native American representative. Sites requiring the use of sand blasting equipment placed within the wilderness boundary will also require a separate, site specific analysis.

2.1.2. Standard Operating Procedures

The proposed action is further defined by the following Environmental Protection Measures that will serve as Standard Operating Procedures. All reclamation activities covered by this environmental assessment will be performed in full compliance with these Standard Operating Procedures.

- Reclamation activities will only be conducted on lands administered by the Bureau of Land Management.
- Should a desert tortoise enter the area of activity, it will not be moved and all activities will immediately stop until the tortoise leaves the area of its own accord. Workers will be instructed to check underneath all vehicles before moving them as tortoises often take cover underneath parked vehicles.
- Because reclamation activities can create soil disturbances that can lead to opportunities for weed establishment, sites will be surveyed for noxious weeds prior to any reclamation activities. If noxious weeds are present, the BLM Weeds Coordinator will be consulted to determine if weed treatments will be necessary. Vehicle parking and equipment storage will be in areas that are relatively weed free. Equipment shall be cleaned of plant material before entering and upon exiting the sites.
- The proposed action is categorically exempt from cultural inventory under Appendix C.2 of the 2009 State Protocol Agreement between Nevada BLM and the Nevada State Historic Preservation Office (SHPO). In the event that cultural or paleontological resources are discovered during reclamation activities, operations in the vicinity of the discovered resources shall cease immediately and the operator will notify the Southern Nevada District Office Archaeologist. The Archaeologist will, as appropriate, evaluate the significance of the find

and determine the need for mitigation. The operator shall not proceed with potentially disturbing activities until authorized.

- Fire restrictions will be complied with while restrictions are in place. Fire restrictions are generally enacted between May 15 and October 1. Specific activities may be waived on a case by case basis by a line officer after review and approval by the Fire Management Officer.
- Washes, floodplains and dry lakes will not be entered shortly before, during, or shortly after precipitation events.
- Workers will not harass (feed, pet, chase, etc.) wild horses and burros if encountered on or near the project areas. If they do see any wild horses and burros, they will keep a safe distance.
- Workers will be oriented in the use of tools and equipment as well as any special wildlife, plant, cultural and wilderness resources and will be informed of the locations of wilderness boundaries.
- All vehicles will be limited to designated and existing roads outside of designated Wilderness.
- Implementation of the proposed action will comply with situation-specific terms and measures as determined by the regulatory officials. These measures may differ between regular desert tortoise habitat, designated critical desert tortoise habitat and desert tortoise habitat within Areas of Critical Environmental Concern as determined by the regulatory officials. General measures are in conformance with the USFWS Revised Recovery Plan for the Mojave Population of the Desert Tortoise (2011).

2.1.3. Maintenance

Reclamation actions would need to be maintained. Natural or human caused destruction of reclamation actions may occur. Continued motorized vehicle use of reclaimed routes may also occur. Reclamation actions would be re-implemented as necessary on a case-by-case basis, using the standard operating procedures and operational parameters established in this environmental assessment.

2.1.4. Monitoring

The BLM will monitor disturbances for any increased unauthorized uses and associated impacts. To assess the need for any additional reclamation work, photo points would be established at the time of reclamation and photos would be taken of the disturbance annually. BLM personnel, volunteers or Conservation Crew members will conduct monitoring in the spring and fall using digital cameras and global positioning units.

2.2. No Action Alternative

Under the “No Action” alternative, active reclamation of disturbances within the 15 wilderness areas would not occur. Signing of closed routes would continue, as would law enforcement and public education.

Closed vehicle routes would be managed through placement of signs and physical barriers outside of the Wilderness boundary. Closed routes and new vehicle incursions would not be restored and would remain visible to the visiting public and may encourage future unauthorized vehicle access.

Small site disturbances would be left to reclaim naturally. Graffiti and marks on rocks would not be removed.

2.3. Alternatives Considered but not Analyzed in Detail

The use of motorized vehicles and tools was considered for implementation of the proposed action. Although this would be a faster method of accomplishing reclamation, this alternative was dropped from detailed analysis because it was not the minimum tool for administration of the Wilderness Areas.

