

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

**Environmental Assessment
Sloan Canyon National Conservation Area
Trails Master Plan**

DOI-BLM-NV-S020-2013-0010-EA



N-92176

PREPARING OFFICE

U.S. Department of the Interior
Bureau of Land Management
Red Rock/Sloan Field Office
Las Vegas, Nevada



**Environmental Assessment
Sloan Canyon National Conservation Area
Trails Master Plan**

**Prepared by
U.S. Department of the Interior
Bureau of Land Management
Las Vegas, Nevada**

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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:

Amendment to Sloan Canyon NCA Trails Master Plan

1.1.2. Location of Proposed Action:

Southern Nevada District Office, Las Vegas Field Office and Sloan Canyon National Conservation Area. T. 23S., R. 62E., sec 17, SWSE, SESE, SWSW. T. 23S., R. 61E., sec 26, NWSE, NESE, SWSE; T. 23S., R. 61E., sec 35, SW. T. 23S., R. 62E., sec 13, NWSE, SENW, SWNE, SENE; T. 23S., R. 62E., sec 13, NESE, SESE, SWSE; T. 23S., R. 63E., sec 18, lots 2-3; T. 23S., R. 63E., sec 24, NWNE. T. 23S., R. 62E., sec 14, NWSW, SWSW; sec 15, NESE. T. 22S., R. 62E., sec 36, NESW. T. 23S., R. 62E., sec 11, SESE; sec 12, NWSW, SWSW. T. 23S., R. 62E., sec 1, lot 1. T. 22S., R. 62E., sec 36 (within). T. 23S., R. 62E., sec 5, lots 2, 3, 6, SENW, NESW, NWSE, NESE. T. 24S., R. 61E., sec 10, NWSW, NESW, SESW, SWSW. T. 23S., R. 62E., sec 20, lots 2-5, 7, NWNE.

1.1.3. Name and Location of Preparing Office:

Lead Office - Red Rock/Sloan Canyon NCA FO and number S020

1.1.4. Identify the subject function code, lease, serial, or case file number:

Case file number N-92176, Original NEPA #2009-292

1.1.5. Applicant Name:

Sloan Canyon National Conservation Area

1.2. Purpose and Need for Action:

The approved Master Trails Plan (MTP) for Sloan Canyon National Conservation Area contains over 44 miles of hiking, biking and equestrian trails located in the Bureau of Land Management (BLM) managed Sloan Canyon National Conservation Area (NCA) in Southern Nevada.

The MTP analyzed all proposed trail alignments within a 30' buffer to provide flexibility with trail tread placement. This flexibility is necessary so trail construction specialists and crews can place the tread in an alignment that decreases construction problems, protects habitat and soil stability and provides a better user experience. The 30' buffer was not wide enough in the proposed trail re-routes so analysis of the new trail tread location within this amendment is necessary. This amendment to the MTP also proposes restoration and fencing necessary to minimize resource

impacts from unauthorized social trail creation and unauthorized site disturbances like the trespass disturbance at Mission Drive. This amendment implements decisions in the Sloan Canyon National Conservation Area Resource Management Plan to re-locate the Petroglyph Canyon and Hidden Valley trailheads to the NCA Boundary thus removing public vehicle traffic from within the NCA and abating motorized Wilderness incursions. This amendment proposes to construct new trails that will provide connectivity to the MTP trails across Public Land managed by BLM, Las Vegas Field Office.

A Right of Way (ROW) is requested for all project components on land managed by the Las Vegas Field Office and all trails within the MTP on land managed by the Red Rock/Sloan Field Office. When the original MTP Environmental Assessment (NEPA # 2009-292) was approved, ROW's were typically not issued for internal projects like hiking, biking and equestrian trail, hence the request for a ROW "after the fact".

Disturbance: New disturbance totals 1.85 acres. This figure does not take into account the 9.64 acres of restoration that is scheduled, and this figure does not contain restoration of rogue trails that intersect with designated trails. See Acreage and Project Component Summary for details.

Timeline: Restoration of the Mission Drive trailhead area and fencing and signing of the Quo Vadis area is scheduled for implementation 2014–2015. Relocation of the Hidden Valley and Petroglyph Canyon trail heads is scheduled 2014 and will be completed using a primarily by a volunteer work force. Construction of connector trails in the Black Mountain area could begin as early as Spring 2014.

The attached maps show the proposed new connector trail alignments and re-routes. The re-routes have been ground verified by BLM. The proposed new connector trails at Black Mountain may need alignment variations, hence; a corridor of 100' on either side is requested.

It is a strong possibility that the proposed new 403 connector trail will be part of the Vegas Valley Rim Trail. Currently, the plan is for a native surface trail, but this analysis will include a hard surface option for this segment only in the event a collaborative effort would fund an asphalt surface as preferred by the Vegas Valley Rim Trail proponents.

This amendment will allow small sections of fence necessary to abate incursions and protect NCA resources, be installed at the recommendation of the BLM Restoration Specialist and concurrence of the Authorized Officer, at locations not specifically addressed in this amendment. The same applies to restoration or disguising of unauthorized routes that may be created in the future, or are not known at this time.

The decision to be made: BLM will decide whether or not to approve the proposed MTP re-alignments, connector trails, trail head relocations, social trail restoration and fencing and other appurtenances.

1.3. Scoping, Public Involvement and Issues:

Scoping and public involvement for the MTP NEPA # 2009-292 was extensive and included working with 15 interest groups, mailing of over 500 scoping letters, three Tribal Coordination meetings, and two public meetings. Comments and evaluations from the scoping letters and public meetings were incorporated into the MTP Environmental Assessment. Details can be found within the Environmental Assessment on the Sloan Canyon NCA website.

Scoping and public involvement for the re-location of the Hidden Valley and Petroglyph trail heads was also extensive and was accomplished during the development and approval of Resource Management Plan for Sloan Canyon NCA. Details are available on the Sloan Canyon NCA website.

A summary of this EA is available for review by the public on the internet on the DOI.GOV website under NEPA number DOI-BLM-NV-S020-2013-0010-EA.

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Chapter 2. Proposed Action and Alternatives

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2.1. Description of the Proposed Action:

This project amends the Sloan Canyon National Conservation Area (NCA) Trails Master Plan (TMP), Environmental Assessment 2009-292. After an in-depth, on the ground investigation, it was determined that the original trail alignment required adjustments outside the 60' trail corridor originally authorized, there was no trail connectivity to other public trails in the area, and existing trail head locations were undesirable as they provided easy motorized access to the North McCullough Wilderness. This amendment is necessary to decrease trail construction problems, increase protection of habitat and soil stability, provide a more inviting user experience, reduce motorized incursions into the Wilderness and provide connectivity within the regional trail network. This amendment also details restoration efforts in the Mission Drive Trail Head area and other areas as they are discovered. Restoration includes strategically installed fencing to abate future disturbance and prevent disturbance of recently restored areas. This amendment also implements decisions in the Sloan Canyon NCA Resource Management Plan including REC 9, 12, 13, VR 1, INT 3, FAC 3, 4, 5, and VEG 1, 9.

