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Environmental Assessment

Clark County, Nevada



**Humboldt-Toiyabe National Forest Service, Spring Mountains
National Recreation Area**

-and-

**Bureau of Land Management Southern Nevada District, Las Vegas
Field Office**

For Information Contact:

Jane Schumacher, FS Interdisciplinary Team Leader
Spring Mountains National Recreation Area
Humboldt-Toiyabe National Forest
4701 N. Torrey Pines Drive
Las Vegas, NV 89130
(702) 839-5560

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SUMMARY

The U.S. Forest Service, Humboldt-Toiyabe National Forest, Spring Mountains National Recreation Area (SMNRA), in cooperation with the Bureau of Land Management (BLM), Southern Nevada District, Las Vegas Field Office, propose to assess the environmental consequences of a Wilderness Management Plan for the Mt. Charleston Wilderness. The Forest Service manages a total of 53,876 acres and the Bureau of Land Management manages a total of 2,142 acres of the Mt. Charleston Wilderness. The plan and this environmental document are being developed by way of a cooperative agreement by and between the agencies, with the Forest Service as the lead agency. The action is needed to preserve the area's characteristics as identified by the Wilderness Act of 1964 by identifying the conditions and opportunities for which the Wilderness would be managed and creating specific standards and guidelines for managing resources and activities that would bring existing conditions closer to meeting desired conditions.

The Mt. Charleston Wilderness Management Plan would provide more specific, updated, and consistent direction for management of the Mt. Charleston Wilderness and areas immediately adjacent to the Wilderness over the next ten years. The plan would provide direction to maintain Wilderness characteristics identified by the Wilderness Act of 1964 as areas that remain untrammled (i.e., unrestrained, unhindered) by man, natural, undeveloped, and having outstanding opportunities for solitude or primitive and unconfined types of recreation, including supplementary values.

The Interdisciplinary Team did not identify any key issues from scoping comments that led to the development of additional alternatives; therefore, in addition to the Proposed Action, a No Action Alternative is analyzed in this EA to provide a benchmark for comparative purposes.

Based upon the effects of the alternatives, the agencies' responsible officials will decide whether to implement the No Action Alternative (Alternative One), the Proposed Action (Alternative Two, which is the Preliminary Mt. Charleston Wilderness Management Plan), a modified version of the Proposed Action, or make selection of components from each Alternative to guide future management of the Mt. Charleston Wilderness over the life of the plan.

INTRODUCTION

Document Structure

The United States Forest Service (FS), in cooperation with the Bureau of Land Management (BLM) has prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852 as amended; 42 U.S.C. 4321, 4331-4335, 4341, 4347) and other relevant Federal and State laws and regulations, to assess the environmental consequences of a Wilderness Management Plan (WMP) for the Mt. Charleston Wilderness. The WMP and this EA document are being developed by way of a cooperative agreement by and between the agencies, with the FS as the lead agency for development of the WMP and the EA.

This document is organized into four parts:

- *Introduction:* The section includes information on the history of the project proposal, the purpose of and need for the project, and the agencies' proposal for achieving that purpose and need. This section also details how the public was informed of the proposal and how the public responded.
- *Comparison of Alternatives, including the Proposed Action:* This section provides a more detailed description of the agencies' Proposed Action and the No Action Alternative. Based on issues raised by the public and other agencies, there were no key issues identified that led to the development of other action alternatives. The environmental consequences associated with the No Action and the Proposed Action are outlined within the Environmental Consequences section of this document.
- *Environmental Consequences:* This section describes the environmental effects of implementing the Proposed Action and other alternatives. This analysis is organized by resource area. Within each section, the affected environment is described first, followed by the effects of the No Action Alternative that provides a baseline for evaluation and comparison of the other alternatives that follow.
- *Agencies and Persons Consulted:* This section provides a list of preparers and agencies consulted during the development of the environmental assessment.
- *Appendices:* The appendices provide more detailed information to support the analyses presented in the environmental assessment.

Additional documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the Spring Mountains National Recreation Area, 4701 Torrey Pines Drive, Las Vegas, Nevada 89130.

Background

The Mt. Charleston Wilderness was designated by the U.S. Congress in 1989 (Nevada Wilderness Protection Act of 1989; PL 101-195) at 42,420 acres, and was amended to add 13,598 acres in 2002 (PL 107-282 (2002)), for a total acreage of 56,018 acres. The Wilderness includes the Carpenter Canyon Research Natural Area and sensitive alpine areas.

The Mt. Charleston Wilderness is situated, in part, on the Spring Mountains National Recreation Area (NRA) on the Humboldt-Toiyabe National Forest, U.S. Forest Service, and, in part, on public land managed by the Las Vegas Field Office of the Southern Nevada District, Bureau of Land Management. The Wilderness is located in southern Nevada approximately forty miles west of the Las Vegas valley in Clark County.

The FS manages a total of 53,876 acres and the BLM manages a total of 2,142 acres. The recreational and management activities that take place in the area managed by the BLM are not substantial; consequently, the BLM has agreed to adhere to the management standards and guidelines established by the FS for management of the Mt. Charleston Wilderness, to the extent management direction does not conflict with the BLM's Las Vegas Resource Management Plan (RMP), Record of Decision (ROD), or BLM policies and regulations. The BLM has contributed to the management direction contained in the plan and warrants that, with the inclusion of BLM-specific direction, the Mt. Charleston WMP does not conflict with the BLM's Las Vegas RMP and ROD (1998), or BLM regulations.

Management of FS land is conducted pursuant to the National Forest Management Act of 1976 (16 U.S.C. §§ 1600-1614, August 17, 1974, as amended 1976, 1978, 1980, 1981, 1983, 1985, 1988 and 1990), which mandates that management direction for Wilderness be incorporated into forest plans and also sets the standards for the content of Wilderness Plans (Forest Service Manual (FSM) 2320.1(6)). Wilderness management direction in the plan is prepared as a part of the FS forest planning process as required by 36 CFR Part 219 and FSM 1922. Management direction for the Mt. Charleston Wilderness is specifically set out in the 1986 Toiyabe National Forest Land and Resource Management Plan (LRMP) and the Spring Mountains National Recreation Area (NRA) General Management Plan (GMP), an amendment to the Toiyabe National Forest LRMP (1996).

The FS will adopt the WMP as an amendment and supplement to the forest-wide standards and guidelines in the 1986 Toiyabe National Forest LRMP and will adopt the WMP as an amendment to the Spring Mountains NRA GMP by replacing existing direction for Management Area 12—Mt. Charleston Wilderness. The amendment to the Toiyabe National Forest LRMP will be a non-significant Forest Plan amendment. The amendment will not change forest-wide direction (Forest Plan standards which apply to the entire Toiyabe National Forest); therefore, other than changes to management direction for Mt. Charleston Wilderness, management direction contained in the Toiyabe National Forest LRMP and the Spring Mountains NRA GMP will continue to remain relevant.

Management of BLM lands is conducted pursuant to the Federal Land Policy and Management Act of 1976 (43 U.S.C. §§ 1701-1782, October 21, 1976, as amended 1978, 1984, 1986, 1988, 1990-1992, 1994 and 1996). General policies for the administration and management of BLM Wilderness is provided in Manual 6340—Management of Designated Wilderness Areas, whereas rules and regulations are found in 43 CFR Part 6300. Wilderness management direction for the BLM is prepared as required by BLM Manual 8561—Wilderness Management Plans and the BLM 2008 NEPA Handbook (H-1790-1). The BLM will adopt the Mt. Charleston WMP as a supplement to the BLM's Las Vegas RMP and ROD.

Purpose and Need for Action

This section specifies the underlying need for and purpose of the project to which the agencies are responding in proposing the proposed action (40 CFR 1502.13 and 40 CFR 1508.9(b)).

Purpose of the Project

The purpose of this project is to provide specific, updated, and consistent management direction for the Mt. Charleston Wilderness, situated on federal public land managed by the FS and the BLM. The WMP would provide specific direction for agency management of the Mt. Charleston Wilderness over the next ten (10) years.

Need for Action

This action is needed to preserve the area's characteristics as identified by the Wilderness Act of 1964 by identifying the conditions and opportunities for which the Wilderness would be managed and creating specific standards and guidelines for managing resources and activities that would bring existing conditions closer to meeting desired conditions. Management direction would also address areas immediately adjacent to the Wilderness area to facilitate signage, staging areas, and access points.

The primary objective of the WMP is to maintain Wilderness characteristics cumulatively identified by the Wilderness Act of 1964 as areas that remain untrammelled (i.e., unrestrained, unhindered) by man, natural, undeveloped, and having outstanding opportunities for solitude or primitive and unconfined types of recreation, including supplementary values. These objectives and actions would be implemented upon adoption of the WMP and the WMP would identify actions that may be implemented in the future if changes to resource conditions occur.

The need for action is defined by the gap between the existing and desired conditions. The purpose, or primary objective, of the Proposed Action is to eliminate or reduce that gap. The purpose defines the standards that the Proposed Action and any alternatives must satisfy.

Existing Conditions

The following existing conditions in Mt. Charleston Wilderness were determined through internal scoping by district FS staff and Field Office BLM staff, on-the-ground knowledge, and survey information obtained by SMNRA staff and volunteer organizations.

- The FS has determined through surveys that there is high day use occurring on trails and overnight use in dispersed camping areas inside the Wilderness. The high use is attributed to its close proximity to the heavily populated Las Vegas valley. The highest use areas within the Wilderness are located close to developed areas and trailhead parking adjacent to the Wilderness. Some visitors leave trash, dump household items and engage in activities that include partying and shooting, particularly on the west side of the Wilderness near springs. There is some off-highway vehicle (OHV) activity occurring in the Wilderness, close to Wilderness boundary markers that have been removed by visitors. The illegal OHV use destroys vegetation, fragments habitats, and compacts and erodes soil. Illegal OHV use also includes harassment and/or take of wildlife species. Based on the limited data available, the BLM-portion of the Wilderness appears to be generally intact with no evidence of significant use or resource damage.
- The FS surveys indicate Region Four sensitive plant species and other plant species listed as at-risk under conservation agreements and plans occur in the Wilderness. Plant species that serve as larval host and nectar plants for Region Four sensitive butterfly species occur in the Wilderness. A federally-listed endangered species, the Mt. Charleston blue butterfly (*Icaricia shasta charlestonensis*), and its habitat occur in the Wilderness. User-created trails and dispersed tent sites in the Wilderness are impacting habitat for these species.
- BLM data indicates that some Nevada Special Status plant and animal species occur within the planning area. This includes the federally-listed threatened species, the Mojave Desert tortoise (*Gopherus agassizii*). Desert bighorn sheep, a BLM Nevada Special Status species, is also known to occur within the BLM-portion of this Wilderness.
- Natural springs occurring in the Wilderness are experiencing moderate to high levels of disturbance caused by wild horses and burros, elk, mule deer, and recreation stock (horses, mules), whose use of the springs and seeps result in loss of herbaceous and woody vegetation. Trampling by ungulates (horses, burros, elk, mule deer) is causing soil erosion, sedimentation, and degraded water quality.
- Two endemic springsnails that have been petitioned for federal listing occur in some of the springs within Wilderness. The springsnails are currently threatened by damage and degradation of spring habitat from ungulates and water developments.

- Invasive plant species have been found in the Wilderness and only a minimal amount of area within the Wilderness has actually been surveyed or treated for noxious and non-native species.
- There is documented evidence of invasive species of insects and pathogens in trees and shrubs within the Wilderness, beyond naturally occurring processes.
- There are hundreds of archeological sites both documented and undocumented throughout the Wilderness as well as areas that are of concern to the tribes and may be considered to be sacred. Some areas have been surveyed for archaeological resources; but large areas have not. The surveys that have been done reveal that sites in heavily used areas have been impacted and damaged.

Desired Future Conditions

A management plan specific to the Mt. Charleston Wilderness was not prepared subsequent to its designation in 1989; however, current FS management direction for the Mt. Charleston Wilderness is outlined in the SMNRA GMP (GMP, Management Area 12, pp. 37-40), adopted in 1996 as an amendment to the Toiyabe National Forest Plan. The GMP describes desired future conditions for management of the Mt. Charleston Wilderness. This plan is the first compressive management plan created for the BLM-portion of the Mt. Charleston Wilderness.

The intent of Wilderness management is to protect natural and cultural resource values, preserve the health, diversity, integrity and beauty of the ecosystem, and preserve and strengthen Wilderness character. Desired conditions in the GMP address protection of vegetation, soils, springs and riparian areas; management of recreational use, fire, wild horse and burro populations and invasive plants; and maintenance of air quality, visual resources, and floodplain continuity. For example, the GMP addresses the aforesaid desired conditions as follows:

- The visual quality objective of "Preservation" is achieved so that the Wilderness exhibits a naturally evolved landscape character.
- Recreation use is managed so as to reduce negative impacts to the delicate and unique area.
- Trails are signed to identify use restrictions.
- Recreation stock use is managed to reduce impacts to endemic species and vegetation.
- Outfitter/guide permits are at appropriate use levels and in appropriate areas.
- Exotic pests within the Wilderness are treated when scientific evaluations indicate a need
- Exotic non-native plant populations in the alpine zone are monitored to identify the need for trail closures and equestrian use restrictions.
- The negative impacts of non-native plants are reduced.
- Water sources are restored to historic flows.
- Wild horses and burros are kept out of the Wilderness.
- Flow rates at springs are higher and more consistent.
- The occurrence of exotic plants, such as cheatgrass and dandelion is reduced.
- Heritage resources and natural processes are protected to enhance backcountry/Wilderness recreational opportunities.

Proposed Action _____

The Proposed Action is the Mt. Charleston Wilderness Management Plan, a copy of which is attached hereto as Exhibit F. The WMP is a programmatic document and does not implement any actions in and of itself. The agencies have agreed that any management actions proposed to protect or preclude detrimental impacts to resources within the Wilderness or to Wilderness character would require project-specific NEPA analysis.

Decision Framework _____

The Purpose and Need for Action and the environmental analysis in this EA will direct the Responsible Officials' selection of Alternative One (No Action), the Proposed Action, a modified version of the Proposed Action, or a selection of components from each Alternative, to guide future management of the Mt. Charleston Wilderness over the life of the WMP.

Each agency has jurisdictional authority for separate portions of the Wilderness. The FS and the BLM retain decision-making authority and responsibility for the Mt. Charleston WMP. The agencies' Responsible Officials are William Dunkelberger, Forest Supervisor of the Humboldt-Toiyabe National Forest and Timothy Smith, District Manager, Southern Nevada District Office, BLM.

Public Involvement _____

The proposal was listed in the Schedule of Proposed Actions in January 2013. The proposal was provided to the public and other agencies during a 30-day scoping comment period, commencing June 11, 2013 and ending July 11, 2013, in accordance with 36 CFR 219.16(2). Notification that the Scoping Notice and Opportunity to Comment was posted to the Forest Service website, was provided to 232 individuals, organizations and state and federal agencies. In addition, as part of the public involvement process, information about the opportunity to comment on the Mt. Charleston Wilderness Management Plan was provided to the Mt. Charleston Town Advisory Board on June 27, 2013. A total of seven individuals, organizations and agencies responded. The Interdisciplinary Team developed responses to 44 comments, which are attached hereto as Exhibit D.

Comments from the public, other agencies and the tribes were instrumental in assisting the Interdisciplinary Team identify issues to consider in development of the analysis.

Government-to-Government Tribal Consultation _____

On June 10, 2013, the tribal liaison for the FS, as lead agency for the project, forwarded a newsletter to the tribes that included information about the agencies' plans to write the Mt. Charleston Wilderness Management Plan. A follow-up call and conversation between the FS tribal liaison and all of the Working Group members was conducted the week of July 8, 2013, during the scoping period for the project. The Working Group representatives expressed no concerns about the project.

Issues

Through the scoping process, the public and other agencies raised concerns in response to the Proposed Action. Identification of issues included reviews of written and verbal comments from the public, state, federal and local agencies, and tribal governments, input from Forest Service and BLM resource specialists, and review of relevant laws, regulations and agency policies. The interdisciplinary team (IDT) met to identify issues from comments received following the scoping period.

Key issues are defined as “unresolved conflicts about effects of the Proposed Action on the human environment, which therefore warrant consideration of one or more reasonable alternatives” (FSH 1909.15 § 41.2). The IDT identified one issue from scoping comments that needed further consideration, which is to allow new permanent fixed anchors for climbing through a pre-approval permit process. The IDT did not identify this comment as a key issue, but rather, as is non-significant issue because it is already decided by law, regulation and policy, and would be addressed through other management administrative procedures, more specifically, special use permits (SUP).

ALTERNATIVES, INCLUDING THE PROPOSED ACTION

This section describes and compares the alternatives considered for the Mt. Charleston Wilderness Management Plan project. This section presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a clear basis for choice among options by the decision maker and the public. Information used to compare the Proposed Action with the No Action Alternative is based on the environmental, social and economic effects of implementing the Mt. Charleston Wilderness Management Plan or adopting the No Action Alternative.

Alternatives

Alternative 1

No Action

Under the No Action Alternative, new management direction would not be implemented to provide more specific updated direction for the Mt. Charleston Wilderness, situated on federal public land managed by the FS and the BLM.

The FS would continue to manage 53,876 acres of the Wilderness in accordance with Management Area 12, as outlined in the SMNRA GMP.

The BLM currently has no plan in place specific to managing the 2,142 acres of Mt. Charleston Wilderness under its management authority; therefore, existing management plans, laws, and regulations will continue to guide BLM portions of the Mt. Charleston Wilderness. Wilderness related constraints for non-wilderness resource programs that may operate within the Wilderness would still occur without adopting the Proposed Action.

Alternative 2

Proposed Action

The Proposed Action is the Mt. Charleston Wilderness Management Plan, a copy of which is attached hereto as Exhibit F. A map of the Mt. Charleston Wilderness management area is attached to this EA as Exhibit A.

Comparison of Alternatives

Attached as Exhibit B is a table that provides a comparison of the No Action and the Proposed Action, specifically, changes to the Standards and Guidelines for resources and management protocols currently outlined in the 1986 Toiyabe LRMP and the 1996 GMP, Management Area 12, that would result from implementation of the Proposed Action, the Mt. Charleston Wilderness Management Plan.

ENVIRONMENTAL CONSEQUENCES

This section summarizes the physical, biological, social and economic environments of the affected project area and the potential changes to those environments due to implementation of the alternatives. It also presents the scientific and analytical basis for comparison of alternatives. This section provides the information to determine whether it is necessary to prepare an Environmental Impact Statement or if a Finding of No Significant Impact can be made by the Deciding Official.

Further analysis and conclusions about the potential effects are available in reports for each resource area and in other supporting documentation cited in those reports. For BLM managed lands, a table listing the rationale for including or not including a particular resource in this analysis is presented in Exhibit C.

Recreation

Mt. Charleston Wilderness is becoming an increasingly popular destination for a wide range of recreational activities. The 57,442 acre Wilderness includes approximately 37 miles of trail, all located on FS-managed portions of the Wilderness. There are no designated trails on the BLM portion of the Wilderness. The majority of the use is confined to the trail system; however, user-created routes have been steadily increasing in numbers over the past 10 years. These routes typically access peaks or other points of interest such as viewpoints or the site of a plane crash. No user-created trails of concern are known to exist on the BLM portion of the Wilderness. The highest use areas trails/areas within the Mt. Charleston Wilderness are where access is near developed areas and easily accessible trailheads. This includes trails such as South Loop, North Loop and Fletcher Canyon Trail. There are also some activities such as rock climbing and hunting where cross country travel is part of the experience. Hunting occurs for desert bighorn sheep, mule deer, elk, and upland game birds, including chukar partridge and Gamble's quail. Cave resources are known to exist, however, their level of use is unknown. Target shooting is currently prohibited within FS portions of the Wilderness only.

It is currently estimated that approximately 200 "sport" climbing routes existing within the Mt. Charleston Wilderness, all on FS-managed portions. The BLM portion of this Wilderness is

unsuitable for technical rock climbing and no routes are known to exist. Due to the type of rock typically found in the Mt. Charleston Wilderness (i.e. limestone), the existing climbing routes are “sport” climbs that rely on use of fixed anchors.

Some illegal Off Highway Vehicle (OHV) encroachment has been documented. The primary use season is during the summer months where the cooler temperatures and mountain environment contrast with the Mojave desert and high summer temperatures in the Las Vegas Valley. Winter use does occur in lower numbers. Popular activities include hiking, backpacking, rock climbing, horseback riding, snowshoeing, cross-country and back-country skiing, mountaineering and ice climbing.

No Action Alternative

Direct and Indirect Effects

Under this alternative, recreation use would continue as it has in the past with gradual increases in use anticipated over time based on population increases in Las Vegas and other nearby communities. The primary use will continue to predominately be day hiking. Day horseback riding and all types of overnight use will remain at relatively low levels. Some trails are identified as day use only for pack and saddle stock.

Regulatory controls on activities within Wilderness would continue to be minimal. The FS places restrictions on campsite density. The FS also places 14-day stay limits on overnight camping and prohibits camping within 300 feet of water sources or riparian areas. Wilderness permits for overnight camping, except in sensitive areas, were intended to be required as directed in the 1996 GMP for the SMNRA; however, that requirement was implemented on a trial basis between 2003 and 2005, but proved difficult to manage. Neither the Toiyabe LRMP or SMNRA GMP includes specific standards for campsite conditions or campsite density, so those standards would not be met through implementation of the No Action Alternative.

On FS managed lands, campfires are currently not allowed. Campfires of any kind would continue to be prohibited on FS lands as directed in the 1996 GMP; therefore, there would be no direct effects to this recreation experience from implementation of the No Action Alternative.

On BLM managed lands, the only camping restrictions are a 14-day stay limit and no camping within one-quarter mile of water sources. Campfires would continue to be allowed, subject to regional fire restrictions. These restrictions and allowances would continue under the No Action Alternative; therefore, there would be no direct effects to recreational experiences related to camping and campfires on BLM portions of the Wilderness.

Over the entirety of the Wilderness direct negative effects on biological resources could occur from campsites and campfires such as proliferation, increased surface disturbances, and trash.

On the FS portion of the Wilderness, rock climbing activities would continue as they have in the past. The SMNRA GMP provides standards for the number of allowable rock bolted climbing routes on the SMNRA, but does not include specific direction for routes within Wilderness. Absent management restrictions to curb the proliferation of bolt-intensive rock-face climbing routes, direct and indirect negative effects on biological resources and Wilderness character could occur through implementation of the No Action Alternative.

No specific direction on rock climbing activities would be provided for on BLM-portions of the Wilderness, although no climbing activities are known to occur on this part of the Wilderness. It is expected that no direct or indirect impacts would occur to this particular recreation experience from implementation of the No Action Alternative.

Although there are currently no permitted outfitter services within the Mt. Charleston Wilderness, the 1996 SMNRA GMP provides that SUPs may allow outfitter guide services for hiking, equestrian, and climbing activities on FS-managed lands, and that provision would not change under the No Action Alternative. On BLM-managed lands, Special Recreation Permits (SRP) are allowed for outfitter and guide services for hiking, equestrian, hunting, and climbing, in conformance with the Las Vegas RMP (1998), the Wilderness Act, and the Clark County Conservation of Public Lands and Natural Resources Act (2002).

The BLM may also require SRPs for non-commercial, non-competitive organized groups or events, and recreation use in special areas, regardless of group size (43 CFR Subpart 2932). Organized groups include, but are not limited to, recreational hiking groups that advertise and/or organize hikes online (i.e. meet-up groups) and recreation clubs with paid dues. Individuals organizing events or organized group activities on BLM lands should contact the BLM to determine if a SRP is required. Signage will notify the public regarding SRP requirements and that the recommended group size is 15 people or less to help preserve solitude and reduce impacts to soils and vegetation.

The FS requires permits for publicized and/or organized events with 15 or more participants if any portion of the activity takes place within the Wilderness (SMNRA GMP, 12.21); however, the FS does not require SUPs for meet-up groups engaging in hiking activities, except when attendance on a scheduled hiking event is expected to exceed 15 people. Groups exceeding this number may not break up into smaller groups to circumvent this requirement.

Both agencies currently have management direction for outfitter and guide services and non-commercial, non-competitive organized groups that afford a direct benefit by providing necessary and enjoyable services to visitors seeking a Wilderness experience.

Proposed Action

Direct and Indirect Effects

The Proposed Action would have no immediate impact on recreational use trends. There would be minimal change in the types of uses with the possible exception of rock climbing activities. Some types of rock climbing activities, especially “sport” climbing, include the use of fixed anchors. Establishment of bolt-intensive face climbs is considered by the agencies to be incompatible with Wilderness preservation and management due to the concentration of human activity which they support, in addition to the types and levels of resource impacts associated with this type of route. Research has shown that technical rock climbing negatively impacts vegetation in both the number and diversity of plant species as compared to cliffs with no evidence of climbing (Rusterholz et al., 2004; McMillan and Larson, 2002; Camp and Knight, 1998). Fixed anchors and/or equipment should be rare or non-existent in Wilderness and “clean climbing” techniques that involve the use of temporary devices should be the standard in Wilderness.

In the Proposed Action, new fixed anchor routes would be prohibited by both the FS and the BLM and the replacement of permanent fixed anchors on existing routes would be evaluated for their appropriateness in Wilderness through a special use permit process. Climbing routes and previously installed permanent fixed anchors in the Wilderness would be limited to those existing at the time of publishing this plan. The Proposed Action would allow the replacement of existing fixed anchors for the protection of human life and safety. For the BLM, there are no known rock climbing routes, nor is there the potential for future routes to be established; therefore, no direct or indirect impacts are expected to occur on the BLM portions of the Wilderness. Both agencies have agreed to the aforesaid management direction in the Proposed Action, which would result in direct and indirect beneficial effects to biological resources and Wilderness character.

The primary change to management direction will be the implementation of standards and guidelines that will set thresholds for measurable impacts to the Wilderness resource. Key standards will include campsite condition standards and campsite density standards. A standard for visitor encounters will also be implemented and a monitoring program will be implemented to insure that opportunities for solitude are being preserved. The standard for campsite density is to not exceed three campsites per 1,000 acres. Measuring campsite conditions will benefit naturalness by reducing surface disturbances such as groundcover loss and damaged trees. Primitive recreation would be enhanced by removing visitor-created structures and fire rings at a minimum. An overall condition rating for campsites should not exceed 3.0 and individual ratings for damaged trees and square feet of impacted area should not exceed 2.0. The SMNRA utilizes the nationally recognized Minimum Site Monitoring Protocol (2006) for evaluating site conditions and collects additional site information that is not required in the minimum protocol. The BLM will adopt these campsite standards for its part of the Wilderness, in addition to following the BLM Implementation Guide to Measuring Attributes of Wilderness Character (2012). Overall, campsite and campfire management will protect primitive recreational experiences.

On FS lands, use permits would continue to be required for permitted outfitter guide services. For the general public, however, permits for day or overnight use would not be required. Campsite occupancy would continue to be limited to 14 days. Monitoring of use and related impacts would be conducted to determine if use restrictions and/or permits are necessary over time. Campfires and wood-burning stoves would be prohibited and the closure on campfires would be enforced. The restriction on campfires would have a detrimental effect on recreation, especially overnight use; however, campfires have always been prohibited in the Mt. Charleston Wilderness, but the prohibition has been difficult to enforce. An administrative order to enforce the prohibition on campfires, as well as the WMP's monitoring requirements for visitor use-related impacts, would reduce further detrimental effects to Wilderness character and reduce the chance of forest fires.

Backcountry camping is allowed on BLM portions of the Wilderness. Occupying a campsite would be allowed for up to 14 days. Should a visitor wish to camp longer than 14 days, their camp must be relocated a minimum of 25 miles from the previous site (43 Code of Federal Regulations 8365.1-2(a), Amended 1993). If monitoring shows that the 14-day stay limit is leading to unacceptable resource impacts, site stay limits of less than 14 days or other camping restrictions could be implemented. Campfires and wood-burning stoves would be prohibited on BLM portions of the Mt. Charleston Wilderness under the Proposed Action.

On BLM lands, all commercial services (e.g. outfitter/guides) would be permitted through the appropriate permitting regulations, such as a Special Recreation Permit (SRP) and subject to SRP stipulations. Management of guides and outfitters will be in conformance with the Las Vegas RMP (1998), the Wilderness Act, and the Clark County Conservation of Public Lands and Natural Resources Act (2002).

Similar to the No Action Alternative, the BLM may also require SRPs for non-commercial, non-competitive organized groups or events, and recreation use in special areas, regardless of group size (43 CFR Subpart 2932). Organized groups include, but are not limited to, recreational hiking groups that advertise and/or organize hikes online (i.e. meet-up groups) and recreation clubs with paid dues. Individuals organizing events or organized group activities on BLM lands should contact the BLM to determine if a SRP is required. Signage will notify the public regarding SRP requirements and that the recommended group size is 15 people or less to help preserve solitude and reduce impacts to soils and vegetation.

As in the No Action Alternative, the FS would continue to require permits for publicized and/or organized events with 15 or more participants if any portion of the activity takes place within the Wilderness; however, the FS would not require permits for recreational meet-up groups engaging in hiking activities, except when attendance on a scheduled hiking event is expected to exceed 15 people. The FS would ensure larger groups are not splitting into smaller groups to circumvent this restriction.

Geocaching is an ongoing activity on the SMNRA. Forest Service regulations (36 CFR 261.10(e)) for occupancy and use on national forests related to property and caching of gear prohibits abandoning property in Wilderness which would make traditional geocaching a violation. Traditional geocaching and letterboxing is prohibited by national BLM policy (BLM Manual 6340). Traditional geocaches and letterboxes will be removed when encountered, and the FS or BLM will also request the geocache sponsor remove the site listing from the Internet. The Proposed Action would clarify the rules of geocaching and would provide guidance for “virtual geocaching.” Virtual geocaches would be an accepted activity if they do not cause excessive and destructive traffic in sensitive habitat and resource areas.

Under the Proposed Action, both agencies’ management direction for general recreational activities and outfitter and guide services would continue to provide a direct benefit by providing necessary and enjoyable services to visitors seeking a Wilderness experience, while protecting Wilderness resources. Recreational use may create temporary localized impacts to wildlife through displacement of individual animals, and may result in impacts to other biological and cultural resources. The Proposed Action is written to curtail the proliferation of impacts to resources and Wilderness character. Impacts to recreational activities would be demonstrated by temporary closures of areas as a result of fire suppression activities, emergency stabilization and rehabilitation, and herbicide treatments of invasive non-native and noxious weed treatments. The Proposed Action would place additional restrictions on recreational activities such as bolted rock climbing and campsite management, both of which are designed to protect resources and primitive recreational experiences.