2.4. Conformance

The proposed reclamation activities have been analyzed within the scope of the following land use plans and have been found to be in conformance with the goals, objectives and decisions of these documents:

- Las Vegas Resource Management Plan (RMP) (1998)
- Red Rock Canyon National Conservation Area Resource Management Plan and Record of Decision (RRCNCA-RMP) (2005)
- South McCullough and Wee Thump Joshua Tree Wilderness Management Plan (2005)
- The Sloan Canyon National Conservation Area Approved Resource Management Plan (SCNCA-RMP) (2006)
- North McCullough Wilderness Management Plan (2006)
- Muddy Mountains Wilderness Management Plan (2007)
- Delamar Mountains, Meadow Valley Range and Mormon Mountains Wilderness Management Plan (2009)

In addition, the proposed action has been analyzed within the scope of the following statutes, regulations and policy and has been found to be in compliance:

- Wilderness Act of 1964
- National Historic Preservation Act of 1966, as amended
- Endangered Species Act of 1973
- Federal Land Policy and Management Act of 1976
- 43 CFR 6300 (Wilderness Management)
- BLM Manual 8560, H-8560-1, 8561 (Wilderness Management)
- USFWS Revised Recovery Plan for the Mojave Population of the Desert Tortoise of 2011

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Chapter 3. Affected Environment

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The Affected Environment section describes the existing conditions of the environmental resources within the project area. Tables 1 and 2 below contain the resources that were analyzed. There are several resources that are not present in the project area or are present but not affected by the proposed action. These resources will not be discussed further. Resources that may be affected are discussed further in the Affected Environment and the Environmental Effects sections.

Table 3.1. Supplemental Authorities

Supplemental Authority	Not Present	Present / Not Affected	Present / May be Affected	Rational
Air Quality		X		Reducing unauthorized routes through restoration has a positive effect on air quality. Ensure best management practices are implemented for the duration of the project. Otherwise, no issues.
Areas of Critical Environmental Concern (ACEC)			X	Several ACECs overlap with Wilderness Areas.
Cultural / Historical	X			The BLM Archaeologist has determined that the undertaking as proposed is exempt from Section 106 review as per Appendix C.2 of the 2009 State Protocol Agreement with the Nevada State Historic Preservation Office (SHPO): “Maintaining, replacing or modifying existing projects, facilities, routes, or programs that do not disturb additional surface area, or historic properties; or where the ground has been previously disturbed to the extent that historic properties could not exist; or where the facility itself is not a historic property.”
Greenhouse Gas Emissions		X		Currently there are no emission limits for suspected Greenhouse Gas (GHG) emissions, and no technically defensible methodology for predicting potential climate changes from GHG emissions. However, there are, and will continue to be, several efforts to address GHG emissions from federal activities, including BLM authorized uses.
Environmental Justice	X			No minority or low-income communities are present in project area.
Farmlands — Prime or Unique	X			There are no prime or unique farmland designations for the District.
Noxious Weeds / Invasive Nonnative Species			X	Closing and restoring will require weed inventory and treatment of any noxious weeds. If noxious weeds are present the areas will need to be monitored. Proposed action may isolate undesirable populations which can spread over time. Weed management BMPs will apply to the work being done. Soil disturbance can create opportunities for weed establishment. Weed treatment coupled with restoration activities are likely to result in a desired outcome. Depending any level of infestation discovered multiple treatment alternatives may need to be assessed. However if no noxious or invasive species of concern are discovered “NI” would apply with normal BMPs in place.
Native American Religious Concerns	X			No new surface disturbance is authorized.

Floodplains		X		No new impacts to floodplains or will not impact downstream flooding if washes, floodplains and dry lakes are restored and entered during dry conditions ONLY.
Riparian / Wetlands		X		No new impacts ONLY if roads running through wetlands and riparian zones (i.e. springs) are closed and blocked off and trash is removed. Any additional plant or ground disturbing activity would need to be evaluated separately.
Threatened, Endangered Animal			X	Carried forward for further analysis.
Threatened, Endangered Plant	X			Not present.
Migratory Birds			X	Carried forward for further analysis.
Waste — Hazardous / Solid	X			No issues.
Wilderness			X	The proposed action is not located within or adjacent to WSAs or ISAs. The proposed action is located within designated Wilderness which is managed so as to preserve its wilderness characteristics. These characteristics could be impacted as a result of the proposal and therefore impacts should be analyzed in the EA. The proposed action does not involve any Wilderness Act 4(c) prohibited uses.
Forests and Rangeland (HFRA only)	X			The proposed action does not include any additional surface disturbance; therefore there will be no impacts to rangeland health.
Human Health and Safety	X			No Issues.
Wild and Scenic Rivers	X			Not present.