This amendment includes new and re-routed trail, re-located trail heads at Petroglyph Canyon and Hidden Valley, restoration of unauthorized routes and fencing necessary to abate motorized incursions and prevent damage to resources and trails within the NCA. Environmental Assessment 2009-292 can be accessed at http://www.blm.gov/nv/st/en/fo/lvfo/blm_programs/blm_special_areas/sloan_canyon_nca/conservation_area/sloan_canyon_nca_trails.html A ROW is requested for the entire project.

The uploaded maps show the proposed new trail alignments, re-routes, trail heads and appertenances. The re-routes have been ground and verified by BLM. The proposed new connector trails still need to be ground truthed so a corridor of 100' on either side is requested.

It is a strong possibility that the 403 connector trail will be part of the Vegas Valley Rim Trail. Currently, the plan is for a native surface, but the analysis will include a hard surface for this segment only in the event a collaborative effort would fund an asphalt surface.

This amendment will allow small sections of fence necessary to abate incursions and protect NCA resources, be installed at the recommendation of the Restoration Specialist and concurrence of the Authorized Officer, at locations not specifically addressed in this amendment. The same applies to restoration or disguising of unauthorized routes that may be created in the future, or are not known at this time.

Equipment/tools used to carry out non-Wilderness trail construction and site restoration activities will be consistent with the original TMP. This means there are no restrictions on the use of mechanical or motorized equipment. The majority of the work in this amendment will use hand tools only. There will be opportunities to use a power auger or bobcat to complete restoration work or dig holes for sign posts and fence. This will occur only in previously disturbed areas and is expected to be minimal.

In general, work will involve between 4-10 persons (youths) at one time and workers will be dispersed over several acres. Trail head relocation projects could include around 100 volunteers, possibly more including Staff. Trail head relocations include restoration of existing road and old trailheads so a large number of Volunteers will be spaced over several acres and the event duration is one day.

Projects that restore previously disturbed areas total 9.71 acres. This includes the Mission Drive Trail Head, road decommissioning and other small sites. Restoration includes planting of native vegetation, smoothing and in some cases application of a desert varnish to minimize visual contrast. When possible, larger rocks will be located in the decommissioned roads to prevent future motorized disturbance. Typically a t-post fence with smooth wire will be installed to abate pedestrian/biking/equestrian access into areas where that activity is not authorized. Typically post and cable fencing will be installed to abate motorized access to the NCA.

TMP trail adjustments: Original permanent disturbance, previously analyzed in the TMP for trail portions affected by the adjustments is 0.23206 acres. The new adjusted trail alignment proposed by this amendment will create 0.22991 acres of new permanent disturbance, all on RRSFO. The difference is 0.00215 acres less permanent disturbance.

Restored acres: Trailhead restoration and road decommissioning will restore 9.64 acres, all on RRSFO.

Other new permanent disturbance: New permanent disturbance from proposed trailheads, connector trails, fencing and other project appurtenances not previously analyzed in the TMP is 1.84485 acres; 0.99749 acres on Las Vegas Field Office and 0.84736 acres on RRSFO.

Total new disturbance is 1.84270 acres. Total LVFO acres: 0.99749, RRSFO acres: 0.84521.

Timeline: Restoration of the Mission Drive trailhead area and fencing and signing of the Quo Vadis area is scheduled for implementation in 2014. Relocation of the Hidden Valley and Petroglyph Canyon trail heads is scheduled between 2014-2015. Construction of connector trails in the Black Mountain area will probably occur in the fall of 2014.

The attached maps show the proposed new trail alignments and re-routes. The re-routes have been ground verified by BLM. The proposed new connector trails may need alignment variations. A corridor of 100' on either side is requested on the connector trails in the Black Mountain area, otherwise the width of the corridor will be the standard 30' either side of center.

It is a strong possibility that the 403 connector trail will be a part of the Vegas Valley Rim Trail. Currently, the plan is for a native surface, but the analysis will include an asphalt surface for this segment only in the event a collaborative effort would fund the project. In the event funding becomes available in the future, this amendment will sufficiently analyze the 403 trail to eventually receive an asphalt surface.

This amendment covers the installation of small sections of fence necessary to abate incursions and protect NCA resources, be installed at the recommendation of the Restoration Specialist and concurrence of the Authorized Officer, at locations not specifically addressed in this amendment. The same applies to restoration or disguising of unauthorized routes that may be created in the future, or are not known at this time.

Below is a description of project components, grouped together by access area. A spread sheet has been uploaded showing acreage and other details for each project element.

Black Mountain connector trails:

These are new, never analyzed routes that provide connectivity to City of Henderson and Sloan Canyon trail networks.:

- 403 Connector trail: total of 1380' new trail, 340' previously disturbed. Connects the 403 to the Anthem East Trail at the cinder brick building. All LVFO jurisdiction.
- 404 Connector trail: 3439' on LVFO jurisdiction, 1060' previously disturbed. RRSFO jurisdiction contains 1878' of trail, all new disturbance.
- Installation of a new kiosk and a shade structure is proposed if funding is available. The location has not been ground truthed, but it would be near the 404 trail and the NCA boundary.

Hidden Valley Trailhead relocation:

- 300 trail: incorporation of 483' of new trail, all which is currently a road, all previously disturbed and all on LVFO jurisdiction. The trail is necessary to connect the parking area to the NCA boundary. This will remove 193' of previously approved but never constructed trail from the trails plan.
- Post and Cable fence: up to 140' of fencing will be installed to abate motorized incursions into the NCA. It will be located at the east end of the parking area. A small 40' segment will be installed initially but if incursions continue around the short segment, the fence may be lengthened.
- New parking area to accommodate up to 3–4 vehicles towing horse trailers and up to 10 cars (or about 20 cars without the trucks and trailers). 0.85 acres with 0.10 previously disturbed. Boulders or rocks or wooden posts will be placed at the parking area perimeter to contain the parking area. A new kiosk and/or shade shelter may be placed on the eastern edge of the parking area along with interpretive material or signs. The work will be accomplished largely by Volunteers with assistance from BLM maintenance if funding and availability allows.
- Ripping/conversion of 3890 feet of existing wash road into single track trail. A majority of the existing road will be “ripped” using equipment and the remaining portion will remain trail. There is a chance a big rain will heal the existing road and no treatment/ripping will be necessary.
- There is an existing access road from S. Las Vegas Blvd to the new HV trail head that will be authorized for legal access via a ROW to the Red Rock/Sloan Field Office. The road is 9.42 miles long X 12 feet wide and consists of 13.70 acres of previous disturbance. Road Maintenance will remain with the District maintenance staff.