Comparison of the Alternatives

The following table provides a summary comparison of the key items of concern for the No Action and Proposed Action alternatives. Key topics are highlighted to reflect changes in

Wilderness management direction between the 1986 Toiyabe LRMP, the 1996 GMP, and the 1998 Las Vegas RMP, and the Proposed Action. Although not highlighted in the following table, additional clarifying direction is also contained in the Proposed Action for guidance in implementing key management direction, Forest Service Manual Direction, and BLM Manual direction.

Summary comparison of the key items of concern for the No Action and Proposed Action Alternatives.

Management Protocol	No Action	Proposed Action
Aircraft	<p><u>FS & BLM:</u> Continue to follow Forest Service Manual Direction (FSM 2320) and BLM Manual 6340</p>	<p><u>FS & BLM:</u> Follow Forest Service Manual Direction (FSM 2320) and BLM Manual 6340.</p>
Camping and Campfires	<p><u>FS:</u> Per GMP, Wilderness permits are required for overnight use and campfires are prohibited.</p> <p>There are no site condition standards or campsite density standards.</p> <p><u>BLM:</u> No camping permits are required on BLM lands and campfires are allowed, subject to regional fire restrictions. There are also no site condition standards or campsite density standards.</p>	<p><u>FS & BLM:</u> Permits for overnight use are not required; however, a permit system could be implemented if monitoring indicated a need.</p> <p>Campfires are prohibited.</p> <p>Campsite condition standards and campsite density standards are implemented by both agencies.</p>
Geocaching	<p><u>FS:</u> There is no existing direction for geocaching other than FS regulations on occupancy and use and Forest Service Manual direction related to property and caching of gear, which would prohibit abandoning of gear in Wilderness.</p> <p><u>BLM:</u> Traditional geocaching and letterboxing is prohibited by national BLM policy (BLM Manual 6340).</p>	<p><u>FS & BLM:</u> Traditional geocaching is prohibited within Wilderness. Virtual geocaching is allowed provided there are no associated adverse effects.</p>
Group and Commercial	<p><u>FS:</u> Maximum of 15 pack or saddle</p>	<p><u>FS & BLM:</u> Overall group size limit of 25 with</p>

<p>Services</p>	<p>stock for organized trail rides.</p> <p>Wilderness permits are required for overnight use.</p> <p><u>BLM:</u> Special Recreation Permits are required for commercial services (outfitters and guides) on BLM managed lands. The BLM may also require special recreation permits for non-commercial, non-competitive organized groups, and recreation use in special areas, regardless of group size.</p> <p>Currently, there are no group size restrictions or overnight permits required in the BLM portion of the Wilderness.</p>	<p>maximum of 15 pack or saddle stock. Stricter limitations could be implemented if monitoring indicates the need for further limitations.</p> <p><u>FS:</u> Require use permits for commercial use.</p> <p>New outfitter guide permits will not be issued until a needs assessment and capacity analysis determine need and capability of the land.</p> <p>Prohibit commercial uses within the RNA, except for outfitters/guides passing through the RNA on the Mt. Charleston Loop Trail.</p> <p><u>BLM:</u> Special Recreation Permits will continue to be required for commercial services (outfitters and guides) on BLM managed lands, and may be required for non-commercial, non-competitive organized groups, events, and recreation use in special areas, regardless of group size.</p>
<p>Horseback riding (Recreational) and Pack Stock Animals</p>	<p><u>FS:</u> Require permits for groups with 15 or more pack or saddle stock.</p> <p>Require as part of the permit, all participants must stay on approved trails.</p> <p>Require removal of all hay and fecal material as part of site rehabilitation.</p> <p>Pack and saddle stock are limited to day use only on all of South Loop Trail and on North Loop Trail from Trail Canyon trail junction to Charleston Peak.</p>	<p><u>FS:</u> Overall group size limit of 25 with maximum of 15 pack or saddle stock.</p> <p>Standard for limitations to South Loop and North Loop Trails (day use only) remains the same.</p> <p>Stock use may be restricted in alpine areas if monitoring indicates stock use is having unacceptable impacts.</p> <p><u>FS & BLM:</u> Do not permit recreational stock overnight camping use.</p> <p>Require the use of packed-in and certified weed-free feed, or pelleted</p>

	<p>Encourage the use of weed-free feed.</p> <p><u>BLM:</u> For the BLM, no requirements currently exist for horseback riding (recreational) and pack stock animals.</p>	<p>feed.</p>
Hunting and Trapping	<p><u>FS & BLM:</u> Hunting and trapping are recognized as legitimate activities within Wilderness.</p>	<p><u>FS & BLM:</u> Hunting and trapping are recognized as legitimate activities within Wilderness.</p>
Personal Property, Refuse, or Vandalism	<p><u>FS & BLM:</u> Existing direction is specific to the protection of heritage resources.</p>	<p><u>FS & BLM:</u> Protocols are established for removal of unattended property.</p>
Recreation	<p><u>FS:</u> Require permits for publicized and/or organized events with 15 or more participants.</p> <p><u>BLM:</u> A group size limit for general recreational use is not identified.</p>	<p><u>FS & BLM:</u> Require permits for publicized and/or organized events with 15 or more participants.</p> <p>No requirement for permits for recreational meet-up groups engaging in hiking activities, except when attendance is expected to exceed 15 people; ensure larger groups are not splitting into smaller groups to circumvent this restriction.</p> <p><u>BLM:</u> Permits and may be required for non-commercial, non-competitive organized groups, events, and recreation use in special areas, regardless of group size.</p>

<p>Rock Climbing and Canyoneering</p>	<p><u>FS:</u> New bolted climbing routes would be allowed under a voluntary route registration system. After development of 5 new routes, additional routes will require a site survey before additional routes could be approved for development.</p> <p><u>BLM:</u> Bolting in BLM Wilderness is managed under IM No. 2006-084 and BLM Manual 6340.</p>	<p><u>FS & BLM:</u> No new fixed anchor routes will be allowed.</p> <p>Allow the installation of new permanent fixed anchors through a special use permit only for the protection of human life and safety.</p> <p>Allow for the replacement of existing fixed anchors for safety purposes.</p>
<p>Signs</p>	<p><u>FS & BLM:</u> Sign administration is guided by Forest Service Manual direction and BLM Manual 6340.</p>	<p><u>FS & BLM:</u> Sign administration is guided by Forest Service Manual direction and BLM Manual 6340.</p>
<p>Structures, Administrative Sites, and Installations</p>	<p><u>FS & BLM:</u> Forest Service regulations and Manual direction and BLM Manual direction.</p>	<p><u>FS & BLM:</u> Forest Service regulations and Manual direction and BLM Manual direction.</p>
<p>Target Shooting</p>	<p><u>FS & BLM:</u> There is no specific direction for target shooting.</p>	<p><u>FS & BLM:</u> Target shooting is prohibited.</p>
<p>Trails</p>	<p><u>FS:</u> Discourage foot traffic at Mummy Spring by removing visitor-made trails, trail signage and restoring native vegetation.</p> <p><u>BLM:</u> No designated trails are present on BLM managed lands within the Wilderness. Monitor any user-created trails for resource impacts.</p>	<p><u>FS:</u> Guidance for Mummy Spring remains the same.</p> <p>Pack and saddle stock would be limited to day use only on the South Loop Trail and on the North Loop Trail from Trail Canyon trail junction to Charleston Peak.</p> <p><u>BLM:</u> No designated trails are proposed for the BLM portion of the Wilderness. Monitor user-created trails for resource impacts.</p>
<p>Vehicle Access Points and Designation of Trails</p>	<p><u>FS & BLM:</u> Enforcement of laws and regulations restricting motorized access. Motorized equipment and mechanized transport are</p>	<p><u>FS & BLM:</u> No change from existing situation other than clarifying direction is added for guidance.</p>

	prohibited within Wilderness by the Wilderness Act and FS regulations and Manual direction and BLM Manual direction.	
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Cumulative Effects

The affected environment for this project is the entirety of the Mt. Charleston Wilderness and areas in close proximity adjacent to the Wilderness boundaries. This project would implement a set of standards and guidelines for managing recreational use in the Mt. Charleston Wilderness and areas immediately adjacent to the Wilderness, such as areas allowing Wilderness access and areas providing information to the public. A similar planning process is ongoing for the nearby La Madre Mountain and Rainbow Mountain Wildernesses. Recreational use is anticipated to increase moderately over time based on population increases in the local area. If Wilderness character monitoring (based on implemented standards and guidelines) indicates unacceptable deterioration of conditions, management actions may be taken that would result in restrictions on use or type of use.

Current recreational activities that involve rock climbing would continue in Mt. Charleston Wilderness; however, there is not expected to be an increase in future “sport climbing” activities, which would be curbed due to the prohibition on new “fixed anchor routes.” This restriction would be common to the La Madre Mountain Wilderness and the Rainbow Mountain Wilderness as well as Mt. Charleston Wilderness and could have the effect of shifting sport climbing activities to non-Wilderness locations in the SMNRA and other nearby areas. Current activities involving hiking and equestrian use will continue to occur in Wilderness, but it is anticipated effects from those activities will be reduced with implementation of group size restrictions, new requirements for equestrian use, and monitoring of recreational and equestrian use.

Past and present trails projects on FS land that would have an effect on the current recreation opportunities in Wilderness include the construction of the Lovell Canyon Trail System, the Middle Kyle/Telephone Canyon Trails and the Blue Tree Trail System. The Lovell Canyon Trail System has been completed and is primarily within the La Madre Mountain Wilderness. This trail system has reduced some of the trail use in the Mt. Charleston Wilderness, which is adjacent to the La Madre Mountain Wilderness. The majority of the Blue Tree Trail System has been completed; however, there are segments still under construction with a completion date anticipated in late 2014. The Blue Tree Trail system is 53.5 miles with approximately 1.5 miles of the Mud Springs Trail (part of the Blue Tree Trail System) located within the Mt. Charleston Wilderness. There are no existing or proposed trail systems on the BLM-managed portions of the Mt. Charleston Wilderness.

The aforesaid trail system projects represent a large addition of trail miles to the established SMNRA system. These additional trails, when fully completed, will bring the total trail miles on the SMNRA close to 137 miles where there were previously only 50 miles. The trails are challenging but to a lesser degree than the older trail system, more specifically trails such as North Loop, Bonanza and Griffith Peak. Current use on the Blue Tree, Lovell Canyon and Middle Kyle/Telephone Canyon Trail Systems has drawn use out of the upper canyons and helped disperse use over a broader geographic range. These new trail systems have reduced trail

use in the Mt. Charleston Wilderness, thereby enhancing Wilderness character with more opportunities for solitude.

Reasonably foreseeable future activities that overlap in time and space include the wild horse and burro (WHB) herd management area plan (HMAP), development and implementation of the McFarland Fence construction, and construction of the western-most reroute of the Upper Mud Springs Trail. These projects would not lead to cumulative adverse impacts to the resources or Wilderness Character of the Mt. Charleston Wilderness. It is probable that the WHB HMAP and the McFarland Fence, if constructed, would help to improve the natural character through herd management and helping to prevent wild horses from entering the area where they are presently having negative impacts to resources from trampling and trail creation, wallowing at spring sites, and grazing. The reroute of the Mud Springs Trail will create a sustainable, developed and signed trail that will greatly reduce, if not eliminate, erosion and trails proliferation from recreational trail use. The trail currently is not sustainable and is badly eroded and difficult to follow.

There are no other types of recreation projects proposed in the future that would have an effect on Wilderness conditions or characteristics. Implementation of the Proposed Action would have a beneficial effect on Wilderness character by virtue of more restrictive management direction for rock climbing activities and group sizes, which can affect opportunities for solitude.

Vegetation

Description of Affected Environment

The Mt. Charleston Wilderness is located in the Mojave Basin and Range ecoregion (Mojave Desert). The Southwest Regional Gap Analysis Project (SWReGAP) was initiated in 1999 and mapped landscape features for a five-state region (AZ, CO, NV, NM, and UT), including ecological systems that are grouped into vegetation patterns (Lowry et al. 2005). Vegetation communities and acreage of each within the Mt. Charleston Wilderness area are based on SWReGAP information. The general communities descriptions for the Southwest Region and the plant species associated with each community are based on descriptions developed for the USGS National Gap Analysis Program (USGS 2004). Further descriptions of vegetation communities and plant species that may occur in the Mt. Charleston Wilderness and a matrix of impacts to species from implementation of the Proposed Action can be found in the Botanical Specialist Report that is maintained in the project file (USFS, Humboldt-Toiyabe NF, Spring Mountains NRA, Brickey, J., Botanical Specialist's Report, Mt. Charleston WMP, 9/11/2013).

The table below list vegetation species that are considered to be species of concern or special status sensitive species by the FS and BLM.

Plant species on the R4 Sensitive, BLM Special Status, SMNRA CA, and Clark County MSHCP Lists with the potential to occur in the Mt. Charleston Wilderness

<p>SPECIES Common name <i>(Scientific name)</i> Status</p>	<p>Status</p>
<p>Rough angelica <i>(Angelica scabrida)</i></p>	<p>Status: G2S25 R4 Sensitive NV BLM Sensitive SMNRA CA Species of Concern</p>
<p>Charleston Mountain pussytoes <i>(Antennaria soliceps)</i></p>	<p>Status:G1G2S1S25 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered</p>
<p>King’s rosy sandwort <i>(Arenaria kingii ssp. rosea)</i></p>	<p>Status: G4T2S2Q5 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered</p>
<p>Clokey’s milkvetch <i>(Astragalus aequalis)</i></p>	<p>Status: G2S25 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered</p>
<p>Halfring milkvetch (<i>Astragalus mohavensis</i> var. <i>hemigyus</i>)</p>	<p>Status: G3G4T2T3S2S35 NV BLM Sensitive SMNRA CA Species of Concern</p>
<p>Clokey eggvetch <i>(Astragalus ophorus</i> var. <i>clokeyanus)</i></p>	<p>Status: G4T2S25 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered</p>
<p>Spring Mountains rockcress <i>(Boechera nevadensis)</i></p>	<p>Status:G1S15 R4 Sensitive</p>
<p>Upswept moonwort <i>(Botrychium ascendens)</i></p>	<p>Status: G2G3S15 R4 Sensitive SMNRA CA Species of Concern</p>
<p>Dainty moonwort <i>(Botrychium crenulatum)</i></p>	<p>Status:G3S1?5 R4 Sensitive SMNRA CA Species of Concern</p>
<p>Slender moonwort <i>(Botrychium lineare)</i></p>	<p>Status: G2?SNR6 R4 Sensitive</p>
<p>Moosewort <i>(Botrychium tunux)</i></p>	<p>Status: G2G3S15 R4 Sensitive</p>
<p>Clokey thistle <i>(Cirsium eatonii</i> <i>clokeyi)</i></p>	<p>Status: G4G5T2T3S2S35 SMNRA CA Species of Concern MSHCP Covered</p>
<p>Wasatch draba <i>(Draba brachystylis)</i></p>	<p>Status: G1G2S15 R4 Sensitive</p>
<p>Jaeger whitlowgrass <i>(Draba jaegeri)</i></p>	<p>Status: G2S25 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered</p>

Charleston Mountain draba (<i>Draba pauciflora</i>)	Status: G1G2S1S25 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered
Nevada willowherb (<i>Epilobium nevadense</i>)	Status: G2S25 R4 Sensitive NV BLM Sensitive SMNRA CA Species of Concern
Charleston Mountain goldenbush (<i>Ericameria compacta</i>)	Status: G2?S2?5 R4 Sensitive
Inch high fleabane (<i>Erigeron uncialis</i> ssp. <i>conjugans</i>)	Status: G3G4T3?S3?5 MSHCP Covered
Clokey's greasebush (<i>Glossopetalon clokeyi</i>)	Status: G2S25 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered
Dwarf greasebush (<i>Glossopetalon pungens</i> = <i>G.p.</i> var. <i>glabrum</i> and <i>G.p.</i> var. <i>pungens</i>)	Status: G2G3T1T2S1S2Q5 R4 Sensitive NV BLM Sensitive SMNRA CA Species of Concern MSHCP Covered
Hidden ivesia (<i>Ivesia cryptocaulis</i>)	Status: G2S25 R4 Sensitive SMNRA CA Species of Concern
Jaeger ivesia (<i>Ivesia jaegeri</i>)	Status: G2G3S2S35 R4 Sensitive NV BLM Sensitive SMNRA CA Species of Concern MSHCP Covered
Hitchcock bladderpod (<i>Physaria hitchcockii</i> var. <i>hitchcockii</i> = <i>Lesquerella hitchcockii</i> var. <i>hitchcockii</i>)	Status: G3T2S25 R4 Sensitive MSHCP Covered
lousewort (<i>Pedicularis semibarbata</i> var. <i>charlestonensis</i>)	Status: G4T3S3Q5 MSHCP Covered
Yellow twotone beardtongue (<i>Penstemon bicolor</i> ssp. <i>bicolor</i>)	Status: G3T2QS25 NV BLM Sensitive
Rosy twotone beardtongue (<i>Penstemon bicolor</i> ssp. <i>roseus</i>)	Status: G3T2QS35 NV BLM Sensitive
Charleston beardtongue (<i>Penstemon leiophyllus</i> ssp. <i>keckii</i>)	Status: G3T2S25 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered
Jaeger's beardtongue (<i>Penstemon thompsoniae</i> ssp. <i>jaegeri</i>)	Status: G4T2S25 R4 Sensitive NV BLM Sensitive MSHCP Covered
Clokey mountain sage (<i>Salvia dorrii</i> ssp. <i>dorrii</i> var. <i>clokeyi</i>)	Status: G5T3S35 SMNRA CA Species of Concern MSHCP Covered

Clokey silene (<i>Silene clokeyi</i>)	Status: G2S25 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered
Charleston tansy (<i>Sphaeromeria compacta</i>)	Status: G2S25 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered
Charleston Mountain kittentails (<i>Synthyris ranunculina</i>)	Status: G2G3S2S35 R4 Sensitive SMNRA CA Species of Concern
Charleston grounddaisy (<i>Townsendia jonesii</i> var. <i>tumulosa</i>)	Status: G4T3S35 R4 Sensitive SMNRA CA Species of Concern MSHCP Covered
Charleston violet (<i>Viola charlestonensis</i>)	Status: G3S2S3Q5 R4 Sensitive MSHCP Covered
Dicranoweisia moss (<i>Dicranoweisia crispula</i>)	Status: G4G57 MSHCP Covered

Cactus, yucca, acacia, mesquite and others trees are also present within the project impact area. Cactus, yuccas, acacia, mesquite and others trees are considered government property and are regulated on BLM managed lands under the Nevada BLM forestry program. To the extent practical, cactus, yuccas and trees within project area are to be avoided. If they are unable to be avoided by ground disturbing activities they must be salvaged and replanted in temporary impact areas or undisturbed portions of the project area. Collections of individuals and/or cuttings are not allowed.

No Action Alternative

Direct and Indirect Effects

Under the No Action Alternative, the existing management for the Mt. Charleston Wilderness would continue at existing conditions. Existing conditions include out-of-date management directions that no longer conform to current agency directives and regulations. Impacts from fire management and BAER would be the same as the Proposed Action because these activities are guided by their own resource programs and may still occur in Mt. Charleston Wilderness. Impacts due to invasive species would continue and may increase without invasive species monitoring and management direction described under the Proposed Action. Impacts resulting from unmanaged and unmitigated dispersed uses, especially in areas where those uses are expected to increase, would further degrade suitable and occupied plant species of concern (FS) or special status species (BLM) habitats. Agencies would be unable to adapt management strategies for new issues, such as new unforeseen uses and resource damage in new locations.

Proposed Action

Direct and Indirect Effects

The majority of the direction included in the proposed Mt. Charleston WMP revises the Forest Plan and RMP to reflect current and up-to-date management directives and regulations for both agencies. The new Standards and Guidelines do not change management direction for most of

the subjects addressed in the Plan. Several Standards and Guidelines do change existing management direction, while remaining consistent with current management directives and regulations. Changes to existing management direction for the Mt. Charleston Wilderness include resource protections. Combined with existing direction, these changes in the proposed Mt. Charleston WMP provide for the long-term conservation and resilience of plant species of concern (FS) or special status species (BLM), including management indicator species, and vegetation communities found in the Mt. Charleston Wilderness.

For vegetation communities, the same threats and improvements described for plant species of concern (FS) or special status species (BLM) apply. In addition, very small amounts of vegetation may be temporarily impacted from authorized motorized access that may occur through future BAER or fire management actions. The Proposed Action does allow for the use of seeding or planting of native vegetation from local genetic stock. Approved research on native plant communities, vegetation restoration projects, and monitoring could improve management actions for vegetation communities within Mt. Charleston Wilderness. The prohibition of physical geocaching would prevent disturbance to vegetation that could occur through object burial and the development of social trails relating to geocaching. All new directions include provisions for protecting the Wilderness character and allowing natural processes to determine the composition and distribution of communities.

Effects to Vegetation from Rock Climbing

Direct and Indirect Effects of Rock Climbing

In general, direct impacts from rock climbing occur during climbing route development when whole plants or plant parts are removed from cracks and holds for better climbing substrates as well as harming individual plants, including trees. Indirect impacts occur from climbing route maintenance and use by removing the cracks, holds, and ledges from potential habitat. In addition to climbers directly maintaining routes by removing plants and soils, rain and wind action may exacerbate the loss of soils when plants are removed. Over time, the actions of rock climbing alter vegetation communities, including their species of concern constituents, through introduction of invasive species, reduction of cover, density, numbers of plants and community composition, as well as population phenology, morphology, and genetic variation within populations.

No Action Alternative

Existing management direction for the USFS allows management to manage climbing in Wilderness for the protection of resources. Impacts resulting from unmanaged and unmitigated rock climbing and climbing route development, especially in areas where those uses are expected to increase, would further degrade suitable and occupied plant species of concern habitats and vegetation communities. Impacts due to invasive species would continue and may increase at existing levels of activities.

Proposed Action Alternative

As disclosed in the Botanical Specialist's Report, the WMP provides additional management direction for rock climbing that directly or indirectly affects plants by allowing the installation of new permanent fixed anchors through a permitting system, allowing replacement of existing anchors, assessing existing climbing routes for resource concerns and, if impacts are observed, allowing closure and removal of the routes, and prohibition of

canyoneering. In addition, the WMP does not allow for the alteration of rock surfaces or removal of vegetation at the base or along climbing routes, two activities described above as directly and indirectly affecting cliff-dwelling plants.

(USDA, Humboldt-Toiyabe NF, Spring Mountains NRA, Brickey, J., Addendum to Botanical Specialist’s Report, Mt. Charleston WMP, 11/25/2013).

Cumulative Effects to Vegetation (all activities)

Overlapping ongoing activities (Lovell Canyon, Blue Tree, and Telephone Canyon trails projects) include design features meant to minimize impacts to species in project areas. Overlapping reasonably foreseeable activities would improve the condition of habitats as well as reduce impacts to individuals (Illegal Motorized Routes Restoration, McFarland Fence, WHB HMAP, Mud Springs Restoration, and La Madre Mountain and Rainbow Mountain Wilderness Management Plan) or include design criteria to minimize impacts to species of concern and their habitats (Clark Canyon Restoration, Old Mill WUI). For LVSSR Master Development Plan, the impacts have yet to be assessed but it may include design criteria to minimize impacts to species of concern (FS) or sensitive species (BLM) and their habitats.

Past, Present, and Foreseeable Activities Relevant to Cumulative Effects Analysis for Vegetation

Activities that overlap in time and space with the existing Mt. Charleston Wilderness.

Project Name/ Description	Project Description	Implementation Initiation Date	Impacts
Motorized Trails Designation Project	Restricts motorized travel to designated FS system roads.	2004	Designation of roads in occupied habitats may impact occupied habitats.
Lovell Canyon Trails and Trailhead	Construct approximately 12 miles of new trail in Lovell Canyon and on Griffith Peak and one low development trailhead for hikers and equestrians.	09/2007 – implementation still ongoing	New trails in Lovell Canyon and on Griffith Peak enter Mt. Charleston Wilderness in occupied habitats. Ongoing construction of new trails in Lovell Canyon and on Griffith Peak may impact occupied habitats.
Blue Tree Trails	Designate and realign 44 miles of trail for hiking, equestrian and mountain bike use from the recently constructed Sawmill Trailhead; close and rehabilitate 9 miles of existing user trails and roads & 7 campsites; and convert 1 mile of road to trail.	5/17/2010 – implementation ongoing	New trails and trail reroutes in the Mud Springs area enter Mt. Charleston Wilderness in occupied habitats. Ongoing construction of new trails may impact occupied habitats.

Telephone Canyon Trails	Construct, realign, close, and rehabilitate non-motorized, non-Wilderness multiple use trails and provide trailhead parking.	03/2013 – implementation ongoing	New trails and trail reroutes in the Mud Springs area approach Mt. Charleston Wilderness species populations may extend. Ongoing construction of new trails may impact occupied
Old Mill WUI	Fuels reduction on approximately 1,500 acres in Lee and Kyle canyons and Deer Creek.	Estimated 07/2014	May impact occupied habitats of species whose populations extend beyond the project boundaries into Mt. Charleston Wilderness.
Clark Canyon Restoration Project	Improve forest health and wildlife habitat through vegetation management.	Estimated 11/2013	May impact occupied habitats of species whose populations extend beyond the project boundaries into Mt. Charleston Wilderness.
La Madre Mountain and Rainbow Mountain Wilderness Plan	In cooperation with the BLM, implement a Wilderness Management Plan for the La Madre Mountain and Rainbow Mountain Wilderness areas, which are partially located on the SMNRA and partially in BLM's Red Rock Canyon National Conservation Area.	Estimated 12/2013	May impact occupied habitats.
Illegal Motorized Routes Restoration	Close and rehabilitate or restore illegal motorized routes.	Estimated 05/2014	May impact occupied habitats.
McFarland Fence	Construct fence to prevent wild horse and burro entry into Upper Lee Canyon, including portions of the Mt. Charleston	Estimated 7/2014	May impact occupied habitats.
Wild Horse and Burro Territory Management Plan and Gather	In cooperation with the BLM, develop and implement a new herd management plan and conduct gathers for the Spring Mountains Wild Horse and Burro Complex.	Estimated 07/2014	May impact occupied habitats.
Mud Springs Restoration Project	Construct fence to exclude ungulates from three springs in the Mud Springs area and provide alternative water source.	Estimated 09/2014	May impact occupied habitats.

LVSSR Master Development Plan	Authorize activities proposed in the LVSSR Master Development Plan, including expansion of existing developments.	Estimated 2015	May impact occupied habitats of species whose populations extend beyond the LVSSR boundaries into Mt. Charleston Wilderness.
Programmatic Restoration in Wilderness (BLM)	Close and rehabilitate or restore illegal motorized routes; restore and rehabilitate small-scale surface disturbances.	On-going; no end date.	May impact occupied habitats, however, no surface disturbances are known on BLM portions of the Wilderness.

Determinations

The Mt. Charleston WMP may have beneficial effects for the following species of concern (FS) or special status species (BLM): rough angelica, Charleston pussytoes, King’s rosy sandwort, Clokey’s milkvetch, halfring milkvetch, Clokey eggvetch, Spring Mountains rockcress, Upswept moonwort, dainty moonwort, slender moonwort, moosewort, Clokey thistle, Wasatch draba, Jaeger whitlowgrass, Charleston Mountain draba, Nevada willowherb, Charleston Mountain goldenbush, Inch high fleabane, Clokey’s greasebush, dwarf greasebush, hidden ivesia, Jaeger ivesia, Hitchcock bladderpod, Charleston pinewood lousewort, yellow twotone beardtongue, rosy twotone beardtongue, Charleston beardtongue, Jaeger’s beardtongue, Clokey mountain sage, Clokey silene, Charleston tansy, Charleston Mountain kittentails, Charleston grounddaisy, Charleston violet, and dicranoweisia moss.

Wildlife

Description of Affected Environment

The wildlife specialist report to analyzes potential effects to federally endangered, threatened, and proposed species, USDA Forest Service Regional Forester’s (R4) Sensitive species, SMNRA 1998 Conservation Agreement (CA) species of concern, Clark County Multiple Species Habitat Conservation Plan (MSHCP), Forest Plan (1996) Management Indicator Species (MIS) , and migratory bird species that may occur within the Mt. Charleston Wilderness (USDA, Humboldt-Toiyabe NF, Spring Mountains NRA, Hansen, J., Wildlife Specialist Report, 12/13/2013). The Wilderness area provides important habitat for a wide spectrum of wildlife, including the Spring Mountains springsnail (*Pyrgulopsis deaconi*) that only occurs in the Spring Mountains and whose habitat is found in the many springs within the Wilderness. The 2007 USFS Level 1 springs inventories documented 25 known springs in the SMNRA part of Mt. Charleston Wilderness:

Big Falls , Carpenter Canyon 2, Crow Spring (Jeff’s), Fletcher Spring, Lee Spring, Lees Spring, Mazie Spring, Mummy Spring, Peak Spring, Trough Spring, Wood Spring, and Unnamed Springs 9, 10, 12, 14, 16, 17, 18, 19, 20, 58, 59, 60, 64, and 80.

There are no known springs in the BLM part of Mt. Charleston Wilderness.

Over the life of this plan, it may be necessary to implement wildlife management activities to prevent degradation to or to enhance Wilderness characteristics by promoting healthy, viable, and more naturally distributed wildlife populations and/or their habitats. For both agencies,

wildlife management activities within the Mt. Charleston Wilderness would be guided by the Wilderness Act and Federal and State laws, with the goal of protecting indigenous wildlife from human caused conditions that could lead to Federal and/or regional listing and to enhance healthy, viable, and more naturally distributed wildlife populations and their habitats.

For the BLM, wildlife management activities would also be guided by the CCCPLNRA and be conducted in conformance with the current (Supplement No. 9, 2012) and any subsequent BLM-NDOW Memorandum of Understanding. For the FS, management activities would be also be guided by the Humboldt-Toiyabe National Forest LRMP, the SMNRA GMP, and would be in conformance with FS Memorandums of Understanding with NDOW and the U.S. Fish and Wildlife Service. Wildlife management activities may include, on a case-by-case basis, the occasional and temporary use of motorized vehicles or tools following site-specific NEPA and MRDG analysis.

BLM Special Status Animal Species

Federally Listed Species

The only federally listed species known to occur on BLM-portions of the planning area is the Mojave Desert tortoise. The Mojave Desert tortoise was listed by the U.S. Fish and Wildlife Service as threatened in 1990. This long-lived species inhabits Mojave Desert scrub vegetation types on flats and bajadas in the eastern Mojave Desert where they forage primarily on perennial grasses and forbs. The primary threats include habitat loss, mortality due to vehicles, raven predation, and disease. Based on habitat models, La Madre Mountain Wilderness contains approximately 73 acres of desert tortoise habitat in the northeast corner of the Wilderness area.