Table 3.2. Other Resources Reviewed (Not Supplemental Authorities)

Resource	Not Present	Present / Not Affected	Present / May Be Affected	Rational
Recreation		X		Recreation users may encounter additional people due to the presence of restoration workers, but this would be temporary. Long term impacts would be beneficial.
Soils		X		No new impacts to soils if washes, floodplains and dry lakes are restored and entered during dry conditions ONLY.
Visual Resources		X		The action is administrative in nature. No new disturbances or activities are proposed. No issues.
Wildlife (Other than T & E)			X	Carried forward for further analysis.
BLM Natural Areas	X			The proposed action is not located within the North Pine Creek Natural Area.
Fuels		X		Normal conformance with seasonal fire restrictions is adequate. Restrictions can be in effect any time between May 15 and Oct. 1.
Geology / Mineral Resources		X		There should be no impacts to the mineral estate as the lands are withdrawn, but there is always a possibility to come across preexisting mine related workings. If a working is discovered, do not enter it and contact the Minerals Division.

Hydrology		X		Even though the proposed action will cause some disturbance, these disturbances should not cause impacts to the Hydrologic Condition.
Lands / Access	X			No issues.
Livestock Grazing		X		The proposed action area in North McCullough Wilderness Area is within the Hidden Valley Grazing Allotment; however, it is not located in the central portion of the allotment which the livestock generally rely on to provide their required habitat. If livestock are encountered, only temporary impacts resulting from stress associated with the vehicle traffic and humans present would occur. All participants will be instructed to not harass (feed, pet, chase, etc.) any livestock encountered. All other proposed action areas are not located in any authorized grazing allotments.
Paleontology	X			No new surface disturbance is authorized
Rangeland Health Standards		X		The proposed action does not include any additional surface disturbance; therefore there will be no impacts to rangeland health.
Socioeconomics		X		This project will not disproportionately impact social or economic values.
Water Quality		X		No new impacts to water resources if dry washes are restored and entered during dry conditions ONLY.
Woodlands / Forestry		X		Cactus and yucca are considered government property and are regulated under the BLM Nevada forestry program. Because the proposed action is limited to existing roads, disturbed areas, and spring habitat, no new impacts to cactus and yucca or other forestry products are expected.
Vegetation		X		There is a number of BLM Sensitive plant species throughout the area requested. As the proposed project will not result in any new surface or vegetation disturbance and all vehicles will remain within existing designated roads, no impacts BLM Special status plants or their habitat are anticipated.
Wild Horses and Burros		X		This project should not impact wild horses and burros; however, certain wilderness areas overlap with District's Herd Management Areas (HMAs). The potential does exist for individuals to see wild horses and burros. Individuals are informed to not harass (feed, pet, chase, etc.) wild horses and burros if encountered on or near the project areas. If they do see any wild horses and burros, they should keep a safe distance, they are wild animals and can be unpredictable, especially during foaling and breeding season.
Areas with Wilderness Characteristics	X			The proposed action is not located within areas found to meet the criteria as LWCs.

3.1. Areas of Critical Environmental Concern

Portions of the proposed action occur within the Paiute-Eldorado Valley, Gold Butte Part A, Coyote Springs, and Mormon Mesa Areas of Critical Environmental Concern (ACEC) which were designated as such by the Las Vegas Resource Management Plan (RMP) and the final Environmental Impact Statement (EIS) of 1998 due to their biological value as critical desert tortoise habitat.

3.2. Wilderness

The 15 wilderness areas are in a predominantly natural state with the evidence of human activity localized. Human imprints include both authorized and unauthorized activities. Authorized activities include various range improvements and wildlife water developments. Unauthorized disturbances include vehicle routes now closed as a result of wilderness designation. These routes are generally either four-wheel drive access roads created by repeated cross-country travel or user-created trails worn by repeated travel. At least 112 closed vehicle routes or vehicle incursions and 32 small site disturbances currently exist within the wilderness areas.