Petroglyph Canyon Trailhead relocation:

- 100 trail: removal of 284' previously authorized trail because it is incorporated into within the new parking area.
- Creation of a less than 0.73 acre hammer shaped parking area at the end of the access road with a new kiosk and shade structure located on the east side of the parking area. Originally, a head in only parking linear parking option was proposed, but after the area was analyzed by BLM Maintenance Staff, the smaller hammer shape reduced the disturbance footprint and maintenance intensity while providing for expansion in the future if visitation increases and additional parking is needed. Parking area will be defined with boulders removed from the creation of the parking area or low profile post and cable fencing. Additional wooden posts may be used to contain disturbance from vehicles if necessary. Low profile signs will be installed to let visitors know the parking area flow.

- Approximately 2625 feet of existing wash road will be de-commissioned.
- Restoration of the 0.08 acre current trailhead/parking area.

McCullough Hills Trailhead at Mission Drive Restoration:

- 10.77 acres were previously disturbed by the Pulte Homes development north of the project site and will be restored. The City of Henderson will construct a 3 acre trailhead for the McCullough Hills Trail within the existing disturbance and the remainder will be restored with native planting, weed eradication, and re-contouring if practical.
- Collaboratively work with the City of Henderson to remove invasive weeds from the Black Mountain detention basin
- De-commission non-designated hiking and unauthorized motorized routes in the area.
- Install fencing, regulatory and informative signs in the area.
- McCullough Hills trail access point on the west side of the trail is near to placement of large amounts of excess mineral material by NV Energy when the substation was constructed. Restoration work in this area includes removal of Russian thistle, application of desert varnish, revegetation of the area, signage and other minor appurtenances.
- NV will be requesting an access road under the powerline in the trailhead area. Restoration efforts will be attentive to this as the analysis to provide NV Energy authorization to access their line in this location is out of the scope of this project.

Quo Vadis Access Area:

- Install 900 feet of post and cable fencing within the area shown by a green box on the attached map. Approximately ¼ mile north of the NCA boundary, a post and cable fence will be installed with three gates to allow passage for administrative use. The location will be refined to minimize length of fence and maximize effectiveness in preventing motorized incursions. This location was chosen because of elevation on both sides of the wash area can serve as a pinch point. Access through the fence for hikers, bikers and equestrians will be provided.
- NCA Boundary signing will be installed near the boundary at the Quo Vadis access area. Approximately 3000 feet of boundary will be signed and may include informative and regulatory messages.

Re-Routes to strengthen trail against erosion:

- 610 Trail will be re-routed to green line which is a natural gravel surface. No construction or disturbance for the 218' re-route. The old route will not be constructed and will result in 233' feet of less disturbance.
- 701 and 500 Trail Junction Re-route is 459' and replaces 450' of originally planned trail. All new disturbance.
- 701 Re-route is 0.53 miles (2798') and replaces 0.32 mile (1693') of originally planned trail.
- 601 trail will be re-routed to the green line which includes a total of 407', 327' is previously disturbed. The original route, with 324' of all new disturbance, will not be constructed.

Misc. Fencing in NW area of NCA:

- Social trails and rogue bike trails in this area of the NCA are numerous. Post and cable fence at the NCA boundary, in various unauthorized access points, containing boundary, regulatory and informative messages may be installed.
- One significant rogue trail that may receive fencing is within the NCA, at a junction with the McCullough Hills Trail and Anthem East Trail.
- The maximum fencing length of 2820 feet will hopefully not have to be installed, but past attempts to restore and sign the fragile area on the northern boundary were futile as rogue trails were re-established within weeks.
- The City of Henderson is interested in exploring the idea of designating a trail and establishing an access point along the north boundary near the Bursage Loop trail lookout. Mountain biking is not allowed in much of this area.

2.2. Description of Alternatives Analyzed in Detail:

No Action: Under a “No Action” alternative, original trail alignments identified in the TMP would be constructed, there would be no connectivity to many trails in the Black Mountain area, trail head relocations would not be implemented resulting in a greater chance for motorized wilderness incursions and restoration would not occur.

2.3. Alternatives Considered but not Analyzed in Detail

The trail alignment evaluation that occurred during the MTP Environmental Assessment (2009–292) was based upon the land features (i.e. geology, topography) and the resources present (i.e. vegetation, wildlife) for the best trail placement and recreational experience. The Proposed Action (realignment) is a result of improvement request after construction began and found challenges in habitat and soil stability, lack of connectivity, identification of the need for restoration and disturbance abatement. No other locations nor alignment possibilities were identified. Thus no other alternatives were considered.

2.4. Conformance

This EA was prepared in compliance with Council on Environmental Quality (CEQ) Regulations for implementing NEPA (40 CFR § 1500-1508), and all applicable regulations and laws passed subsequent to the passage of NEPA, and stipulations and format outlined in the BLM NEPA Handbook (H-1790-1).

Rights-of-ways are allowable on BLM-administered lands per Title V of the Federal Land Policy and Management Act of 1976 and the BLM regulations (43 CFR 2800), at the discretion of the Secretary of the Interior or his/her delegated officer.

The Proposed Action is in conformance with the 2006 Sloan Canyon NCA Resource Management Plan (RMP) and North McCullough Wilderness Management Plan (WMP), specifically RMP decisions REC 9, 12, 13, VR 1, INT 3, FAC 3, 4, 5, and VEG 1, 9. It is also in conformance with the 2009 Omnibus Public Lands Management ACT, BLM Manual 6100 and 6200 and Secretarial Order No. 3308.

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Chapter 3. Affected Environment:

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This chapter describes the existing conditions of the environmental resources within the Proposed Project Area. The affected environment is the physical area that bounds the environmental, sociological, economic, or cultural features of interest that could be impacted by the Proposed Action or No Action Alternative.

The table below summarizes the environmental attributes that have been reviewed, whether they may be affected by the Proposed Action, and the rationale for that determination. Elements that may be affected are further described in the EA. Rationale for those elements that would not be affected by the Proposed Action and alternative is listed in the table below.

Table 3.1. Affected Resources

Supplemental Authority	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Air Resources		X		Maintain compliance with the stipulations in Exhibit A attached to the grant. All construction activity using heavy equipment or earth moving equipment must have a dust control permit in place prior to the construction activity and must be in compliance with the dust permit for the duration of the activity.
Area of Critical Environmental Concern (ACEC)	X			Not present.
BLM Natural Areas	X			No designation present.
Cultural Resources		X		The undertaking has been previously reviewed for compliance with Section 106. No issues. No further review required.
Environmental Justice		X		It is unlikely that any minority or low income communities are present in the area.
Farmlands (Prime or Unique)	X			There are no prime or unique farmland designations in the BLM Southern Nevada District.
Fish and Wildlife (excluding Federally Listed Species)		X		See EA language below for impacts.
Floodplains	X			There are no FEMA designated floodplains present in the project area.