BLM Special Status and State Protected Species

In addition to species federally protected under the ESA, the BLM designates additional species of concern as Special Status or Sensitive Species. This includes wildlife that is classified as protected under Nevada Revised Statute 501.110, species that are not federally or State protected, and species identified by the BLM as sensitive. It is BLM policy to provide the same level of protection for sensitive species as a federal candidate species (BLM Manual 6840.06). The manual states, “BLM shall implement management plans that conserve candidate species and their habitat and ensure that actions authorized, funded, or carried out do not contribute to the need for the species to become listed.”

The following table lists the BLM special status and sensitive wildlife species that may occur in the planning area. However, this may not represent actual species present because extensive surveys within the Wilderness have not been conducted. It is likely that various other BLM special status and sensitive species may be discovered in the future within the boundaries of Wilderness.

Common Name	Scientific Name
golden eagle	<i>Aquila chrysaetos</i>
Peregrine falcon	<i>Falco peregrinus</i>
pinyon jay	<i>Gymnorhinus cyanocephalus</i>
loggerhead shrike	<i>Lanius ludovicianus</i>
California myotis	<i>Myotis californicus</i>
Fringed myotis	<i>Myotis thysanodes</i>

Desert bighorn sheep	<i>Ovis canadensis nelsoni</i>
Western pipestrelle	<i>Pipistrellus Hesperus</i>
Mojave Desert tortoise	<i>Gopherus agassizii</i>
Gila monster	<i>Heloderma suspectum</i>
chuckwalla	<i>Sauromalus ater</i>

Forest Service Special Status Wildlife Species

The following table lists the FS federally endangered, threatened, and proposed wildlife species, Regional Forester’s (R4) sensitive wildlife species, SMNRA 1998 CA wildlife species of concern, MSHCP wildlife species, 1996 SMNRA GMP wildlife Management Indicator Species (MIS) that may occur in the planning area.

Species	Scientific Name	Status
Invertebrates		
Mt. Charleston blue	<i>Plebejus shasta charlestonensis</i>	Federally Endangered, R4 sensitive sp., Cons Agreement, MSHCP
Morand’s checkerspot	<i>Euphydryas anicia morandi</i>	R4 sensitive sp., Cons Agreement, MSHCP
Spring Mountains dark blue	<i>Euphilotes ancilla purpura</i>	R4 sensitive sp., Cons Agreement, MSHCP
Spring Mountains acastus checkerspot	<i>Chlosyne acastus robusta</i>	R4 sensitive sp., Cons Agreement, MSHCP
Spring Mountains comma skipper	<i>Hesperia colorado mojavensis</i>	Cons Agreement, MSHCP
Nevada admiral	<i>Limenitis weidemeyerii nevadae</i>	Cons Agreement, MSHCP
Spring Mountains icarioides blue	<i>Plebejus icarioides austinorum</i>	Cons Agreement, MSHCP
Carole’s silverspot	<i>Speyeria carolae</i>	Cons Agreement, MSHCP
Charleston ant	<i>Lasius nevadensis</i>	Cons Agreement
Spring Mountains springsnail	<i>Pyrgulopsis deacon</i>	CA, MSHCP
Southeast Nevada springsnail	<i>Pyrgulopsis turbatrix</i>	CA, MSHCP
Mammals		
Desert bighorn sheep	<i>Ovis canadensis</i>	R4 sensitive spp.
Pale Townsend’s big-eared bat	<i>Corynorhinus townsendii pallascens</i>	R4 sensitive spp., Cons Agreement
Spotted bat	<i>Euderma maculatum</i>	R4 sensitive spp., Cons Agreement
Silver-haired bat	<i>Lasionycteris noctivagans</i>	MSHCP
Allen’s big-eared bat	<i>Idionycteris phyllotis</i>	Cons Agreement
Western small-footed myotis	<i>Myotis ciliolabrum</i>	Cons Agreement
Long-eared myotis	<i>Myotis evotis</i>	Cons Agreement
Fringed myotis	<i>Myotis thysanodes</i>	Cons Agreement
Long-legged myotis	<i>Myotis volans</i>	Cons Agreement
Palmer’s chipmunk	<i>Neotamias palmeri</i>	Cons Agreement, MIS
Elk	<i>Cervus elaphus</i>	MIS
Birds		
Peregrine falcon	<i>Falco peregrinus</i>	R4 sensitive spp., Cons Agreement
Northern goshawk	<i>Accipiter gentilis</i>	R4 sensitive spp., Cons Agreement
Flammulated owl	<i>Otus flammeolus</i>	R4 sensitive spp., Cons Agreement
Brown-headed cowbird	<i>Molothrus ater</i>	MIS
Migratory Birds		
Reptiles/Amphibians		
Western redbelt skink	<i>Plestiodon gilbert rubricaudatus</i>	MSHCP
Speckled rattlesnake	<i>Crotalus mitchellii</i>	MSHCP

No Action Alternative

Direct and Indirect Effects

Management direction would continue to adhere to the SMNRA GMP on FS managed lands, and would have the potential to indirectly impact all wildlife species. Wildlife management activities on the BLM-portion of Mt. Charleston Wilderness would continue to be conducted in conformance with the current (2012; Supplement No. 9) and subsequent BLM-NDOW MOU and guided by the Clark County Conservation of Public Lands and Natural Resources Act of 2002, as well as BLM-APHIS MOU (2012) and BLM Manual 6340.

The following are descriptions of impacts from the No Action Alternative:

Camping and Campfires

For FS lands, existing direction for Mt. Charleston Wilderness requires a permit for overnight camping, but does not restrict campsite densities. Existing BLM management direction does not prohibit campfire on the BLM portion of the Wilderness. Continuing to allow unrestricted camping in the Wilderness and campfires on the BLM-portion of the Wilderness may result in negative impacts to Mt. Charleston blue, Morand's checkerspot, Spring Mountains acastus checkerspot, Spring Mountains dark blue, Spring Mountains icarioides blue, Spring Mountains comma skipper, Carole's silverspot, Nevada admiral, Spring Mountains pyrg, southeast Nevada pyrg, and migratory birds.

Cave Resources

Existing direction relating to caves and caving does not contain any interpretation and education on White Nose Syndrome and does not require cavers to follow any decontamination protocols. Caving is restricted from April to November. Allowing caving to occur without providing education on White Nose Syndrome and not requiring cavers to follow national decontamination protocols may result in negative impacts to Pale Townsend's big-eared bat, Spotted bat, Silver-haired bat, Allen's big-eared bat, Western small-footed myotis, Long-eared myotis, Fringed myotis, and Long-legged myotis.

Environmental Education and Interpretation

There is no existing direction for interpretive signing for Wilderness resources. Failure to provide interpretive information about Wilderness resources to visitors may result in negative impacts to Mt. Charleston blue, Morand's checkerspot, Spring Mountains acastus checkerspot, Spring Mountains dark blue, Spring Mountains icarioides blue, Spring Mountains comma skipper, Carole's silverspot, Nevada admiral, and migratory birds.

Geocaching

Forest Service regulations (36 CFR 261.10(e)) for occupancy and use on national forests related to property and caching of gear prohibits abandoning property on national forest land, or in national forest Wilderness, which makes traditional geocaching in Wilderness a violation. Traditional geocaching and letterboxing is currently prohibited in BLM Wilderness according to national policy (BLM Manual 6340). Current agency regulations and policies prohibiting geocaching in the Wilderness would continue to have an indirect, positive impact on wildlife.

Group and Commercial Services

Existing direction for Wilderness on FS lands limits pack and saddle stock to fifteen, but does not require a needs assessment or capacity analysis for outfitters or guides. Existing management encourages the use of weed-free hay but does not require it. Allowing commercial services and groups to camp in and travel through the Wilderness without conducting a capacity analysis or requiring weed-free hay may result in negative impacts to Mt. Charleston blue, Morand's checkerspot, Spring Mountains acastus checkerspot, Spring Mountains dark blue, Spring Mountains icarioides blue, Spring Mountains comma skipper, Carole's silverspot, Nevada admiral, and migratory birds.

Horseback Riding and Pack Stock Animals

The FS places limitations of 15 for pack and saddle stock for organized trail rides, limits outfitter/guide use of some trails, and requires permits for outfitter guides and organized groups. BLM has no existing management direction for horseback riding. Allowing unregulated horseback use in the Wilderness may result in negative impacts to Mt. Charleston blue, Morand's checkerspot, Spring Mountains acastus checkerspot, Spring Mountains dark blue, Spring Mountains icarioides blue, Spring Mountains comma skipper, Carole's silverspot, Nevada admiral, Spring Mountains springsnail, Southeast Nevada springsnail, and migratory birds.

Recreation

There is no existing management for recreation/hiking group sizes in FS and BLM portions of the Mt. Charleston Wilderness. Large group sizes can damage sensitive habitat when traveling through the Wilderness. Continuing to allow any size of hiking group into Mt. Charleston Wilderness may result in negative impacts to all wildlife species.

Research

There is no existing management direction related to conducting research in the FS-portions of the Mt. Charleston Wilderness. On BLM parts of the Wilderness, research would continue to be managed under existing regulations and policy including BLM Manual 6340 and 43 CFR 2920.2-2. Setting management protocols related to research opportunities in the Wilderness may result in positive impacts to all wildlife species.

Research Natural Area

The Research Natural Area is situated entirely on FS land. The 1996 GMP provides management direction for Carpenter Canyon Research Natural Area with prohibitions on trail construction and commercial use; however, does not address recreational restrictions. Continuing to allow unregulated camping, hiking, rock climbing may result in negative impacts to all wildlife species moving in and out of the Research Natural Area.

Rock Climbing and Canyoneering

Current FS management of rock climbing in the Mt. Charleston Wilderness allows new bolted climbing routes to be installed in the Wilderness under a voluntary registration system, up to five new routes, before a site survey is conducted. Rock climbing is currently unmanaged by the BLM in the Mt. Charleston Wilderness, subject to existing policy. These routes could be traversing sensitive nesting habitat for Peregrine falcon, which may lose nesting opportunities due to disturbance from rock climbers. Continuing to allow expansion of routes without site surveys may result in negative impacts to Peregrine falcon.

Soils

Existing management direction related to soils discusses only goals and objective to reduce soil compaction and erosion. There are no measures of erosion and compaction, no threshold values, no protection of downed woody material, duff, or sensitive subalpine and alpine habitats. Maintaining objectives and goals without specifying measures or values of compaction or erosion may result in negative impacts to Mt. Charleston blue, Morand's checkerspot, Spring Mountains acastus checkerspot, Spring Mountains dark blue, Spring Mountains icarioides blue, Spring Mountains comma skipper, Carole's silverspot, Nevada admiral, Spring Mountains springsnail, southeast Nevada springsnail, and migratory birds.

Trails

Existing management direction discourages foot traffic and camping only at Mummy Springs, while making no mention of the hundreds of other user-created trails in the Wilderness. Continuing to ignore the use and creation of user-created trails in the Wilderness may result in negative impacts to all wildlife species.

Vegetation

The only management direction related directly to vegetation states that natural processes (e.g. fire, flood, avalanche) will be allowed to achieve a desired vegetation mosaic, with no direction on the need to intervene with other tools, such as prescribed fire or mechanical thinning, to achieve a desired vegetation mosaic. Allowing only natural processes to achieve a desired vegetation mosaic and not monitoring for impacts to TEPS species may result in negative impacts to all wildlife species.

Wildlife Water Developments

Wildlife water developments in the Wilderness areas would continue to be considered by each agency in accordance with the CCCPLNRA and in the BLM portions, the MOU with NDOW. The FS would continue to adhere to management direction in accordance with the SMNRA GMP and other FS policies relevant to wildlife water developments.

Wildlife Relocation

Wildlife relocation activities could still be conducted on BLM-managed lands in conformance with the current or subsequent BLM–NDOW MOU and guided by the CCCPLNRA, as well as the BLM–APHIS MOU (2012) and BLM Manual 6340. The translocation of Mojave Desert tortoises as analyzed under BLM EA NV-S010-2012-0097 could still occur without a WMP in place.

Wildlife Damage Management

Wildlife damage management could still be carried out in conformance with the BLM-APHIS (2012) and FS-APHIS (2004) MOUs.

Proposed Action

Direct and Indirect Effects

Implementation of the Proposed Action would lessen impacts to terrestrial wildlife by reducing impacts to habitat and reducing disturbances to animals. Habitat for wildlife includes vegetation structure and floristic composition, integrity of substrates such as caves and rock walls, microhabitat structure such as downed wood, water quality, and integrity of critical areas such as meadows, springs and seeps, and riparian areas. The condition of all of these habitat variables would be improved with the implementation of the Proposed Action. Disturbance to wildlife

includes any introduced impacts that alter or preclude an animal's behavior such as noise, light, or vibrations. A disturbance is negative if it precludes successful mating, reproduction, or recruitment. Disturbances to wildlife would be lessened with the implementation of the Proposed Action.

The following are descriptions of impacts from the Proposed Action:

Recreation Activities (including environmental education, camping, campfires, geocaching, trails, horseback riding, rock climbing, group and commercial services, pack stock animals)

The following is a narrative discussion of the ways in which the Proposed Action would address recreation activities through new management direction that is designed to promote the conservation of wildlife habitat in the Mt. Charleston Wilderness.

The Proposed Action includes provisions for increasing educational efforts on Leave-no-Trace ethics, reducing group sizes, ending geocaching, continuing fire prohibitions, and prohibiting grazing by recreational stock and instead requiring weed-free hay. Many user-created trails would be closed and climbers would not be allowed to install new fixed anchor routes. There would be thresholds for vegetation impacts that would trigger further restrictions in use. All of these changes would reduce trampling, erosion, water quality degradation, and damage to riparian areas, springs and seeps, and meadows. Together, these actions would reduce damage to meadows, riparian areas, and other substrates by reducing inappropriate trampling and grazing; reducing the introduction of non-native exotic plants; reducing the loss of microhabitat variables; and encouraging all users to have a lighter touch on the Wilderness. Leave-no-Trace ethics include standards on minimizing waste, reducing soil and vegetation compaction, protecting water quality, respecting wildlife, and minimizing human disturbances such as noise.

Cave Resources

The Proposed Action also has provisions for temporary closures of critical habitats. Seasonal closures of caves would protect bats from disturbance during critical periods. Seasonal closures of climbing routes would protect peregrine falcons from disturbance during nesting. General Leave-no-Trace education would reduce disturbance to other wildlife species because once Wilderness users understand their potential impact on mating, reproduction, and recruitment, they would be less likely to crowd and otherwise disturb wildlife. The Proposed Action would also require all cavers to follow national decontamination protocols to prevent the spread of White-nosed syndrome (WNS). WNS is deadly to bats and has led to complete local extirpation of many species of bats in the eastern and central United States in recent years. Although WNS is not yet in Nevada or neighboring states, it is moving west and could be brought to Nevada by humans and their gear that have been in contaminated areas.

Research Natural Area; Research

The Proposed Action prohibits the following activities in the RNA: camping, campfires, hunting, trapping, geocaching, rock climbing, canyoneering, structures of any kind, target shooting, trail construction, and recreational activities, as well as other restrictions and prohibitions that would contribute to protection of the natural environment (soil, water, flora, fauna, and other resources) for research values.

The Proposed Action sets out protocols for protection of Wilderness resources by evaluating the necessity of research to determine if it will improve the value of the area as Wilderness and

requiring permits for researchers and educators. This new management direction will serve to protect wildlife values in the Wilderness.

Soils

Soil compaction and erosion is outlined in the Proposed Action with direction to address measures of erosion and compaction, threshold values, protection of downed woody material, duff, and sensitive subalpine and alpine habitats., which would improve habitat for many species of butterflies, springsnails, and migratory birds.

Vegetation; Wild Horses and Burros

Although there are no provisions for widespread restoration, the Proposed Action does target non-native invasive plants for removal from the Wilderness and encourages gathers of wild horses and burros. These two actions would restore habitat integrity and protect further degradation of meadows, springs and seeps, and riparian areas, respectively, thus protecting important wildlife habitats.

Wildlife Water Developments; Wildlife Relocation; Wildlife Damage Management

The Proposed Action spells out required agency agreements and protocols for wildlife water developments, wildlife relocation and wildlife damage management to reduce impacts to and provide protections for wildlife and wildlife habitat. Wildlife water developments, wildlife relocation and wildlife damage management would be considered by each agency in accordance with the CCCPLNRA and in the BLM portions, the MOU with NDOW. Wildlife relocation activities would be conducted on BLM-managed lands in conformance with the current or subsequent BLM–NDOW MOU and guided by the CCCPLNRA, as well as the FS-APHIS (2004) MOU, BLM–APHIS MOU (2012) and BLM Manual 6340. The translocation of Mojave Desert tortoises as analyzed under BLM EA NV-S010-2012-0097 could still occur without a WMP in place.

Cumulative Effects

Impacts from the Proposed Action must be considered in context with several cumulative effects. The 2013 Carpenter 1 Fire, which occurred in July 2013, burned approximately 9,454 acres in the Mt. Charleston Wilderness, or about 16% of the total Wilderness. All burned acreage was on FS-managed portions of the Mt. Charleston Wilderness. The fire broadly reduced tree canopy cover, thus increasing forage and browse for wild horses, mule deer, and elk, and reducing habitat for migratory birds. Climate change is exacerbating the drying of springs, seeps, and meadows, and is causing a range shift in much of the vegetation. Climate change could also increase outbreaks of insects and diseases, and the incidence of fire. City lights from Las Vegas disrupt natural cycles of wildlife species, as well as plants and insects upon which they prey. Flyovers from the McCarran International Airport disturb wildlife and Wilderness users alike. Existing distributions of non-native invasive plants is extensive.

Determinations

The Proposed Action would have no effect on the following species because there is no suitable habitat in the Mt. Charleston Wilderness; habitat is outside their distributional/elevational range, or they use the Wilderness as a travel route to reach suitable habitat: **Yuma myotis, bald eagle, southwestern willow flycatcher, western burrowing owl, phainopepla, summer tanager, Great Basin collared lizard, California kingsnake, Sonoran lyre snake, , brown-headed cowbird, or Lahontan cutthroat trout.**

The Proposed Action may impact individuals in a positive way through protections to habitat and reductions in disturbance. The Proposed Action is not likely to cause a trend toward federal listing of a loss of viability for the following species and the following reasons:

- **Townsend’s beg-eared bat, spotted bat, silver-haired bat, Allen’s big-eared bat, western small-footed myotis, long-eared myotis, fringed myotis, and long-eared myotis** — reduced disturbance during critical periods, reduced risk of WNS, and greater protection of habitat.
- **Palmer’s chipmunk** — greater protection of microhabitat structural variables.
- **Northern goshawk** — greater protection of riparian areas.
- **Peregrine falcon** — seasonal closures around nests to reduce disturbance.
- **Flammulated owl** — greater protection of meadows and riparian areas.
- **Western redtail skink** — greater protection of microhabitat structural variables.
- **Speckled rattlesnake** — greater protection of microhabitat structural variables.
- **Spring Mountains springsnail or the Southeast Nevada springsnail** — greater protection of springs, seeps, and meadows.
- **Charleston ant** — reduced soil disturbance, runoff, and erosion.
- **Elk** — greater protection of meadows and riparian areas and reduced disturbance.
- **Migratory birds** — greater protection of meadows, riparian areas, and springs and seeps.
- **Desert bighorn sheep** — greater protection of habitat on BLM lands by limiting trails.
- **Moajve Desert tortoise** — greater protection of microhabitat structural variables; no actions are proposed in tortoise habitat and impacts should be minimal.
- **Banded Gila monster** — greater protection of microhabitat structural variables.
- **Chuckwalla** — greater protection of microhabitat structural variables.

Archaeological, Cultural, and Heritage Resources _____

Cultural resources are defined as any physical evidence of former human presence that is older than 50 years. Cultural resources include prehistoric and historic period sites, features, and artifacts which may range in complexity from a single stone tool or bottle fragment to a large prehistoric village or historic-period town site.

Section 106 of the NHPA of 1966 requires Federal agencies to take into account the effects of their undertakings on “historic properties:” those cultural resources listed in or eligible for listing in the National Register of Historic Places (NRHP).

The Mt. Charleston Wilderness covers an area that is considered to be part of the traditional lands of the Southern Paiute and Chemehuevi tribes and is sacred to them. The area was also used extensively by Euro-Americans as they moved in and settled the area around the Spring Mountains. Minimal archaeological surveys have been done in the Wilderness, however, surveys in the areas done around the Wilderness give good indication that there is a high probability that both prehistoric and historic sites will be found when archaeological surveys are done.

No Action Alternative

Direct and Indirect Effects

The No Action Alternative would not provide any management guidance to direct visitation away from cultural resource areas or provide other guidance on how to reduce potential impacts to cultural resources. The lack of specific management guidance within the Wilderness could have direct and indirect impacts on cultural resources from recreational uses. Archaeological, cultural, and heritage resources would be managed under the National Historic Preservation Act (NHPA). Guidelines for the management of cultural resources are found in BLM Manual 8110 and FS Manual 2360 and BLM Handbook H-8270-1 for paleontological resources. Guidelines for the BLM and FS are further laid out in the State Protocol with the Nevada State Historic Preservation Office.

Proposed Action

Direct and Indirect Effects

The new Mt. Charleston Wilderness Management Plan has been designed to help protect the resources within the Wilderness boundaries and based on this any site specific action proposed in the WMP or done through a separate planning process must analyze any potential impacts to cultural resources. None of the actions proposed in the WMP are predicted to negatively impact cultural resources. Measures proposed in the WMP should help reduce potential impacts to cultural resources by requiring cultural clearances before implementing projects and siting trails to help direct visitors away from cultural resources. There is also an understanding that visitors to the Wildernesses may accidentally or intentionally damage or remove cultural resources and projects, both by the agencies and by private entities, that result in an increase in visitation to the Wilderness may also lead to an increase in this accidental or intentional impact.

The Nevada State Historic Preservation Office reviewed the Mt. Charleston Wilderness Management Plan and responded back to US Forest Service on July 1, 2013, stating they support the plan as written.

Wilderness

Affected Environment

Wilderness is an area designated by Congress and defined by the Wilderness Act of 1964 as a place that (1) generally appears to have been affected primarily by the forces of nature with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. This WMP addresses management of the Mt. Charleston Wilderness. Wilderness characteristics are described as: *untrammelled, natural, undeveloped, having outstanding opportunities for solitude or primitive and unconfined recreation, and unique/supplemental value.*

Untrammelled

Trammeling activities that have occurred in the Wilderness include the control of wildfires, removal of vegetation along trails, at the base of climbing routes and at springs, and the reintroduction of native species.

Natural

The natural character of the Wilderness is mostly preserved, however some changes in vegetation have occurred, most notably the introduction of non-native invasive plants and alterations in native vegetation species distribution and composition due to fires, old vehicle routes, and vehicle incursions. Wild horses and burros move in and out of the Wilderness; although fencing in the lower canyons outside of Wilderness is intended to preclude incursion, it continues to occur.

Undeveloped

The FS portion of the Mt. Charleston Wilderness is generally undeveloped, except for some wildlife water developments and spring enclosures. There are currently approximately 34 miles of designated trails. The FS maintains a communications repeater on Mt. Charleston within the Wilderness and there are periodic incursions to service the repeater. The U.S. Geological Survey maintains a bulk precipitation gauge within the Wilderness adjacent to Trough Spring.

No known developments (i.e. trails, mines/adits, spring developments) are known to exist on the BLM-part of the Wilderness. Helicopter tours and commercial airlines use the airspace above the Wilderness; while these types of aircraft may be seen and heard from within the Wilderness, the FAA manages airspace.

Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation

Though formal research of visitor use has not been conducted within the BLM part of the Wilderness, informal monitoring reveals that visitor use is virtually non-existent on this remote portion of the Wilderness. Casual horseback riding is limited due to the extremely steep and rocky terrain and limited water availability. No requests to conduct commercial services operations have been received so none are currently permitted on the BLM portions of the Wilderness.

There are no agency provided facilities on FS or BLM managed lands within the Wilderness and monitoring data shows no known user-created facilities.

Opportunities for solitude are outstanding throughout the majority of the Wilderness. This is due in part to the topographic variability, as well as the diversity of vegetation which enhances the visual screening. Due to the proximity of Las Vegas and McCarran International Airport, there can be substantial noise and light pollution in some portions of the Wilderness. The primary use season is during the summer months where the cooler temperatures and mountain environment contrast with the lower valleys of the Mojave Desert and high summer temperatures in the Las Vegas Valley. Some winter (i.e., skiing snowshoeing, ice climbing) use does occur in lower numbers. The Wilderness also provides opportunities for a variety of primitive and unconfined types of recreation including hiking, hunting, exploration, photography, rock climbing, canyoneering, viewing scenery and wildlife. Horseback riding, both casual and commercial guided horse ride operations, is limited in some areas, particularly the BLM-managed portion, due to the extremely steep and rocky terrain.

Mt. Charleston Wilderness provides a variety of technical rock climbing routes (sport) in both number and difficulty. It is estimated that approximately 200 sport climbing routes exist on FS-portions of the Wilderness, ranging in difficulty from 5.6 to 5.14. The use of permanent fixed anchors (an installation) for sport climbing decreases self-reliant recreation.

The Humboldt-Toiyabe GMP currently has the following restrictions on recreation: camping is prohibited within 300 feet of water sources and riparian areas; campfires and target shooting are prohibited; non-commercial publicized and organized events with 15 or more people require a permit; rock climbing is not allowed within 50 feet of rock art or 100 feet of peregrine falcon nests; alteration of the rock surfaces by gluing chipping or chiseling is not allowed; permanent fixed ropes or cables for climbing or belaying purposes are prohibited; and collection of listed and sensitive species requires a permit.

Management restrictions currently in place on the BLM portion of the Wilderness reflect those in existing laws, policies, and guidelines including standard agency-wide restrictions on seasonal campfires, special recreation permits, the 14-day stay limit for camping, and the prohibition on camping within one quarter mile of springs.

Unique/Supplemental Value

A federally-listed endangered species, the Mt. Charleston blue butterfly (*Icaricia shasta charlestonensis*), and its habitat occur in the Wilderness. The Wilderness is home to many sensitive plants, including alpine species. A Research Natural Area set aside to retain the area's natural and scientific values for research, study, observation, monitoring and educational activities is situated within the Mt. Charleston Wilderness.

No Action Alternative

Direct and Indirect Effects

Untrammelled

Impacts to the untrammelled character under the No Action Alternative would be similar to those under the Proposed Action. Trammeling due to fire control activities and restoration of small site disturbances could still occur due to existing policies. The management of wildlife, including re-introduction or translocation of native species could still occur without a WMP in place.

Natural

Control of invasive species and rehabilitation of disturbance could still occur on a case-by-case basis under the No Action Alternative but would not be guided by an overarching WMP.

Undeveloped

The existing developments in the Wilderness would still exist under the No Action Alternative unless they are removed after individual site-specific NEPA analysis. Increased negative impacts would occur to undeveloped character without a policy for placement of new permanent fixed anchors resulting from the creation of new sport climbing routes.

Outstanding Opportunities for Solitude and Primitive, Unconfined Recreation

Opportunities for primitive and unconfined recreation would remain outstanding throughout the Wilderness. New management restrictions of group sizes, equestrian and stock use, and campsite restrictions would not be implemented under the No Action Alternative and thus would not impact opportunities for unconfined recreation beyond already existing impacts. The limits to

recreation based on current BLM and FS policies would remain in effect. Thus there would be no impact to the unconfined recreation character in these portions of the Wilderness but it could lead to confusion for visitors due to different policies in different portions of the Wilderness.

Unique/Supplemental Value

The protection of the supplemental values of the Wilderness areas would not be guided by a WMP. There would be no guidance on the rerouting of trails, education, wildlife management, and research that may help reduce impacts to supplemental values.

Proposed Action Alternative

Direct and Indirect Effects

Untrammelled

Both FS and BLM lands within the Mt. Charleston Wilderness experience trammeling due to fire suppression, emergency stabilization and rehabilitation, control of invasive species, and rehabilitation of small-scale disturbances, all of which would continue under the Proposed Action. The re-introduction or translocation of native species would also be short term trammels. However, these actions would all have the benefit of improving the long-term naturalness of the Wilderness.

Natural

The natural and primeval character of the Wilderness would be maintained or enhanced under the Proposed Action, which would provide direction for the control of non-native invasive weeds, fire management actions, emergency stabilization and rehabilitation, and managing recreation (e.g. group size limits) to reduce impacts to soils, water, vegetative communities, and wildlife. This would reduce the potential for conversion to and dominance of non-native invasive weeds, displacement of wildlife, erosion, and impacts to natural conditions.

Undeveloped

The FS has an existing communications repeater on Mt. Charleston in the Wilderness and maintenance of the repeater will continue, but activities associated with said maintenance will be managed to minimize impacts to Wilderness character. The FS has no new developments planned for installation in the Wilderness.

The impact of the Proposed Action on the undeveloped character of the BLM-managed portion of the Wilderness would be similar to the No Action Alternative due to the lack of historic/current and planned development.

Outstanding Opportunities for Solitude and Primitive, Unconfined Recreation

The Proposed Action prohibits placement of new permanent fixed anchors across the entire Wilderness. This would reduce expansion of non-structural recreation sites while allowing for replacement of existing bolts, both of which would preserve current recreational opportunities. This prohibition would also reduce impacts to vegetation from climbing, which research has shown can have negative impacts on the density and diversity of plant species at the base of climbing route and/or on cliff faces (Rusterholz et al., 2004; McMillan and Larson, 2002; Camp and Knight, 1998).

Requiring weed-free feed for stock, prohibiting campfires, and party size restrictions for certain activities would constrain recreationists engaged in those activities but would help maintain naturalness and solitude. The implementation of group size limits would help control the impact on solitude from large groups.

Overall, on the BLM portion of the Wilderness, opportunities for solitude and primitive recreation would be outstanding due to the lack of recreation developments, remote location, and general ruggedness of the area. Many of the limits to recreation under the Proposed Action are already existing agency policies and/or laws and thus the impacts to unconfined recreation would be the same as those under the No Action Alternative.

Unique/Supplemental Value

Impacts to the supplemental values of the areas would be reduced under the Proposed Action by providing guidance to reroute trails and other recreational activities if they are impacting cultural or natural resources. Structures that are historically significant would be left in place for visitors to experience and enjoy. Guidance on education, wildlife management, and research along with the prohibition of the collection of natural and cultural resources would help limit impacts to supplemental values of the areas.

Environmental Justice in Minority Populations and Low-income Populations

Executive Order 12898 (Feb. 11, 1994) requires all Federal agencies to make environmental justice part of each agencies mission, by identifying and addressing, as appropriate, disproportionately high, and negative human health or environmental effects on minority populations or low-income populations.

No Action Alternative

Direct and Indirect Effects

The No Action Alternative represents management protocols remaining the same as they are currently, which is not expected to disproportionately affect the Wilderness experience for any visitor to Wilderness, including minority or low-income populations.