Recreational uses of the wilderness areas include day hiking, backpacking, caving, photography, equestrian use, rock hounding, big game and upland bird hunting, wildflower viewing, bird watching, sightseeing and other activities.

There are outstanding opportunities for solitude in all 15 wilderness areas. A variety of geologic formations and vegetative screening all provide excellent opportunities for solitude.

Several special features were mentioned in the CCCPLNA and LCCRDA including ecologically diverse habitat and prehistoric cultural resources. In addition, all areas have outstanding scenic qualities as described in part by the 1991 Bureau of Land Management statewide wilderness report.

3.3. Threatened and Endangered Animals

Threatened and endangered (T&E) species are placed on a federal list by the U. S. Fish and Wildlife Service (USFWS) and receive protection under the Endangered Species Act of 1973, as amended. The only T&E species known to occur in the vicinity of the project area is the threatened desert tortoise (*Gopherus agassizii*).

In the Mojave region, the desert tortoise occurs primarily on flats and bajadas with soils ranging from sand to sandy-gravel characterized by scattered shrubs and abundant inter-shrub space for herbaceous plant growth. They are also found on rocky terrain and slopes.

The proposed action is within the Paiute-Eldorado Valley, Gold Butte Part A, Coyote Springs, and Mormon Mesa ACECs which are designated desert tortoise critical habitat. Historical survey data indicates that the areas surrounding the project sites are very low to very high density tortoise habitat.

3.4. Wildlife Other Than Threatened and Endangered

The proposed project area supports and is adjacent to lands that supports wildlife characteristic of the Mojave Desert. Biological diversity varies according to topography, plant community, and proximity to water, soil type, and season.

Several common species of reptiles that may be present in the vicinity of the proposed project site may include the western whip-tail (*Cnemidophorus tigris*), desert iguana (*Dipsosaurus dorsalis*), side-blotched lizard (*Uta stansburiana*), zebra-tail lizard (*Callisaurus draconoides*), desert tortoise, western shovel-nosed snake (*Chionactis occipitalis*) and garter snake (*Thamnophis* sp.).

Common bird species that may be present in the vicinity of the proposed project site may include the rock wren (*Salpinctes obsoletus*), black-throated sparrow (*Amphispiza bilineata*), turkey vulture (*Cathartes aura*), common raven (*Corvus corax*), phainopepla (*Phainopepla nitens*), red-tailed hawk (*Buteo jamaicensis*), and western burrowing owl (*Athene cunicularia hypugaea*).

Common mammal species include the black-tailed hare (*Lepus californicus*), the desert cottontail (*Sylvilagus audubonii*), coyote (*Canis latrans*), badger (*Taxidea taxus*), kit fox (*Vulpes macrotis*), and many species of rodents.

3.4.1. BLM Sensitive Wildlife Species

BLM sensitive species are species that require special management consideration to avoid potential future listing under ESA and that have been identified in accordance with procedures set forth in BLM Manual 6840. The following sensitive wildlife species are known to potentially occur within the project area: western burrowing owl, western chuckwalla, banded gila monster, Mojave shovel-nosed snake, desert glossy snake, Mojave Desert sidewinder, and desert bighorn sheep.

3.4.1.1. Western burrowing owl

The Western burrowing owl is a diurnal bird of prey specialized for grassland and shrubsteppe habitats in western North America. The owls are widely distributed throughout the Americas and can be found from central Alberta, Canada to Tierra del Fuego in South America. Burrowing owl habitat typically consists of open, dry, treeless areas on plains, prairies, and desert floors. Burrowing owls most frequently use mammal burrows created by other animals such as prairie dogs (*Cynomys* spp.), ground squirrels (*Spermophilus* spp.), coyotes, or desert tortoises. The burrows are used for nesting, roosting, cover, and caching prey. In recent decades, the range and species count have been declining primarily due to agricultural, industrial, and urban development that reduce burrow availability.

3.4.1.2. Western Chuckwalla

The western chuckwalla (*Sauromalus ater*) is a Nevada state protected species that is found throughout the deserts of the southwestern United States and northern Mexico. Chuckwallas inhabit rocky outcrops where cover is available between boulders or in rock crevices, typically on slopes and open flats below 5,000 feet. Typical habitat includes rocky hillsides and talus slopes, boulder piles, lava bed, or other clusters of rock, usually in association Mojave Desert Shrub vegetation. This species requires shady, well-drained soils for nests. The chuckwalla is a widespread species, but is regionally limited by its requirement for rock outcrops. Chuckwallas likely occur within the area, but would be localized on rock outcroppings.