Fuels/Fire Management		X		Fire restrictions are generally enacted May through October. Compliance with fire restrictions is mandatory while fire restrictions are in place. Specific activities may be waived on a case by case basis by a line officer after review and approval by the Fire Management Officer.
Geology / Mineral Resources / Energy Production				
Green House Gas Emissions (Climate Change)		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.
Human Health and Safety		X		No additional impacts are anticipated by the Proposed Action. The original 2009-292 EA comments and conditions would apply for the proposed realigned segments.
Hydrologic Conditions		X		Project location and size will not impact hydrologic conditions of the area.
Invasive Species / Noxious Weeds		X		Invasive Species/Noxious Weeds were adequately analyzed under the previous EA. Project actions should continue to follow mitigation measures outlines in this document.
Lands/Access		X		Since this area was already analyzed in a previous EA, and analyzed in the Resource Management Plan for Sloan Canyon, there are no issues. Existing rights-of-way holders who may be affected will be notified of the new amended trails.

Livestock Grazing		X	<p>A portion of the proposed action falls within the Hidden Valley grazing allotment. The proposed action would not directly have an effect on livestock because they would avoid the area of activity due to vehicle noise and the presence of humans. Impacts may occur as the result of stress associated with the vehicle traffic and number of humans present. Livestock would not be restricted from forage or water due to the multiple locations of those resources throughout the allotments. There would be a minimal loss of forage resulting from new disturbance within the allotment. If livestock is near the area of activity they would be temporarily displaced and would likely move a reasonable distance away from the area of activity. Once workers move out of the area, livestock would return to their normal ranges within the allotments.</p> <p>In the unlikely event that livestock is injured or killed, the proponent will be held responsible for damages to the grazing permittee.</p> <p>Workers will not harass (feed, pet, chase, etc.) any livestock encountered.</p>
Migratory Birds			<p>X</p> <p>The proposed action will result in 1.918 acres of new surface disturbance in suitable habitat for migratory birds. See below EA language and minimization measures below which the proponent must adhere to.</p>
Native American Religious Concerns	X		<p>The action has been previously reviewed for compliance; there have not been Native American issues/concerns that have been identified. Not present.</p>

<p>Paleontology</p>		<p>X</p>	<p>The project has been previously reviewed under a previous environmental document. If any paleontological resources are discovered during construction, the BLM Archaeologist will be notified prior to work commencing in the immediate vicinity of the find.</p>
<p>Recreation (Sloan Canyon NCA)</p>		<p>X</p>	<p>Present but not affected to a degree that detailed analysis would be required. Proposed amendment will generally enhance the recreation experience by providing a trail network that is more durable against erosion and washouts and will be less visible on the landscape due to application of desert varnish and restoration of previously disturbed areas. Even though parts of the trails will be re-routed, impacts/enhancements to the recreational experience are the same as described in EA 2009-292.</p>
<p>Recreation (Las Vegas Field Office Area)</p>			<p>X</p> <p>Although the proposed amendments (new trail alignments, trailhead relocation) will generally enhance the recreation experience for non motorized users, the proposed Hidden Valley trailhead and associated road decommissioning may affect motorized users by further reducing the acreage in the Jean/Roach SRMA that is available for use.</p> <p>The loss of available acreage for motorized recreation from the ROW proposed for the Hidden Valley trailhead should be analyzed in the cumulative effects section along with all other reasonably foreseeable future actions affecting the Jean/Roach SERMA such as the proposed Silver State South solar project, the associated Ivanpah ACEC</p>

				proposal, and the Clark County Ivanpah airport proposal.
Rangeland Health Standards		X		Negative impacts to Rangeland Health are not expected. Adverse impacts to surface hydrology which could also negatively affect rangeland health will be addressed and, if necessary mitigated, under the hydrology section.
Lands with Wilderness Characteristics	X			There are no lands with wilderness characteristics within this area.
Socio-economics		X		The proposed action may provide social and economic benefit by providing recreational opportunities on public lands as mentioned in the purpose and need of EA 2009-292 and current EA, as well as potential cost savings measures from the re-routed alignment, but not to a degree that analysis would be required.
Soils			X	The proposed action will cause some disturbance, these disturbances are likely to cause negative impacts to soils. The soils in 24S 61E are mostly of wind erodibility group 2, which is very susceptible to wind erosion, even after a slight disturbance, such as those caused by recreationists.
Threatened, Endangered or Candidate Animal Species.			X	The above action has a may affect determination for the threatened desert tortoise (<i>Gopherus agassizii</i>). This project will have no effect on any other federally listed species or designated critical habitat. Section 7 Consultation for this project is covered under the reinitiation of the appended Programmatic Biological Opinion for Sloan Canyon NCA for the Sloan Trails Plan File Nos. 84320-2010-F-0026-R001 and 1-5-06-F-416 contingent on compliance with the terms and conditions. This project will disturb a total of 1.918

			<p>acres of tortoise habitat. The proponent will be required to pay remuneration fees of \$1,580.43 based on the current year's rate of \$824/acre of disturbance. This rate is subject to change as described in the term and conditions, if fees are paid after March 1, 2014.</p> <p>This project will require an authorized desert tortoise biologist to present an education program (T&C 1.c.), to conduct clearance surveys for all areas of new disturbance (T&C 1.m.), be onsite during the use of heavy equipment during the desert tortoise active season (March 1 through October 31), and to be on call to relocate any desert tortoises that enter the work area (T&C 1.n.) per Terms and Conditions provided.</p> <p>Terms and conditions and minimization measures in the above Biological Opinion contain measures to reduce potential impacts, including take, to desert tortoise. A copy of the terms and conditions will be attached to the right-of-way grant for this project. See information on the Threatened, Endangered Species below in EA.</p>
Threatened, Endangered or Candidate Plant Species	X		Not present in the area.
Vegetation (excluding Federally Listed Species)		X	<p>Rosy two toned beardtongue (<i>Penstemon bicolor</i> ssp <i>bicolor</i>) could be present in washes and drainages crossed by the trail and Blue Diamond cholla (<i>Cylindropuntia multigeniculata</i>) may be present throughout the area. The proposed action will result in an additional 1.918 acres of habitat disturbance.</p>

				EA language in previous EA, 2009 is appropriate to use for this amendment as well as Project Design Features for vegetation to minimize impacts to BLM Sensitive Plant Species described in Section 2.2.6 of the previous EA. Adherence to Project Design Features for vegetation identified in the previous analysis will reduce direct impacts to BLM Sensitive Plant Species.
Visual Resources		X		The proposed action is located within VRM Class III and II. Language in EA 2009–292 is appropriate for this amendment. The proposed action will reduce visual contrast on the landscape. See EA language below.
Wastes (Hazardous or Solid)	X			Not present.
Water Resources/Quality (Drinking/Surface/Ground)		X		Temporary impacts to water quality due to activities may occur, but no significant negative long term impacts are expected. See impacts addressed below in EA.
Wetlands/ Riparian Zones	X			No permanent surface waters or wetlands exist in or near the project area.
Wild & Scenic Rivers	X			Not present.
Wild Horses and Burros	X			There are no active herd management areas in Sloan Canyon, there will be no impacts to wild horses or burros.
Wilderness /Wilderness Study Areas (WSAs)		X		Designated trails have already been approved and change in trail buffer width will not impact wilderness character of North McCullough Wilderness. Trail construction should only use native materials. Ensure that rerouted segments of trail are restored to a natural condition to discourage public from using them as social trails, and update trail/trailhead information provided to the public.