Proposed Action

Direct and Indirect Effects

It is anticipated the Proposed Action (Mt. Charleston Wilderness Management Plan) would have a beneficial effect on human health and the environment and would provide an improved Wilderness experience for minority populations, low-income populations, and people from all walks of life. Additional management direction targeted at protection of resources, prohibitions on fixed anchor climbing routes, limitations on group sizes, and other management protocols, are intended to protect Wilderness resources and enhance Wilderness character.

There would be there no health or environmental impacts or unique effects from any of the alternatives for this project on any Wilderness visitor or low income or minority visitor to Wilderness.

CONSULTATION AND COORDINATION

The following people contributed to the development of this Environmental Assessment:

Interdisciplinary Team Members

Spring Mountains National Recreation Area Humboldt-Toiyabe National Forest

<u>IDT Member</u>	<u>Responsibility</u>
Randy Swick	SMNRA Area Manager
Jane Schumacher	Environmental Coordinator;
Lori Headrick	Project Manager
Jennifer Brickey	Botanist
Jenny Ramirez	Wildlife Biologist
Kelly Turner	Archaeologist
Demetrius Purdie-Williams	GIS
Jim Hurja	Soil Scientist
Ryan Peacock	Acting Fire Management Officer
Suzanne Shelp	Trails Coordinator
Judy Suing	Tribal Liaison

Supervisor's Office Humboldt-Toiyabe National Forest

Mike Rowan	Recreation and Wilderness Program Manager
Rachel Mazur	Wildlife Biologist
Kim O'Connor	Botanist
Fred Frampton	Archaeologist
Jim Winfrey	Forest Planner
Rachel Mazur	Wildlife Biologist

Las Vegas Field Office Bureau of Land Management

Randy Kyes	Wilderness Planner (Great Basin Institute)
Sendi Kalcic	Wilderness Specialist
Matt Hamilton	Wildlife Biologist

Carla Wise	Wildlife Biologist
Evan Allan	Geologist
Marilyn Peterson	Outdoor Recreation Planner
Katie Kleinick	Natural Resource Specialist (Great Basin Institute)
Boris Poff	Hydrologist
Krystal Johnson	Wild Horse & Burro Specialist
Mark Slaughter	Acting Assistant Field Manager

**Nevada State Office
Bureau of Land Management**

David Mermejo State Wilderness Coordinator

The BLM and the FS informed or consulted with the following federal and state agencies and tribes during the development of this Environmental Assessment:

Federal, State and Local Agencies

- U.S. Fish and Wildlife Service
- Nevada Department of Wildlife
- Nevada Department of Transportation

Tribes

- Cedar Band of Paiutes Indians
- Chemehuevi Indian Tribe
- Colorado River Indian Tribes
- Indian Peaks Band of Paiute Indians
- Kaibab Band of Paiute Indians
- Las Vegas Paiute Tribe
- Moapa Band of Paiute Indians
- Pahrump Paiute Tribe
- Paiute Indian Tribe of Utah
- Shivwits Band of Paiute Indians

Exhibit A Map of Mt. Charleston Wilderness

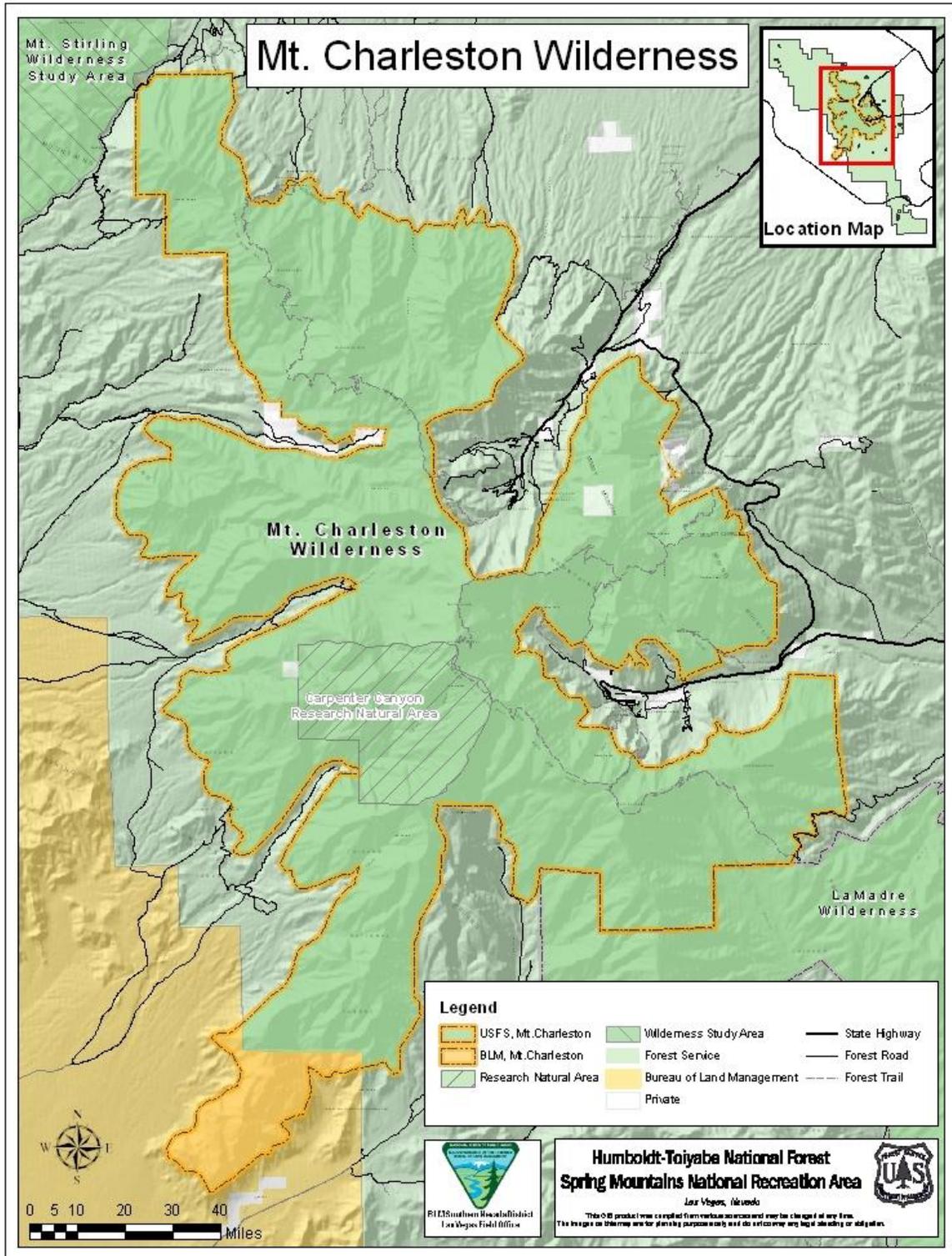


EXHIBIT B

Comparison of the No Action and the Proposed Action

FS Managed Land – Proposed Amendment to the Toiyabe NF LRMP

The FS is required to include plan components that guide future project and activity decision-making in the WMP, as defined in the Code of Federal Regulations and Forest Service Manuals and Handbooks. Standards and Guidelines are plan components that place constraints on agency decision-making. Standards are mandatory constraints on project and activity decision-making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements (36 CFR 219.7). Guidelines are constraints on project and activity decision-making that allow for departure from its terms, so long as the purpose of the guideline is met (36 CFR 219.15(d)(3)).

The following table describes changes to these two key plan components for the FS; more specifically, changes to the Standards and Guidelines for resources and management protocols currently outlined in the 1986 Toiyabe LRMP and the 1996 GMP, Management Area 12, that would result from implementation of the Proposed Action—the Mt. Charleston Wilderness Management Plan.

Note that the following Standards and Guidelines are applicable to FS lands only. Management direction for the BLM-managed land can be found in the Mt. Charleston WMP and EA.

Comparison of Alternatives		
Changes to Standards and Guidelines for Management Area 12, SMNRA GMP from implementation of Mt. Charleston Wilderness Management Plan		
Resource Area / Mgmt. Protocol	No Action Alternative 1986 Toiyabe LRMP and 1996 GMP, Mgmt. Area 12	Proposed Action 2013 Mt. Charleston WMP
Aircraft		All new Standards and Guidelines.
Camping and Campfires	<p>Mgmt. Area 12 Standard: Wilderness permits required for overnight camping.</p> <p>Mgmt. Area 12 Standard: Camp stoves are not restricted within the Wilderness. Campfires are prohibited.</p> <p>No campsite densities identified; no condition classes identified.</p>	<p>Revised Standard: No permits required for overnight camping; however, a permit system may be implemented if monitoring of resource impacts or adverse effects to Wilderness character indicates the need.</p> <p>Revised Standard: Campfires of any kind are prohibited within the Wilderness; this includes wood burning stoves, charcoal fires, packed in firewood, or fire pans. Camp stoves, such as portable liquid or gas fueled stoves used for the purpose of cooking, are permitted within the Wilderness.</p> <p>New Standard: Manage use levels to meet campsite density and campsite conditions class objectives and apply appropriate management actions as needed.</p>

		<p>New Objectives: Campsite density will not exceed more than an average of three Wilderness campsites per 1,000 acres.</p> <p>Maintain all campsites so they do not exceed a 3.0 rating for condition class (3.0 is considered to be a heavily impacted site). Maintain campsites so groundcover and severely damaged trees do not exceed a rating of 2.0. Overall campsite rating is determined by adding the ratings for condition class, number of severely damaged trees, and square feet of impacted area, based on a standard protocol for monitoring. Campsite ratings for condition class are defined in campsite inventory forms for the Wilderness and were developed using national Wilderness monitoring protocols for the FS.</p>
<p>Cave Resources</p>	<p>Direction on cave resources contained in SMNRA-wide standards and guidelines.</p> <p>SMNRA-wide Standard: Allow access to all caves only from the beginning of March through the end of May; and from the beginning of September through the end of October. Seasonal restrictions will remain in place until bat roosting/hibernating inventories have been completed. Long-term seasonal restrictions will be determined based on survey results. No bat roosting inventories in management direction, although research needs are identified in the GMP; the new plan responds to these research needs identified in the GMP:</p> <p>Research Need: Identification of bat roosting sites. Research Need: Impacts of caving on cave dwelling bats. Research Need: Inventory of cave resources.</p> <p>No direction to consult with Indian Tribes for protection of caves.</p>	<p>Added Standard: In order to prevent the introduction of white-nose syndrome, a fungus linked to bat mortalities in the eastern U.S., cavers are required to follow the National White-Nose Syndrome Decontamination Protocol (available at whitenosesyndrome.org). If it is found that people are not in compliance with the required protocol, restrictions on cave access can be implemented.</p> <p>Changed Standard: Allow access to all caves only from the <u>beginning of April through the end of May</u>; and from the beginning of September through the end of October. These seasonal restrictions will remain in place until bat roosting/hibernating inventories have been completed and long-term seasonal restrictions are established. (<u>Note: change made pursuant to direction from NDOW.</u>)</p> <p>Added Objective: Conduct non-invasive bat roosting/hibernating inventories on known caves with the Wilderness within the next five years, funding permitting. Survey results will aid in establishing long-term seasonal restrictions.</p> <p>Added Standard: Consult with Indian Tribes and an agency archaeologist to ensure protection of caves that are of</p>

		traditional and cultural significance.
	<p>SMNRA-wide Objective: Allow only commercial uses that minimize impacts to resources and the Wilderness experience, including outfitter/guide services for hiking, equestrian use, and climbing.</p> <p>No information on White-Nose syndrome.</p> <p>No direction on cave access using rock climbing gear.</p>	<p>Added Standards: Allow recreational caving without a permit. No commercial services for caving will be permitted.</p> <p>Added Guideline: Disseminate information on National White-Nose Syndrome Decontamination Protocol to the public through signage, informational pamphlets and brochures.</p> <p>Added Guideline: Guidelines for accessing caves using rock climbing gear will be the same as those found in the rock climbing section</p>
Collection of Natural Resources	<p>SMNRA-wide Standard: Collection of threatened, endangered, and sensitive species requires a permit from the Regional Forester, except for traditional use by American Indians.</p>	<p>Added and Revised Standards: Collection of natural resources within Wilderness is prohibited, exceptions include:</p> <ul style="list-style-type: none"> -Scientific purposes. Collection of threatened, endangered, and sensitive plant and wildlife species for academic, scientific, or research purposes requires a permit from the Regional Forester or the BLM District Manager and a permit from the U.S. Fish and Wildlife Service (FWS) (50 CFR 17.22), except for traditional use by American Indians. -Native American Indian gathering or tending native plants or materials for personal use, which may be done without obtaining a use permit. -As authorized by FS or BLM permit. The authorities for permits for collection are outlined in FSH 2409.18, Ch. 82.1 and 87.05; FSM 2404.28; and FSM 2462; and FSH 2609.25, Ch. 4.03, and as outlined in other FS and BLM policies.
Environmental Education / Interpretation	<p>Mgmt. Area 12 DFC: Wilderness character is strengthened by limited signage.</p> <p>Mgmt. Area 12 Objective: Allow for signs in the Wilderness only at a minimum level necessary for public safety (directional) and resource protection.</p>	<p>Changed from DFC and Objective to Guideline (and revised): Interpretive information may be included on trailhead information signs, but will not be located on signs in the Wilderness.</p> <p>All new guidelines.</p>
Fire and Other Emergencies	<p>1996 direction relating to fire management in Wilderness.</p>	<p>All new Standards and Guidelines (direction for fire suppression and rehabilitation in Wilderness has been updated and brought current).</p>
Geocaching	<p>No direction.</p>	<p>All new Standards and Guidelines</p>
Group and Commercial Services		<p>New Guideline: Permits will only be issued following a needs assessment or</p>

	<p>Mgmt. Area 12 Standard: A maximum of 15 pack or saddle stock will be permitted to use the trails in the Wilderness for organized trail rides.</p> <p>Mgmt. Area 12 Guideline: Encourage the use of weed-free feed.</p> <p>Mgmt. Area 12 Standard: Wilderness permits are required for all overnight use within the Wilderness.</p>	<p>capacity analysis to determine if outfitter guide services are feasible for the Wilderness.</p> <p>New Guideline: Manage outfitter guides to ensure they are not exceeding a threshold that will have a negative impact on Wilderness character, which may include limiting the number of days that outfitter guides are permitted and may include limitations on the group size. The threshold for such limitations will be determined through monitoring outfitter guide use (encounters or changes in site conditions) and impacts therefrom.</p> <p>New Guideline: Identify areas and destinations of operations in all commercial use permits.</p> <p>New Standard: Groups will be limited to a combination of people and stock not to exceed 25, with no more than 15 stock animals in any one group. Limitations will be placed on pack or saddle stock if monitoring (encounters or changes in site conditions) determines the need for such limitations.</p> <p>New Standard: Require the use of weed-free feed or pellets for stock animals (FS Order Number 04-00-097) and in accordance with other FS and BLM policies and closure orders.</p> <p>New Standard: Require use permits for outfitter guides and commercial horseback operators. Use permits may authorize overnight camping for commercial guide services in the Wilderness. Wilderness permits are currently not required for overnight use; however, if in the future Wilderness permits are required for such use, guides will be required to obtain permits.</p>
<p>Heritage, Archaeological and Cultural Resources and Tribal Relations</p>	<p>Direction contained in SMNRA-wide standards and guidelines.</p>	<p>New Guideline: Interpret heritage resources and cultural history outside of Wilderness. Signs may be present within Wilderness in very rare cases, for resource protection only.</p>
		<p>New Guideline: Allow scientific use consistent with the National Historic Preservation Act, Archaeological Resource Protection Act, FSM 2323.8, Forest Plan direction, and BLM Manual 5340.</p> <p>New Guideline: Facilitate traditional Native American use practices that are not</p>

		<p>in conflict with the Wilderness Act.</p> <p>New Guideline: Reference the <i>Consultation Handbook for Nuwuvi (Southern Paiute), the Spring Mountains National Recreation Area, and the Desert National Wildlife Refuge Complex</i> to establish government-to-government protocols for the management of traditional resources in Wilderness, when appropriate.</p> <p>All Standards in the WMP are new with the exception of this one: Ensure American Indian access to access plants and traditional-cultural and religious sites.</p>
Horseback Riding (Recreational) and Pack Stock Animals	No direction relating to recreational horseback riding. Mgmt. Area 12 DFC states equestrian use should be managed to minimize impacts to resources.	<p>All new Standards and Guidelines, with the exception of these two existing Mgmt. Area 12 Standards, which are maintained in the new plan:</p> <ul style="list-style-type: none"> -Pack and saddle stock are limited to day use only the South Loop Trail and on North Loop Trail from Trail Canyon trail junction to Charleston Peak. -Discontinue equestrian use in the alpine if monitoring determines that equestrian use is having a negative impact on vegetation.
Hunting and Trapping	SMNRA-wide Objective states: Recognize hunting and trapping as legitimate uses of the SMNRA, and maintain hunting opportunities.	<p>New Goal: Allow hunting and trapping in the Wilderness, as administered and licensed by the State of Nevada Department of Wildlife.</p> <p>All new Standards.</p>
Minerals	SMNRA-wide direction relating to mineral entry and reclamation in the NRA.	New Guidelines and Standards, with the exception of the following existing key Forest-wide standards and guidelines in the GMP: Conduct validity exams on all unpatented mining claims within the Wilderness (this is maintained as a Guideline in the new WMP).
Noxious Weeds and Non-native Invasive Species	SMNRA-wide Standard: Permit application of herbicides and insecticides only to avoid or control epidemic outbreaks of insect and plant diseases where there is a threat to public safety, private property, or extreme fire danger. When applied, use only formulations registered by the EPA for the intended use, at minimum effective rates, and using selective methods. Avoid use in habitat for threatened, endangered, or sensitive species, or species of concern whenever possible. Single tree treatment will be used.	<p>All new Standards and Guidelines, the only one that is not new but is maintained as a Guideline in the new WMP is the following: Only use herbicides or pesticides when no other options are practical and then use the least persistent chemical or biological treatment that is able to control the infestation in accordance with management objectives. Avoid use in habitat for species of concern whenever possible.</p> <p>Note: The one Standard in this section requires a PUP (MRDG and VTUH for BLM), which will analyze whether an outbreak is endemic and a threat to public</p>

	<p>Monitoring requirements for alpine LTA and Bristlecone LTA—further action required if 15% increase in weedy, non-native plant populations.</p> <p>Mgmt. Area 12 Guideline: Allow for treatment of exotic pests within the Wilderness when scientific evaluations indicate a need. Only use pesticides when no other options are available and then use the least persistent chemical or biological pesticide. Avoid use in habitat for species of concern whenever possible.</p>	<p>safety, private property, or fire, and appropriate treatment options using the least persistent chemical or biological.</p>
Personal Property, Refuse, or Vandalism	<p>GMP provides for protection of heritage resources from vandalism.</p>	<p>New Guidelines to remove unattended property or refuse, remove paint or graffiti by foot or horseback, examine cultural sites with archaeological and Native American representatives prior to removal, remove illegal marijuana grows and illegal dumps.</p>
Recreation	<p>No direction on limitations on hiking groups. In the monitoring section, there is mention of monitoring for visitor use levels.</p>	<p>All new Standards and Guidelines.</p>
Research	<p>No direction setting protocols for research.</p>	<p>All new Standards and Guidelines.</p>
Research Natural Area	<p>SMNRA-wide key Standard and Guidelines: Encourage academic research. Nothing in Mgmt. Area 12 specific to the Carpenter Canyon Research Natural Area.</p>	<p>All new Standards and Guidelines, vetted by the FS Rocky Mountain Research Station RNA Coordinator.</p>
Rock Climbing and Canyoneering	<p>SMNRA-wide GMP Standard: Allow development of new bolted climbing routes under a voluntary route registration system. After development of more than 5 routes, new climbing areas in Wilderness and WSA's will require site surveys before additional routes are developed.</p>	<p>New Standards: -No new fixed anchor climbing routes. New Guidelines: -Allow the installation of new permanent fixed anchors through a special use permit only for the protection of human life and safety. -Allow the replacement of existing fixed anchors for safety purposes. - Place signs at trailheads accessing climbing areas to provide use restrictions.</p> <p>The balance of the Standards and Guidelines are the same as stated in the SMNRA-wide section of the GMP and Mgmt. Area 12 of the GMP.</p> <p>The reference to canyoneering (Standard 10) comes from BLM direction; there was nothing in the GMP about canyoneering, which wasn't identified as such in 1996.</p>

Signs	Key Forest Wide Standards and Guidelines: Allow for signs in the Wilderness only at a minimum level necessary for public safety (directional) and resource protection.	All new Standards and Guidelines that outline specific requirements relating to signs and Wilderness.
Soils	SMNRA-wide goals and objectives to reduce soil compaction and minimize erosion.	All new Standards and Guidelines, with specific references about inappropriate measures in Wilderness.
Structures, Administrative Sites, and Installations	Nothing on structures except an objective to remove structures from Wilderness. Mgmt. Area 12 Standard: Flood control devices will not be constructed in the Wilderness.	All new Standards and Guidelines that include the prohibition on flood control devices. The new Guidelines provide direction taken from FS policy.
Target Shooting	No direction.	New Standard prohibiting target shooting.
Trails	Mgmt. Area 12 Guideline: Discourage foot-traffic and camping at Mummy Spring by removing visitor-made trails, trail signage, and restoring native vegetation in riparian areas.	Same guideline for Mummy Springs; more direction on it is in the Water Quality and Springs section. All new Standards and Guidelines with more specific direction about management of trails in Wilderness.
Vegetation	Mgmt. Area 12 Guideline: Allow natural disturbances (fire, flood, avalanche) to achieve desired condition of vegetation mosaic. Use management tools to achieve desired condition only if other alternatives are not available.	Same Guideline, but reworded. New Standards and Guidelines.
Vehicle Access Points and Designation of Trails	Mgmt. Area 12 Standards: -All motorized/mechanized vehicle use will be permitted only up to the Wilderness boundary and trailheads. Extension of existing roads across the Wilderness boundary by informal use is prohibited. -Obliterate existing roads, except for maintenance of existing roads as trail alignments. Mgmt. Area 12 Guidelines: - Post and maintain signage at entry points to the Wilderness (trails, trailheads, and roads). Minimize the amount of signage within the Wilderness itself.	These existing Mgmt. Area 12 Standards and Guidelines are carried into the new WMP as Standards, but reworded for clarity. All new Guidelines.
Water Quality and Springs	SMNRA-wide direction on protection of springs in the GMP. Mgmt. Area 12 Guideline:	Maintains Guideline to discourage foot-traffic and camping at Mummy Springs. New Standards and Guidelines.

	Discourage foot-traffic and camping at Mummy Spring by removing visitor-made trails, trail signage, and restoring native vegetation in riparian areas.	
Wild Horses and Burros	<p>Mgmt. Area 12 Guideline: Allow fences and other barriers to be constructed in the Wilderness to prohibit wild horses and burros access into the Wilderness and Kyle and Lee Canyons.</p> <p>Mgmt. Area 12 Objective: Keep wild horses and burros out of the Wilderness.</p>	<p>Allowing fences was removed based on structure prohibitions in Wilderness. Any proposed fences need an MRDG. Direction was changed to the following Guideline: In cases where impacts to springs and riparian systems result from wild horses or burros, mitigation measures may be employed to prevent further degradation or to restore Wilderness character.</p> <p>Objective to keep horses and burros out of Wilderness was changed to a Standard, the only one in this section (see WMP).</p> <p>New Guideline: Control wild horse and burro access into the Wilderness; favor control measures outside of Wilderness where prudent and feasible.</p>
Wildlife	<p>The SMNRA-wide GMP provides direction on managing habitat for elk.</p> <p>SMNRA-wide DFC: Water sources have been developed within the Wilderness and WSA's only to improve desert bighorn sheep habitat and protect Wilderness character.</p>	<p>New Standard: Give first priority to locating habitat improvement projects outside Wilderness for the benefit of wildlife that spend only part of the year in Wilderness (FSM 2323.35a).</p> <p>Only allow water source developments in Wilderness to improve desert bighorn sheep habitat. These developments must protect Wilderness character.</p> <p>One new Guideline and two new Standards relating to wildlife damage management and wildlife hunting and collecting.</p>
Monitoring Program	Outdated monitoring protocols.	All new monitoring protocols.

EXHIBIT C

BLM Resources/Concerns Considered for Analysis

The scope of this EA analysis comprises the Mt. Charleston Wilderness located in Clark County in the Mojave Basin and Range ecoregion. The BLM’s NEPA Handbook (H-1790-1) and its implementing procedures codified at 36 CFR part 220, require that all environmental documents address specific resources or concerns of the human environment. The list of elements contained in the BLM handbook has been expanded by BLM Instruction Memoranda and Executive Orders. The resources/concerns identified for this analysis, along with the rationale for including or not including them in this analysis, are listed in the following table for the BLM managed portion of the Wilderness. Resources not adversely affected were not considered further in this EA document.

The following items have been evaluated for the potential for impacts to occur, either directly, indirectly, or cumulatively, due to implementation of the Proposed Action. Consideration of some of these items is to ensure compliance with laws, statutes, or Executive Orders that impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general, and to the BLM SNDO in particular.

Resource/Concern	Issue(s) Analyzed? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Air Quality	N	There are no mechanical or soil disturbing activities planned in the Wilderness.
Areas of Critical Environmental Concern	N	There are no ACEC’s present in the area.
BLM Natural Areas	N	There are no BLM Natural Areas within the BLM Las Vegas Field Office.
Cultural Resources	Y	Cultural resources are located in the project area and thus there may be potential impacts due to the Proposed Action.
Environmental Justice	N	The development of management activities in the WMP is not expected to impose disproportionately high or adverse human health or environmental effects that would fall disproportionately on low-income, minority populations, American Indian tribes, women, or affect the civil rights of any United States citizen.
Greenhouse Gas Emissions	N	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 and FS authorized uses.
Farmlands (Prime or Unique)	N	There are no prime or unique farmland designations in the area.
Fish and Wildlife Excluding Federally Listed Species	Y	Some of the BLM Proposed Action have the potential to impact wildlife species found in the project area. Management activities set out in the WMP that have the potential to affect fish and wildlife should be analyzed in the EA.

Resource/Concern	Issue(s) Analyzed? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Floodplains	N	Management activities in the WMP would not involve the occupancy or modification of floodplains within the Wildernesses. Floodplains should be maintained to mimic historic condition/operation.
Fuels/Fire Management	N	The WMP is not expected to impact the management of fire.
Geology/Mineral Resources/Energy Production	N	Designation of Wilderness, not this WMP affects mineral resources. All BLM-managed Wilderness areas are withdrawn from new mining claims.
Hydrologic Conditions	N	Any action outlined in the WMP that might affect hydrologic conditions will be analyzed in separate EAs.
Invasive Non-native Plant Species (includes noxious weeds)	Y	The WMP describes actions to control noxious weeds and thus should be analyzed in the EA.
Land/Access	N	There are no private inholdings, thus access is not an issue. There is minimum disturbance in a Wilderness area, thus there are no issues.
Livestock Grazing	N	The Proposed Action is not located in any authorized grazing allotments.
Migratory Birds	Y	Several of the management actions have the potential to impact migratory birds.
Native American Religious Concerns	Y	Sites of Native American concern are assumed to be present and impacts should be analyzed in the EA. Analyzed under Cultural Resources section.
Paleontological Resources	N	There are no Proposed Actions in areas with known paleontological resources.
Rangeland Health Standards	N	Negative impacts to rangeland health are not expected.
Recreation Uses	Y	The WMP addresses multiple recreation activities and thus should be analyzed in the EA.
Socio-Economics	N	This is an implementation plan under the RRCNCA RMP and SMNRA GMP. Potential socio-economic impacts were analyzed as part of the RMP and GMP and this WMP is in conformance with those documents.
Soils	N	The Proposed Action includes minimal surface disturbance (i.e. walking and camping), there should be no impacts local soils. General protective measures for soils are set out in the WMP.
Special Status Animal Species (Federally protected, Nevada State protected, BLM/FS Sensitive rated)	Y	Multiple sensitive and protected animal species, including the federally Threatened desert tortoise, are present within the planning area and have the potential to be impacted
Special Status Plant Species (Federally protected, Nevada State protected, BLM/FS sensitive rated)	Y	While no federally protected plant species are present, there are several FS or BLM sensitive plant species present with the potential to be impacted. Larval host plants for special status butterfly species are present in the area and have the potential to be impacted.
Vegetative Resources	Y	Several of the actions in the WMP have the potential to impact vegetation and thus should be analyzed in the EA
Visual Resources	N	The planning area encompasses designated Wilderness and on adjacent non-wilderness lands, which are managed as VRM Class I and II, respectively. The Proposed Action meets the objectives for VRM - the existing character of the landscape will be preserved and the level of change would be low to very low.

Resource/Concern	Issue(s) Analyzed? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Wastes, Hazardous or Solid	N	No wastes are anticipated to be produced by actions described in the WMP
Water Quality, Drinking/Ground	N	Management activities in the WMP may affect water quality and in-stream flows that provide habitat for native aquatic invertebrate populations, endemic flora, and for healthy riparian vegetation. Project-specific NEPA analysis would be conducted for site-specific activities with the potential to degrade water quality.
Water Resources (Water Rights)	N	The WMP does not impact federal water rights.
Wetlands/Riparian Zones	N	Riparian/wetland vegetation health may be impacted by management activities set out in the plan; however, site-specific activities affecting soils would be analyzed in project-specific NEPA analysis.
Wild and Scenic Rivers	N	No wild and scenic rivers are located in the area.
Wild Horse and Burro	N	The proposed project is located in or adjacent to portions of the Red Rock HMA, Wheeler Pass HMA, and Spring Mountains WHBT. However, the Proposed Action is not expected to impact the management of wild horses and/or burros.
Wilderness	Y	The plan addresses management actions in the Wilderness areas.

**EXHIBIT D
Response to Public Comments**

First Name	Last Name	Affiliation	Comment	Category	Sub-category	Response
D. Bradford	Hardenbrook	NV Department of Wildlife	WMP, p. 13, Cave Resources, Guidelines (3). The Department suggests the USFS, BLM and NDOW work cooperatively in regards to biological aspects of cave inventories.	Agency Cooperation		The FS and the BLM have worked cooperatively to develop management direction for cave resources in the plan. Each of the agencies will adhere to the mandates in the plan and work cooperatively with NDOW to ensure caves, including resources occurring naturally in caves, are protected in accordance with the Federal Cave Resources Protection Act of 1988 (16 U.S.C. 4301), the purpose of which is to foster increased cooperation and exchange of information between governmental authorities. At this time, the FS is working with NDOW on a new conservation agreement which will allow for conservation actions to be developed mutually with the state.
D. Bradford	Hardenbrook	NV Department of Wildlife	WMP, p. 14, Cave Resources, Standards (7). Critical time periods noted in this section may overlap with key breeding periods for bats during spring (March-May) and would disrupt adults and young during fall (Sept-Oct).	Management Direction	Cave Resources	Thank you for the clarification on seasonal restrictions. We will change the restrictions for cave access to the period March through April and September through October, with seasonal restrictions to remain in place until bat roosting/hibernating inventories have been completed and long-term seasonal restrictions are established.