3.4.1.3. Banded Gila Monster

The banded gila monster (*Heloderma suspectum cinctum*), a Nevada state protected species, is a large, heavy-bodied lizard with a massive head, a short thick tail, and short limbs with strong claws. It has flamboyant dorsal coloration of black and pink, orange, or yellow and occasionally exceeds 50 centimeters (19.7 inches) in total length. The gila monster's range includes extreme southwestern Utah, southern Nevada, and adjacent southeastern California south through southern Arizona, southwestern New Mexico, and much of Sonora to Sinaloa, Mexico. Its habitat includes

Mojave and Sonoran desert scrub, desert grassland, thorn scrub, and occasionally pine-oak woodland. Threats to this reptile include illegal collection, traffic fatalities, and most severe is habitat destruction from urban and agricultural development.

3.4.1.4. Mojave Shovel-nosed Snake

The Mojave shovel-nosed snake (*Chionactis occipitalis occipitalis*) is a burrowing, nocturnal snake frequenting washes, dunes, sandy flats, loose soil and rocky hillsides in sandy gullies or pockets among the rocks throughout the Mojave Desert.

3.4.1.5. Desert Glossy Snake

The desert glossy snake (*Arizona elegans eburnata*) is a burrowing, nocturnal snake that occurs in a variety of habitat throughout the Mojave Desert including light shrubby to barren desert, glasslands and woodlands. The desert glossy snake generally prefers open areas where the ground is sandy to loamy.

3.4.1.6. Mojave Desert Sidewinder

The Mojave Desert sidewinder (*Crotalus cerastes cerastes*) is a nocturnal snake hiding in the day in animal burrows or coiled camouflaged in a shallow self-made pit at the base of a shrub. This species is most common where there are sand hummocks topped with creosote bushes, mesquite or other desert plants but may also occur on flats, barren dunes, hardpan and rocky hillsides.

3.4.1.7. Desert Bighorn

The desert bighorn sheep (*Ovis canadensis*) is a species of management concern that is found mainly along desert mountain ranges in Nevada and California to west Texas and south into Mexico. Bighorn sheep are gregarious, sometimes forming herds of over 100 individuals, but small groups of 8-10 are more common. Mature males usually stay apart from females and young for most of the year in separate bachelor herds. They usually migrate seasonally, using larger upland areas in the summer and concentrating in sheltered valleys during the winter. Most of the project area is within year round ranges for desert bighorn sheep, with some areas within winter ranges.

3.5. Migratory Birds

Under the Migratory Bird Treaty Act of 1918 (MBTA) and subsequent amendments (16 U.S.C. 703-711), it is unlawful to take, kill, or possess migratory birds. Numerous bird species travel through Nevada during spring and fall migrations. A list of the protected bird species can be found in 50 C.F.R. §10.13. The list of birds protected under this regulation is extensive and the project site has potential to support many of these species, including the BLM sensitive species the western burrowing owl. Typically, the breeding season is when these species are most sensitive to disturbance, which generally occurs from March 1st through August 31st.

3.6. Noxious Weeds and Invasive Non-native Species

Invasive and noxious non-native plant species known to occur in the wilderness areas include tamarisk (*Tamarix* sp.), red brome (*Bromus rubens*), cheat grass (*Bromus tectorum*), Sahara mustard (*Brassica tournefortii*), and scotch thistle (*Onopordum acanthium*).

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Chapter 4. Environmental Effects:

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4.1. Areas of Critical Environmental Concern

4.1.1. Proposed Action

The proposed action will not result in any new disturbance and will improve the overall health of the ACECs through reestablishment of native species and reduction in disturbance activities (i.e. illegal OHV use).

4.1.2. No Action Alternative

The no-action alternative would not impact the wildlife habitat management direction for special status animal species within Areas of Critical Environmental Concern. There would continue to be impacts to wildlife habitat from disturbances and continuing motorized use of closed vehicle routes within Areas of Critical Environmental Concern.