			<p>No negative impacts to wilderness character will occur from establishment of designated trailheads. This element of the proposed action will benefit undeveloped character of wilderness by eliminating vehicle incursions as well as solitude by establishing access away from the wilderness boundary.</p> <p>Proposed action is not within WSAs/ISAs.</p>
Woodland / Forestry		X	<p>Cactus and yucca are considered special forest products and are regulated under the BLM Nevada Forestry Program. Low densities of cactus and yucca could be present within the project area. To the extent practical they should be avoided. Where avoidance is not possible, all cactus and yucca should be salvaged, transplanted outside the project impact area and maintained for one year by a qualified contractor with at least three years' experience salvaging and maintaining cactus and yucca in the Mojave Desert.</p> <p>EA language in previous EA, 2009-292 is appropriate to use for this amendment.</p>

Chapter 4. Affected Environment

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4.1. Affected Environment

This section provides a brief description of the affected environment for those resources that were identified as “present and may be affected”. A detailed description for these resources can be found in Chapter 3 in the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292.

4.1.1. Fish and Wildlife Excluding Federally Listed Species

Wildlife species in the general area include small mammals, rodents, birds and reptiles. These species would be displaced as lands are disturbed within the project area. The primary direct impacts of the proposed action on wildlife would be killing or maiming of ground dwelling animals and less mobile species (such as reptiles) during construction, displacement of individuals, the loss and fragmentation of habitat and increased potential for harassments of wildlife. Additional impacts associated with the mortality from visitor use of the area may also be realized upon the completion of construction and subsequent use of the project area. 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.

Additionally, the BLM sensitive species *desert bighorn sheep*, *western burrowing owl*, *chuckwalla*, *banded Gila monster*, *Mojave shovel-nosed snake*, *desert glossy snake*, *Mojave Desert sidewinder* may be present in the general area.

4.1.2. Migratory Birds

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 *et. seq.*) protects migratory birds and their nests (nests with eggs or young. 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 (*Athene cunicularia*). Typically, the breeding season is when these species are most sensitive to disturbance, which generally occurs from February 15th through August 31st.

4.1.3. Recreation - Las Vegas Field Office Area

The proposed project area is located within the 216,300-acre Jean/Roach Lake SRMA. The Jean/Roach Lake SRMA is managed by the BLM “for intensive recreation opportunities, including competitive OHV races (in accordance with the United States Fish and Wildlife Service [USFWS] Biological Opinion) and other recreational events, as well as dispersed recreational use and commercial activities” (BLM 1998). Other recreational activities in the proposed project location include recreational OHV use, movie, commercial, and music video filming, rock climbing, target shooting, hunting, horseback riding events, and hiking.

Hunting within the Jean/Roach Lake SRMA occurs primarily within the mountain areas, including the Lucy Grays. The proposed project area is within hunting Unit 263 and includes quail hunting, 7 bighorn sheep tags and 19 mule deer tags (Units 261 through 268).

OHV recreation within the Jean/Roach Lake SRMA includes competitive organized events, commercial tours, and dispersed recreation.

Special recreation permits are required by the BLM for competitive organized OHV racing events within the Jean/Roach Lake SRMA. These permits are typically applied for six months in advance of the event. OHV high speed events are restricted during tortoise active periods and typically occur during the winter and summer months. Competitive organized OHV races average approximately 5,000 visitors per event, with some events as large as 30,000 visitors. Temporary closures of public lands for human health and safety are routinely in place during the larger events and will restrict access during these times.

Commercial touring companies use the Jean/Roach Lake SRMA to lead OHV tours. Currently, two companies are permitted to operate in the Jean/Roach Lake SRMA Hidden Valley area: Vegas Off-Road Experience (VORE), and American Adventure Tours. Commercial touring visitation within the Jean/Roach Lake SRMA is approximately 10,000 visits per year.

4.1.4. Visual and Aesthetic Resources

The scenic resources of the Sloan Canyon NCA are one of the reasons for its designation. The steep desert mountains of the Sloan Canyon NCA are a visual amenity for the urbanized areas of the southern Las Vegas Valley, particularly for residents of the City of Henderson, which lies directly north of the NCA. When viewed from the urban areas, the mountains of the Sloan Canyon NCA appear unaltered and the landscape is considered a highly scenic backdrop.

Sloan Canyon NCA has been evaluated and classified using the BLM's Visual Resource Management (VRM) system [see Visual Resources section of Chapter 3.4.4 in the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292]. This system is a method used to assign visual resource classes to public lands for two purposes:

1. an inventory tool that portrays the relative value of the visual resources, and
2. a management tool that portrays the visual management objectives.

The Proposed Project area falls within VRM II and III. VRM II has a management objective to retain the existing character of the landscape. VRM III has a management objective established to partially retain the existing character of the landscape while allowing a moderate level of change. The BLM evaluates lands under its jurisdiction based on a system described in the Visual Resource Management Handbook H-8410-1.

4.1.5. Water Resources/Quality (Drinking/Surface/Ground)

The Proposed Project area is located in the Mojave Desert. Most months average less than 0.5 inches of rain and the yearly average is less than 5 inches. Typically one day per month will average over 0.01 inches of rain [see Hydrology, Drainage, Soils, Erosion and Water Quality section of Chapter 3 in the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292].

While the Proposed Project area is typically very dry, occasional high intensity and large volume rainfall events do occur which can produce large amounts of concentrated runoff from the larger watersheds, which may result in flash flooding that can convey high volumes of runoff within

washes in the Proposed Project area. Large volumes and high rates of runoff can result in quick stormwater concentration and conveyance to sandy valley areas, which have the highest potential to erode. Development related disturbances, which can accelerate or amplify storm water (i.e. reduction in vegetative cover, or increased imperviousness caused by concentrated travel and zones of focused impact), disturb the natural channel balance and may lead to increased erosion.

None of the soils in the Proposed Project area are listed by the Natural Resources Conservation Service (NRCS) as erosion hazard soils. As described in detail in Chapter 3 in the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292). the Surface waters in the Proposed Project area are ephemeral or intermittent in nature and groundwater depth is over 500 feet; therefore, the water quality is tailored to Sections 404/401 of the Clean Water Act (CWA), which are applicable to the Proposed Action (trail realignment).