			Seasonal restrictions for cave access between March through April and September through October are recommended for completion of biological surveys and bat roosting/hibernating inventories.			
D. Bradford	Hardenbrook	NV Department of Wildlife	WMP, p. 14, Standards (8). Inclusion of the National White-Nose Syndrome Protocol is noted and appreciated. The Department requests information on how the protocol will be disseminated to the public.	Management Direction	Cave Resources	Thank you for your support of this direction. The agencies would notify caving organizations with regard to implementing the protocol. If it is found that people are not in compliance with the required protocols, restrictions on cave access can be implemented. We anticipate kiosks at trailhead locations would contain information on decontamination protocols.
D. Bradford	Hardenbrook	NV Department of Wildlife	The Department recommends the inclusion of the following: "It is unlawful to collect or move wildlife without written consent of the Nevada Department of Wildlife Nevada (NRS 503.597). Further, Nevada Administrative Code 503.093 requires the necessary permit or	Management Direction	Wildlife	Thank you for your recommendation. We will include this direction as a standard in the Wildlife section.

			written authorization from the Department to hunt, take or possess wildlife, which are classified as protected."			
D. Bradford	Hardenbrook	NV Department of Wildlife	WMP, p. 21, Hunting and Trapping, Goals. Replace <i>Department of Fish and Game</i> with <i>Department of Wildlife</i> .	Management Direction	Hunting and Trapping	Thank you for the clarification. We will make the change.
D. Bradford	Hardenbrook	NV Department of Wildlife	WMP, p. 35, Wild Horses and Burros, Desired Future Conditions, Guidelines (2). In cases where impacts to springs and riparian systems result from wild horses and burros, allow for exclusion fences in Wilderness at springs and riparian systems as of part of the mitigation measures.	Management Direction	Wild Horses and Burros	Fences are considered installations and as such, must be evaluated for the appropriateness of such installations in Wilderness. If a fence is necessary for administration of the Wilderness for the protection of resources, where temporary or other management actions are not providing adequate protection, fencing could be considered following an analysis in accordance with the Minimum Requirements Decision Guide for Wilderness. Installation of fencing would need to respond to the question of how it benefits the Wilderness as a whole as opposed to maximizing one resource, and whether the fence is the minimum tool necessary to accomplish such protection while maintaining Wilderness character.

Environmental Assessment for the Mt. Charleston Wilderness Management Plan

D. Bradford	Hardenbrook	NV Department of Wildlife	WMP, p. 35, Wildlife Goals, 5th paragraph. The Department requests timely coordination and consultation with the U.S. Forest Service regarding wildlife management activities within Wilderness for consistency with the Memorandum of Understanding, Supplement No. 9 between the BLM and the Department.	Management Direction	Wildlife	The agencies have strived to make management direction seamless across agencies boundaries, and as such, FS management direction would be in conformance with BLM's Memorandum of Understanding with NDOW and MOUs with other agencies MOUs, e.g. the U.S. Fish and Wildlife Service. We will add this language to the 5th paragraph on page 35.
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	The plan prohibits the placement of new fixed anchors effectively eliminating the opportunity to develop new climbing routes and reducing the ability to mitigate impacts near existing routes. Limiting climbing to existing routes will likely increase impacts to existing routes as more and more climbers visit Mt. Charleston.	Management Direction	Climbing	We appreciate your concern relating to reducing impacts to existing routes. The Plan allows for the replacement of permanent fixed anchors on existing routes, but the proliferation of new routes through the installation of new permanent fixed anchors throughout the Wilderness does not meet the intent of the Wilderness Act, its implementing regulations, and Forest Service policy. Forest Service policy requires the removal of existing structures not essential to the administration, protection, or management of Wilderness for Wilderness purposes or not provided for in the establishing legislation M15. The FS

					<p>manages for recreation activities that are dependent on the Wilderness environment so that a minimum of adaptations within Wilderness are necessary to accommodate recreation (FSM 2323.12). The BLM has agreed to adhere to the management policies set out by the FS in the Mt. Charleston WMP to the extent they do not conflict with BLM's Las Vegas RMP or its policies. The Forest Service's implementing regulations of The Wilderness Act allow the agency to permit only temporary structures within National Forest Wilderness to the extent necessary for realizing recreational or other Wilderness purposes (36 CFR 293.8). In the Plan, we have provided for the replacement of existing fixed anchors, some of which may have been in place prior to the enactment of the enabling Legislation for the Mt. Charleston Wilderness, and would continue to allow the placement of temporary protection for climbing in Wilderness. Also, please note the Plan provides for the protection of rock art, heritage and cultural resources, at-risk species, and endemic cliff-dwelling plant species that occur in the Wilderness. The allowance of new fixed anchors would not only contradict other components of the Plan, but would be in contravention to the</p>
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						agencies' policies governing National Forest Wilderness and BLM Wilderness.
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	Totally prohibiting new routes is not the best means for protecting Wilderness characteristics or to provide solitude and primitive and unconfined recreation. Allowing some level of new route development will protect Wilderness characteristics by dispersing the associated impacts and by providing the opportunity for more primitive and unconfined recreation. Allowing new routes will help protect areas and reduce impacts. Having a new route permit process will enable climbers to stick to the management direction and thereby reduce impacts. Having a pre-approval permit system would enable the tracking of new routes and preclude	Management Direction	Climbing	New route development to disperse climbing use is not the only means of managing use in Wilderness. The Plan provides that bolt proliferation and impacts to species of concern and other resources could lead to possible route closures. The installation of new permanent fixed anchors would detract from the opportunity for more primitive and unconfined recreation for all visitors to the Wilderness. As stated in the Plan, structures and installations in Wilderness must be evaluated for placement or retention in Wilderness. Permanent fixed anchors would be considered installations, which carry the same weight in terms of restrictions as structures, and in this case, some of the criteria for evaluation include questions about whether proposed installations conflict with stated Wilderness objectives, legislation and policy; do they benefit Wilderness as a whole as opposed to maximizing one resource; do they ensure that human presence is kept to a minimum so the area is affected primarily by forces of nature; and can the activity associated with the structure or installation be accomplished outside

			<p>climbers from applying for a permit for the same new route in the future.</p>			<p>Wilderness and still achieve its objective? Primitive recreation consists of activities that provide dispersed, undeveloped recreation and do not require installations (i.e., permanent fixed anchors) or motorized equipment. Activities which do not meet this definition, then, decrease self-reliant recreation. Therefore, comment does not demonstrate how new route development allowing permanent fixed anchors protect primitive recreation.</p>
<p>R.D. Javier</p>	<p>Pascoe Wasiak</p>	<p>Access Fund and Las Vegas Climbers Liaison Council</p>	<p>New route permit processes successfully in used at Joshua Tree National Park (CA), New River Gorge National River (WV), Eldorado Canyon State Park (CO), and Rifle Mountain Park (CO) are excellent models for allowing responsible development of new routes at Mt. Charleston. In each location, local climbing organizations work with the land manager to review and ultimately decide which applications should be</p>	<p>Management Direction</p>	<p>Rock Climbing</p>	<p>You do not indicate if the route permit processes implemented in the National Parks you cite, are new route permits for Wildernesses within those National Parks. It is important to note that each Federal Agency writes its own implementing regulations with regard to the law, as well as its own policies with regard thereto. It is also important to note that the BLM has agreed to adhere to the management policies set out by the FS in the Mt. Charleston WMP to the extent said policies do not conflict with BLM's Las Vegas RMP or its policies. The agencies have determined the Mt. Charleston Wilderness is not conducive to an increase in permanent fixed anchors because of its sensitive alpine plant species, at risk wildlife species, archaeological and</p>

			approved. The Wilderness Act, the National Park Service, and BLM Wilderness management policies allow for such a system to be implemented and the Access Fund and Las Vegas Climbers Liaison Council can help develop and implement an effective new route permit system for Mt. Charleston.			cultural resources, and massive solid rock faces that are not conducive to traditional climbing. The BLM Wilderness Instruction Memorandum you cited in your comments specifically provides that local BLM managers may identify instances where the use of permanent fixed anchors is appropriate or inappropriate in Wilderness; however, this BLM policy also recognizes that establishing new routes can contribute to an unacceptable density of climbing activity and that placing permanent fixed anchors on existing rock faces that did not previously have permanent fixed anchors or near sensitive archaeological resources or raptor nesting sites might not be appropriate in some Wildernesses.
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	Planners should develop a new route permit process that manages fixed anchors without impairing the Wilderness character of Mt. Charleston. In particular, the permit process can consider the range of climbing use patterns and potential impacts to determine whether	Management Direction	Rock Climbing	The agencies have made a determination that allowing new climbing anchors in the Mt. Charleston Wilderness would not comport with the untrammelled, natural, and undeveloped character of the Wilderness, and would not provide opportunities for solitude or primitive and unconfined recreation. The agencies do not have the capacity in terms of funding and personnel to administer a new route permit process for this Wilderness, similar to that adopted by the National Park Service. The agencies have determined the Mt.

			<p>approving a new route application would comport with the untrammelled, natural, and undeveloped character of Mt. Charleston Wilderness, and provides opportunities for solitude or primitive and unconfined recreation.</p>			<p>Charleston Wilderness is not conducive to an increase in permanent fixed anchors because of its sensitive alpine plant species, at risk wildlife species, archaeological and cultural resources, and massive solid rock faces that are not conducive to traditional climbing. New routes may improve solitude for climbers but not necessarily other users. A hiker's solitude may be less impacted from passing a large group at a single climb, and not seeing any more climbers, than it would be passing climbers along most of his/her hike.</p>
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	<p>Fixed anchor use, other than sometimes preventing impacts to cliff top ecologies, does not control or manipulate ecological systems in Wilderness. Thus, climbing activities and a responsible use of fixed anchors will not affect the untrammelled character of Mt. Charleston Wilderness.</p>	Management Direction	Rock Climbing	<p>Research has shown that technical rock climbing negatively impacts vegetation in both the number and diversity of plant species as compared to cliffs with no evidence of climbing (Rusterholz et al., 2004; McMillan and Larson, 2002; Camp and Knight, 1998). The plan prohibits the practice of "gardening," that is, removal of vegetation along climbing routes as an aid to climbing. This management direction is specifically targeted to protect the fragile habitat of sensitive cliff-dwelling species. To ensure that Wilderness is unhindered and free from modern human control or manipulation, the plan preserves the untrammelled character by assessing adverse impacts occurring to Wilderness character, mitigating all</p>

						actions that may affect Wilderness values, and ensuring that actions cause no harm to the Wilderness character. New fixed anchor placement would not contribute to untrammelled character of Wilderness.
R.D. Javier	Pascoe Wasiaak	Access Fund and Las Vegas Climbers Liaison Council	As with “untrammelled,” the new route permit process will have no effect on ecosystems and ecological processes in Mt. Charleston Wilderness (other than mitigating potential related climbing impacts), and thus the controlled use of new fixed anchors at Mt. Charleston will not impair its natural character.	Management Direction	Rock Climbing	To ensure the natural character of Wilderness, where the area appears to have been primarily affected by the forces of nature, the plan preserves the area's natural characteristics by creating standards and guidelines for managing resources and activities existing in the Wilderness, which includes the prohibition of new permanent fixed anchors that demonstrate human volition and intervention. New fixed anchor placement would not contribute to the natural or undeveloped character of Wilderness.

R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	<p>The Wilderness Act also requires that Wilderness remain “undeveloped” and that it preserves “its primeval character and influence” and “with the imprint of man’s work substantially unnoticeable.” Used appropriately, Wilderness climbing fixed anchors are unnoticeable except to those Wilderness climbers that are seeking them out. Therefore, fixed anchors are a substantially unnoticeable imprint caused by this fundamental Wilderness recreation use.</p>	Management Direction	Rock Climbing	<p>As with any law, the language in the Wilderness Act, can be subject to interpretation in a number of ways. Although the Act states that to preserve its natural character, Wilderness must generally appear to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable, the Forest Service recognizes the "undeveloped" character of Wilderness as an area that is essentially without permanent improvements or human occupation and retains its primeval character. Fixed anchors on cliff faces are noticeable and represent human manipulation and development. New fixed anchor routes are essentially similar to designated trails and therefore are considered developments that detract from Wilderness character. Not only are fixed anchors installations, they are also developments. The undeveloped quality is impaired by installations, i.e. permanent fixed anchors.</p>
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	<p>A new route permit process will help mitigate impacts and increase the opportunity for solitude by increasing the number of routes accessible to climbers.</p>	Management Direction	Rock Climbing	<p>New route development to disperse climbing use is not the only means of managing use in Wilderness. The Plan provides that bolt proliferation and impacts to species of concern and other resources could lead to possible route closures. The installation of new permanent fixed anchors would detract from the</p>

						<p>opportunity for more primitive and unconfined recreation for all visitors to the Wilderness. New routes might spread out climbing use, but would impact solitude for other users. Also, noise pollution resulting from climbing activities that require climbers to communicate across rock faces would have an impact on the solitude character of Wilderness and detract from the primitive, unconfined, experience of solitude for other visitors to the Wilderness.</p>
R.D. Javier	Pascoe Wasiaak	Access Fund and Las Vegas Climbers Liaison Council	<p>Wilderness climbing and the controlled use of new fixed anchors has no effect on ecological systems, other than to prevent potential impacts, thus ecological processes continue to function naturally regardless of fixed anchor use. Therefore, not only will a new route permit process at Mt. Charleston have no negative impacts on the Forest Service's ability to preserve the area's Wilderness character, but</p>	Management Direction	Rock Climbing	<p>The installation of new permanent fixed anchors would detract from the opportunity for more primitive and unconfined recreation for all visitors to the Wilderness. BLM policy states in Manual 6340 — Management of Designated Wilderness Areas that “for members of the public, no exceptions to the prohibited uses found in Section 4(c) of the Wilderness Act, are allowed — including creating structures or installations — without explicit, case-by-case authorization from the BLM managing office.” The BLM and the FS have determined that allowing new permanent fixed anchors (an installation) in the Mt. Charleston Wilderness, which would lead to the development of new rock climbing routes was not the minimum tool necessary to administer the area as</p>

			<p>allowing the use of new fixed anchors will facilitate the Forest Service's ability to provide for an "intrinsic part of Wilderness character"—opportunities for solitude through a longstanding type of primitive and unconfined recreation.</p>			<p>Wilderness. Forest Service policy requires the removal of existing structures not essential to the administration, protection, or management of Wilderness for Wilderness purposes or not provided for in the establishing legislation (FSH 2324.31). The Forest Service's implementing regulations of The Wilderness Act allow the agency to permit only temporary structures within National Forest Wilderness to the extent necessary for realizing recreational or other Wilderness purposes (36 CFR 293.8).</p>
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	<p>Requiring the use of an arduous hand-drilling method coupled with a new route permit process will limit the proliferation of new bolts yet still allow a minimum number for the administration of unrestrained backcountry climbing at Mt. Charleston.</p>	Management Direction	Rock Climbing	<p>You indicate in your comments there are over 416 existing sport routes, with roughly 51% of the existing routes within designated Wilderness. This amounts to over 212 existing routes within the Mt. Charleston Wilderness. You indicate in your comments that one of the areas, The Hood, has 100 routes and another, the Glass House Canyon, has more than 60. The Forest Service has determined that to maintain Wilderness character within the Mt. Charleston Wilderness, further bolting must be excluded and only allowed in rare cases to protect human life and safety, which is why the agency is prohibiting the placement of new fixed anchors. The BLM's Manual 6340 provides that authorizations may be appropriate for allowing</p>

						the placement of permanent, fixed climbing anchors, pursuant to a case-by-case authorization from the BLM managing office. However, the BLM Determined, like the FS, that allowing new permanent fixed anchors to develop new rock climbing routes was not the minimum necessary to administer the area as Wilderness. As stated herein, BLM will align its policies with that of the Forest Service for that portion of the Wilderness it manages.
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	The climbing community and the Access Fund are ready, willing, and able to help planners develop and implement an effective new route permit process for Mt. Charleston Wilderness.	Management Direction	Rock Climbing	Thank you for your offer of assistance; however, at this time, the agencies do not have the capacity in terms of funding and personnel to administer a new route permit process for this Wilderness, similar to that adopted by the National Park Service. Additionally, the agencies have determined the Mt. Charleston Wilderness is not conducive to an increase in permanent fixed anchors because of its sensitive alpine plant species, at risk wildlife species, archaeological and cultural resources, and massive solid rock faces that are conducive only to sport climbing.
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	Overall, the Plan's climbing management policies are reasonable, and subject to the addition of a new route permit process, we fully	Management Direction	Rock Climbing	Thank you for your support of the plan. The Forest Service recognizes the Wilderness character of "undeveloped" as an area essentially without permanent improvements or human occupation and retains its primeval character. The installation

			support the Plan’s well-balanced approach. Mt. Charleston has vast amounts of undeveloped rock that, once developed, would help maintain the Wilderness character and provide primitive, unconfined recreation.			of new permanent fixed anchors would not meet that purpose, nor would such use align with the Wilderness characteristics of natural, untrammled and outstanding opportunities for solitude or a primitive and unconfined type of recreation.
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	We would like more accurate surveys of climbing routes, which the plan proposes to conduct every two years. We would like to ensure all routes are surveyed and are offering to assist in climbing route surveys.	Management Direction	Rock Climbing	Thank you for your offer of assistance. The Forest Service will conduct route surveys in accordance with its monitoring strategy set out in the Plan and may use information from various climbing organizations and individuals in verify the accuracy of surveys.
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	A pre-approval or permit system is a better method to manage climbing at Mt. Charleston. Bolts are the basically only means of climbing protection available at Mt. Charleston because of the solid rock faces with few cracks. It is used primarily for	Management Direction	Rock Climbing	As stated in comment response No. 18, there are currently approximately 212 existing routes within the Mt. Charleston Wilderness, with over 200 routes outside of the Wilderness. There are many opportunities for climbing outside of the Wilderness, as well as many existing routes within Wilderness. The Forest Service wants to retain the remaining undeveloped cliffs free from human manipulation and development. Once fixed anchors are placed in

			<p>sport climbing and prohibiting new fixed anchors is essentially prohibiting new routes. Further, there is a vast amount of undeveloped cliffs, some which are suitable for new routes.</p>			<p>undeveloped cliffs, it forever changes the natural landscape of the cliff faces within the Wilderness. With the number of routes currently existing within the Wilderness, there is no need for further human encroachment by way of fixed anchors on the undeveloped cliff faces in the Mt. Charleston Wilderness. Traditional climbing, using removable gear, could be considered a primitive use; however, sport climbing with the need for fixed anchors, which is primarily done in Mt. Charleston Wilderness, is not considered a primitive use. Establishment of bolt-intensive face climbs is considered by the agencies to be incompatible with Wilderness preservation and management due to the concentration of human activity which they support, in addition to the types and levels of resource impacts associated with this type of route. Fixed anchors and/or equipment should be rare or non-existent in Wilderness and “clean climbing” techniques that involve the use of temporary devices should be the standard in Wilderness.</p>
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	<p>The visual impact of bolts is minimal; they are barely visible. Bolts can be matched to the color of the rock. Bolts</p>	Management Direction	Rock Climbing	<p>Bolts are visible to visitors to the Wilderness, even if they are color matched. The proliferation of bolts would contribute to such visibility and impair Wilderness characteristics of untrammeled, natural</p>

			do not affect the untrammelled character of the Wilderness.			and undeveloped. Fixed anchors are considered installations; however, the Wilderness Act prohibitions do not differentiate between large and small installations. Also, camouflaging bolts can have disadvantages; if bolts are difficult to see, climbers may install new bolts when they are unable to find existing bolts.
R.D. Javier	Pascoe Wasiak	Access Fund and Las Vegas Climbers Liaison Council	Wilderness is special because of its setting, also the Wilderness experience. You get to see animals and plants and engage in an activity that challenges you physically and mentally. You also get to interact with other climbers as well as other friends and family in that natural setting. It provides an opportunity to experience wildlife and solitude. From a practical point of view, in Las Vegas it enables climbers to escape the heat, and it is the primary option in this area.	Management Direction	Rock Climbing	Thank you for your input. Wilderness is a valuable resource that is intended, as stated in the Wilderness Act, to ensure for the American people of present and future generations the benefits of an enduring resource of Wilderness. The Mt. Charleston Wilderness is of special importance to the community of Las Vegas as a place to escape summer heat. The Wilderness provides an opportunity for all visitors to the Wilderness to recreate at higher elevations in a unique and beautiful setting. Other users, such as mountain bikers, could make the same claim that Mr. Charleston is the only local place to go in the summer, but they are restricted from using the Wilderness areas because bicycles are mechanized equipment.

Environmental Assessment for the Mt. Charleston Wilderness Management Plan

Gregory	Burnhardt		Does the management plan need to include any topics related to mountain biking? I have noticed that mountain bikers are increasingly going into Wilderness areas with no regard for the rules that govern these special uses.	Management Direction	Vehicle Access Points	The Plan provides direction that "All motorized/mechanized vehicle use will be permitted only up to Wilderness boundaries and trailheads." This is a Forest Service management standard, which means it is a mandatory constraint on activities within the Wilderness. Mountain bikes are mechanized vehicles and riders crossing into the Wilderness would be cited. The Plan also provides direction to increase public awareness of prohibited uses such as mechanized travel within the Wilderness through interpretive information signs at Wilderness trailhead access points.
Jose	Witt	Friends of Nevada Wilderness	Most of the trails that are attractive for camping are on ridgelines which provides the only suitable place for camping due to steepness. It would be best to prohibit camping within view of the trail and maintain other Leave No Trace practices.	Management Direction	Camping	As a group whose members work in and enjoy considerable time in the Wilderness, we appreciate your comments and observations, particularly that camping on ridgelines provides a suitable place for camping due to steepness. As you know, the Plan prohibits camping within 300 feet of trails, paths, springs, water sources, riparian areas, or cultural resource sites. These prohibitions would respond to your concern that camping should not be allowed within view of trails, and it also protects the unique and sensitive resources within the Wilderness.

Jose	Witt	Friends of Nevada Wilderness	Group size does need to be better managed. We anticipate that “publicized and/or organized events” includes meet-up groups as they organize the largest events with the most amount of people. Will also anticipate outreach to these groups to notify them of group size limitations. Better clarity as to how groups splitting would be enforced is appreciated.	Management Direction	Group and Commercial Services; Recreation	In the Group and Commercial Services section of the Plan, there is direction to require permits for publicized and/or organized events with 15 or more participants if any portion of the activity takes place within the Wilderness; however, we do not consider meet-up groups to be organized events. We will take into consideration your concern about how group splitting would be enforced; most likely, it would be through permitting, monitoring and possible citations. Outreach to meet-up groups would be accomplished to ensure these groups are notified.
Jose	Witt	Friends of Nevada Wilderness	Advanced fire suppression method decisions should be made at the local level for efficiency, speed and ability to react to a wildfire.	Management Direction	Fire and Other Emergencies	Fire suppression methods are made in accordance with each agency's fire plan by fire management not only at the local level, but at higher levels involving incident command, depending on the size and intensity of each fire.
Jose	Witt	Friends of Nevada Wilderness	How are trails that are “trenched” going to be addressed. Some sections of trails are deep grooves with meadow areas that can be several inches below top soil.	Management Direction	Trails	The Plan provides direction to conduct ongoing monitoring using the established baseline inventory data, in conjunction with site inventory monitoring, every five to ten years, but no longer than ten years, or when driven by other management actions, to ensure that trail management objectives are consistent with area

						management objectives. The monitoring strategy contained in the Plan provides for monitoring of system trails to identify the percentage of change of trail depth and width at transect points, boggy areas, resource damage, and safety concerns. Trail maintenance, closures or requiring Wilderness permits would be the protocol to meet plan standards and address trail conditions.
Jose	Witt	Friends of Nevada Wilderness	Ensure wild horse and burro population plans are consistent with those outside of Wilderness.	Management Direction	Wild Horses and Burros	Agency management direction includes excluding wild horses and burros from Wilderness. The Plan includes direction to control wild horse and burro access into the Wilderness and favor control measures outside of Wilderness where prudent and feasible. Wild horse and burros management is prescribed through Acts of Congress, their implementing regulations, policies and other relevant documents, including the General Management Plan for the SMNRA, Record of Decision, Amendment to the Toiyabe National Forest Land and Resource Management Plan (October 1, 1996), which identifies management areas and appropriate management levels (AML) for wild horses and burros. The agencies are writing a Forest Plan amendment to identify revised AMLs and institute a gather that would place an emphasis on the gather and removal of wild horses from Mount

						Charleston Wilderness.
Jose	Witt	Friends of Nevada Wilderness	With the recent fire it's possible that elk herds will make their way to springs on the south side of the range. What is going to be done to protect riparian areas?	Management Direction	Water Quality and Springs	The Forest Service has a Burned Area Emergency Response team working on a post-fire assessment following the Carpenter 1 fire. We have brought your concern to the team for consideration.
Jose	Witt	Friends of Nevada Wilderness	Much of the monitoring consists of monitoring 10% of the Wilderness over 10 years. It is advised to more closely monitor concentrated use areas more frequently in order to manage appropriately.	Management Direction	Water Quality and Springs	The Forest Service monitoring strategies for campsite densities and condition class ratings allow for measuring frequencies at 10% of the Wilderness per year over a ten-year reporting period. The agencies do not have the capacity in terms of resources and personnel to monitor; however, monitoring techniques involve field reviews where field-going Forest Service personnel and volunteer organizations such as Friends could supply information more frequently.
Jose	Witt	Friends of Nevada Wilderness	One item to bring to attention is the growth of the mountain biking community in Las Vegas. Although mountain biking is prohibited in Wilderness	Management Direction	Vehicle Access Points	The Plan provides direction that "All motorized/mechanized vehicle use will be permitted only up to Wilderness boundaries and trailheads." This is a Forest Service management standard, which means it is a mandatory constraint on activities within the Wilderness. Mountain

			there is a threat of illegal mountain biking trails being built and riding activity in Wilderness.			bikes are mechanized vehicles and riders crossing into the Wilderness would be cited. The Plan also provides direction to increase public awareness of prohibited uses such as mechanized travel within the Wilderness through interpretive information signs at Wilderness trailhead access points.
John E.	Hiatt		No trails actually start at the Wilderness Boundary, hence there is a need to inform the public at trailheads about whether mountain bikes can be used any particular trail. It is not logical to allow mountain bikes on a trail leading into Wilderness and expect the rider to turn around at the Wilderness Boundary. That simply won't happen. So, while mountain bikes are clearly not allowed in Wilderness by law, the reality is that the issue needs to be addressed in the planning process so that mountain bike trails outside of Wilderness don't connect	Management Direction	Vehicle Access Points	Please see response to previous comment, No. 33. With the implementation of this management plan, the agencies will be increasing public awareness of prohibitions on mechanized travel within the Wilderness. The Plan provides direction to ensure signs at trailheads contain sufficient information to provide necessary Wilderness education, including regulations and restrictions, installed at key locations on the boundary and at designated trail entry points and other access points (trails, trailheads, and roads) where visitors are more likely to come into contact with the Wilderness.

			with Wilderness trails.			
John E.	Hiatt		Motor vehicle incursions: All former (now closed) vehicle access points into Wilderness and all cherry-stem routes need to be monitored regularly to find unauthorized vehicle trespass and those trespass sites posted with appropriate signage and physically obstructed to prevent ingress.	Management Direction	Vehicle Access Points	Please see response to previous comment, No. 34. In the Plan, the Forest Service's monitoring strategy includes monitoring for vehicle incursions occurring in the Wilderness that would include field reviews of road closures, turn-arounds and parking areas at Wilderness boundaries, using established baseline inventory data. The protocol to meet plan standards would employ appropriate management actions to block access, place signage, or close parking areas.
John E.	Hiatt		Given the reality and magnitude of the Carpenter 1 fire, fire rehabilitation has to be addressed in the management plan. In particular, how, and whether or not, to deal with debris flows moving from the Wilderness Area into developed areas and facilities	Management Direction	Fire and Other Emergencies	The Forest Service has a Burned Area Emergency Response team working on a post-fire assessment following the Carpenter 1 fire. The Plan provides direction that "Emergency stabilization and rehabilitation activities will take place in accordance with the agencies current Watershed Protection and Management Emergency Stabilization – Burned Area Emergency Response policies (FSM 2523) and in accordance with other FS and BLM policies. Passive rehabilitation will be used to repair and rehabilitate effects from fire. Active rehabilitation work will

			following post-fire heavy precipitation events needs to be addressed.			occur only to rehabilitate the effects of fire suppression activities and to stabilize soil to minimize risk to downstream human life or property or to onsite cultural or biological resources, and to prevent the site from becoming dominated by exotic species. Emergency stabilization will be completed when it is necessary to prevent loss of soil and onsite productivity, loss of water control and deterioration of water quality, or when onsite life or property are threatened."
John E.	Hiatt		The scoping document states that camping will be prohibited within 300 feet of trails, paths, water sources, etc. Since, most of the trails in the Wilderness are either on ridge tops or steep slopes this will be unenforceable. In my opinion, it would be better to require adherence to "Leave no Trace" camping techniques and request people to camp out of sight of trails, etc.	Management Direction	Fire and Other Emergencies	The Plan prohibits camping within 300 feet of trails, paths, springs, water sources, riparian areas, or cultural resource sites. These prohibitions would respond to your concern that camping should not be allowed within view of trails, and it also protects the unique and sensitive resources within the Wilderness. Camping will be monitored to foster Leave-No-Trace use ethics and visitors will be directed to appropriate existing and durable sites. Campsites will be maintained in compliance with management direction for site density, condition class ratings and resource objectives, such as proximity to water or designated trails.

John E.	Hiatt		<p>The subject of trail maintenance needs to be addressed. What standards of sustainability will be employed? What depth of incision into the native soil will be allowed to occur? With almost certain increase in visitation in the future, maintenance of trails in such condition that they are pleasant to use is an issue that must be addressed.</p>	Management Direction	Trails	<p>The Plan provides direction to conduct ongoing monitoring using the established baseline inventory data, in conjunction with site inventory monitoring, every five to ten years, but no longer than ten years, or when driven by other management actions, to ensure that trail management objectives are consistent with area management objectives. The monitoring strategy contained in the Plan provides for monitoring of system trails to identify the percentage of change of trail depth and width at transect points, boggy areas, resource damage, and safety concerns. Trail maintenance, closures or requiring Wilderness permits would be the protocol to meet plan standards and address trail conditions.</p>
John E.	Hiatt		<p>As a result of the Carpenter 1 fire there will almost certainly be expansion of the elk population into the new habitat created at high elevation. This will put pressure on natural springs, since elk like to both hang out in riparian areas and wallow there. The plan needs to address how spring and riparian areas</p>	Management Direction	Water Quality and Springs	<p>The Forest Service has a Burned Area Emergency Response team working on a post-fire assessment following the Carpenter 1 fire. We have brought your concerns to the team for consideration.</p>

			will be protected from non-indigenous large ungulates, which includes both elk and horses.			
John E.	Hiatt		The health of aspen clones (groves) in Wilderness needs to be addressed. Many areas of aspen in the Spring Mountains have been shaded out by conifers and are just barely hanging on. Fire is the obvious tool to reset the seral clock on aspen, however, with the presence of the non-native elk small prescribed burns to rejuvenate aspen will create attractive sites for elk since emerging aspen shoots provide excellent browse. With large fires it is not a problem since the area of emerging aspen is so large that the elk herbivory is of little consequence, but with small areas of only a	Management Direction	Vegetation	The Plan states that management of vegetation, including aspen, in Wilderness would be utilized only if natural process are not maintaining the desired condition of the vegetation mosaic, in which case management tools, such as mechanical treatments or prescribed burning would be implemented. The Plan provides direction that following a fire larger than 500 acres, a Forest-level Interdisciplinary Team would be convened to determine long-term post-fire restoration and rehabilitation needs that would include vegetation management.