4.2. Wilderness

4.2.1. Proposed Action

Wilderness values of untrammeled, naturalness, solitude or primitive and unconfined recreation, and other supplemental values as described below would be affected by the proposed reclamation activities. All seven reclamation activities would reduce the visibility and accessibility of these disturbances to motorized vehicles, which will enhance the naturalness, solitude and primitive recreation values of the wilderness areas.

4.2.1.1. Untrammeled

The untrammeled quality of the wilderness areas will be impacted by any active reclamation activities. Without this trammeling, the disturbances will remain visible for a long time which increases the likelihood of future incursions and disturbances. The impacts to the untrammeled quality are thus minor compared to the benefits to the naturalness and solitude qualities described below and the reduction in the likelihood of future disturbances.

4.2.1.2. Naturalness

The naturalness of the areas would be enhanced by the proposed action. The existing disturbances have an impact on the appearance of naturalness in the wilderness areas. Many of the disturbances can be seen for long distances and heavily contrast with the surrounding undisturbed portions of the wilderness. By rehabilitating those portions of the disturbances visible from the wilderness boundary the areas will appear more natural and less disturbed. Those disturbances not reclaimed will remain disturbed and unnatural for a longer period of time than those that will be reclaimed. The amount of time that it will take for the unreclaimed portions of the disturbances to naturally rehabilitate will be reduced because less additional disturbance will occur once the visible portions are reclaimed and/or barricaded. Work crews would generate some human waste in the wilderness.

4.2.1.3. Opportunities for Solitude or Primitive and Unconfined Recreation

During the completion of reclamation activities, solitude and primitive recreation would be negatively impacted by the presence of conservation crews, volunteers and BLM personnel. This impact would be temporary and would occur in less than 1% of the total wilderness areas.

After the completion of the reclamation activities, solitude and primitive recreation would be enhanced. Reclamation activities would facilitate the motorized vehicle use limitations imposed by wilderness designation. Reclamation projects in other BLM managed wilderness and wilderness study areas have reduced the level of illegal motorized trespass occurring on existing routes. This reduction in motorized trespasses will increase the opportunities for solitude and primitive recreation in the areas. Less regulation and contact with wilderness users would improve the wilderness experience.

4.2.1.4. Supplemental Values

There would be some positive impact to special features associated with the wilderness areas by the proposed action. The proposed action would have an impact on special features related to cultural resources. Because some of the existing vehicle routes and associated small site disturbances provide access to cultural sites, the likelihood of visitors disturbing those sites would be reduced if the disturbances were reclaimed prevent additional unauthorized trespasses.

4.2.2. No Action Alternative

Wilderness values of naturalness, solitude, primitive and unconfined recreation, and supplemental values would continue to be impacted by existing disturbances. The No Action alternative would not meet the requirements of the 1964 Wilderness Act. The naturalness of the area would not be enhanced by the no-action alternative. Disturbances would continue to contrast the surrounding undisturbed portions of wilderness. While reclamation work crews would not be an impact visitor's opportunities for solitude under the no action alternative, opportunities for solitude would not be enhanced by the proposed reclamation work. Supplemental values of the wilderness areas would continue to be impacted by unauthorized motorized access

4.3. Threatened and Endangered Animals

4.3.1. Proposed Action

The proposed action will not result in any new surface or vegetation disturbance, all vehicles will remain within existing roadways and turnouts and restoration will be executed manually with hand tools. The project site is situated in very low to moderate density desert tortoise habitat. No adverse impacts to desert tortoises or their habitat are expected and no remuneration fees are required. Upon completion of the proposed action, impacts associated with mortality from vehicular traffic will be reduced and habitat will be enhanced and less fragmented.

Additionally, compliance with the special stipulations below will help to ensure that no affect to desert tortoises occurs.

*Chapter 4 Environmental Effects:
Opportunities for Solitude or Primitive and
Unconfined Recreation*

1. A speed limit of 25 miles per hour shall be required for all vehicles travelling on the existing access roads.
2. Should a desert tortoise enter the area of activity, all activity shall cease until such time as the animal has left the area of its own accord.
3. Workers will be instructed to check underneath all vehicles before moving them as tortoises often take cover underneath parked vehicles.
4. Workers will be provided educational information on the desert tortoise which includes the legal protection and consequences for the violation of the Endangered Species Act.