By federal law every applicant for a federal permit or license for an activity which may result in a discharge into a water body must request state certification that the proposed activity will not violate state and federal water quality standards. In Nevada, the Division of Environmental Protection (NDEP) is responsible for issuing or denying 401 Water Quality Certification for Nationwide Permits.

4.1.6. Soils

NRCS Wind Erodibility Group 2: Loamy very fine sand, loamy fine sand, loamy sand, loamy coarse sand; very fine sandy loam and silt loam with 5 or less percent clay and 25 or less percent very fine sand; and sapric soil materials.

4.1.7. Threatened, Endangered Animal Species

Threatened and endangered 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 (ESA), 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.

Historical survey data indicates that the area surrounding the project site is low density tortoise habitat. During 2008 and 2009 surveys, biologists from EDAW, Inc. surveyed for desert tortoise along the proposed trail at a 60-foot width (30-feet either side of the center of the trail) using the standard protocol described in the Service's 1994 document, as amended, "Procedures for Endangered Species Act Compliance for the Mojave Desert Tortoise." Initial surveys were conducted in June and July 2008 and supplemental surveys were conducted in April 2009. Two live desert tortoises, 49 burrows (six of which had scat, tracks, egg fragments, or carcass fragments), two stand-alone carcasses, and 13 instances of stand-alone scat were located. Refer to the PBO for additional information on the environmental baseline of the action area.

4.1.8. Woodland/Forestry

The Proposed Project area is located within the Mojave creosote/bursage desert scrub community containing associated with cactus and yucca species. Cactus and Yucca are an important component of creosote, bursage and blackbush vegetation types. Because of the thermal cover and forage they provide, cactus and yucca are important habitat component for the desert tortoise. Cactus and yucca are extremely slow growing and slow to reproduce. As such, cactus and yucca are considered government property under the woodland/forestry category and are regulated under the BLM Nevada Forestry Program. The following tables lists the cactus and yucca for the creosote/bursage desert scrub community.

Table 4.1. Woodland/Forestry Vegetation Potentially Occurring in Proposed Action (trail realignment) Area

COMMON NAME	SCIENTIFIC NAME
Cactus Species	
Beavertail cactus	<i>Opuntia basilaris</i>
California barrel cactus	<i>Ferocactus cylindraceus</i>
Engelmann's hedgehog cactus	<i>Echinocereus engelmannii</i>
Johnson's fishhook cactus	<i>Echinomastus johnsonii</i>
silver cholla	<i>Cylindropuntia echinocarpa</i>
teddy bear cholla	<i>Opuntia bigelovii</i>
Yucca Species	
Mojave yucca	<i>Yucca schidigera</i>
Joshua tree	<i>Yucca brevifolia</i>

Chapter 5. Environmental Effects

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5.1. Environmental Effects

5.1.1. Fish and Wildlife Excluding Federally Listed Species

5.1.1.1. - Proposed Action Alternative

Impacts to BLM Sensitive Species are not anticipated to lead to further decline of the species range wide as the total disturbance for this project is relatively small. Most of the trails already exist and the few new trails to be constructed will not affect the existing wildlife in the area.

The proposed action will benefit wildlife species through restoration of 9.71 acres that will be suitable habitat for common and BLM Sensitive Wildlife Species.

5.1.1.2. - No Action Alternative

Under the No Action Alternative, no change in wildlife would occur.

5.1.2. Migratory Birds

5.1.2.1. - Proposed Action Alternative

Migratory birds, including the BLM sensitive species the western burrowing owl (*Athene cunicularia*), may be present on the project site. Depending on the time of year for construction, there is the potential to disturb nesting birds within or immediately adjacent to the proposed action. The proponent must comply with the MBTA and avoid potential impacts to protected birds within the project area. The proponent will be required to adhere to the following mitigation measures:

- 1) To prevent undue harm, habitat-altering projects or portions of projects should be scheduled outside bird breeding season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs between February 15th and August 31st.
- 2) If a project that may alter any breeding habitat has to occur during the breeding season, then a qualified biologist must survey the area for nests prior to commencement of construction activities. This shall include burrowing and ground nesting species in addition to those nesting in vegetation. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area must be avoided until the young birds fledge. As the above dates are a general guideline, if active nest are observed outside this range they are to be avoided as described above.

The proposed action will benefit migratory birds through restoration of 9.71 acres that will be suitable nesting and foraging habitat for migratory birds.

5.1.2.2. - No Action Alternative

Under the No Action Alternative, there would be no affect on migratory birds.

5.1.3. Recreation - Las Vegas Field Office Area

5.1.3.1. - Proposed Action Alternative

The direct impacts to the recreation areas from this proposed action is that casual recreational use such as target shooting may be displaced. In addition based on the soil types in this area, the proposed access route will frequently need maintenance, historical use has shown us that it after only a few vehicles the soils turn silty and the public will begin driving in the vegetation adjacent to the route in an effort to avoid getting stuck in the silt.

5.1.3.2. - No Action Alternative

Under the No Action Alternative, there would be no affect to the Las Vegas Field Office management area.

5.1.4. Visual and Aesthetic Resources

5.1.4.1. - Proposed Action Alternative

The Proposed Action for Sloan Canyon trails was previously analyzed under Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292.

Short term adverse effects on visual resources are likely during construction activities, but would be reduced once construction is completed.

These proposed trail realignments would use the appropriate construction methodology such as using native materials, contouring of slopes, restoring the natural appearance of the rock pattern and desert varnish, and using site-appropriate trail widths, they would produce long-term benefits to the visual and aesthetic quality of the trail. The additional trails would mimic the natural landscape colors and patterns and enhance the recreational experience.

The visibility and contrast of the new trails would be similar to existing trails, and would primarily be dependent upon viewing distance and viewing angle. In the immediate foreground, the trail and signage would be highly visible within 500 feet of the viewer when not screened by vegetation or terrain. Within 500 feet, construction of the trail tread would expose a light colored line without dark rocks, resulting in moderate color contrasts. In the foreground to middle ground zone (up to 4 miles), new trails would generally be visible when:

1. parallel to the line of sight of the viewer,
2. when on a surface that is more than 10% slope, sloping towards the viewer, or
3. in an area with little or no vegetation.

Under these conditions, the new trails would result in weak to moderate line and vegetation contrasts. In other conditions, such as in vegetated areas not tilted towards the viewer, vegetation and terrain screening would naturally reduce the visibility and contrast of new trails.

The Proposed Project (including ground disturbance and vegetation removal) would adversely affect visual resources in the short term. Long-term effects would be similar to existing contrasts.

Negligible and weak form, line, color, and texture contrasts would repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape, as seen in the immediate foreground and foreground to middle ground distance zone.

Once constructed, hiking, biking and equestrian trail with signage would promote users to stay on the designated trails, thus reducing the likelihood of social trail development, and thereby providing a likely long term benefit to visual resources.

Short and long-term effects would comply with all VRM Classes within the Proposed Project (VRM II and VRM III). With the addition of a long-term maintenance program, reduced demand for new social trails, the overall long-term impact on scenic quality would be beneficial.