			<p>few acres elk can wipe out the emerging aspen sprouts. This issue should be addressed. One approach is to provide temporary elk fencing around young aspen groves, but this is very expensive and requires regular maintenance.</p>			
John E.	Hiatt		<p>The plan needs to include a provision for proactively educating the public about the Mt. Charleston Wilderness and Wilderness in general. Due to the large number of non-local visitors and the transient nature of the Las Vegas population there is and will be an ongoing need to educate the visiting public about the values and rules governing the Mt. Charleston Wilderness.</p>	Management Direction	Signs	<p>The Plan provides direction to ensure signs at trailheads contain sufficient information to provide necessary Wilderness education, including regulations and restrictions, installed at key locations on the boundary and at designated trail entry points and other access points (trails, trailheads, and roads) where visitors are more likely to come into contact with the Wilderness.</p>

John E.	Hiatt		The monitoring program described in the scoping document calls for monitoring 10% of the Wilderness Area each year, on a 10 year rotation. It seems to me that the most highly used and impacted areas need monitoring every year while areas that are rarely visited only need monitoring on a decadal basis. The major trails such as the South Loop, North Loop and Bonanza need monitoring at least once a year, every year.	Management Direction	Monitoring	The Forest Service monitoring strategies for campsite densities and condition class ratings allow for measuring frequencies at 10% of the Wilderness per year over a ten-year reporting period. The agencies do not have the capacity in terms of resources and personnel to monitor more frequently; however, monitoring techniques involve field reviews where field-going Forest Service personnel, volunteer organizations, and visitor reporting could supply information more frequently.
John E.	Hiatt		Inconsistencies between BLM rules and Forest Service management rules need to be made consistent. An example of a potential problem is seen on p. 16, no. 6, where the Forest Service rules do not allow water drops in Wilderness for firefighting	Management Direction	Inconsistencies	The perceived inconsistencies you have identified in the plan are not actually inconsistencies; rather, they are differences in agency management policies. For the management direction you cite at page 16 (6), "(6) The FS allows water to be dropped from aircraft or buckets (considered to be a landing), if authorized by the Forest Supervisor. The BLM allows water to be dropped from aircraft without the Southern Nevada District Manager's

			<p>purposes without the authorization of the Forest Supervisor but BLM does not require prior authorization. The management plan needs to resolve this inconsistency and any others discovered.</p>			<p>authorization." The Forest Service must seek authorization from the Forest Supervisor for landings in Wilderness, whereas the BLM does not require such approval. The FS manages a total of 55, 265 acres and the BLM manages a total of 2,175 acres. Given the small percentage of public land managed by the BLM in the Mt. Charleston Wilderness, the BLM has agreed to adhere to management policies set out by the Forest Service, to the extent such policies do not conflict with BLM's Las Vegas RMP and its policies. In some instances, there are differences in agency policies that cannot be circumvented, such as the direction on authorizations relating to fire suppression.</p>
John E.	Hiatt		<p>Managing group sizes: The scoping document calls for permits for any group larger than 15 persons. With the advent of "meet-up" groups where the group size is not known in advance this regulating group size is difficult, but still necessary into order to preserve some semblance of a Wilderness experience. I fear that the</p>	Management Direction	Group and Commercial Services; Recreation	<p>In the Group and Commercial Services section of the Plan, there is direction to require permits for publicized and/or organized events with 15 or more participants if any portion of the activity takes place within the Wilderness; however, we do not consider meet-up groups as offering organized events. Regulating group size would be enforced; most likely, through permitting, monitoring and possible citations. Outreach to meet-up groups would be accomplished to ensure these groups are notified.</p>

			only way to address this problem is through education, but it definitely needs to be addressed in the planning process.			
Tod	Oppenborn	Nellis AFB	Military aircraft are normally 2,000 feet or higher above the area. Concur with the exception of emergencies and essential military missions. Please add ", any situation necessary for the safety of flight" after emergencies.	Management Direction	Aircraft	Thank you for your additional language. Be assured we will include it in the management objectives for aircraft in the Plan.
Palmer	Rebecca	State Historic Preservation Office	SHPO supports this document as written.	Management Direction	WMP	Thank you for your support.

Exhibit E

CITATIONS

- Bureau of Land Management, Implementation Guide to Measuring Attributes of Wilderness Character, 2012.
- Bureau of Land Management, Las Vegas Resource Management Plan and Record of Decision, 1998.
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- Rusterholz, H., S. W. Muller, and B. Baur. 2004. Effects of rock climbing on plant communities on exposed limestone cliffs in the Swiss Jura Mountains. *Applied Vegetation Science*. 7(1): 35-40.
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- USDA Forest Service, Humboldt-Toiyabe NF, Spring Mountains NRA, Rowan, M. and Shelp, S., Recreation Specialist Report, 9/2013.
- USDA Forest Service, Humboldt-Toiyabe NF Land and Resource Management Plan 1986.
- USDA Forest Service, Humboldt-Toiyabe NF, Spring Mountains NRA, General Management Plan, 1996, an amendment to the Toiyabe Land and Resource Management Plan, 1986.
- USDA Forest Service, Recreation Site Monitoring procedures for Element 6 of the Chief's 10 Year Wilderness Stewardship Challenge, Minimum Recreation Site Monitoring protocol, Cole, D., Aldo Leopold Wilderness Research Institute, Cole, D., 4/19/2006.
<http://www.wilderness.net/toolboxes/documents/recsitemonitor/Element%206F%20guidebook.pdf>

EXHIBIT F

**Mt. Charleston Wilderness
Management Plan**



January 2014

U.S. Department of Agriculture
Forest Service
Intermountain Region
Humboldt-Toiyabe National Forest
Spring Mountains National Recreation Area

U.S. Department of the Interior
Bureau of Land Management
Nevada State Office
Southern Nevada District
Las Vegas Field Office

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Introduction

Background

In 1964 the United States Congress established the National Wilderness Preservation System through the Wilderness Act of 1964, as enacted September 3, 1964, and amended October 21, 1978 (Public Law 88-577; 16 U.S.C. 1131-1136) as a system of federal lands "where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain." This law was created to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States. Wilderness designation is intended to preserve and protect certain lands in their natural state. Only Congress, with Presidential approval, may designate lands as Wilderness. The Wilderness Act of 1964 defines Wilderness characteristics, the uses of Wilderness, and the activities prohibited within its boundaries.

Wilderness areas provide a contrast to lands where human activities dominate the landscape. No buffer zones are created around Wilderness to protect them from the influence of activities on adjacent land. Wilderness areas are managed for the use and enjoyment of the American people in a manner that will leave them unimpaired for future use and enjoyment as Wilderness, for their protection, preservation of their Wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as Wilderness.

Scope of the Wilderness Management Plan

This Wilderness Management Plan (WMP) is jointly prepared by the United States Department of Agriculture (USDA) Forest Service (FS) and the United States Department of Interior (DOI) Bureau of Land Management (BLM). Each agency has jurisdictional authority for separate portions of the Wilderness. The WMP is developed by way of a cooperative agreement by and between the agencies, with the FS as the lead agency for development of this WMP. The WMP provides the primary management direction for the Mt. Charleston Wilderness. The WMP provides specific direction for the management of the Mt. Charleston Wilderness over the next ten (10) years.

The Mt. Charleston Wilderness Area was designated by the U.S. Congress in 1989 (Nevada Wilderness Protection Act of 1989; PL 101-195) at 43,842 acres, and was amended in 2002 (Clark County Conservation of Public Land and Natural Resources Act of 2002; PL 107-282) to add 13,598 (11,423 to FS land and 2,175 to BLM land) acres for a total of 57,440 acres. The FS manages a total of 55,265 acres and the BLM manages a total of 2,175 acres. The Wilderness includes the Carpenter Canyon Research Natural Area and sensitive alpine areas. This plan addresses appropriate actions within and immediately adjacent to the Wilderness areas, such as Wilderness access and information provided to the public.

The land base area managed by the BLM is relatively small (2,175 acres) compared to the total Wilderness acreage of 57,440. The recreational and management activities that take place in the area managed by the BLM are not substantial.

The BLM has agreed to adhere to the management standards and guidelines established by the FS for management of the Mt. Charleston Wilderness, to the extent management direction does not conflict with the BLM's Las Vegas Resource Management Plan (RMP) or BLM regulations. The BLM has contributed to the management direction contained in this plan and warrants that, with the inclusion of BLM-specific direction, the Mt. Charleston WMP does not conflict with the BLM's Las Vegas RMP and Record of Decision (1998) or BLM regulations.

RELATIONSHIP TO LAND AND RESOURCE MANAGEMENT PLANS

The BLM will adopt the Mt. Charleston WMP as a supplement to the BLM's Las Vegas RMP and Record of Decision. The FS will adopt the WMP as an amendment to the Land and Resource Management Plan (LRMP) for the Toiyabe National Forest (1996). The General Management Plan (GMP) for the Spring Mountains National Recreation Area (SMNRA) is an Amendment to the LRMP for the Toiyabe National Forest. This WMP will supplement forest-wide standards and guidelines in the Toiyabe LRMP and the GMP, as an amendment to the Toiyabe LRMP, to provide more specific, updated, and consistent direction for management of the Mt. Charleston Wilderness. The plan will tier from and be appended to the Toiyabe LRMP (FSM 2322.03(5)).

The GMP identifies Mt. Charleston Wilderness as Management Area 12. The following Management Area is removed from the GMP and replaced by this WMP:

Management Area 12 — Mt. Charleston Wilderness

Every FS forest plan must have management areas or geographic areas or both. The plan may identify designated or recommended areas as management areas or geographic areas (36 CFR 219.7). Management direction for a Wilderness must be stated in the Forest Plan as management area prescriptions with associated standards and guidelines. Each Wilderness is unique as established by law; therefore, each will be identified as a separate management area (FSM 2322.03). Management Area 12 is defined by and follows the boundary of the Mt. Charleston Wilderness, as Congressionally designated in 1989 and amended in 2002.

The amendment to the Toiyabe National Forest LRMP is a project-specific, non-significant Forest Plan amendment. The amendment will not change forest-wide direction (Forest Plan standards which apply to the entire Toiyabe National Forest); therefore, management direction contained in the Toiyabe National Forest LRMP will continue to remain relevant. Management direction contained in the Toiyabe Forest Plan is incorporated herein by references made to the SMNRA GMP in this WMP.

The National Forest Management Act of 1976 (16 U.S.C. §§ 1600-1614, August 17, 1974, as amended 1976, 1978, 1980, 1981, 1983, 1985, 1988 and 1990) mandates that management direction for Wilderness be incorporated into forest plans and also sets the standards for the content of Wilderness Plans (FSM 2320.1(6)). Management of BLM public lands is conducted

pursuant to the Federal Land Policy and Management Act of 1976 (43 U.S.C. §§ 1701-1782, October 21, 1976, as amended 1978, 1984, 1986, 1988, 1990-1992, 1994 and 1996). Management of Wilderness on BLM public land is outlined in BLM Manual 6340, Management of Designated Wilderness (2012). The Wilderness Act of 1964 sets out mandates for use, prohibitions and provisions for Wilderness. Other authorities include, but are not limited to, the Organic Act, the Clean Air Act, the Multiple-Use Sustained Yield Act of 1960, the Federal Land Policy and Management Act of 1976, and the Historic Preservation Act of 1966.

Wilderness management direction in this plan is prepared as a part of the FS forest planning process as required by 36 CFR Part 219 and FSM 1922 and for the BLM as required by 43 CFR Parts 6300 and 8560. Implementation of the forest plan is accomplished through development of implementation schedules that include projects and activities designed to achieve and comply with the management standards and guidelines established for the designated Wilderness (FSM 2320). Wilderness management direction for the BLM is prepared as required by 36 CFR Parts 6300 and 8560 and the BLM 2008 NEPA Handbook (H-1790-1). Planning by both agencies is done in compliance with the National Environmental Policy Act (FSM 1950 and FSH 1909.15 and BLM 2008 NEPA Handbook (H-1790-1).

DEFINITIONS OF COMMON PLANNING TERMS

The FS is required to include plan components that guide future project and activity decision-making in the WMP, as defined in the Code of Federal Regulations (CFR) and Forest Service Manuals (FSM) and FS Handbooks (FSH). The plan components are defined as follow:

- “*Goals*” Goals are broad statements of intent, other than desired conditions, usually related to process or interaction with the public. Goals are expressed in broad, general terms, but do not include completion dates (36 CFR 219.7).
- “*Objectives*” are concise statements of planned results that respond to pre-established goals. An objective is a concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets (36 CFR 219.7).
- “*Desired Future Conditions*” described what the forest should look like after implement of management direction contained in the plan. A desired condition is a description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined, but do not include completion dates (36 CFR 219.7).
- “*Guidelines*” are constraints on project and activity decision-making that allow for departure from its terms, so long as the purpose of the guideline is met (36 CFR 219.15(d)(3)). Guidelines are established to help achieve or maintain a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements (36 CFR 219.7).
- “*Standards*” A standard is a mandatory constraint on project and activity decision-making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements (36 CFR

219.7). Management standards must be followed, while guidelines are preferred or advisable courses of action with more operational flexibility. Deviation from a standard would require a Forest Plan amendment; deviation from compliance with a guideline could simply be documented in project-level analysis.

- “*Monitoring Requirements*” are developed to determine whether the standards, guidelines, and prescriptions are effective in moving the Wilderness areas toward the desired conditions. The plan must describe a monitoring program for the plan area (36 CFR 219.6(b)) that establishes monitoring questions and associated performance measures. Monitoring questions must link to one or more desired condition, objective, or guideline. Not every desired condition, objective, and guideline must be associated with a monitoring question (FSH 1909.12). Monitoring information enables the responsible official to determine if a change in plan components or other plan content that guide management of resources on the plan area may be needed (36 CFR 219.12).

In addition to the foregoing plan components, the FS is required to make the following management determinations in a plan. As described below, because the land managed in this plan is Wilderness, these determinations are constrained by the very definition of Wilderness, legislative mandates, and limitations placed on management activities allowable within Wilderness.

- “*Suitability*” describes the appropriateness of applying certain resource management practices to a particular area of land and the suitability of that land for multiple uses and activities, based on the desired conditions applicable to the land. Regulations require the FS to determine which lands are suitable for timber production (36 CFR 219.7 and 11). The Mt. Charleston Wilderness is not suited for timber production by virtue of its enabling legislative mandates, including the Wilderness Act, which sets out prohibitions in Wilderness and instructs that management direction be established to preserve Wilderness character. The Wilderness Act prohibits commercial enterprise, road construction, and the use of aircraft or motorized equipment or mechanical transport in any Wilderness designated under the Act, except as necessary for the administration of the area for purposes of the Act and emergencies involving health and safety of persons within the area. The appropriateness of resource management practices will be limited to addressing activities allowable within Wilderness, as identified by the Wilderness Act and the specific legislation for the area.
- “*Management Area*” is an area with similar management objectives and a common management prescription. Every plan must have management areas. The plan may identify designated areas, such as Wilderness, as management areas. The FS has identified the Mt. Charleston Wilderness as one management area, identified in the GMP as Management Area 12.
- “*Management Prescriptions*” are defined as a composite of the specific multiple-use direction applicable to all or part of a management area that generally includes, but is not limited to goals, objectives, standards and guidelines, and probable management practices. For purposes of regional consistency, the management prescription that applies to this management area is identified as “Wilderness within a National Recreation Area.”

- “*Proposed and Probable Management Practices*” are specific activities, measures, courses of action or treatments within an identified management area. Forest plans do not make site-specific decision for specific activities; therefore any management practices in this plan are not commitments or decision. Project proposals and decisions require site-specific analysis. Any reference in this plan to proposed and probable management practices provide readers with a picture of what activities might be forthcoming in implementation of this plan.

Goals, objectives, desired future conditions, standards and guidelines are defined within each management area within this plan. In general, the plan achieves the following results:

- describes the existing conditions, features and uses in the Wilderness;
- describes the goals and objectives for management of the Wilderness;
- identifies management direction for the Wilderness as a separate management area with associated standards and guidelines;
- identifies and responds to issues developed through internal scoping of FS and BLM personnel and the public undertaken during the public involvement process for the environmental analysis in development of the plan;
- presents management strategies to maintain or improve the natural character of the Wilderness;
- provides specific direction for the management of various resources and activities within the Wilderness to ensure preservation of the area’s Wilderness character;
- establishes a monitoring strategy to track the outcome of activities undertaken within the Wilderness.

Wilderness Characteristics

The Wilderness Act of 1964 defines Wilderness and mandates that the primary management direction is to preserve Wilderness character. Although Wilderness character is a complex idea and was not explicitly defined in the Wilderness Act, Wilderness characteristics are commonly identified as the following and include a fifth quality—Unique / Supplemental Values—values the Act says “may” be present:

- **Untrammeled**—Area is unhindered and free from modern human control or manipulation.
- **Natural**—Area appears to have been primarily affected by the forces of nature.
- **Undeveloped**—Area is essentially without permanent improvements or human occupation and retains its primeval character.
- **Outstanding opportunities for solitude or a primitive and unconfined type of recreation**—Area provides outstanding opportunities for people to experience solitude or primeval and unrestricted recreation including the values associated with physical and mental inspiration and challenge.
- **Unique / Supplemental Values**—Wilderness areas may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. These supplemental features or values are complimentary to the overall Wilderness character and need not be present for an area to meet the definition of Wilderness.

This WMP preserves the areas' characteristics by:

- Identifying the conditions and opportunities for which the Wilderness areas would be managed.
- Creating specific directives and guidelines for managing resources and activities existing in the Wilderness.
- Identifying management needs outside of, and immediately adjacent to the Wilderness areas, including signing, staging areas, and access points.
- Assessing if adverse impacts are occurring to Wilderness character and mitigating all actions that may affect Wilderness values.
- Ensuring that Proposed Actions demonstrate no harm to the Wilderness character and other ecological and social values of Wilderness.

Wilderness Overview

The Mt. Charleston Wilderness is situated, in part, on the Spring Mountain National Recreation Area on the Humboldt-Toiyabe National Forest, managed by the FS, and, in part, on public lands administered by the Las Vegas Field Office of the Southern Nevada District of the BLM. The Wilderness is located in southern Nevada approximately forty miles west of the Las Vegas valley in Clark County. The Mt. Charleston Wilderness was originally part of an area known as the Charleston Forest Reserve established on November 5, 1906, by President Theodore Roosevelt under the authority of the Forest Reserve Act of 1891. The Mt. Charleston Wilderness is characterized by lofty rocky mountain crags, deep and wide canyons, narrow slot canyons, steep hillsides, and sweeping vistas of mountains and valleys with acres of evergreen forests. These rugged mountains are known as the Spring Mountains, where there is an abundance of cold, fresh-water springs. Some of the identified geological features include Fletcher Canyon, Robbers Roost, and Mummy and Trough Springs. The Carpenter Canyon Research Natural Area is located in the southwestern portion of the Wilderness.

The Spring Mountains are known as a "Sky Island" because of their high elevation and isolation from the surrounding lowlands of a dramatically different environment. The altitudinal zonation of ecosystems creates an island of endemism, where organisms that may have been abundant in a larger area now are narrowly confined to and adapted for this relatively smaller area within an expansive desert environment of hundreds of square miles. Elevations in the Spring Mountains range from about 4,440 feet on the lowest slopes in the southwest part of the Wilderness area, to 11,916 feet at the summit of Charleston Peak, the highest elevation in the Spring Mountains. There are gentler slopes in the southwestern portion of the Wilderness.

The Wilderness is home to the most extensive stand of ancient bristlecone pine (*Pinus longaeva*) trees to be found in the Intermountain Region. In this Wilderness, there are approximately 18,000 acres of this species, known to be some of the oldest living organisms in the world. In the lower elevations, forests of Ponderosa pine (*Pinus ponderosa*) and white fir (*Abies concolor*)

can be found, with Pinion-Juniper (*Pinus monophylla* – *Juniperus* spp.) woodlands on the lower slopes.

The town of Mt. Charleston in Kyle Canyon and the Las Vegas Ski and Snowboard Resort in Lee Canyon are located near the boundary of the Wilderness. Nevada State Routes 156, 157, 158, and 160 provide the majority of access to the Wilderness and there are several Forest Service System Roads leading off these primary routes that lead to the boundaries. A few cherry stem routes (a road that is excluded from the designated Wilderness by a non-Wilderness corridor having designated Wilderness on both sides) are associated with the Wilderness.

The Mt. Charleston Wilderness provides recreation opportunities that include hiking, technical rock climbing, backcountry skiing, snowshoeing, scenic viewing, backpacking, wildlife viewing, photography, hunting, and exploration. The long term trend is that use levels are slowly increasing in Wilderness nationally. There is not a lot of pack stock use and overnight use in this Wilderness, although the potential for increased visitation is high considering the area's scenic attractions, very close proximity to Las Vegas, and increasing visitor participation in outdoor recreation activities. Most use occurs during the warmer months of spring and summer because most of the Wilderness is situated at high elevations. Peak season would be approximately five months during the summer and one to two months during the shoulder seasons of fall and spring.

The ecological systems of the Wilderness are substantially free from the effects of modern civilization. The few exceptions to naturalness include the introduction of non-native invasive plants, primarily annual grasses. Impacts to solitude include frequent flyovers by passenger aircraft on approach to McCarran International Airport. There is some impairment to the “night sky” resource from the lights of the city of Las Vegas. There are private inholding in the Mt. Charleston Wilderness, as well as private parcels either adjacent to or in proximity to the Wilderness.

The area's varying climates and elevations provide important habitat for a wide spectrum of wildlife and plants. In addition to the Palmer's chipmunk (*Tamias palmeri*), there are several butterfly and springsnail species, such as the Mt. Charleston blue (*Plebejus Shasta charlestonensis*) and the Spring Mountains springsnail (*Pyrgulopsis deaconi*), that only occur in the Spring Mountains. The Wilderness is host to many endemic plant species such as the hidden ivesia or Charleston Peak mousetail (*Ivesia cryptocaulis*), which occurs exclusively in the alpine areas, including Charleston Peak, and the Charleston pussytoes (*Antennaria soliceps*), which occurs in the alpine and subalpine. Alpine endemics, including these two plant species, occur predominantly in the Mt. Charleston Wilderness. There are 24 FS Region 4 sensitive plant species known to occur in the Wilderness and an additional three FS Region 4 sensitive plant species that may occur given the presence of suitable habitats and the close proximity of known occurrences to the Wilderness boundaries.

Wilderness Management Objectives and Goals

The FS and the BLM will manage the Wilderness area through a single management plan to provide a maximum amount of management consistency in Wilderness protection across administrative boundaries.

Where possible, management, including any regulation of visitor uses, will appear seamless to the public. The BLM and FS will assist one another in Wilderness management activities including education and public outreach, emergency management, law enforcement, and monitoring.

The FS manages Wilderness to meet the following five primary objectives, as outlined in the Recreation, Wilderness, and Related Resource Management planning manual (FSM 2320—Wilderness Management). The following objectives are set out as broad-spectrum guidance in FSM 2320 to ensure Wilderness character and values remain unimpaired for present and future use and enjoyment as Wilderness, as stated in the Wilderness Act of 1964. These objectives conform to management objectives for BLM.

1. Maintain and perpetuate the enduring resource of Wilderness as one of the multiple uses of National Forest System land.
2. Maintain Wilderness in such a manner that ecosystems are unaffected by human manipulation and influences so that plants and animals develop and respond to natural forces.
3. Minimize the impact of those kinds of uses and activities generally prohibited by the Wilderness Act, but specifically excepted by the Act or subsequent legislation.
4. Protect and perpetuate Wilderness character and public values including, but not limited to, opportunities for scientific study, education, solitude, physical and mental challenge and stimulation, inspiration, and primitive recreation experiences.
5. Gather information and carry out research in a manner compatible with preserving the Wilderness environment to increase understanding of Wilderness ecology, Wilderness uses, management opportunities, and visitor behavior.

The BLM is guided by the following four primary objectives (referred to as goals in the BLM manual) in management of Wilderness, as defined in Appendix 1 of the BLM Wilderness management planning manual (BLM Manual 8561). These objectives are in conformance with FS management objectives.

1. Provide for the long-term protection and preservation of the areas' Wilderness character under a principle of non-degradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historic value present will be managed so that they will remain unimpaired.
2. Manage the Wilderness areas for the use and enjoyment of visitors in a manner that will leave the areas unimpaired for future use and enjoyment as Wilderness. The Wilderness resource will be dominant in all management decisions where a choice must be made between preservation of Wilderness character and visitor use.

3. Manage the Wilderness areas using the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades Wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.
4. Manage nonconforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's Wilderness character. Non-conforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining Wilderness character.

Wilderness Management Actions

Wilderness management actions are based on national Wilderness management objectives, current situations and assumptions, and Wilderness-specific issues that were identified through internal and external scoping. All management actions are consistent with Wilderness laws, regulations, and agency policies. Wilderness laws, regulations and policies will be further consulted in the event of any future unforeseen issues and to validate revisions, updates or amendments to laws, regulation and policies. The WMP describes the goals, objectives, and desired future conditions of the Wilderness and management direction, including standards and guidelines, that would guide future project and activity decision-making if impairment to Wilderness character or resources becomes evident.

The FS will adhere to the standards and guidelines outlined in this WMP, in accordance with the level of compliance as set out in this document and in accordance with the National Forest System Land Management Planning, New Plan Development regulations (36 CFR 219.7) and FSM 2320. The BLM will manage those portions of the Wilderness area on BLM administered lands consistent with standards and guidelines outlined in this WMP and in accordance with management direction identified in BLM Manual 8561 Wilderness Management Plans (1984) and BLM Manual 6340 Management of Designated Wilderness (2012), 43CFR 6300.

This document considers all resources contained in the Wilderness, as well as associated management issues and concerns as they relate to the Wilderness resource. Resource programs, such as Wild Horse and Burro, Fire Management, and Noxious and Invasive Weed Management, individually address the management goals and activity plans of their respective programs. Management direction as it relates to Wilderness is taken from specific resource programmatic documents and incorporated into this plan. To the extent additional information is required, it is necessary to consult individual resource programmatic documents.

Management Direction

Management Area 12 - Mt. Charleston Wilderness

Management direction is intended to protect and enhance Wilderness values and characteristics that make the Wilderness a special place in order to provide quality Wilderness experiences.

Management direction stresses the restoration and protection of rare plants and the natural, ecological, and visual character of the Wilderness. The Wilderness will be managed to conserve the health, diversity, integrity, and beauty of the ecosystem and managed to meet the intent and objectives of the Wilderness Act. An untrammled, natural, undeveloped appearance and opportunities for solitude are paramount to providing a primitive, unconfined recreation experience.

Management direction set out in this plan addresses Wilderness resources and management considerations specific to Wilderness. Management of other resources occurring in the Wilderness not addressed in this plan will be managed according to general direction in the Toiyabe National Forest LRMP as amended by the GMP, the BLM RMP, the implementing regulations of the laws as they relates to each resource, and other programmatic documents. Examples of this include the following:

- Air quality is governed by The Clean Air Act, as amended, which directs the Forest Service and the BLM to protect the class II standards and attributes of the Mt. Charleston Wilderness (FSM 2320.1(7)), and in accordance with the Humboldt-Toiyabe Wilderness Air Quality Plan for Class II Wilderness.
- Night sky resources are managed in accordance with the Humboldt-Toiyabe Wilderness Air Quality Plan for Class II Wilderness and to reduce activities adjacent to Wilderness that might contribute to loss of night sky resources, acknowledging night sky pollution from the lights of the city of Las Vegas is unavoidable.
- Visual resources are managed in accordance with the Humboldt-Toiyabe Wilderness Air Quality Plan for Class II Wilderness. Wilderness is managed for the Visual Quality Objective (VQO) of “preservation” (Toiyabe National Forest LRMP 1986, page 11-6) with minimal impacts to visual resources. The BLM portion of the Wilderness will be managed to Visual Resources Management (VRM) Class I.
- Search and rescue is the primary responsibility of County Sheriff operations and approvals for entry by motorized transport or mechanized equipment involving life and safety are addressed in the Fire and Other Emergencies section of this plan.
- Heritage and archaeological resources standards and guidelines will be consistent with procedures accepted by the State Historic Preservation Office (SHPO). Consultation with the SHPO will be conducted, as appropriate, in fulfilling responsibilities under Section 106 of the National Historic Preservation Act (NHPA) (16 USC 470 et seq.). Standards and guidelines for heritage, archaeological and cultural resources and tribal relations are set out as a separate section in this Plan. Management activities for these resources will be consistent with the following applicable federal laws, regulations and policies, as amended, revised or supplemented: the NHPA and implementing regulations 36 CFR 800 et seq., 36 CFR 60 et seq., and Executive Order 11593; the Archaeological Resources Protection Act of 1979, as amended (PL. 96-95; 16 USC 470aa-mm); Archaeological and Historic Data Preservation Act of 1974, as amended (PL 86-523, 16 USC 469-469c-2); the National Environmental Policy Act (42 USC 4321); the Antiquities Act of 1906 (16 USC 431 et seq.); the Historic Sites Act (16 USC 461); the Native American Graves Protection and Repatriation Act, as amended (PL 101-601; 25 USC 3001 et seq., 1990); Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (11/6/2000); the American Indian Religious Freedom Act, (PL 95-341, 92 Stat. 469

(8/11/1978); 42 USC 1996); FSM 2323.8; and other individual FS and BLM policies and management plans.

Note: The term “species of concern” is a summary term that represents multiple at-risk species lists maintained by the FS and BLM. All citations to law, regulation, policy and management plans incorporate by reference future amendments, supplements and revisions thereto.

Aircraft

Goals

Manage the area to maintain opportunities for solitude as a Wilderness characteristic and to maintain a sense of remoteness and isolation, by monitoring and limiting, to the extent possible, aircraft over flights.