4.3.2. No Action Alternative

Desert tortoise habitat would continue to be impacted by disturbances within wilderness. No positive habitat restoration would occur. No additional impacts to areas adjacent to disturbances would occur. No impacts to individual animals or burrows would occur as the result of the surface disturbing reclamation actions.

4.4. Wildlife Other Than Threatened and Endangered

4.4.1. Proposed Action

Wildlife species in the general area include small mammals, rodents, birds and reptiles. These species may be found on the adjacent undisturbed lands and could wander into the proposed project area. The direct adverse impact of the proposed action on wildlife would be mortality of individuals from vehicular traffic on existing roads and disturbances. Wildlife species in the general area are common and widely distributed throughout the area and the loss of some individuals and/or their habitat would have a negligible impact on populations of the species throughout the region. Upon completion of the proposed action, impacts associated with mortality from disturbance activities (i.e. illegal OHV use) will be reduced and habitat will be enhanced and less fragmented.

4.4.1.1. BLM Sensitive Wildlife Species

4.4.1.1.1. Western burrowing Owl

Potential western burrowing owl habitat occurs adjacent to the project area. Direct loss of individuals is not anticipated as the proposed action will not create any new disturbance. Upon completion of the proposed action, impacts associated with mortality from disturbance activities (i.e. illegal OHV use) will be reduced and habitat will be enhanced and less fragmented.

4.4.1.1.2. Western Chuckwalla and Banded Gila Monster

Banded gila monster and western chuckwalla may be killed or injured if they wander into the area of activity. Upon completion of the proposed action, impacts associated with mortality from vehicular traffic will be reduced and habitat will be enhanced and less fragmented.

4.4.1.1.3. Mojave Shovel-nosed Snake, Desert Glossy Snake, and Mojave Desert Sidewinder

The direct adverse impact of the proposed action on BLM sensitive snake species would be mortality of individuals from vehicular traffic on existing roads and disturbances. However, the above listed snake species are mainly nocturnal which reduces the potential for impacts as the proposed action will take place during the day. Upon completion of the proposed action, impacts associated with mortality from disturbance activities (i.e. illegal OHV use) will be reduced and habitat will be enhanced and less fragmented.

4.4.1.1.4. Desert bighorn

Desert bighorn sheep may be temporarily disturbed by vehicles operating in their habitat. Animals may seek cover on steep slopes and ridges to avoid vehicular activity and associated noise pollution. Potential impacts would be temporary as the duration for restoration activities will be several days at each site, utilizing hand tools only and will be carried out by crews of approximately 12 people. The proposed action will have an overall benefit to the species by reducing unauthorized OHV travel in the area.

4.4.2. No Action Alternative

Wildlife habitat would continue to be impacted by disturbances within wilderness. No positive habitat restoration would occur. No additional impacts to areas adjacent to disturbances would occur. No impacts to individual animals or burrows would occur as the result of the surface disturbing reclamation actions.

4.5. Migratory Birds

4.5.1. Proposed Action

As there will be no new surface or vegetation disturbance associated with the proposed action, there will be no adverse impacts on migratory birds. Upon completion of the proposed action, impacts associated with mortality from vehicular traffic will be reduced and habitat will be enhanced and less fragmented.

4.5.2. No Action Alternative

Migratory bird habitat would continue to be impacted by disturbances within wilderness. No positive habitat restoration would occur. No additional impacts to areas adjacent to disturbances would occur. No impacts to individual animals would occur as the result of the surface disturbing reclamation actions.

*Chapter 4 Environmental Effects:
Mojave Shovel-nosed Snake, Desert Glossy Snake,
and Mojave Desert Sidewinder*

4.6. Noxious Weeds and Invasive Non-native Species

4.6.1. Proposed Action

Reclamation activities will not occur in areas with existing noxious weed infestations without prior consultation with the BLM Weeds Coordinator. The implementation of the standard operating procedures in Section 2.1.2 will help reduce the possible introduction and spread of non-native species due to ground disturbing activities during reclamation. The use of native seeds in some reclamation areas would help limit the spread of invasive, non-native species. Reclamation of closed motorized routes may slow the spread of additional invasive, non-native species by minimizing illegal motorized travel within wilderness.