5.1.4.2. - No Action Alternative

Under the No Action Alternative, the original design layout of trails would exist.

Once constructed, hiking, biking and equestrian trails with signage would promote users to stay on the designated trails, thus reducing the likelihood of social trail development, and thereby providing a likely long term benefit to visual resources.

Short and long-term effects would comply with all VRM Classes within the Proposed Project (VRM II and VRM III). With the addition of a long-term maintenance program, reduced demand for new social trails, the overall long-term impact on scenic quality would be beneficial.

5.1.5. Water Resources/Quality (Drinking/Surface/Ground)

5.1.5.1. - Proposed Action Alternative

The construction and operation of a trail that would directly affect soils, erosion, hydrology, drainage and water quality in the Proposed Project by creating new short and long-term disturbances. These effects would be minimized by Best Management Practices (BMPs) implemented during construction to reduce erosion and runoff. As with the original trail design, short-term direct effects from the Proposed Action (addition of new trails) would be limited to those areas which would minimize soil disturbance, erosion and runoff in a low impact and sustainable way. In addition, the increased length in trail in lieu of boulder/rock retaining walls, and the use of native material where possible would preserve the natural flow of stormwater with very minor modifications for drainage and steep grades.

Once constructed, regular trail monitoring and maintenance would occur. This would include monitoring soil conditions and built components, such as the boulder/rock retaining walls. The reduction of boulder/rock retaining walls would reduce the potential risk of collapse from erosion or from ground shifting events, thus reducing not only construction costs, but future maintenance costs as well.

In addition to the proposed BMPs, the Proposed Action for new trails will be designed with the same standards as the original trail designs to avoid and minimize impacts to jurisdictional waters of the U.S. to the maximum extent practicable and comply with Section 401 Water Quality Certification for the Proposed Project.

For these reasons, soils, erosion, hydrology, drainage and water quality would be only minimally affected directly as a result of the Proposed Project.

5.1.5.2. - No Action Alternative

Under the No Action Alternative, no new effects or impacts to water resources or drinking water would occur.

5.1.6. Soils

5.1.6.1. - Proposed Action Alternative

The soils in 24S 61E are mostly of wind erodibility group 2, which means that about 134 tons/acre/year will be eroded once disturbed.

5.1.6.2. - No Action Alternative

Under the No Action Alternative, existing trails would remain and no new trails would be created. Using construction methods and BMPs would help to minimize soil disturbance, erosion and runoff.

Once constructed, regular trail monitoring and maintenance would occur. This would include monitoring soil conditions and built components, such as the boulder/rock retaining walls. Routine maintenance on retaining walls would include reparations from vandalism such as graffiti. Maintenance would also include partial or full rebuilding of walls and rip rap due to collapse from erosion or from ground shifting events.

5.1.7. Threatened, Endangered Animal Species

5.1.7.1. - Proposed Action Alternative

This project will disturb a total of 1.918 acres of tortoise habitat and it is adjacent to undisturbed, contiguous habitat wherein potential corridors for tortoise entry exist. Since tortoise sign has been found in the vicinity and undisturbed habitat exists in the area, there is potential for tortoises to wander into the project area. If not noticed and avoided during construction, desert tortoises could be either injured or killed (by crushing) or harassed (by being moved out of harm's way).

Section 7 Consultation for this project is covered under the reinitiation of the appended Programmatic Biological Opinion for Sloan Canyon NCA File for the Sloan Trails Plan Nos. 84320-2010-F-0026-R001 and 1-5-06-F-416 contingent on compliance with the terms and conditions. Minimization measures in the above biological opinion contain measures to reduce potential impacts to desert tortoise.

The proposed action will benefit desert tortoise through restoration of 9.71 acres that will be suitable habitat for desert tortoise.

5.1.7.2. - No Action Alternative

Under the No Action Alternative, no effects would occur to threatened, endangered animal species in the area.

5.1.8. Woodland/Forestry

5.1.8.1. - Proposed Action Alternative

Cactus and yucca are considered government property and regulated under the BLM Nevada Forestry Program. Cactus and yucca may be present along and adjacent to trails.

The Proposed Project area and corresponding construction footprint were designed to avoid nature or unique vegetation communities, including cactus and yucca species. All cactus and yucca plants within the Proposed Project construction footprint would be salvaged and replanted with the Proposed Project area.

While revegetation and/or watering for the revegetated plants would occur during the year after the Proposed Project is completed, some mortality is expected. A minimum of 80 percent of the plants are expected to survive and replanting will take place if that minimum is not reached. Effects on cactus and yucca species are expected to be minimal.

Indirect effects from the Proposed Action would include the potential for increased mortality and other adverse effects cactus and yucca species in habitats adjacent to the trail as a result of the trail providing improved access to the area. Illegal trails may develop into areas that were previously unaffected by recreation users.

5.1.8.2. - No Action Alternative

Under the No Action Alternative the original design layout and environmental effects described in the Sloan Canyon Trails Master Plan, and as described in the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292, would apply. It would be the same as the Proposed Action Alternative.

5.2. Cumulative Impacts

The past, present and reasonably foreseeable future activities in the vicinity of the Sloan Canyon Trails Master Plan, and as described in the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292, would apply not only to the original trail design (No Action Alternative) but also to the Proposed Action in this EA. This includes the cumulative effects analysis on Visual Resources, Water Resources/Quality, and Woodland/Forestry and Recreation. In other words, the Proposed Action Alternative and the No Action Alternative presented in this EA would have the same cumulative effects. A brief summary for each resource is described below with the term “trail” will be used for both trail versions: the Proposed Action (realigned trail) and the No Action (original design trail). Cumulative effects not analyzed 2009–292 include the loss of 483’ of existing road open to motorized use due to the trailhead relocation. The trailhead is being relocated to minimize motorized incursions into the NCA and North McCullough Wilderness. Racing on the road right of way leading in to the trailhead is not excluded, however if the road is raced the event promoter will be required to reconstruct the route to pre-race standard or above.

5.2.1. Cumulative Effects on Fish and Wildlife Excluding Federally Listed Species

Cumulative effects on the fish and wildlife species in the area should not occur, as long as best management practices (BMP) are utilized during construction, and care is taken to not disturb the wildlife. Once the new trails are constructed, no disturbance to wildlife in the area should occur.

As such, the cumulative effects from these projects may cause some negligible to minor long-term adverse effects, but would not result in any moderate or greater effects to visual or scenic resources in the Sloan Canyon NCA.

5.2.2. Cumulative Effects on Migratory Birds

The past, present and reasonably foreseeable future activities as described the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292, may have the potential to impact migratory birds. However, the impacts should be minor as long as the proponent adheres to the above mitigation measures as mentioned in “Environmental Affects” during construction of the trail system. The proposed action will benefit migratory birds through restoration of 9.71 acres that will be suitable nesting and foraging habitat for migratory birds.