Objectives

Discourage flights over Wilderness within 2,000 feet of the ground surface, except in emergencies, any situation necessary for the safety of flight, or for essential military missions. Cooperate with the Federal Aviation Administration, the National Oceanic and Atmospheric Administration, military authorities, and with local pilots to promote compliance with the 2,000 foot limit, to keep aeronautical charts current, and to reduce low level flights.

Management Direction

Guidelines

- (1) Aircraft may not land inside Wilderness boundaries except in cases of emergency.
- (2) The places, circumstances, and suitability of the use of aircraft for protection and administration of the Wilderness and its resources will be determined by the Line Officer authorized to approve such use (FSM 2326.1)
- (3) The use of aircraft will be scheduled to minimize impacts on Wilderness visitors.

Standards

- (4) In emergency situations involving an inescapable urgency and temporary need for speed beyond that available by primitive means, the use of aircraft will be authorized by the Forest Supervisor of the Humboldt-Toiyabe National Forest or the BLM Southern Nevada District Manager (see FSM 2326.04(c) and 2326.1, as revised, for further information).
- (5) In non-emergency situations, the use of aircraft, including non-emergency transport and supply and air drops, will be authorized by the Regional Forester for the Intermountain Region of the FS or the BLM Southern Nevada District Manager, and will require a MRDG analysis to determine if aircraft, including helicopters, will be the minimum tool necessary (see FSM 2326.04(b) and 2326.1, as revised, for further information).

Camping and Campfires

Goals

Camping will be allowed and monitored to foster “Leave No Trace” use ethics. Visitors will be directed to appropriate existing and durable sites.

Campsites will be maintained in compliance with management direction for site density or resource objectives, such as proximity to water or designated trails.

Protect Wilderness resources, including live and dead bristlecone pines, from removal/cutting for fuel (43 CFR Part 6300).

Objectives

Campsite density will not exceed more than an average of three Wilderness campsites per 1,000 acres.

Maintain all campsites so they do not exceed a 3.0 rating for condition class (3.0 is considered to be a heavily impacted site). Maintain campsites so groundcover and severely damaged trees do not exceed a rating of 2.0. Overall campsite rating is determined by adding the ratings for condition class, number of severely damaged trees, and square feet of impacted area, based on a standard protocol for monitoring. Campsite ratings for condition class are defined in campsite inventory forms for the Wilderness and were developed using national Wilderness monitoring protocols for the FS.

Desired Future Conditions

Campsites are at low-density levels and show minor impacts that will rarely persist year to year.

Campfires are prohibited in order to protect the Wilderness, its ecological values, and the characteristics that make the Wilderness a special place.

Management Direction

Guidelines

- (1) Encourage visitors to locate campsites away from and out of sight of trails, other campsites, and other points of interest.
- (2) Monitor campsites for density and condition class ratings.
- (3) Monitor and maintain data on success of campsite closures, rehabilitation, containment of the site, and other management actions.
- (4) No permits required for overnight camping; however, a permit system may be implemented if monitoring of resource impacts or adverse effects to Wilderness character indicates the need.
- (5) Implement a range of actions to ensure protection of bristlecone pine, threatened, endangered and proposed species, sensitive species and species of concern. For example, relocation of trails may be necessary to protect bristlecone pine from cutting for fuel or when monitoring indicates visitor use and trampling are affecting the vigor and reproductive capacity of sensitive plant species.

Standards

- (6) Campsite occupancy is limited to 14 days.
- (7) Camping is prohibited within 300 feet of trails, paths, springs, water sources, riparian areas, or cultural resource sites. All rock fire rings will be removed when discovered.
- (8) Manage all use in the alpine areas if monitoring, which includes but is not limited to site and encounter inventories, determines that visitor use is having a negative impact on vegetation in the alpine areas, from soil compaction, erosion, vegetation loss and equestrian use that may be contributing to the introduction of non-native species.
- (9) Manage use levels to meet campsite density and campsite conditions class objectives and apply appropriate management actions as needed.
- (10) Campfires of any kind are prohibited within the Wilderness; this includes wood burning stoves, charcoal fires, packed in firewood, or fire pans. Camp stoves, such as portable liquid or gas fueled stoves used for the purpose of cooking, are permitted within the Wilderness.

Cave Resources

Goals

Cave resources are federally protected under the Federal Cave Resources Protection Act of 1988 (16 U.S.C. 4301) and will be managed cooperatively by the agencies to protect resources, provide for public safety, and provide recreational opportunities as set forth in the Act.

Possessing, destroying, defacing, or removing cave formations (or parts thereof) is prohibited. Disturbance to cultural resources as a result of caving is prohibited in accordance with the Archeological Resources Protection Act of 1979 (16 U.S.C. 470).

Objectives

Conduct non-invasive bat roosting/hibernating inventories on known caves with the Wilderness within the next five years, funding permitting. Survey results will aid in establishing long-term seasonal restrictions.

Desired Future Conditions

Caves are providing habitat for unique species.

Management Direction

Guidelines

- (1) Guidelines for accessing caves using rock climbing gear will be the same as those found in the rock climbing section.
- (2) Caves may be closed (permanently or seasonally) to access when necessary for human health and safety or to prevent degradation to wildlife, plants, cultural resources, or recreational opportunities. Closure methods are subject to MRDG to maintain Wilderness character.

- (3) Work cooperatively with other agencies and interested groups (organizations, commercial guides/schools, and local climbing organizations) to evaluate caves. The inventory process should document all unique biological, hydrological, geological, mineralogical, paleontological, educational, scientific, cultural, and/or recreational values.
- (4) Caving activities should not get to a level where the vegetation around the cave openings is becoming denuded.
- (5) Disseminate information on National White-Nose Syndrome Decontamination Protocol to the public through signage, informational pamphlets and brochures.

Standards

- (6) Allow recreational caving without a permit. No commercial services for caving will be permitted.
- (7) Tossing, throwing, or rolling rocks or other objects into caves are prohibited.
- (8) Allow access to all caves only from the beginning of April through the end of May; and from the beginning of September through the end of October. These seasonal restrictions will remain in place until bat roosting/hibernating inventories have been completed and long-term seasonal restrictions are established.
- (9) In order to prevent the introduction of white-nose syndrome, a fungus linked to bat mortalities in the eastern U.S., cavers are required to follow the National White-Nose Syndrome Decontamination Protocol (available at whitenosesyndrome.org). If it is found that people are not in compliance with the required protocol, restrictions on cave access can be implemented.
- (10) All gates on caves and mines will be designed to provide for unrestricted access for bats. Temporary (test) gates of PVC or other light, impermanent material will be constructed first to determine bats' reaction to gate design, prior to final design and construction of permanent gates. Permanent gates will be compatible with Wilderness characteristics.
- (11) Prohibit alteration of cave and mine entrances (except for gating to protect cave resources) or their use as disposal sites for slash, spoils, or other refuse.
- (12) Consult with Indian Tribes and an agency archaeologist to ensure protection of caves that are of traditional and cultural significance.

Collection of Natural Resources

Goals

Protect bristlecone pine from vandalism, firewood cutting, removal for other purposes, and collection of dead “driftwood.”

Management Direction

Standards

- (1) Collection of natural resources within Wilderness is prohibited, exceptions include:

- Scientific purposes. Collection of threatened, endangered, and sensitive plant and wildlife species for academic, scientific, or research purposes requires a permit from the Regional Forester or the BLM District Manager and a permit from the U.S. Fish and Wildlife Service (FWS) (50 CFR 17.22), except for traditional use by American Indians.
- Native American Indian gathering or tending native plants or materials for personal use, which may be done without obtaining a use permit.
- As authorized by FS or BLM permit. The authorities for permits for collection are outlined in FSH 2409.18, Ch. 82.1 and 87.05; FSM 2404.28; and FSM 2462; and FSH 2609.25, Ch. 4.03, and as outlined in other FS and BLM policies.

Environmental Education and Interpretation

Goals

Utilize education and interpretation as a proactive approach in managing visitor activities that may impact preservation of the Wilderness character.

Educate the public to the value of Wilderness, not just as a non-motorized recreation area, but as a place of natural processes and of personal risks.

Incorporate Wilderness education principles in brochures, on the BLM and FS websites, on agency maps, at visitor centers, or on other educational materials, which describe basic interpretive information about the Wilderness areas (e.g., safety, Wilderness character, Wilderness ethics, Wilderness values, “Leave No Trace,” sensitive resources, noxious weeds, or location information).

Agency visitor maps may be produced to include trails, descriptions, and interpretive information.

Desired Future Conditions

Trailheads are signed to provide interpretive and educational information, as well as identify use restrictions.

Management Direction

Guidelines

- (1) Interpretive information may be included on trailhead information signs, but will not be located on signs in the Wilderness.
- (2) No interpretive trails will be designated.
- (3) Coordinate with the US Geological Survey (USGS) to remove from future USGS map products, vehicle routes depicted within Wilderness boundaries.
- (4) The primary purpose of educational activities conducted in the Wilderness should be focused on Wilderness, environmental, or other site-specific education, and group size should not exceed 15.

- (5) If use levels related to group educational activities increase so that visitor encounter standards are exceeded, educational groups will be limited to no more than two per month within the Wilderness.

Fire and Other Emergencies

Goals

Fire management objectives in the Wilderness will be structured in accordance with the current BLM Las Vegas Field Office Fire Management Plan (FMP) and the FS Humboldt-Toiyabe National Forest FMP.

Allow fires to play their natural ecological roles where consistent with the protection of public safety, private property, developed facilities in surrounding areas, and Wilderness resources and character.

The agencies will consider the natural role of fire within the ecosystem in fire management decisions, using a full range of fire management responses based on ecosystem factors, safety, and prescription criteria.

The County Sheriff has primary responsibility for search and rescue (SAR) operations.

The safety of the victim and the rescuers are considered priority in emergency situations.

Desired Future Conditions

Wildland fires that do not pose a direct threat to public safety or developed areas are managed under less than a full suppression strategy, taking into consideration the role of wildland fire as an essential ecological process and natural change agent. Every fire receives a response and a Wildland Fire Decision and Risk Assessment is utilized to determine the management response to any incident.

Management Direction

Guidelines

- (1) Determine actions for each wildland fire that are consistent with the protection of Wilderness resources and ensure the safety of firefighters, the public, and protection of private property and developed facilities in surrounding areas. Actions will be based on site factors, including fuel loading and fire behavior, protection of natural and cultural resources, and the circumstances under which a fire occurs. Lightning caused fires that do not pose a direct threat, as stated herein, may be allowed to assume their natural role in the environment.
- (2) Fires may be managed using any of the following suppression strategies or a combination thereof: confinement, containment, control.
- (3) “Leave No Trace” principles will be employed in the Wilderness. All evidence of human activity will be removed or rehabilitated to the maximum extent possible.

Standards

- (4) Prior approval from the Forest Supervisor of the Humboldt-Toiyabe National Forest or the BLM Southern Nevada District Manager must be sought to use motorized

equipment or mechanized transport in Wilderness in emergency situations (FSM 2326.04c and 2326.1).

- (5) Use Minimum Impact Suppression Tactics (MIST) and assign Resource Advisors, as warranted, to Wilderness fires to minimize impacts to Wilderness character. Implement direction in the FS or BLM Fire Plan.
- (6) The FS will allow water to be dropped from aircraft or buckets (considered to be a landing), if authorized by the Forest Supervisor. The BLM will allow water to be dropped from aircraft without the Southern Nevada District Manager's authorization.
- (7) Prior approval from the FS Forest Supervisor or the BLM District Manager must be sought to use retardant in Wilderness areas. The FS use of fire retardant may require a post-fire assessment per the protocols outlined in the 2011 Nationwide Aerial Application of Fire Retardant on National Forest System Land.
- (8) The FS or the BLM may use planned ignitions as a tool to restore natural ecosystems as necessary in the Wilderness. The use of planned ignitions to restore natural ecosystems will require site-specific NEPA and MRDG analyses, in conformance with the minimum requirements provision of the Wilderness Act, with documented, pre-planned and specified burn conditions.
- (9) An interdisciplinary analysis will be conducted for all fires larger than 500 acres to determine rehabilitation needs. Passive rehabilitation will be used to repair and rehabilitate effects from fire. Active rehabilitation work will occur only to rehabilitate the effects of fire suppression activities and to stabilize soil to minimize risk to downstream human life or property or to onsite cultural or biological resources, and to prevent the site from becoming dominated by exotic species. The line officer will determine if interdisciplinary analysis is required for fire less than 500 acres.
- (10) Emergency stabilization will be completed when it is necessary to prevent loss of soil and onsite productivity, loss of water control and deterioration of water quality, or when onsite life or property are threatened.
- (11) Emergency stabilization and rehabilitation activities will take place in accordance with the agencies current Watershed Protection and Management Emergency Stabilization – Burned Area Emergency Response policies (FSM 2523) and in accordance with other FS and BLM policies.
- (12) Wildfires will be allowed to burn in the RNA, unless they threaten persons or property outside RNA or pose a health or safety issue.
- (13) No cleanup or reforestation following wildfires will be authorized.

Geocaching

Management Direction

Guidelines

- (1) Outreach geocaching restrictions and allowances information to the geocaching communities.
- (2) Direct visitors wishing to participate in traditional geocaching to locations outside of Wilderness.

Standards

- (3) Traditional geocaching and letterboxing will not be allowed, however virtual geocaches will be an accepted activity within Wilderness, to the extent the virtual geocache is not creating resource impacts.
- (4) Geocaching of any kind is prohibited in the RNA.
- (5) Remove traditional geocaches and letterboxes when encountered and request the geocache sponsor to remove the site listing from the Internet. If a virtual geocache is located in a sensitive area, request the geocache sponsor to remove the site listing from the Internet.

Group and Commercial Services

Goals

Commercial use permits that are allowed within the Wilderness must be shown to meet an identified public need, and to meet the agencies' objectives and provide benefits to the Wilderness resource.

Assess potential commercial services of the Wilderness areas for their economic importance and prevent negative impacts on Wilderness characteristics.

Allow for special provision land uses as determined by laws, regulations, and the agencies' policies and management plans, while minimizing developments, degradation to naturalness, and other impacts to Wilderness resources.

Desired Future Conditions

Stock use is managed to reduce impacts to endemic species, and vegetation.

Outfitter/guide permits are at appropriate use levels and in appropriate areas.

Management Direction

Guidelines

- (1) Use permits may allow outfitter guide services for hiking, equestrian, climbing, as well as other activities. Permits will only be issued following a needs assessment or

capacity analysis to determine if outfitter guide services are feasible for the Wilderness.

- (2) Manage outfitter guides to ensure they are not exceeding a threshold that will have a negative impact on Wilderness character, which may include limiting the number of days that outfitter guides are permitted and may include limitations on the group size. The threshold for such limitations will be determined through monitoring outfitter guide use (encounters or changes in site conditions) and impacts therefrom.
- (3) Identify areas and destinations of operations in all commercial use permits.

Standards

- (1) Require use permits for outfitter guides and commercial horseback operators. Use permits may authorize overnight camping for commercial guide services in the Wilderness. Wilderness permits are currently not required for overnight use; however, if in the future Wilderness permits are required for such use, guides will be required to obtain permits.
- (2) Include restrictions in outfitter guide and organized trail ride use permits for the protection of vegetation and to maintain solitude character.
- (3) Outfitter guide and commercial horseback operators will only be allowed to use the South Loop, Bonanza, and Trail Canyon Trails.
- (4) On the South Loop Trail, outfitter guide permittees (horseback) will be limited to 30 visitor days per year, for all outfitter/guide groups combined. The maximum group size is five people. This direction is included in outfitter/guide permits.
- (5) Use permits will be required for pack or saddle stock group use for organized trail rides in the Wilderness. Groups will be limited to a combination of people and stock not to exceed 25, with no more than 15 stock animals in any one group. Limitations will be placed on pack or saddle stock if monitoring (encounters or changes in site conditions) determines the need for such limitations.
- (6) Pack and saddle stock for recreational organized trail rides are limited to day use on all of the South Loop Trail and on the North Loop Trail from Trail Canyon trail junction to Charleston Peak.
- (7) Require the use of weed-free feed or pellets for stock animals (FS Order Number 04-00-097) and in accordance with other FS and BLM policies and closure orders.
- (8) Require permits for publicized and/or organized events with 15 or more participants if any portion of the activity takes place within the Wilderness.
- (9) Do not permit competitive events, training events, and contests (FSM 2323.13h).
- (10) Do not permit filming for commercial purposes, guidebooks, television, or film, as instructed by Forest Service national direction.

Heritage, Archaeological and Cultural Resources and Tribal Relations

Goals

Protect and preserve the outstanding archaeological and historic resources of these areas while allowing for visitor enjoyment of those resources.

Develop appropriate management practices to eliminate or reduce adverse effects to historic and prehistoric sites and places.

Recognize the Wilderness is considered by Southern Paiute and Chemehuevi tribes to be part of their traditional lands and would likely contain areas and sites of traditional and cultural significance, sacred sites, and cultural resource sites important to these tribes.

Maintain and enhance tribal relations.

Facilitate appropriate use by Native American tribes, communities and traditional practitioners.

Desired Future Conditions

Heritage resources (including traditional use by American Indians and landscapes) that are found to be contributing components to Wilderness character, where authorized by law or regulation, are protected.

Management Direction

Guidelines

- (1) Identify, monitor, and manage significant heritage resources.
- (2) Continue consultation with affected Indian Tribes.
- (3) When appropriate, coordinate heritage resource management activities with local Indian Tribes and other interested parties.
- (4) Interpret heritage resources and cultural history outside of Wilderness. Signs may be present within Wilderness in very rare cases, for resource protection only.
- (5) Allow scientific use consistent with the National Historic Preservation Act, Archaeological Resource Protection Act, FSM 2323.8, Forest Plan direction, and BLM Manual 5340.
- (6) Facilitate traditional Native American use practices that are not in conflict with the Wilderness Act.
- (7) Reference the *Consultation Handbook for Nuwuvi (Southern Paiute), the Spring Mountains National Recreation Area, and the Desert National Wildlife Refuge Complex* to establish government-to-government protocols for the management of traditional resources in Wilderness, when appropriate.

Standards

- (8) Ensure American Indian access to access plants and traditional-cultural and religious sites.
- (9) Ensure that fire retardant is not dropped on traditional-cultural or sacred sites; unless there is a threat to human safety or private property, consult first, prior to retardant

drops, with local Indian Tribes and a FS archaeologist to determine the most appropriate action based on site locations.

- (10) Ensure cultural resources are not utilized or damaged by trail maintenance. Confine maintenance of trails that cross cultural resource sites to existing trail treads. Material from cultural resource sites will not be used as fill or construction material during trail maintenance activities.
- (11) Consult with Indian Tribes and a FS archaeologist to ensure protection of caves that are of traditional and cultural significance.
- (12) Require permits for any ground disturbing archaeological study under the Archaeological Resources Protection Act. An MRDG analysis will be required to determine the minimum tool for ground disturbance, and the resulting proposal is subject to NEPA compliance.

Horseback Riding (Recreational) and Pack Stock Animals

Goals

Riders and pack stock animals traveling on trails designated for such use will be encouraged to utilize “Leave No Trace” practices (e.g., do not travel off trails so as to not create new trails, do not travel in washes, and do not tie or high-line horses and pack animals out of sight of trails, streams, campsites and other points of interest).

Desired Future Condition

Horse use is managed to reduce impacts to endemic species and vegetation.

Management Direction

Guidelines

- (1) Monitor the effects of cross-country equestrian use occurring off designated trails to determine if degradation of off-trail areas may necessitate trail closures or issuance of permits for recreational equestrian use.
- (2) Prohibit, to the extent possible, species of domestic pack stock animals known to carry catastrophic or chronic diseases in the Wilderness, to prevent transfer of disease to native wildlife.
- (3) Prohibit, to the extent possible, the grazing of recreational pack stock animals.
- (4) Protect meadows from recreational stock grazing by requiring tethering away from meadows.

Standards

- (5) Limit recreational horseback riding to trails specifically designated for equestrian use.
- (6) Do not permit recreational stock overnight camping use.
- (7) Do not allow marking of trails with materials, such as paint, blazes, clothespins and flagging.

- (8) Require the use of packed-in and certified weed-free feed, or pelleted feed (FS Order Number 04-00-097) and in accordance with other FS and BLM policies and closure orders.
- (9) Pack and saddle stock are limited to the South Loop Trail and on North Loop Trail from Trail Canyon trail junction to Charleston Peak.
- (10) Discontinue equestrian use in the alpine if monitoring determines that equestrian use is having a negative impact on vegetation.

Hunting and Trapping

Goals

Allow hunting and trapping in the Wilderness, as administered and licensed by the State of Nevada Department of Wildlife.

Management Direction

Standards

- (1) Game may only be removed by means of non-mechanized methods such as packing out on backpacks or horseback. No wheeled or mechanized game carts are allowed in Wilderness.
- (2) The creation or construction of permanent hunting blinds is not allowed (43 CFR 6302.20(f)). However, portable or “pop-up” hunting blinds may be temporarily allowed for a period of 14 days during the hunting season of use if they are packed or carried in and out and do not require the disturbance or destruction of native soil, rock, or vegetation. Portable and “pop-up” hunting blinds must be attended or occupied at least some portion of a 10 day period within the 14 day period of use. If hunting blinds are not attended or occupied for 10 days, they will be considered unattended property and/or permanent structures and will be subject to removal by the BLM or FS and subject to disposition under the Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C. 484(m)).
- (3) Portable or “pop-up” hunting blind carried into the Wilderness area must have affixed to the blind a name, address, phone number, the date the blind was placed, and the dates the blind will be unattended or unoccupied.

Minerals

Goals

Wilderness areas are specifically withdrawn from all forms of appropriation under the mining and mineral leasing laws; however, valid existing rights prior to January 1, 1984, are preserved.

Provide direction for the management of mineral activities in Wilderness where there are valid existing rights in accordance with Forest Service Manual (FSM 2800 and 2320) and the Code of Federal Regulation (36 CFR 228, 292, and 293).

Mining operating plans will address Wilderness values and ways to protect them. Reclamation efforts will serve to return the land as closely as possible to its natural condition.

Management Direction

Guidelines

- (1) Conduct validity exams on all unpatented mining claims within the Wilderness.
- (2) Determine the levels of reclamation activities involving mine closures that are necessary to restore or rehabilitate surface disturbances caused by heavy machinery used in mining operations.

Standards

- (3) Restrict mineral collecting to scientific purposes only and require use permits for mineral collecting outside of valid existing claims with approved operating plans.
- (4) Prohibit all hazardous materials.

Noxious Weeds and Non-native Invasive Species

Goals

Strive to sustain only native species in the Wilderness. Noxious weeds, as designated by the Nevada Department of Agriculture (under Nevada Revised Statute 555) and by the USDA-APHIS (under the Plant Protection Act of 2000), are given priority for response and treatment.

Maintain native plant distribution and abundance through the reduction of noxious and non-native invasive species in an effort to retain the areas' natural and primeval character.

Objectives

Within five years of approval of this plan, a Weed Management Plan will be developed and approved that includes specific weed prevention and control strategies, funding permitting.

Desired Future Conditions

The Wilderness is maintained as free from weeds as possible.

Management Direction

Guidelines

- (1) Treat areas for noxious and non-native species as monitoring and visitor use mandates in accordance with a Weed Management Plan and an MRDG analysis.
- (2) Scrutinize activities that facilitate the introduction or spread of noxious and non-native species to determine if the activity should be disallowed, or if special stipulations will be satisfactory to mitigate the activity.
- (3) Monitor increase of noxious and non-native plant populations in the alpine to identify the need for any trail closures and restrictions on access.
- (4) Place emphasis on controlling small weed infestations with the potential to spread and displace native plants. Place emphasis on prevention, by frequent monitoring

of new invaders. Treat these populations while they are small and before they become established.

- (5) Only use herbicides or pesticides when no other options are practical and then use the least persistent chemical or biological treatment that is able to control the infestation in accordance with management objectives. Avoid use in habitat for species of concern whenever possible.
- (6) Give preference to the use of manual weed removal using hand tools. Allow for flexibility in management decisions, recognizing removal using hand tools may be ineffective on some species, may result in greater ground disturbance and visual impacts, and be detrimental to sensitive plant species near or adjacent to the weeds.
- (7) Reseeding/revegetation will be accomplished with native species of local genetic stock. Seed used for restoration actions must be weed-free.

Standards

- (8) On FS land, pesticide and herbicide use will require a MRDG analysis and a Pesticide Use Proposal (FS-2100-2) approved by the Regional Forester. On BLM land, use of pesticides and herbicides will be conducted as approved in the BLM “Vegetation Treatments Using Herbicides on BLM Lands in the 17 Western States” and will require the approval of a Pesticide Use Proposal, signed by the Assistant District Manager, the state weeds coordinator, and the Associate State Director. Application techniques should employ the most primitive methods where possible, in accordance with an approved MRDG analysis.

Personal Property, Refuse, or Vandalism

Management Direction

Guidelines

- (1) Items that are not historically or culturally significant, as determined by an agency archaeologist, will be considered unattended personal property or refuse.
- (2) Unattended personal property not associated with an active camp or at the base of an active climb, including geocaches and rock climbing gear, will be removed by BLM or FS personnel and held at the appropriate office. If possible, the owner of the personal property will be contacted to retrieve it.
- (3) Remove paint or marks on rock from graffiti, paintballs, or other forms of vandalism quickly to prevent proliferation, using least intrusive methods with materials and personnel transported into the Wilderness by foot or pack animal.
- (4) Examine graffiti sites to assure that cultural resources are not present on the affected site. Removal of graffiti within ten feet of rock art will require separate, site-specific analysis under consultation with an archaeologist and Native American representative.

- (5) If an illegal dump, marijuana grow or other subversive act is discovered inside the Wilderness boundaries, management will conduct the necessary reclamation activities, including an MRDG analysis and NEPA compliance, if necessary.

Recreation

Goals

Provide for the use and enjoyment of the Wilderness areas while maintaining outstanding opportunities for primitive and unconfined recreation, including solitude, through minimal visitor use regulations and minimal on-the-ground developments.

Manage the Wilderness to allow for recreation use at levels that are ecologically sustainable.

Provide a range of opportunities for use and solitude across the Wilderness landscape.

Assure that in areas of concentrated use that use does not expand or enlarge spatially.

Manage the majority of the Wilderness at a low density of recreational use insuring the highest quality of pristine Wilderness.

Assure no degradation in resources or experiential quality.

Desired Future Conditions

The highest opportunities for solitude, predominately free from evidence of human activities, are provided. Encounters with other visitors while traveling or camping are very infrequent. The environment offers the highest degree of challenge, self-reliance, and risk.

Management focus is on sustaining and enhancing the natural ecosystem. Management actions include direct, on-site actions and site-specific regulations for unusual cases where resources require higher levels of protection. Indirect methods of accomplishing management objectives predominate with exceptions for insuring visitor use is maintained at low levels to insure impacts are contained and do not persist.

Recreation use is managed so as not to impact the delicate and unique area.

General recreation opportunities are increased to the extent they are not inconsistent with preservation of Wilderness character.

Management Direction

Guidelines

- (1) Identify limiting factors that may lead to site-specific restrictions, mitigations, or reductions in use.
- (2) Maintain existing opportunities for solitude by monitoring visitor use patterns that trigger need for management action.
- (3) In heavily impacted areas, identify durable campsites and encourage visitors to use these sites.

Standards

- (4) Establish the recreation carrying capacity for the Wilderness.

- (5) Limit recreation hiking groups to no more than 15 participants and ensure larger groups are not splitting into smaller groups to circumvent this restriction. A limitation on the number of recreation hiking groups in a given area at any one time will be considered because of the proximity of the Wilderness to urban areas.
- (6) If total use in any area increases by 50% or more, based on standard monitoring protocols, assess impacts associated with the use and make determinations if further management actions are needed to maintain desired Wilderness character. Monitor total use levels to determine the correlation between use levels, resource impacts and effects on the opportunity for solitude.
- (7) Require refuse and inorganic waste be removed from Wilderness; ensure recreationists employ “Pack in, Pack out, Leave No Trace” principles.

Research

Goals

The Wilderness areas are available for conducting basic and specific inventory, monitoring, research, and education.

Management Direction

Guidelines

- (1) If research proposals will not contribute to improved management of the area as Wilderness, the activity will be referred to lands outside the Wilderness.

Standards

- (2) Permits will be required for researchers and educators interested in conducting activities in Wilderness and all activities will be conducted in a manner consistent with section 4(c) of the Wilderness Act. Researchers will be required to provide a copy of findings to the FS and the BLM.

Research Natural Area

Goals

Manage the Research Natural Area (RNA) to retain its natural and scientific values.

Desired Future Conditions

The area is managed and protected for research, study, observation, and monitoring; educational activities that are not destructive or manipulative; and to ensure unmodified conditions.

The RNA contributes to:

- preservation and maintenance of genetic diversity;
- protection against serious environmental disruptions;
- the study of succession;

- baseline controls for research measuring ecological and hydrological effects of land management manipulation techniques and practices; and
- educational activities.

Management Direction

Standards

- (1) Prohibit the following activities in the RNA: camping, campfires, hunting, trapping, geocaching, rock climbing, canyoneering, structures of any kind, target shooting, trail construction, and recreational activities that create or have the potential to create disturbance to soil, water, flora, fauna, and other resources.
- (2) Prohibit commercial uses within the RNA, except for outfitters/guides passing through the RNA on the Mt. Charleston Loop Trail.
- (3) Trail reconstruction and maintenance is allowed on FS system trails that pre-date the designation of the RNA; however, user expansion or realignment of designated trails, or creation of new trails is prohibited.
- (4) Permit only management practices necessary to preserve natural vegetation.
- (5) Discourage or prohibit public uses that modify the RNA.
- (6) Do not permit physical improvements. Remove human-made improvements such as artificial dams.
- (7) Encourage natural processes and protect from invasive species or pathogens.
- (8) Wildfires will be allowed to burn, unless they threaten persons or property outside RNA or pose a health of safety issue.
- (9) No cleanup or reforestation following wildfires will be authorized.
- (10) Take no action against endemic insects, diseases, or animals, without prior approval of the FS Rocky Mountain Research Station.
- (11) Types of usages within the RNA are restricted to:
 - scientific research: for the study and collection of data to be used for hypothesis testing or comparative purposes;
 - passive observation and monitoring: for the collection of descriptive data that will not result in scientific hypothesis testing or comparative conclusions; and
 - educational use.

Permitting procedures and forms can be found at <http://www.fs.fed.us/rmrs/research-natural-areas/using/>.

Rock Climbing and Canyoneering

Goals

Continue to provide rock climbing opportunities while protecting resource values.

Allow for continued use and maintenance of existing bolted and non-bolted climbing routes.

Objectives

Inventory climbing routes every five years, or when five new routes occur within a given area.

Inventory climbing use annually.

Desired Future Conditions

Climbing in the Wilderness is managed to protect natural and cultural resources and Wilderness character.