4.6.2. No Action Alternative

Impacts due to invasive, non-native species are expected to occur and increase. Disturbances continuing to receive unauthorized motorized use may become infested with noxious or invasive weeds.

4.7. Cumulative Impacts

The purpose of the cumulative impacts analysis for the proposed action is to evaluate the combined, incremental effects of human activity within the scope of the project. The Council on Environmental Quality (CEQ) regulations define scope and state that connected actions, cumulative actions, and similar actions should be included in the impact analysis (40 CFR 1508.25). The Council on Environmental Quality formally defines cumulative impacts as follows:

...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Moreover, according to the 1997 CEQ Handbook *Guidelines for Assessing and Documenting Cumulative Impacts*, the cumulative impact analysis can be focused on those issues and resource values identified during scoping that are of major importance.

4.7.1. Past Actions

These Wilderness areas were designated in 2002 and 2004. The growth in population and growth in the use of Off-Highway Vehicles has resulted in the improved motorized access to these once remote and inaccessible areas. Impacts from vehicle use (prior to wilderness designation) and continued unauthorized use of closed routes have led to the current impacts to wilderness, wildlife, etc. Wilderness Management plans have been completed for six of the fifteen wilderness areas in question. Activities within these wilderness areas have included implementing activity plans such as restoration of former vehicle routes to a natural state, completing trailhead parking areas and installing signs and informational kiosks, and construction of hiking trails.

4.7.2. Present Actions

Current actions include continuing to implement the current wilderness plans including restoring former vehicle routes to a natural state, removing pre-wilderness dams, creating trailheads with information signs and completing trail construction, conducting weed treatments, educational programs on Wilderness and Leave No Trace principles, and wilderness boundary marking. Reclamation activities will reverse the cumulative effects of this use, resulting in overall positive effects to wilderness characteristics, wildlife, vegetation, soil, and visual resources. The purpose of the operational parameters outlined in this Proposed Action is to minimize any negative cumulative and/or residual effects of the proposed reclamation activities. Restoration activities similar to those proposed are also occurring in neighboring desert tortoise habitat in ACECs that has the combined effect of further improving habitat conditions.

4.7.3. Reasonably Foreseeable Future Actions

The population of southern Nevada is expected to continue to grow and expand. Residential developments are expected in Coyote Springs, an area in Lincoln and Clark counties that is close or adjacent to two Wilderness areas. New disturbances may be created by unauthorized uses attempting to circumvent the reclaimed disturbances, creating entirely new impacts and the need for additional reclamation actions. Those routes that are reclaimed may receive continued motorized trespass, which will necessitate the need for additional reclamation work. Wilderness management plans for the other wilderness areas will be completed and implemented. These plans will outline other activities that need to take place in the wilderness areas to help preserve wilderness character such as weed treatments, removal of structures and installations, construction of trails and trailheads, installation of signs, and restoration of disturbances.

Chapter 5. List of Preparers

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Table 5.1. List of Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Mathew Hamilton	Project Manager	Introduction, Proposed Action, Affected Environment, Environmental Effects, editing and review
Jessica Simons	SCA Wilderness Stewardship Intern	Introduction, Proposed Action
Jayson Barangan	Wildlife Biologist	Affected Environment and Environmental Effects to Wildlife, T&E Wildlife, Migratory Birds, and ACECs

Table 5.2. Internal Review by Resource Specialists

Name	Resource / Specialty
Lisa Christainson	Air Quality, GHG Emissions, Visual Resources
Katherine Kleinick	T&E Plants, Vegetation, Forestry, Grazing, Rangeland Health
Susanne Rowe	Cultural Resources, Paleontology, Native American Religious Concerns
Boris Poff	Hydrology, Floodplains, Water Quality, Wetlands / Riparian, Soils
John Evans	Environmental Justice, Socioeconomics, NEPA
Krystal Johnson	Wild Horse and Burro, Farmlands
Sean McEldery	Fuels and Fire Management, Noxious and Invasive Weeds
George Varhalmi	Geology and Minerals
Kerri-Anne Thorpe	Lands and Access
Marylin Peterson	Recreation, Wild and Scenic Rivers
Jayson Barangan	Wildlife, Migratory Birds, T&E Wildlife, ACECs
Sendi Kalcic	Wilderness, BLM Natural Areas, Lands with Wilderness Characteristics