5.2.3. Cumulative Effects on Recreation - Las Vegas Field Office Area

The past, present and reasonably foreseeable future activities as described the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292, may have the potential to impact the recreation areas within the 216,300 acre Jean/Roach Lake SRMA area.

The proposed trail head along with renewable energy development, and other proposals in the Jean/Roach SRMA is causing limits and changes to recreation both casually and commercially. Proposals to increase the size of solar sites is encroaching on recreational trails and historic race courses. Solar expansion near Primm has had the effect of proposing an ACEC that would eliminate from commercial recreational use a large portion on the east side of the proposal area.

Increased publicity and the added attraction of the trail head into Sloan would only increase traffic that would cause damage to the access road. Damage to the access road may increase road widths causing an increase in vegetation damage and loss of habitat. Travel management may show, in the future, that the access routes identified to the trail head are not suitable for the number of vehicles attracted to the trail head site.

5.2.4. Cumulative Effects on Visual and Aesthetic Resources

The past, present and reasonably foreseeable future activities as described the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292, may have the potential to impact visual resources. The development of the trail would result in long-term but minor cumulative impacts to the visual resources throughout the Sloan Canyon NCA by introducing new visual lines and human disturbances into the landscape. The degree of effect would vary by area, however the overall, the incremental contribution of the Trails master Plan combined with other local actions is not anticipated to result in impairment of VRM objectives or the need to modify classifications in any portion of the Sloan Canyon NCA.

As such, the cumulative effects from these projects may cause some negligible to minor long-term adverse effects, but would not result in any moderate or greater effects to visual or scenic resources in the Sloan Canyon NCA.

5.2.5. Cumulative Effects on Water Resources/Quality (Drinking/Surface/Ground) and Soils

The past, present and reasonably foreseeable future activities as described the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292 may have the potential to impact water resources/quality. With each local activity complying with local, regional, state and national design and construction standards, it would help minimize these potential impacts and would result in minor adverse cumulative effects to soil resources in the Sloan Canyon NCA.

In addition to the Proposed Project, the City of Henderson is considering or planning to build new trails within the Sloan Canyon NCA boundaries, which would connect to BLM trails to City managed trails within the NCA. The intersection of these trails may require additional design elements, construction efforts, and maintenance to ensure they remain sustainable without excessive erosion.

Overall, the cumulative effect of an expanded and re-routed, designated trail system would be an overall minor benefit to soil and hydrologic resources within the Sloan Canyon NCA since the designated trail system would help to reduce the total area disturbed by visitors by discouraging the potential for user created trails in poorly drained areas or on steep slopes.

5.2.6. Cumulative Effects on Threatened, Endangered Animal Species

Effects to threatened, endangered animal species in the area should be minor and/or not occur as long as the terms and conditions and minimization measures mentioned in the Biological Opinion are adhered to during construction of the new trails. Once the trails are constructed, no affects to animal species should occur.

5.2.7. Cumulative Effects on Woodland/Forestry

The past, present and reasonably foreseeable future activities as described the Sloan Canyon Trails Master Plan, Environmental Assessment 2009–292 may have the potential to impact woodland/forestry vegetation during construction periods and from completed projects visitor use. While the conversion of natural lands to trailheads, trails and roadways is not anticipated to result in additional loss of cactus and yucca species. BMP measures implemented during design and construction of projects within the Sloan Canyon NCA, would have beneficial effects on protecting the cactus and yuccas. The new trails, trailheads, and roads would also provide beneficial impacts to woodland/forestry vegetation as they would provide enhance user experience, creating opportunities for a greater awareness and appreciation for the native vegetation, and for promoting stewardship and conservation interest.

Cumulatively, the effects of the trail when combined with the effects of other local projects may result in minor cumulative effects to woodland/forestry vegetation and would be low.

5.3. Mitigation Measures

To ensure potential impacts to the area are minimized, the Stipulations and Mitigation Measures from EA DOI-BLM-S020–2011–0003–EA will be added as Standard Stipulations for this Proposed Action (realignment) Environmental Assessment. A copy is included in this EA (see Appendix A: *Exhibit A -Stipulations*).

Chapter 6. Tribes, Individuals, Organizations, or Agencies Consulted

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Table 6.1. List of Persons, Agencies and Organizations Consulted

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
City of Henderson, Nevada	Applicant	Offer the right-of-way to applicant.
Fish and Wildlife Service	Prepared appended biological opinion.	Prepared appended biological opinion.

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Chapter 7. List of Preparers

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Table 7.1. List of Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Dorothy J. Dickey	Realty Specialist	Project lead for Environmental Assessment and NEPA documents
Cynthia Alexander	Realty Specialist	Lands/Access; Environmental Assessment and NEPA documents preparation
Mark Boatwright	Archaeologist	Cultural Resources, Native American Religious Concerns, Paleontology
Lisa Christianson	Environmental Protection Specialist & Hazmat	Air Quality, Greenhouse Gas Emissions, Hazardous Waste
Fred Edwards	Botanist	Botanist, Forest Initiative, Healthy (Cactus/Yucca), Threatened, Endangered or Candidate (Plant Species), Vegetation Excluding Listed Species
John Evans	Planning and Environmental Coordinator	Environmental Justice, Socio-Economics
Susan Farkas	Planning and Environmental Coordinator	NEPA review
Krystal Johnson	Wild Horse and Burro Specialist	Farmlands (Prime or Unique), Wild Horse and Burro
Sendi Kalcic	Wilderness Planner	BLM Natural Areas, Wilderness/Wilderness Study Areas (WSAs), Areas with Wilderness Characteristics; Visual Resources
Katie Kleinick	Natural Resource Specialist	Fish & Wildlife, Migratory Birds, Threatened, Endangered or Candidate (Animal Species)
Chris Linehan	Recreation Specialist	Wild and Scenic Rivers
Sean McElderly	Fire Management Specialist	Fire Management Specialist Species
Mathew Hamilton	Fish and Wildlife Biologist	Fish & Wildlife, ACEC, Migratory Birds, T&E
Boris Poff	Hydrologist	Floodplains, Hydrologic Conditions, Soils, Water Resources/Quality (Drinking/Surface/Ground), Wetlands/Riparian Zones,
Ben Klink	Weed Specialist	Weed Management
Jessica Stegmeier	Wildlife Biologist	Fish & Wildlife, Migratory Birds, Threatened, Endangered or Candidate (Animal Species)
George Varhalmi	Geologist	Geology/Mineral Resources/Energy Production
Brenda Warner	Recreation Specialist	Project Lead; Recreation

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Appendix A. EXHIBIT A — Stipulations

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Appendix B. EXHIBIT B — Copy of the Programmatic Biological Opinion for the Sloan Canyon National Conservation Area

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Appendix C. EXHIBIT C — Copy of the Gila Monster Status

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Appendix D. EXHIBIT D — Maps