Management Direction

Guidelines

- (1) Rock climbing in the Fletcher Canyon and Robbers' Roost areas (both within and outside the Wilderness boundary) will continue only on approved existing routes until surveys for species of concern are complete. After surveys have been completed, local restrictions or seasonal closures may be used to protect species of concern.
- (2) Allow the installation of new permanent fixed anchors through a special use permit only for the protection of human life and safety.
- (3) Allow the replacement of existing fixed anchors for safety purposes.
- (4) Place signs at trailheads accessing climbing areas to provide use restrictions.
- (5) Encourage coordination of efforts in management of climbing activities with climbing organizations, commercial guides/schools, and local climbing organizations.

Standards

- (6) Assess and monitor routes to determine if they present resource concerns, and remove inappropriate routes through administrative action, unless otherwise deemed necessary. Approve routes to be retained and maintained.
- (7) Allow commercial outfitter guide services for rock climbing by use permit only, and use must be deemed proper for realizing recreational or other Wilderness purposes.
- (8) No commercial services for canyoneering will be permitted.
- (9) Rock climbing within 300 feet of known active or recently active Peregrine falcon nests will be allowed only from mid-July through the end of January. If active nests are identified, the rock face on which any routes occur will be closed and signed as necessary to inform visitors of seasonal closures.
- (10) No climbing or canyoneering will be allowed within 50 feet of rock art or other heritage resource. Agency archaeologists will identify and keep record of locations of known rock art and heritage resources.
- (11) No alteration of rock surfaces by gluing, chipping, chiseling, or prying out of rocks during climbing activities will be allowed.
- (12) No alteration or removal of vegetation at the base of or along routes is allowed. The rock climbing practice of "gardening" along climbing routes is prohibited to prevent impacts to endemic cliff-dwelling plant species that occur in the Wilderness.

- (13) No permanent fixed ropes or cables will be left in place for climbing or belaying purposes (not to include chain links used for belay/rappel/toprope anchors).
- (13) No new fixed anchor climbing routes.
- (14) Bolts can only be placed using non-motorized/mechanized equipment within the Wilderness. Use of power drills is prohibited.

Signs

Goals

Install signs in appropriate locations to protect resource values and preserve Wilderness character.

Install signs at trailheads sufficient to provide necessary Wilderness education, regulation and restriction information.

Desired Future Conditions

Signs may be present within Wilderness in very rare cases, for resource protection only, with directional signing only at system trail junctions. Wilderness character is strengthened by limited signage.

Management Direction

Guidelines

- (1) Identify Wilderness boundaries with more formal signs to state the name of the Wilderness and information signs, one to three-paneled signboards containing Wilderness and natural resources interpretive information and interagency information at trailhead parking areas outside of Wilderness.
- (2) Place signs at key locations on the boundary and at designated trail entry points and other access points (trails, trailheads, and roads) where visitors are more likely to come into contact with the Wilderness.
- (3) Place a minimum amount of signs at designated trail junctions with reassurance markers placed elsewhere along the trail as necessary (e.g., where the trail crosses bedrock and the trail tread is not obvious).
- (4) Signs will be made of native material (e.g. wood, rock), a maximum of five feet high, and will be constructed in accordance with sign policy. Remove or replace all existing signs not in conformance with these standards and as necessary to protect resource values and Wilderness character.

Soils

Goals

Maintain soil quality and long-term soil productivity by maintaining soil porosity, organic matter, hydrologic function (infiltration, water table, drainage, percolation, etc.), and buffering capacity (soil filtering and chemical regulation properties).

Desired Future Conditions

Human activities do not significantly impair the ability of soils to support naturally occurring vegetation communities.

Management Direction

Guidelines

- (1) Take actions to limit soil displacement, runoff and erosion that results from human activity and authorized uses to a rate similar to natural erosion
- (2) Maintain large woody material and forest duff and litter to provide for nutrient cycling and soil organisms.
- (3) Limit areas of soil disturbance that could adversely impact vegetation, infiltration, subsurface flow, or the water table.
- (4) Refine threshold values for organic matter, erosion, and porosity to fit ecological communities and site-specific conditions as needed and as information becomes available.
- (5) Emphasize the protection of alpine and subalpine ecosystems, considering the slow recovery and sensitivity of soils and vegetation.

Standards

- (6) Apply Forest Service Region 4 Soil and Water Conservation Practices Handbook (FSH 2509.22, Ch. 10, 5/1988).
- (7) Management of soil in Wilderness is generally the same as for all National Forest watersheds (FSM 2502). However, in Wilderness natural processes shall dominate; measures that modify plant cover and treat soil mantles or other activities designed to supplement natural water yield are inappropriate (FSM 2323.42).

Structures, Administrative Sites, and Installations

Goals

Limit structures and improvements for administrative purposes or under use permit to those actually needed for management, protection, and use of the Wilderness for the purposes for which the Wilderness was established (FSM 2324.31)

Maintain or enhance the natural appearance of the Wilderness areas by removing unnecessary facilities and minimizing or restoring human caused surface disturbances.

Management Direction

Guidelines

- (1) Maintain sites and structures for administration of the Wilderness only for the protection of resources, where temporary or other management actions are not providing adequate protection (FSM 2323.13).
- (2) Encourage the placement of automated snow measurement sites (sensors) outside of Wilderness.
- (3) Evaluate all structures with the following criteria for decisions on retention and use as an administrative site.
 - Is this a historically significant structure?
 - Does the structure conflict with stated Wilderness goals, objectives, and desired condition of legislations, policy and management plans?
 - Are there less intrusive methods of achieving the purpose of the structure?
 - Can the activity associated with the site or structure be accomplished outside Wilderness and still achieve its objectives?
 - Is the activity associated with a site or structure tied to a valid existing right such as a mining claim or right-of-way easement?
 - Is there a special provision in legislation that allows this activity?
 - How does the site or structure or associated activities benefit the Wilderness as a whole as opposed to maximizing one resource?
 - Does the structure ensure that human presence is kept to a minimum and the area is affected primarily by forces of nature rather than being manipulated by humans?
 - Determine if the structure is the minimum tool necessary to accomplish the activity considering, where relevant, the use of mechanized transport as an alternative.
- (4) Trees may be cut for administrative use in the construction and maintenance of authorized structures located within the Wilderness; visual quality objective of preservation must be met (FSM 2323.53(a))

Standards

- (5) Flood control devices will not be constructed in the Wilderness.

Target Shooting

Management Direction

Standards

- (1) Target shooting is prohibited in Wilderness.

Trails

Goals

Provide a transportation system that ensures suitable access for the types and numbers of trail users, protection of resources, and is consistent with management objectives for the areas accessed.

Provide backcountry/Wilderness recreation opportunities through development of the trail system at appropriate locations.

Trail systems in Wilderness will be designed for resource protection and not necessarily for hiker convenience.

Objectives

Conduct ongoing monitoring of designated trails using the established baseline inventory data, in conjunction with site inventory monitoring, every five to ten years, but no longer than ten years, or when driven by other management actions, to ensure that trail management objectives are consistent with area management objectives.

Conduct ongoing monitoring of user-created trails using the established baseline inventory data, in conjunction with site inventory monitoring, every five to ten years, but no longer than ten years.

Desired Future Conditions

Trails are visible in foreground, close-range views, but at middleground and background distances, trails fade out of view in the naturally evolved landscape character.

Managerial influence on trail systems is minimal to accomplish objectives of resource protection.

Management Direction

Designated Trails

Designated trails are trails identified as FS system trails and are displayed on agency Wilderness and recreation maps and maintained for general public access. There are, as of the date of this plan approval, no designated trails on the BLM portion of the Wilderness.

Guidelines

- (1) Consider removing trails from the system (with appropriate public involvement) when concerns are identified, such as limited or no use, catastrophic natural event, unmitigatable resource impacts, changed from original need (i.e. unneeded mining road/trail), or others. Evaluate the need for physical closure or allow natural recovery, depending on expected resource impacts.
- (2) Emphasize trail relocation to minimize impacts on steep slopes and away from sensitive areas, such as meadows, riparian environments, known TES populations or habitat, heritage resources, and consider other limiting factors when mitigating resource impacts.

- (3) Maintain system trails to meet management objectives for visitor use and resource protection.
- (4) When conducting routine trail condition surveys, identify and document resource impacts and locations.

Standards

- (5) Maintain only those routes that are designated as FS system trails within the areas managed by the FS.
- (6) Maintain trails to the design specifications for each trail in accordance with the appropriate agency policy.
- (7) Maintain Bonanza Trail switchbacks to minimize ground disturbance to protect rare plants.
- (8) Place route markers only on FS designated system trails. Signs to mitigate resource issues may be placed in other areas, only where necessary. Signs will be constructed and placed in accordance with sign guidelines in this Plan.

User-created Trails

A user-created trail is any non-constructed path created by the passage of visitors, which is discernible and would not likely recover naturally within one year. User-created trails are not part of the Forest Service Trail inventory, and do not receive funding for maintenance.

Guidelines

- (1) Discourage foot-traffic from traveling off the designated Mummy Springs Trail to promote the restoration of native vegetation in the riparian area.
- (2) Establish a baseline inventory of approximate locations of user-created trails based on identification of trails located in high-use areas, areas where user-created trails leave FS system trails, vehicle access points, and where attractive features may be present.
- (3) Actively restore and/or stabilize trails that have been abandoned (due to realignment or closure) that will not heal naturally. Some examples include abandoned trails that alter local hydrology, deeply compacted soils, and sites with continued inappropriate traffic, increased entrenchment, gullying or widening.
- (4) Evaluate existing user-created trails for their potential to be improved for inclusion in the FS trails system, or for closure and restoration. Improve user-created trails only when there is an overriding benefit to the recreating public and protection of the Wilderness resource can be provided.

Vegetation

Goals

Manage Wilderness to maintain the desired condition of the vegetation mosaic (e.g. bristlecone pines stands are open with downed trees and old logs left in place) through natural disturbances such as fire, flood, and avalanches.

For management of insects and plant diseases in Wilderness, there are three objectives:

- a. Allow indigenous insect and plant diseases to play, as nearly as possible, their natural ecological role within Wilderness.
- b. Protect the scientific value of observing the effect of insects and disease on the ecosystems.
- c. Control insect and plant disease epidemics that threaten Wilderness resources beyond natural scope, or exotic pests that threaten an unnatural loss of Wilderness resources. Carry out control measures that have the least adverse effect on Wilderness resources and are compatible with Wilderness Management Objectives, in accordance with management direction and an approved MRDG. Pesticide and herbicide treatments on FS and BLM land will require the approval of a Pesticide Use Proposal prior to treatment.

Desired Future Conditions

There is very little vegetation loss or alteration of duff and litter layer by human use. An unmodified natural environment characterizes the area. Ecological and natural processes are minimally affected by the action of users. Environmental impacts are low and restricted to minor losses of vegetation where camping occurs and along travel routes. Most impacts recover on an annual basis and are apparent to few visitors.

Management Direction

Guidelines

- (1) Management tools, such as mechanical treatment or prescribed burning, will be used to achieve the desired conditions for the vegetation mosaic only if natural processes are not achieving goals and objectives.
- (2) No special management actions will be taken to try to mitigate or repair the visual damage from natural events and processes such as rock slides, avalanches, or tree mortality from insect and disease.
- (3) Allow indigenous insect and plant diseases to play, as nearly as possible, their natural ecological role within Wilderness to protect the scientific value of observing effects on the ecosystem.
- (4) Control insect and plant epidemics and exotic pests that threaten Wilderness resources beyond a natural scope, as deemed appropriate by a MRDG and NEPA compliance, if necessary.
- (5) Allow natural ecological processes to determine the composition and distribution of plant communities.
- (6) Monitor Threatened, Endangered, Proposed or Sensitive (TEPS) species to ensure protection of these species and their habitat and develop management actions consistent with Wilderness values, where appropriate to help ensure their protection.

Standards

- (7) Where monitoring indicates visitor use and trampling impacts to sensitive plants are occurring and may be affecting the vigor or reproductive capacity of the populations,

relocate or modify trails or campsites as needed to prevent a loss of viability or trend to federal listing of any sensitive plant species.

- (8) On FS land, tree cutting is prohibited in Wilderness (36 CFR 293.6), except for administrative purposes as stated in this plan and emergencies. On BLM land, tree cutting is prohibited in Wilderness (43 CFR 6302.20(g)), except as necessary in emergencies involving the health and safety of persons, as provided for in the Wilderness Act.

Vehicle Access Points and Designation of Trailheads

Goals

Increase awareness of the Wilderness and prevent mechanized travel within the Wilderness.

Prevent unauthorized motorized vehicle travel through the management of vehicle access points.

Interpretive information about the Wilderness will be included at all existing and proposed trailhead information signs to insure the people using these access points are aware that they are entering a Wilderness and are informed about rules, regulations and “Leave No Trace” principles.

Management Direction

Guidelines

- (1) Unobtrusive informational signs will be placed at informal access points. Signs should encourage users to stay on trails.
- (2) Place vehicle barriers in locations where natural barriers are not adequate to keep vehicles from being driven into the Wilderness areas, using the least intrusive method appropriate for the location. Use one or a combination of the following methods:
 - Wilderness signs
 - Land restoration (i.e. revegetation or rock scatter)
 - Berms
 - Large boulders
 - Posts
 - Fences and/or gates

Standards

- (2) All motorized/mechanized vehicle use will be permitted only up to Wilderness boundaries and trailheads.
- (3) All road closures at the Wilderness boundary will be signed. Turnarounds and parking areas will be added at appropriate locations.
- (4) Extension of existing roads across the Wilderness boundary by informal use is prohibited.
- (5) Determine methods of removal, restoration and rehabilitation of roads within Wilderness and use the minimum tool to accomplish the objective of either road removal or incorporation into existing trails system.

Water Quality and Springs

Goals

Manage Wilderness uses to avoid degrading water quality.

Water quality is protected from human-caused degradation in order to retain pristine Wilderness values.

Desired Future Conditions

Riparian and stream channel conditions show no measurable degradation due to human uses.

Soil compaction has been reduced and native vegetation has returned to areas surrounding springs.

Floodplains are uninhibited and acting as energy dispersers.

Management Direction

Guidelines

- (1) Discourage foot-traffic and camping at Mummy Spring by removing visitor-made trails and trail signage, and restoring native vegetation in riparian areas.
- (2) Protect habitat of riparian-dependent species (including herpto-fauna, macro invertebrates, fish, and endemic plants) from human-caused conditions that could lead to a federal threatened or endangered species listing.
- (3) Any effects on water quality from management or recreation activities should be negligible so that water quality returns on an annual basis to its previous level once the activity ceases.

Standards

- (4) Apply Forest Service Region 4 Soil and Water Conservation Practices Handbook (FSH 2509.22, Ch. 10, 5/1988).
- (5) Management of soil and water is generally the same as for all National Forest watersheds (FSM 2502). However, in Wilderness natural processes shall dominate; measures that modify plant cover and treat soil mantles or other activities designed to supplement natural water yield are inappropriate (FSM 2323.42).

Wild Horses and Burros

Goals

Periodic gathers may occur to achieve Appropriate Management Level (AML) within BLM Herd Management Areas (HMAs) or FS Wild Horse and Burro Territories (WHBT).

Desired Future Conditions

Wild horses and burros are not found within the Wilderness.

Management Direction

Guidelines

- (1) Control wild horse and burro access into the Wilderness; favor control measures outside of Wilderness where prudent and feasible.
- (2) In cases where impacts to springs and riparian systems result from wild horses or burros, mitigation measures may be employed to prevent further degradation or to restore Wilderness character.

Standards

- (3) Institute gathers to ensure wild horses and burros are not found in Wilderness. If gathers are necessary, on-the-ground activities within Wilderness will be accomplished on foot or by horseback. If a MRDG and NEPA analysis warrants, the use of motorized means (aircraft and helicopters) for horse gathers and to survey, capture, and monitor wild horses or burros in the Wilderness may be permitted with approval of the FS Regional Forester or BLM Southern Nevada District Manager.

Wildlife

Goals

Protect indigenous wildlife from human caused conditions that could lead to Federal and/or Regional listing as a TEPS species.

Protect and assist in the recovery of listed TEPS species and their habitats.

Recovery Plans for all federally listed species will govern management activities that may affect those species; restrictions on recreation and other uses may be necessary.

Implement wildlife management activities to prevent degradation to or to enhance Wilderness characteristics by promoting healthy, viable, and more naturally distributed wildlife populations and/or their habitats.

Wildlife management activities for the FS will be guided by the Wilderness Act, the Humboldt-Toiyabe National Forest LRMP, the SMNRA GMP, state and federal laws, and will be in conformance with BLM's Memorandums of Understanding with the Nevada Department of Wildlife (NDOW) and MOUs with other agencies such as the U.S. Fish and Wildlife Service. For the BLM, wildlife management activities will be conducted in accordance with the Amendment to Memorandum of Understanding between the BLM and the NDOW, Supplement No. 9, Wildlife Management in Nevada BLM Wilderness Areas, state and federal laws, and the Las Vegas RMP.

Management Direction

Guidelines

- (1) Activities involving wildlife damage management will be approved by the BLM and FS and conducted by the USDA Animal and Plant Health Inspection Service (APHIS).

Standards

- (2) Give first priority to locating habitat improvement projects outside Wilderness for the benefit of wildlife that spend only part of the year in Wilderness (FSM 2323.35a). Only allow water source developments in Wilderness to improve desert bighorn sheep habitat. These developments must protect Wilderness character.
- (3) Entry into Wilderness using motorized or mechanized means for wildlife management activities, including wildlife relocation or capture, necropsy, wildlife research, and retrieval of Very High Frequency (VHF)/Global Positioning System (GPS) telemetry collars or other types of tracking devices that have dropped off study animals, will be allowed only if deemed necessary by an MRDG. Approval must be made by the FS Regional Forester or BLM Southern Nevada District Manager (FSM 2326.04b).
- (4) Wildlife hunting, collection, movement or removal will be managed in accordance with state statutes, specifically, "It is unlawful to collect or move wildlife without written consent of the Nevada Department of Wildlife Nevada (NRS 503.597). Further, Nevada Administrative Code 503.093 requires the necessary permit or written authorization from the Department to hunt, take or possess wildlife, which are classified as protected."

Monitoring Program

Monitoring Goals and Objectives

- 1) Monitor key variables to understand the conditions, risks and the threats to the Wilderness resource. Establish benchmark or reference monitoring. Develop reporting and documentation techniques and protocols. Conduct monitoring procedures in a manner compatible with the preservation of Wilderness values.
- 2) Monitor for change in conditions over time. Identify unacceptable adverse impacts. Determine when, where, and why changes are occurring.
- 3) Conduct inventory and monitoring with an integrated resource approach, to the best extent possible.
- 4) Provide information to improve management decisions, policies, actions and evaluate for effectiveness. Inform decisions that have an effect on the Wilderness resources.
- 5) Monitor management strategies and actions, and assess the benefits and costs, in time, money, and effectiveness and to the Wilderness character.
- 6) Engage in collaboration amongst managers, scientists, public, and academic institutions. Communicate with local, regional, and national agencies and all interested publics. Describe, communicate, and demonstrate the effects of management and use on the Wilderness resource.

The FS has established Wilderness at the Primitive end of a Recreation Opportunity Spectrum. The Primitive recreation opportunity provides a very high degree of naturalness and very high opportunities to experience solitude, closeness to nature and self-reliance, which result in unique and highly favored recreational experiences; however, recreational use of Wilderness must be closely managed and monitored to assure that degradation of resource values does not occur.

Monitoring is associated with specific Wilderness characteristics and tracks the outcome of proposed activities on the quality of Wilderness character. The impacts of a single activity may affect multiple qualities of Wilderness character. Monitoring can improve understanding of an activity’s effects whether intentional or unintentional. Unauthorized activities will also be addressed in the monitoring system.

For the FS, the Wilderness component of the forest plan shall include monitoring requirements for determining whether prescriptions, standards, and guidelines are met (FSM 2322.03). Monitoring will determine how well objectives have been met and how closely management standards and guidelines have been applied. The plan monitoring program sets out plan monitoring questions and associated indicators that are designed to inform management of resource conditions in Wilderness, including relevant assumptions and changes, and measuring the effectiveness and program toward maintaining the Wilderness plan’s desired future conditions and objectives (36 CFR 219.12 (a)(2)).

The FS will monitor the elements in the tables below, funding permitting, for baseline information or changes in baseline. If areas of degradation are detected, appropriate measures will be taken, commensurate to the potential severity of the impact and needs of the area. Appropriate measures may range from education, to maintenance, to closure. Closures may be invoked but are not necessarily the first choice. As per the authority of the Organic Act of 1897, the Forest Supervisor may invoke special orders at any time for the protection of the resource.

The monitoring of Wilderness character on that portion of the Mount Charleston Wilderness administered by BLM will follow those indicators identified in “Measuring Attributes of Wilderness Character: BLM Implementation Guide” BLM Manual 6340.

The following monitoring strategies will respond to maintaining five qualities of Wilderness Character.

Untrammeled

Wilderness is essentially unhindered and free from modern human control or manipulation.

Monitoring Plan for Campsites

Monitoring question	Activity, practice, or effect to be measured; monitoring technique	Measuring frequency	Indicator*	Protocol to meet plan standards
What are the density and condition class ratings?	Density of sites, density of vegetation, total area of campsite, bare mineral soil, camp	10% of the Wilderness per year over a 10	Percent of total campsites inventoried and proximity of sites;	Establish destination quotas or reduce use when campsite condition or

	development, social trails, mutilations of vegetation, and distance to water Monitoring Technique Field reviews	year reporting period	campsite condition class should not exceed a 3.0 rating; groundcover and severely damaged trees should not exceed a rating of 2.0; campsite density not to exceed more than 3 Wilderness campsites per 1,000 acres	campsite density standards are exceeded; close and rehabilitate campsites when not in compliance; require Wilderness permits
How successful are campsite closures, rehabilitation, containment of the site, and other management actions?	Campsite closures Monitoring Technique Field reviews	10% of the Wilderness per year over a ten year reporting period	Percent of total campsites re-established and proximity of sites	Remove and rehabilitate campsites as necessary

***Indicator to initiate further evaluation and/or a change in management direction**

Monitoring for Visitor Use

Monitoring question	Activity, practice, or effect to be measured; monitoring technique	Measuring frequency	Indicator*	Protocol to meet plan standards
Is visitor use impacting untrammelled character of Wilderness?	Use levels on trails to assess need for the Wilderness permitting system Monitoring Technique Field reviews	Annually	Increase in overall use of more than 30% from current levels; increase in site density; impacts to resource conditions at campsites	Institute Wilderness permit system or other appropriate management actions

Natural

Area appears to have been primarily affected by the forces of nature.

Monitoring Plan for Noxious Weeds and Non-native Invasive Species

Monitoring question	Activity, practice, or effect to be measured; monitoring technique	Measuring frequency	Indicator*	Protocol to meet plan standards
Are noxious weeds, non-native plant populations, or exotic pests present in the Wilderness?	Non-native plants; exotic pests <u>Monitoring Technique</u> Visual observations; field surveys	10% of the Wilderness per year over a 10 year reporting period	Percent of non-native plant populations, invasive species, or exotic pests observed	Humboldt-Toiyabe Weed Management Plan; Pesticide Use Proposal

***Indicator to initiate further evaluation and/or a change in management direction**

Undeveloped

Area is essentially without permanent improvements or human occupation and retains its primeval character.

Monitoring Plan for Vehicle Access Points and Designation of Trailheads

Monitoring question	Activity, practice, or effect to be measured; monitoring technique	Measuring frequency	Indicator*	Protocol to meet plan standards
Are vehicle incursions occurring in Wilderness?	Vehicle and/or OHV tracks <u>Monitoring Technique</u> Field reviews of road closures, turn-arounds and parking areas at Wilderness boundaries, using established baseline inventory data	10% of the Wilderness per year	Vehicle incursions occurring at Wilderness boundaries	Employ appropriate management actions, block access; place signage; close parking areas

***Indicator to initiate further evaluation and/or a change in management direction**

Monitoring Plan for System Trails and User-created Trails

Monitoring question	Activity, practice, or effect to be measured; monitoring technique	Measuring frequency	Indicator*	Protocol to meet plan standards
Are trails adequately maintained?	System trails; percentage of change of trail depth and width at transect points, boggy areas, resource damage, safety concerns <u>Monitoring Technique</u> Field reviews using established baseline inventory data in conjunction with site inventory monitoring data	Every 5 to 10 years, but no longer than 10 years, or when driven by other management actions	The percent of system trails identified by condition surveys to have resource problems (i.e., excessive erosion, etc.)—no more than 20% of the system trail miles would have identified resource problems	Institute trail maintenance, closures, or Wilderness permits, to ensure trail management objectives are consistent with area management objectives.
Are user-created trails increasing in frequency?	User-created trails; resource damage, safety concerns <u>Monitoring Technique</u> Field reviews using baseline inventory of user-created trails	Every 5 to 10 years, but no longer than 10 years, or when driven by other management actions	Percent of increase in user-created trails— no more than 20% increase in user-created trails	Assess user-created routes and consider adding to system if appropriate; otherwise, closure and rehabilitation or other appropriate options may be necessary

*Indicator to initiate further evaluation and/or a change in management direction

Monitoring for Rock Climbing Routes and Use

Monitoring question	Activity, practice, or effect to be measured; monitoring technique	Measuring frequency	Indicator*	Protocol to meet plan standards
Have climbing routes and climbing use increased?	<u>Routes</u> : number of rock climbing routes; route density <u>Use</u> : number of rock	<u>Routes</u> : every 5 years <u>Use</u> :	<u>Routes</u> : when 5 new routes occur within a given area; increases in route	Require site surveys and possible route closures, or

	climbers; resource impacts; bolt proliferation <u>Monitoring Technique</u> <u>Routes:</u> site visitation and review using baseline inventory of climbing routes. <u>Use:</u> site visitation, user counts, vehicle counts, bolt counts, resource monitoring	annually	density, based on existing route inventory; impacts to species of concern and other resources; bolt proliferation. <u>Use:</u> rock climber numbers and distribution of users	authorize other appropriate options
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Outstanding opportunities for solitude or a primitive and unconfined type of recreation

Area provides outstanding opportunities for people to experience solitude or primeval and unrestricted recreation including the values associated with physical and mental inspiration and challenge.

Monitoring for Visitor Encounters, Group and Commercial Services

Monitoring question	Activity, practice, or effect to be measured; monitoring technique	Measuring frequency	Indicator*	Protocol to meet plan standards
Are group size and visitor encounters affecting solitude character?	Solitude and primeval Wilderness values <u>Monitoring Technique</u> Field observations; contacts with use permittees; citations issued for exceeding group size or stay limits; use levels to determine correlation between use levels, resource impacts and opportunity for solitude	Annually	Increase of 50% or more in the following: <u>Recreational Riding</u> — combination of people and stock not to exceed 24, with no more than 15 stock animals in any one group; <u>Outfitter Guide Restrictions</u> — numbers determined by condition and by site-specific needs,	Place limitation on group size or pack or saddle stock

			and objectives; day limits—30 days per year on S. Loop Trail; 14 days camping; <u>Groups of Any Kind</u> — limited to 15 participants	
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***Indicator to initiate further evaluation and/or a change in management direction**

Unique and Supplemental Values

Wilderness areas may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Monitoring for Sensitive and Alpine Areas

Monitoring question	Activity, practice, or effect to be measured; monitoring technique	Measuring frequency	Indicator*	Protocol to meet plan standards
Is visitor use having a negative impact on vegetation in sensitive or alpine areas?	Alpine and springs vegetation <u>Monitoring Technique</u> Field reviews of soil compaction, erosion, vegetation loss and equestrian use that may be contributing to the introduction of non-native species; springs vegetation	Every 5 to 10 years	Alpine species composition and abundance; springs, water sources, riparian areas vegetation and soil impacts	Establish destination quotas to alpine or sensitive areas; require use permits to alpine areas or sensitive springs

***Indicator to initiate further evaluation and/or a change in management direction**

Monitoring Plan for Heritage Resources

Monitoring question	Activity, practice, or effect to be measured; monitoring technique	Measuring frequency	Indicator*	Protocol to meet plan standards
Are existing heritage or cultural	Heritage and cultural resources <u>Monitoring Technique</u>	Annually	The percent of previously recorded cultural	Employ appropriate management practices to

resources damaged or lost by visitor use or management activities?	Field reviews		resource sites receiving annual site inventory and evaluation and evidence of damage or loss to existing and known cultural or heritage resources	eliminate or reduce adverse effects to historic and prehistoric sites and places
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***Indicator to initiate further evaluation and/or a change in management direction**

Monitoring Plan for Research Natural Area

Monitoring question	Activity, practice, or effect to be measured; monitoring technique	Measuring frequency	Indicator*	Protocol to meet plan standards
Are the natural and scientific values of the RNA being maintained?	Evidence of visitor use <u>Monitoring Technique</u> Field observations	Annually	Physical improvements; human-made improvements present in RNA; evidence of camping	Remove human-made improvements or prohibit public uses that modify the RNA

***Indicator to initiate further evaluation and/or a change in management direction**

Plan evaluation

This management plan will be revised when the management actions prescribed no longer meet the Wilderness management objectives or when a change in the existing situation warrants revised management. The need for revision would be reviewed every five years and if the decision is made to revise the plan, then it will be accomplished with public participation. Minor revisions such as typographical or cartographical errors may be made by inserting an errata sheet. Administrative actions will be evaluated using the MRDG and NEPA analysis, if necessary.

Plan Implementation Sequence

Management of the Mt. Charleston Wilderness will be carried out in accordance with this plan under the direction of the BLM and FS agency management. Three types of management activities may occur: 1) ongoing activities carried out through the life of the plan; 2) management activities triggered by changes in conditions as detected through monitoring; and, 3) activities that may be proposed in the future for which general guidance exists in the plan, or that may not be addressed in the plan. The following list shows the actions needed for

accomplishing management activities of the plan. The actual implementation could be altered based on funding and staff availability outside the control of this plan.

Ongoing activities

- Maintaining boundary signs.
- Monitoring visitor uses, natural resources, trail conditions, and Wilderness character.
- Monitoring the effectiveness of signs and possible removal or repair.
- Monitoring staging areas for use and maintenance.
- Dissemination of visitor information.
- Issuing and monitoring permit activities such as commercial tours, educational/school visits, and geological study/sampling.
- Removing graffiti and repair of vandalism.
- Approval or disapproval of climbing routes.
- Posting temporary signs for example fire prevention, safety and conservation messages.
- Enforcement of regulations.
- Monitoring wild horse and burro populations.
- Controlling non-native plants.
- Management of social conditions.

Actions that require a use prohibited in Section 4(c) of the Wilderness Act and are not fully described and analyzed in the plan, or other actions that are not adequately described and analyzed require separate environmental analysis and public involvement, pursuant to NEPA.

Appendix A Map of Mt. Charleston Wilderness

